

### Proposal to the Senate Educational Policy Committee for the Formation of New Units (including Permanent Centers and Institutes)

#### 1. SPONSOR NAME AND EMAIL:

Rashid Bashir, Dean of The Grainger College of Engineering; <a href="mailto:rbashir@illinois.edu">rbashir@illinois.edu</a>
Nancy M. Amato, Head of the Department of Computer Science; <a href="mailto:namato@illinois.edu">namato@illinois.edu</a>

- 2. **COLLEGE CONTACT NAME AND EMAIL** (for units housed within a College): Rashid Bashir, Dean of The Grainger College of Engineering; rbashir@illinois.edu
- 3. TITLE OF PROPOSAL: Creation of the School of Computing and Data Science

#### 4. <u>BRIEF</u> DESCRIPTION AND JUSTIFICATION:

The Grainger College of Engineering proposes to transform the Department of Computer Science (DCS) into the School of Computing and Data Science (SCDS) to be housed within The Grainger College of Engineering (GCOE). The existing Department of Computer Science's degree programs, operations, faculty appointments, and staff will be transferred to the School. The faculty of the Department of Computer Science (and of the proposed School) have reviewed, deliberated, and approved this proposal in accordance with the unit's bylaws by secret ballot on October 30, 2023. The Grainger College of Engineering faculty approved the proposal to create the School of Computing and Data Science within the College by secret ballot on November 15, 2023.

The proposed School will have the capacity to continue and expand its support of the blended degree programs in which DCS participates with partners across campus, including the CS+X and X+DS undergraduate degrees, and interdisciplinary masters' programs such as the MS in Bioinformatics, MEng. programs in Digital Agriculture and in Autonomy and Robotics, and the MS in Data Science and the MS in Game Design that are currently under development. The proposed School will continue DCS's longstanding tradition of research leadership, often in partnership with cross-campus collaborators, that defines and expands the frontiers of computing. Together with partners across campus, the proposed School will increase the capacity of computing and data science, which is an integral, and increasingly foundational, component of the interdisciplinary research that has long been a hallmark of Illinois.

To facilitate and optimize operations that extend beyond those of a typical department, the School will have the authority, recognition and resources needed to fulfill its responsibilities for these activities; these are described in Memorandums of Understanding (MOUs) with The Grainger College of Engineering and Letters of Intent (LOI) between the Department of Computer Science, The Grainger College of Engineering and the College of Liberal and Applied Arts (LAS) (included in Appendix C). In many cases, these MOUs and LOIs are

Form update: October 2022

formalizing or refining existing partnership operations (e.g., direct coordination with other units regarding blended degrees) or codifying the current budget practices, but they also document some new responsibilities and activities the School will assume to enable it to support and grow new activities across campus.

The rationale for the creation of a School includes the following:

- (a) to recognize the importance of the field of computing and data science in disciplines across engineering. Along with Physical Sciences and Mathematics, Computing has now become the third pillar of engineering disciplines.
- (b) to recognize the impact, collaborations, and partnerships emanating from the University of Illinois Urbana-Champaign's (UIUC's) Department of Computer Science, across the college and the entire campus.
- (c) to elevate the stature, formally expand the mission, and increase the capacity of UIUC's Department of Computer Science, thus transforming an excellent department into a continuing and enduring world leader.
- (d) to put in place the infrastructure and formal mechanisms to pursue the above points in order for the School to successfully meet expectations of continued growth in programs.

The creation of a School also represents a naming opportunity that would bring resources to meet the increasing demand for its academic programs, enhance its diversity, equity, and inclusion activities, and seed exciting new research activities, resulting in increased impact across the GCOE and the campus.

Within the GCOE, it will also remain important for the college to invest in and grow computer engineering within its world-renowned Department of Electrical and Computer Engineering (ECE) and also in data science across the college.

It is also important to note that the relationship between computing and data science has become bi-directional, both from an education and research perspective. Hence, the addition of 'data science' to the name of the proposed new school in the GCOE reflects the intellectual continuum not only between computing and data science, but also the importance of computing and data science to the broad field of engineering. The new school will provide leadership in computing and data science across the GCOE. Hence, we would like to include 'Data Science' in the name of this new school. As noted in the Letters of Intent (LOI) with LAS, GCOE is supportive of adding the name Data Science to select units across the campus.

In short, transforming the Department of Computer Science into a School will ensure that the University of Illinois maintains its position and recognition as one of the top computer science programs in the world and enable our continued leadership in groundbreaking interdisciplinary research and innovative education programs at the intersection of computing, data and other disciplines, raising the profile of the entire campus and further enabling us to fulfill our land grant mission to provide access and opportunity to all. There is some urgency for Illinois to take this step given that most of our peers ranked above and just below our Department of Computer Science in the national rankings have recognized and acted on similar opportunities and have established schools or colleges of computing on their own campuses. There is also some urgency to put in place formal structures and processes to ensure that the School continues to have the capacity to be an effective partner in blended degree programs.

#### 5. BYLAWS

The proposed bylaws for the school are attached in Appendix D. They have been approved by the faculty of computer science by secret ballot in accordance with the Department of Computer Science Bylaws.

#### 6. LETTERS OF SUPPORT:

Letters of support from the following individuals/units are provided in Appendix A.

Dean Germán Bollero, College of Agriculture, Consumer and Environmental Sciences

Dean Jeffrey Brown, Gies College of Business

Dean Wojtek Chodzko-Zajko, Graduate College

Dean Mark Cohen, Carle Illinois College of Medicine

Dean Peter D. Constable, College of Veterinary Medicine

Dean Ingrid Fulmer, School of Labor and Employment Relations

Dean Kevin Hamilton, College of Fine and Applied Arts

Dean Cheryl D Hanley-Maxwell, College of Applied Health Sciences

Dean Ben Lough, School of Social Work

Dean Chrystalla Mouza, College of Education

Dean Venetria K. Patton, College of Liberal Arts and Sciences

Dean Eunice E. Santos, School of Information Sciences

Dean Jamelle C. Sharpe, College of Law

Dean Claire Stewart, Libraries and University Librarian

Dean Tracy Sulkin, College of Media

Department Head Bruce Hajek, Department of Electrical and Computer Engineering

Department Chair Vera Mikyoung Hur, Department of Mathematics

Department Chair Bo Li, Department of Statistics

Appendix A2 provides a record of exchanges with "X" units with "CS+X" and "X+DS" programs.

Appendix B, entitled, "Consultation and Engagement Process Overview and Timeline," provides a summary of the consultation and engagements that were undertaken in relations to this proposal.

#### 7. DESIRED EFFECTIVE DATE: October 2024.

The effective date was selected based on what we deemed plausible. We are open to adjusting this date should the approval process require the effective date to be pushed further in the future. We would certainly be very interested in moving the process earlier and faster.

8. **STATEMENT FOR THE ACADEMIC CATALOG** (If there is text in the Academic Catalog, <a href="http://catalog.illinois.edu/">http://catalog.illinois.edu/</a>, that will need to be added or updated as a result of this request, please list the URL(s) of the page(s) and the text to update.):

Replace "Department of Computer Science" (DCS) with "School of Computing and Data Science" (SCDS) where "Department of Computer Science" appears.

In instances where "Departments of Computer Science and X" occur, where X is another department on campus, replace with, "School of Computing and Data Science (SCDS) and the Department of X."

CAMPUS CLEARANCES	
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Dean Rashid Bashir (Sponsor)	Date
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Nancy Amato (Co-sponsor)	Date
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	01/28/24
Dean Rashid Bashir (POC)	Date
W. I Charly S. Zy	01/30/24
Dean Wojtek Chodzko-Zajko, Graduate College	Date
Provost Representative	
	-
Educational Deliver Committee Demonstration	D.4.
Educational Policy Committee Representative	Date

#### 1. Unit Objectives and Contributions

Describe specific objectives and measurable contributions the unit will make to the university's mission, paying particular attention to the unit's consistency with the university's focus statement and priorities. Is the unit to be involved in instruction and, if so, to what extent?

The School of Computing and Data Science will continue, and importantly expand, the Department of Computer Science's tradition of innovation in computing and data science education and research, and in making these opportunities as broadly available and accessible as possible.

In alignment with the university's land grant mission, the School will be committed to continuing to expand access to education at both the undergraduate and graduate level, both through increasing enrollments in existing degree programs as well as offering additional programs, including our signature blended degrees (CS+X, X+DS) offered in partnership with cross-campus collaborators. DCS already has 30+ cross-campus educational collaborations and, given the additional faculty and other resources anticipated with the School, is committed to working to support additional growth and degrees. These blended degrees play an increasingly vital role in the overall strength and intellectual diversity of the University. For example, since nearly half of the DCS undergraduates are pursuing one of our (so far) 16 blended degrees, there is a rich diversity of perspectives present in all of our courses, resulting in truly unique learning environment. The blended degrees enable us to grow the CS- and DS-capable workforce across fields of importance to all aspects of society and for our nation's economic growth. Building on the campus's national leadership in blended undergraduate degree programs, the School will work together with other campus partners on the development of blended graduate degrees programs to advance discovery and research at the intersectionality of disciplines in a manner never seen before. This will include programs such as the MS in Data Science that is currently under development in collaboration with Statistics and the iSchool and DCS, as well as other opportunities at both the master's and doctoral level as mutual interest is validated, and resources become available.

DCS and affiliated faculty across campus are recognized as experts spanning all areas of computing and data science. However, the number of research areas in computing and data science continues to grow. The increased faculty of the school will expand our campus' research expertise ensuring our ongoing leadership through research that covers the spectrum of computing. The increased faculty and additional resources associated with the School will also strengthen the computing and data science component of the interdisciplinary research and campus-wide institutes that have long been a hallmark of UIUC.

DCS is emerging as a national leader in Broadening Participation in Computing (BPC), which will continue to be a core value of the School. DCS has made significant progress in improving gender balance in its undergraduate CS major and is working to spread this to other degrees and other aspects of diversity and this will continue to be a priority for the School. The School will also continue the priority of developing and offering programs to broaden participation in computing, such as the iCAN (Illinois Computing Accelerator for Non-Specialists) program, launched in August 2020, for college graduates who do not have a background in computer science. Since January 2023, DCS has been offering a professional Master's degree in Computer Science (MCS) in Chicago at the Discovery Partners Institute (DPI) location to address Illinois industry and economic development needs and to meet unmet demand for reskilling and upskilling education. The increased faculty and resources of the School will enable activities such as these to be scaled up.

#### 2. Need

Explain how the unit will meet regional and state needs and priorities. What is the demand for the unit's services? What clients or population will the unit serve? Identify similar units of administration, research, or public service in the state, at both public and private colleges and universities. Compare the proposed unit with these units and discuss potential impact upon them.

Applications for the Bachelor of Science (BS) in Computer Science offered by the Department of Computer Science and the CS+X degrees accounted for 19% of all applications to UIUC for fall 2023 and 41% of all applications to undergraduate degree programs in The Grainger College of Engineering. Hundreds of highly qualified applicants are being turned away despite remarkable growth in enrollment in recent years. Undergraduate enrollment in the CS and CS+X degree programs for fall 2023 was 2,617 – up more than 39% from 2019. The 520+ student PhD program is among the largest nationally - up 35% since 2019. The 130+ student MS program is also seeing growth - up 15% since 2019. The online MCS has nearly 1,350 students - up more than 40% since 2019. The on-campus MCS has 684 students - up more than 400% since 2019. Finally, the recently established MCS program in Chicago is off to a good start. The latter, the online MCS, and the recently established iCAN program are also creating opportunities to reach new populations. These are expected to lead to deeper engagement with Chicago institutions and industry, creating new pathways through Illinois CS to the Illinois' workforce. In addition, according to a recent report by World Business Chicago, the major industry sectors in Chicago that are the most promising in terms of employment and GDP growth, i.e., Life Sciences, Transportation & Logistics, Manufacturing, Food Manufacturing & Innovation, and Fintech, will all benefit greatly from advances in computing and data science and digital transformation.

Of major significance is the role CS is playing in delivering and growing the number of blended CS+X and X+DS programs that are contributing to increased student demand in a multitude of departments on our campus, while meeting a real need for students in "X" to be well prepared in leading the digitization of these fields of study with the correspondingly rewarding and well-remunerated careers that can result. This is just a beginning. As has been highlighted by speakers at *Boldly Illinois* strategic planning events, the development of blended graduate degrees and even greater multidisciplinary education programs are expected to be an integrated part of the future of Higher Education. The proposed School of Computing and Data Science will be committed to developing such interdisciplinary opportunities in education and research in partnerships with units across campus, and will play a continuing role as a campus-wide resource.

The School of Computing and Data Science will immediately inherit the mantle of being the most highly ranked computer science institution in the state of Illinois and one of the largest, if not the largest, computing and science education programs in the nation. Currently, the Department of Computer Science attracts the very best across the state, the nation, and the world to apply to its programs. The School will continue to compete for fulfilling the hopes and aspirations of these students with other top-ranked programs across the nation, such as UC-Berkeley, Stanford, MIT, CMU, the University of Washington, and Georgia Tech; notably, almost all of whom have formed schools or colleges of computing in recent years. Without a vibrant School of Computing and Data Science, we risk that Illinois talent would simply go out-of-state, and we would fail to attract the very best from the world to our state and region in Computer Science.

#### 3. Organization

Describe the proposed unit's organizational structure. Explain how the unit is organized to meet its stated objectives. Attach the unit's bylaws (or equivalent governing document) and briefly outline the process used to establish them.

The School will be structured in a manner that is consistent with the University of Illinois Statutes. School bylaws have been discussed, voted on by secret ballot and approved by the faculty of the

Department of Computer Science. These bylaws are attached as an appendix. The bylaws largely maintain the organizational structure of the Department of Computer Science but include some adjustments to accommodate the transformation to a School. The main aspects are noted below:

- The School will be led by a director. The director will have the authority and responsibilities like those currently held by the department head of the Department of Computer Science. The director will have the authority to appoint associate and assistant directors and delegate responsibilities to these individuals. As such, duties and responsibilities of associate and assistant heads of the Department of Computer Science will be transitioned to School associate and assistant director positions.
- An Executive Committee selected according to the bylaws of the school shall be the primary advisory body to the director of the school. It will assume the role the Advisory Committee has in the Department of Computer Science.
- The proposed School will not have departments. This avoids adding a layer of bureaucracy and associated costs. The School of Architecture in the College of Fine and Applied Arts is a current example of a School in a college without departments. The School of Information Science, School of Social Work, and School of Labor and Employee Relations are Schools at the campus level without departments.
- The School, like the current Department of Computer Science, will initially have 11 Research Areas and an Instructional Area. The Areas provide support for faculty and students in the area, assist in the management of the teaching assignments for courses in the area, help process requests for affiliate faculty appointments, assist with faculty recruiting, run area seminars, administer aspects of the PhD program (e.g., qualifying exams, annual reviews, etc.), coordinate graduate student recruiting activities, and generally coordinate other activities related to the area.
- Standing Committees and their responsibilities would remain the same in the School as they are in the Department of Computer Science. The Director will have the authority to establish additional committees as deemed advisable.

Some new structural elements will be added to elevate and better administer and support computing and data science educational and research activities across the campus.

- Interdisciplinary cross-campus Research Themes. The School intends to invest some of the new resources that are anticipated by a Naming Gift to leverage the breadth of expertise across campus (MOU with College of Media affirmed that this includes social scientists and humanists) by supporting cross-campus teams to attack challenging societal problems such as cyber security and privacy, ethical and socially responsible AI, personalized healthcare, or customized lifelong education. The objective is to provide the ability to move quickly and assemble expertise across the breadth and depth of the campus and to support innovative activities that cannot be supported by existing, traditional funding mechanisms. While precise details will be determined later, it is anticipated that at any given time, the School would have 3-5 active Research Themes. Inspired by the Institute for Genomic Biology (IGB), Themes will have limited life spans (4-5 years) and will be required to engage faculty from multiple units to ensure interdisciplinary collaboration, and could include, for example, support for postdocs and student fellowships that could be used as seed grants to engage young researchers and recruit top scholars to campus, draw on the expertise of high-profile external advisors, host highly visible workshops and seminars, and be internationally recognized for bringing together thought leaders around societal challenges.
- CS+X Council. The Department of Computer Science already coordinates with all partners in blended CS degrees. With the number of CS+X programs having grown dramatically and continued anticipated growth of these programs, the School intends to set up and provide administrative support for a more formal coordinating committee (a CS+X Council) that would share best practices, improve communication, and develop common resources and infrastructure. The Council would include a representative subset of the partners, as well as representation from other relevant campus units.
- Support for X+DS degree programs. The X+DS degrees are more complex to support than the CS+X degrees since there is no single common partner. On-going discussions across LAS,

iSchool, and GCOE are exploring an organizational structure for coordinating and supporting the X+DS programs. The School is committed to working with campus to develop and support such a governing body which should be designed to include representation from the partners providing the DS Core (Mathematics, Statistics, the iSchool and Computer Science) as well as from representatives from the X's.

#### Standing with the Grainger College of Engineering (GCOE) and Campus.

The signature collaborative multidisciplinary culture of Illinois coupled with the extensive existing research and educational partnerships between computer science and other domains in engineering and across campus are unique among our peers and is important to both the intellectual and financial health of the university. These include the nationally recognized blended CS degree programs (currently 16) with multiple colleges (currently 6) which in Fall 2023 enrolled roughly 1224 undergraduates, comparable to the approximately 1378 students in the CS major. In addition, the department is an important partner in the growing family of X+DS degrees and an increasing number of multidisciplinary master's programs. Computer science faculty serve in key leadership roles and are important partners in many visible multidisciplinary projects and college and campus-level interdisciplinary research institutes (IRUs). Our campus is home to three NSF funded AI Institutes that are a great example of collaborations between CS and the colleges. The NSF Molecular Maker Lab Institute is a collaboration between the School of Chemical Sciences (including Chemistry and Chemical and Biomolecular Engineering) and CS/GCOE and other parts of campus. NSF/USDA funded AI-FARMS is a collaboration between the College of Agriculture, Consumer, and Environmental Sciences and CS/GCOE. And most recently NSF funded INVITE (Inclusive Intelligent Technologies for Education) is a collaboration between College of Education and CS/GCOE. To properly support the continued expansion of such cross-campus educational and research collaborations, we anticipate that the School should have the opportunity to support and engage at the appropriate levels of campus governance. The School will then be able to raise issues of importance to all impacted college and campus units in such forums and, in turn, directly respond to issues that may be raised by college and campus entities in such forums.

The relationship with the Grainger College of Engineering (GCOE) and Campus is expected to be as follows.

- As a unit of the Grainger College of Engineering, the School will have the same representation on the GCOE Executive Committee, and on other relevant college committees, as the Department of Computer Science has today. The GCOE is unique in that there are 12 departments (two outside of GCOE, i.e., ABE and ChBE, offering ABET accredited undergraduate engineering degrees) and 3 College IRUs (MRL, HMNTL, CSL) that are represented in the college executive committee (the elected advisory body to the Dean). In the future, having 1 school, 11 departments, and 3 IRUs, will only represent the diversity, nimbleness, agility, and collaborations that exist within the GCOE itself.
- As computing and data science is anticipated to be a foundation of, and pervasive and permeated
  across, the GCOE, an Associate Dean for Computing Strategy and IT for the college will be
  established. This position will be occupied by a member of the Faculty from SCDS and will be
  selected jointly by the GCOE dean and the director of SCDS.
- The School and the GCOE have agreed to an MOU (included in the appendix) that delegates authority and responsibility to the School for academic matters traditionally decided and negotiated at the college level that can be more effectively managed at the School level. This will facilitate, coordinate, and accelerate decisions while also reducing the administrative burden on the GCOE. For example, the School will have the authority to coordinate directly (and keeping the relevant GCOE leader informed) with the colleges and departments of its CS+X partners, the Office of Undergraduate Admissions, and other relevant campus units on matters such as undergraduate enrollment targets or student transfers into CS+X degree programs.
- As a unit of the GCOE, the School will operate under the same budget model as the Department
  of Computer Science has today. The School and the GCOE have agreed to an MOU (included in
  the appendix) that documents the intention to maintain this financial arrangement which
  implements the campus's IVCB (Integrated & Value-Centered Budgeting) at the college level,

- providing the necessary financial predictability that the School will need to operate and grow so that it can fulfill its obligations to its partners across campus.
- The Provost will meet with the Director of the School and the Dean of the GCOE once a quarter to discuss matters important to the School and the campus.

#### 4. Unit Outcomes

Identify what targets have been set to assess the proposed unit's success in achieving its objectives. Among others, specific performance measures might include: expected research and/or public service products; ratio of external to internal funding for unit; impact of this unit on national, state, regional, and local area organizations, businesses, or communities; and collaborative research product that promotes the Illinois economy.

A primary objective for the School, in conjunction with its partners, is to better accommodate the great demand for computer science and data science education across campus -- including formal degree programs (e.g., CS and blended degrees such as CS+X or X+DS), minors and certificates providing formal credentials to complement primary areas of study, and as facets of the education for all students that see computing and data skills as a valuable and/or necessary component of their training. While the department has been working hard to support this vision (e.g., supporting new CS+X and X+DS degrees, increasing access to the CS minor and providing a performance-based pathway to the online MCS), to really deliver on this vision the School has the bold objective of growing to 200 faculty from the roughly 125 faculty today. This growth must also include building up the necessary facilities and staffing support to maintain leadership in groundbreaking interdisciplinary research and innovative education programs, raising the profile of the entire campus, while still fulfilling our land grant mission to provide access and opportunity to all. As discussed in Section 8, the School also has bold objectives related to diversity, equity, and inclusion.

The School will continue to embrace major efforts at the Illinois system and campus levels to develop strong connections with the Chicago community and industry, with a primary objective being to reach new populations of students and to help grow the Chicago tech industry. The Department of Computer Science began offering its MCS professional master's program in-person in Chicago in January 2023; it is expected to increase enrollment significantly once the DPI building is completed on "The 78," anticipated in 2026. The School intends to utilize its growing footprint in Chicago to cultivate education and research partnerships with Chicago Public Schools (CPS), Chicagoland community colleges, universities, research labs, and industry. At the same time, the School will still be focused on its local communities in central Illinois – several major centers and new degree programs will allow the school to accelerate the digital transformation of agriculture while advances in digital health and cybersecurity will drive new possibilities with respect to delivering safe and trusted rural health to our communities. The expansion of telehealth services during the pandemic was only a small demonstration of the changes that are possible.

The School will build on a legacy of major impact on technology and the national economy. Its faculty and alumni have transformed the world with innovations and companies spanning ILLIAC, PLATO, MOSAIC, and LLVM, eBay, PayPal, YouTube, Malwarebytes, and c3.ai. With respect to research and public service products, the School will continue and grow major initiatives that will impact the Illinois and national economy. Computer science faculty are playing leading roles in major research projects – many initiated in the past few years, both federally funded multidisciplinary research programs including several NSF AI Institutes (two of the first seven awarded in 2021, and 1 in 2023), an NSF Expedition in Computing Mind in Vitro Project (awarded in 2022), the Army Research Laboratory (ARL) Internet of Battlefield Things (renewed in 2022), the Department of Energy (DOE) Center for Exascale-Enabled Scramjet Design (awarded in 2020), and major corporate and academic partnerships such as the C3.ai Digital Transformation Institute (established in 2020), the IBM-Illinois Discovery Accelerator Institute (established in 2021), the SRC JUMP 2.0 ACE Center for Evolvable Computing (awarded in 2023), the Illinois-Insper Partnership (established in 2022), and the Amazon-Illinois Center on AI for Interactive

Conversational Experiences (established in 2023). The planned growth of the CS faculty will enable the School to maintain such activities and establish new collaborations, spanning the entire campus. This will only accelerate through the investments the School intends to make in seeding new interdisciplinary themes.

The economic impact of the growth of the CS faculty, and the associated increase in students and staff, and the building and other infrastructure needed to support them, is significant. With average research expenditures of \$470,000 per CS faculty member per year, an additional \$20M in annual research revenue is anticipated with the planned increase of the faculty. Indeed, based on the recent success of CS in securing large multidisciplinary research awards, this could significantly increase, as such projects have typical expenditures of \$15M-\$30M over a multi-year period. The construction of the new building (described in Section 6) will lead to immediate job creation in the design and construction industries, while the growth in the faculty alone is expected to create 375 more long-term jobs in the local economy, since each high-tech job typically leads to the creation of 5 additional jobs in the local economy. The potential increase in undergraduate enrollment by more than 1000 students enabled by the new faculty hires is also significant. With approximately 50% of the CS undergraduates coming from Illinois, this will both allow us to better serve the residents of the state while increasing university tuition revenue by approximately \$20M per year and \$14M per year to the University and local economy for other expenses. A further benefit will be observed through the addition of more than 300 PhD students and an expected increase of at least these many master's students. An even more significant impact will be observed as these students graduate and begin to contribute to the overall economy of Illinois. With typical revenue per employee numbers in computing intensive industries of \$1M per employee, the estimated 250 additional undergraduates that graduate each year will globally add approximately \$250M per year in corporate revenues with an estimated \$60M of that in Illinois. Further job creation will also be produced in the Illinois geographies where these students are employed, following the high-tech multiplier of 5 jobs in the local economy per high-tech worker.

#### **5. Quality Assurance Processes**

Briefly describe the processes that will yield evidence to demonstrate the quality of the unit. Address the following elements: evidence that the unit supports the university's mission and statewide goals; evidence that the unit's product or outcomes achieve stated objectives; determination of organizational effectiveness; faculty and staff qualifications and reward structures; determination of adequate support staff, equipment, and other resources; and use of results from evaluations to improve the unit's effectiveness.

The School of Computing and Data Science, as is the case with the current department, will be subject to ABET accreditation requirements and review for its CS undergraduate degree. ABET accreditation provides assurance that a college or university program meets the quality standards of the profession for which that program prepares graduates. This will ensure that academic standards will be rigorous, meet if not exceed national requirements, and be subject to regular and complete external review.

The School of Computing and Data Science, as is the case with the current department, will be subject to an external review of its academic programs every eight years as is the case for all units on campus (the last review was in May 2021). The School will be expected to address findings and recommendations in the reviewer's report, sharing its plans with the dean and provost.

The School, as is the case with the current department, will be required to prepare a fiscal and operational report and meet once a year with the leadership of The Grainger College of Engineering to discuss organizational effectiveness and discuss how plans for the unit support the university's mission and statewide goals. Recent initiatives such as the creation of an opportunity for every UIUC undergraduate to obtain a degree from CS through an increase of capacity in the CS minor (Fall 2020) and its coupling with a performance-based pathway to the online MCS degree (Fall 2021), the establishment of the iCAN program in Fall 2020 (discussed further in section 8), and the Chicago-based MCS program (January 2023) are recent examples of major initiatives designed in response to University priorities.

Internally, the same or equivalent committees in place in the Department of Computer Science will be established in the School to ensure fairness and integrity. These committees will include the Executive Committee (the Advisory Committee in the Department), the Grievance Committee, the Academic Appeals Committee, the Capricious Grading Committee and the Promotion and Tenure Committee. The role, responsibilities and composition of these committees are described in the attached bylaws. Other standing and ad hoc committees may be appointed and charged by the school Director at their own initiative or upon the recommendation of the Executive Committee or of the Faculty.

#### 6. Facilities (space, equipment, instructional materials)

Describe the available facilities and equipment to develop and maintain high quality in this unit of administration, research, or public service including buildings, classrooms, office space, laboratories and equipment, and other instructional technologies. Summarize information about library resources including a list of key academic journals and other publications that will support this unit and be used by faculty, students, and staff.

The Department of Computer Science is currently housed in the Thomas M. Siebel Center for Computer Science (SC), a 225,000 sq. ft. integrated research and educational facility. The building houses the administrative offices of the department, faculty, staff, and student offices, instructional classrooms and laboratories, conference, and meeting rooms, as well as numerous research labs for faculty. While CS faculty offices are primarily located in SC, some CS faculty have offices and many have laboratory space in several other buildings including the Coordinated Science Laboratory (CSL), the Beckmann Institute, IGB (shared space), and NCSA. Additionally, CS graduate students advised by CS affiliates are typically seated with that faculty member's group in their home unit. To support its activity in Chicago, CS has been allocated 7,665 sq. ft. of office and meeting space on the 7<sup>th</sup> floor at the DPI location at 200 S. Wacker in Chicago in support of the MCS degree that has been offered in person in Chicago since January 2023 and to facilitate engagement with the Chicago tech and research communities. CS also has access to classrooms and other meeting spaces on the 4<sup>th</sup> and 20<sup>th</sup> floor at the DPI location.

The elevation of the department to a school, along with the expected growth in its programs, student enrollments, and faculty numbers, requires significant additional facilities, both in Urbana and in Chicago.

In Urbana, a new project (currently referred to as Building X2) is planned that will accommodate as many as 50 additional CS faculty, graduate students, and support staff, as well as research labs, and meeting and event space. It will be a campus hub for research, innovation, and scholarship in next generation computing technologies, will support research collaborations between CS and NCSA, and will house centers synergistic with the CS Department such as the Center for Networked Intelligent Components and Environments (C-NICE) and the IBM-Illinois Discovery Accelerator Institute (IIDIA), two of the largest corporate centers in the GCOE. This new 73,000 sq. ft. building is anticipated to be located along Goodwin Rd. between NCSA and the current SC, possibly connected to one or both of NCSA and SC. As recommended in the department's external review report issued in 2021, the School intends for this new facility to be located next to the Department's current home. Space that is close to the "mother ship" greatly facilitates department collaboration and cohesion; this may be a particularly important consideration as Computer Science continues to grow. The project will be funded through a combination of public and private investments, including \$20M of Illinois Innovation Network support from the State to expand CS and NCSA capacity, along with a matching commitment from campus totaling \$33.3M, and an anticipated \$25M from a naming gift for the new School.

In Chicago, the School anticipates continued co-location with or in the DPI space, first at the current 200 S. Wacker location and later in the new building at "The 78," which is anticipated to be available sometime in 2026. Current plans anticipate approximately 25 CS faculty in Chicago in the long-term to support greater engagement with Chicago industry and research ecosystem, expansions of the MCS and Engineering City Scholars program (in which CS and ECE undergraduates spend a semester in Chicago taking courses and participating in internships with Chicago companies), an in-person offering of the

iCAN program in Chicago, as well as supporting additional interdisciplinary master's programs or other upskilling, reskilling, or continuing education activities.

Access to library resources will be the same as for the Department of Computer Science. This includes such journals and conference proceedings published by the ACM, IEEE, SIAM and other computing professional societies and publishers. Access will scale in proportion to student numbers. It is anticipated that such access will be supported via corresponding increases in tuition revenue.

#### 7. Resources

Indicate the number of students, businesses, industries, and/or other clients to be served by this unit. Include a description of faculty participation and student involvement in the unit if applicable. Provide a narrative budget statement explaining the data in the associated Budget Table. Include detail describing revenues from governmental grants and contracts private gifts and grants, endowment/investment income, sales and services, and other sources; and expenditures including salaries of faculty, administrative staff, benefits, and other personnel related expenses for the proposed unit; library resources, services, equipment, and facilities.

CS currently has 122 faculty (including both tenure system and specialized faculty) and more than 70 staff. We anticipate a net gain of 5-6 faculty (typically 4-5 tenure stream and 1-2 specialized) and 4 additional staff, for each of the next 3 years.

In Fall 2023, more than 5,300 students were enrolled in CS degree programs, including more than 2,600 undergraduates (1,378 in CS and 1,224 in blended CS programs: Math & CS, Statistics & CS, and CS+X) and more than 2,700 graduate students (524 PhD, 131 MS, 678 on campus MCS, 1,337 online MCS, 6 MS Bioinformatics, and 30 iCAN).

The academic programs that are fully supported by the Department of Computer Science will be transferred to the School. This includes the following (Fall 2023 enrollments and future enrollment projections are included for the degree programs):

- BS in Computer Science:
  - o 1,378 students in Fa23; 3% growth in Fa24, annual growth of 2% in Fa25 and beyond.
- Computing Fundamentals, CERT, which is more commonly known as the iCAN (Illinois Computing Accelerator for Non-Specialists) which confers a Graduate Certificate
  - o 30 iCAN students in Fa23; modest 2% annual growth projected until offered in Chicago
- Master of Computer Science (MCS) on campus (Urbana), including Five-year BS-MCS
  - o 659 students in Fa23; had unexpectedly very high yield, reducing to target of 450 by Fa24, then will resume modest annual growth of 2-5%
- Master of Computer Science (MCS) off campus (Chicago)
  - Pilot cohort of 5 students in Spr23; grew to 19 in Fa23 and anticipate 60 by Fa24, given that permission to enroll international students has recently been obtained, then hold until The 78 is available
- Master of Computer Science (MCS) online
  - o 1,337 students in Fa23; zero to modest growth anticipated beyond
- Master of Science in Computer Science (MS), including the 5-year BS-MS
  - o 131 students in Fa23; anticipate modest growth of 2-3% annually for Fa24 and beyond
- PhD in Computer Science (PhD)
  - o 524 students in Fa23; will grow with TT faculty, CS averages 6.2 per faculty member
- CS Undergraduate Minor
- Computational Science and Engineering (CSE) Educational Programs: Graduate Concentration, Undergraduate Minor, Undergraduate Certificate In collaboration with partners across campus, the Department of Computer Science currently participates in 25+ interdisciplinary academic

# Administrative, Research or Public Service Unit Application programs spanning 6 colleges. The School will assume all responsibilities that are currently taken by the department in supporting collaborative academic programs – existing programs, those undergoing the approval process, and any future programs.

- Blended CS undergraduate degrees. Currently, Math and CS, Statistics and CS, and 14 CS+X
  degrees spanning 6 colleges. The first in the GCOE have just been approved (Physics and
  Bioengineering) and several more are in various stages of development.
  - o 1224 students were enrolled in these programs in Fa23; we have committed to our campus partners to grow these enrollments and anticipate 6.5% growth in Fa23 and conservatively estimate an annual growth of 5% for Fa24 and beyond
- X+DS undergraduate degrees, which blend another discipline with data science (DS). The DS core is provided by CS, Statistics, Math and the iSchool. The first 4 accepted students in Fall 2023 and several more are undergoing the approval process. The four units providing the core (Statistics, Mathematics, the iSchool and CS) are also proposing an undergraduate Minor in Data Science.
  - o Most of these programs are in initial/planning stages. CS understands their importance to our campus partners and will do our best to accommodate desired growth.
- Interdisciplinary minors for undergraduates, such as the proposed Minor in Data Science that will have an administrative home in Statistics and which will be managed collaboratively by the units providing the core for the X+DS degree programs (Statistics, Mathematics, the iSchool and CS).
  - O Interdisciplinary master's programs, on campus and online. For example, the MS in Bioinformatics (multiple departmental programs coordinated by Informatics Programs), and MEng. Programs in Digital Agriculture and Autonomy and Robotics, with more in progress such as the MS in Data Science that is being developed in collaboration with Statistics and the iSchool and the MS in Game Design that is coordinated and administered by Informatics Programs in collaboration with the iSchool, the College of Education, FAA, LAS and Media. Most of these programs are in initial/planning stages. CS understands their importance to our campus partners and will do our best to accommodate desired growth.

As seen in our budget statement (see Appendix E), expenditures will primarily consist of faculty, TA, and administrative salaries. Currently we have 122 tenure system and specialized faculty, with an anticipated net gain of 5-6 faculty per year, and 4 additional Staff, for each of the next 3 years. Supplies, services, equipment, and other non-payroll expenses, currently at \$3.0M, are expected to increase by approximately 5-8% per year for the next 4 years. In terms of budget, revenues will be generated through the various tuition sources that currently fund CS, \$40M in FY23 projected to raise to \$45M by FY27. Research funding will support research initiatives and fund graduate students, with CS having \$35M in FY23 research expenditures. Facilities costs are expected to stay stable as we continue to operate within the Thomas M. Siebel Center for Computer Science, but the planning phase for a second dedicated CS facility has already begun with committed funding from State, campus, and the anticipated donor resources. Our new space in Chicago has a minimal assessment currently, but as programs grow, we expect some growth in facility costs and assessment at the Chicago location.

#### 8. A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth

IBHE is charged to develop a strategic plan to address the present and future aims and needs and requirements of higher education in Illinois (110 ILCS 205/6) (from Ch. 144, par. 186) Sec. 6).

Illinois Administrative Code: 1050.30(a)(6): A) The unit of instruction, research or public service is educationally and economically justified based on the educational priorities and needs of the citizens of Illinois

Respond to the following questions about how the proposed unit will support the three goals of *A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth Strategic Plan.* 

- Equity: Close the equity gaps for students who have historically been left behind
- Sustainability: Build a stronger financial future for individuals and institutions
- Growth: Increase talent and innovation to drive economic growth

### Responses to each question in this section should be separate and reference the question number to which the response pertains.

#### **Equity**

- 1. Describe plans to implement systemic solutions that will increase access and opportunities for service to underserved communities and the implications for the proposed unit of administration. Explain how progress will be monitored. [See Equity Strategy #1 and #2]
- 2. Explain institutional strategies being implemented to increase and retain faculty, staff, and administrators of color and the implications for the proposed unit. Explain how progress will be monitored. [See Equity Strategy #3]

#### **Sustainability**

- 3. For this new unit of administration, describe how the institution plans to maximize effectiveness and efficiencies in its administrative structure and operations while avoiding unnecessary or existing duplication.
- 4. Explain further how the new unit will capitalize and build collaborative synergies on campus and within and outside of the state; support future-ready learning, research, or public service approaches; and ensure that the unit is a good steward of its financial resources.

#### Growth

- 5. As one of the Core Principles, demonstrate how the proposed unit will reinforce and promote public good in the state (e.g., civic engagement, exposure to arts and humanities, and solutions to society's challenges).
- 6. Describe how the unit plans to contribute to research, innovation, and economic development by leveraging the Illinois Innovation Network. [See Growth Strategy #1]
- 7. Explain how the new unit engaged with business and industry in its development and how it will spur the state's economy by leveraging partnerships with local, regional, and state industry, business leaders and employers. [See Growth Strategy #3]
- 8. Describe how the proposed unit will expand access and opportunities for students regarding high-impact practices including research opportunities, internships, apprenticeships, career pathways, and other field experiences. [See Growth Strategy #6]
- 9. Explain how the proposed unit of administration will expand its models of teaching and learning, research, and/or public service and outreach that provide opportunity for students to succeed in the work of the future. [See Growth Strategy #6]

(For more information about each of the three goals of the A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth Strategic Plan, go to the IBHE website: <a href="https://ibhestrategicplan.ibhe.org/">https://ibhestrategicplan.ibhe.org/</a>).

#### **Equity:**

Broadening participation in computing (BPC) is a core value of DCS which will continue with the School. As such, DCS has invested significant resources and effort into developing activities focused on improving access to and increasing participation by individuals from groups underrepresented in computing at all levels (pre-college through faculty). Since 2019, DCS has made several strategic investments in BPC, including recruiting a new faculty Director of Onramp Programs and hiring a full-time staff member as DCS's first BPC Program Coordinator, and has launched several new programs designed with these goals in mind. The additional resources and capacity of the School will strengthen these activities, ensuring that the University is the destination of choice for the very best, increasing access to our world class programs to learners across the state and at all career stages. Furthermore, because this proposal is to elevate the Department of Computer Science to the School of Computing and Data Science, this "new unit" will benefit from inheriting well developed mechanisms to take advantage of, and contribute to system, campus and college level strategies and program implementations focused on equity.

#### 1. Increasing access and opportunities for service to underserved communities

The Department of Computer Science has been a national leader in advocating for and implementing broadening participation programs and will continue to do so as a school. In the past few years alone, significant new initiatives have been launched to provide access and opportunities for service to underrepresented communities. These are listed here.

- iCAN (Illinois Computing Accelerator for Non-Specialists) is a one year (Fall, Spring, Summer) 20-credit hour program designed to broaden participation in computing through an accelerated program for college graduates who do not have a background in computing. Launched in Fall 2020, the program has been extremely successful with most graduates gaining admission to, and some already graduating from, our MCS program. Importantly, it is attracting students from a wide variety of backgrounds, career stages and demographics. For example, the 3<sup>rd</sup> cohort (Fall 2022) of 32 students included roughly 33% women, 50% from non-STEM backgrounds, 72% Illinois residents, and included all career stages with roughly 60% of the students being recent college graduates in their 20s, about 20% in the 30s, and 20% are 40+.
- CS STARS (Illinois CS Student Ambassadors/Research Scholars) was designed for undergraduate CS students who are interested in pursuing undergraduate research while also serving as departmental leaders to recruit women to the CS majors and engage in mentoring and cohort-building activities to provide an inclusive and supportive environment for all. Launched in Fall 2021 with approximately 20 students, it grew to 40+ participants in Fall 2022, and nearly 60 in Fall 2023. While it is still early to evaluate results, the students in the program themselves are thriving and we have anecdotal evidence that its impacting recruitment.
- CS has deliberately chosen to expand activities at the DPI location in Chicago because of the opportunities to reach new populations of students. The in-person MCS program was launched in January 2023, providing access to students living in Chicago on both a part-time or full-time basis, with the goal of accommodating students who wanted an in-person experience but couldn't relocate to Urbana. CS has plans to offer the iCAN program in person in Chicago and is also interested in exploring other opportunities including blended degree partnerships that have been so successful in Urbana. Finally, CS intends to explore new collaborations with Chicagoland Community Colleges and Chicago State University that would provide more pathways to the Urbana campus.

These will complement a number of systemic solutions being implemented at the system, campus, and college level. The School intends to maximize the impact of these programs on its reach. A description of these programs follows.

Institution-level plans: Access, progression, completion, and attainment

At the System level, the University of Illinois prioritizes closing equity gaps among the citizens across Illinois, within our urban and rural communities, and beyond. While the fundamental needs that will drive

greater economic vitality vary greatly across zip codes in the state, it is clear that closing equity gaps among our citizens remains crucial to achieving the mission of the University of Illinois System.

Supportive of IBHE's A Thriving Illinois plan and aligning its Equity Strategy #2, the UI System's Access 2030 Strategic Plan is a comprehensive initiative designed to increase the number of graduates from underrepresented groups by 50 percent by the end of the decade. This will include students from disadvantaged backgrounds — ethnic and racial, rural, and urban. This initiative will strengthen the University of Illinois' bedrock commitment to the public good, ensuring that as we work to improve life in our state, we are not leaving communities behind. It will build on ongoing efforts to create more opportunities for Illinoisans of all backgrounds. The initiative is being tooled to close equity gaps throughout the pipeline, working from K-12 through college, including our community colleges. Access 2030 embodies Equity Goal 2 of A Thriving Illinois, providing a framework for and supporting the three institutions' equity plans.

At the institution level, the University of Illinois Urbana-Champaign's (UIUC) diversity, equity, and inclusion work is led by the Office of the Vice Chancellor for Diversity, Equity, and Inclusion (OVCDEI). The OVCDEI's goals, ongoing assessments, and initiatives impact students as well as faculty and staff, and student-focused programming sets the tone for the institution's efforts as they relate to all of A Thriving Illinois' equity strategies. In the 2022-2023 academic year, the institution will be launching a campus-wide climate assessment instrument to understand the degree to which students feel safe, accepted, and valued. The goal is to provide a quantitative sense of how individuals feel about their campus experiences. This assessment will include students' perceptions of the quality of their interactions with peers, faculty members, and administrators, including their sense of the campus as a place where they belong and are treated with respect. The university is partnering with the Association of American Universities (AAU), external organizations, and peer institutions to ensure the survey instrument is state of the art, has questions that shed light on multiple axes of diversity, and generates data that can be shared and benchmarked against peer institutions to tease out challenges that are unique to the UIUC campus as well as those that are common to peer universities.

In keeping with the institutional framework led by the OVCDEI, the University of Illinois Urbana-Champaign is engaged with a number of efforts to strategically support and bolster equity on campus. For example, in July, 2020, the university pledged \$2 million annually for the Chancellor's Call to Action to Address Racism and Social Injustice to focus the intellectual and scholarly talent of the university to examine two of the greatest challenges facing society and seek new solutions. During this second year of the program, 47 proposals were received, and 25 projects were ultimately funded in three research focus areas: systemic racism and social justice; law enforcement and criminal justice reform; and disparities in health and health care, for a total of \$1.49 million. The remainder of the funds will support a symposium and other programmatic operations. Principle Investigators leading the funded proposals represent seven colleges and administrative units across 17 departments. The breadth of this year's funded projects reflects a commitment to research that centers the needs of the communities throughout our state and nation, from more equitable outcomes through the juvenile justice system, to the impact of social infrastructures and the built environment on mental health and wellbeing, to support for foster care providers. In October 2022, OVCDEI hosted the inaugural Research Symposium, which included a keynote conversation with Dr. Ibram X. Kendi, Director of the Center for Antiracist Research at Boston University.

A significant number of Illinois graduate students also did their undergraduate studies at Illinois, thus increasing access and attainment for undergraduate degrees can support increased access for graduate degrees. Looking at the last four years, campus graduate programs have been able to successfully recruit and enroll between 700 and 800 students from UIUC undergraduate programs, which is approximately 19% of UIUC total new enrollments each year. Looking specifically at those from domestic underrepresented populations, campus has been able to successfully recruit and enroll between 100-130

students from campus undergraduate programs, which accounts for approximately 30% of UIUC total new enrollments for these underrepresented populations each year. Accordingly, although targeted at the undergraduate population, the campus' **Student Success Initiative** (SSI) also benefits graduate students. Known as an "initiative" when it kicked off in 2019, goals are: 1. increase access (reduce cost of attendance, increase aid, consider time to degree); 2. eliminate equity gaps (increase retention and graduation rates for underrepresented and minoritized students); 3. improve the Illinois experience (abandon "sink or swim" mentality, identify and broaden campus programs, support services, and opportunities for engagement). Recognizing that Student Success is ongoing work, what was known as the "Student Success Initiative" is now "Student Success @ Illinois" (SS@I). A variety projects emerged from SS@I that have enabled the university to provide greater focus on recruitment and retention efforts. A few examples include:

- The inaugural Student Success Symposium in 2022 engaged over 200 faculty, staff, and students. The 2<sup>nd</sup> Annual Student Success Symposium in February 2023 drew more than 250 participants.
- In 2021, following through on a recommendation of a First-Year Experience task group, the Provost's office funded \$750,000 in grants for instructional support and innovative programs.
- Based on the task group recommendations around increasing transparency, the <u>Academic Catalog</u>
  is being revised to include four-year suggested sequences of coursework for program completion
  for all undergraduate degrees.
- The Student Code Academic Policies Task Force reviewed <u>Article 3 of the Student Code</u> on Academic Policies and Regulations with an equity lens, provided findings to the Provost's office, and recommended policy changes that were implemented in the 2022-2023 Student Code.
- Building on the work of the APLU PxP BTAA Cluster, another SSI Implementation team examined DFW information in University of Illinois Urbana-Champaign courses. Coupled with the PxP efforts, this team's final report ultimately led to a pilot in Spring, 2023 called the Inclusive Course Redesign Initiative (ICRI). With equity and inclusion at the core, faculty teaching courses with larger undergraduate enrollments are invited to intentionally design course materials and activities to be welcoming and accessible to all students. By working in partnership with course designers from the Center for Innovation in Teaching and Learning, instructors can create a more equitable learning environment supportive of learners' success.

In the 2023-2024 academic year, Student Success @ Illinois will focus on strategically reviewing campus policies and administrative procedures to ensure equity for undergraduate students and on supporting academic advising. Work on the first-year experience continues, with development of enhanced mental health and wellness content for first-year experience courses and continuation of a transfer student-focused task group.

Finally, the university hosts a **series of outreach, recruitment, and transition programs** on their Diversity, Equity and Inclusion website to improve access and successful outcomes in graduate education for students from historically underrepresented groups. The **Summer Research Opportunities Program** at Illinois brings highly competitive undergraduate students for a nine-week introduction to graduate study. Participants conduct research under the mentorship of a faculty member in their chosen field of study, explore careers in research, attend workshops, and take part in team activities that prepare them for graduate study. **Aspire Illinois** recruits talented students from backgrounds typically underrepresented at elite institutions to consider attending graduate school at Illinois. Toward this aim, campus fosters a webinar series to guide students through the process of selecting a graduate program and submitting competitive applications. In addition, ASPIRE applicants are supported through direct contacts with Directors of Graduate Studies and faculty as well as through campus visits. The **Community of Scholars** visit weekend unites newly admitted students with their admitting graduate programs and with

prospective peers. Through networking and orientation to the campus, students are able to better understand how graduate study at the university can support their short and long-term goals.

To support the graduate school application process, application fee waivers are provided for Illinois Promise students, Summer Research Opportunities Program participants, McNair Scholars, ASPIRE scholars, individuals with US military service and FreeApp applicants through a Big Ten Academic Alliance program to increase access to graduate education for diverse applicants.

#### Institution-level high-impact and wraparound support services

Access 2030 demonstrates the University of Illinois' commitment to supporting "the ongoing learning renewal of students and systemic implementation of evidence-informed student support practices." This equity-focused plan includes emphasis on the three universities' summer bridge programs, proactive advising, and high-impact practices to support retention and to ensure equitable access and success.

In addition to Access 2030, the System supports students through the <u>President's Research in Diversity Travel Assistance award</u>. This competitive program, primarily for graduate students, has been established for the purpose of promoting diversity and the understanding of diversity within the University. Recipients are provided a certificate and funding up to \$600 to travel to a professional conference related to diversity or identity (such as those conferences involving race, gender, ethnicity, sexual orientation, disability, and national origin) to present papers, posters, or creative work in service to the University's interest in a diverse learning community.

At the institution level, the University of Illinois Urbana-Champaign prides itself on the array of high-impact practices and services offered to students. These student support practices support the ongoing learning renewal of students and systemic implementation of evidence-informed student practices, which align with Equity Strategy 1 of A Thriving Illinois. The Counseling Center, Office of the Dean of Students, McKinley Health Center, and Student Assistance Center are accessible to all students via in-person or remote options to facilitate student wellness and retention. All students are encouraged to participate in workshops hosted by the university's Writer's Workshop and are eligible to receive assistance on writing projects through their writing assistants. For students with disabilities, Disability Resources & Educational Services (DRES) has helped thousands of students earn college degrees and Urbana-Champaign has been recognized as a national leader in the area of post-secondary education for persons with disabilities. Indeed, as the oldest post-secondary disability support program in the world, DRES has been associated with many programmatic innovations including:

- The seminal research which led to the development of the first architectural accessibility standards that would become the American National Standards Institute Standards;
- The first wheelchair-accessible fixed route bus system;
- The first accessible university residence halls;
- The first university service fraternity and advocacy group comprised of students with disabilities, Delta Sigma Omicron; and
- The first university to receive the Barrier-Free America Award from the Paralyzed Veterans of America (2012).

Additionally, poised at the crossroads of academic and student affairs, the Office of Minority Student Affairs (OMSA) is one of the oldest and most comprehensive student support programs in the nation. The OMSA has embodied the University of Illinois Urbana-Champaign's land-grant mission by championing access for all students and providing a comprehensive array of college preparatory and support services to bolster students' success since its inception. Programs such as AMPS (Academic Mentoring, Programs, and Services) through OMSA also align with A Thriving Illinois Equity Strategy 8 with the use of near-peer mentoring and staff as mentors/coaches. Graduate students serve as program assistants/mentors

in the office. OMSA currently houses six departments. A more comprehensive list of OMSA programs is provided in Appendix F.

The Office of Student Affairs, particularly **Student Success, Inclusion and Belonging** (SSIB), supports numerous programs aimed at supporting diverse groups of students including working adults, students of color, and transfer and low-income students (just a sampling of which are provided in this document. SSIB houses UIUC's cultural and resource centers and a variety of high-impact programs; to name just three examples: **100 STRONG Program, I-Connect Diversity & Inclusion Workshops**, and **Housing Division Social Justice and Leadership Education** (see Appendix G). A more comprehensive list of programs is detailed in Appendix C and more specifically programming, support, and services geared toward African American students, Latino/a students. Veteran support is provided through the Chez Veterans Center out of our College of Applied Health Sciences, which includes individualized academic and career coaching to support progress and address barriers, peer, and professional mentoring to foster community and networking, and health and wellness services to promote psychosocial adjustments and well-being.

Other support services for graduate students include the Sloan University Center of Exemplary Mentoring and the Summer Predoctoral Institute. The <u>Sloan University Center of Exemplary Mentoring</u> at Illinois, funded by the Alfred P. Sloan Foundation, is designed to broaden participation of Black, Latinx and Indigenous doctoral students in STEM while catalyzing institutional change for student success. In addition to studying in highly-ranked, world class programs, the program emphasizes mentoring, professional development, and social activities to help build a community of successful scholars who are well-prepared to become leaders in the workforce and in academia.

The <u>Summer Predoctoral Institute</u> is a nine-week program for incoming graduate students who have accepted their offer of admission to an Illinois graduate program. The Institute provides an advanced opportunity for graduate students to become quickly prepared for the rigors, culture, and expectations of graduate school during the summer prior to the start of their graduate studies. The Institute offers an orientation, a series of seminars, and time to work with a research adviser in the student's academic unit.

Finally, the university has a robust <u>Career Center</u>, which offers coaching and support students and connects them to opportunities, as they make career decisions and learns lifelong career management skills. They serve as leaders of the UIUC career services community.

At the College level, programs to improve diversity, equity, and inclusiveness are summarized in Figure 1 below.

As this question is centered on systemic solutions that will increase access and opportunities for service to underserved communities, the relevant programs span the entirety of the program on offer. The School, following in the tradition of the Department of Computer Science, will leverage and be actively involved in as many of the programs it can. Of particular note is that the School will be expected to continue to lead the implementation of Summer Camps centered on CS and be heavily involved in the City Scholars, Pathways, and MERGE programs in addition to leading the ICAN program as means to increase access and opportunities for service to underserved communities including a wide spectrum of demographics and age groups. Metrics on the diversity of students are captured at the campus, college, and departmental levels. Tracking the evolution of these numbers, as well recruiting and graduation statistics, will be used to monitor progress.

### Engineering for diversity and societal impact through sustained engagement and programming

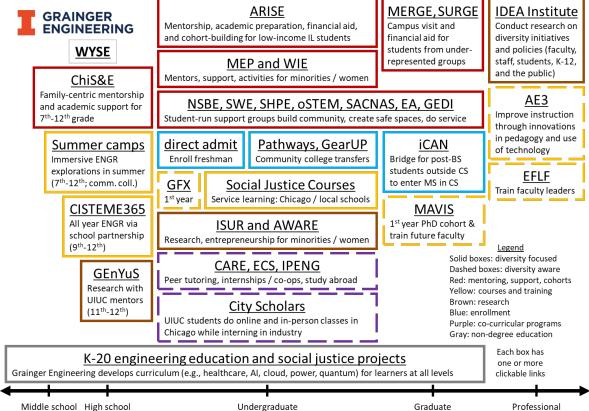


Figure 1. GCOE DEI engagement and programming

### 2. Institutional strategies being implemented to increase and retain faculty, staff, and administrators of color

There are substantial strategies and approaches being implemented to increase and retain faculty, staff, and administrators of color at the system level, at the campus level, and at the college level. The School will continue to be supportive of these and, where applicable, will leverage these to increase the diversity of its faculty and staff. This section begins at the system and campus level, followed by the college level and concludes with special initiatives at the school level.

Institution-level efforts to recruit and retain faculty, staff, and administrators of color

Aligned with Equity Strategy 3 (Implement equitable talent management to increase and retain faculty, staff, administrators, and trustees of color), the UI System and the UIUC Campus support efforts in this area, particularly in supporting underrepresented minority faculty. The Distinguished Faculty Recruitment Program has a stated goal of increasing underrepresented minority faculty. Since 2017, the System has committed \$31.4 million to this program, the recruitment of tenured, star, or rising faculty from a range of disciplines who can transform our universities by their exceptional scholarship and teaching. One criterion is that the faculty member "will enhance diversity in the unit and in the college." The Public Voices Fellowship is a year-long program open to tenured faculty to join a cohort of leaders, the majority of whom will be underrepresented (including women) and provide them with extraordinary support, leadership skills, and knowledge to ensure their ideas shape not only their fields, but also the greater public conversations of our age. The Leadership Initiative for Women Faculty brings together women faculty from across the UI System who are leaders and/or potential leaders to identify barriers to and facilitators for advancement of women. Finally, the System will also be providing funding in support of each university's faculty recruitment plans which will also emphasize the recruitment of underrepresented minority faculty. The President's Executive Leadership Program is a professional

development opportunity and experience for senior-level faculty and administrators from across the UI System. Consisting of seminars held during the academic year, the objective of the leadership program is to broaden participants' understanding of higher education issues and strengthen their skill sets in leading and managing a public institution at the university or system level. The Board of Trustees supports the program as a mechanism for identifying and developing a diverse group of potential future university and system leaders.

As a campus, UIUC is committed to investing in strategic hiring of faculty to maintain our academic strengths, respond to student demand, and capture opportunities. Investments from the Office of the Provost in faculty hiring, retention, and development are critical to maintaining and enhancing the academic excellence of our campus, especially at a time when the competition for top talent is intense. The Next 150 strategic plan identified a major hiring initiative to expand faculty hiring in key areas over the next five years, with the goal of expanding the overall size of the faculty. While the COVID-19 pandemic slowed that initiative, the University remains committed to hiring with the goals of enhancing faculty diversity and meeting student demand.

Though all faculty hiring is a department and college-level decision, the campus has devoted significant resources to incentivize hiring activities that support diversity, recruitment, and retention goals. Prominent among those programs are the **Targets of Opportunity Program (TOP)** and the **Dual Career Program (DCP)**. The TOP program provides recurring funds for salary support for hires that enhance campus diversity, including faculty from underrepresented groups and women in STEM fields. Nearly all of these hires are identified through a traditional search process. The Provost invests ~\$1 million per year in this recurring salary support for TOP. The Office of the Provost, in conjunction with the <u>Office of the Vice Chancellor for Diversity, Equity, and Inclusion</u> also announced a second year extension of the temporary modification to the TOP program to recruit more faculty of color. This initiative made an additional ~\$1 million available to units to support hiring in this area. For the DCP, the Provost provides recurring matching funds (i.e., 1/3 of the initial salary) if the partner is hired into a tenure track position through the DCP. Several years ago, the Provost modified the DCP to provide only non-recurring funding (1-3 years) for non-tenure track partner hires which has helped to reduce the overall cost of the program.

The campus also continues to fund postdoctoral fellowships targeted to underrepresented scholars in ethnic studies programs (e.g., Latina/Latino Studies, American Indian Studies, etc.) and through the **DRIVE program**. These programs are intended to help provide postdocs with an opportunity to build a foundation of scholarship that will prepare them for tenure track positions. While the ethnic studies postdocs are selected through a specific advertisement, the DRIVE program identifies candidates through a search process for open faculty positions.

Finally, through a partnership with the University System Office and departments, the Provost's Office also supports the <u>Underrepresented Faculty Recruitment Program</u> in making available non-recurring funds for research to enhance offers of employment. Awards up to \$20,000 per year for each of the first three years of employment are available for those hired in the 2022-2023 academic year. The Provost's Office funds the additional search expenses incurred by bringing an additional candidate to campus if that person is from an underrepresented group.

Additional retention efforts include programming and development activities for executive officers and faculty members across ranks. Programming and resources for unit executive officers (EOs) equip them with the knowledge and skills necessary for leadership including ways to enhance their ability to support and mentor faculty within their units, particularly faculty members of color. The Office of the Provost also coordinates several leadership development programs to increase the pool of potential academic leaders on campus with intentional focus on supporting faculty members from underrepresented groups to explore campus leadership and administrative roles. UIUC continues to be a strong partner in the Big Ten Academic Alliance's Academic Leadership Development Programs, with numerous faculty and staff from the university participating as fellows.

The <u>Office of the Provost</u> also invests in faculty development. From recruitment to onboarding, through promotion, and retirement, faculty members have access to programming and resources designed to meet them and address their careers needs. The office also supports several institutional memberships that provide external resources to our faculty, such as the <u>National Center for Faculty Development and Diversity</u> to ensure faculty members' continued access to NCFDD's resources.

To monitor progress of campus efforts to recruit and retain faculty members of color, the Provost's office collects, manages, and reports annual data through the Division of Management Information and Office for Access and Equity. Additionally, a yearly report on hiring and retention of faculty on campus is produced that includes women and faculty of color through the <u>Faculty at Illinois report</u>.

At the College level, programs to improve diversity, equity, and inclusiveness are summarized in Figure 1

As this question is focused on increasing and retaining faculty, staff, and administrators of color, the programs to note are

- The Institute for Inclusion, Diversity, Equity & Access (IDEA). As a cross-cutting unit, the Institute works with the College Diversity Committee, the Climate Diversity Inclusiveness Workgroup administration within the Grainger College of Engineering (Dean's Office, Undergraduate Programs, Graduate Programs, the Research Office, Advancement, and Communications), similar offices from other Colleges, as well as individual faculty, staff, and students to establish priorities and formulate and implement a shared vision for equity diversity, inclusiveness and accessibility to become ubiquitous throughout the college.
- The Mavis Future Faculty Fellows (MF3; MAVIS)) Program that was developed to facilitate the training of the next generation of great engineering faculty,
- The Engineering Faculty Leadership Forum (EFLF) program a year-long professional development program that supports and expands the leadership skills of a mid-career faculty cohort through guided discussions, readings, and reflection,
- The Academy for Excellence in Engineering Education (AE3) offers programs for faculty that promote high-quality teaching and act as catalysts for innovation in education.

The position of The Grainger College of Engineering Associate Dean for Diversity, Equity and Inclusiveness was created a few years ago. This Associate Dean has responsibility for strategic plan implementation efforts in DEI, including the development of DEI strategic plans at the departmental level.

The GCOE further supports the campus TOP program by increasing its contribution to start-up packages for TOPS candidates as an incentive to departments to recruit a more diverse faculty.

As a department, CS has aggressively and successfully recruited TOP eligible candidates and CS will continue to do so as a School. For example, the CS Department hired 5 TOP eligible faculty during both of the past two years. The School will also continue DCS programs designed to increase the diversity of the faculty, such as the Future Faculty Fellows program in which postdocs get matched with faculty mentor to help prepare for an academic career in research and teaching. The School will be working hand-in-hand with the Associate Dean for Diversity, Equity, and Inclusion to develop its own DEI strategic plan. The School will maintain its strong commitment to broadening participation in Computer Science. One of the goals of offering an in-person MCS program in Chicago is to allow faculty to spend a substantial amount of time in Chicago. This, along with the "brain train" recently announced by the State, will improve retention of faculty of color by giving them seamless access to the diversity of Chicago. Metrics on the diversity of faculty, staff and administrators are captured at the campus, college, and departmental levels. Tracking the evolution of these numbers, as well recruiting and retention statistics, will be used to monitor progress.

#### **Sustainability:**

The longstanding strong demand for the computer science degree programs, including the extensive cross campus partnerships, and the research excellence of the CS faculty will provide a strong and sustainable

financial foundation for the School, and indeed the college and the campus as a whole. Additionally, the anticipated naming gift of the School will provide additional resources to support innovative academic programs, enhance diversity, equity, and inclusion activities, and seed new research collaborations, enabling the campus to sustain world leading research and education programs in computing and data science while also fulfilling our land grant mission to provide broad access and opportunity to all.

### 3. Plans to maximize effectiveness and efficiencies in its administrative structure and operations

As previously discussed, the School will be a unit of The Grainger College of Engineering and will operate under the same financial model and under the same oversight as the Department of Computer Science does today. In elevating the department to a school, two major items drive the maximization of effectiveness and efficiency. First, a commitment to not creating departments under the school, thus avoiding the addition of another layer of administration. This will also assist the School in maintaining a single collaborative cross-research-theme collaborative culture that is essential to addressing today's complex societal and technological challenges. The second is the decision to transfer some operational responsibilities from the college to the school in order to gain effectiveness in dealing with cross-campus matters related to the growth and development of CS+X programs. These are documented in the Academics-centered MOU between the GCOE and the School/Department. Of particular importance is the easing of administrative barriers and delays for students wishing to transfer amongst CS+X degree programs. With the advent of the school and implementation of the MOUs, it will become easier to efficiently meet the needs of students and to allow them to follow their passions and career development goals. In this regard, the addition of a CS+X council, while essentially formalizing informal discussions already going on between "X" departments and the CS department, will create a forum that will ensure additional transparency and rapid uniform sharing of information across the campus.

## 4. Building collaborative synergies on campus and within and outside of the state; support future-ready learning, research, or public service approaches; and ensure that the unit is a good steward of its financial resources.

A fundamental objective that underpins the elevation of the department to a school is the importance for Computer Science to become a resource for the entire campus. The rapid growth of CS+X programs is meeting a strong demand from students who wish to pursue their passions which, in turn, will drive them to excel, while integrating vital computing and data science elements crucial to future work and their ability to succeed and be leaders in these fields. With these fields being as diverse as crop sciences, advertising, music and education, the digitalization of these fields is requiring DCS and will require the School to pursue the ultimate in the development of collaborative synergies with departments across the campus to institute workable and scalable CS+X programs. In this regard, UIUC is a celebrated model at national and international level – many other universities have sought or are seeking to emulate the CS+X model.

A great example of sustaining education development outcomes is the two new CS+Education degrees offered in partnership with the College of Education that enrolled freshmen for the first time in Fall 2023 and will include a partnership with the Discovery Partners Institute in Chicago. These degrees will increase the number of certified computer science high school teachers.

The School will strive to meet the surge in demand for computer science degrees, CS+X degrees, X+DS degrees. This surge has led to a situation whereby the School will be in an especially strong financial position for many years if not decades to come even as it grows its faculty to meet demand. By growing and taking advantage of the anticipated naming opportunity, the School will not only maintain its strong financial position while meeting this demand, its success will have a direct bearing on the financial strength of the college and the campus. The continued success and growth of CS+X and X+DS programs is expected, through revenue sharing agreements with the "X" departments, to result in the strengthening of these departments' student admission numbers, tuition revenues and their ability to sustain strong programs.

Finally, the School will utilize its resources to build on a strong decade of education innovation in blended degrees and broadening participation efforts to meet the needs of the K-20 continuum and beyond. Its iCAN, MCS on-line program and in-person Chicago MCS option, and planned blended graduate degree programs are examples of future-ready learning and research to meet the need for flexibility, outreach, and collaborative endeavors for future generations of students and professionals seeking upskilling and reskilling opportunities. The School's planned support for new interdisciplinary themes, with resources open to faculty across the campus, will spur interdisciplinary research targeting society's most pressing problems.

#### **Growth:**

Computing and data science have become increasingly central to all domains, and it is critical for the state and the nation to maintain and further develop our leadership in these areas. As such, elevating the stature, expanding the mission, and increasing the capacity of our top Department of Computer Science by transforming it into a School will ensure it remains a world leader that will enable it to continue to define, in partnerships with its cross-campus collaborators, new research fields and blended academic programs at the intersection of computing and data and other disciplines, which will be crucial to address important societal problems that require the engagement of the entire campus.

#### 5. Reinforcing and promoting public good in the state

The first core principle of "A Thriving Illinois: Higher Education Paths to Equity, Sustainability, and Growth Strategic Plan" states that "We exist to serve students—at whatever age and stage—and provide them with an excellent, well-rounded education and supports that meet their needs, give them access to careers and enhanced upward mobility, and foster their civic engagement and leadership potential." Yet students and parents have increasingly come to see pursuing a higher education degree as having to compromise between the career and income prospects of a STEM (Science, Technology, Engineering, and Mathematics) education and one that emphasizes civic engagement, and exposure to arts and humanities. The School's CS+X programs are allowing students to be able to pursue both without any such compromise. The continued growth of such programs and their efficient delivery is vital to the development of future citizens that are both engaged and foresee rewarding career options as leaders of their fields, even as these fields are transformed through digitalization. Furthermore, bringing civic minded students and students from the humanities into the School's computer and data classes, often embedded in project teams, is valuable in encouraging traditional computer science students to consider the ethical and human dimensions of their work and its potential impact on society. There is no better example than the need for such considerations given the current explosion in the development and capabilities of artificial intelligence and its potential implications for humanity and society.

Finally, our society's greatest challenges require multidisciplinary research teams if they are to deliver innovations that not only address these challenges, but are also readily adopted by society, and incorporated into viable, sustainable new ventures. The School's proposed support for interdisciplinary research themes, to be renewed regularly in light of emerging societal priorities, will play an important role in focusing the school and its partners across the campus on key issues for the public good.

### 6. Contributing to research, innovation, and economic development by leveraging the Illinois Innovation Network

The School will continue the Department of Computer Science's embrace of the Illinois Innovation Network, and DPI in particular, as a means to contribute to research, innovation, and economic development. DCS was an early participant in the GCOE's Chicago Scholars' Program that immerses UIUC students in Chicago and Chicago industries. The School will inherit and continue to grow an inperson Chicago-based MCS degree program. The in-person MCS is to be housed in DPI facilities. The School has recruited and will continue to recruit faculty in the field of quantum computing, thus strengthening the IIN network of universities that have partnered together to make the state of Illinois as a leader in quantum computing research. The partnership with the College of Education, noted earlier, seeks to strengthen the number of trained high school teachers in a domain that has a significant shortfall.

Finally, the school is fully supportive and a willing participant in the GCOE's new arrangement to facilitate community college transfers from any community college in the state and IIN.

### 7. Engaging with business and industry in its development and spurring the state's economy

As described elsewhere in this proposal and consistent with Growth Strategy #3, the School will engage with the research, innovation, and technological industry across the state, including through engagements at its new location in Chicago at the DPI. The School will inherit access to a vibrant advisory board of leading corporate leaders DCS shares with ECE, as well as a tradition of entrepreneurship and transformative new ventures as described in more detail in section 4 - Unit Outcomes of this proposal. The advisory board is a valuable resource for assessing demand and supply needs in computing and data science, providing insight on company trends, often ahead of what is in the public domain. The School will be a driver of innovation for major national and international corporate partners. One of the better examples of how the School will pursue establishing partnerships with local, regional, and state industries, business leaders and employers, and other industry stakeholders to benefit the State of Illinois' economy is the NSF/USDA funded Artificial Intelligence for Future Agricultural Resilience, Management, and Sustainability Institute (AIFARMS). CS faculty are leading a multidisciplinary effort to transform agriculture, one of Illinois' most important economic drivers, through new AI-driven methods and processes. AIFARMS' advisory boards include not only computing and data science giants such as Microsoft and IBM, but Illinois-based industrial leaders like John Deere as well as emerging ventures like EarthSense, Inc (based in the University of Illinois Research Park) and Sustainable Environmental Consultants. As such, the Institute is an example of how the School can serve as a "neutral" ground to bring such parties together to advance pre-competitive research and education while providing a foundation for future economic growth through new service and products and policy development. Furthermore, AIFARMS includes a K-12 Outreach programs to introduce young students to digital agriculture as a career, a Research Experiences for Undergraduates (REU) program to bring together diverse students from across the state and beyond to increase their competency and fluency with respect to digital ag technologies applied to complex biological applications, and a program to train certified K-12 teachers in Peoria County in computing, including AI and AI innovations in agriculture. AIFARMS is part of DCS' Center for Digital Agriculture (CDA). CDA is partnering with the University of Illinois Extension Office (Extension) to ensure that rural locations, a highly dispersed workforce, and variable local conditions do not limit, but actually enhance and can benefit from, the impact of digital technologies. Extension has locations in every county in the state and offers extensive outreach programs and community economic development efforts.

#### 8. Expanding access and opportunities for students regarding high-impact practices

The School strongly endorses another key aspect of *Growth Strategy #6 - High-quality experiential and work-based learning opportunities, internships, and apprenticeships across a variety of sectors.* In this regard, the School will expand existing DCS internship programs, such as the iCAN capstone experiences and the Engineering City Scholars program, and develop and promote new opportunities associated with the growing number of Master's programs, that will directly engage students with the Illinois research, innovation and industry ecosystem during their studies and facilitate their recruitment after they graduate. The iCAN program's demographic data also indicates it is proving a useful vehicle for new career pathways for those who seek such pathways in computing no matter their age or previous career background.

The School is also strongly supportive of in-semester and summer internship programs with companies based at the Illinois University Research Park. This allows undergraduate and graduate students to learn about companies as wide ranging as Abbott Laboratories, ADM, Ameren, Brunswick, Cargill, Caterpillar, Motorola, NVIDIA, Rivian, State Farm and Yahoo!. These are all companies seeking to seize opportunities presented by the increased digitalization and data-driven nature of their respective industries and who need the School's graduates to grow and succeed. The major centers and institutes that the School faculty will pursue or participate in typically incorporate corporate engagement opportunities.

These normally translate into internship opportunities for students and postdoctoral fellows. Growing the School's faculty and its research portfolio will increase such opportunities.

### 9. Expanding models of teaching and learning, research, and/or public service and outreach that provide opportunity for students to succeed in the work of the future

DCS has been a leader in a key element of **Growth Strategy #6**, *Use of effective online*, *hybrid*, *adaptive*, *and self-paced learning models*. This is exemplified by its early adoption of online program offerings and its immensely successful on-line MCS program as described in *Section 2* of this proposal. The School will continue the tradition of Illinois CS of innovation in instruction which has kept the department and the campus at the leading edge of education in computing and data science. Of note is leadership and innovation in blended degrees, such as the CS+X and X+DS family of degrees, and the commitment to provide capacity in the CS minor for all students on campus, which provides opportunities for students in all disciplines to receive training in computing which will prepare them for the work of the future. Many CS courses available to professionals as Massive Open Online Courses (MOOCS) through the Coursera platform are accessed by thousands of professionals, often with the explicit support of their employers, each year to upskill or reskill. As discussed earlier, the ICAN program is another example of offering advancement for non-computing specialists to gain new computing skills.

The School's faculty is also participating in the recently awarded NSF AI Institute for Inclusive Intelligent Technologies For Education (INVITE) led by UIUC. INVITE seeks to reposition AI as a powerful tool to promote fairness in technology-enhanced K-12 STEM learning by producing intelligent learning technologies that understand and support skills known to underlie effective learning. Unfortunately, substantial gaps persist in access, relevance, and outcomes with disproportionate impacts on underserved and underrepresented learners in STEM. INVITE, by aiming to correct these gaps, is an example of how the School will contribute to the transformation of education and training for better future outcomes for all our communities. Future education may well be tailored to the individual needs of each student in order to maximize their success.

The School will also inherit from DCS a tradition of being a leader in another key aspect of **Growth Strategy #6** - Support for faculty, staff, and administrators within and across institutions. DCS has been a campus leader in the advancement of teaching faculty rights and their inclusion as valued members of the faculty of DCS into the department's governance. The School will continue to advance the cause of its teaching faculty and staff, many who are proving leaders in education innovation. Finally, the School's outreach, as noted through its partnerships with the College of Education, will advance the development of educators well beyond the university.

From: Lehman, Barbara J
To: Lehman, Barbara J

**Subject:** FW: Creation of the School of Computing and Data Science

**Date:** Thursday, February 22, 2024 10:06:38 AM

Attachments: <u>image001.png</u>

**From:** Miller, Nolan H <nmiller@illinois.edu> **Sent:** Thursday, February 22, 2024 10:05 AM

To: Bashir, Rashid <rbashir@illinois.edu>; Amato, Nancy <namato@illinois.edu>

**Cc:** Lehman, Barbara J <bjlehman@illinois.edu>; Paquin, Normand <paquin@illinois.edu>; Martensen, Kathryn Ann <kmartens@illinois.edu>; Newell, Brooke <bsnewell@illinois.edu>

Subject: RE: Creation of the School of Computing and Data Science

Dear Rashid,

Thank you very much for your thoughtful reply. Although I agree the information was all in the proposal, collecting it all in one place like this is very helpful and, I believe, strengthens the case that CS is growing into something different than GCOE's other departments but still belongs in GCOE. I will add your response to the materials distributed to the committee. I suspect there will be more supplements generated as the process continues, so we'll collect them all together in one document before we send the matter to the Senate.

Best,

Nolan

\_\_\_\_\_



#### **NOLAN H MILLER**

Daniel and Cynthia Mah Helle Professor in Finance | Department of Finance
Director, Center for Business and Public Policy
Chair, Senate Committee on Education Policy
Gies College of Business | University of Illinois at Urbana-Champaign
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From: Bashir, Rashid <<u>rbashir@illinois.edu</u>> Sent: Thursday, February 22, 2024 9:54 AM

To: Miller, Nolan H < <a href="mailler@illinois.edu">mailler@illinois.edu</a>>; Amato, Nancy < <a href="maillen@illinois.edu">maillen@illinois.edu</a>>

**Cc:** Lehman, Barbara J < <a href="mailto:bjlehman@illinois.edu">bjlehman@illinois.edu</a>; Paquin, Normand < <a href="mailto:paquin@illinois.edu">paquin@illinois.edu</a>; Newell, Brooke < <a href="mailto:bsnewell@illinois.edu">bsnewell@illinois.edu</a>; Newell, Brooke <a href="mailto:bsnewell@illinois.edu">bsnewell@illinois.edu</a>; Newell, Brooke <a href="mailto:bsnewell@illinois.edu">bsnewell@illinois.edu</a>; Newell, Brooke <a href="mailto:bsnewell@illinois.edu">bsnewell@illinois.edu</a>; Newell <a href="mailto:bsnewell@illinois.edu">bsnew

Subject: RE: Creation of the School of Computing and Data Science

Dear Prof. Miller,

Thank you for your question below.

The reasons for forming a school rather than a larger department are numerous and they include some important aspects regarding the consistency and integrity of the College's internal structures, but also some strategic and broader reasons. Below we explain this in further detail.

#### Why A School of Computing and Data Science and not just expansion of CS?

There are a number of different reasons for the GCOE to request the creation of the School of Computing and Data Science. The following outlines the principal ones.

The Department of Computer Science has seen rapid growth in the number of its nationally recognized blended CS degree programs (CS+X programs; currently numbering 16) with multiple colleges (currently 6) and large increases in the number of students enrolled in these programs. With roughly 1220 undergraduates enrolled in Fall 2023 in these CS+X programs, comparable to the approximately 1300 students in the CS major, the coordinated and efficient delivery of these across campus are increasingly important to the financial health of the university. It has become imperative to put in place structures and processes that enable this. The transformation of the Department of Computer Science into a School enables, in this regard, important developments.

- It allows the GCOE to delegate authority and responsibility to the School for academic matters traditionally decided and negotiated at the college level that can be more effectively managed at the School level without creating two tiers of departments within the College. This includes matters around the management of CS+X enrollments, mentoring and supporting the CS+X students from across campus, and developing of new blended graduate programs.
- It allows the School to incorporate a CS+X council as an administrative structure that is likely to include representatives of X departments who may not have any formal affiliation with the school, i.e. not even as affiliated faculty. The CS+X council is largely viewed as an important development and is being well received across campus, but would represent, in our view, an unprecedented change to the nature of departments in GCOE. Transforming the Department of Computer Science into a School enables such a council to be put in place while leaving what is understood to be the structures of departments within the College untouched.

Of significant importance is the reputational impact the school will have given the need for Illinois to continue to compete with national peers for the very best students and faculty. A large number of top-ranked peers have elevated or actively seeking to elevate computing from a department level to a school. Just increasing the size of a department would not help us in this regard. Elevating the department to a school signals to our campus' stakeholders, both internal and external, that the university recognizes the importance of computing and data science not only as an emerging third pillar of Engineering (in addition to physical sciences and mathematical sciences), but as a unique asset to strengthen the university's educational enterprise and its continued beneficial impact on society, its economic impact and the training of the Illinois workforce.

Of non-negligible importance is that the elevation of the department to a *new* school also allows for a higher quality naming opportunity (as compared to an *existing* department) as an *enabler* of a bold

vision of transformative institutional change and global impact visible to the world.

While perhaps not as important to the campus as a whole, we also believe that having CS stay in the GCOE is a better model for closer collaboration and enrollment management between engineering and computing. Given that CS faculty also want to stay within the college, but that the discipline deserves to be recognized for its importance to Engineering as a third pillar, elevation of the department to a school allows us to meet these objectives.

We thank you for bringing this matter to the forefront. We recognize that, on hindsight, we may have done a better job of outlining these points, though we hope they are sufficiently interwoven throughout the text. Given our extensive reasoning on the matter, we would be concerned that adding such an extensive addition to the proposal would represent a significant change. We will welcome the opportunity to clarify this question should we be asked. And we are happy to have this response included in any supplementary documentation you deem appropriate.

On your second question, I know that Normand has already communicated with you, and we are happy to have the proposal circulated now, and we will keep adding new letters and the MOU when ready to the supplementary materials.

Please let us know if you need any additional information.

Rashid

Rashid Bashir, Ph.D.

Dean, The Grainger College of Engineering Grainger Distinguished Chair in Engineering, Professor of Bioengineering, University of Illinois at Urbana-Champaign 306 Engineering Hall, MC-266 1308 W. Green Street, Urbana, IL 61801 (217) 333-2150

https://engineering.illinois.edu/

Research Page: <a href="http://libna.mntl.illinois.edu/">http://libna.mntl.illinois.edu/</a> 

From: Paquin, Normand

To: Newell, Brooke

Cc: Martensen, Kathryn Ann

Subject: On provost meeting statement

Date: Sunday, February 4, 2024 10:15:55 AM

Hi Brooke,

On a different but related matter, Dean Bashir had a discussion with the provost regarding the statement in the school creation proposal that the provost will meet with the School Director and the dean. Dean Bashir told me that the provost prefers to leave the statement as is, but not provide an accompanying letter.

I realize that your need assurance that the provost is agreeable to this statement before his signature goes on the document. Dean Bashir thought it would be fine for you to simply reach out to the provost for confirmation.

Happy to discuss further as needed.

Best regards,

Normand

Normand Paquin, Ph.D., MBA (he/him) Associate Director for Research Coordinated Science Laboratory 243 Coordinated Science Laboratory, MC-228 1308 West Main St. Urbana, IL 61801

Tel.: 217-244-6813 Fax: 217-244-1764

#### **Sponsor Answers to Additional Questions from EP**

#### What were the results (yes/no counts) on the faculty votes on the proposal at the DCS and GCOE levels.

The results of the secret votes, taken in accordance with DCS and GCOE bylaws as applicable, were as follows:

Department of Computer Science approval of proposed school bylaws by CS Voting faculty:

```
Approve (Yes) - 75
Disapprove (No) - 1
Abstain - 2
```

<u>Department of Computer Science approval of proposal entitled "Creation of the School of Computing and Data Science" by CS Voting faculty:</u>

```
Approve (Yes) - 80
Disapprove (No) - 1
Abstain - 4
```

The Grainger College of Engineering approval of proposal entitled "Creation of the School of Computing and Data Science" by the Voting faculty as defined by GCOE Bylaws:

```
Approve (Yes) – 101
Disapprove (No) – 26
Abstain – 10
```

The Grainger College of Engineering recognizes the important role our specialized faculty play in our college. We respect their contributions and opinions. The College conducted a separate vote of the specialized faculty, and it is reported below.

On the question of the approval of proposal entitled "Creation of the School of Computing and Data Science," GCOE specialized faculty voted as follows:

```
Approve (Yes) – 63
Disapprove (No) – 6
Abstain – 2
```

Finally, as noted in the proposal, the GCOE Executive Committee voted unanimously to move the proposal to the campus level.

### 2. Not all of the +DS programs have letters included in the support letters. What about the others?

There are currently 5 DS+X programs in place. Email exchanges with four of these are provided. Our emails to the partners did explicitly state that we didn't need the letters (as we were working on letters from their Deans), but we wanted to be sure they were informed and also offer to answer any questions they might have. The fifth program is Information Sciences + Data Science offered by the iSchool. Given the separate letter of support from the iSchool for the proposal and the intensive interactions as outlined on the proposal that led to the Data Science MOU and this letter, we did not have any separate communication with the iSchool strictly focusing on the Information Sciences + Data Science program.

3. Related – one committee member thought the list in Appendix A2 was of all +DS programs. In reality I think it is just those who have provided email correspondence. May be worth clarifying that point.

Please see answer to question #2 above.

4. It is anticipated that +DS programs will continue to grow. This includes several that have already begun the approval process and many that are in the early planning stage. The proposal states "Most of these programs are in initial/planning stages. CS understands their importance to our campus partners and will do our best to accommodate desired growth." How will SCDS support continued growth in both existing +DS programs and new programs? How will it choose which programs to support?

It should be first stated that the delivery of the data science component of any X+DS program will be a shared collaborative undertaking between LAS (Statistics and Mathematics), iSchool and SCDS. SCDS will not be making decisions on its own as to what X+DS programs are to be supported. For any new X+DS program to be approved and launched, all partners have to agree. In this regard, the proposed campus-wide Data Science Education Council (DSEC) envisaged in the Data Science MOU will be important to put in place to facilitate these decisions and the process of approvals.

With respect to SCDS' ability to accommodate growth in both exiting +DS programs and new programs, the SCDS will be able to leverage many of the lessons learned by DCS in growing existing CS+X programs and allow new programs to be established. The growth of CS+X has been certainly remarkable, a testament to also the collaborative DNA of our campus, and also the appropriate financial models put in place to incentivize the X and DCS. DCS has learned how to manage this growth by putting in place a number of initiatives to support this growth while maintaining excellence. They include, for example, the judicious use of specialized teaching faculty who excel at innovating to deliver excellent education at scale (with appropriate support and recognition for their efforts), the use of on-line delivery methods to complement in-person offerings, and the constant review of demand versus availability for courses, making adjustments as warranted, including modifications to hiring plans. The SCDS will look to use similar approaches to meet its X+DS responsibilities. Finally, it is worth remembering that for both CS+X and X+DS programs, the X unit is the home of the program and its student, and the success of these programs relies on appropriate resources and support from the X units as well.

We do recognize that there is a limit to what each of us across campus can deliver based on infrastructure and resources. The development of the Campus Instructional Facility has played an important role in our ability to grow not just CS+X and X+DS programs but also our core programs. We do anticipate that securing a naming gift would allow for providing much needed space to grow the programs.

5. Please describe any efforts to gather feedback from students on the proposal, and the feedback received.

At the Department of Computer Science level, the Head of the Department, Prof. Amato, has discussed the creation of the school with the CS students for the past few years. It was brought up at student town halls, with the CS student leadership council (CSSLC) that includes the

leadership of the various CS student orgs, and with particular student groups. The only question that was raised was if it would change their degrees, and once they understood that their degrees would stay the same, they were satisfied. Some students, being more attuned to what other peer universities were doing, were excited about the plans to create the school. The department will hold town hall meetings on Friday, March 29<sup>th</sup> and Wednesday April 3to provide an update on the status of the proposal to create the school.

At the College level, the dean discussed the creation of the School with members of the Dean's Student Advisory Committee. There were no concerns expressed except as to the possible impact on degrees. Once it was explained that the degree programs would not be changing, students were receptive to this development.

6. Is it true that the sponsors presented the proposal to create the SCDS to the faculty at the iSchool? Please describe.

This is correct. As Appendix B - Consultation and Engagement Process Overview and Timeline specifies, Dean Bashir and Prof Amato met with the ISchool faculty twice to discuss the proposal to Create the School of Computing and Data Science at the invitation of Dean Santos. The first meeting was held on November 29, 2023. An overview of the proposal was presented, and questions were addressed. The second meeting was held on December 7, 2023 during which additional questions were addressed. The proposal itself and the LAS LOI had been shared ahead of these meetings with the iSchool leadership. One outcome was that the faculty generated a number of questions post meeting that were addressed in writing by Grainger Engineering and the Department of Computer Science. These responses were sent to the iSchool leadership for review and consideration.

7. Is it correct that the sponsors' commitment to support other units/programs attempting to add data science to their name applies to all units/programs, not just the signatories to the MOU in which this is described?

As was discussed during the March 25 EPC meeting, we believe it will prove reasonable and arguably beneficial for other units on campus to consider adding "Data Science" to their names. As we state in the proposal, we would not object to such name modification while at the same time recognizing that we do not anticipate this applying to a vast number of units. The Data Science MOU is firmer in stating our commitment to being supportive with respect to the addition of "Data Science" for the signatories themselves.

8. Please confirm that if the creation of SCDS leads to the creation of other governance bodies such as CS + X and/or X + DS councils, the sponsors recognize that these bodies are advisory only unless they are separately approved by the Senate, and that recommendations/proposals coming out of these bodies will still be required to go through the ordinary governance process.

The proposal speaks to the creation of a CS+X council. The Data Science MOU indicates that all the MOU signatories are favorable to the creation of additional bodies to help X+DS programs. We fully recognize that these additional bodies and the CS+X council can only be advisory unless they are separately approved by the Senate, and that recommendations/proposals coming out

of these bodies will still be required to go through the ordinary governance process. In this regard, we much appreciated that the EPC chair has raised this matter with the provost office given the campus-wide implications of creating the bodies outlined in the Dats Science MOU.

#### Minutes from Public Hearing held on March 20, 2024

In accordance with Senate *Bylaws* Part D.8.c.4, the Senate Committee on Education Policy (EP) must hold a public hearing and collect written comments as part of its review of proposals to change the status of an academic unit. EP provided notice in the March 10, 2024 and March 17, 2024 edition of the weekly campus electronic bulletin Eweek that a public hearing would be held on March 20, 2024 for the following proposal. Minutes from the public hearing are included.

#### EP.24.082, Creation of the School of Computing and Data Science

EP held an open hearing regarding the proposal on March 20, 2024 from 10:00am – 11:00am in 104 Illini Union. Two emails were sent to all current senators advising them of the public hearing.

Forty-two guests attended the public hearing (see Appendix A for attendance).

Nolan Miller, Chair, Senate Committee on Educational Policy, opened the public hearing at 10:00a.m. Miller made announcements that public comments could still be submitted through the link that was published in the March 10 and March 17 Eweek, that the meeting was being recorded as part of the public hearing, and that attendance was being taken. After the announcements, Miller turned the meeting over to the proposal sponsors, Dean Rashid Bashir, Grainger College of Engineering, and Nancy Amato, Head, Department of Computer Science.

Dean Bashir and Amato shared slides outlining the strategic and operational aspects of creating the School of Computing and Data Science. In addition, Amato discussed the reasoning behind creation of the school vs. increasing the size of the computer science department. Amato discussed the commitment to data science being a collaborative enterprise across the campus and spoke of current collaborations with iSchool and the College of Liberal Arts and Sciences. Bashir shared the benefits to the campus which included pathways to new blended degree programs at the undergraduate and graduate levels. Bashir and Amato opened the floor for questions and comments.

The following comments were made during the public hearing:

1. I became aware of a Computer Science practice, expressed in publicly available documents, that raises concern for me about the ability to fulfill some of the basic functions relating to undergraduate students. The specific practice relates to the FAIR disciplinary actions in the implementation of the student code. Example, in a one semester required class in Computer Science the instructor brings about 32 disciplinary actions in one semester. This is approximately one-third of the all the disciplinary actions brought in the Engineering School for the full year and approximately 16%, based only on publicly available documents, of the disciplinary actions brought across the university for the full year. In my view, this is a red flag that warrants further attention before expanding the Computer Science department's contact with undergraduate students. It creates a reputational and litigation risk, and so I urge EP to request

additional information about the Computer Science student code practices and its training and oversight of its instructors. I have great respect for the leadership of the Computer Science department and of the Engineering Department so I am confident that they will take steps to address this extreme deviation from university practice and unfairness to the undergraduate students. This is a moment for additional inquiry and action before approving an expanded role. As Dean Bashir referred to, this involves growth, it involves delegation and I think we have to take that seriously and take all of the pieces of the undergraduate experience seriously.

Miller shared that the jurisdiction of EP is not the student code or student discipline. Miller will contact those whose jurisdiction is the student code and student discipline.

Dean Bashir responded to the concerns raised and expressed that they are addressing these issues. Computer Science is a large department. There is no question that class sizes are large. Growing the number of faculty and collaborative programs such as CS + X will help to manage classes. Professor Amato stated that computer science is very concerned with doing things properly. They have a large number of faculty and students and they have put in place practices to try to manage these cases in collaboration with the college and the campus.

- 2. The creation of the school will be a step toward our survival. The field of computing and computer science is growing so fast. It's a major vehicle for US economic growth and even a major topic for international relations. Many of you are aware that peer universities acknowledge this trend and established schools or colleges of computing, not yesterday, but decades ago. The war to recruit top computer science faculty is so fierce that, when I was in the job market just a few years ago, I had to turn down some of the onsite interviews, simply because I could not visit all of them. To survive in today's world, the school will be an important step forward.
- 3. We collaborate very closely with Computer Science both in the research they do as well as education. As Computer Science we teach a lot of instructional units (IU). Many of the CS+X students also have to take introductory courses in physics. Physics itself has started a CS+X program. We have 500+ applications this year. This program will start in the fall. We are very impressed by the draw, the reputation that Computer Science has on students, bringing students to the campus. I think it is very important for us to maintain our excellence in Computer Science and to keep this field current with developments that we have at the forefront so including data science I think is very important. Physics is working to prepare a Physics+DS program as well. I think the new school will strengthen these efforts. We teach an incredible number of IU's between Computer Science and Physics. If there are disciplinary cases as you briefly commented, I think it should be normalized to the number of IU's. I suspect that it is still high, but our biggest classes have 1,200 students. I don't know for Computer Science if it is similar or larger, so the number of students who come through is very high. The excellence that this department has, and the school will have in the future, is central to

making this possible at the highest quality. I think otherwise, we really run the risk of losing our competitive edge in this area.

- **4.** I have been here since 2006 and I believe this proposal is not only in the best interests of the university as a whole, but in the best interests of students that I see on a day-to-day basis.
- 5. We've been talking a lot about data science and the iSchool is actively engaged with collaborations both with Computer Science and with LAS. I guess I just wanted to say publicly that data science is not owned by any unit on campus. That is such a critical role in changing all aspects of our life both professionally and personally. That one of the strengths of this campus is that data sciences does has that shared collaboration for people who are not just developing models but also understanding where the data is coming from and how is the results of those models being communicated. In our Memorandum of Understanding (MOU) we took a shot at trying to articulate some of those goals, I guess what I really want to emphasize at this moment is that we are really wanting the campus to think about the research and educational governance that supports this collaboration amongst different units. We are a very distributed campus. I understand that and I respect that, and I am all in, but this is one of those cases where this really needs to be a full university effort in order to continue to have responsible students who can use this tool in the real world.

Dean Bashir shared that while the school will be the first to have data science in its name, they are very supportive of others holding the data science piece and that data science must be co-led by different entities across campus and that SCDS will not be the leader of any collaborative Data Science research or educational office. Dean Bashir shared that the school will never have a degree called data science alone. All the degrees will be X+DS and a data science minor.

Amato shared that part of the MOU is asking the campus to formally replace the MOU's between college with a formal, campus-wide governance structure. This MOU is an agreement amongst CS, iSchool, and LAS to continue the collaborations currently in place.

6. I want to really communicate how expansive computer science is in this department because it is not true in every department in the country, but the vision in this department is that we grow as we interact with other fields. We are enriched and we change as a response to that interaction. So, we are not seeing this as we're going to take, take, take. We're also going to give, give, give, and be affected by it. So, this vision is something that is special and it's why it makes sense for this school to happen. One more thing, we have in this department written proposals for graduate training with statistics, with biology departments, with people off campus that are not even in

- engineering. We have a goodwill towards that kind of interdisciplinary training with this being part of effort, not taking it over.
- 7. I just actually want to thank Rashid and Nancy for being incredibly collaborative on this from the very beginning. We've been one of the colleges as Nancy mentioned, that was part of the very initial discussions of the +DS majors. We were two of the first four +DS majors on roll out on campus. I think it's critically important for us to continue to elevate this campus in terms of our reputation. I think to some extent, anything that is good for elevating our reputation in Computer Science and data science is good for all of us. I think it's good for our reputation, our interactions with alumni, it's also really important for attracting good talent both on the faculty and in terms of students. We are fully supportive even though we have a lot of our own data science in the Gies College of Business. They tend to be more applied work, but they are excited about this because I think it's an opportunity to just again grow our reputation. Mainly, I want to thank you for your collaborative spirit.
- 8. I want to say that the grad college, a unit within the office of the provost, is hugely supportive of this proposal. I note that we have two world class programs. The iSchool has always been considered the top iSchool in the country. Computer Science is also ranked incredibly high. I see this proposal as even further elevating our expertise of data science across the university. I want to recall one thing that happened to me 22 years ago when I came on this campus. I was the head of Kinesiology and Community Health within the College of Applied Health Studies, and some of my faculty came to me really concerned that Psychology was developing a class in health psychology, and shouldn't we protect that because we do health. My feeling was I don't think that's right. I think health, like computing, is one of those things that is ubiquitous as is covered intellectually across our entire campus. If you look at what has happened with the increase of the visibility of the health with the development of the new Carle Illinois College of Medicine, we have greatly increased impact by allowing units to participate jointly and share intellectual educational activities and I think that school of computing and data science will further illustrate that concept of shared intellectual responsibility and opportunity.
- 9. I want to mention that as a new college we are built on a collaborative spirit working with other colleges on this campus and to think about the growth of data science as a key integral part of our college in terms of how we train medical students, having a college that focuses on Computer Science and data science is really important because of the collaborative ability to work together across disciplines in this field. We are very supportive of this moving forward and think this is a great thing for the campus.
- **10.** Our department is very happy with the strong collaboration we have with the cs department, and we are fully behind this.

11. I just really want to remark that this proposal has two parts. One part is to take the department of cs and elevate it to a school. The second part is what the name of the school is. I know that we have heard many things about the role of Computer Science in the nation and the potential on this campus. I just really want to echo, that computer science is a really important field. Data science is its own field. It doesn't have a single home on this campus. It can't have a single home. I understand that you are very happy to share the name. When we look at Bio's name, bio has lots of additions. I would really encourage thought about what is the scope? Data Science is one thing but it is also many things. In the parts I see as particularly the work of Computer Science are the pieces of model development. I'm really concerned about the communication of what data science is and where it lives, because sometimes there is a tendency to collapse data science into the statistical part. I really want to urge splitting the consideration of the two pieces. The department of Computer Science is very important and elevating it to a school is obviously beneficial. I think that for various reasons our university is struggling with funds for data science and +DS is helping with education. It would be very challenging I think for a student coming to the university to understand all the different places they can find data science. It is very difficult to navigate. I want to urge EP is if you are going to approve the name in its current form, that in whatever manner you are able to do, to put the onus on the university to make the DS governance piece. I think this campus will struggle until that happens. This is an opportunity to seize the moment.

#### Written Comments Submitted as of 5pm, March 23, 2024.

Bo Li, Professor and Chair of Statistics, LAS:

Nancy and I have been talking about SCDS for a while. I understand the purpose of establishing such school is not to dominate data science on campus. Instead, SCDS tries to bring more resources to support the development of data science both in their school and other relevant departments. Statistics and computer science have had a long history of collaboration and partnership. I expect the new school will even strengthen the collaboration given the additional resources. The SCDS will not pursue departments under the school, so there will be little to no overlap with other academic programs. Overall, I think the SCDS will be a great thing on campus, and will create a win-win situation for many units. Sorry that I cannot be there in person so express my support due to schedule conflicts.

Liangyan (Lynna) Gui, Computer Science: I strongly support the proposal

Yuxiong Wang, Computer Science:

I strongly support the proposal

Meredith Blumthal: Instructor, ACES/ACE:

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I spent 6 years working in GCOE Academic Programs unit supporting CS, and CS +X students going abroad, and was involved in conversations around X + DS degrees. The formation of the council.

#### Appendix A

Name	College/Unit	Affiliation
Jenny Amos	Grainger College of Engineering - Bioengineering	Faculty
Lawrence Angrave	Grainger College of Engineering – Computer Science	Faculty
Arindam Banerjee	Grainger College of Engineering – Computer Science	Faculty
Mattox Beckman	Grainger College of Engineering – Computer Science	Faculty
Paula Besson	Grainger College of Engineering – Grainger Engineering Advancement	Faculty
Catherine Blake	iSchool/Carle Illinois College of Medicine	Faculty
Jeff Brown	Dean, Gies College of Business	Faculty
Laura Child	Grainger College of Engineering	
Wojtek Chodzko-Zajko	Dean, Graduate College	Faculty
Mark Cohen	Carle Illinois College of Medicine	Faculty
Ryan Cordell	iSchool	Faculty
Peter Darch	iSchool	Faculty
Michael Devocelle	Grainger College of Engineering - Administration	Faculty
Wade Fagen-Ulmschneider	Grainger College of Engineering – Computer Science	Faculty
Philippe Geubelle	Grainger College of Engineering – Aerospace Engineering	Faculty
Saugata Ghose	Grainger College of Engineering – Computer Science	Faculty
Liangyan Gui	Grainger College of Engineering – Computer Science	Faculty
Elsa Gunter	Grainger College of Engineering – Computer Science	Faculty
Bruce Hajek	Grainger College of Engineering – Electrical & Computer Engineering	Faculty
Chris Harris	Strategic Communications & Marketing	Faculty
Jingrui He	iSchool	Faculty
Vera Hur	Liberal Arts and Sciences - Mathematics	Faculty
Sharon Irish	iSchool	Retired Faculty
Tiffany Joyner	Grainger College of Engineering – Computer Science	Faculty
Libby Kacich	Grainger College of Engineering – Administration	Faculty
Robin Kaler	Strategic Communications and Marketing	Faculty
Bonnie Mak	iSchool	Faculty
Darko Marinov	Grainger College of Engineering – Computer Science	Faculty
Brooke Newell	Office of the Provost	Faculty
Yoogjoo Park	Grainger College of Engineering – Computer Science	Faculty
Matthias Perdekamp	Grainger College of Engineering – Physics	Faculty
Zach Reed	Liberal Arts and Sciences – Linguistics	Faculty
A.J. Schmidt	Liberal Arts and Sciences – Office of the Dean	Faculty
Jodi Schneider	iSchool	Faculty
Amy Simons	Grainger College of Engineering – Computer Science	Staff
Linda Smith	iSchool	Faculty
Jim Sosnowski	Grainger College of Engineering – Administration	Staff

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Mahesh Viswanathan	Grainger College of Engineering – Computer Science	Faculty
Yuxiong Wang	Grainger College of Engineering – Computer Science	Faculty
Tandy Warnow	Grainger College of Engineering – Computer Science	Faculty
Verity Winship	College of Law	Faculty
Lingming Zhang	Grainger College of Engineering – Computer Science	Faculty

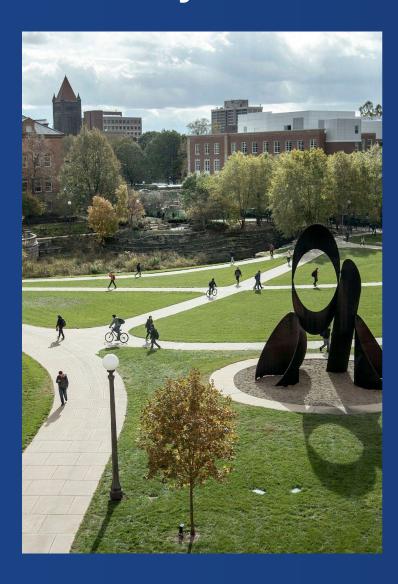


# Creation of School of Computing and Data Science in GCOE Proposal Overview

Open Meeting
Rashid Bashir, Dean, GCOE
Nancy Amato, Head, Department of Computer Science
March 20, 2023

## Why A School of Computing and Data Science in GCOE





### Strategic

- Rapidly expanding role of Computing and Data Science, with impact across the college, campus, and the world
- Computing and Data Science as third pillar for engineering
- Defining a unique partnership between Computing and Data Science, and other departments, within The Grainger College of Engineering
- Top peers elevating CS/Computing across the nation
- A School is a higher quality naming opportunity than a department

## Operational

- Need to manage & coordinate 16 (and growing) blended CS undergrad majors (Math&CS, Stats&CS, 14 CS+X) with homes outside CS
- Support 10+ (and growing) programs offered with campus partners
  - 5 (so far) X+DS programs and 5+ multidisciplinary masters programs
- CS, CS+X, X+DS, and blended masters degrees are crucial for student recruitment & campus financial health
- Need resources (faculty, staff and space) to enable all the above

# Why a School (... and not just larger department)?



- The rapid growth in cross-campus degree programs involving CS has created an unprecedented coordination and operational situation to maintain efficiency and maximize campus benefits
  - The GCOE will delegate authority to School for matters typically managed at college-level (e.g., CS+X enrollment targets); creating a school avoids creating two tiers of departments
  - The School intends to setup a CS+X Council with campus-wide participation. That will likely involve "X" faculty representation with no affiliation to CS. This is simply not something easily envisaged at a departmental level.
- The school will have a reputational impact not achievable by increasing department size
  - Most top-ranked peers have elevated/are planning to elevate computing to a school/college
- A School in GCOE is the model preferred by CS faculty and will facilitate ongoing close collaboration and enrollment management between GCOE & SCDS
  - Given that CS faculty also want to stay within the college, but that the discipline deserves to be recognized for its importance to Engineering as a third pillar, elevation of the department to a school allows us to meet these objectives.

# The Proposal – Its Components



- Core Proposal Creation of New Unit
  - Description Transformation of CS from department to a school (SCDS) entirely within the Grainger College of Engineering
  - Some new campus-wide activities & responsibilities (e.g., CS+X Council)
- Supplementary
  - Proposed School Bylaws
  - MOUs GCOE/School academic affairs and financial/operative MOUs
  - MOU between iSchool, LAS, GCOE/DCS on shared nature of Data Science
  - Timeline of consultation summary listing of discussions within college and across campus
  - Letters of support from all deans
- Bylaws of the School essentially reflect current departmental bylaws
  - Increased representation of Specialized Faculty on School Executive and P&T Committees to better correspond to their proportion of the faculty

## Commitment to Data Science Being a Collaborative Enterprise



- The UIUC Next 150 Committee on Data Science recommended that data science be a collaborative undertaking available to all students
- The campus has recognized GCOE, iSchool and LAS are key partners
  - Together, we have developed and provide the core for X+DS degrees
  - Together, we are proposing a Data Science Minor and MS degree
  - A key aspect of this proposal was the signing of an MOU between LAS, GCOE, iSchool and CS to codify our joint commitment to this unique approach
- On its part, GCOE/CS commits to
  - creating no departments within the School
  - an openness to supporting other units adding data science to their names
  - investing resources from the School to seed campus-wide research themes in data science

## Benefits to UIUC as a Whole



- Positioning UIUC as a leader in CS and DS given recent developments at peers
- Better sharing information and best practices across CS+X programs through CS+X council
- Be a larger revenue source to the campus and grow CS+X
- Codified commitment to X+DS collaborative approach and grow it
- Promising pathways to new blended degree programs at the undergrad and graduate levels.
- Increase opportunity for resources
  - New resources for interdisciplinary research
  - Ability to provide needed resources in support growth in CS+X and X+DS programs



# Discussion

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN



#### NOTICES FOR FACULTY AND STAFF AT ILLINOIS

If you will need disability-related accommodations in order to participate, please email the contact person for the event. Early requests are strongly encouraged to allow sufficient time to meet your access needs.

Announcements for the week of March 10, 2024

#### **ANNOUNCEMENTS**

#### Public Forum/Call for Comments: School of Computing and Data Science

The Senate Committee on Education Policy is collecting information regarding a Proposal to Create the School of Computing and Data Science in the Grainger College of Engineering. A public forum will be held on March 20, 2024, from 10 a.m. to 11 a.m. in Room 104 of the Illini Union. Follow this link for more information, RSVP to the forum or provide written comments.

March 20, 10-11 AM • Room 104, Illini Union

Nolan Miller • Senate Committee on Educational Policy



The Next 150 is the university's five-year strategic plan designed to lay a foundation for generations.

See the full text of the plan at <a href="strategicplan.illinois.edu">strategicplan.illinois.edu</a>.

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UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN



#### NOTICES FOR FACULTY AND STAFF AT ILLINOIS

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Announcements for the week of March 17, 2024

#### **ANNOUNCEMENTS**

#### Public Forum/Call for Comments: School of Computing and Data Science

The Senate Committee on Education Policy is collecting information regarding a Proposal to Create the School of Computing and Data Science in the Grainger College of Engineering. A public forum will be held from 10 a.m. to 11 a.m. March 20, 2024, in Room 104 of the Illini Union. Follow this link for more information, RSVP to the forum or provide written comments.

March 20, 10-11 AM • Room 104, Illini Union

Nolan Miller • Senate Committee on Educational Policy



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#### APPENDICES AND ADDENDUM

#### **Appendix A: Letters of Support**

Dean Germán Bollero, College of Agriculture, Consumer and Environmental Sciences

Dean Jeffrey Brown, Gies College of Business

Dean Wojtek Chodzko-Zajko, Graduate College

Dean Mark Cohen, Carle Illinois College of Medicine

Dean Peter D. Constable, College of Veterinary Medicine

Dean Ingrid Fulmer, School of Labor and Employment Relations

Dean Kevin Hamilton, College of Fine and Applied Arts

Dean Cheryl D Hanley-Maxwell, College of Applied Health Sciences

Dean Ben Lough, School of Social Work

Dean Chrystalla Mouza, College of Education

Dean Venetria K. Patton, College of Liberal Arts and Sciences

Dean Eunice E. Santos, School of Information Sciences

Dean Jamelle C. Sharpe, College of Law

Dean Claire Stewart, Libraries and University Librarian

Dean Tracy Sulkin, College of Media

Department Head Bruce Hajek, Department of Electrical and Computer Engineering

Department Chair Vera Mikyoung Hur, Department of Mathematics

Department Chair Bo Li, Department of Statistics

#### Appendix A2: Interactions with "X" units with "CS+X" and X+DS" programs

#### Appendix B: Consultation and Engagement Process Overview and Timeline

#### **Appendix C: LOI and MOUs**

MOU on Data Science between iSchool, LAS, GCOE and CS

Letter of Intent between LAS, GCOE and CS

Academic MOU between CS and GCOE

Financial and Operations MOU between CS and GCOE

MOU between Media, GCOE, and CS

#### **Appendix D: School Bylaws**

**Appendix E: Financial Projection** 

**Appendix F: OMSA Programs** 

Appendix G: Sample of UIUC High-Impact Practice Programs, Support, and Services

## Appendix H: iSchool Questions and Responses Including Survey of Schools of Computing and Related Units

#### **Addendums:**

Clarification of Data Science Governance and Role of Proposed School Why A School of Computing and Data Science and not just expansion of CS?

Sponsor Statement on Proposal Reference to Meetings with the Provost

#### **Appendix A: Letters of Support**

Dean Germán Bollero, College of Agriculture, Consumer and Environmental Sciences

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Dean Venetria K. Patton, College of Liberal Arts and Sciences

Dean Eunice E. Santos, School of Information Sciences

Dean Jamelle C. Sharpe, College of Law

Dean Claire Stewart, Libraries and University Librarian

Dear Tracy Sulkin, College of Media

Department Head Bruce Hajek, Department of Electrical and Computer Engineering

Department Chair Vera Mikyoung Hur, Department of Mathematics

Department Chair Bo Li, Department of Statistics





Office of the Dean 227 Mumford Hall, MC-710 1301 W. Gregory Drive Urbana. IL 61801

January 5, 2024

TO: Senate Educational Policy Committee

Re: Creation of School of Computing and Data Science

Dear Members of the Committee,

I have thoroughly reviewed the proposal titled "Creation of the School of Computing and Data Science," and I am pleased to express my wholehearted support as the Dean of the College of Agricultural, Consumer, and Environmental Sciences. This initiative elevates the Department of Computer Science to the status of a School within The Grainger College of Engineering does not disrupt our shared CS+X programs, namely Computer Science + Animal Sciences and Computer Science + Crop Sciences.

The exponential growth in the number of CS+X programs is commendable, and I applaud the proposed establishment of a formal CS+X council. This council promises to enhance transparency and communication across all participating departments. Moreover, the creation of the School is projected to attract additional resources, providing the CS+X programs with the means to expand both in quantity and capacity to meet the rising demand among our students — an imperative for the entire campus community.

A tangible example of the positive impact of such interdisciplinary programs is evident in the CS+Crop Sciences blended degree initiative. This program not only fostered better collaboration between ACES and Grainger Engineering faculty but also played a pivotal role in identifying interdisciplinary research problems. The success of this collaboration is underscored by Illinois' attainment of the NSF/USDA "Artificial Intelligence for Future Agricultural Resilience, Management, and Sustainability Institute"—an achievement that positions our university as a leader in the field. It is my sincere hope that the model set by the CS+Crop Sciences program can serve as a blueprint for fostering collaboration and innovation across the entire campus.

I am confident that the creation of the School of Computing and Data Science will advance these disciplines and our cross-campus collaborations to significantly contribute to Illinois' prominence in many fields.

Sincerely,

Germán Bollero Professor and Dean

Robert A. Easter Chair

217.333.0460 • aces.illinois.edu <u>54</u>



January 23, 2024

Senate Educational Policy Committee

Re: Creation of School of Computing and Data Science

Dear Chair Miller and Members of the Committee,

I am writing on behalf of the Gies College of Business to express support for the proposal to establish a School of Computing and Data Science within the Grainger College of Engineering.

It is our view that the University of Illinois has been and must continue to be a leader in computer science and data science. Virtually no area of human pursuit has been untouched by recent advances in computing and data science, and it is essential that we prepare graduates for this world. The creation of this School and its expected naming is a major step in positioning the University of Illinois to maintain and hopefully increase its leadership in this area.

Because computer science and data science permeate nearly all academic disciplines, expertise is spread across numerous colleges and departments, including Gies. Rather than viewing this School as a threat to Gies' own significant investments in this area, we view this as a major opportunity to elevate our university's global reputation, and thus make Illinois a destination of choice for scholars, students, and external partners. We are excited by this vision for the future.

Gies is pleased to have been at the forefront of working with the iSchool and the departments of Computer Science, Mathematics, and Statistics to offer some of the first "X+DS" programs on campus. We are pleased that the proposal and the LOI signed with the College of Liberal Arts and Sciences reaffirms that the proposed school fully endorses the importance of the data science for units across the campus and the school's commitment to support the shared delivery and oversight of X+DS programs.

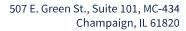
This is a once-in-a-generation opportunity for the University of Illinois. Gies expresses strong support for this proposal.

Sincerely,

Jeffrey R. Brown

Dean, Gies College of Business

Josef and Margot Lakonishok Professor of Business





December 5, 2023

Senate Educational Policy Committee

Colleagues,

I am writing in support of the proposal to establish a School of Computing and Data Science within the Grainger College of Engineering. The Graduate College recognizes that the Department of Computer Science has been at the forefront of educational innovations with successful implementations of on-line and professional development programs that have met what we see as a growing need for flexible graduate degree programs for today's and tomorrow's students. The establishment of the School of Computing and Data Science will result in new resources to further these offerings and new organizational structures to coordinate these programs. We are particularly excited about the possibility for new interdisciplinary blended graduate programs that the School's faculty will be pursuing in partnership with faculty from across the campus.

I believe that it is important to acknowledge the historical impact and accolades of the Department of Computer Science. With a legacy dating back to 1964, the department's faculty members and alumni have shaped technological advancements and established influential companies that have transformed our world. This proposal builds on this tradition and will position the university to maintain our leadership role in computing education and research.

The creation of a School of Computing and Data Science is both timely and appropriate. It will continue the tradition of excellence that has been the hallmark of the Grainger College of Engineering and its focus on computer science.

Please feel free to call on us if there are any questions about the current proposal, or if we can assist in any other way.

Sincerely,

Wojtek J. Chodzko-Zajko, PhD Dean, Graduate College

W. I Charly &

Shahid and Ann Carlson Khan Professor



#### Office of the Dean

Medical Sciences Building 506 S Mathews Ave Urbana, Illinois 61801



January 5, 2024

Senate Educational Policy Committee University of Illinois Urbana-Champaign

Dear Chair Miller and Members of the Committee,

The Carle Illinois College of Medicine seamlessly integrates engineering design and problemsolving principles with the sciences and humanities of medicine is both forward-thinking and incredibly valuable. In an age of digital transformation and the emergence of regenerative artificial intelligence, it is imperative that we similarly break down barriers between computing, data science and fields across the campus. In this regard, I am supportive of the passage of the proposal entitled, "Creation of the School of Computing and Data Science." The proposal includes the development of new mechanisms for ensuring the further development and administration of CS+X blended degree program, new blended graduate degrees and a continued commitment to having the delivery and oversight of data science education and research remain firmly distributed across campus. Plans to seed interdisciplinary research themes that address the most pressing societal challenges will spur the type of collaborative and creative research and innovation that are hallmarks of not only our college but the campus as a whole. As a campus, we must remain forward-thinking and allow our amazing faculty, staff, and students to have an incredible impact on the future. The creation of the School within The Grainger College of Engineering is an important piece of the puzzle for shared excellence and leading innovation in this domain.

Sincerely,

Mark S. Cohen, MD, FSSO, FACS

Dean, Carle Illinois College of Medicine

Mark S. Cohen MD

Senior Vice President and Chief Academic Officer, Carle Health

Professor of Surgery and Biomedical and Translational Sciences,

Carle Illinois College of Medicine

Founder Professor in Bioengineering, The Grainger College of Engineering

University of Illinois Urbana-Champaign



#### **COLLEGE OF VETERINARY MEDICINE**

3505 Veterinary Medicine Basic Sciences Building, MC-002 2001 S. Lincoln Ave. Urbana, IL 61802-6178

Friday, February 16, 2024

Senate Educational Policy Committee

Re: Creation of the School of Computing and Data Science

Dear Chair Miller and Members of the Committee,

I am writing to express my strong support, as dean of the College of Veterinary Medicine, for the proposal entitled, "Creation of the School of Computing and Data Science." This proposal will transform the Department of Computer Science to the School of Computing and Data Science within Grainger Engineering and further advance collaborative efforts and shared excellence across our campus.

I am delighted to see that the proposal includes a firm commitment to data science, now touching all of us, as a shared area for the campus as a whole and part of the fabric of our graduates. While our College does not yet have a CS+X or X+DS program, we already see the impact advances in AI are having in veterinary medicine, and are committed to investing further in the application of data science to livestock and companion animal health and ensuring a safe and secure food supply. We need strong well-resourced units working together for Illinois to remain a leader in computing data science over the coming decades.

I am confident that the proposed School of Computing and Data Science will not only complement the existing programs within the Grainger College of Engineering but also serve as a catalyst for interdisciplinary collaboration, innovation, and excellence at the University of Illinois. The creation of the school is a significant step in moving forward. Sincerely,

Peter D. Constable, Dean

College of Veterinary Medicine

#### **School of Labor & Employment Relations**



Office of the Dean 504 E. Armory Ave., MC-504 Champaign, IL 61820-6221

February 16, 2024

Senate Educational Policy Committee

Re: Creation of School of Computing and Data Science

Dear Members of the Committee,

This letter is to convey that I have been briefed about the proposal entitled, "Creation of the School of Computing and Data Science" and that, as Dean of the School of Labor and Employment Relations (LER), I am supportive of the proposal. My support is informed by my understanding that GCOE and the Department of Computer Science have worked diligently to coordinate with the College of Liberal Arts & Sciences (LAS) and with the iSchool. I understand that LAS has been consulted and is supportive of the establishment of the School of Computing and Data Science with the understanding that the new School will not create departments and that LAS and other units will continue to be able to seek to add "Data Science" and similar language to their names, as appropriate. I am also aware there have been other two- and three-way conversations underway among LAS, GCOE, and the iSchool to further clarify the parameters and the impact of this proposal on the iSchool. We appreciate the extensive attention to the consultative process and the efforts being made to coordinate across affected units to come to a good solution for each of them individually and for UIUC overall.

The creation of the School within The Grainger College of Engineering (GCOE) (by transforming the Department of Computer Science to a School) introduces formal administrative structures that sound like they will enhance and allow for more efficient management of the delivery of rapidly expanding CS+X programs. While we do not as yet have a CS+X or X+DS program within LER, the potential for this initiative to result in the school securing new resources that can allow these blended degree programs to expand and potentially fund new avenues of interdisciplinary research collaborations is something we support. We also know that this proposed change will enhance the campus' continued ability to excel in this domain and advance computing and data science to all fields across the campus.

Sincerely,

**Ingrid Fulmer** 

Ingrid Stulmer

Dean, School of Labor and Employment Relations Milton and Zelda Derber Professor





Office of the Dean 100 Architecture Building, MC-622 608 E. Lorado Taft Dr. Champaign, IL 61820

February 21, 2024

Senate Educational Policy Committee

Re: Creation of School of Computing and Data Science

Dear Chair Miller and Members of the Committee,

The College of Fine and Applied Arts (FAA) is a beneficiary of the CS+Music program and the willingness of the Department of Computer Science to reach out and partner with units across the campus to create blended degree programs of interest to our students.

I have been briefed on the proposal entitled, "Creation of the School of Computing and Data Science" and I want to convey my support as dean of the College of Fine and Applied Arts for this proposal. The creation of the School, which is essentially results in the transformation of the Department of Computer Science to that of a School within the Grainger College of Engineering is expected to have minimal impact on the delivery of our CS+X program.

When briefed I had questions about the impact of the formation of this new School on other campus units with clear investments in the Data Science area of curriculum and research, such as the Information School and Liberal Arts and Sciences. I still don't have answers to those questions, but as I understand that this proposal is moving forward and wish to at least speak to the proposal's impact on FAA, and the past week since I learned of this deadline has not afforded time for me to speak with stakeholders, I offer this letter of qualified support, trusting that your Committee will work with the Provost to ensure appropriate process.

History has shown that emergent areas of cross-disciplinary interest can create challenges to clarity among students, researchers, faculty, and outside constituents about the roles of each campus entity in a project. Though I can say that the creation of a new School has no negative impact on FAA's offerings, I will need to trust the Educational Policy Committee and the Office of the Provost to ensure that complementarity and clarity of mission is sure across relevant areas. If any area of the campus is weakened by this proposal, all areas are weakened. I hope that the process moves along in a way that ensures all strength.

Sincerely,

**Kevin Hamilton** 

Dean, College of Fine and Applied Arts

Kow Hanille



#### **COLLEGE OF APPLIED HEALTH SCIENCES**

Office of the Dean 110 Huff Hall, MC-586 1206 S. Fourth St. Champaign, IL 61820

February 14, 2024

Senate Educational Policy Committee

Re: Creation of School of Computing and Data Science

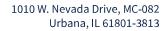
Dear Chair Miller and Members of the Committee,

I am pleased to support the creation of School of Computing and Data Science. The proposed change will transform the Department of Computer Science into a school entirely within the Grainger College of Engineering, but will also collaborate with other colleges (e.g., LAS, Info Sci) in overlapping areas. The college I lead has changed its name and scope several times over the years to reflect more accurately the evolving range and emphases of the research conducted by the faculty and educational programs offered by the college. I can appreciate the desire for the Department of Computer Science to similarly seek to adapt its name and its structure to better reflect the scope of the research and education undertaken by its faculty. I also appreciate how creating a School will incorporate new collaborative and coordination mechanisms to better deliver its CS+X programs, now impacting departments and colleges across the campus. At the same time, I am pleased that the proposal includes a firm commitment to data science, now touching all of us, being a shared area for the campus as a whole. While our college does not yet have a CS+X or X+DS program, we already see the impact advances in AI can have on human health and wellness and are in the process of hiring faculty as part of an AI and Health cluster hire initiative that includes the CS department and the Department of Industrial and Enterprise System Engineering. The campus needs strong well-resourced computing and data science units working together to enable Illinois to be a leader in the digitization of various scientific endeavors over the coming decades. The creation of the School is a valuable step in ensuring our continued leadership not only in computing and data science, but other fields as well.

Yours truly,

Cheryl Hanley-Maxwell
Cheryl Hanley-Maxwell

Dean, College of Applied Health Sciences





Date: 1/8/24

Senate Educational Policy Committee

Re: Creation of School of Computing and Data Science

Dear Chair Miller and Members of the Committee,

I am writing to express my endorsement for the transformation of the Computer Science Department into a School of Computing and Data Science within the Grainger College of Engineering at the University of Illinois.

In my role as a faculty member, and my comparatively short tenure as the Dean of the School of Social Work, I have dedicated myself to cultivating an environment where innovation, social impact, and leadership flourish. Today's social challenges demand interdisciplinary collaboration, and the proposed change represents a stride towards this goal.

The integration of cutting-edge disciplines such as artificial intelligence, computing, and data science is an important step in preparing our students to be pioneers in the modern workforce, where it is increasingly difficult to separate technological innovations with social impact.

The Computer Science Department's national standing and their inclusive approach to education, demonstrated by the accessibility of the CS minor, resonates with my commitment to social development and innovation. I am encouraged by the prospect of creating blended degree programs. Such initiatives promise to dismantle existing silos, fostering a culture of ingenuity that transcends traditional boundaries of science and engineering. More so, they hold the potential to challenge societal frameworks to addressing complex issues such as global health and human well-being through technological innovation.

As such, I support this proposal, anticipating the enhanced opportunities it will unlock for interdisciplinary collaboration and social development.

Thanks sincerely,

Benjamin Lough

Dean, School of Social Work

Benjam Down

Director of Social Innovation at the Gies College of Business





Office of the Dean 38 Education Building, MC-708 1310 S. Sixth St. Champaign, IL 61820

March 17, 2024

Senate Educational Policy Committee

Re: Creation of School of Computing and Data Science

Dear Chair Miller and Members of the Committee:

The College of Education has had a long history of teaching and research collaborations with the Department of Computer Science, within the Grainger College of Engineering. This includes the launch of a new CS+Education degree program for our undergraduate students as well as collaborations to advance computer science education and the preparation of STEM K-12 teachers. Toward this end, the College of Education strongly supports the plan to elevate the Department of Computer Science to the School of Computing and Data Science. We expect that this change will only strengthen opportunities for further collaboration and innovative programs that will prove mutually beneficial and advance diversity, equity, inclusion both on campus and across the State of Illinois.

We note that the School has plans to seed interdisciplinary research themes that will be open to all campus faculty. The recent award of INVITE, a National Artificial Intelligence Research Institute focused on STEM learning, represents such a fruitful collaboration between the College of Education and the Department of Computer Science. INVITE is one example of the promise of the transformative outcomes the creation of the School will enable for the benefit of students, faculty, and K-12 audiences.

We understand that the shift to a School is completed in coordination with the College of Liberal Arts and Sciences and the Information School, both of which are essential partners in data science. Illinois must be a leader in computing and data science. The creation of the School and its expected naming is an important step in positioning the University of Illinois to maintain its leadership in this sector. Therefore, the College of Education fully supports the proposal to establish the School.

Sincerely,

C Mouza

Dean & Gutgsell Professor

College of Education

University of Illinois Urbana-Champaign

217.333.0960 • education.illinois.edu

#### **College of Liberal Arts & Sciences**



2090 Lincoln Hall, MC-448 702 S. Wright St. Urbana, IL 61801

March 16, 2024

Senate Educational Policy Committee

Dear Members of the Committee,

I am writing in support of the proposal to establish a School of Computing and Data Science within The Grainger College of Engineering. Our support for this proposal is informed by the vision, principles, and conditions outlined in an MOU developed between the College of Liberal Arts & Sciences (LAS), The Grainger College of Engineering, the iSchool, and the Department of Computer Science. This MOU supersedes the Letter of Intent between LAS, The Grainger College of Engineering, and the Department of Computer Science, but is based on the same essential agreement that LAS is collaborating in the establishment and growth of the School of Computing and Data Science (SCDS) with the understanding that SCDS will not create departments and with the expectation that LAS and other campus units may also seek to add Data Science and/or its relevant variants to their names. Other aspects of the MOU are to ensure that this collaboration allows all units currently working in the Data Science space to grow and thrive as we move forward to enhance collaboration and coordination of Data Science research and education across campus.

LAS has benefited from the creation of several blended CS+X degrees including two of the oldest such degrees, namely the B.S. in Mathematics & Computer Science, and the B.S. in Statistics & Computer Science. LAS is pleased that SCDS is committed to continuing to expand access to Data Science education at the undergraduate and graduate levels, both through increasing enrollments in existing degree programs and the offering of additional blended degree programs in partnership with LAS and other campus stakeholders. LAS is committed to working with SCDS, the iSchool, and other campus partners in exploring and eventually forming a governing body and organizational structure for coordinating, supporting, and growing the X+DS family of programs. In LAS, this body should include representation from Mathematics, Statistics, and when necessary, representation from the X departments. The establishment of SCDS is expected to facilitate the creation and management of additional blended degree programs benefiting our LAS and other campus students. In addition, the creation of SCDS will create opportunities for the acquisition of new resources and the launch of new interdisciplinary initiatives that we expect will strengthen LAS and be vital to enhancing the leadership of the university in Data Science education, research, and engagement.

LAS, The Grainger College of Engineering, and the iSchool have already collaborated in the development of the X+DS framework and hiring of a Data Science Program Coordinator to help grow X+DS programs. Data Science is an important intellectual element of LAS. We have recently created and staffed the position of Director of Inclusive Data Science Education, a role specifically designed to help realize our vision of democratizing data science education at Illinois and beyond. LAS looks forward to continuing to

**UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN** 

work collaboratively with SCDS, The Grainger College of Engineering, the iSchool, and the rest of campus as we leverage our strengths to advance Data Science at Illinois and beyond. The MOU documents our collaborative intentions and plans. Now that the MOU is completed, I am submitting this revised letter of support.

Sincerely,

Venetria K. Patton

Harry E. Preble Dean College of Liberal Arts & Sciences



March 15, 2024

To Whom It May Concern:

I am writing in support of the proposed new School of Computing and Data Science.

The breadth of data science education and scholarship across campus is a vital strength of the university. The iSchool, as one of the core leaders in data science, looks forward to our continued collaboration with the proposed school and other units on campus as part of the campus-wide efforts in data science education and data science research.

As delineated in the Memorandum of Understanding (MOU) between the College of Liberal Arts and Sciences, Grainger College of Engineering, the School of Information Sciences, and the Department of Computer Science:

"The PARTIES embrace this plurality and are committed to making Illinois a global leader for Data Science education and research by driving and helping to amplify campus-wide Data Science activities and programs at UIUC."

We anticipate continuing collaborations with all parties and the implementation of the MOU.

Sincerely,

Eunice Santos

Dean and Professor



#### **COLLEGE OF LAW**

504 East Pennsylvania Avenue Champaign, IL 61820

February 3, 2024

Professor Nolan H. Miller (Chair) Committee on Education Policy University of Illinois Urbana-Champaign Senate 228 English Building, MC-461 608 South Wright Street Urbana, IL 61801

#### Re: School of Computing and Data Science Proposal

Dear Chair Miller and Members of the Committee:

I write in connection to the proposal entitled *Creation of the School of Computing and Data Science*. At the College of Law, my colleagues and I pay close attention to initiatives with the potential to advance the campus' institutional mission. We likewise spend quite a bit of time considering interdisciplinary initiatives to meet our students' needs and drive innovation in legal education. I appreciate that Dean Rashid Bashir reached out to brief me on the proposal. Based on my conversations with him, Professor Nancy Amato (Head of the Department of Computer Science (CS)), and other campus leaders, I believe that reorganizing CS into the School of Computing and Data Science (School) within the Grainger College of Engineering would better position it to form meaningful and distinctive research and curricular collaborations on our campus. Moreover, Dean Bashir and Professor Amato made clear that forming impactful and mutually beneficial partnerships with other academic units would be among the School's priorities. Accordingly, I support the proposal's passage.

Reorganizing CS as a School could benefit the campus in several ways. It could help secure new resources to expand its suite of high-demand CS+X blended degree programs. The College of Law, for one, is looking forward to exploring its own CS+Law offering. Additionally, granting CS school status could further its ability to fund new cross-campus research collaborations that drive excellence in computing and data science. Administratively, introducing a formal CS+X council within the School could facilitate transparency and improve communication amongst the departments with which CS now collaborates.

Of course, we must support each other to achieve shared excellence and success at Illinois. Data science is a focal point in multiple academic disciplines and vital to groundbreaking research and curricular innovation in several departments across our campus. In endorsing the proposal, I expect the new School's leadership will proactively work to support these distributed data science efforts and, in doing so, advance the campus' overall achievement of excellence in this field.

Sincerely,

Jamelle C. Sharpe

Dean, Professor & Guy Raymond Jones Faculty Scholar



#### **UNIVERSITY LIBRARY**

Juanita J. & Robert E. Simpson Dean of Libraries & University Librarian 230 Main Library, MC-522 1408 W. Gregory Drive Urbana, IL 61801

Dean Rashid Bashir Grainger College of Engineering University of Illinois Urbana-Champaign Sent via email

December 21, 2023

Dear Rashid,

Thank you for the information you and Dr. Normand Paquin have shared so far about the plan to transform the department of Computer Science into a school. Based on the conversations so far, I am confident we will identify the expansion of library resources, particularly in the areas of student technology support and collections and scholarly publishing, necessary to support the school. I am pleased to contribute this letter in support of your proposal.

If additional capacity is required as the school develops, particularly as the research and information needs of the faculty expand, we will be happy to discuss how we can work together to meet those needs as they emerge.

Sincerely,

M. Claire Stewart

Juanita J. and Robert E. Simpson Dean of Libraries and University Librarian

Musch

217.333.0790 <u>68</u>

#### **College of Media**



Office of the Dean 119 Gregory Hall, MC-462 810 S. Wright St. Urbana, IL 61801

February 15, 2024

Dear Colleagues,

I have been briefed by Dean Rashid Bashir on the proposal to elevate the Department of Computer Science to a School within the Grainger College of Engineering and am writing to convey my support as Dean of the College of Media for this restructuring.

Faculty in the departments of the College of Media and the GCOE Department of Computer Science collaborate in research and curricular programs. The proposed creation of the School is expected to have minimal impact on affiliate appointments and on the delivery of our CS + Advertising degree, an innovative undergraduate program that enables students to develop the computational skills necessary to understand, execute, and analyze modern digital advertising. We look forward to the proposed introduction of a formal CS+X council to facilitate transparency and communication among all departments involved in CS+X programs.

The proposal as shared also includes the appending of "Data Science" onto the name of the School. This is, understandably, a more complicated matter given the investments and interest in data science in other colleges, schools, and departments across campus. It is my understanding that Dean Bashir has secured a letter of support from LAS, one of the units most directly affected by this initiative, and also has letters of support of multiple other deans across campus. Furthermore, I understand that a three-way MOU between LAS, the iSchool, and GCOE will be completed and included in the proposal in the near future.

I wish the Department of Computer Science and the Grainger College of Engineering well as they pursue this important step and look forward to continued and expanded collaborations between our units.

Sincerely,

Tracy Sulkin

Dean



#### THE GRAINGER COLLEGE OF ENGINEERING

Department of Electrical & Computer Engineering 2120 Electrical & Computer Engineering Building, MC-702 306 N. Wright St. Urbana, IL 61801-2991

December 7, 2023

Senate Educational Policy Committee

Re: Creation of School of Computing and Data Science

Dear Chair Miller and Members of the Committee,

I am pleased as head of the Department of Electrical and Computer Engineering (ECE) to inform you of our support for the creation of the School of Computing and Data Science within The Grainger College of Engineering (GCOE). Our support for the creation of the school is informed by the Dean's staunch commitment to ensure ECE has the resources to maintain its status as a national leader. I am pleased that this commitment and many others have been incorporated into an MOU among Grainger Engineering, the Department of Computer Science, and the Department of Electrical and Computer Engineering.

A significant number of our Computer Engineering faculty hold 0% appointments in the Department of Computer Science. This will continue with the transformation of the Department of Computer Science into a school. I am pleased that the proposed school bylaws and the proposal itself reaffirm that faculty with 0% appointments will continue to enjoy the same privileges, including the ability to recruit and advise the School's graduate students, that they currently enjoy as affiliates of the Department of Computer Science.

For students completing our computer engineering major, one CS course is required for their degree and others are of major interest. Ensuring access to these courses for these students is a fundamental consideration that has been addressed.

I would like to acknowledge the efforts made by the Dean of Grainger Engineering to meet several times with the ECE faculty to discuss the School and faculty concerns and the efforts of the Head of the Department of Computer Science to work to craft a win-win arrangement.

Yours truly,

Bruce Hajek

Bruce Hajeh

Head, Department of Electrical and Computer Engineering

Center for Advanced Study Professor of Electrical and Computer Engineering

Hoeft Endowed Chair in Engineering

Professor, Coordinated Science Laboratory

#### **College of Liberal Arts & Sciences**



Department of Mathematics 273 Altgeld Hall, MC-382 1409 W. Green St. Urbana, IL 61801 USA

February 23, 2024

Senate Educational Policy Committee

Re: Creation of School of Computing and Data Science

Dear Chair Miller and Members of the Committee,

This letter is to convey that we have been aware of the interest in transforming the current Department of Computer Science (DCS) into a School housed within The Grainger College of Engineering (GCOE) for some time. The Letter of Intent (LOI) executed between the College of Liberal Arts and Sciences, The Grainger College of Engineering and DCS was important in setting parameters that would allow LAS and its departments to support the creation and growth of the proposed school. We are aware that a three-way MOU between the School of Information Science (iSchool), LAS, GCOE, and DCS, based on the forementioned LOI is being negotiated. This MOU is based on the same essential agreement that LAS is collaborating in the establishment and growth of the School of Computing and Data Science (SCDS) with the understanding that SCDS will not create departments and with the expectation that LAS and other campus units may also seek to add Data Science and/or its relevant variants to their names. Based on this expectation, we are supportive of the passage of the proposal entitled "Creation of the School of Computing and Data Science".

We have been partnering with the Department of Computer Science on the *Mathematics and Computer Science* degree program in our Department of Mathematics since 1965, long predating the relatively recent introduction of the CS+X degree programs, and in fact even predating the CS in Engineering degree program which was introduced in 1971. This has been a tremendously successful and mutually beneficial partnership which we look forward to continuing with the school once it is created.

More recently, we have partnered with the Department of Computer Science, the Department of Statistics, and the iSchool to develop the new X+DS (data science) family of degree programs. Together, we are responsible for delivering the 8 courses which provide the data science core for the X+DS degrees. As a group, we have also collaborated with units across campus as they work to develop these programs whose administrative home remains with the units. We are also working together on a proposed new data science Minor, which we hope will be available to students across campus soon.

The creation of the School, which essentially transforms the Department of Computer Science to a School within the Grainger College of Engineering, is expected to have no negative impact on our ability to continue to offer our Mathematics and Computer Science program. Indeed, the new resources anticipated with the transformation to a school would provide greater opportunities for our students in this program and also for more collaboration between our units. Moreover, the

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proposed introduction of a formal CS+X council is welcome in that it will facilitate improved communication and sharing of best practices and coordination across all blended CS programs.

We also believe the creation of the School will have no negative impact on the X+DS degree programs, including the Mathematics+DS program we are planning, or our ability to collaborate with our partners who are delivering the core. We are confident that we will continue successfully work with the proposed school as we have with DCS to develop and deliver new signature blended degree programs that will enable Illinois to grow its leadership and stature in this space.

Sincerely,

Vera Mikyoung Hur

Professor and Chair

Department of Mathematics



## **College of Liberal Arts & Sciences**

Department of Statistics 152 Computing Application Bldg 605 E. Springfield Ave, MC-374 Champaign, IL 61820

This letter is superseded by a letter dated 3/25 that was received after the proposal was voted on at EP and attached at the end of the document.

Date: 2/22/2024

Senate Educational Policy Committee

Re: Creation of School of Computing and Data Science

Dear Chair Miller and Members of the Committee,

This letter is to convey that we have been aware of the interest in transforming the current Department of Computer Science (DCS) into a School housed within The Grainger College of Engineering (GCOE) for some time. The Letter of Intent (LOI) executed between the College of Liberal Arts and Sciences, The Grainger College of Engineering and DCS was important in setting parameters that would allow LAS and its departments to support the creation and growth of the proposed school. We are aware that a three-way MOU between the School of Information Science (iSchool), LAS, GCOE, and DCS, based on the forementioned LOI is being negotiated. This MOU is based on the same essential agreement that LAS is collaborating in the establishment and growth of the School of Computing and Data Science (SCDS) with the understanding that SCDS will not create departments and with the expectation that LAS and other campus units may also seek to add Data Science and/or its relevant variants to their names. Based on this expectation, we are supportive of the passage of the proposal entitled "Creation of the School of Computing and Data Science".

We have been partnering with the Department of Computer Science on the *Statistics and Computer Science* degree program in our Department of Statistics since 1988, predating the relatively recent introduction of the CS+X degree programs. This has been a tremendously successful and mutually beneficial partnership which we look forward to continuing with the school once it is created. More recently, we have partnered with the Department of Computer Science, the Department of Mathematics, and the iSchool to develop the new X+DS (data science) family of degree programs. Together, we are responsible for delivering the 8 courses which provide the data science core for the X+DS degrees. As a group, we have also collaborated with units across campus as they work to develop these programs whose administrative home remains with the units. We are also working together on a proposed new data science Minor, which we hope will be available to students across campus soon. Finally, we are collaborating with Computer Science and the iSchool on a proposal for an MS in Data Science. We believe these programs are vital for our unit and the campus.

The creation of the School, which essentially transforms the Department of Computer Science to a School within the Grainger College of Engineering, is expected to have no negative impact on our ability to continue to offer our Statistics and Computer Science program. Indeed, the new resources anticipated with the transformation to a school would provide greater opportunities for our students in this program and also for more collaboration between our units. Moreover, the proposed introduction of a formal CS+X council is welcome in that it will facilitate improved communication and sharing of best practices and coordination across all blended CS programs.



## **College of Liberal Arts & Sciences**

Department of Statistics 152 Computing Application Bldg 605 E. Springfield Ave, MC-374 Champaign, IL 61820

We also believe the creation of the School will have no negative impact on the X+DS degree programs, including the Statistics+DS program we are planning, or our ability to collaborate with our partners who are delivering the data science core. We are confident that we will continue successfully work with the proposed school as we have with DCS to develop and deliver new signature blended degree programs that will enable Illinois to grow its leadership and stature in this space.

Sincerely,

Dr. Bo Li

Department of Statistics

# Appendix A2: Interactions with "X" units with "CS+X" and X+DS" programs

# CS+X

Advertising

**Animal Sciences** 

Anthropology

Bioengineering

Chemistry

**Crop Sciences** 

**Economics** 

Education

Geography & GIS

Linguistics

Music

Philosophy

**Physics** 

## X+DS

Accountancy

Astronomy (also for CS+Astronomy)

**Business** 

Finance

Science

From: "Nelson, Michelle Renee" < nelsonmr@illinois.edu>

Date: 2/20/24, 7:04 AM

To: "Amato, Nancy" <namato@illinois.edu>

CC: "Maslowska, Ewa Halina" <ehm@illinois.edu>

Dear Nancy,

Thank you for informing me of the proposal that CS has submitted to create a School of Computing and Data Science. I like the idea of the CS+X council to facilitate communication and coordination across these degree programs. I'm also cc:ing my colleague Dr. Ewa Maslowska who is the lead on the CS+ADV program in our department. Good luck with the proposal and exciting changes ahead.

best, Michelle

## **MICHELLE R. NELSON**

Professor, Department Head

University of Illinois Urbana-Champaign
College of Media
Charles H. Sandage Department of Advertising
119 Gregory Hall | M/C 462
Urbana, IL 61801
217-344-5068 (mobile) | nelsonmr@illinois.edu
media.illinois.edu/advertising





Under the Illinois Freedom of Information Act any written communication to or from university employees regarding university business is a public record and may be subject to public disclosure.

From: Amato, Nancy <namato@illinois.edu> Sent: Monday, February 19, 2024 9:47 PM

To: Nelson, Michelle Renee < nelsonmr@illinois.edu>

Subject: Proposal to transform the CS Department into a School of Computing and Data Science

Dear Michelle,

I am writing to you, as our partner in delivering the CS + Advertising program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we

can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the CS + Advertising program. The program name will remain the same and our commitment to support the delivery of the CS components of the program remains firm and unchanged. A key feature of our proposal, namely the formation of a "CS+X Council" that will include representation from the "X"'s units, will provide improved communication and sharing of best practices and coordination across all CS+X programs. We believe this will be beneficial given the continued growth of these programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks! -Nancy

Nancy M. Amato

Abel Bliss Professor and Head, Department of Computer Science University of Illinois at Urbana-Champaign 2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801 +1-217-333-3426,namato@illinois.edu

PS. We have some great postdoc openings: the department's Future Faculty Fellows program (https://go.cs.illinois.edu/fff)

PPS. Check out iCAN (Illinois Computing Accelerator for Non-Specialists), a 1-year program for non-computing college graduates. A bridge to a career in tech or grad studies. Applications for our 4th cohort are open now! http://cs.illinois.edu/ican

Science

From: "Johnson, Rodney W" <rwjohn@illinois.edu>

Date: 2/20/24, 9:26 AM

**To:** "Amato, Nancy" <namato@illinois.edu> **CC:** "Dilger, Anna Carol" <adilger2@illinois.edu>

Dear Nancy,

Thank you for the update on the plan to transform the Department of Computer Science into the School of Computing and Data Science. I understand this change will not affect the CS+ANSC program. Sincerely,

Rodney W. Johnson

Professor and Head, Department of Animal Sciences University of Illinois at Urbana-Champaign

----Original Message----

From: Amato, Nancy <a href="mailto:sedu"><a href="mailto:sedu"><a

Subject: Proposal to transform the CS Department into a School of Computing and Data Science

Dear Rod,

I am writing to you, as our partner in delivering the CS + Animal Sciences program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the CS + Animal Sciences program. The program name will remain the same and our commitment to support the delivery of the CS components of the program remains firm and unchanged. A key feature of our proposal, namely the formation of a "CS+X Council" that will include representation from the "X"'s units, will provide improved communication and sharing of best practices and coordination across all CS+X programs. We believe this will be beneficial given the continued growth of these programs.

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While EPC has not suggested we obtain letters of support from the X units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!

-Nancy

--

Nancy M. Amato

Abel Bliss Professor and Head, Department of Computer Science University of Illinois at Urbana-Champaign

2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801

+1-217-333-3426, namato@illinois.edu head@cs.illinois.edu (for scheduling or administrative contact)

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PPS. Check out iCAN (Illinois Computing Accelerator for Non-Specialists), a 1-year program for non-computing college graduates. A bridge to a career in tech or grad studies. Applications for our 4th cohort are open now! <a href="http://cs.illinois.edu/ican">http://cs.illinois.edu/ican</a>

Science

From: "Farnell, Brenda M" <bfarnell@illinois.edu>

Date: 3/14/24, 12:14 PM

To: "Amato, Nancy" < namato@illinois.edu>

Hello Nancy:

I too am working from home this week and attempting to catch up!

I am pleased to acknowledge receipt of your message and look forward to increased communication regarding our CS+ Anth major via the new CS+ X council. Exciting developments in this proposal!

Best Regards,

Brenda

From: Amato, Nancy <namato@illinois.edu>
Date: Wednesday, March 13, 2024 at 4:23 PM
To: Farnell, Brenda M <bfarnell@illinois.edu>

Subject: Re: Proposal to transform the CS Department into a School of Computing and

**Data Science** 

Dear Brenda,

I hope you are getting to enjoy a bit of a break this week. I'm staying home and enjoying the weather and also trying to catch up a bit.

I wanted to follow up on this and ask if you could please send me a response letting me know you've received it even if you don't have any questions or concerns. We are very excited about this and believe it will help us to provide even more support to our CS+X partners.

Also, just as an FYI, we have recently completed an MOU with LAS, the iSchool and GCOE/CS that describes how we'll continue our collaborative partnerships related to data science (e.g., X+DS degrees and proposals in flight for a data science minor and a new masters degree, and more). By continuing to work together, I'm convinced we can make UIUC one of the leading universities in data science as well as computing.

Again, I'm happy to set up a time for us to talk if you have any questions, but even if you don't, please to acknowledge this message so that I can confirm to EdPol that you're aware.

-Nancy

On 2/19/24 9:46 PM, Nancy M. Amato wrote:

>

```
> Dear Brenda,
>
> I am writing to you, as our partner in delivering the CS +
> Anthropology program, to inform you that we submitted a proposal
> today, Monday, February 19, 2024 entitled, "Creation of the School of
> Computing and Data Science," to the Provost for consideration by the
> Senate Education Policy Committee (EPC). We estimate this is the
> latest time by which we can submit the proposal in order for the
> Senate to consider it this spring.
>
> This proposal essentially transforms the Department of Computer
> Science into the new school. The School, like the department, will be
> housed fully within The Grainger College of Engineering. As such, I
> wanted to reassure you that this will have no impact on the CS +
> Anthropology program. The program name will remain the same and our
> commitment to support the delivery of the CS components of the program
> remains firm and unchanged. A key feature of our proposal, namely the
> formation of a "CS+X Council" that will include representation from
> the "X"'s units, will provide improved communication and sharing of
> best practices and coordination across all CS+X programs. We believe
> this will be beneficial given the continued growth of these programs.
> If you would like to learn more about the proposal, I will be happy to
> arrange a time for us to talk so that I can address any questions you
> may have. I believe this proposal is vital to our ability to provide
> additional capacity and meet future student demand for CS+X
> programs. To meet the expectations of the EPC, I would appreciate an
> email response acknowledging receipt of this email.
> Based on guidance from EPC, we have included letters of support from
> the deans of the colleges on campus, including one from your dean,
> with the proposal documents.
> While EPC has not suggested we obtain letters of support from the X
> units of the CS+X programs, they did suggest we make sure you are all
> informed.
>
> To meet the expectations of the EPC, I would appreciate an email
> response acknowledging receipt of this email.
>
> Thanks!
       -Nancy
>
>
Nancy M. Amato
Abel Bliss Professor and Head, Department of Computer Science
University of Illinois at Urbana-Champaign
2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801
+1-217-333-3426, namato@illinois.edu
head@cs.illinois.edu (for scheduling or administrative contact)
```

3/14/24, 12:21 PM

PS. We have some great postdoc openings: the department's Future Faculty Fellows program (https://go.cs.illinois.edu/fff)

PPS. Check out iCAN (Illinois Computing Accelerator for Non-Specialists), a 1-year program for non-computing college graduates. A bridge to a career in tech or grad studies. Applications for our 4th cohort are open now! <a href="http://cs.illinois.edu/ican">http://cs.illinois.edu/ican</a>

Science

From: "Anastasio, Mark A" <maa@illinois.edu>

**Date:** 2/20/24, 9:42 AM

To: "Amato, Nancy" < namato@illinois.edu>

Hi Nancy,

Thank you for the formal notice and I remain very excited about the proposed School of Computing and Data Science. I'm looking forward to discussing how this could enable elevated collaborations between our units.

Best, Mark

MARK ANASTASIO

Donald Biggar Willett Professor in Engineering Head, Department of Bioengineering Affiliate Professor, Department of Computer Science Affiliate Professor, Department of Electrical and Computer Engineering Affiliate Professor, Carle Illinois College of Medicine Member, Beckman Institute for Advanced Science and Technology

University of Illinois Urbana-Champaign
Department of Bioengineering | The Grainger College of Engineering
1406 W. Green Street | 1102G Everitt Lab, MC 278 | Urbana, IL 61801
(P) 217.300.0314 | maa@illinois.edu
https://bioengineering.illinois.edu/
Lab Website: https://anastasio.bioengineering.illinois.edu

On Feb 19, 2024, at 9:45 PM, Amato, Nancy < namato@illinois.edu > wrote:

Dear Mark,

I am writing to you, as our partner in delivering the CS + Bioengineering program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the CS + Bioengineering program. The program name will remain the same and our commitment to support the delivery of the CS components of the program remains firm and unchanged. A key feature of our proposal, namely the formation of a "CS+X Council" that will include representation from the "X"'s units, will provide improved communication and sharing of best practices and coordination across all CS+X programs. We believe this will be beneficial given the continued growth of these programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to

talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X programs.

While EPC has not suggested we obtain letters of support from the X units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

PS. We have some great postdoc openings: the department's Future Faculty Fellows program (https://go.cs.illinois.edu/fff)

PPS. Check out iCAN (Illinois Computing Accelerator for Non-Specialists), a 1-year program for non-computing college graduates. A bridge to a career in tech or grad studies. Applications for our 4th cohort are open now! http://cs.illinois.edu/ican

Science

From: "Sweedler, Jonathan V" <jsweedle@illinois.edu>

Date: 3/14/24, 12:25 PM

To: "Amato, Nancy" < namato@illinois.edu>

Hello Nancy,

Thanks. I thought I had responded. We have seen this and don't see any issues with the change.

Thanks,

Jonathan

----Original Message----

From: Amato, Nancy <namato@illinois.edu>
Sent: Wednesday, March 13, 2024 3:29 PM

To: Sweedler, Jonathan V <jsweedle@illinois.edu>

Subject: Re: Proposal to transform the CS Department into a School of Computing and Data Science

Dear Jonathan,

I hope you are getting to enjoy a bit of a break this week — thought I know not completely since I saw you on the RSV practice on Monday....

I'm staying home and enjoying the weather and also trying to catch up a bit.

I wanted to follow up on this and ask if you could please send me a response letting me know you've received it even if you don't have any questions or concerns. We are very excited about this and believe it will help us to provide even more support to our CS+X partners.

Also, just as an FYI, we have recently completed an MOU with LAS, the iSchool and GCOE/CS that describes how we'll continue our collaborative partnerships related to data science (e.g., X+DS degrees and proposals in flight for a data science minor and a new masters degree, and more). By continuing to work together, I'm convinced we can make UIUC one of the leading universities in data science as well as computing.

Again, I'm happy to set up a time for us to talk if you have any questions, but even if you don't, please to acknowledge this message so that I can confirm to EdPol that you're aware.

–Nancy

On 2/19/24 9:46 PM, Nancy M. Amato wrote:

Dear Jonathan,

I am writing to you, as our partner in delivering the CS + Chemistry program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the CS + Chemistry program. The program name will remain the same and our commitment to support the delivery of the CS components of the program remains firm and unchanged. A key feature of our proposal, namely the formation of a "CS+X Council" that will include representation from the "X"'s units, will provide improved communication and sharing of

best practices and coordination across all CS+X programs. We believe this will be beneficial given the continued growth of these programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!

-Nancy

--

Nancy M. Amato

Abel Bliss Professor and Head, Department of Computer Science University of Illinois at Urbana-Champaign

2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801

+1-217-333-3426, <u>namato@illinois.edu</u>

head@cs.illinois.edu (for scheduling or administrative contact)

PS. We have some great postdoc openings: the department's Future Faculty Fellows program (<a href="https://go.cs.illinois.edu/fff">https://go.cs.illinois.edu/fff</a>)

PPS. Check out iCAN (Illinois Computing Accelerator for Non-Specialists), a 1-year program for non-computing college graduates. A bridge to a career in tech or grad studies. Applications for our 4th cohort are open now!

http://cs.illinois.edu/ican

Science

From: "Davis, Adam" <asdavis1@illinois.edu>

Date: 2/20/24, 9:14 AM

To: "Amato, Nancy" < namato@illinois.edu>

Dear Nancy,

Thank you for the advance notice on this proposed transition. This message is to acknowledge receipt of your email and to express my appreciation for the continued collaboration on this degree program.

Sincerely,

ADAM DAVIS
Professor and Head (he/him)

Department of Crop Sciences
College of Agricultural, Consumer and Environmental Sciences
AW-115 Turner Hall | 1102 S Goodwin Ave. | M/C 066
Urbana, IL 61801
217-333-9654 | asdavis1@illinois.edu
cropsciences.illinois.edu

Under the Illinois Freedom of Information Act any written communication to or from university employees regarding university business is a public record and may be subject to public disclosure.

----Original Message----

From: Amato, Nancy <namato@illinois.edu>
Sent: Monday, February 19, 2024 9:48 PM
To: Davis, Adam <asdavis1@illinois.edu>

Subject: Proposal to transform the CS Department into a School of Computing and Data Science

Dear Adam,

I am writing to you, as our partner in delivering the CS + Crop Sciences program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the CS + Crop Sciences program. The program name will remain the same and our commitment to support the delivery of the CS components of the program remains firm and unchanged. A key feature of our proposal, namely the formation of a "CS+X Council" that will include representation from the "X"'s units, will provide improved communication and sharing of best practices and coordination across all CS+X programs. We believe this will be beneficial given the continued growth of these programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!

-Nancy

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Nancy M. Amato

Abel Bliss Professor and Head, Department of Computer Science University of Illinois at Urbana-Champaign

2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801

+1-217-333-3426, namato@illinois.edu

head@cs.illinois.edu (for scheduling or administrative contact)

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http://cs.illinois.edu/ican

Science

From: "Deltas, George" <deltas@illinois.edu>

Date: 2/20/24, 12:07 PM

To: "Amato, Nancy" < namato@illinois.edu>

Dear Nancy,

Thank you for much for this email, which I read in its entirety.

With best regards,

George

From: Amato, Nancy <namato@illinois.edu> Sent: Monday, February 19, 2024 9:46 PM To: Deltas, George <deltas@illinois.edu>

Subject: Proposal to transform the CS Department into a School of Computing and Data Science

Dear George,

I am writing to you, as our partner in delivering the CS + Economics program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

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If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X

units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!

-Nancy

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Nancy M. Amato

Abel Bliss Professor and Head, Department of Computer Science University of Illinois at Urbana-Champaign 2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801 +1-217-333-3426,namato@illinois.edu head@cs.illinois.edu (for scheduling or administrative contact)

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From: "Nancy M. Amato" <namato@illinois.edu>

Date: 2/19/24, 11:12 PM

To: "Ostrosky, Michaelene" <ostrosky@illinois.edu>

Dear Michaelene,

I am writing to you, as our partner in delivering the CS + Education program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

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If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!

-Nancy

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Nancy M. Amato
Abel Bliss Professor and Head, Department of Computer Science
University of Illinois at Urbana-Champaign
2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801
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Science

From: "Cidell, Julie L" <jcidell@illinois.edu>

Date: 2/22/24, 10:15 AM

To: "Amato, Nancy" < namato@illinois.edu>

Dear Nancy,

Thank you for the information; I'm glad to hear it will not affect our CS + GGIS program, and I look forward to hearing more about the council.

Sincerely, Julie

Professor and Department Head Department of Geography & GIS University of Illinois at Urbana-Champaign 1301 W. Green St., MC-150 Urbana, IL 61820 217-244-4665

----Original Message----

From: Amato, Nancy <namato@illinois.edu>
Sent: Monday, February 19, 2024 9:46 PM
To: Cidell, Julie L <jcidell@illinois.edu>

Subject: Proposal to transform the CS Department into a School of Computing and Data Science

Dear Julie,

I am writing to you, as our partner in delivering the CS + Geography & GIS program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

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If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!

-Nancy

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PS. We have some great postdoc openings: the department's Future Faculty Fellows program (<a href="https://go.cs.illinois.edu/fff">https://go.cs.illinois.edu/fff</a>)

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Science

From: "Yoon, James" <jyoon@illinois.edu>

Date: 2/20/24, 7:42 AM

To: "Amato, Nancy" < namato@illinois.edu>

Dear Nancy,

Thank you for the update. This sounds like an exciting new development and I am glad to learn that the commitment to CS+X will remain unchanged.

#### James

James Hye Suk Yoon Professor and Head Department of Linguistics School of Literatures, Cultures and Linguistics University of Illinois, Urbana-Champaign

Email: jyoon@illinois.edu

----Original Message----

From: Amato, Nancy <a href="mailto:sedu"><a href="mailto:sedu"><a

Subject: Proposal to transform the CS Department into a School of Computing and Data Science

Dear James,

I am writing to you, as our partner in delivering the CS + Linguistics program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the CS + Linguistics program. The program name will remain the same and our commitment to support the delivery of the CS components of the program remains firm and unchanged. A key feature of our proposal, namely the formation of a "CS+X Council" that will include representation from the "X"'s units, will provide improved communication and sharing of best practices and coordination across all CS+X programs. We believe this will be beneficial given the continued growth of these programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!

–Nancy

94

Nancy M. Amato

Abel Bliss Professor and Head, Department of Computer Science University of Illinois at Urbana-Champaign

2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801

+1-217-333-3426, namato@illinois.edu

head@cs.illinois.edu (for scheduling or administrative contact)

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PPS. Check out iCAN (Illinois Computing Accelerator for Non-Specialists), a 1-year program for non-computing college graduates. A bridge to a career in tech or grad studies. Applications for our 4th cohort are open now!

http://cs.illinois.edu/ican

Science

From: "Moorhouse, Linda" <moorhouz@illinois.edu>

Date: 3/15/24, 12:35 PM

**To:** "Amato, Nancy" <namato@illinois.edu> **CC:** "Miller, Nolan H" <nmiller@illinois.edu>

Hi Nancy:

I enjoyed our conversation yesterday. Attached you'll find a letter from me, and thanks for following up on the admission targets for our CS + Music program.

Linda

Linda R. Moorhouse, DMA (she, her)

Director and Professor
School of Music
University of Illinois Urbana-Champaign
Member, University Senates Conference
Member, System-wide Sexual Misconduct Prevention & Response Council

Music Building, Rm 2040 1114 W. Nevada Urbana, IL 61801 Office: 217-244-4108

As a land-grant institution, the University of Illinois Urbana-Champaign occupies the lands of the Peoria, Kaskaskia, Piankashaw, Wea, Miami, Mascoutin, Odawa, Sauk, Mesquaki, Kickapoo, Potawatomi, Ojibwe, and Chickasaw Nations. As members of the institution, it is necessary for us to acknowledge these Native Nations and to work with them as we move forward. Over the next 150 years, we will be a vibrant community inclusive of all our differences, with Native peoples at the core of our efforts.

From: Amato, Nancy <namato@illinois.edu> Sent: Thursday, March 14, 2024 5:32 PM

To: Moorhouse, Linda <moorhouz@illinois.edu>

Subject: Re: Proposal to transform the CS Department into a School of Computing and Data

Science

Hi Linda,

Thanks for meeting today.

I'm going to follow up on what they're using for the CS+Music targets so we can figure out what the story is on that.

If you are comfortable responding to the email I sent you about the proposal, I think that is all that is needed. They didn't suggest we get letters of support from everyone, but wanted to make sure they were informed.

Thanks and I'm looking forward to more great things in the future! -Nancy

## On 3/14/24 3:03 PM, Moorhouse, Linda wrote:

Sorry! Got bogged down in a letter...yes, I'm available!

Linda R. Moorhouse, DMA (she, her)

Director and Professor

School of Music

University of Illinois Urbana-Champaign

Member, University Senates Conference

Member, System-wide Sexual Misconduct Prevention & Response Council

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From: Amato, Nancy <a href="mailto:snato@illinois.edu">snato@illinois.edu</a> Sent: Thursday, March 14, 2024 2:44 PM

To: Moorhouse, Linda <moorhouz@illinois.edu>

Subject: Re: Proposal to transform the CS Department into a School of Computing and Data

Science

Hi Linda

I just wanted to check in to see if this afternoon still works for you. I'm currently at the zoom link, but I'm flexible and could meet anytime before 4:30pm today. Tomorrow is also flexible for me.

### Here's the zoom info if you need it:

Meeting URL: <a href="https://illinois.zoom.us">https://illinois.zoom.us</a>

/j/82649856360?pwd=TmQwa2VHYldBNVBGTEVtc3Uva3ZDZz09&

from=addon

Meeting ID: 826 4985 6360

Password: 870030

-Nancy

On 3/13/24 11:31 PM, Nancy M. Amato wrote:

Sounds good. I'll send a zoom invite.

On 3/13/24 10:16 PM, Moorhouse, Linda wrote:

How about 2:30 pm tomorrow? And Zoom is fine.

Linda R. Moorhouse, DMA (she, her)

**Director and Professor** 

School of Music

University of Illinois Urbana-Champaign

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From: Amato, Nancy <namato@illinois.edu>

Sent: Wednesday, March 13, 2024 8:59 PM

To: Moorhouse, Linda <a href="mailto:kmoorhouz@illinois.edu">moorhouz@illinois.edu</a>>

Subject: Re: Proposal to transform the CS Department into a School of Computing and

**Data Science** 

Hi Linda,

Sure. Anytime tomorrow (Thu) from 2-4:30 would work. And also anytime on Friday after 10am works for me. I would need to meet on zoom as I'm home playing nurse to my dog who had surgery last week.

-Nancy

On 3/13/24 8:47 PM, Moorhouse, Linda wrote:

Hi Nancy...thanks for reaching out. Yes, I'm open to meet this week. Have any time tomorrow afternoon (Thursday) or Friday?

Linda

Linda R. Moorhouse, DMA (she, her)

Director and Professor

School of Music

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Nations and to work with them as we move forward. Over the next 150 years, we will be a vibrant community inclusive of all our differences, with Native peoples at the core of our efforts.

From: Amato, Nancy <a href="mailto:sedu"><a href="mailto:sedu"><a

Subject: Re: Proposal to transform the CS Department into a School of Computing and

Data Science

Hi Linda,

I hope you are enjoying a bit of break this week. I thought I'd check in to see if you wanted to connect this week – I'm quite flexible and would be glad to meet if you'd like. Just let me know what works for you.

BTW, as a small update, we did get an MOU signed last week with LAS and the iSchool describing how we'll continue our collaborative partnerships related to data science (e.g., X+DS degrees and proposals in flight for a data science minor and a new masters degree, and more). This has been added to the materials with our proposal.

-Nancy

On 3/6/24 10:08 AM, Nancy M. Amato wrote:

Hi Linda,

Absolutely, I would love to talk with you. I always learn a lot from you. I'll be around next week and am fairly flexible, but will mostly be working from home as my dog had knee surgery and needs some regular attention. What days/times would be good for you?

-Nancy

On 3/6/24 8:43 AM, Moorhouse, Linda wrote:

Hi Nancy:

If you have time next week, I'd love to have a short conversation with you about your proposal. As the former Ed Pol chair, I'm interested in learning about the concerns (that seem to be rising) from your perspective.

Thanks...and I will send a letter once we talk. I'm out of town at a conference right now.

Linda

Linda R. Moorhouse, DMA (she, her)

**Director and Professor** 

School of Music

University of Illinois Urbana-Champaign

Member, University Senates Conferences

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From: Amato, Nancy <a href="mailto:nancy@illinois.edu">nancy@illinois.edu</a> Sent: Monday, February 19, 2024 9:48 PM

To: Moorhouse, Linda <moorhouz@illinois.edu>

Subject: Proposal to transform the CS Department into a School of Computing and

**Data Science** 

### Dear Linda,

I am writing to you, as our partner in delivering the CS + Music program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the CS + Music program. The program name will remain the same and our commitment to support the delivery of the CS components of the program remains firm and unchanged. A key feature of our proposal, namely the formation of a "CS+X Council" that will include representation from the "X"'s units, will provide improved communication and sharing of best practices and coordination across all CS+X programs. We believe this will be beneficial given the continued growth of these programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X programs.

Based on guidance from EPC, we have requested letters of support from the deans of the colleges on campus. While we have almost all of them, Dean Hamilton is waiting on the ISchool to be supportive of data science implications related to the school before he provides a letter of support (i.e. unrelated to the delivery of our CS+Music program).

While EPC has not suggested we obtain letters of support from the X units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!
-Nancy

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Nancy M. Amato

Abel Bliss Professor and Head, Department of Computer Science University of Illinois at Urbana-Champaign 2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801 +1-217-333-3426, namato@illinois.edu head@cs.illinois.edu (for scheduling or administrative contact)

PS. We have some great postdoc openings: the department's Future Faculty Fellows program (<a href="https://go.cs.illinois.edu/fff">https://go.cs.illinois.edu/fff</a>)

PPS. Check out iCAN (Illinois Computing Accelerator for Non-Specialists), a 1-year program for non-computing college graduates. A bridge to a career in tech or grad studies. Applications for our 4th cohort are open now! <a href="http://cs.illinois.edu/ican">http://cs.illinois.edu/ican</a>

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Nancy M. Amato

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-Attachments:

CS Proposal\_School of Music\_SP24.pdf

155 KB



## SCHOOL OF MUSIC

College of Fine and Applied Arts Music Building, M/C 056 1114 West Nevada Street Urbana, Illinois 61801

March 14, 2024

Dr. Nancy Amato, Head Department of Computer Science Grainger College of Education University of Illinois Urbana-Champaign Urbana, IL

Dear Nancy:

This letter acknowledges your communication to me regarding the Senate proposal to rename the Department of Computer Science to the School of Computing and Data Science in the Grainger College of Engineering. I understand this will have no impact on our CS + Music program and may in fact help support it more.

Thank you for reaching out. You have my support and good wishes as you move to reorganize your unit!

Sincerely,

Linda R. Moorhouse, DMA

linda R. Shooshouse

Director and Professor

School of Music

Science

From: "Kar, Robin B" <rkr@illinois.edu>

Date: 2/19/24, 9:55 PM

To: "Amato, Nancy" <namato@illinois.edu>, "Cantrall, Kara" <kzeigler@illinois.edu>

Nancy, thanks so much for letting me know about this. I also appreciate the reassurance you are providing about CS+Philosophy. As it turns out, I think I \*would\* appreciate a chance to learn more from you—and also to talk a bit about how the CS+ program might best serve your changing needs.

I am not sure if you were aware of this, but we will be offering a remote course next term that helps serve the growing need for scalable classes in the ethics of DS for the +DS series of majors. I will read your proposal and it may already answer some questions. But I'd be curious about how this proposal would bear on that series of majors as well.

I am hoping my assistant, Kara, can find a convenient time for us to chat. Thanks again for this proposal and for reaching out. This sounds like an exciting development for CS!!

Sent from my iPhone

On Feb 19, 2024, at 9:45 PM, Amato, Nancy <a href="mailto:sedu"><a href="mailto:sedu"><a

Dear Rob,

I am writing to you, as our partner in delivering the CS + Philosophy program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the CS + Philosophy program. The program name will remain the same and our commitment to support the delivery of the CS components of the program remains firm and unchanged. A key feature of our proposal, namely the formation of a "CS+X Council" that will include representation from the "X"'s units, will provide improved communication and sharing of best practices and coordination across all CS+X programs. We believe this will be beneficial given the continued growth of these programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!

-Nancy

Nancy M. Amato

Abel Bliss Professor and Head, Department of Computer Science

University of Illinois at Urbana-Champaign
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Science

From: "Grosse Perdekamp, Matthias" <mgp@illinois.edu>

Date: 3/13/24, 4:31 PM

To: "Amato, Nancy" < namato@illinois.edu>

Dear Nancy,

sorry for not replying sooner. I was at the APS March meeting last week and I am catching up this week, while also spending some time with my family in Vermont ...

This is to acknowledge that we received your email and are aware the proposal to create the School of Computing and Data Science. Physics supports this proposal strongly, and we are looking forward on collaborating with the new school on CS+Physics and a future Physics + Data Science degree.

Best Wishes!

Matthias

From: Amato, Nancy <a href="mailto:sedu"><a href="mailto:sedu"><a

To: Grosse Perdekamp, Matthias

Subject: Re: Proposal to transform the CS Department into a School of Computing and Data Science

Dear Mattias,

I hope you are getting to enjoy a bit of a break this week. I'm staying home and enjoying the weather and also trying to catch up a bit.

I wanted to follow up on this and ask if you could please send me a response letting me know you've received it even if you don't have any questions or concerns. We are very excited about this and believe it will help us to provide even more support to our CS+X partners.

Also, just as an FYI, we have recently completed an MOU with LAS, the iSchool and GCOE/CS that describes how we'll continue our collaborative partnerships related to data science (e.g., X+DS degrees and proposals in flight for a data science minor and a new masters degree, and more). By continuing to work together, I'm convinced we can make UIUC one of the leading universities in data science as well as computing.

Again, I'm happy to set up a time for us to talk if you have any questions, but even if you don't, please to acknowledge this message so that I can confirm to EdPol that you're aware.

-Nancy

On 2/19/24 9:44 PM, Nancy M. Amato wrote:

Dear Matthias,

I am writing to you, as our partner in delivering the CS + Physics program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the CS + Physics program. The program name will remain the same and our commitment to support the delivery of the CS components of the program remains firm and unchanged. A key feature of our proposal, namely the formation of a "CS+X Council" that will include representation from the "X"'s units, will provide improved communication and sharing of best practices and coordination across all CS+X programs. We believe this will be beneficial given the continued growth of these programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X programs.

While EPC has not suggested we obtain letters of support from the X units of the CS+X programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!

-Nancy

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PS. We have some great postdoc openings: the department's Future Faculty Fellows program (<a href="https://go.cs.illinois.edu/fff">https://go.cs.illinois.edu/fff</a>)

PPS. Check out iCAN (Illinois Computing Accelerator for Non-Specialists), a 1-year program for non-computing college graduates. A bridge to a career in tech or grad studies. Applications for our 4th cohort are open now! <a href="http://cs.illinois.edu/ican">http://cs.illinois.edu/ican</a>

Subject: Re: Proposal to transform the CS Department into a School of Computing and Data

Science

From: "Donohoe, Michael P" <mdonohoe@illinois.edu>

Date: 2/20/24, 10:12 AM

To: "Amato, Nancy" < namato@illinois.edu>

Ηi,

Thank you for sharing this important update about the CS Department. I have no material questions at this time. I look forward to our continuing partnership with the Accountancy + Data Science program.

Thank you,

Michael

On 2/19/24, 9:47 PM, "Amato, Nancy" <namato@illinois.edu <mailto:namato@illinois.edu>> wrote:

Dear Michael,

I am writing to you, as our partner in delivering the Accountancy + DS program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the Accountancy+DS program. The program name will remain the same, the fact that you remain host of the program will remain the same, and our commitment to collaborate with our partners providing the DS core (Statistics, Math and the iSchool) and to support the delivery of the CS-related components of the X+DS program remains firm and unchanged. I also want to affirm that we remain totally committed to data science education being a shared responsibility. We already have an LOI with the College of Liberal Arts and Sciences (LAS) that affirms this and are supportive of LAS' proposal to put in place a three-way MOU between LAS, iSchool and GCOE that reaffirms this amongst the three academic units primarily responsible for delivering the data science component of these degree programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for X+DS programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X units of the X+DS programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!
--Nancy
--

Nancy M. Amato
Abel Bliss Professor and Head, Department of Computer Science
University of Illinois at Urbana-Champaign
2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801
+1-217-333-3426,namato@illinois.edu <mailto:namato@illinois.edu>
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Subject: Re: Proposal to transform the CS Department into a School of Computing and Data

Science

From: "Wong, Tony" <wongt@illinois.edu>

Date: 2/20/24, 1:32 PM

To: "Amato, Nancy" <namato@illinois.edu>

Nancy,

Thanks for your email, look forward to discussing how these programs can evolve to meet demand and increase student satisfaction.

Regards, Tony

#### **TONY WONG**

Chair, Professor

University of Illinois Urbana-Champaign College of Liberal Arts & Sciences Department of Astronomy 103 Astronomy 1002 W. Green | M/C 221 Urbana, IL 61801 217.244.4207 | wongt@illinois.edu www.astro.illinois.edu



Under the Illinois Freedom of Information Act any written communication to or from university employees regarding university business is a public record and may be subject to public disclosure.

On Feb 19, 2024, at 9:48PM, Amato, Nancy <namato@illinois.edu> wrote:

Dear Tony,

I am writing to you, as our partner in delivering the CS + Astronomy and Astronomy + DS programs, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the CS + Astronomy program. The program name will remain the same and our commitment to support the delivery of the CS components of the program remains firm and unchanged. A key feature of our proposal, namely the formation of a "CS+X Council" that will include representation from the "X"'s units, will provide improved communication and sharing of best practices and coordination across all CS+X programs. We believe this will be beneficial given

the continued growth of these programs.

Additionally, I wanted to reassure you that this will have no impact on the Astronomy+DS program. The program name will remain the same, the fact that you remain host of the program will remain the same, and our commitment to collaborate with our partners providing the DS core (Statistics, Math and the iSchool) and to support the delivery of the CS-related components of the X+DS program remains firm and unchanged. I also want to affirm that we remain totally committed to data science education being a shared responsibility. We already have an LOI with the College of Liberal Arts and Sciences (LAS) that affirms this and are supportive of LAS' proposal to put in place a three-way MOU between LAS, iSchool and GCOE that reaffirms this amongst the three academic units primarily responsible for delivering the data science component of these degree programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for CS+X and X+DS programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X units of the CS+X or X+DS programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

PS. We have some great postdoc openings: the department's Future Faculty Fellows program (https://go.cs.illinois.edu/fff)

PPS. Check out iCAN (Illinois Computing Accelerator for Non-Specialists), a 1-year program for non-computing college graduates. A bridge to a career in tech or grad studies. Applications for our 4th cohort are open now! http://cs.illinois.edu/ican

Subject: RE: Proposal to transform the CS Department into a School of Computing and Data

Science

From: "Torelli, Carlos Javier" <ctorelli@illinois.edu>

Date: 2/20/24, 8:30 AM

To: "Amato, Nancy" < namato@illinois.edu>

Hi Nancy

Thanks for keeping me in the loop. This sounds like an exciting opportunity for your department. I am just curious what led you to this decision and in which ways it will help you fulfill your goals. I am just curious as a fellow department head that faces unique challenges in the College. I have thought about a School as a potential opportunity and would love to understand better your rationale. These changes don't appear all the time, so this is a unique opportunity to educate myself as an administrator. I don't want to take of your precious time, but perhaps you can share with me some high level drivers of the proposal for my personal consumption.

Good luck with this endeavor and looking forward to continue working with you.

Best

Carlos

Carlos J. Torelli Anthony J. Petullo Professor of Marketing Head of the Department of Business Administration Gies College of Business University of Illinois at Urbana-Champaign

----Original Message----

From: Amato, Nancy <a href="mailto:sedu"><a href="mailto:sedu"><a

To: Torelli, Carlos Javier <a href="mailto:ctorelli@illinois.edu">ctorelli@illinois.edu</a>

Subject: Proposal to transform the CS Department into a School of Computing and Data Science

Dear Carlos,

I am writing to you, as our partner in delivering the Business + DS program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the Business+DS program. The program name will remain the same, the fact that you remain host of the program will remain the same, and our commitment to collaborate with our partners providing the DS core (Statistics, Math and the iSchool) and to support the delivery of the CS-related components of the X+DS program remains firm and unchanged. I also want to affirm that we remain totally committed to data science education being a shared responsibility. We already have an LOI with the College of Liberal Arts and Sciences (LAS) that affirms this and are supportive of LAS' proposal to put in place a three-way MOU between LAS, iSchool and GCOE that reaffirms this amongst the three academic units primarily responsible for delivering the data science component of these degree programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for X+DS programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X units of the X+DS programs,

they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!

-Nancy

--

Nancy M. Amato

Abel Bliss Professor and Head, Department of Computer Science University of Illinois at Urbana-Champaign

2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801

+1-217-333-3426, namato@illinois.edu

head@cs.illinois.edu (for scheduling or administrative contact)

PS. We have some great postdoc openings: the department's Future Faculty Fellows program (<a href="https://go.cs.illinois.edu/fff">https://go.cs.illinois.edu/fff</a>)

PPS. Check out iCAN (Illinois Computing Accelerator for Non-Specialists), a 1-year program for non-computing college graduates. A bridge to a career in tech or grad studies. Applications for our 4th cohort are open now!

http://cs.illinois.edu/ican

Subject: Re: Proposal to transform the CS Department into a School of Computing and Data

Science

From: "Chan, Kuo Chi" < I-chan2@illinois.edu>

Date: 2/20/24, 9:25 AM

To: "Amato, Nancy" < namato@illinois.edu>

Hi Nancy – thanks for the update. I have no concerns about this plan, and wish you luck in getting it through senate ed pol.

Louis

#### Get Outlook for iOS

From: Amato, Nancy <namato@illinois.edu> Sent: Monday, February 19, 2024 9:47:40 PM To: Chan, Kuo Chi <l-chan2@illinois.edu>

Subject: Proposal to transform the CS Department into a School of Computing and Data Science

Dear Louis,

I am writing to you, as our partner in delivering the Finance + DS program, to inform you that we submitted a proposal today, Monday, February 19, 2024 entitled, "Creation of the School of Computing and Data Science," to the Provost for consideration by the Senate Education Policy Committee (EPC). We estimate this is the latest time by which we can submit the proposal in order for the Senate to consider it this spring.

This proposal essentially transforms the Department of Computer Science into the new school. The School, like the department, will be housed fully within The Grainger College of Engineering. As such, I wanted to reassure you that this will have no impact on the Finance+DS program. The program name will remain the same, the fact that you remain host of the program will remain the same, and our commitment to collaborate with our partners providing the DS core (Statistics, Math and the iSchool) and to support the delivery of the CS-related components of the X+DS program remains firm and unchanged. I also want to affirm that we remain totally committed to data science education being a shared responsibility. We already have an LOI with the College of Liberal Arts and Sciences (LAS) that affirms this and are supportive of LAS' proposal to put in place a three-way MOU between LAS, iSchool and GCOE that reaffirms this amongst the three academic units primarily responsible for delivering the data science component of these degree programs.

If you would like to learn more about the proposal, I will be happy to arrange a time for us to talk so that I can address any questions you may have. I believe this proposal is vital to our ability to provide additional capacity and meet future student demand for X+DS programs.

Based on guidance from EPC, we have included letters of support from the deans of the colleges on campus, including one from your dean, with the proposal documents.

While EPC has not suggested we obtain letters of support from the X units of the X+DS programs, they did suggest we make sure you are all informed.

To meet the expectations of the EPC, I would appreciate an email response acknowledging receipt of this email.

Thanks!
-Nancy

--

Nancy M. Amato

Abel Bliss Professor and Head, Department of Computer Science University of Illinois at Urbana-Champaign 2232 Siebel Center, 201 N. Goodwin Ave., Urbana IL 61801 +1-217-333-3426,namato@illinois.edu head@cs.illinois.edu (for scheduling or administrative contact)

PS. We have some great postdoc openings: the department's Future Faculty Fellows program (https://go.cs.illinois.edu/fff)

PPS. Check out iCAN (Illinois Computing Accelerator for Non-Specialists), a 1-year program for non-computing college graduates. A bridge to a career in tech or grad studies. Applications for our 4th cohort are open now! http://cs.illinois.edu/ican

**Appendix B: Consultation and Engagement Process Overview and Timeline** 

# Consultation and Engagement Process Overview and Timeline March 17, 2024

The Department of Computer Science (DCS) and The Grainger College of Engineering (GCOE) undertook a comprehensive consultation and engagement process, in the spirit of shared governance and the desire to consult with units that might be impacted, as a result of the proposed transformation of the Department of Computer Science to a school. This included not just steps mandated by their respective bylaws and shared governance, but far broader consultation within GCOE and across the campus. Every dean has been briefed and consulted. There have been numerous discussions and interactions with the Dean of the School of Information Sciences (iSchool) and its faculty. The following outlines a best effort to recount key events and undertakings that have led to the proposal to create the School of Computing and Data Science in the GCOE.

#### Department of Computer Science

At the Departmental level, it is important to note that all CS affiliate faculty, of which there are more than 60 from 6 colleges (ACES, Education, GCOE, iSchool, LAS, Media), are invited to and receive notice of all departmental faculty meetings, including retreats.

Below are some of the key activities undertaken in the department related to planning to elevate the department into a School in the Grainger College of Engineering.

- July-August 2019: Dean and CS Department formed a small committee to prepare for strategic
  planning discussions in the department during the 2019-2020 academic year related to our
  vision for computing research and education, possible organizational structures for CS within the
  university, and opportunities in Chicago.
- 08/26/2019: Department Head presented a plan at the first faculty meeting of the year for
  consideration of potential organizational structures for CS at UIUC including a department, a
  School in the College of Engineering, a School outside Engineering, or a College. The discussion
  was put in the context of the rapid creation of similar schools at peer institutions and the
  increasing role Computer Science was playing to raise the capabilities and attractiveness of new
  degree programs across the campus though its CS+X programs.
- 09/16/2019: The Department Head shared steps towards strategic planning regarding the future placement of computer science in the university with the entire department faculty and staff at the annual fall kickoff meeting which includes all faculty and staff in the department.
- 11/11/2019: CS Faculty meeting discussion of organizational option for computer science which
  focused on the option of a School in Engineering which had not previously been considered by
  the faculty. It was decided to continue the discussion at a future meeting and to compare the
  various options.
- 11/18/2019: CS Faculty meeting included a more detailed review and discussion of three main
  organizational options for CS at UIUC: remain a department in engineering (current), become a
  school in Engineering, or become a School/College outside of Engineering. The options were
  compared in terms of personnel, finances, research, access to college and campus resources,
  representation in college and campus governance, and academic aspects.
- December 2019/early January 2020: An anonymous survey of the CS faculty was conducted regarding their support of the different organizational options for computer science at UIUC: department (current), School in Engineering, School/College outside on Engineering. This was

- not to be a formal vote, but rather used to get an indication of the sentiment of the faculty to guide further discussion at the annual faculty retreat in January.
- 01/17/2020: CS Annual Faculty Retreat included a discussion of the different organizational
  options for computer science at UIUC. The results of the survey of the CS faculty regarding the
  organizational options for CS were shared; they strongly favored a School in the College of
  Engineering. It was decided to develop this option and prepare a proposal for the CS faculty.
  - As usual, faculty affiliates were invited to the retreat, had access to the agenda and documents, and were able to participate in the discussions.
- May 3-4, 2021: The concept to elevate the department to a school in engineering was discussed
  with the members of DCS Academic Program Review committee. This External Review
  committee and their report expressed strong support for the plans, but recommended that
  MOUs be put in place to guarantee that key elements needed for the school's success should be
  put in place.
- November January 2021: The Department's Management Team and Internal Advisory
  Committee proceeded to review school of computing models being implemented across the
  nation, especially at top peer institutions. This was done in partnership with the college.
- 01/13/2023: Updated and more detailed plans for the creation of the school were shared with the CS faculty and discussed at the annual CS retreat.
  - As usual, faculty affiliates were invited to the retreat, had access to the agenda and documents, and were able to participate in the discussions.
- 08/21/2023: Department Head presented an update on the proposal to elevate the department to that of a school to the CS faculty during a faculty meeting. It was agreed that all related documents would be made available to faculty prior to a final vote to approve the bylaws for the school and approval for moving forward with the proposal.
- 09/11/2023: The Department Head shared a high-level view and potential timeline for the transition from a department to a school in the Grainger College of Engineering with the entire department faculty and staff at the annual fall kickoff meeting which includes all faculty and staff in the department
- 9/25/2023: Department Head presented an overview of the proposed bylaws for the school, and the school proposal, at a faculty meeting. Drafts were shared with the faculty for feedback.
   These materials have been developed and revised based on feedback from the department's advisory committee and management team.
  - As usual, faculty affiliates were invited to the meeting, had access to the agenda and documents, and were able to participate in the discussions.
- 10/9/2023: Department Head presented revised proposed bylaws for the school at a faculty meeting. The faculty, after reviewing and discussing the proposed bylaws, moved to vote.
  - As usual, faculty affiliates were invited to the meeting, had access to the agenda and documents, and were able to participate in the discussions.
- 10/9/2023-10/23/2023: The faculty approved the proposed bylaws in accordance with Department of Computer Science bylaws by secret vote.
- 10/23/2023: Department Head presented revised proposal for the school at a faculty meeting. The faculty, after reviewing and discussing the proposal, moved to vote.
  - As usual, faculty affiliates were invited to the meeting, had access to the agenda and documents, and were able to participate in the discussions.
- 10/23/2023 10/30/2023: The faculty approved the proposal in accordance with Department of Computer Science bylaws by secret vote.

#### **GCOE**

In accordance with the GCOE's bylaws, a secret vote of the faculty was conducted, and the faculty overwhelmingly approved the proposal to create the school on November 15, 2023. This was after making the proposal available to GCOE faculty ahead of the faculty meeting and a presentation and discussion on the proposal at the meeting itself by the Dean of GCOE. The GCOE Executive Committee approved the proposal to create the school and have it move forward to the campus by a unanimous vote.

Actions taken to secure support and strengthen operational principles and guidelines included the following.

- The Dean met with the ECE faculty in September 2021 to inform them about discussions related to a School of Computing in Engineering. The CS and ECE Department Heads attended to help answer questions.
- The Dean requested that Dr. Normand Paquin, in his capacity as special advisor to the dean for strategic planning, assist the DCS in the development of a proposal for the creation of the school.
- An ad hoc committee was formed and charged Nov 2, 2022. (Nahrstedt, Klara; Chen, Deming; Chen, Yuting Wu; Hockenmaier, Julia J.; Herman, Geoffrey Lindsay; Kim, Nam Sung; Kudeki, Erhan; Torrellas, Josep; Viswanathan, Mahesh; Srikant, Rayadurgam;) to specifically address how the School should be implemented in order for the School to be a benefit to all in the College and to the Electrical and Computing Engineering Community in particular.
  - The Committee recommended three options that could be pursued, and the dean agreed to take these into consideration and build upon these recommendations moving forward.
  - The Dean met with the ad hoc committee to discuss where they stood on November 28, 2022.
  - The Dean met with the ad hoc committee to review final recommendations on February 8, 2023.
  - The Dean met with the ECE department faculty on April 14<sup>th</sup>, 2023 to discuss the
    potential impact the creation of the school might have on ECE/CE programs and
    to get the opinion of ECE faculty. This was one of several meetings with the ECE
    and/or CE faculty in the past year covering this topic.
  - The Dean met with DCS faculty on May 17, 2023 to discuss the School. This was one of several meetings with the ECE and/or CE faculty in the past year covering this topic.
  - The Dean met again with ECE faculty on October 30, 2023 to discuss the School.
  - The Dean met with the ISE department faculty on Nov 3, 2023 to discuss the
    potential impact the creation of the school might have on ISE programs and to
    get the opinion of ISE faculty.
- In the Summer and fall of 2023, MOUs between the GCOE and DCS were developed to put in writing the relationship between the GCOE and the proposed SCDS.
  - The GCOE Associate Dean for Finance and Operations worked with the DCS
     Assistant Department Head for Administration to develop an MOU covering
     operational and financial considerations between the school and the college.
  - Numerous consultations with DCS and ECE faculty led to the development of an MOU to formalize operational principles between the proposed School and ECE.

- MOU drafts were developed by Executive Officers of GCOE, DCS and ECE and shared and discussed numerous times with CS faculty and ECE faculty.
- The GCOE Associate Dean for Undergraduate Programs, the GCOE Associate Dean for Graduate, Professional and Online Program, worked with the DCS Associate Head for Academics to develop an MOU covering academic considerations between the school and the college.
- With respect to direct interactions with the GCOE Executive Committee, the following are noted:
  - 02/01/2022: The School was mentioned as a topic that would be brought forward to the committee.
  - 02/08/2022: An overview and discussion of the School of Computing took place as part of the committee meeting.
  - 02/07/2023: Dr. Paquin addressed the Executive Committee on the School of Computing. He focused on existing schools across the campus and the timeline and milestones required to go through for such a school to be established.
  - 11/10/2023: Dean provided an update and overview of the proposal and relevant MOUs to the Executive Committee. Drafts had been shared on 11/08/2023. The Dean indicated that the Executive Committee might be asked to vote on the proposal in December and invited discussion until then.
  - 12/08/2023: All proposal materials updated and made available to the Executive Committee.
  - 12/15/2023: The GCOE Executive Committee discussed and formally voted in favor of moving the proposal for the creation of the School of Computing and Data Science forward.

It should be noted that the creation of the school was raised as a possibility at several additional collegewide retreats to solicit responses and comments.

- 08/2022: The creation of the school was raised at the College Leadership fall retreat. All
  members of the Administrative Committee of the College (department heads, interdisciplinary
  research unit heads, major center and institute directors), the GCOE Executive Committee, the
  Dean's Cabinet and senior College Administrators, and a wide sampling of junior and specialized
  faculty are invited to attend such retreats.
- 01/2023: The dean used his presentation at the spring College Leadership retreat to present the
  case for the creation of the school and the benefits expected to ensue for the school's faculty,
  students and programs, the college and the campus. Attendees were invited to comment and
  provide feedback. None was received.
- 08/2023: The Dean used his presentation at the fall 2023 College Leadership retreat to reaffirm
  The Grainger College of Engineering's interest in the creation of the School of Computing and
  Data Science resulting in 11 departments (2 outside the GCOE), 1 school and three IRUs residing
  within the college.

#### Campus

At the Campus level, several steps were undertaken. The previous provost, the interim provost, and the current provost, and the chancellor were briefed and consulted on numerous occasions over the past two years.

The importance of consulting leaders of the two colleges, (College of Liberal Arts and Sciences [LAS] and the School of Information Sciences [iSchool]) playing leading roles in partnering with DCS to deliver X+DS (Data Science) degrees was recognized early on. The following lists the meetings held that included the GCOE Dean. For each meeting, the name of the participants is provided.

The titles listed here are the titles of the individuals at the time of the meeting.

Amato – Nancy Amato, Head of the Department Computer Science (DCS)

Ando –Matthew Ando, Chair of the Department of Mathematics

Bashir - Dean Rashid Bashir, GCOE

Bernhard – Interim Provost William Bernhard (2022, 2023); Executive Vice Provost for Academic Affairs (2024)

Blake – Catherine Blake, Associate Dean for Academic Affairs, iSchool

Brown – Dean Jeff Brown, GIES College of Business

Cangellaris – Provost Andreas Cangellaris

J. Coleman – Incoming Provost John Coleman

Bo Li – Chair of the Department of Statistics

Patton - Dean Venetria Patton, LAS

Santos – Dean Eunice Santos, iSchool

The meetings centered on providing an overview of plans for the creation of the school within GCOE and addressing concerns that arose about the proposal. These are presented below in reverse chronological order.

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02/02/24 – Bashir, Bernhard, Patton, Santos
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12/7/23 - Amato, Bashir, Santos, iSchool faculty

11/29/23 - Amato, Bashir, Santos, iSchool faculty

11/17/23 – Bashir, Patton, Santos

11/17/23 - Bashir, Santos

11/10/23 – Bashir, Santos

10/02/23 – Bashir, Santos

07/25/23 – Bashir, Bernhard, J. Coleman, Santos

05/11/23 - Bashir, Patton

04/20/23 –Bashir, Bernhard, Patton

03/03/23 –Bashir, Bernhard, Patton, Santos

02/01/23 –Bashir, Bernhard, Patton, Santos

12/09/22 – Bashir, Bernhard, Patton, Santos

10/27/22 – Bashir, Bernhard, Santos, Patton

06/24/22 – Amato, M. Ando, Bashir, Blake, Bo Li, Santos, Patton

06/10/22 – Ando, Bashir, Patton, Santos

05/23/22 - Bashir, Patton

03/29/22 - Brown, Bashir, Santos, Patton

03/21/22 - Ando, Bashir, Patton

03/15/22 - Bashir, Cangellaris, Santos

January 22 – Bashir, Cangellaris

#### The LOIs and MOUs

The following is a summary of the timeline that led to the development and signature of a three-way Data Science MOU between iSchool, LAS, GCOE and the Department of Computer Science.

- Late October 2022: Interim Provost Dean Bernhard facilitated a number of meetings between the leaders of LAS, iSchool and GCOE that helped identify key LAS and iSchool concerns. Foremost amongst these was the desire to ensure the proposed School of Computing and Data Science would not form multiple departments and in particular, not a Department of Data Science. A second concern was receiving assurances that the GCOE would not object to the use of "Data Science" for other organizations. These first two points spoke to a commitment by the parties to the notion that Data Science was to be a shared responsibility across campus and no unit would undermine this. There was also interest in seeing that any funding directed to interdisciplinary research themes could benefit faculty from these and other units.
- Mid-July 2023: While the points above were largely covered in the proposal, GCOE took it upon itself to draft two LOIs, one for LAS and one for ISchool to address the concerns expressed.
   Drafts of these LOIs were distributed to each in mid-July 2023.
- Sept 1, 2023: The LOI was executed between LAS, GCOE and DCS. LAS had promptly reviewed the draft document; numerous exchanges led to revised terms that met with approval of GCOE and LAS. At this point, there had been no formal response to the LOI draft from the iSchool.
- July 27, 2023: GCOE modified the draft ISchool LOI to reflect the LAS LOI near final agreement
  and shared that with the dean of the iSchool. Later that fall, Dean Santos expressed a
  preference for the development of a three-way MOU that could be signed by LAS, ISchool and
  GCOE.

Discussions on the Creation of a School of Computing and Data Science (wholly within the Grainger College of Engineering) with the iSchool have accelerated and progressed significantly since that time and especially in the recent months, leading to the execution of a three-way Data Science MOU between iSchool, LAS, GCOE and the Department of Computer Science.

- November 29, 2023, and December 7, 2023: Dean Santos graciously invited Department Head of Computer Science Nancy Amato and Dean Rashid Bashir to two meetings with the iSchool faculty. These helped create a better understanding of concerns and were followed by the iSchool submitting several questions.
- January 25, 2024: Written responses were provided to the iSchool Dean by the GCOE Dean. This is discussed below.
- Early February 2024: At the request of the provost, Executive Vice Provost Bill Bernhard reprised
  his role as facilitator of discussions aimed at resolving issues and achieving consensus on moving
  forward. One outcome has been for the Dean of LAS to offer to take the lead in the
  development of a three-way MOU between LAS, iSchool and GCOE based on the LOI already
  finalized between LAS and GCOE last summer (summer 2023). It was understood that the
  proposal process and MOU development should proceed in parallel.
- February through early March, 2024: LAS and iSchool Associate Deans met regularly to work on this three-way MOU.
- February 16, 2024, Dean Santos informed Dean Bashir that a draft of this MOU had been circulated amongst the iSchool faculty for feedback.
- March 8, 2024: Final version of three-way MOU executed between iSchool, LAS, GCOE and the Department of Computer Science.
- March 16, 2024: LOS for proposal provided by iSchool, as was an updated LOS from LAS.

All deans of academic units (and Dean of Graduate School and Dean of Libraries) had been initially briefed by Dean Bashir as of December 8, 2023. Subsequent updates have been provided. By March 16, 2024 all deans of academic units, including the iSchool, had provided letter of support, with a few being conditional on Data Science MOU being finalized.

#### Questions from the iSchool Leadership and Faculty

When Rashid Bashir and Nancy Amato first met with the iSchool faculty on November 29, 2023, it emerged that the faculty had received the proposal to create the school about a day or so before. The iSchool faculty had also not seen the LAS LOI nor drafts of the iSchool LOI document. Some of the iSchool faculty, as DCS affiliates, have had access to the proposal and related documents, but many had not. Much of this first meeting was spent outlining the proposal and reaffirming commitments to data science being a shared responsibility. A second meeting was held a couple of weeks later (December 7, 2023), after faculty have had a chance to review the proposal and LOI documentation. Several concerns were raised in this meeting. An outcome was the submission of several written questions for GCOE to address that represented these concerns. The GCOE provided written responses. These were sent from Dean Bashir to Dean Santos. It is our understanding that Dean Santos first shared these responses with her Executive Committee and then the iSchool faculty as a whole. The questions and answers are provided herein as an Appendix.

#### **Appendix C: LOI and MOUs**

MOU on Data Science between iSchool, LAS, GCOE and CS Letter of Intent between LAS, GCOE and CS Academic MOU between CS and GCOE Financial and Operations MOU between CS and GCOE MOU between Media, GCOE, and CS

# Memorandum of Understanding Agreed to Between The College of Liberal Arts and Sciences And The Grainger College of Engineering And The School of Information Sciences And Department of Computer Science

This Memorandum of Understanding ("MOU") is agreed to by the College of Liberal Arts and Sciences (LAS), The Grainger College of Engineering (GCOE), The School of Information Sciences (iSchool), and the Department of Computer Science (DCS) at the University of Illinois Urbana-Champaign. The parties to this MOU may be referred to collectively as the "PARTIES". The MOU expresses the PARTIES' intention to continue their collaboration focused on Data Science at the University of Illinois. The DCS is a party to this MOU with the understanding that this MOU will apply to the School of Computing and Data Science (SCDS) once it replaces the DCS in the GCOE.

#### Vision

As a land grant institution, the scope of Data Science at UIUC includes processes such as data collection, organization, representation, and governance and subsequent sharing and use, to ensure that research advances and educational programs embody our commitment to diversity, equity, inclusion, and access.

Advances in Data Science are having a profound impact on the personal and professional lives of people in Illinois, the U.S. and around the globe. This impact necessitates that every UIUC student should have an opportunity to engage with Data Science, regardless of their primary area of study.

This Memorandum of Understanding (MOU) acknowledges and affirms the collaborative spirit that exists within the University of Illinois, recognizing the integral roles played by LAS, GCOE, and the (iSchool) in advancing the Data Science research and education ecosystem at UIUC. Emphasizing that innovation and expertise in data science are not confined to a singular unit, this MOU underscores our commitment to a shared and diverse collaboration that extends across teaching, research, and shared governance. By joining forces, we aim to harness the collective strength of these academic units, promoting a rich tapestry of thought diversity as we collectively unravel the complexities and nuances inherent in the field of Data Science. Given this vision, the PARTIES agree to the following principles and operational mechanisms based on the principles.

#### **Principles**

The PARTIES recognize the success of existing CS+X programs and the further potential of
expanding such programs. The SCDS intends to set up and provide administrative support for a
more formal coordinating committee (a CS+X Council) that would include a representative
subset of the partners to share best practices, improve communications, and develop common

- resources and infrastructure. This effort will assist the CS+X students to maximize their success in current programs and future career paths. The SCDS will work with the CS+X Partners to ensure they will have appropriate representation in the CS+X Council.
- 2. The PARTIES commit to work closely to support the growing family of X + Data Science (X+DS) programs as resources allow. The X+DS degrees are more complex to support than the CS+X degrees since there is no single common partner. Ongoing discussions across LAS, the iSchool, and GCOE/DCS are exploring an organizational structure for coordinating and supporting the X+DS programs. The PARTIES commit to working with campus to develop and support such a governing body which should be designed to include representation from the partners providing the DS Core (Mathematics, Statistics, the iSchool, and SCDS) as well as representation from the X's. LAS would be pleased to provide administrative support and resources, as needed, for the future governing body to facilitate coordination, and for sharing best practices with the CS+X Council. Should one unit need to be identified as the administrative home for the X+DS program, the SCDS will not serve in this capacity. Ideally, a collaborative governance model will be established, but alternatively GCOE, iSchool, and LAS should distribute major DS related activities across the respective colleges so that DS continues to be well represented across each of pertinent domains.
- 3. Building on the campus's national leadership in blended undergraduate degree programs, the PARTIES commit to exploring and working together with other campus partners on the development of blended graduate degree programs.
- 4. The PARTIES agree that diversity, equity, inclusion, and access are core values. Building on major investments and progress made on CS+X and X+DS programs, the PARTIES will work collaboratively with campus to exchange best practices and ensure blended degree programs give priority to DEI considerations, especially with respect to recruitment and retention of diverse student participants. The PARTIES are also excited to collaborate on practices designed to broaden the participation in computing and Data Science related disciplines for graduate students, faculty, and staff from diverse backgrounds, and are committed to maintaining and growing national leadership in this crucial area.
- 5. The SCDS commits to continuing the current practice of the DCS of welcoming affiliate faculty from across campus. Affiliates will continue to be encouraged to participate in all SCDS activities, will continue to have the same advising privileges that they hold in their home unit, including serving as sole advisor for MS or PhD students. Affiliates will also be encouraged to participate in SCDS committees, serve on qualifying exams, and assist in student and faculty recruiting.
- 6. The PARTIES are collaborating in the establishment and growth of SCDS with the understanding that SCDS will not create departments and with the expectation that the PARTIES' units may also seek to add Data Science and/or its relevant variants to their names. Data Science is an important aspect of the PARTIES, and we want to ensure that this collaboration allows all of the units currently working in the Data Science space to grow and thrive as we move forward with campus discussions to enhance collaboration and coordination of Data Science research and education.
- 7. More generally, the SCDS recognizes that the number of faculty with Data Science expertise, interests and activities will be increasing in units across campus. The SCDS also recognizes that the health and vibrancy of our community will be important in the recruitment and retention of faculty across campus and commits to serve as a resource to LAS and the iSchool units in this regard.
- 8. The PARTIES recognize that many important societal problems require the active engagement of the entire campus and will require the expertise of the faculty in the SCDS, LAS, and the iSchool. If a Naming Gift is received, the SCDS commits to providing strong support that is anticipated by

- this gift to quickly assemble expertise to support cross-disciplinary activities at the intersection of computing and Data Science and other disciplines that cannot be supported by existing, traditional funding mechanisms.
- 9. The PARTIES agree that academic freedom is a core value for faculty, students, and staff. The PARTIES will proactively support this freedom in research topics, intellectual perspectives, and methodological approaches across the full range of activities (research, service, teaching, recruitment), and in allocation of resources to support these activities.

#### **Operational Mechanisms**

The intellectual contributions that make Data Science at UIUC unique primarily reside in three Colleges: the College of Liberal Arts and Sciences, the Grainger College of Engineering, and the iSchool. These colleges have agreed to the following operational mechanisms around governance, resources, and how to amplify the impact of Data Science at UIUC.

#### [A] Governance

The PARTIES will actively participate in shared governance around Data Science education and research at the campus level with a particular focus on integrating these efforts.

- 1. With respect to educational activities, the PARTIES strongly support the following governing bodies to provide oversight of academic programs that span multiple units (e.g., to review new requests from additional domain areas, solicit and act on curriculum updates, share best practices, develop common resources and infrastructure, plan course capacity, etc.).
  - a. The PARTIES agree to strongly support the creation of a campus wide CS+X Council that will focus on the CS+X programs and will thus include members from the new SCDS and the X domains that participate in a CS+X program.
  - b. The PARTIES strongly support the creation of a campus-wide Data Science Education Council (DSEC) that includes other units involved in Data Science education at UIUC. Until such time as the Council is constituted the PARTIES agree to send a representative to provide oversight of the Data Science programs that span units (e.g., X+DS at the undergraduate level and the Master of Data Science at the graduate level). Membership of the Council will conform to the following constraints:
    - i. There will be an equal number of members from the partners providing the DS Core (Mathematics, Statistics, the iSchool, and SCDS).
    - ii. Units other than those listed in 1.b.i (such as those representing the X's) are welcome to join the DSEC. The term limits and nominating processes are to be established before SCDS is created.
    - iii. Members in 1.b.i will hold the majority vote on the DSEC.
  - c. The administrative support for the X+DS undergraduate program is currently housed in LAS. As the undergraduate program expands, as the Master of Data Science is implemented, and as other programs are constructed, LAS and the iSchool will negotiate administrative support, which will be revisited every three years. Should one unit need to be identified as the administrative home for the DSEC, the SCDS will not serve in this capacity.

 The PARTIES strongly support a campus-wide Office of Data Science Research Committee (ODSRC). The PARTIES recommend that membership of this committee mirror the guidelines of the DSEC. Until ODSRC is constituted, the PARTIES agree to send a representative to meet at least once a semester.

#### [B] Resources

If a Naming Gift is received, the SCDS commits to investing significant resources from that gift to amplify the unique UIUC vision of Data Science that harnesses the collective strength in LAS, GCOE, and the iSchool. This includes resources in each of the PARTIES' units to support Data Science, which includes, but is not limited to:

- a. attracting the top talent (e.g., student scholarships/fellowships, postdocs, named faculty/chair appointments to recruit or retain top scholars);
- b. spurring new lines of Data Science research (e.g., seed grants to nurture early-career scholars and to benefit mid-level scholar, host cutting-edge workshops and seminars);
- c. innovating curricula offerings in data science;
- d. investing in shared research and education infrastructures and/or software;
- e. coordinating campus wide responses to multi-unit and/or multi-institute calls for proposals focused on Data Science; and
- f. supporting campus-wide summits and/or distinguished lectures.

These investments will engage faculty from multiple units to ensure interdisciplinary collaboration, with a focus on faculty with Data Science expertise from LAS and the iSchool, while also being inclusive of faculty from across campus.

Beyond any potential initial Naming Gift, the governance structures outlined in part [A] and the strategies to amplify the impact of Data Science at UIUC in part [C] will continue.

#### [C] Amplify the impact of Data Science @ UIUC

The PARTIES recognize that no single unit "owns" Data Science at UIUC. There are already (and there are likely to be more) manifestations of Data Science in colleges on the UIUC campus beyond the PARTIES in this MOU. Moreover, this MOU does not preclude the PARTIES from pursuing different lines of inquiry in the space of Data Science. The PARTIES embrace this plurality and are committed to making Illinois a global leader for Data Science education and research by driving and helping to amplify campus-wide Data Science activities and programs at UIUC.

- 1. Each of the PARTIES commits to providing representatives to engage with stakeholders both on and off campus to explore, respond to, and drive impactful collaborations and partnerships.
  - Each of the PARTIES will promote campus-wide Data Science work at UIUC by including the following statement "Data Science at UIUC is a campus-wide effort that combines a core of computing, information sciences, mathematics, and statistics along with diverse domain sciences

and scholarship. For comprehensive information about a wide-array of Data Science scholarship, education, and events @ UIUC see <a href="https://datascience.illinois.edu/">https://datascience.illinois.edu/</a>."This will help to ensure that regardless of which Data Science activity attracted a stakeholder, they can quickly and easily be redirected to a centralized resource that showcases the depth and breadth of Data Science at UIUC.

- 2. Each of the PARTIES strongly supports charging the governance bodies to help promote Data Science excellence at Illinois in a balanced way that encompasses the broad spectrum of Data Science expertise across campus via datascience.illinois.edu. The PARTIES also support the provision of adequate resources to each of these governance bodies for enabling timely responses to queries from either internal or external stakeholders.
- The PARTIES agree to support each unit's effort to recruit and retain faculty and commit to engaging with candidates from other units and providing a good-faith effort to secure joint appointments in a timely manner.
- 4. LAS and the iSchool are collaborating in the establishment of SCDS with the understanding that all PARTIES of this MOU (GCOE, LAS, iSchool and SCDS) will provide a positive letter of support if LAS or the iSchool seeks to add the phrase "Data Science" and/or its relevant variants to their academic units or degree names at some point in the future. Data Science is an important aspect of the PARTIES, and it is critical to ensure that this collaboration allows all units to grow and thrive in efforts focused on Data Science.
- 5. The PARTIES are collaborating in the establishment and growth of SCDS with the understanding that SCDS will not create departments or other organizational structures.

COLLEGE OF LIBERAL ARTS AND SCIENCES	THE GRAINGER COLLEGE OF ENGINEERING		
Venetrii Rhitim	July 0		
Venetria K. Paton, Dean	Rashid Bashir, Dean		
Date: 3/8/24	Date: 03/08/24		
SCHOOL OF INFORMATION SCIENCES  Eurice Santos	DEPARTMENT OF COMPUTER SCIENCE		
Eunice Santos, Dean	Nancy M. Amato, Department Head,		
Date: 3/8/24	Date: 03/08/24		

# Letter of Intent Agreed to Between The College of Liberal Arts and Sciences And The Grainger College of Engineering And

### **Department of Computer Science**

This letter of Intent ("LOI") is agreed to by the College of Liberal Arts and Sciences (LAS), The Grainger College of Engineering (GCOE), and the Department of Computer Science (DCS) at the University of Illinois Urbana Champaign. The parties may be referred to collectively as the "PARTIES". The LOI expresses the PARTIES intention to collaborate in the establishment and growth of the School of Computing and Data Science (SCDS) and general principles that will guide this collaboration. The DCS is a party to this LOI with the understanding that this LOI will apply to the SCDS once it replaces the DCS in the GCOE.

The formal formation of the SCDS will follow the campus governance processes via a separate proposal that would proceed along the approval processes as determined by our campus statues.

#### Vision

The College of Liberal Arts and Sciences (LAS) has played a pivotal role in education and research on the University of Illinois campus for more than 100 years and includes many world-leading programs. The Grainger College of Engineering (GCOE) is among the strongest colleges of engineering in the United States, includes the Department of Computer Science (DCS), and will include the School of Computing and Data Science (SCDS) once it replaces the DCS. The SCDS will be created by transferring all DCS faculty appointments, staff, students, programs and generally all DCS operations into the SCDS. The SCDS will have the same internal organization as the DCS, with some operations delegated to the existing Research and Instructional Areas; the SCDS, as will be reflected in the proposed SCDS bylaws, will not have departments.

The DCS is a top ranked, longstanding national leader in computing research and education, and has a tradition of defining, in partnership with cross-campus collaborators including many units in LAS, new research directions and blended academic programs at the intersection of computing and data and other disciplines. The SCDS will continue and expand on this tradition, assuming some new responsibilities to support and grow new activities across campus.

The PARTIES recognize that the SCDS should build on the strong academic partnerships between LAS, LAS units, GCOE and DCS that have resulted in successful blended CS degree programs including some of the oldest and most successful such programs on campus (Math and CS and Statistics and CS), as well as the newer and expanding set of CS+X degrees, including, thus far CS+Anthropology, CS+Astronomy, CS+Chemistry, CS+Economics, CS+Geography & Geographic Information Science, CS+Linguistics, and CS+Philosophy. The PARTIES also are excited by their collaboration, together with the iSchool, on the

recent introduction of the X+DS degree programs, patterned after the CS+X programs, that blend data science with another discipline, as well as blended graduate programs, such as the planned MS in Data Science, and are committed to fully developing these programs that engage the entire campus.

The PARTIES recognize that the success of the SCDS in leading advances in the fields of computing and data science and making major interdisciplinary research advances depends on the SCDS having strong partners across campus, and in particular the Departments of Mathematics and Statistics. The PARTIES also recognize that it will be necessary for the SCDS to partner with LAS experts in fields ranging from atmospheric sciences to chemistry, biology, and languages, to name a few, to pursue interdisciplinary research activities and for all the PARTIES to achieve renown in addressing societal grand challenges. The PARTIES share a common desire for the SCDS to fulfill its potential and to strengthen collaborations and interactions between the SCDS and LAS in a manner that is mutually beneficial.

Given this vision, the PARTIES agree to the following principles:

#### **Principles**

- 1. The PARTIES agree that strengthening existing CS+X programs will be a priority as will the establishment of new CS+X programs between the SCDS and other LAS units as interest is validated and resources become available. The DCS already coordinates with all partners in blended CS degrees. The SCDS intends to set up and provide administrative support for a more formal coordinating committee (a CS+X Council) that would include a representative subset of the partners to share best practices, improve communication, and develop common resources and infrastructure. This effort will assist the students in LAS to maximize their success in current programs and future career paths. The SCDS will work with LAS to ensure LAS partners will have appropriate representation in the CS+X Council.
- 2. The PARTIES commit to work closely to support the growing family of X+DS programs as resources allow. The X+DS degrees are more complex to support than the CS+X degrees since there is no single common partner. On-going discussions at this point in time across LAS, iSchool, and GCOE/DCS are exploring an organization structure for coordinating and supporting the X+DS programs. The PARTIES commit to working with campus to develop and support such a governing body which should be designed to include representation from the partners providing the DS Core (Mathematics, Statistics, the iSchool and SCDS) as well as from representatives from the X's. LAS would be pleased to provide administrative support and resources, as needed, for the future governing body to facilitate coordination, and for best practice sharing with the CS+X council. Should one unit need to be identified as the administrative home for the X+DS program, the SCDS will not serve in this capacity. Ideally, a collaborative governance model will be established, but alternatively GCOE, iSchool, and LAS should distribute major DS related activities across the respective colleges so that DS continues to be well represented across each of our domains.
- 3. Building on the campus's national leadership in blended undergraduate degree programs, the PARTIES are excited to explore and work together with other campus partners on the development of blended graduate degrees programs. This will include programs such as the MS in Data Science that is currently under development in collaboration between Statistics, the iSchool and DCS, as well as other opportunities at both the Master's and Doctoral level as mutual interest is validated and resources become available.
- 4. The PARTIES recognize that important societal problems such as cyber security and privacy, ethical and socially responsible AI, personalized healthcare, or customized lifelong education require the active engagement of the entire campus, and will, in particular, require the expertise

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of the faculty in the SCDS, and the Departments of Statistics and Mathematics. The SCDS commits to investing some of the resources that are anticipated by a Naming Gift to provide the ability to quickly assemble expertise to support such multi-disciplinary research activities at the intersection of computing and data science and other disciplines that cannot be supported by existing, traditional funding mechanisms. This could include, for example, postdocs and student fellowships, named faculty appointments to recruit top scholars to campus, seed grants to engage young researchers and host highly visible workshops and seminars, or fill other needs. These investments will be required to engage faculty from multiple units to ensure interdisciplinary collaboration, with a particular focus on SCDS affiliated faculty from the Departments of Mathematics and Statistics.

- 5. The PARTIES agree that diversity, equity, inclusion, and access are core values. Building on major investments and progress made by DCS, the PARTIES will work collaboratively with campus to exchange best practices and ensure blended degree programs give priority to DEI considerations, especially with respect to recruitment and retention of diverse student participants. The PARTIES are also excited to collaborate on practices designed to broaden the participation in computing and data related disciplines for graduate students, faculty, and staff from diverse backgrounds, and are committed to maintaining and growing national leadership in this crucial area.
- 6. The SCDS commits to continuing the current practice of the DCS of welcoming affiliate faculty from across campus. Affiliates will continue to be encouraged to participate in all SCD activities, will continue to have the same advising privileges that they hold in their home unit, including serving as sole advisor for MS or PhD students. Affiliates will also be encouraged to participate in SCDS committees, serve on qualifying exams, and assist in student and faculty recruiting.
- 7. More generally, the SCDS recognizes that the number of faculty with computing-related expertise, interests and activities will be increasing in units across campus, and particularly in the Departments of Statistics and Mathematics. The SCDS also recognizes that the health and vibrancy of this community will be important in the recruitment and retention of faculty across campus and commits to serve as a resource to LAS units in this regard.
- 8. LAS is collaborating in the establishment and growth of the School of Computing and Data Science (SCDS) with the understanding that SCDS will not create departments and with the expectation that LAS units may also seek to add Data Science and/or its relevant variants to their names. Data Science is an important aspect of LAS and we want to ensure that this collaboration allows all of the units currently working in the Data Science space to grow and thrive as we move forward with campus discussions to enhance collaboration and coordination of Data Science research and education.

COLLEGE OF LIBERAL ARTS AND SCIENCES	THE GRAINGER COLLEGE OF ENGINEERING		
Venetrii Klatin	July O		
Venetria K. Patton, Dean	Rashid Bashir, Dean		
Date: _August 31, 2023	Date: September 1, 2023		

#### Confidential

Nancy M. Amato, Department Head, Department of Computer Science

Date: \_\_\_\_August 31, 2023\_

Many ant

#### **MEMORANDUM OF UNDERSTANDING**

This Memorandum of Understanding ("MOU") is made the \_\_\_\_ day of October 2023 ("Effective Date"),

#### Between

(1) **DEPARTMENT OF COMPUTER SCIENCE OF THE UNIVERSITY OF ILLINOIS URBANA CHAMPAIGN** located at The Thomas M. Siebel Center for Computer Science, 201 North Goodwin Avenue, Urbana, Illinois, United States of America, 61801 (hereinafter referred to as "**DCS**")

#### And

(2) THE GRAINGER COLLEGE OF ENGINEERING OF THE UNIVERSITY OF ILLINOIS URBANA CHAMPAIGN located at 306 Engineering Hall MC 266, 1308 West Green Street, Urbana, IL 61801. (hereinafter referred to as "GCOE")

(hereinafter jointly referred to as "PARTIES" and singularly as "PARTY").

#### **RECITALS:**

- A. The PARTIES wish to facilitate the transformation of the DCS into the School of Computing and Data Science (herein referred to as "**SCDS**") to be housed within The Grainger College of Engineering.
- B. The PARTIES wish to formalize operations and interactions to ensure a transparent and mutually beneficial relationship between the SCDS and the GCOE in matters related to academic affairs as the DCS is disbanded, and its operations, faculty (including affiliates), staff, students and programs are transferred into the SCDS.
- C. The PARTIES agree that the relationship between the GCOE and the SCDS, except as stated herein, is intended to be similar to the relationship that exists between the GCOE and its departments.
- D. The PARTIES wish for the SCDS to have roles and responsibilities that extend beyond those of a typical department in order for the SCDS to deliver and manage blended degree programs more efficiently. This includes formalizing, refining, or establishing practices to facilitate and better manage cross-campus partnerships supporting the evergrowing number of blended degree programs (e.g., CS+X, X+DS, and new masters and PhD programs) for which the SCDS is expected to play an essential role.
- E. The PARTIES wish to clarify services and obligations each PARTY is expected to provide with respect to GCOE students (SCDS GCOE) and those who are engaged with SCDS programs but have a primary home in a department and college outside of GCOE (SCDS non-GCOE).
  - a. For the purposes of this agreement, students in the X+DS programs are not considered SCDS students.

#### NOW IT IS HEREBY AGREED as follows:

# ARTICLE 1 COMMON CONCERNS FOR ALL ACADEMIC PROGRAMS

#### 1. Courses and Curricula

- a. Modifications to existing and proposals for new courses in the CS rubric as well as computing-related academic programs housed in GCOE will follow the GCOE's faculty governance process (e.g., review by the Courses & Curriculum committee and approval by the GCOE Executive Committee).
- **b.** The SCDS will work with GCOE to accurately maintain the academic catalog for all courses and programs in the SCDS under the college. This includes the

campus' academic catalog, the courses listed on the GCOE website, and routine syllabus collection.

#### 2. Educational Technologies

- a. GCOE will continue providing support for technologies necessary to support educational programs that include:
  - i. A/V support in classrooms and seminar rooms
  - ii. Advice on design and vendors for classroom renovations
  - iii. Computing support for classes
  - iv. Support for Learning Management Systems (LMSs, e.g., Canvas) and other educational technologies (e.g., Gradescope, PrairieLearn)
- 3. Student Support Services: The college provides a variety of support services to students, both graduate and undergraduate, pursuing engineering degrees. All of these services will remain available to SCDS students pursuing an engineering degree and, in certain cases, available to all SCDS students, as described in the following table.

GCOE Student Services	Graduate/Undergraduate	SCDS GCOE	SCDS non-
	students supported		GCOE
CARE	Undergraduate only	Yes	Yes
MEP	Undergraduate only	Yes	No
ARISE	Undergraduate only	Yes	No
WIE	Undergraduate only	Yes	Yes
Embedded Counselor	All students	Yes	No
The Grainger Student Portal	Undergraduate only	Yes	Yes
ENG 100	Undergraduate only	Yes	No
International Programs in Engineering	Undergraduate only	Yes	Yes
Engineering Career Services	All students	Yes	Yes
Engineering Career Fair	All students	Yes	Yes
Engineering City Scholars	Undergraduate only	Yes	Yes
GCOE scholarships and awards	All students	Yes	No
GCOE James Scholar Program	Undergraduate only	Yes	No
Illinois Scholars Undergraduate Research Program	Undergraduate only	Yes	Yes
Visa support	Graduate only	Yes	No
Annual grad reviews	Graduate only	Yes	No
EGSAC	Graduate only	Yes	No

#### 4. Career Services

- **a.** All residential SCDS students (both GCOE and non-GCOE, and students in graduate certificate programs like iCAN) can access career development services and resources provided by Engineering Career Services including career advising and engineering career fair participation.
- **b.** Engineering Career Services will support career development workshops and classroom visits requested by SCDS faculty and instructors.
- **c.** SCDS corporate engagement staff will collaborate with Engineering Career Services to direct employers to the most appropriate office for their recruiting needs.

#### ARTICLE 2 UNDERGRADUATE

#### 1. Pre-college recruitment

- d. Worldwide Youth in Science and Engineering
  - i. GCOE coordinates and supports engineering- and computing-related summer camps through its Worldwide Youth in Science and Engineering (WYSE) program. For any camps the SCDS develops or operates that are intended to be supported by the WYSE infrastructure, GCOE will provide a common application and registration platform, assistance in scheduling and promoting camps, and consultation on the development of new camps.
  - ii. The SCDS, as is the case with GCOE departments, will provide camp content and staffing for any camps the SCDS develops that are to be supported by the WYSE infrastructure.
- e. Public Outreach and Engagement
  - i. GCOE coordinates and supports public outreach and engagement activities, including but not limited to partnering with community groups and others involved in K-12 STEM-related activities. The SCDS is encouraged to actively engage in these activities.
  - ii. The SCDS may develop its own outreach activities to help build positive college-community relationships across the State of Illinois on computing and data science related topics.
    - 1. The SCDS will inform the college of such activities so they can be coordinated with other ongoing or developing efforts.

# 2. Bachelor's degrees within GCOE: Admissions, Recruitment and Yield, Scholarships

- a. Undergraduate enrollment Targets and Admissions Criteria
  - i. GCOE is responsible for negotiating all first-year and external transfer enrollment targets and admissions criteria with the Office of Undergraduate Admissions (OUA) for programs that result in a Bachelor's degree from The Grainger College of Engineering.
    - 1. This includes and will continue to include the CS engineering program and any blended CS degrees (e.g., CS+X) in which the "X" is in GCOE (e.g., CS+PHYS, CS+BIOE).
  - ii. As is current practice, input on targets and changes to admissions criteria will be solicited from SCDS by GCOE on an annual basis at the beginning of each academic year for CS and any blended CS degrees housed in GCOE. These targets will be communicated by GCOE to OUA. If the

OUA requests that the targets be increased for the SCDS, the GCOE will not accept nor propose any increase without the consent of the SCDS.

#### b. External Transfer Process

- i. The external transfer process to all programs that result in a bachelor's degree from The Grainger College of Engineering will be managed by the GCOE transfer programs office.
- ii. External transfer students interested in degrees from GCOE, including those within the SCDS, will be eligible for programs such as the Engineering Pathways programs for community college students throughout the State of Illinois.

#### c. Internal Transfer Process

- i. SCDS students in a GCOE degree program will follow the college Inter-Departmental Transfer (IDT) process for transferring into other GCOE degree programs.
- **ii.** SCDS students not in a GCOE degree program will follow college ICT processes (e.g., transfer through Engineering Undeclared) for transferring into other GCOE degree programs.

#### d. Recruitment and Yield Activities

- i. SCDS recruitment and yield activities for degrees from GCOE will follow past practice for DCS recruiting and yield activities.
- **ii.** GCOE will manage on and off campus recruitment and yielding events including for all undergraduate majors within the GCOE.
  - 1. These events may include, but are not limited to, the daily presentation, tour, and Q&A session, Orange & Blue Days, Illini Days, and additional off-campus events.
  - 2. The SCDS can plan additional events and marketing campaigns in accordance with past practice. The events for GCOE degrees will continue to be coordinated with the GCOE Admissions and Recruitment team.
- **iii.** Students admitted to or enrolled in undergraduate programs that result in a degree from The Grainger College of Engineering will be eligible for GCOE scholarships for both yielding and retaining students.
  - 1. The GCOE will coordinate the scholarships from the SCDS (and combine scholarships with the SCDS when appropriate) for students with the SCDS in degrees in GCOE to maximize the impact of those scholarships.
- iv. All students in programs that result in a bachelor's degree from GCOE will participate in the GCOE New Student Registration (NSR) program.
  - 1. The GCOE team will coordinate with the SCDS to ensure an appropriate number of SCDS academic advisors participate in NSR to ensure as many students as possible from SCDS programs have the opportunity to meet with SCDS advisors.

# 3. Bachelor's degrees outside GCOE: Admissions, Recruitment and Yield, Scholarships

- a. Enrollment targets and admissions criteria.
  - i. The GCOE delegates to the SCDS the responsibility to interact with non-GCOE CS+X partners and the Office of Undergraduate Admissions (OUA) to set enrollment targets and admissions criteria for blended CS

- degrees that do not result in a bachelor's degree from The Grainger College of Engineering.
- ii. The targets provided by the SCDS to OUA will be for the blended CS degrees outside of the GCOE. These outside-the-college targets will take into account the internal-to-the-college targets (see previous subsection, Article 2, 3a) and will be set by consent of both PARTIES. These targets will be communicated by SCDS to OUA after internal-to-the-college targets have been determined.

#### b. External transfer process

i. The GCOE delegates to the SCDS the responsibility to interact with other Colleges hosting blended CS degrees, to negotiate external transfer enrollment targets and admission criteria.

#### c. Internal transfer process

i. The GCOE delegates to the SCDS the responsibility to interact with other Colleges hosting blended CS degrees, to negotiate the ICT and IDT processes for internal transfers.

#### 4. University-wide Program Administration

- a. CS+X council: With the increasing number of blended CS degrees, there is a greater need for management and administrative support. The GCOE delegates to SCDS the coordination with other campus partners offering blended CS degrees. This includes creating a campus-wide CS+X council, with at least one member from each College having a CS+X program, to help coordinate and manage these degrees.
- b. X+DS Programs: The GCOE delegates to the SCDS to work with campus partners on a governing body and organizational structure for coordinating, supporting and growing the X+DS degree programs.

#### 5. Student support services

#### a. IPENG

i. SCDS will work with IPENG to ensure that sufficient seats in CS courses are available to fulfill exchange agreements and create exchange opportunities for students at partner schools.

#### b. Academic Advising

- i. GCOE will manage College-level academic policies and processes (e.g., course registration/add/drop/overrides, academic drop/probation determination, student records, overload/underload approvals, withdrawal/cancellations, re-entry/readmissions, grade replacement, Dean's list, Bronze Tablet, degree certification) for all students pursuing a Bachelor's degree conferred by GCOE.
- **ii.** College-level academic advising support will be provided to all students pursuing a Bachelor's degree conferred by GCOE.
- **iii.** Non-GCOE SCDS students will use college-level advising services and follow academic policies and procedures provided by their home college.

#### 6. Faculty Support

**a.** Voting Faculty in the SCDS will be eligible for participating in faculty development and support programs such as AE3 programming, including the Collins Scholar program, the Fellows program, and SIIP.

#### 7. RSO support

**a.** Engineering Design Council funding and 1st floor Engineering Hall office spaces are restricted to multidisciplinary Grainger Engineering RSOs that are members of the Engineering Council. However, these RSOs may have student members across campus, including SCDS non-GCOE.

# ARTICLE 3 GRADUATE

#### 1. Admissions, Recruitment, Scholarships and Fellowship

#### a. Recruitment

- The GCOE participates in recruitment events, including but not limited to partnering with national professional societies and Big 10 universities.
   The SCDS is encouraged to actively engage in these activities.
- ii. Prospective SCDS GCOE graduate students may continue to participate in GCOE-managed recruitment programs, such as MERGE.
- iii. The SCDS may develop its own outreach activities to recruit a diverse graduate student body. The SCDS will inform the GCOE of such activities so that they can be coordinated with other ongoing or developing efforts.

#### b. Enrollment Targets:

- i. The GCOE delegates responsibility to set enrollment targets in SCDS graduate programs to SCDS. In addition, the GCOE delegates responsibility to SCDS to negotiate enrollment targets with partners in SCDS blended graduate degrees, like the MEng programs in Digital Agriculture and Autonomy & Robotics.
- ii. The GCOE may, with agreement and cooperation from SCDS, act as a broker for those courses with a CS rubric to help manage enrollment demand and availability.

#### c. Scholarship and Fellowships

- i. SCDS GCOE students will continue to be eligible for GCOE fellowships to which they are qualified to apply to.
- ii. The GCOE will continue to advise SCDS and manage offer letters for incoming SCDS GCOE graduate students with multiple fellowships/scholarships.

#### 2. Academic Policies & Practices, Records

- a. The GCOE is responsible for mediating research and academic integrity issues between students and SCDS, or when the matter concerns multiple academic units within the GCOE.
- b. The SCDS will continue supporting the 5-year funding guarantee program for SCDS PhD students in GCOE.
- c. The GCOE is responsible for managing the full-time registration policy that includes granting tuition waivers for GCOE graduate students not registered for a full load upon SCDS request.
- d. The GCOE manages the Funding Limit Policy for graduate students with multiple sources of funding and scholarship.
- e. The GCOE provides support for admissions data, student record and fellowship management through the grad apps and grad recs tools. The GCOE provides training for program coordinators in the grad recs system to ensure that records are up to date.

#### 3. Graduate Student Tuition, Admission, Offers, and Stipends

- a. The GCOE will provide templates for student offer letters for admission, RA, and TAs.
- b. The GCOE will solicit recommendations from the SCDS and coordinate annual graduate stipend revisions with campus.
- c. The GCOE is responsible for negotiating with the GEO for TA appointment contracts and stipends.
- d. For SCDS graduate programs whose tuition rates and waiver designations can be modified (e.g., on-campus and online MCS programs), the GCOE will advocate to the campus on behalf of the SCDS to set these rates.

#### 4. Training

- a. The GCOE will continue to provide training for SCDS TAs through the TA training course, and research ethics training for all graduate students.
- b. The GCOE manages the Mavis Future Faculty Fellows and the Mavis Future Faculty Scholars programs to prepare talented PhD students in GCOE for an academic career through mentoring and training in research and teaching. SCDS GCOE PhD students will remain eligible for both Mavis programs.
- c. The GCOE will continue to provide training to on-board new SCDS graduate coordinators. The College will also continue to coordinate monthly training sessions for current graduate coordinators.

#### 5. Marketing and Market Research

GCOE provides support for market research and advertising support for the launch and marketing of graduate programs and the SCDS can avail of these services when needed.

#### 6. ASEE reporting and USNWR Ranking

The GCOE will provide support to collect data from University systems and coordinate with the SCDS to help file reports to ASEE and for USNWR rankings.

# ARTICLE 4 OTHER MATTERS

This MOU states the understanding between the parties, with respect to the subject matter of this MOU. This MOU is not intended to be a contract enforceable by law but is an internal understanding of the PARTIES relating to the subject matter.

In matters not referred to directly in this MOU and not covered by bylaws, policies, and statutes at the College, Campus, and System level, the SCDS and the GCOE will seek to arrive at a consensus. In matters related to degree programs leading to a GCOE degree, the default will be to address the issue in the same manner that it is between the GCOE and a department housed within the College. In all cases, the expectation is that the GCOE and SCDS leadership will engage with each other in a collaborative and transparent manner as early as possible so that all parties can work together to achieve the best possible outcome.

# ARTICLE 5 DISPUTE RESOLUTION PROCESS

PARTIES agree that the following process will be used to resolve general disputes, should they arise, between SCSD and GCOE.

1) In the first instance, the relevant administrators (as a non-limiting set of examples, associate directors; associate deans) in SCSD and in GCOE will attempt to resolve the dispute.

- a) If the matter involves units outside the GCOE, then the relevant administrators from those units should be engaged in the process as appropriate.
- 2) If the dispute cannot be resolved by the relevant administrators in a timely fashion, the director of SCSD and the dean of GCOE, informed as necessary by relevant administrators, will attempt to resolve the dispute.
  - a) If the matter involves units outside the GCOE, then the relevant administrators from those units should be engaged in the process as appropriate.
- 3) If the dispute cannot be resolved by the SCSD director and the GCOE dean in a timely fashion, the PARTIES agree that the director of SCSD or the dean of GCOE, whoever has ultimate decision-making authority and is ultimately responsible for the matter at hand according to University Statutes and CGOE bylaws will have the authority to make the decision and close the matter. If there is disagreement of the limits of the School's autonomy, the SCSD may appeal according to the processes specified in the University Statutes.

#### **ARTICLE 6 DURATION**

This MOU is effective as of the execution date and remains in effect until amended or modified in writing. If either PARTY believes that revisions to the MOU are needed, the other PARTY will agree to discuss these changes and consider revisions to the MOU in a timely fashion. Substantive changes in the items covered by this MOU should result in the PARTIES working together to revise this MOU in a timely fashion to reflect actual practice. Additionally, if either PARTY identifies a substantive item related to the subject matter of this MOU, even if not currently covered specifically in this MOU, the PARTY should bring it to the attention of the other PARTY; the PARTIES will agree to work together to achieve the best possible mutually acceptable outcome and, if appropriate, include this in a revised version of the MOU. It is recommended that this MOU be reviewed at least every three years.

1/30/24

**Date** 

1/30/24

Nancy M. Amato

Abel Bliss Professor and Head

Many ant

Department of Computer Science

**Rashid Bashir** 

Date

Dean

The Grainger College of Engineering

#### MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MOU") is made the \_\_\_\_ day of May 2023 ("Effective Date"), Between

(1) **DEPARTMENT OF COMPUTER SCIENCE OF THE UNIVERSITY OF ILLINOIS URBANA CHAMPAIGN** located at The Thomas M. Siebel Center for Computer Science, 201 North Goodwin Avenue, Urbana, Illinois, United States of America (hereinafter referred to as "**DCS**")

And

(2) THE GRAINGER COLLEGE OF ENGINEERING OF THE UNIVERSITY OF ILLINOIS URBANA CHAMPAIGN located at 306 Engineering Hall MC 266, 1308 West Green Street, Urbana, IL 61801. (hereinafter referred to as "GCOE")

(hereinafter jointly referred to as "PARTIES" and singularly as "PARTY").

#### **RECITALS:**

- A. The PARTIES wish to facilitate the transformation of the DCS into the School of Computing and Data Science (herein referred to as "SCDS") to be housed within The Grainger College of Engineering.
- B. The PARTIES wish to outline financial principles and operations to ensure a transparent, and mutually beneficial relationship between the SCDS and the GCOE as the DCS is dissolved, and its degree programs, operations, faculty appointments, and staff are transferred into the SCDS.
- C. The PARTIES wish for the SCDS to (i) have roles and responsibilities that extend beyond those of a typical department in order for the SCDS to deliver and manage blended degree programs more efficiently and to enable the school to deliver on its potential as a campus-wide resource, (ii) play an important role in growing GCOE's presence in Chicago, and (iii) be a leader in addressing diversity, equity, and inclusion. The PARTIES recognize that the implementation of Integrated & Value-Centered Budgeting (IVCB) within GCOE is an important contributor to the SCDS having the necessary financial flexibility and predictability that the SCDS will need to operate and grow so that it can fulfill its obligations to its partners across the college, the GCOE itself, and the campus.
- D. The PARTIES agree that the financial and operational relationship is to be based on the following principles: (i) Support and encourage excellence in education and research; (ii) Be transparent, predictable, and efficient: allow both parties to assess the financial impact of their actions; (iii) Allow for creativity and innovation in research, teaching and school operations; (iv) Support and grow new activities across campus and allow for engagement in campus-level governance processes so SCDS may deliver on its potential as a campus-wide resource; (v) address cross-department/college collaborative and multidisciplinary research; (vi) allow a balance between college initiatives and school support regarding resource distribution.
- E. The PARTIES agree that the relationship between the GCOE and the SCDS, except as stated herein, is intended to be similar to the relationship that currently exists between the GCOE and its departments, including DCS.

#### **NOW IT IS HEREBY AGREED** as follows:

#### **ARTICLE 1**

#### **FINANCE**

SCDS operations and planning will be performed in accordance with Campus and University statutes. In general, the financial arrangements currently in place between the GCOE and DCS will be carried forward to the SCDS.

1) The IVCB budget model (Integrated & Value-Centered Budgeting) incentivizes growth in revenues and/or reduction in expenditures to allow for predictability in operation. As a unit of the GCOE, SCDS will continue to operate under this same budget model, just as DCS does today. Maintaining this financial arrangement provides the necessary financial predictability that SCDS will need to operate and grow so that it can fulfill its obligations to its partners across the college, the college itself, and the campus.

The PARTIES will refer to the original white paper describing the IVCB budget model (current V4) and periodic updates and associated documents, for reference and as a descriptor of the budget model and its implementation. These documents are maintained for reference at the website of the Office of the Provost and include, on the revenue side, tuition flow, graduate tuition flow, online revenue, and more. The documents also cover cost and investment assessments including direct cost assessments (such as (1) buildings and space, (2) utilities, and (3) technology services) and investments in administration and University-wide Excellence [translating to College excellence for GCOE implementation of the IVCB].

- a) The IVCB's goals are to promote transparency, include components that allow for predictability, encourage wise stewardship, ensure accountability, enhance responsiveness to strategic goals/priorities, facilitate multi-year planning, and stimulate appropriate incentives. In the context of this MOU, the general framework necessitates a balance between the GCOE's flexibility and capacity to invest in strategic priorities across the college and the SCDS' flexibility and capacity to define its own trajectory and to meet its own strategic goals that are in line with the strategic goals of GCOE and University.
- b) The IVCB budget model is intended to be maintained as the basis for financial arrangements between GCOE and the SCDS as long as the campus operates under this model. From time to time, it is understood that the IVCB model and details of its implementation may be modified at the campus and/or college level.

#### ARTICLE 2

#### **BUDGETING PROCESS, OPERATIONS, INFRASTRUCTURE AND FACILITIES**

- 1) SCDS will inherit the same budgeting process relationship with the GCOE as DCS. Specifically,
  - a) SCDS will participate in the annual budgeting process administered by the GCOE including participating in budget meetings that include multi-year forecasting of enrollments, revenues, and expenses that impact annual budget allocations to SCDS.
  - b) SCDS will participate in discussions relevant to the distribution of budget allocations and of the overall budget administration of the GCOE as any other academic unit in the GCOE.

- c) SCDS will continue to participate in current and future strategic budget programs as any other academic unit in the GCOE, such as Strategic Instructional Innovations Program (SIIP) grants, Strategic Research Initiative (SRI) program, collaborative Investment for Growth programs, etc.
- d) SCDS and GCOE will continue to share in the cost of start-up packages, dual career support, retention agreements, and similar arrangements as is current practice for academic units in the GCOE.
- e) GCOE will continue to distribute undergraduate and graduate tuition revenue to SCDS based on the application of IVCB budget model as implemented within GCOE.
- f) The PARTIES recognize that while their respective leaders have ultimate decision-making authority within their respective spheres as specified by the University Statutes, the success of the College and its Units is best served if actions and decisions are taken in a collaborative, and transparent manner where possible. In particular, the GCOE and SCDS leadership will engage with each other in a collaborative and transparent manner on budgetary and other matters as early as possible so that all parties can work together to achieve the best possible outcomes.
- 2) ICR return will continue in its current form (e.g., 18% of generated F&A flows to SCDS, and 3% flows back to project PI's,). If campus changes the ICR flowback model in the future, we will review and revise this practice accordingly.
- 3) SCDS will continue to participate in and have access to the infrastructure and other support provided to the academic units in the GCOE, such as Engineering IT. Additionally, the GCOE will work with SCDS to address the unique instructional and research computing needs of the SCDS.
- 4) SCDS will keep all space currently occupied by the DCS and will continue to be supported by the GCOE facilities team. The GCOE will continue to incorporate SCDS space needs in its facilities planning, understanding that planned SCDS growth will be dependent on the SCDS securing additional space, both in Urbana and in Chicago.
- 5) The SCDS, while encouraged to promote its identity and successes, will adhere to Campus and College Marketing and Communications standards.

## **ARTICLE 3**

#### SCDS ORGANIZATION AND GOVERNANCE

- The SCDS will initially operate under the bylaws approved by secret vote by the Voting Faculty of the Department of Computer Science. These bylaws are included and are part of the proposal to create the School. SCDS is not currently planning to have departments. Sub-units of SCDS will have independent administrative powers and responsibilities, and determining these is a matter for SCDS. Initially, these sub-units will be the 11 Research Areas and the Instructional Area of DCS.
- SCDS intends to continue the current practice of DCS of welcoming affiliate faculty from across campus. The processes for appointing and renewing affiliate and adjunct faculty will be the responsibility of SCDS.
- 3) SCDS intends to continue the current practice of DCS of collaborating with GCOE on advancement matters.

# ARTICLE 4

#### **OTHER MATTERS**

This MOU states the understanding between the parties, with respect to the subject matter of this MOU. This MOU is not intended to be a contract enforceable by law but is an internal understanding of the PARTIES relating to the subject matter.

In matters not referred to directly in this MOU and not covered by bylaws, policies, and statutes at the College, Campus, and System level, the SCDS and the GCOE will seek to arrive at a consensus. In matters related to degree programs leading to a GCOE degree, the default will be to address the issue in the same manner that it is between the GCOE and a department housed within the College. In all cases, the expectation is that the GCOE and SCDS leadership will engage with each other in a collaborative and transparent manner as early as possible so that all parties can work together to achieve the best possible outcome.

#### ARTICLE 5

#### **DISPUTE RESOLUTION PROCESS**

PARTIES agree that the following process will be used to resolve general disputes, should they arise, between SCSD and GCOE.

- 1) In the first instance, the relevant administrators (as a non-limiting set of examples, associate directors; associate deans) in SCSD and in GCOE will attempt to resolve the dispute.
  - a) If the matter involves units outside the GCOE, then the relevant administrators from those units should be engaged in the process as appropriate.
- 2) If the dispute cannot be resolved by the relevant administrators in a timely fashion, the director of SCSD and the dean of GCOE, informed as necessary by relevant administrators, will attempt to resolve the dispute.
  - a) If the matter involves units outside the GCOE, then the relevant administrators from those units should be engaged in the process as appropriate.
- 3) If the dispute cannot be resolved by the SCSD director and the GCOE dean in a timely fashion, the PARTIES agree that the director of SCSD or the dean of GCOE, whoever has ultimate decision-making authority and is ultimately responsible for the matter at hand according to University Statutes and CGOE bylaws will have the authority to make the decision and close the matter. If there is disagreement of the limits of the School's autonomy, the SCSD may appeal according to the processes specified in the University Statutes.

#### **ARTICLE 6**

## **DURATION**

This MOU is effective as of the execution date and remains in effect until amended or modified in writing. If either PARTY believes that revisions to the MOU are needed, the other PARTY will agree to discuss these changes and consider revisions to the MOU in a timely fashion. Substantive changes in the items covered by this MOU should result in the PARTIES working together to revise this MOU in a timely fashion to reflect actual practice. Additionally, if either PARTY identifies a substantive item related to the subject matter of this MOU, even if not currently covered specifically in this MOU, the PARTY should bring it to the attention of the other PARTY; the PARTIES will

agree to work together to achieve the best possible mutually acceptable outcome and, if appropriate, include this in a revised version of the MOU.

It is recommended that this MOU be reviewed at least every three years.

1/30/24

1/30/24

Nancy M. Amato

**Date** 

**Rashid Bashir** 

Date

Abel Bliss Professor and Head

Many ant

Department of Computer Science

Dean

The Grainger College of Engineering

# **Memorandum of Understanding**

**Agreed to Between** 

# The College of Media

And

# The Grainger College of Engineering

# **Department of Computer Science**

This Memorandum of Understanding ("MOU") is agreed to by the College of Media (MEDIA), The Grainger College of Engineering (GCOE), and the Department of Computer Science (DCS) at the University of Illinois-Urbana Champaign. The parties to this MOU may be referred to collectively as the "PARTIES." This MOU also establishes key parameters by which the PARTIES will support and collaborate in the establishment of the School of Computing and Data Science (SCDS). DCS is a party to this MOU with the understanding that this MOU will apply to the SCDS once it replaces the DCS within the GCOE.

The formal formation of the SCDS will follow the campus governance processes via a separate proposal that would proceed along the approval processes as determined by our University Statutes and policies.

#### Recitals

- A. Whereas MEDIA is committed to meeting the evolving demands of an increasingly connected global society through agile media education, cutting-edge scholarship, and professional synergies, all devoted to facilitating enlightened public decision making; fair, accurate, balanced, and contextual representation of all groups in our society; and the preparation of a new generation of leadership in advertising, communications research, journalism, media and cinema studies, and public media;
- B. Whereas GCOE is a nationally top-ranked College of Engineering that includes DCS, and is dedicated to deliver research and educational excellence and innovation to support economic development to serve our community, the State of Illinois, the nation and the world, and turn learners, no matter their origin or circumstances, into tomorrow's socially responsible, creative and highly skilled citizens;
- C. Whereas DCS is a top ranked, longstanding national leader in computing research and education, and has a tradition of defining, in partnership with cross-campus collaborators such as MEDIA, new research directions and blended academic programs at the intersection of computing and data and other disciplines. The SCDS will continue and expand on this tradition, assuming some new responsibilities to support and grow new activities across campus;
- D. Whereas MEDIA has been at the forefront of addressing the digital transformation of media and communications including partnering with DCS to make available to its students the CS+Advertising program, an innovative undergraduate program that enables students to develop the computational skills necessary to understand, execute, and analyze modern digital advertising;
- E. Whereas the PARTIES are committed to the notion that (i) every Illinois student should have the opportunity to have a meaningful exposure to data science, (ii) data science education at Illinois

- should be flexible to encompass the widely varying needs of different domains in which data science is used, and (iii) data science education at Illinois should be a collaborative undertaking;
- **F.** Whereas The PARTIES recognize that the success of the SCDS in leading advances in the fields of computing and data science and making major interdisciplinary research advances that benefit humanity depends on the SCDS having strong partners across campus, including social scientists and humanists in MEDIA and other colleges.

#### **NOW IT IS HEREBY AGREED** as follows:

- 1. The PARTIES are collaborating in the establishment and growth of the School of Computing and Data Science (SCDS) with the understanding that SCDS will not create departments and with the expectation that other units may also seek to add Data Science and/or its relevant variants to their names. The PARTIES want to ensure that this collaboration allows all of the units currently working in the Data Science space to grow and thrive as the PARTIES move forward with campus discussions to enhance collaboration and coordination of Data Science research and education.
- 2. The PARTIES recognize that important societal problems such as cyber security and privacy, ethical and socially responsible AI, maintaining the centrality of media in a democratic society in a digitally transformed world, and facilitating enlightened public decision making and the fair, accurate, balanced, and contextual representation of all groups in our society, require the active engagement of the entire campus, and will, in particular, require the expertise of the faculty in the SCDS and MEDIA.. The SCDS commits to investing some of the resources that are anticipated by a Naming Gift to provide the ability to quickly assemble expertise to support such multidisciplinary research activities at the intersection of computing and data science and other disciplines that cannot be supported by existing, traditional funding mechanisms. This could include, for example, postdocs and student fellowships, named faculty appointments to recruit top scholars to campus, seed grants to engage young researchers and host highly visible workshops and seminars, or fill other needs. These investments will be required to engage faculty from multiple units to ensure interdisciplinary collaboration, creating opportunities for social sciences and humanities faculty, including those in MEDIA.
- 3. This MOU is effective as of the execution date and remains in effect until amended or modified in writing. If any of the PARTIES believes that revisions to the MOU are needed, the other parties will agree to discuss these changes and consider revisions to the MOU in a timely fashion. Substantive changes in the items covered by this MOU should result in the PARTIES working together to revise this MOU in a timely fashion to reflect actual practice. Additionally, if any of the PARTIES identifies a substantive item related to the subject matter of this MOU, even if not currently covered specifically in this MOU, the PARTY should bring it to the attention of the other parties; the PARTIES will agree to work together to achieve the best possible mutually acceptable outcome and, if appropriate, include this in a revised version of the MOU. It is recommended that this MOU be reviewed at least every three years.

# COLLEGE OF MEDIA

# THE GRAINGER COLLEGE OF ENGINEERING

Hay Luk	d who
Tracy Sulkin, Dean	Rashid Bashir, Dean
Date: February 17, 2024	Date:Feb 17, 2024

DEPARTMENT OF COMPUTER SCIENCE

Nancy M. Amato, Department Head

Date: February 17, 2024

# **Appendix D: School Bylaws**

# Bylaws of the School of Computing and Data Science

These Bylaws specify procedures for the governance of the School of Computing and Data Science (hereinafter referred to as "School"). The School is an academic unit in The Grainger College of Engineering. The Statutes of the University of Illinois and the Bylaws of The Grainger College of Engineering have priority if anything is not specified in the school Bylaws or if any conflict arises in the substance or interpretation of these Bylaws.

# I. MEETINGS OF THIS FACULTY

- A. The Presiding Officer at meetings of this Faculty shall be the Director or, in the absence of the Director, their designee, except as provided by Article IV, Section 4 of University Statutes.
- B. The Director shall appoint a Secretary to record minutes of the meetings of this Faculty. Such an appointment may be for a single meeting. Minutes of the meeting shall be posted in a timely manner.
- C. Meetings of this Faculty shall be conducted in accordance with the most recent edition of Robert's Rules of Order Newly Revised in all cases to which they are applicable and in which they are not inconsistent with these Bylaws, the Bylaws of the College, the University Statutes, or any special rules of order the Faculty may adopt.
- D. The quorum for conducting meetings of this Faculty shall be 25% of the Voting Faculty. The quorum for voting on action items is more than 50% of the Voting Faculty. An electronic or paper vote subsequent to the meeting may be used when this quorum is not satisfied; such a vote must provide sufficient time for the Voting Faculty to participate. People who are on leave shall not be counted in determining the quorum.
- E. During the academic year there shall be at least one meeting of this Faculty per semester. Additional meetings may be called by the Director: (a) on their own initiative, (b) at the request of the Executive Committee, or (c) by a written petition to the Director signed by at least four members of the Faculty.
- F. Notices of all meetings of the Faculty shall be issued by the Director so as to be reasonably received by the Faculty at least three days prior to the

- date of the meeting. Such notices shall include the agenda for the meetings and necessary background documents.
- G. The agenda for meetings of the Faculty shall be prepared by the Director individually or in conference with the Executive Committee, as may be appropriate. Any faculty member may propose additional agenda items to the Director and/or the Executive Committee; the amended agenda will be finalized at least two days before the meeting.
- H. Action items requiring a vote of the Faculty should normally be placed on the agenda distributed to the Faculty prior to the meeting. However, action items requiring a vote may be placed on the agenda at the meeting by a two-thirds vote of the Voting Faculty present. Other items may be freely added to the agenda at the discretion of the Presiding Officer.
- I. In exceptional circumstances, the School Director or the Executive Committee may call an emergency meeting of the Faculty with a shorter notice. The agenda for this meeting will need approval by two-thirds of the Voting Faculty present.

# II. VOTING FACULTY

- A. The Voting Faculty of the School consists of people who have academic appointments in the School of greater than 0%, with rank or title of professor, lecturer or instructor, possibly qualified by words such as "assistant," "associate," "research," "teaching," "clinical," or "senior."
- B. The Director, in consultation with the Executive Committee, may restrict voting on certain types of action items to an appropriate subset of the Voting Faculty. For example, votes on granting graduate advising privileges may be restricted to the Voting Faculty who currently hold graduate advising privileges. This will include any restrictions required to conform with University Statutes or College Bylaws.
- C. People who have adjunct or visiting academic appointments in the School, or who have 0% academic appointments, as well as senior administrative staff and retired members of the Faculty of the School, may attend meetings of this Faculty and shall have a voice but not voting rights.
- D. The Director may invite other people to attend meetings and/or have a voice at meetings.

# III. DIRECTOR OF THE SCHOOL

A. Each new Director of the School shall be appointed upon recommendation of the Dean of The Grainger College of Engineering with the advice of a committee, the majority of whom shall be Voting Faculty of the School who have the School as their home unit ("home unit" is defined in Provost Communications 23). The committee shall be selected by the Dean after consultation with the Executive Committee of

- the School. The search process for the Director shall be conducted in accordance with the statutes of the University of Illinois and the adopted policies of The Grainger College of Engineering.
- B. The Director shall be the chief executive officer of the School. Also, the Director shall be directly responsible for facilities, functions, and personnel of the School. The specific duties of the Director are defined in Article III, Section 5b, of the 1997 Statutes of the University of Illinois.
- C. An evaluation of the performance of the Director will be made every fifth year or at the request of the Dean of The Grainger College of Engineering. The evaluation of the performance of the Director shall be conducted as specified by the statutes of the University of Illinois and the adopted policies of The Grainger College of Engineering.

### IV. COMMITTEES

- A. The Standing Committees of the School shall include the Executive Committee, the Grievance Committee, the Academic Appeals Committee, the Capricious Grading Committee and the Promotion and Tenure Committee and such other standing committees as the Director may appoint on their initiative or at the recommendation of the Faculty. The membership of the initial committees of the School will be the same as the membership of the corresponding committees of the Department of Computer Science; all committees have the same name in the School except for the Executive Committee which was the Advisory Committee in the Department of Computer Science.
- B. Duties of the Executive Committee shall be those specified in Article III, Section 4.d(3) of the University Statutes.
- C. Duties of the Promotion and Tenure Committee shall be to examine the professional credentials of the Voting Faculty and make promotion and tenure recommendations, when appropriate, to the school Director.
- D. Duties of the Grievance Committee shall be to address complaints and queries concerning actions and policies of the School, its officers, committees, faculty, or other members of the School.
- E. The Grievance Committee shall consist of the members of the Executive Committee. In the event that any Executive Committee member feels that they cannot render an impartial opinion on a grievance, that member shall excuse themselves from the Grievance Committee.
- F. The Academic Appeals Committee shall hear appeals from students regarding academic integrity charges. The Capricious Grading Committee shall hear appeals from students regarding capricious grading. Both committees shall be appointed by the Director and shall follow the procedures set forth in the student code.

- G. Other standing and ad hoc committees may be appointed and charged by the school Director at their own initiative or upon the recommendation of the Executive Committee or of the Faculty.
- H. Each standing committee shall deliver a (non-confidential) report of its activities to the Voting Faculty at least once per year. Confidential actions shall be reported separately to the school Director or their designee.
- I. Faculty members shall be removed from a committee if they resign from the committee or are no longer eligible to serve (e.g., go on leave). The Director may also remove a faculty member who is unable or unwilling to perform the duties required by that committee (e.g., repeatedly fails to attend meetings). If the faculty member was elected, this must be done in consultation with the rest of the committee, the Executive Committee, and/or Illinois Human Resources, as appropriate to the situation.
- J. When the membership of a committee goes below its minimum operating size, or upon request by the remaining members of the Executive Committee, vacant seats may be filled in the same manner as the original appointment. Temporary vacancies may be filled by temporary replacements.

# V. THE EXECUTIVE COMMITTEE

- A. Membership of the Executive Committee shall consist of eight elected members from the Voting Faculty of the School who have the School as their home unit and the school Director as a non-voting ex officio member, except when the Committee meets for the purpose of evaluating the Director's performance. Each tenure-track rank (assistant professor, associate professor, professor) shall be represented by at least one member. Two members shall be chosen from the specialized (e.g., clinical, teaching, or research) faculty. That is, six members are tenure track faculty and two members are specialized faculty.
- B. The term of election shall be two years. Membership shall be limited to no more than two consecutive terms. The Voting Faculty shall elect the necessary members (generally 3-4) so the committee is determined as early as possible in the academic year. Voting shall be by secret ballot. At its first meeting each fall, the Executive Committee shall elect its own chairperson and any other officers it determines to be desirable. A member who relinquishes a position on the Committee during the first year of service shall be replaced by the election of an additional person at the regular election. (This person shall have only a one-year term.) When a member changes rank, any resulting imbalance in the committee composition shall be repaired at the next regular election.

- C. The Executive Committee will meet at least once a semester during the academic year. Additional meetings may be called by the Director or any one member of the Committee.
- D. The school Director shall consult with the Executive Committee prior to the preparation of the budget. This will include:
  - 1. General policy on preliminary budget requests
  - 2. General policy on allocating funds among the major budget categories
  - 3. General policy on salaries

Under no circumstances will the consultation include discussion of individual salaries, except when the Executive Committee acts on an alleged grievance and then the individual salary examination shall be limited only to that of the person bringing the grievance to the Committee, together with public information on other salaries.

# VI. THE PROMOTIONS AND TENURE COMMITTEE

The Promotion and Tenure Committee shall consist of at least 10 A. tenured full professors in the Voting Faculty of the School who have the School as their home unit elected by the full professors, tenure system and specialized. The exact number of members is determined by the Director in consultation with the Executive Committee. One third of the committee is elected each year by secret vote as early as possible in a manner generally coordinated with the Executive Committee election. Terms are aligned with the calendar year so that the same committee can process each promotion case, which generally begins in the spring and is completed in the fall. The term of election shall be three years. Membership shall be limited to no more than two consecutive terms. In cases involving specialized faculty, two additional voting members will be included in the committee. These members will be elected from the specialized full professors in the Voting Faculty of the School who have the School as their home unit in a manner consistent with the election and terms of the tenured full professors on the committee; that is, they will be elected by the full professors, tenure system and specialized, for three year terms and will be limited to no more than two consecutive terms. In cases involving research areas not represented in the committee, an additional voting member may be added by the Director in consultation with the Executive Committee. When a member is temporarily unable to serve (e.g., due to a conflict of interest), a temporary replacement may be appointed by the Director for the period during which that member is unable to serve.

- B. The Promotion and Tenure Committee shall elect its own chairperson.
- C. Ad hoc subcommittees appointed to examine the credentials of individual faculty members may include tenure system or specialized faculty, including retired faculty or faculty from other academic units. Only full professors can participate on committees for candidates for the rank of full professor, whereas both associate and full professors can participate on committees for candidates for the rank of associate professor.
- D. Information about each candidate for promotion or tenure will be made available to all full professors, tenure system and specialized, in the Voting Faculty so that they may comment on the case in a timely manner.
- E. The quorum for voting on any tenure-track faculty case is 2/3 of the tenured members of the committee. The quorum for voting on any specialized faculty case is 2/3 of the members of the committee, including at least one specialized faculty member.
- F. If requested by the Promotion and Tenure Committee, the vote on Promotion and Tenure cases for tenure system faculty will be taken by a quorum (more than 50%) of all full tenured professors in the Voting Faculty. For cases involving specialized faculty, all full professors, tenure system and specialized, in the Voting Faculty will participate, and quorum will be more than 50% of all full professors, tenure system and specialized, in the Voting Faculty and more than 50% of all full specialized professors in the Voting Faculty. Such a vote is required before a recommendation for denial of tenure is made or if a vote of the Promotion and Tenure committee is not unanimous.
- G. The final recommendations of the Promotion and Tenure Committee shall be reported to the Director and to all the full professors in the Voting Faculty, tenure system and specialized.

#### VII. ANNUAL REVIEW OF FACULTY

- A. The performance of each member of the Voting Faculty will be reviewed annually.
- B. The Director will provide feedback to each faculty member.
- C. The written self-assessment, together with a summary of the feedback provided by the Director, will be placed in the Faculty member's personnel file. The Faculty member may access the information in the file, and may append a written response to any document in the file.
- D. A faculty member who believes they have been aggrieved by the application of the annual review procedure may petition the Grievance Committee for redress.

# VIII. RECORDS ACCESS AND RETENTION

- A. These Bylaws, together with the current school Policies and Procedures, shall be posted in a place easily accessible to faculty in the School.
- B. Minutes of faculty meetings and committee reports, including any important supporting documents, shall be posted and archived in a place easily accessible to faculty in the School.
- C. Records of confidential committee actions shall be archived, with appropriate access controls.

# IX. AMENDMENT OF BYLAWS

- A. Amendment of these Bylaws may be made at any meeting of the Faculty, but requires a two-thirds vote of all the Voting Faculty. An electronic or paper vote subsequent to the meeting may be used if insufficient faculty are present at the meeting.
- B. Proposals for amendments to these Bylaws may be made by any member of the Voting Faculty. Proposals must be placed on the agenda of a meeting and the text of the proposed amendment must be circulated to the Voting Faculty prior to the meeting.
- C. As prescribed in Article II, Section 3a of the University Statutes, only those members of the Voting Faculty named in Article II, Section A of these Bylaws may vote on amendment of Article II of these Bylaws.

# X. REVIEW

A. The Bylaws will be reviewed within two years after the founding of the School and at least every five years thereafter by an ad hoc committee appointed by the Director and in consultation with the Voting Faculty.

# **Appendix E: Financial Projection**

	Estimat	ed Costs and Sources of	Funds for Pro	posed Unit			
		Illinois Higher E	ducation				
				Year of 0	Operation		
			1st Year	2nd Year	3rd Year	4th Year	
E	penditure						
	Personnel		193	203	213	223	TTF, NTTF, and Staff, with +10 per year after Yr1
	Faculty Count	by # of FTE	124	130	136	142	TTF and NTTF, with +6 FTE per year after Yr1
		Personal Services in \$	18916989.9	22410061.7	24384741.3	25603978.4	TTF and NTTF
	Other Personnel Costs in \$		10468301.3	11427046.5	11774194.1	12362903.8	Staff/TA's/Graders/etc
	Supplies, Services, Equipment <sup>1</sup> in \$		3081880	3379975.6	3696517.67	3881343.56	Other Costs
	Facilities in \$		0	0	0	0	Maintaining our current space arrangment
		Total	32467171.2	37217083.8	39855453.1	41848225.8	
R	esources						
	Current Unit		33488527.6	38385739.5	41309544.7	43375021.9	Total of current sources
	Other Internal Sources <sup>2</sup>		0	0	0	0	
	Federal Funds		0	0	0	0	
	Fees, Sales, Other Income		0	0	0	0	
	New State Appropriation <sup>3</sup>		0	0	0	0	
		Total	33488527.6	38385739.5	41309544.7	43375021.9	

<sup>1</sup> Includes expenditures for library resources.

Note: Do not estimate inflationary factor.

Narrative must accompany this table

<sup>2</sup> Reallocation within institution from other budgetary unit.

<sup>3</sup> Complete table 2 if greater than zero.

# **Appendix F: OMSA Programs**

# Appendix F: OMSA Programs

**TRIO Upward Bound (UB).** UB is the oldest Federal TRIO program and funded to serve 102 pre-college students in Champaign, Urbana and Rantoul, Illinois. UB was created in 1964 by the Economic Opportunities Act to increase secondary graduation rates and prepare first generation, low-income for college success and graduation. The University has successfully administered the UB federal award for more than 50 consecutive years. And the program has been a part of OMSA since OMSA's inception.

**TRIO Talent Search (TS).** TS is a Federal TRIO program funded to serve 500 pre-college students in Champaign, Urbana and Decatur, Illinois. TS was created in 1965 by the Higher Education Act to increase the number for disadvantaged youth completing secondary education, enrolling in and completing post-secondary degrees.

**TRIO Student Support Services (SSS).** SSS is a Federal TRIO program funded to serve 250 undergraduate students at UIUC. SSS was created in 1968 by an amendment to the Higher Education Act to increase college retention and graduation rates for first generation and low-income students.

**TRIO Ronald E. McNair Post-baccalaureate Achievement Program (McNair).** McNair is OMSA's fourth and final Federal TRIO program funded to serve 36 undergraduates at UIUC. McNair was created in 1986 by an amendment to the Higher Education Act to encourage underrepresented students to pursue doctoral studies and increase their attainment of a Ph.D.

**Tutoring and Academic Services (Tutoring).** OMSA's Academic Services Center, assists students in developing the confidence, independence, and active learning skills necessary to meet the University's academic standards and students' individual educational goals. This skill development is facilitated via **tutoring, review sessions, supplemental instruction, study skills workshops, academic enrichment activities, and by helping students navigate the network of college and departmentally based academic resources on the campus.** OMSA's commitment to universal student success requires us to serve every student that requests our assistance. Yet, our core population of students for whom we focus our services are incoming students who are:

- First time first-year students
- 1st Generation
- Low-income
- Historically underrepresented U.S. minorities (i.e., African American, Latino/a, Native American, and Native Hawaiian/Pacific Islander)
- Multi-racial (with at least one historically underrepresented racial identity)
- A student with one of the following banner attributes: Educational Opportunities Program (EOP), President's Awards Program (PAP), DGS Enrichment students, and LAS's AAP students (declared only), AHS's I-LEAP students, I-Promise students, and Chez Scholars.

**OMSA's STARS** are proactively encouraged to utilize the academic services offered in OMSA East and the excellent student support services offered by our colleagues in the Division of Student Affairs to build success at UIUC from the start. STARS students who qualify for a mentor are assigned to a professional Academic Support Specialist or a trained Graduate Mentor before classes begin and encouraged to meeting with him or her regularly throughout their first year at Illinois.

**Advising and Mentoring (A&M).** Illinois students at all grade levels can take advantage of OMSA's general advising and mentoring services by making an appointment or by simply dropping-in. Student Success Advisors (SSAs) help with a range of personal, career, financial, and academic issues and refer students to valuable resources throughout the campus and community.

A&M's individualized and intensive retention support services such as academic coaching and mentoring is geared towards approximately 1,300 of the most vulnerable students who meet the first criteria and either the second or the third criteria below:

- The student cannot qualify for duplicative mentoring services from other campus units (e.g., LAS's Access and Achievement Program; AHS's Mannie L. Jackson Academic Enrichment and Leadership Program, OMSA's Student Support Services program, or the Chez Family Scholars program, etc.).
- The student must be a first-time first-year student AND from a historically underrepresented US minority group (multi-racial students are included).
- The student must be a first-time first-year student from a non-US minority group who is a) first generation, b) an EOP or PAP student, and C) earned a composite ACT score between 17 and 24, inclusive.

Our SSAs receive training prior to mentoring students. These staff members are not academic advisors but collaborate with academic advisors to ensure student success. SSAs are assigned to students before classes begin. Students are introduced to their SSA and to other academic support and retention services at a special seminar focused on student success before classes begin. Even when a student is excelling academically, we are there to help students reach beyond their coursework to experience all the University has to offer.

Appendix G: Sample of UIUC High-Impact Practice Programs, Support, and Services

# Appendix G: Sample of UIUC High-Impact Practice Programs, Support, and Services

#### **All Students**

- I-Connect Diversity & Inclusion Workshop is an experiential training designed to help incoming students embrace differences and recognize shared experiences in order to build a welcoming and engaged campus community. Facilitated by fellow students, I-Connect uses collaborative exercises and engaging discussion to build participants' communication skills and their ability to collaborate, learn, and work in diverse environments. All of us—regardless of our experiences or social group membership—must understand both our similarities and our differences in order to work and live with one another. I-Connect workshops provide students with an opportunity to begin these important discussions and learn from each other.
- Housing Division Social Justice and Leadership Education team coordinates student groups, leadership opportunities, and social justice initiatives in the residence halls. Every hall has a multicultural advocate (MA) who promotes the advancement of multiculturalism and social justice within the residence halls through community and staff development, education, celebration, and dialogue.

#### **African American Student Programs, Support, and Services**

- **Bruce D. Nesbitt African American Cultural Center:** The mission of the Bruce D. Nesbitt African American Cultural Center is to provide a network of programs and support services promoting the individual, social, cultural and academic well-being of Illinois' African American students.
- Black Geek Week: the Bruce D. Nesbitt African American Cultural Center launched its inaugural "Black Geek Week" as part of Black History Month festivities in 2013. The week's events highlighted the achievements of Africans Americans in academia, STEM (science, technology, engineering and mathematics) and arts that have pushed the boundaries of thought and technology. Moreover, the programs seek to expose the Illinois community to a demographic of "nerds" and "geeks" who are rarely highlighted in pop-culture and contemporary discussions on geek culture (e.g. comics, gadgets, science fiction, computers, etc.).
- The Black and Latino Male Summit: The summit has been part of the University of Illinois since 2010. The summit is concentrated in the decolonization of concepts that have impacted and continue to negatively impact Black and Latino men. Our purpose is to deconstruct narratives, build consciousness as to who we are as men of color, and to continue our drive to serve as an agent of positive change in our communities. BLMS, as it has in the past, strives to provide a forum for Black and Latino men to discuss the role of history in today's Black and Latino experience. The summit aims to create an experience that sparks reflection and ignites action from its participants. Furthermore, the organizers and sponsors of this summit seek to promote camaraderie, coalition building, and community between Black and Latino men. This program was held virtually.
- Black and Latina Womxn Summit: the purpose of the Summit is to provide an opportunity for Black and Latina Womxn in the campus community to build coalitions as well as discuss issues of womxnhood. The summit also provides a space to develop strategies to achieve academic success, professional, development, and wellness. Our goal is to provide an environment for

undergraduates, graduates, and staff, to connect and develop a network. Furthermore, we aim to provide a safe space to have deep conversations as well as provide knowledge of the resources that campus provides. Program was held virtually.

- Housing Division Men of Impact is a student organization that is dedicated to serving the needs
  of Black men. We address the needs and concerns facing Black men in our community, via
  education and service activities. Our primary goal is to equip Black men with the necessary tools
  to overcome the social stigmas facing them in society today.
- Housing Division Central Black Student Union is to support African American students in the
  residence halls, serve and assist Black Student Unions in the residence halls, and meet the needs
  of supporting organizations and the campus-wide community.

# Latino/a Student Programs, Support, and Services

- Conéctate is an early move-in program designed for first generation Latino/a students to experience the fast-paced campus life that awaits at Illinois. This program is intended to create opportunities for Latinos/as to understand college life based on non-traditional narratives rather than framing one's story on the experiences of the dominant group. This two-day program will provide opportunities to Latino/a college students in a predominantly white institution (PWI) to embrace the concept of Latino/a—by empowering their sense of belonging and identity—to learn about academic rigor from current faculty; and to understand the importance of balancing all sorts of responsibilities. The program consists of three different modules: Sense of belonging, Developing student-faculty relationship, and Balancing responsibilities.
- The Black and Latino Male Summit (See Above)
- Black and Latina Womxn Summit (See Above)
- The Latinx Resilience Network provides support for Latinx students on campus, increases mental health wellness and awareness, and works as a space for students to share their campus climate experiences to build resilience. The Resilience Network:
  - Educates students and faculty about mental health awareness and resources
  - Trains students to be peer coordinators, facilitators, and listeners
  - Fosters Latinx success on campus

The La Casa META Program is designed for all undergraduate students to forge paths and create networks to achieve academic success and personal growth. Through the META Program, La Casa Cultural Latina promotes retention, service, and achievement to turn today's students into tomorrow's leaders, professionals, and community organizers. The program encourages students to define and set goals and work together, develop strategies and timelines to achieve those goals, and direct students to campus resources.

#### **Additional Student Programs, Services, and Support**

• Asian American Cultural Center: The University of Illinois Urbana-Champaign has one of the largest and most vibrant Asian American university communities in the Midwest, where 37% of students are

of Asian descent. Opened in Fall 2005, the Asian American Cultural Center provides the University of Illinois community with space to gather and share experiences of our diverse and rich cultures. As a unit of the Office of Inclusion & Intercultural Relations, the AACC promotes cross-cultural understanding that supports the academic and personal growth of students, along with learning experiences that help shape a lifetime commitment to ethical and engaged citizenship.

- Lesbian, Gay, Bisexual, Transgender (LGBT) Resource Center is a resource not only for the LGBT community but for the entire University of Illinois community. The LGBT Resource Center seeks to help in the efforts to address homophobia, biphobia, transphobia, and heterosexist attitudes and beliefs on the campus, and to work to make the environment safe and affirming for all students, faculty, staff, and LGBT students, faculty, and staff at the University of Illinois Urbana-Champaign in particular.
- Native American House: (NAH) serves as a support and resource center for Native American students, including all students and the campus. Specifically, Native American House provides events and programs throughout the year that allow students the opportunity to enrich their cultural and academic experiences at the University of Illinois. While fostering a university community that values and actively supports inclusiveness and diversity, the support provided for students ensures a rewarding educational experience.
- Women's Resources Center is a fun, active center on campus where students of all genders can come to learn a new skill, hear a great workshop, enjoy tasty food treats (including vegan options), explore an arts and crafts talent, or participate in a stimulating discussion on a variety of "hot" topics! Women's Resources Center provides students with CONFIDENTIAL support and advocacy services when they are faced with difficult or emotionally traumatic incidents such as harassment, stalking, sexual assault, or abuse within a relationship. Women's Resources Center is responsible for the First Year Campus Acquaintance Rape (FYCARE) program to ensure that all students are aware of issues related to sexual assault and other interpersonal crimes and the resources available to them.

Appendix H:
iSchool Questions and Responses
Survey of Schools of Computing and Related Units

# **Response to iSchool Questions**

Submitted by The Grainger College of Engineering

January 20, 2024

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# Response to iSchool Questions

How can we ensure that the formation of the new School of Computing and Data Science (SCDS) in GCOE will not negatively affect the Masters of Science in Information Management (MSIM) degree in the iSchool?

The top-ranked iSchool degree in MSIM is a pride for our campus and iSchool and for all of us. The GCOE and SCDS will ensure that we will do what we can to elevate and amplify that program. However, evidence suggests that the pool of applicants for the MSIM has little overlap with the pool of applicants electing to pursue a Master of Computer Science (MCS). We believe that is largely because the MSIM is aligned with the vision, mission and established strengths of iSchool. The MSIM courses and philosophy differ markedly from the MCS, even when a student selects mainly data-centric courses in the MCS. This becomes evident by looking at the following tables.

The analysis should be put in the context of overall applicant numbers. These are presented in the following table.

Table 1. Total number of applicants per MS program.

Program	FA23	FA22	FA21	FA20	FA19
MCS	2902	1779	1461	1263	1170
MSIM	1557	1355	1214	986	482

The table below provides totals for applicants who applied to both the on-campus MCS and the on-campus MSIM program. Except for FA22, the majority of those who applied to both MCS and MSIM were admitted to MSIM. The number admitted to both is small. The total number of applicants that were admitted to both the MCS and MSIM in FA23, as an example, was 5 out of 1557 or *0.3%* of the total number of applicants to the MSIM program.

Table 2. Applicants to both MCS and MSIM By Year

	FA23	FA22	FA21	FA20	FA19
Applied to Both MCS and MSIM	80	16	13	14	15
Admitted to Both	5	3	1	1	0
Admitted to Both, Chose MCS	4	2	0	1	0
Admitted to Both, Chose MSIM	1	0	0	0	0
Admitted to Both, Declined Both	0	1	1	0	0
Admitted to MCS Only	2	2	0	0	0
Admitted to MSIM Only	46	1	7	13	11

We also were provided the following information by the Graduate College regarding applicants who applied to any two MSIM or MCS (including online/off-campus) programs:

- For Fall 2023, there was 1 applicant who applied to MSIM and the Chicago MCS program. This applicant was admitted to the MSIM program only.
- For Fall 2022, there were 2 applicants who applied to the MSIM and the online MCS program. One applicant was admitted to the MCS only and one was not admitted to either program.
- For Fall 2021, there were 2 applicants who applied to the MSIM and the online MCS program. One applicant was admitted to the MSIM program only and one wasn't admitted to either program.
- For Fall 2020, there was 1 applicant who applied to the MSIM and the online MCS program. This applicant was admitted to both programs and chose CS.
- For Fall 2019, there were no additional applicants who applied to either online program.

The SCDS is not looking and will not set up a competing degree to MSIM. Quite the opposite, GCOE and the Department of Computer Science are seeking to expand our collaborations with iSchool and LAS by jointly establishing a Data Science Masters (that is currently in the approval processes and will be hosted by LAS). The SCDS will be committed to supporting and continuing this new Data Science Masters. We stay committed to developing any new Data Science degrees jointly with iSchool and LAS.

Should students interested in applying to a Masters in Data Science program come to the SCDS website, they will be directed to the campus Data Science page. We will come back to this in a later response to a general enrollment question, but it is worth stating here: CS accounted for more than 20% of *all* student applicants to UIUC and more than 30% of applicants to GCOE in recent years. The number of applicants qualified to be admitted in CS programs that do not receive offer letters number in the thousands. We see a real opportunity to have X+DS programs flourish and bring benefits to SCDS, GCOE, iSchool, LAS and "X" units much as the CS+X programs have seen growth and impact. As a matter of fact, we are already seeing some decrease in applications to CS and a corresponding increase in applications in CS+X programs. We expect that these applicants to CS would also be exploring X+DS programs which would benefit iSchool, LAS, GCOE and CS.

On a different and related note, GCOE actively engages in search engine optimization and search marketing campaigns for its programs. We would plan to do the same for the new school and the programs it offers. We would encourage the iSchool to do the same if they are not already doing so. We would happily include a link on the school website that reads "Are you looking for the iSchool Masters of Science in Information Management program? Click here." This would potentially result in more traffic being driven to the iSchool program webpages. CS would welcome a reciprocal arrangement. We currently do this for degrees in Computer Science and Computer Engineering.

# How can we ensure that the formation of the new School of Computing and Data Science in the GCOE will not impact iSchool's ability to hire faculty in the future?

To our knowledge, there has only been one faculty candidate to whom both CS and iSchool made an offer in recent years. That individual elected to go elsewhere. As top-ranked units in our respective fields, CS and iSchool graduate students wishing to pursue academic careers are provided advice and guidance by their mentors as to where to consider applying, including with whom they can look forward to collaborating. We believe we can agree that top tier institutions provide the same mentoring and guidance. Top tier faculty applicants are thus expected to be well aware and informed of the stellar

work being done in CS and iSchool, the nature of the research being pursued across the data science spectrum at each unit, and which might be their best match. The result is that there has been very little overlap between the faculty applicants that CS and iSchool have selected to invite for interviews, and as noted, only one case where both made an offer to the applicant. We do not expect this to change with the addition of "Data Science" in the SCDS name, anymore that that would have happened anyways due to the nature of the work in SCDS and in iSchool. Faculty will continue to apply to departments and colleges and schools, based on the work that their faculty are doing.

We do recognize that some may still be concerned. In this regard, it is useful to examine the steps that have been taken to address concerns between the ECE Department and CS Department within GCOE. Computer Engineering and Computer Science have 3 research areas which overlap and/or are closely aligned. Coordination between search committees and joint interviews have been the norm for over a decade for these joint areas. Our overall philosophy is to bring or help bring the best faculty to campus and let them decide what is their best match. The success rate of each department in getting a faculty into their department after joint offers are made (the applicant can decide which department to join or a 50/50% appointment) has been shown to be statistically insignificant. Indeed, just as the case of the applicant that received an offer from both iSchool and CS, candidates receiving joint offers are likely to be highly attractive to our competition and many do choose to go elsewhere. ECE and CS have agreed to reciprocally advertise open positions of the other on their own websites. ECE and CS have also agreed to list all faculty and faculty affiliates, no matter their home department, on an equal footing as a single faculty directory in their respective units.

We are open to a reciprocal arrangement as has been established between CS and ECE to direct applicants to consider applying to iSchool and vice versa. We will continue to offer to strategize around hiring in advance of the hiring season so as to minimize competition around hiring of faculty between iSchool and CS/the new school. CS and SCDS will remain open to collaborating with iSchool, like we do with Computer Engineering and other units across GCOE and across campus as described above.

SCDS has committed to continue to offer affiliate appointments for faculty in iSchool giving them rights and access to CS students and forums to connect and collaborate with CS and affiliates from other departments. We would welcome a reciprocal arrangement with iSchool. Being able to speak about such steps speaks volumes to prospective applicants at any of the campus' units about the openness to collaboration and the steps taken on this campus to make such collaborations as easy as possible. This is one of our university's core values and we believe is a powerful draw to our campus.

The interest and demand for computing and information science has led to a competition for top faculty candidates across the nation. We need to prioritize working together to bring faculty to the campus in whatever department is the best fit for them as opposed to seeing faculty going elsewhere to peers. Hiring faculty is not only about competing internally for faculty; it is rather competing for the best faculty and students with our peers and across the nation.

Will the formation of the new School of Computing and Data Science in GCOE impact undergrad and graduate applications and enrollment in the iSchool?

General

It is challenging to draw firm conclusions on what the impact has been when a School of Computing and Data Science or similar unit has been put in place elsewhere, given the national surge in demand for computing and information science in recent years. For example, from fall 2021 to fall 2023, enrollment in computer and information sciences increased by 21.4% and 41%, respectively, at the bachelor's and master's levels, according to preliminary data from the National Student Clearinghouse Research Center.

A reframing of this question above is to ask whether the presence of such a school has impacted the number of applicants to the iSchool. The limited data readily available, as extracted from College Factual (<a href="https://www.collegefactual.com/majors/computer-information-sciences/information-science-is/rankings/top-ranked/">https://www.collegefactual.com/majors/computer-information-sciences/information-science-is/rankings/top-ranked/</a>), would suggest there is little correlation between the two. The College Factual website gives the *percent increase in graduates* for a few of the top ranked information science programs. The following table lists some of the information provided.

Table 3. Percent increase in Graduates in Top Information Science Schools Where a School of Computing Exists

Institution	iSchool	% Increase in Graduates
UC - Berkeley	iSchool is now an independent unit but was part of a division before the division was changed to a College.	11.0%
U. of Washington	Computing School within Engineering. iSchool is an independent unit. This is the closest scenario to our proposed SCDS.	20.3%
U of Maryland – College Park	iSchool is independent.	12.3%

We discuss undergraduate and graduate students in the sections that follow. As a general guiding principle, GCOE and CS will always work with the overarching philosophy that we want a student to choose the program that is best suited to them and that they can be passionate about. We believe students should be given the information they need to make the best decision for them.

# **Graduate Programs**

The response to the question related to whether the creation of the SCDS may have a negative impact iSchool's MSIM brings to the forth that the applicant pool for this important degree has little overlap with what will be SCDS's MCS degree.

At the graduate level, it is a simple matter for a potential applicant to see that CS pursues research in data science fields. Three research areas listed are Artificial Intelligence, Bioinformatics and Computational Biology, and Data and Information Systems. As previously discussed, we are confident from interactions with CS peer institutions and prospective graduate students that prospective graduate students are informed, for the most part, by their mentors and advisors that top-tier CS faculty pursue DS related research. The decision for these applicants to apply to CS is NOT dependent on whether "Data Science" is attached to the name or not. They apply because the nature of the research pursued and the education that they can receive is what is attractive to them. Hence, we do not expect a difference in graduate applicants based on the name of the college alone. Students look at the degree names, course offerings and related information and the institution. The exact name of the department/school is less relevant.

As with undergraduate applicants, the number of excellent applicants to CS graduate programs far exceeds what CS can accommodate. While we expect SCDS to be in a better position to accommodate

more, SCDS is not expected to be able to meet the overall demand. In this regard, we hope that new blended degree programs and the MS Data Science major to be hosted in the Department of Statistics but co-developed and delivered by CS and iSchool will prove a venue for growing Data Science to the benefit of all across campus.

As a final note, it is worth reminding ourselves that our main competition is not internal, it is external. Our ability to recruit top students in our respective graduate programs requires that we present the strongest and broadest offerings in data science graduate courses and research as we can as an institution. It is also vital to the impact our research can achieve. For example, graduate students in CS can take excellent courses in related fields from esteemed faculty in ECE and vice versa. Mentors of graduate students encourage this. It results in student research assistants that have broad and deep interdisciplinary knowledge to achieve true fundamental breakthroughs that they would otherwise only be able to superficially touch upon. We believe that SCDS and iSchool faculty, especially affiliates from each, should work to grow such exchanges amongst their graduate students as well.

# Undergraduate

Looking at historical data, at the undergraduate level, very few students who have applied to the CS degree program in GCOE as their first choice were admitted to iSchool as their second choice (< 15 over the past 3 years) and fewer, yet choose to enroll once redirected (< 5 over the past 3 years). We believe that CS and iSchool applicant pools do not overlap and we don't expect any differences in this trend moving forward. As CS has demonstrated in the campus-wide collaborative development, promotion, and enrollment management of the CS+X programs, GCOE and CS are focused on getting undergraduate students into the major that best suits their interests, skills, and preparation. Looking at exchanges between students evaluating whether to pursue a CS minor or a Statistics minor to gain a better understanding of machine learning and big data, for example, while only anecdotal, are telling as they demonstrate a clear understanding of the differences between these two programs.

The number of students applying to the undergraduate degree program in CS far exceeds what the department and the new school is and will be able to accommodate. We have worked deliberately with admissions to publish acceptance rates in CS and CS+X degrees (<a href="https://www.admissions.illinois.edu/apply/freshman/admit-rate">https://www.admissions.illinois.edu/apply/freshman/admit-rate</a>) which has led to a very beneficial increase in applicants to CS+X (+72% from 2022 to 2024) and reduction in applicants to CS (-18% from 2022 to 2024). We have worked with the Office of Undergraduate Admissions and partnering colleges to make sure applicants have the information needed to make an informed decision that is best for them (e.g., <a href="https://blog.admissions.illinois.edu/get-to-know-computer-science-and-majors-similar-to-computer-science">https://blog.admissions.illinois.edu/get-to-know-computer-science-and-majors-similar-to-computer-science/</a>), and are open to similar efforts in the data science educational space. Furthermore, the SCDS does not intend to change its degree names and remains committed to not creating a Department of Data Science within the new School.

# How can we argue the formation of the new School of Computing and Data Science in GCOE does not harm the iSchool, broadly speaking?

We have presented both facts and ideas on policies that could be implemented in a collaborative manner that we believe argue for the strong likelihood that the creation of the SCDS housed fully within the GCOE would not adversely impact student or faculty recruiting in the iSchool. Indeed, in light of competition from peers, the creation of SCDS may well be helpful to both recruiting and impact. This

question allows consideration of the iSchool more broadly speaking including its position as a leading academic unit on campus and as a partner in data science education and research.

The proposed structure, whereby the School of Computing and Data Science is housed within The Grainger College of Engineering, leaves intact the direct reporting line between the iSchool and the provost. We note here that this is precisely what the iSchool at Berkeley elected to do. It chose *NOT* to become part of the UC-Berkeley College of Computing, Data Science, and Society. The UC-Berkeley iSchool has elected to remain an independent unit that reports directly to the provost. In doing so, it leaves intact its sole authority to recommend salaries for its faculty and staff as well as decisions regarding Promotion and Tenure. Furthermore, in our view, having the SCDS housed within the College of Engineering, reinforces that the SDCS is *not* the only place where data science is pursued - including the fact that the data science continuum includes Statistics which is typically not housed in engineering either.

At Wisconsin-Madison, the iSchool is now under the School of Computer, Data & Information Science along with the Department of Computer Science and the Department of Statistics. It is difficult to determine what bounds have been placed on the iSchool, but we note that its degree offerings appear to be limited to information science, and library and information studies with the Department of Statistics having control of all data science-related programs. The SCDS commitment to data science being a shared area provides for the iSchool to maintain its role as an important co-partner in data science education and research on campus. There is no attempt to take this away by SCDS and GCOE.

The formation of SCDS could allow for another place to market and publicize iSchool degrees as well if that is what iSchool wanted. The possibility of the iSchool and SCDS collaborating, much as CS and ECE have done, could result in a net benefit to the iSchool. Along this line, a strategic discussion on marketing and communications between iSchool and CS (or the new School) could be initiated to ensure that if there is to be an impact to the iSchool, it would be beneficial. SCDS can bring more visibility to all the campus units that host or provide the core of DS education programs.

The GCOE and CS are open to the creation of a division for Data Science Education and the recently proposed Office of Data Science Research proposed by the OVCRI. We understand this later office would be housed in NCSA, and we have no objection to the iSchool faculty having a leadership role in this office.

# How to articulate the formation of the new School of Computing and Data Science in the GCOE as a win-win for the iSchool?

With peers elevating computer science to schools of computing and/or data science, a top tier, large-scale, high-quality school of computing and data science is an important leverage for the university to be able to compete for the very best faculty, students, and interdisciplinary research funding. This is also most important to the Grainger College of Engineering to keep its top rankings in computer science and computer engineering. We have discussed how strong collaborators can benefit iSchool faculty in going after large interdisciplinary awards and how iSchool students can benefit from the richness of courses available to them across campus. It is highly beneficial for our respective units to be seen to be working together. It is highly beneficial for our respective units to actually be collaborating.

The mission of the iSchool is distinct and stands on its own. We believe that the iSchool will continue to recruit top students and faculty who see a fit between their interests and the iSchool vision and mission. However, to succeed in attracting major investments and top colleagues and students, it is imperative that UIUC be able to present a unified front of interdisciplinary and collaborative research in computing and information and data sciences to the outside world. It is crucial for iSchool faculty to not only have top tier IT infrastructure at its disposal [we return to this later], but great collaborators across the data science continuum to work with. The stronger these connections and opportunities are, the easier it is to retain faculty and attract top tier students and faculty. A stronger, more visible School of Computing and Data Science will lead to stronger colleagues to collaborate and partner with and continue to raise the profile of iSchool and Statistic & Math. UIUC needs a strong data science community and a visible presence on the national scale to secure major research projects and partnerships. The latter is needed to achieve major breakthroughs that better human lives and solve societal grand challenges. A good example is UIUC winning and successfully renewing the Army Research Laboratory Internet of Battlefield Things Cooperative Research Alliance providing major funding and leadership in this domain for UIUC for ten years. iSchool professor Jana Diesner played a key role as part of a diverse team spanning ECE, CS and the iSchool that brought this award to UIUC. Her expertise and stature were vital, we believe, to the success of the team, but not sufficient on its own. Only by working together can we present UIUC in its strongest manner. The C3.ai Digitalization Transformation Institute is another example. Without UIUC's breadth, depth and numbers in domains that touch digital transformation, it is highly unlikely that UIUC would be included, let alone be co-leaders of this institute. Yet we are - and all UIUC faculty, including iSchool faculty, can compete for grants from this institute.

There are also important indirect financial benefits to the iSchool to having a strong SCDS within GCOE and seeing the SCDS secure an anticipated naming gift. We can anticipate that financial constraints and demands for resources will lead to colleges and schools encountering challenging times. Rising construction costs for new facilities are causing projects like the rebuilding of Illini Hall to be rereviewed. Any dollar from a resulting naming gift that goes towards urgently needed SCDS facilities and resources to maintain, let alone grow SCDS, is a dollar that the campus does not have to provide. In a period where budgets could become tighter and where construction costs are blowing up estimates of planned investments across campus, this is important to all of us.

In a different but related vein, CS+X programs have contributed to the growth of student numbers and revenues for X units across campus. Growth of revenues for these programs as well as growth in core CS programs have resulted in significant new revenues to CS, X's, and GCOE. Under the new budget model, this has resulted in a larger tax base for the campus allowing the campus to support services such as Big Data IT infrastructure and support interdisciplinary research units like NCSA that benefit the iSchool (as well as GCOE and other units). Without the revenues to finance such investments, the iSchool, GCOE and other units on campus will suffer. We believe X+DS programs can similarly lead to benefits across campus and in particular to units that deliver the DS core of these programs. The ability for CS to support the expansion of CS+X, X+DS and other blended degree programs in the future depends on the creation of SCDS and the anticipated naming gift. There is virtually no space left for new CS faculty nor CS graduate students in current CS facilities. Unless this is remedied, the reputation of CS will be harmed as will its ability to contribute to the growth of these programs. Similarly, if the Office of Data Science Research is to be more than an entity on paper, significant resources will need to be assigned to that office by the OVCRI. In the coming years, a most important need is going to grow the revenue base from which campus will tax all of us to spend on such initiatives.

The SCDS is not intended to provide leadership for the campus but rather within the GCOE. Nevertheless, the SCDS will be the portal of CS and DS partnerships between the GCOE and other parts of campus. It opens the door to several actions or opportunities that can benefit both SCDS and iSchool such as joint initiatives in data science that would benefit both iSchool and GCOE/SCDS, and joint hires in data science across iSchool and the new School. As noted earlier, to allow for a distributed leadership on DS, the GCOE and SCDS would support iSchool's leadership in the office of data science research at NCSA if the leadership of NCSA and OVCRI decided to do so (as they have the ultimate decision authority). Having said that, the degrees offered in the School of Computing and Data Science will remain the same. There will be no Data Science department in SCDS, and we have no predetermined intention of blocking the iSchool or LAS for doing this if they so choose. There are also no standalone BS in Data Science being developed by GCOE alone.

# Additional Questions Raised During iSchool Faculty Meetings

# Has CS or GCOE done a survey with the CS alumni around the name change? Are CS alumni OK with the new name?

We understand that this was raised as a matter for consideration because it was pointed out that the iSchool had to conduct such a survey when it changed its name in 2016 from the *Graduate School of Library and Information Science* to the *School of Information Sciences*. It is understandable that concerns as to how iSchool alumni would view the change were raised given that this would result in dropping "Library" in its name, a word that had defined what the unit was about from its early days as a library science program to the Illinois State Library School (1897) to the University of Illinois Library School (1926), to Graduate School of Library Science (1959) to Graduate School of Library and Information Science (1981). It appears that these concerns were found not to be an impediment and the iSchool was able to change its name. The proposed change to the School of Computing and Data Science is more akin to the change from the iSchool name underwent when it changed from Graduate School of Library Science to Graduate School of Library and Information Science to reflect, as your online history states, "... to recognize new aspects of librarianship." The proposed change from the Department of Computer Science to the School of Computing and Data Science similarly recognizes new aspects in computing and the broader pursuits of the unit.

We did consult a few selected key alumni of the CS department during the development of the proposal on the name. They were all very supportive of the creation of the new School and the name change. Indeed, several told us it was long overdue considering what our competition was doing. We also consulted with the GCOE BOV (<a href="https://grainger.illinois.edu/about/directory/leadership/board-of-visitors">https://grainger.illinois.edu/about/directory/leadership/board-of-visitors</a>) as well. They are all unanimously supportive of the creation of the new School and the name change.

We also note that the names of our degree programs are not changing, ensuring a continued strong bond with the degrees of our alumni.

We also take the time to remind ourselves that one of our key tenets of faculty governance is for the faculty to not have to succumb to undo external pressure. We believe that conducting a mass survey after the faculty in GCOE have already approved the name change might appear to circumvent the

faculty governance process at the campus level. We want to avoid this and any external pressures. We understand this is a fine nuanced point.

We do plan to send an informational update to CS alumni closer to the launch of the new school. Given the points above, we have decided to not undertake an alumni survey at this time.

# If other institutions have a School of Computing (or similar organization), where is iSchool? Where is Math? Where is Stats?

We can appreciate that this would be of interest. Examining how numerous universities had elected to elevate computer science from departments to schools of computing and/or data science was one of the first steps that was undertaken in evaluating the creation of a school of computing and data science well over 1.5 years ago. To respond to this question now, we expanded on this prior research and updated it by reviewing where the iSchool, Mathematics and Statistics units resided. We also looked at a number of institutions where both information science and computer science are highly ranked. Not surprisingly, there is a significant overlap between these groups. A summary of our findings is presented in a separate document entitled, "Survey of Schools of Computing and Related Units," that is provided along with this document.

We also took the liberty to examine what data science programs were being offered at these schools and who delivered these programs.

At a high level, it will be no surprise to find that how universities have organized themselves varies tremendously from one institution to the next. This is often due to how those university units have been created and have evolved over time.

A few key findings are repeated here.

- Of the eleven universities reviewed, the iSchool is an independent unit in four of them. This includes UC-Berkeley.
- There is no Information School at three of the universities.
- CS, iSchool and Statistics are under the same unit in two of the universities.
- The units responsible for the delivery of Data Science programs vary tremendously.

# Survey of Schools of Computing and Related Units

This document provides a summary of findings related to institutions who have elevated computer science to a school. Two questions were addressed:

- 1. If the institution has a School of Computing (or similar organization), where is the iSchool? Where is Math? Where is Stats?
- 2. If Data Science related programs are offered, what is the lead unit offering them?

It should be noted that how schools of computing and how schools of information have been established at different institutions varies from institution to institution. These differences can be attributed, in parts, to historical factors.

This survey is not meant to be comprehensive. Some universities were selected based on these having both highly ranked Computer Science programs and Information Science programs. Some universities are based on going back to the initial survey of institutions with schools of computing that was conducted when the creation of a school of computing was first being considered. There is a significant overlap between these two groups of universities.

What is evident from the table below is that how the universities are structured varies tremendously. Some key observations:

- Of the eleven universities, the iSchool is an independent unit in four of them. This includes UC-Berkeley
- There is no Information School in three.
- CS, iSchool and Statistics are under the same unit in two.
- The units responsible for the delivery of Data Science programs vary tremendously.

Location of iSchool, Math, Stats	Degrees related to Data Science
UC Berkeley – College of Computing, Data Science, and Society (CDSS)	
Stats is in CDSS	CDSS - Data Science Undergraduate Studies program offers
Math is in College of Liberal Arts & Letters	Data Science Major, DS minor
EECS Department reports to both the College of Engineering and CDSS	CS major, CS minor
iSchool remains independent unit that reports to provost	iSchool offers
	Master of Information Management and Systems (MIMS)
	Master of Information and Data Science (MIDS)
	Master of Information and Cybersecurity (MICS)

Location of iSchool, Math, Stats	Degrees related to Data Science			
University of Washington - The Paul G. Allen School of Computer Science & Engineering				
University of Washington - The Paul G. Allen School of Computer Science School is fully within Engineering but is presented as a peer to other schools and colleges. iSchool is an independent unit Statistics in College of Arts and Sciences Mathematics in College of Arts and Sciences	& Engineering  School of CS&E offers  BS in Computer Science thru LAS  BS in Computer Engineering through Engineering  iSchool offers  B.S. in Informatics  Master of Library and Information Science  M.S. in Information Management  Statistics offers  BS in Statistics with Math track  BS in Statistics with Data Science track			
	BS in Statistics with Applies Statistics track			
Georgia Institute of Technology – College of Computing	25 III Statistics With Applies statistics track			
College of Computing has five schools within it. They are: School of Computing Instruction School of Computational Science and Engineering School of Computer Science School of Cybersecurity and Privacy School of Interactive Computing  There is no iSchool  Mathematics is in College of Sciences  No Department of Statistics.	Georgia Tech's Master of Science in Analytics is a hybrid data science and analytics degree offered interdisciplinarily through GT's Colleges of Computing, Business, and Engineering.  Center for Statistical Science offers MS in Statistics and MS in Analytics			
The Stewart School of Industrial & Systems Engineering and the School of Mathematics have joined forces to form the Center for Statistical Science at Georgia Tech.				
University of Maryland – College Park – College of Computer, Mathemati				
CMNS has the Department of CS and a Department of Mathematics	CMNS offers CS degree with Data Science specialization			

Location of iSchool, Math, Stats	Degrees related to Data Science
College of Information Studies is their iSchool	Applied Mathematics & Statistics, and Scientific Computation
	(AMSC) graduate MS and PhD program
Statistics program is part of the Department of Mathematics	The Graduate school website directs you to AMSC for
	<u>Data Science and Analytics</u>
	AMSC is led by the Department of Mathematics (MATH),
	the Center for Scientific Computation and Mathematical
	Modeling (CSCAMM), and the Institute for Physical
	Science and Technology (IPST).
	Dept of Mathematics offer
	Math major with statistics track
	Minor in statistics
	MS and PhD in Statistics
	iSchool offers, among others,
	BS in Information Science
	BS in Social Media Science
	BA in Tech and Information Design
	Master of Library and Information Science
	Master of Science in Human-Computer Interaction
	(HCIM)
	Master of Information Management (MIM) degree
University of Michigan – Ann Arbor – Computer Science and Engineer	ing Department
The College of Engineering has both CSE and ECE departments.	BSE, Data Science and BS, Data Science are majors available
There is no Computing School (interest is where Data Science	
hosted)	Division of the EECS Department in the College of Engineering
	and the Department of Statistics in the College of LSA.
School of Information is independent unit	
	MS, Data Science (LSA) - jointly owned by Computer Science and
College of Letters, Sciences and Arts has Department of Mathematics	
and a Department of Statistics	Information, and the Department of Biostatistics.

Location of iSchool, Math, Stats	Degrees related to Data Science
University of Wisconsin—Madison – School of Computer Data & Inform CDIS includes Department of CS, the iSchool and the Department of Statistics  The iSchool is part of CDIS. It is separately listed in the University's listing of schools and colleges  The Department of Mathematics is in the College of Letters and Sciences	School of Information offers  Master in Applies Data Science
MIT – Schwarzman College of Computing	
The Institute for Data, Systems and Society (IDSS) is stated to be the only Department in the College of Computing	IDSS offers PhD Program in Social & Engineering Systems
The MIT Statistics and Data Science Center (S+DSC) is part of IDSS  The Statistics and Data Science Center is an MIT-wide focal point for advancing research and education programs related to statistics and data science.	S+DSC offers Interdisciplinary Doctoral Program in Statistics MicroMasters program in Statistics and Data Science Minor in Statistics and Data Science  Math offers BS in Mathematics

Location of iSchool, Math, Stats	Degrees related to Data Science
EECS faculty have been reorganized into three faculty groups – EE, CS,	
AI+DM spanning both the School of Engineering and the College of	
Computing	
There is no Information School	
Department of Mathematics is in School of Science	
CMU – School of Computer Science – founded in 1988	
School of Computing is an independent unit	Department of Statistics offers:
School of Computing is all independent unit	Statistics Core Major
Department of Statistics & Data Science is part of Dietrich College of	Statistics core Major  Statistics and Machine Learning Major – joint major
Humanities and Social Sciences	Economics and Statistics Major – joint major
Trainamiles and Social Sciences	Statistics Major - Mathematical Science Track
School of Information Systems and Management is located within the	Statistics Major - Neuroscience Track
Heinz College of Information Systems and Public Policy	Statistics Minor
Them 2 contege of miormation systems and rabble rolley	Masters in Applied Data Science
The Department of Mathematical Sciences is in the Mellon College of	Masters III Applied Bata Science
Science	School of Info Systems and Management offers
	Master of Information Systems Management (MISM)
	Master of Science in Information Security Policy &
	Management (MSISPM)
	Undergraduate BS Information Systems program is
	offered jointly by Dietrich and Heinz Colleges
	School of Computing offers five BS degrees
	Artificial Intelligence
	Computational Biology
	Computer Science
	Human-Computer Interaction
	Robotics
	I/ODOTIC2

Location of iSchool, Math, Stats	Degrees related to Data Science
	Master of Computational Data Science Master of Science in Artificial Intelligence and Innovation Master of Science in Information Technology - Privacy Engineering  Math offers BS in Mathematical Sciences including concentrations in Statistics and Computational and Applied Mathematics
UMass Amherst - Manning College of Information & Computer Sciences -	2015
Manning College brought CS and Information Science together There are no departments	Manning College offers Bachelor's In Computer Science
Historical note: the Computer and Information Science Department changed its name to the Department of Computer Science in 1992. It became a school in 2012 and a college in 2015.	Bachelor's In Informatics (B.S.) Computer Science Minor IT Minor MS in CS with concentration in Data Science
The Department of Mathematics and Statistics is in College of Natural Sciences	Math & Stats department offers  Math major with seven concentrations including one in statistics and data science
Cornell University - Cornell Bowers C.IS College of Computing and Information	ation Science founded in 1999
C.IS College is described as a special-mission faculty unit.  It seems to act more like a division than a college in that all degrees are offered through other individual colleges.	C.IS offers <u>Bachelor of Arts degree in Information Science</u> through the College of Arts & Sciences (BA-IS) <u>Bachelor of Science degree in Information Science</u> through the
However, Computer Science, Information Science, and Statistics and Data Science are listed as the three departments within this college (and not listed in any other college).	College of Agriculture and Life Sciences (CALS) (BS-IS).  Bachelor of Science degree in Information Science, Systems, and Technology (ISST) to students in the College of Engineering (BS-ISST).
Additional note: The Department of Computer Science, part of the Cornell Ann S. Bowers College of Computing and Information, is affiliated with both the College of Arts and Sciences and the College of Engineering.	<u>Statistical Science</u> through College of Arts and Sciences <u>Data Science Minor</u> <u>PhD minor in Data Science</u>

Location of iSchool, Math, Stats	Degrees related to Data Science
The Department of Statistics and Data Science is in C.IS but is described	
as an extended partnership	
In 2005, DSS became a department in Cornell's new Faculty of	
Computing and Information Science (CIS). The CIS partnership	
opened potential new avenues for exploring future work with	
the Departments of Computer Science and Information Science.	
In 2019, DSS expanded to become the Department of Statistics	
and Data Science (SDS), a multi-college partnership among CIS,	
the College of Agriculture and Life Science (CALS), and the	
Industrial Labor Relations (ILR) School.	
The Department of Mathematics is in the College of Arts and Sciences	
University of Virginia – School of Data Science	
A school without walls – not clear how this fits with rest of the	School of Data Science offers
university	BS in Data Science
	Minor in Data Science
The Department of Computer Science is in the College of Engineering	MS in DS
and Applied Science	PhD in DS
The Department of Mathematics is in the College of Graduate School of	
Arts and Sciences	
The section Calculation Consults of	
There is no School of Information.	

# Addendums

Clarification of Data Science Governance and Role of Proposed School Why A School of Computing and Data Science and not just expansion of CS? Sponsor Statement on Proposal Reference to Meetings with the Provost

# Addendum to Creation of School of Computing and Data Science (SCDS) Proposal

In response to a request by the Education Policy Committee (EPC) Chair, the proposal co-sponsors, namely Dean Rashid Bashir, The Grainger College of Engineering (GCOE) and Nancy Amato, Head of the Department of Computer Science (DCS) are pleased to submit this addendum to the proposal entitled, "Creation of School of Computing and Data Science," to clarify the governance structure for X+DS programs and how the proposed school would fit into this structure.

#### Governance Structure for Data Science

We would be remiss if we did not acknowledge the foundational work regarding data science that was undertaken by two campus task forces. The **Next 150** Strategic Plan Task Force on Data Science (chaired by Robert J. Brunner) stated the opportunities around data science, data analytics, and data systems require synergistic coordination to effectively steward opportunities for new collaboration models, data sharing opportunities, and educational programs that engage all units across campus. The **Next 150** Strategic Plan Task Force Data Science Education (chaired by Matthew Ando) recommended that (i) every Illinois student should have the opportunity to have a meaningful exposure to data science, (ii) data science education at Illinois should be flexible to encompass the widely varying needs of different domains in which data science is used, and (iii) data science education at Illinois should be a collaborative undertaking.

Data Science (DS) Education at UIUC is a shared undertaking. X+DS degree programs, modeled after CS+X degree programs, have their home in the "X". The DS portion of the X+DS program has been developed and is delivered in a collaborative manner by DCS/SCDS (wholly within GCOE), the Department of Mathematics and the Department of Statistics (within LAS), and the School of Information Science (iSchool).

SCDS, like DCS, is and will be committed to working with these DS education partners to establish a collaboratively managed Data Science minor available to any student on campus. DCS/SCDS welcomes the opportunity to work with LAS and the iSchool to develop a Masters in Data Science. As a matter of fact, both these aforementioned initiatives are already underway. We also hope to work on additional blended graduate degree programs in the future collaboratively with LAS and iSchool in the area of data science.

The delivery of X+DS programs and related services such as student advising is more complex and requires a higher degree of coordination than that of CS+X programs given that responsibility for the delivery of data science portion of the X+DS programs is a shared responsibility. GCOE and DCS/SCDS is committed to working with campus, alongside LAS (Mathematics, Statistics) and iSchool, to develop and support a governance structure that will facilitate the collaboration and coordination needed to deliver and grow X+DS programs while increasing capacity and maintaining excellence. Preliminary discussions have occurred around the possibility to create a Division of Data Science that could allow for the representation of the partners providing the Data Science education core (the Department of Mathematics, the Department of Statistics, the iSchool and DCS/SCDS) in key coordination and leadership advisory roles without modifying the current status and autonomy of the partners (i.e. iSchool as an independent unit reporting to the provost, DCS/SCDS as a unit fully housed within the GCOE, and the Department of Mathematics, the Department of Statistics as departments within LAS.) Furthermore, such a division could allow for the representation and involvement of the "X" units in deliberations regarding the operations, growth, priorities, and coordination of the X+DS programs. The



# **College of Liberal Arts & Sciences**

Department of Statistics 152 Computing Application Bldg 605 E. Springfield Ave, MC-374 Champaign, IL 61820

Date: 3/25/2024

Senate Educational Policy Committee

Re: Creation of School of Computing and Data Science

Dear Chair Miller and Members of the Committee,

This letter is to convey that we have been aware of the interest in transforming the current Department of Computer Science (DCS) into a School housed within The Grainger College of Engineering (GCOE) for some time. We are also aware that a three-way MOU between LAS, the School of Information Science (iSchool), GCOE, and DCS has been developed. This MOU is based on an essential agreement that LAS is collaborating in the establishment and growth of the School of Computing and Data Science (SCDS) with the understanding that SCDS will not create departments and with the expectation that LAS and other campus units may also seek to add Data Science and/or its relevant variants to their names. As an example, our department is currently in the process of pursuing the name change to Department of Statistics and Data Science. Based on this expectation, we are supportive of the passage of the proposal entitled "Creation of the School of Computing and Data Science".

We have been partnering with the Department of Computer Science on the *Statistics and Computer Science* degree program in our Department of Statistics since 1988, predating the relatively recent introduction of the CS+X degree programs. This has been a tremendously successful and mutually beneficial partnership which we look forward to continuing with the school once it is created. More recently, we have partnered with the Department of Computer Science, the Department of Mathematics, and the iSchool to develop the new X+DS (data science) family of degree programs. Together, we are responsible for delivering the 8 courses which provide the data science core for the X+DS degrees. As a group, we have also collaborated with units across campus as they work to develop these programs whose administrative home remains with the units. We are also working together on a proposed new data science Minor, which we hope will be available to students across campus soon. Finally, we are collaborating with Computer Science and the iSchool on a proposal for an MS in Data Science. We believe these programs are vital for our unit and the campus.

The creation of the School, which essentially transforms the Department of Computer Science to a School within the Grainger College of Engineering, is expected to have no negative impact on our ability to continue to offer our Statistics and Computer Science program. Indeed, the new resources anticipated with the transformation to a school would provide greater opportunities for our students in this program and also for more collaboration between our units. Moreover, the proposed introduction of a formal CS+X council is welcome in that it will facilitate improved communication and sharing of best practices and coordination across all blended CS programs.



# **College of Liberal Arts & Sciences**

Department of Statistics 152 Computing Application Bldg 605 E. Springfield Ave, MC-374 Champaign, IL 61820

We also believe the creation of the School will have no negative impact on the X+DS degree programs, including the Statistics+DS program we are planning, or our ability to collaborate with our partners who are delivering the data science core. We are confident that we will continue successfully work with the proposed school as we have with DCS to develop and deliver new signature blended degree programs that will enable Illinois to grow its leadership and stature in this space.

Sincerely,

Dr. Bo Li

Department of Statistics