APPROVED BY SENATE
11/11/2024

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

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

1. SPONSOR NAME AND EMAIL:

   Chrystalla Mouza, Dean of the College of Education, cmouza@illinois.edu

2. COLLEGE CONTACT NAME AND EMAIL (for units housed within a College):

   Robb Lindgren, Professor of Educational Psychology and Curriculum & Instruction, College of Education, robblind@illinois.edu

   Lisa Monda-Amaya, Visiting Executive Director of Centers and Strategic Initiatives, College of Education, lmonda@Illinois.edu

   Jessica Li, Associate Dean for Research and Director of the Bureau of Educational Research, College of Education, jli2011@illinois.edu

3. TITLE OF PROPOSAL:

   Establish the **Center for Research and Innovation in Technology-Enhanced Learning** as a Permanent Center

4. BRIEF DESCRIPTION AND JUSTIFICATION (include in a description of the governance processes and documentation of acknowledgement by faculty and staff as outlined in Article VIII, Section 3 of the *Statutes*. If this is a for a change in status from Temporary to Permanent, include an explanation as to why the funding, staffing, mission, etc. are stabilized such that the move to permanent make sense at this time):

   The College of Education aims to provide national, state, and local leadership through the creation of the **Center for Research and Innovation in Technology-Enhanced Learning**. The Center will provide a hub of research and innovation on the Illinois campus for investigating the multitude of ways new technologies impact learning and education. Bringing together scholarly teams from across campus and drawing upon its deep faculty expertise in technology-enhanced learning across contexts and across the lifespan, the Center will initiate and support transformative and scaled-up research initiatives entailing the development of new educational technologies and studies in authentic contexts in K-12, higher education classrooms, and beyond (e.g., museums, community centers). The Center for Research and Innovation in Technology-Enhanced Learning builds on the resources and infrastructure of the Technology Innovations in Educational Research and Design (TIER-ED) initiative that was funded in 2018 by the campus Investment for Growth program. Under the TIER-ED initiative, the College established a wide-reaching community of scholars with affiliates from ten units across campus. The work of numerous interdisciplinary teams funded by TIER-ED is ongoing and will continue within the new Center's structure. Drawing from TIER-ED's recent community-building around educational technology innovation, the Center for Research and

Innovation in Technology-Enhanced Learning will harness the historical strengths of the Illinois campus into a focused and high-profile effort to transform the landscape of technology-enhanced learning. The Center for Research and Innovation in Technology-Enhanced Learning will be organized around four primary themes: (1) Learning and Interactivity Research, (2) Innovative Technology Design, (3) Impact and Policy, and (4) Digital Access and Equity.

5. BYLAWS (attach the proposed bylaws for the unit)

   Draft bylaws for the Center for Research and Innovation in Technology-Enhanced Learning are attached.

6. LETTERS OF SUPPORT (attach letters of support from campus affiliates and those that might be impacted)

   Letters of support from the following have been attached to this proposal:

   1. Tim McIlvain, *Executive Director of the Learning Technology Center of Illinois*
   2. Rashid Bashir, *Dean of Grainger College of Engineering*
   3. Deba Dutta, *Interim Executive Director of Discovery Partners Institute*
   4. Michel Bellini, *Director, Center for Innovation in Teaching & Learning*
   5. Brooke Elliott, *Dean of Gies College of Business*
   6. Rachel Switzky, *Director, Siebel Center for Design*
   7. Eva M. Pomerantz, *Director of the Center for Social & Behavioral Science*
   8. Judith Pintar, *Director of the Games Studies and Design Program* and Lisa Bievenue, *Director of Informatics Programs*
   9. Sarita Adve, *Director of IMMERSE, Center for Immersive Computing*
   10. Wojtek Chodzko-Zajko, *Dean of the Graduate College*

7. DESIRED EFFECTIVE DATE:

   January 1, 2025

8. STATEMENT FOR THE ACADEMIC CATALOG (if there is text in the Academic Catalog, http://catalog.illinois.edu/, 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):

   N/A

CAMPUS CLEARANCES

___Chrystalla Mouza_____ C. Mouza _____ __10/10/24_____
Sponsor Name and Signature Date

___Robb Lindgren_____ _____ __10/10/24_____
College Contact Name and Signature (if applicable) Date

_____ _____
Graduate College Representative (if applicable) Date

___Brooke Newell_____ _____10/16/2024_____
Provost Representative Date

_____ _____
_ 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 Center for Research and Innovation in Technology-Enhanced Learning is a proposed research center focusing on the intersection of emerging technologies and the science of how people learn. Activities will center around the development of new technologies that support learning along with research on the impacts of these technologies on individuals, institutions, and communities. Over the last year, College of Education faculty and staff, along with colleagues from across campus, have been meeting to discuss our strengths in learning and technology research, our campus collaborations, and our successes in research funding with the intent of establishing an entity such as the Center for Research and Innovation in Technology-Enhanced Learning that could bring lasting supports and amplified impacts to these efforts. Based on these brainstorming sessions, several key activities emerged that have shaped our vision for the potential Center and its mission. These core activities include (1) providing tangible support for faculty and students conducting "basic" and "use-inspired" research on how people learn with new technologies; (2) creating opportunities and resources for affiliate faculty and students to design and build new technologies; (3) facilitating partnerships and cultivating relationships that will allow for co-design and implementation studies in different educational contexts, such as schools, community centers, museums, etc.; (4) offering methodological expertise to those engaged in research and evaluation of learning technologies; (5) leading dissemination efforts for research findings and innovative technologies that have the potential for local and global impact; and (6) fostering a research community that foregrounds issues of diversity, equity, inclusion, and social justice as they pertain to the use and study of emerging technologies in education (e.g., the digital divide, algorithmic biases, etc.).

In reflecting on these core activities, we conceived an organizational structure for the Center for Research and Innovation in Technology-Enhanced Learning that centers on four research themes. We believe these four themes capture the primary research frontiers of learning and technology research and will allow Illinois to assume a position of leadership in this critical field. These four themes will also act as entry-points for people across campus and external to the University who may resonate with specific kinds of work being done. These themes, integral to the organizational structure of the Center for Research and Innovation in Technology-Enhanced Learning, are shown in Figure 1 and described in detail below.

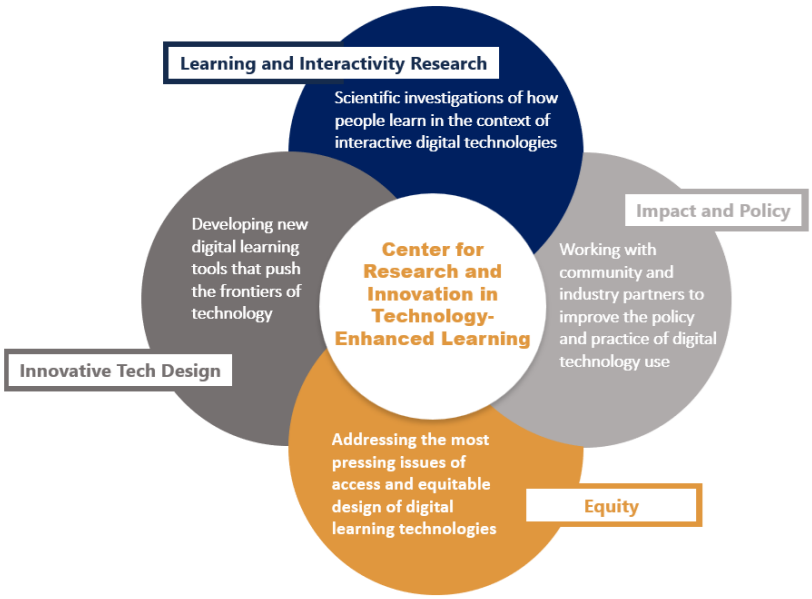


Figure 1. The four research themes of the Center for Research and Innovation in Technology-Enhanced Learning

Theme 1: Learning and Interactivity Research

This theme encompasses scientific investigations of how people learn in the context of interactive digital technologies such as investigating the effects of interactivity in digital environments on learning, exploring learning contexts and curricular designs involving digital environments, supporting socio-emotional learning with technology, and discussing contexts and advancements in online learning environments. A substantial amount of this type of basic learning and interactivity research is already occurring within the College of Education, including studies of collaborative learning, embodied learning, computational thinking, learning with multimedia, and learning through digital interactions in formal (K-12 schools, higher education classrooms) and informal spaces (e.g., other learning environments). Cutting across all these topics are the potential roles of generative artificial intelligence (GenAI) in shaping the kinds of interactions that learners have with these technologies. The core activities related to this theme include making resources available for conducting basic research on learning and interactivity (e.g., equipment, participant pools, seed funding, etc.) and consolidating methodological expertise that is leveraged within the Center and also shared within the College and across campus.

Theme 2: Innovative Technology Design

This theme entails developing new digital learning tools that push the frontiers of technology, such as building multi-device platforms for individual and group learning, developing tools for AI applications in education and cybersecurity, applying machine learning, video analysis, and sensor technologies to enhance educational experiences, creating gamified and immersive learning experiences, and developing novel assistive technologies for learning. College of Education faculty and students are already participating in design and development efforts on specific technology designs backed-up by research on how people learn, but often these efforts are limited in terms of monetary resources, external partnerships, and time. The Center for Research and Innovation in Technology-Enhanced Learning will engage in activities aimed at mitigating these limitations for faculty and students by providing development support (e.g., programming, design expertise) and cultivating interest and investments from industry, state and federal agencies, and community partners.

Theme 3: Impact and Policy

This theme involves working with community and industry partners to improve the policy and practice of digital technology use such as developing research-practice partnerships to enhance teacher professional development in using digital technologies for STEM, investigating the impacts of technology programs in schools, and developing action research with justice-centered pedagogies. While College of Education faculty and students are already engaged in activities such as providing professional development for teachers and writing policy reports, these efforts are sometimes disconnected from learner- and student-level efforts to create interventions and design new technologies that shape their educational trajectories. The Center for Research and Innovation in Technology-Enhanced Learning will increase coordination of these efforts so we can disseminate the products of our work in ways that reach broad populations and affect change in educational policy.

Theme 4: Digital Access and Equity

This theme addresses significantly pressing issues of access to and equitable design of digital learning technologies. While there has been much attention on the possibilities of digital technologies to enhance and expand access to educational interventions and opportunities, we also know that there are ways that these technologies can limit access (e.g., by reducing the availability of face-to-face and responsive teaching for underserved students). Research under this theme includes a variety of investigations, such as exploring motivation, engagement, and STEM achievement. It also involves developing technologies to support the learning of minoritized youth and multilingual learners, as well as technologies that are culturally responsive to people in places historically underrepresented such as the Global South. Rather than making equity and social justice an afterthought to the design, development, and dissemination of new technologies, the Center for Research and Innovation in Technology-Enhanced Learning will provide guidance and resources to foreground these issues. Faculty in the College of Education and across

campus have an abundance of expertise in researching issues of diversity, equity, and inclusion, but individual investigators and designers of learning technologies often need support with finding and integrating these values into their work; the Center for Research and Innovation in Technology-Enhanced Learning can foster these relationships and guide the development of more culturally responsive and inclusive technologies, and help researchers ensure that they are not creating new barriers and impediments.

At the campus level, the themes and activities of the Center for Research and Innovation in Technology-Enhanced Learning are well-aligned with the campus goal of becoming the preeminent public research university with a land grant mission in the United States by allowing us to lead the way in this highly consequential and potentially transformative area of research and development. The 2022 Research Report from the Office of the Vice Chancellor for Research and Innovation (OVCRI) states that Illinois aims to create a research environment that "combines scholarly expertise with world-class infrastructure, fuses disciplines, sparks collaborations, and nurtures the next generation of scholars." the Center for Research and Innovation in Technology-Enhanced Learning embodies this spirit of interdisciplinarity by creating support structures that nurture cross-departmental, cross-college, and cross-campus partnerships. As a Center that serves the Illinois campus, the Center for Research and Innovation in Technology-Enhanced Learning will provide resources and educational opportunities to empower students and faculty to do the most impactful design and research possible on the future of learning technologies.

In 2022, the Provost's Office at Illinois created a taskforce that authored a report titled *Transforming Higher Education*. A key component to this vision of transformation was the notion of "personalized learning" and the development of innovative learning environments that employ "multiple modalities and provides alternative pathways where enrolled students and general public learners can pursue educational opportunities better suited to their needs, interests, situations and learning preferences. We will innovate to improve instruction and expand access, including flipped classrooms, hybrid instruction, gamification, virtual/augmented reality and the application of data science to improve human learning." the Center for Research and Innovation in Technology-Enhanced Learning will consist of a consortium of faculty currently engaged in research and practice activities in these and an array of other areas who will expand educational opportunities beyond the higher education classroom. The Center has the potential to play a key role in ensuring that Illinois is not simply a consumer of these new technologies, but is on the cutting edge of designing, developing, and evaluating them.

At the College level, the Center for Research and Innovation in Technology-Enhanced Learning fits squarely within the Illinois College of Education's mission to "address the challenges facing today's learners by advancing knowledge and impacting policy through research, teaching, and outreach. We develop the tools, methods, and habits of mind that innovate; contribute to making education equitable and accessible to all learners; and prepare leaders, researchers, and passionate advocates committed to transforming learners of all ages." For the myriad of ways that digital technologies are and can be employed to achieve these aims, the Center for Research and Innovation in Technology-Enhanced Learning will be a critical instrument of the College for carrying out its mission. While there are already numerous programs and various department-level efforts to utilize technology in our teaching and research, there is increased acknowledgement within the College that digital technologies permeate all aspects of our work. The Center for Research and Innovation in Technology-Enhanced Learning will provide a consolidated center point for this focus, instigating synergies and collaborations across departmental and program divisions, and allowing for more collective participation in the enactment of our shared values.

Finally, although the Center for Research and Innovation in Technology-Enhanced Learning is primarily a research unit and will not have a direct instruction component, it will be aligned with the academic programs within the College of Education that seek to train and provide students exposure to technology design in educational contexts. These include:

- Master's and PhD opportunities in the **Curriculum & Instruction (C&I)** department, internally referred to as DELTA: Digital Environments for Learning, Teaching, and Agency. DELTA focuses specifically on educational technology research and design.
- The College of Education also has the ***Educational Technology*** concentration of the Learning and Educational Studies BS degree, and the ***Learning Sciences*** concentration of the CS + Education BS degree.
- The Learning Design and Leadership CERT is a certification in the **Education Policy, Organization, & Leadership (EPOL)** department.
- There is also a floating concentration known as Learning Design & Leadership that is an option for all EPOL graduate programs.

Part of the Center for Research and Innovation in Technology-Enhanced Learning's function will be to facilitate authentic research and development opportunities for students in these programs.

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.

We are in a period of rapid development of new interactive technologies that can expand human experience and augment our practice and performance in profound ways. These include technologies that are becoming more immersive (e.g., virtual reality and augmented reality), more intelligent (AI and technologies driven by data science), and more mobile (wearable and embedded devices and sensors) than ever before. While many of these technologies have found commercial success, their effective application to educational contexts is still in its infancy. This is at least partially due to the dearth of rigorous research on the efficacy of these emerging technologies in authentic educational contexts. Likewise, our theories of how people learn have not kept pace with the interactive possibilities that these new technologies provide. While a spattering of nonprofits and academic units focused on educational technology research exist in the United States, there currently is a lack of national leadership for design-focused research that seeks to invent and innovate new learning technologies in partnership with both educational practitioners and technology engineers.

The explicit mission of the Center for Research and Innovation in Technology-Enhanced Learning is to engage in interdisciplinary research and design, and to provide opportunities and resources for faculty and students from across campus to come together to create more effective and impactful educational technologies. While there are pockets of work happening on campus that are pertinent to our understanding of technology-enhanced learning, these efforts occur frequently in isolation of each other, inhibiting natural synergies and potential collaborations that could lead to scaled-up and more ambitious efforts. The **Technology Innovations in Educational Research and Design (TIER-ED)** initiative funded in 2018 by the **Investment for Growth** program has taken preliminary steps to build this interdisciplinary research and design capacity on the Illinois campus, but achieving our national and international aspirations necessitates a more entrenched and enduring infrastructure (dependable resources and services for faculty and students, cost-recovery mechanisms, amplified channels of communication, etc.).

The Center for Research and Innovation in Technology-Enhanced Learning has been conceived with a concerted focus on meeting the moment and responding to the urgency of designing tools for learning and instruction that are maximally impactful and culturally responsive. The College of Education is uniquely positioned to provide *national leadership* in this area given the foundation that was established by TIER-ED, existing academic programs (e.g., the Digital Environments for Learning, Teaching, and Agency (DELTA) graduate program), research strengths in associated technological areas (e.g., immersive technologies and computer-supported collaborative learning), and our expertise in educational equity

and social justice established through another college Center, the Center for Culturally Responsive Evaluation and Assessment (CREA). Further, in 2023, Illinois was awarded a $20M Artificial Intelligence Research Institute named INVITE (Inclusive Intelligent Technologies for Education) for which the College of Education is the lead unit with Dr. H. Chad Lane serving as the INVITE Institute's Director and five other college faculty members as senior research personnel. The aggregate of all these recent initiatives and successes, along with the plethora of existing research in education technology across all departments in the College of Education enable us to bring considerable experience and credibility to this area of research and design.

We also make this proposal at a time when there are significant increases in investments being made by federal, state, and private entities in research on technologies for learning and education. The National Science Foundation (NSF), for example, has increased allocations for its STEM Education Directorate (formerly Education and Human Resources Directorate) from $1.15 billion in FY22 to $1.37 billion in FY23. One of the programs within the STEM Education Directorate is Research on Innovative Technologies for Enhanced Learning (RITEL) in which the NSF will award approximately $20M in grants in FY24. Additional federal agencies such as the Institute of Education Sciences (IES), the National Institutes of Health (NIH), the Office of Naval research (ONR), and several others have programs targeting the design and research of innovative and impactful educational technologies. While the amount of funding for these types of projects continues to increase, it is also the case that the *types* of projects these agencies are funding are changing as well. We are seeing more competitions for large-scale multi-institutional centers and institutes such as a recent call from IES for Research and Development Centers on the theme of "Generative Artificial Intelligence to Augment Teaching and Learning in Classrooms" at a level of $10 million. Additionally, both NSF and IES have Small Business Innovation Research (SBIR) programs that aim to support the development of new technologies that involve meaningful partnerships between industry and researchers. Having a center such as the Center for Research and Innovation in Technology-Enhanced Learning would better position the College of Education to submit proposals to these types of programs that require more infrastructure and larger networks that expand beyond campus. For all project types, agencies such as NSF explicitly ask project teams to include information about the context of the proposed work in a "Facilities, Equipment, and Other Resources Statement." The ability to describe the Center for Research and Innovation in Technology-Enhanced Learning and the context of support that it can provide will undoubtedly strengthen the external funding proposals we submit. This extends also to State of Illinois as well as private funding entities that have made recent significant investments in technology-enhanced learning research such as Spencer Foundation, MacArthur Foundation, the Chan Zuckerberg Initiative, and others.

The Center for Research and Innovation in Technology-Enhanced Learning will function as a research hub and support center based in the College of Education but also serve the entire Illinois campus. The mission of the Center is to instigate and support maximally impactful educational technology research and design. This includes the conceptualization and development of new technologies that support learning and teaching in both formal and informal contexts, design-based research on the efficacy of these technologies in situated practice, and efforts to scale-up and establish relationships with industry to allow for sustainable use of these technologies in diverse and authentic learning contexts. The Center for Research and Innovation in Technology-Enhanced Learning will be closely aligned with the College of Education's Office of Research, including the Bureau of Educational Research (BER), so that it can leverage its resources such as the network of school-university research partnerships and staff who can support the development and submission of external funding proposals. The Center for Research and Innovation in Technology-Enhanced Learning will also leverage partnerships with other colleges on campus to achieve these goals, including the Grainger College of Engineering and the Gies College of Business (see attached for letters of support from Grainger and Gies).

There is currently no unit on campus that has the capacity to support the full lifespan of learning technology design, research, and evaluation. We would further argue that there are very few entities in

the world capable of this level of comprehensive endeavor, and thus we feel this is a moment of significant opportunity for our campus. Currently the Center for Innovation in Teaching and Learning (CITL) serves as a resource for enhancing on campus instruction, including the use of new technologies. However, it is not within CITL's scope to conduct formal and publishable research on the efficacy of educational technologies, nor to design novel technologies with applications outside of higher education (e.g., preK-12 contexts, informal learning environments, etc.) (see attached for letter of support from CITL). Likewise, units such as the Center for Social & Behavioral Science (CSBS) and the Center for Immersive Computing (IMMERSE) all have some complementary components and overlapping interests with the Center for Research and Innovation in Technology-Enhanced Learning, but none have the precise focus on understanding how people learn with emerging technologies, and none have sufficient capacity or expertise to support large-scale educational technology research (see attached for letters of support from CITL, CSBS, and IMMERSE). The Center for Research and Innovation in Technology-Enhanced Learning will instead work to forge relationships with these units to share resources and limit redundancies, and many of these relationships already exist via TIER-ED or through the networks of individual researchers.

There is also a unique opportunity with the Center for Research and Innovation in Technology-Enhanced Learning to engage more purposefully with state-level entities such as the Learning and Technology Center (LTC) of Illinois, a program of the Illinois State Board of Education (ISBE) that aims to support meaningful technology adoption in K12 learning environment across the state. Through the TIER-ED initiative, we have already had preliminary discussions of partnerships with the LTC where research products from the College get a more streamlined introduction to Illinois classrooms, providing faster impact and broader evaluation of the College's work (see attached letter of support from LTC). There also have been early collaborations with the Discovery Partners Institute (DPI), in computer science education initiatives, that have the potential to expand to partnerships involving technology development and dissemination (see attached letter of support from DPI).

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 proposed organizational structure of the Center for Research and Innovation in Technology-Enhanced Learning (Figure 2) includes a Director, a full-time tenure-track or specialized faculty member who will coordinate its activities and functions, have overall responsibility for enacting the charter of the Center, manage relationships with both internal and external units with shared interests, and communicate with the College and campus about the Center's progress and budgetary status. The Director will report to the Dean.

The Director will work closely with the Center's Steering Committee consisting of five faculty members representing the College of Education and/or other units or entities. No unit or entity will have more than two representing members on the Steering Committee. The Steering Committee will meet each semester to assess progress of the Center and make strategic recommendations.

The Center Coordinator will administer the research and logistical processes of the Center. This includes, but is not limited to, managing seed funding programs, establishing relationships with schools and industry partners, oversight of the Center's facilities and equipment, managing student RAs and hourly workers, coordinating with the Office of Research and the College of Education's shared service finance and human resources teams regarding budgetary and HR matters.

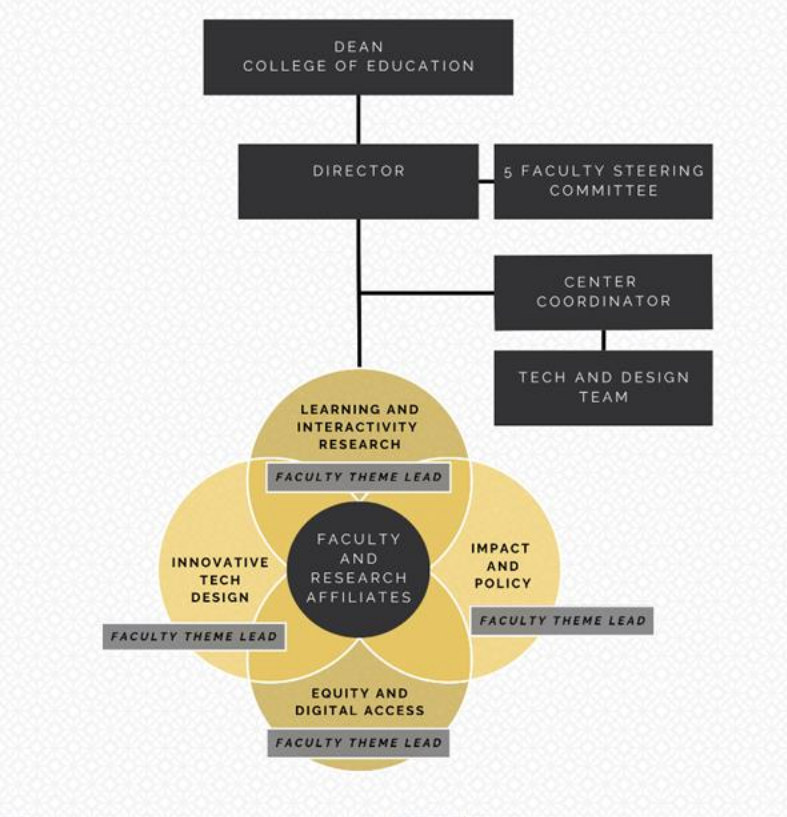


Figure 2. The Center for Research and Innovation in Technology-Enhanced Learning organizational structure.

The Theme Leads will be faculty selected from academic departments within the College of Education and will serve staggered two-year terms in these roles. They will be charged with guiding a research agenda that adheres to the four themes in the diagram above and described in detail in Question 1. These overlapping themes encompass a range of topics related to educational technologies that address emerging trends and issues in national and global circles, while also serving as a guiding framework to push innovations towards ethical, equitable, and scalable models aimed at making Illinois a leader in innovative technologies for learning. Initially, the role of the theme lead will entail steering the authorship of a white paper that defines the theme and securing investment from other researchers—students and faculty—on campus. Inaugural theme leads will be appointed initially through consensus with the Director, Coordinator and Steering Committee, but we expect these appointments to be reviewed every year with input from faculty affiliates.

Bylaws for the Center for Research and Innovation in Technology-Enhanced Learning have been drafted and are attached to this proposal.

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

The success of the Center for Research and Innovation in Technology-Enhanced Learning will be evaluated through a set of internal and external outcomes articulated with faculty and student affiliate input and finalized in collaboration between the Director, the Dean of the College of Education, the

Associate Dean for Research, and the inaugural Steering Committee. However, in advance of these activities and drawing directly from the brainstorming sessions that drove the vision laid out in this proposal, we can anticipate some preliminary outcomes that will serve as a starting point for assessing the progress of the Center for Research and Innovation in Technology-Enhanced Learning. Where possible we have tried to articulate these outcomes as specific targets.

Core outcomes that drive the internal focus of the Center for Research and Innovation in Technology-Enhanced Learning are:

- Developing stronger cohesion and identity within the College of Education and across campus for research on, and design of, technologies for learning; this includes expanded recognition of the Center for Research and Innovation in Technology-Enhanced Learning as *the place to go* for research on the impact of emerging technologies in education on the Illinois campus. Some potential targets include increases in number of interdisciplinary grant submissions and research publications, outreach efforts with units across campus (either to the College's Office of Research or to the Center for Research and Innovation in Technology-Enhanced Learning directly), recognition of the Center and its work in newsletters and other campus communications, etc.
- Increasing the affiliate membership of the Center for Research and Innovation in Technology-Enhanced Learning by 25% greater than the current number of TIER-ED affiliates within one year. We believe a "launch" of the revitalized Center will create opportunities for increased affiliation. A more nuanced target is to seek increased participation across each of the four themes and to achieve some degree of balance between the themes in terms of representation and effort.
- Working with the College of Education Marketing and Communication and Advancement teams to create viable and lasting revenue streams—from alumni and industry, etc.—to support the core activities of the Center (e.g., seed funding). Thus, we have targets for net amounts of support but also numbers of unique and new contributors.
- Establishing lasting connections with the State of Illinois (e.g., the Learning Technology Center) that may entail regular contact (e.g., monthly check-in meetings) and potentially concrete collaborations such as external funding proposals.

Core outcomes that drive the external focus of the Center for Research and Innovation in Technology-Enhanced Learning are:

- Generating research products (journal articles, white papers, conference proceedings) that describe key findings related to learning and interactivity. We anticipate that these products will start materializing within the first year; for journal publications our goal is for the impact metrics of these products to be slightly higher than the products generated by Center affiliate faculty independently. The Center for Research and Innovation in Technology-Enhanced Learning will maintain a website that will organize and disseminate these research products for public consumption.
- Increasing activity around external funding proposals—both submitted and funded—resulting from Center-facilitated collaborations with both Illinois faculty and external partners from the community and industry. Our hope is that within the first year there will be at least one "center" or "institute" proposal that will leverage the network of faculty and student expertise to tackle big challenges in education.
- Developing tangible products that can be implemented in local educational contexts or potentially in places of high need and special interest (e.g., the Global South, a special education classroom). The goal will be to produce and more importantly, share "impact stories" that will help drive our fundraising and recruiting efforts.

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 Steering Committee will play a significant role in the formative evaluation of the quality of the unit. Members of the Steering Committee will be selected by Center Director in consultation with the College of Education Dean. Diversity in unit representation, areas of research, and demographic characteristics will all be taken into consideration when selecting Steering Committee members. The Steering Committee will be convened once a semester, and once annually they will be asked to assess the Center's progress according to the outcomes outlined above. A specific focus of the annual assessment from the Steering Committee will be to evaluate the organizational structure of the Center for Research and Innovation in Technology-Enhanced Learning, including improvements that could be made in faculty and staff support, and recommendations for new resources that would augment the work of the faculty. While we have an initial organizational structure (above) that we believe will work well, we intend to be nimble and allow for quick change to address issues and adapt to new opportunities and challenges.

As recommended in the Spring 2022 report of the College of Education Centers and Initiatives Ad Hoc Committee, an annual report will be submitted that details the Center's research and public engagement activities. The report will include a) an annual budget of revenue and expenditures, b) a review of the Center's mission, goals, opportunities, and challenges, and c) other information as relevant for reporting purposes, such as determination of and review of support, staff, equipment, and resource adequacy, and d) future direction and potential opportunities. The Dean and the Center Director will meet for discussion and feedback, including ways to use the report for informing the College annual reporting and further strategic goals.

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.

While there is no space formally allocated to the Center for Research and Innovation in Technology-Enhanced Learning currently, its predecessor initiative, TIER-ED, occupies a four-office suite in the Children's Research Center (CRC) near the south end of the Research Park. Should the new Center be approved, it is likely that this same space will be offered to the Center for Research and Innovation in Technology-Enhanced Learning. This space is administered by the College of Education Facilities team, and it is currently being used as office and meeting space for affiliated researchers and students. One office, for example, was used by the TIER-ED coordinator (who left the University in 2022). Another office is being used by students for meetings, video conferencing, and project work and is a shared space with one of the College's other Center's (CREA).

There are also existing spaces within the College of Education that can support the Center's research and community building activities. These include the O'Leary Center—a flexible work and meeting space in the lower level of the building—and the IDEAL Lab (Illinois Design Ecologies and Learning Lab) on the first floor. The IDEAL Lab is a room-sized data collection instrument that is already being used by learning technology researchers to collect naturalistic data from collaborative groups, classrooms, and whole-body learning activities with technology such as role-playing and embodied simulations.

In discussions with personnel in the University Library, it was determined that developing the Center for Research and Innovation in Technology-Enhanced Learning will not present any significant challenges to the University Library with respect to collections or disciplinary expertise. There were several opportunities identified for further collaboration, including: whether Library personnel may be brought in to help develop or produce streaming digital learning content, whether there are opportunities for the Library to be a contributor or consumer of research and design technologies, whether there are opportunities to explore affiliate membership and engagement with members of the Library's faculty that engage in digital learning.

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.

The Center for Research and Innovation in Technology-Enhanced Learning builds from the College of Education's longstanding investments in educational technology research, and the more recent infrastructure development as part of the TIER-ED Initiative. Across campus, the TIER-ED community has grown to over one hundred faculty, staff, and student affiliates. These are members of the community who regularly attended TIER-ED meetings and talks, applied for seed-funding, etc. The number of Illinois faculty, staff, and students across campus who have participated on educational technology projects and external funding proposals, or who have consulted with College of Education faculty and leveraged its expertise in educational technology research and evaluation is much larger. The TIER-ED community and the College of Education generally have also made inroads with State and local schools, businesses, and community entities such that they are having an impact on the development and adoption of new technologies. These efforts include a leadership role in developing Computer Science Education standards for the State, project partnerships with local community organizations including the Urbana Neighborhood Connections Center, design-based research projects with local K-12 schools that are facilitated by the College of Education's School-University Research Office, and an emerging pipeline of internships for students with expertise in educational technologies to work with local businesses such as Taylor Studios in Rantoul, IL.

The recurring operational expenditures for the Center for Research and Innovation in Technology-Enhanced Learning are outlined in Table 1. They include a stipend for Center director and stipends for the 4 Center theme leads. These are faculty held 0% administrative stipends therefore no FTE is reported. In addition, there is a part-time Center coordinator. Depending on the project workload and personnel availability, the coordinator role could be filled by a postdoctoral scholar who is shared with specific research projects or graduate RA. Other expenditures for the Center will be made based on the availability of funding (e.g., ICR return used for seed-funding calls). Additional students and postdocs who are directly funded by technology-focused research projects will be included as part of Center staff though their salaries are not included here as recurring expenditures. Other personnel costs are the fringe benefits for the coordinator. A small budget will be allocated for expenses associated with supplies, services and equipment which include costs for travel and printing. No funds are allocated for library resources because expenditures are not expected.

Estimated Costs and Sources of Funds for Proposed Unit						
Illinois Higher Education						
			Year of Operation			
			1st Year	2nd Year	3rd Year	4th Year
Expenditure						
	Personnel					
	Faculty Count	by # of FTE	0	0	0	0 *
		Personnel Services in $	$60,000	$60,000	$60,000	$60,000 *
	Other Personnel Costs in $		$13,758	$13,758	$13,758	$13,758 **
	Supplies, Services, Equipment[1] in $		$6,000	$6,000	$6,000	$6,000 ***
	Facilities in $					
		Total	**$79,758**	**$79,758**	**$79,758**	**$79,758**
Resources						
	Current Unit		$45,000	$52,500	$60,000	$67,500
	Other Internal Sources[2]		$60,000	$40,000	$30,000	$10,000 ****
	Federal Funds					
	Fees, Sales, Other Income		$5,000	$20,000	$30,000	$50,000
	New State Appropriation[3]					
		Total	**$110,000**	**$112,500**	**$120,000**	**$127,500**

[1]Includes expenditures for library resources.

[2]Reallocation within institution from other budgetary unit.

[3]Complete table 2 if greater than zero.

Note: Do not estimate inflationary factor.

Narrative ust accompany this table.

BUDGET NOTES:

*Personnel Servies is made up of a 50% Center Coordinator and five (5) faculty held positions, Director and four (4) Theme Leads each receiving 0% administrative stipends. Therefore, the Faculty count by # of FTE equals 0.

**Other Personnel Costs is the fringe benefits assessed on the 50% Center Coordinator salary.

***Supplies, Services, Equipment is comprised of $4,000 in travel (one person, two national conferences) and $2,000 for printing and general supplies.

****Other internal sources: The College will use central funds to provide $10,000 per year for the Director's stipend and up to $50,000 in year one, up to $30,000 in year 2 and up to $20,000 in year 3.

Table 1. The Center for Research and Innovation in Technology-Enhanced Learning estimated costs and sources of funds.

Resources that will be used to pay for the recurring costs of the Center will come from three primary sources. First, we expect a considerable amount of ICR return from sponsored research projects. During the 5-year period of campus support for the TIER-ED initiative, over $9M in externally funded projects was secured that is directly attributable to TIER-ED faculty and/or seed funding investments. Additionally, the College of Education was recently awarded a $20M National Science Foundation Institute on AI and Education that is being directed by TIER-ED faculty member and previous interim director H. Chad Lane. The Dean and the College Executive Committee in the College of Education are currently developing policy and guidelines around ICR distribution for campus-recognized centers and institutes. The outcome of this process will be a set percentage of college/department ICR from faculty affiliated educational technology-focused research projects that can be applied to the recurring costs of running the Center. The second source of funding will be gifts and corporate contributions to the College for explicit purpose of funding educational technology initiatives. For example, the advancement office of the College of Education recently received a $100K gift from an alum to support TIER-ED and ed tech innovation. Center leadership will continue to work closely with the advancement office in the College of Education to pursue additional gifts and sponsorships; we have met with other advancement groups on campus (e.g., NCSA) and it is clear that the types of projects and applications that are cultivated within the Center (e.g.,

global technology development, research on the digital divide and empowering underserved communities, increasing access for CS education) are highly attractive to individual and corporate benefactors. Finally, we expect smaller but significant revenues from consulting services provided to other entities across campus. For example, there is substantial expertise within the Center for designing, executing, and analyzing studies and evaluations of educational technologies in a variety of contexts (schools, community centers, museums, etc.). Such evaluations are increasingly in-demand, and we often get requests from other units on campus (e.g., engineering, the medical school) to lend this expertise for specific projects and initiatives. The Center for Research and Innovation in Technology-Enhanced Learning is equipped to offer and charge for these services, either independently or in conjunction with other entities within the College (e.g., CREA).

Although the TIER-ED initiative allowed for significant resource development and community building, TIER-ED was not operating explicitly as a Center where it was able to collect a direct return on its investments and re-invest those returns in operational costs and new initiatives. As described above in detail, revenue sources and opportunities for those re-investments are considerable and we believe we will be able to achieve sustainability relatively quickly. However, as those mechanisms of reinvestment get established, we acknowledge that there will be a need for the initial start-up costs that are shown on the budget. Given the strategic importance of the Center for Research and Innovation in Technology-Enhanced Learning to the mission of the College and the high potential expanding the College's impact via the Center, the College has agreed to commit up to $50K in Year 1, up to $30K in Year 2, and up to $20K in Year 3 in addition to funding the annual cost of the Director's stipend.

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: https://ibhestrategicplan.ibhe.org/).

Equity

1. Increase Access and Opportunities for Service to Underserved Communities

A core aim of the Center for Research and Innovation in Technology-Enhanced Learning (Theme 4) is to address pressing issues of access and equity in digital learning technologies for underserved communities. While there has been much attention given to the possibilities of digital technologies to enhance and expand access to educational interventions and opportunities, we also know that there are ways that these technologies can limit access (e.g., by reducing the availability of face-to-face and responsive teaching for underserved students). Research under this theme includes a variety of investigations, such as exploring motivation, engagement, and STEM achievement. It also involves developing technologies to support the learning of minoritized youth and multilingual learners, as well as technologies that are culturally responsive to people in places historically underrepresented such as the Global South. Rather than making equity and social justice an afterthought to the design, development, and dissemination of new technologies, the Center for Research and Innovation in Technology-Enhanced Learning will provide guidance and resources to foreground these issues. Faculty in the College of Education and across campus have an abundance of expertise in researching issues of diversity, equity, and inclusion, but individual investigators and designers of learning technologies often need support with finding and integrating these values into their work; the Center for Research and Innovation in Technology-Enhanced Learning can foster these relationships and guide the development of more culturally responsive and inclusive technologies, and help researchers ensure that they are not creating new barriers and impediments.

These aims of the Center are aligned with recent initiatives within the College of Education to address broad and systemic issues of equity and social justice. 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. Faculty from the College of Education have been involved in the working groups established through the Call to Action and many have received funding through the research program aimed at supporting "academic research and the expansion of community-based knowledge to advance the understanding of systemic bias and structural disparities – some of the greatest challenges facing our society. The goal of the program is to enhance exceptional cross-disciplinary research strengths and expand collaborations to build cultures of research and scholarship that address system bias and social injustice". College of Education faculty led or were engaged with initiatives specifically supported by research funding from the Chancellor's Call to Action in the last year. Some of the community-focused projects for which Education faculty have developed include:

- Social Movements as Curriculum in Schools
- Addressing COVID-19 Health Disparities in Partnership with Local African American Churches
- Establishing a Community-Based Curriculum Materials Collaborative for Health Justice Science Education
- Understanding Challenges and Strategies to Assist Foster Care Providers in Meeting the Needs of African-American Children Involved in the Child Welfare System
- Illinois Children's Autism Resources for Equitable Services
- Funding Support for CREA's Evaluation of the LIFT Champaign Program

In addition, public engagement activities in the College of Education are a core value, deeply interwoven in our commitment to equity and social justice. The COE was the first college on campus to hire a Director of Public Engagement with key responsibilities in deepening research and teaching activities driven by

community priorities. Due to the nature and mission of our work, community participation is an inherent extension of what our faculty, staff, and students do. A sampling of the College's units and initiatives that have a strong equity focus and important societal impact is provided below.

- *School and community experiences (SCE).* SCE coordinates the placement and supervision of the COE undergraduate early field and student teaching placement for all early childhood, elementary, middle grades, and secondary education candidates. In spring 2023, over 564 placements were implemented in collaboration with school partners and the Council on Teacher Education. SCE conducts over 55 training events throughout the year for clinical instructors on topics such as supervision and communication, culturally relevant practices, student mental health and wellness, trauma-informed practices etc.
- *Professional Development for Educators.* Our faculty offer a wide range of online and on-site professional development opportunities for practicing and newly licensed teachers, through the TEACH Academy, Illinois New Teacher Collaborative Leadership Conference, Beginning Teacher Conference, Chancellor's Teacher Academy, i3: Inclusive Inquiry Based Social Studies for Illinois, and the Teaching of Asian American History to name a few. Examples of College initiatives that offer an array of professional development opportunities include: The Center for Education in Small Urban Communities, The Illinois New Teacher Collaborative, The Office of Math, Science and Technology Education, and the Forum on the Future of Public Education.
- *Expanding Computing Education Pathways Alliance (ECEP).* The COE was instrumental in helping Illinois become a member of the NSF-funded ECEP Alliance aimed at broadening participation in equitable computer science education across Illinois. COE faculty in collaboration with members from ISBE and other entities held a state-wide computer science education summit and guided groups of teachers, researchers, non-profit providers, and other stakeholders in creating a state-wide strategic action plan for computer science education.
- *Partnerships and collaborations.* We are working to increase and deepen our relationship and networks with the Illinois State Board of Education, school districts, and external entities for residency-type programs, school and community experiences, and district pipelines for recruitment. Members of the COE continue to provide lawmakers at the state and national levels with important data and perspectives on teacher education (i.e., State's literacy framework) and education policy issues.
- *Freedom School Cultural Academy.* COE faculty have been instrumental in the development of the Illinois Freedom Schools network, created in 2022 from a $17M state grant, and in offering Freedom School programming in local area schools.
- *We CU.* The COE in collaboration with other units on campus has pioneered the We CU Community engagement program which supports partnerships between local organizations and service-learning instructors to create impactful learning experiences for students and promote positive change in our community.
- *Office of Community College, Research, and Leadership (OCCRL*). OCCRL is research and evaluation driven initiative using methods to improve policies, programs, and practices to enhance community college education and transition to college for diverse learners at the state, national, and international levels. It is a national leader in the study of community colleges and a key resource for the state of Illinois.
- *Education Justice Project.* EJP offers college-in-prison programs for incarcerated individuals. EJP produces a reentry guide for inmates that is distributed statewide.
- *iGlobal.* The award-winning iGlobal program connects preservice teachers with students and teachers globally to support the United Nations Sustainable Development goals. The program allows preservice teachers to work with middle school classrooms globally, providing free online curricular materials and teaching support. To date, iGlobal has worked with over 1,300 middle school students from over 17 countries.

In addition, aligned with the mission of the Center for Research and Innovation in Technology-Enhanced Learning, many of our faculty have external funding explicitly geared towards broadening participation in STEM for under-represented populations. Our college also has the only endorsement in the state in computer science education, which aims at using equitable STEM practices to ensure all students have access to high quality computing experiences.

A critical component of the Center's mission is to support and elevate the work of faculty and students who are designing technology-based solutions that address issues of social inequity in learning environments. As described above, this entails both working with these communities as partners at the design stage as well as ensuring that these communities benefit from the research being done. The precursor initiative to the Center for Research and Innovation in Technology-Enhanced Learning, TIER-ED, supported several projects with an equity agenda including the design of a digital toy for children with disabilities, digital tools to support undergraduate students of color in STEM majors, and multiple projects designing low-cost educational interventions for children in the Global South. As a campus-recognized Center, the Center for Research and Innovation in Technology-Enhanced Learning will have enhanced capacity to extend and amplify these efforts through collaborations with the projects associated with the Campus-Community Compact. Partnering with the Compact will allow for greater access to embedding the work of the Center in schools and community centers at the local level.

2. Increase and Retain Faculty, Staff, and Administrators of Color

The College of Education has a long-standing commitment to recruiting and nurturing leaders from diverse backgrounds. This commitment has garnered the COE the distinction as one of the largest producers of scholars of color who hold key positions in academia nationally and internationally. It continually ranks above institutional averages on measures of diversity for both faculty and students. In 2024 the College hired an inaugural associate dean for faculty affairs to support the career development of our faculty, in particularly faculty of color. Additionally, two dean's fellows have been appointed to focus on faculty development and graduate student diversity and inclusion, to further support our efforts to support and retain faculty and students.

The College of Education continues to carry out its commitment in its hiring efforts and leveraging key campus initiatives. Through the Targets of Opportunity Program (TOP) campus has provided resources to incentivize hiring activities that support diversity, recruitment, and retention goals. It provides recurring funds for salary support for hires that enhance campus diversity, including faculty from underrepresented groups and women in STEM fields. The College has engaged with the TOP to successfully hire a number of faculty of color in the last two years. Through the campus DRIVE program, the College has recruited post-doctoral fellows from indigenous backgrounds with expertise in tribal and higher education.

Because of the interdisciplinarity and the potential to have impact on issues of social justice in our educational system, the field of learning technology design is one that is increasingly drawing in scholars of color. The Center for Research and Innovation in Technology-Enhanced Learning is committed to reaching out to faculty and staff of color at Illinois who have relevant interests in this area and augmenting their work. Providing resources for this work and adopting culturally-responsive approaches to design also has the potential to aid in the retention of these scholars and the further diversification of the field.

Sustainability

3. Effectiveness and Efficiencies in its Administrative Structure

The College of Education is undergoing a revisioning and repositioning of its core centers and strategic initiatives. The Dean has recently appointed Dr. Lisa Monda-Amaya as Visiting Executive Director of Centers and Strategic Initiatives specifically to coordinate these efforts. Building off the Ad Hoc Task Force recommendations in Spring, 2022, the Visiting Executive Director is formalizing processes for reporting,

operations, communications, and cultivating collaborative synergies across the College and University. The Center for Research and Innovation in Technology-Enhanced Learning elevation to a permanent center will provide a model, serving to catalyze and innovate within and between College centers and initiatives more effectively.

The Bureau of Educational Research (BER) leads the College of Education research mission and provides support activities and resources, providing pre-award proposal development, supporting the development of with large-scale strategic collaborations, and conducting internal funding programs, and supporting research relationships with K-12 school research sites. BER offers one-on-one consultations by appointment, for individual faculty and research teams. The BER Office of School-University Research Relations offers consultation and help to recruit K-12 schools to participate in organized research efforts. A number of campus grant writing resources and supports can be consulted by education faculty seeking grant writing assistance. The College Research Committee holds multiple competitions each year to support faculty and graduate students in pursuing new research opportunities.

The Associate Dean for Research (ADR) in the College of Education oversees the BER, along with initiatives and research funding operations within the College. The office supports faculty who are seeking or who have received external funding. The ADR provides intellectual leadership to the scholarly activities of the College including initiating opportunities for scholarly exchange around critical topics, supporting grant development and writing, identifying faculty who can serve as resources to research efforts and initiatives). Important responsibilities of the ADR include a) overseeing international connections as they relate to research; b) addressing matters of ethics, diversity, and equity in research and research education; and c) serving as ex officio for the College Research Committee, which advises on research policies and reviews applications for seed funding, fellowship competitions, and awards.

4. Collaborative Synergies

The College of Education is committed to an ethos of collaboration and interdisciplinary work. The need to solve complex societal problems such as climate change, social inequality, and ethical issues around AI requires bringing together expertise from different disciplines. The College has teaching and research collaborations with numerous units around campus, including joint programs with the College of Engineering (e.g., CS+Education), certificates (e.g., Cancer Center), MOUs (e.g., VetMet, Applied Health Sciences), and other instructional activities (e.g., DPI). The College of Education continues to support cross-campus collaborations that promote interdisciplinary work. The BER, for example, hosts opportunities for faculty to interact and learn with colleagues around campus. Recent and upcoming events include interactions with colleagues from Engineering, Medicine, and the Institute of Genomic Biology.

The College of Education has unique strengths in developing DEI initiatives, evaluation, online learning, quantitative methodologies, workforce development, etc., and it can employ these strengths to support campuswide efforts to develop research and practical applications toward funding in education, science, engineering, medicine, and healthcare among others. The College has the capacity and expertise to support the University's efforts to expand access and opportunities for K-12 learners through virtual tutoring, dual credit offerings, and 2+2 pathways with community colleges.

Aligning with College efforts, the primary aim of the Center for Research and Innovation in Technology-Enhanced Learning is to create and sustain collaborative synergies around the research and design of new technologies for learning and education. The TIER-ED initiative was successful at initiating numerous collaborations across colleges on the Illinois campus. Through the Center we will extend these collaborations beyond our campus to industries and other entities across the state and nation. There is the potential, for example, to work with vendors and partners who are already providing technologies for teaching and learning at Illinois. There are also existing synergies with several campus entities engaged in this type of work that will enable the Center to continue to grow, seeking new funding opportunities and

faculty collaborations over time.

The letters of support attached to this proposal point to a level of excitement in the potential of collaborative synergies with the Center for Research and Innovation in Technology-Enhanced Learning. For example, Tim McIlvain, the Executive Director of the Learning Technology Center with the Illinois State Board of Education, notes, "*I oversee an organization committed to advancing K-12 education across Illinois through innovative technology initiatives, comprehensive services, and robust professional development opportunities…We believe there are many potential opportunities for collaboration with [the Center] given our shared aims and initiatives. We look forward to potentially partnering with [the Center for Research and Innovation in Technology-Enhanced Learning] on research projects that have tangible benefits for Illinois students and teachers. We are also excited about the prospect of developing new technologies and new tools that are responsive to the needs of our state, particularly our schools with underrepresented and underserved populations in both rural and urban contexts*."

Letters from campus units describe potential synergies offering an array of opportunities for faculty and students. For example in their letter the Director of the Game Studies Program and the Director of Informatics note, "*As a center, [the Center for Research and Innovation in Technology-Enhanced Learning] could provide resources, community, training, and much needed infrastructure to support what we expect to be an expanding flow of faculty and students working on "serious games" and other interactive media, often explicitly for educational purpose, which require cutting-edge technological and professional level design skills, as well as input and guidance from educators*." Other letters from units such as the Siebel Center for Design (SCD) and the Center for Innovation in Teaching and Learning (CITL) make similar points about the strong potential for collaboration and an excitement for what the Center for Research and Innovation in Technology-Enhanced Learning brings to the Illinois campus.

Growth

5. Promote Public Good in Illinois

The mission of the Center for Research and Innovation in Technology-Enhanced Learning is to leverage the creativity and interdisciplinary expertise of the University to design solutions to critical problems in education such as creating technology-enhanced interventions that are accessible to all and are culturally responsive. The Center also aims to recruit the participation and elevate the voices of the people in the State of Illinois for whom these design solutions are being developed. A vibrant community of scholarship that includes researchers, practitioners, parents, and students will lead to healthier and more innovative educational systems and contribute to the public good.

Aside from the many units and initiatives described in the equity section above, the College of Education is working closely with the Campus-Community Compact, a major initiative of the Chancellor's Call to Action. The Compact identified priorities in the area of Inclusive Education. In collaboration with the local schools the College of Education has created professional development opportunities for teachers and administrators through the TEACH Academy, a three-day interactive experience designed to strengthen instructional practices through the lens of educational justice, equity, and inclusion. Now in its second year, the TEACH Academy has already cultivated a community of scholars transforming education across Champaign County. The 2023 TEACH Academy introduced groundbreaking new teaching methods subsequently implemented in local schools during the 2023-2024 academic year. These innovative approaches have already yielded impressive results, with an increase in math scores among some high school students. The 2024 TEACH Academy engaged 180 TEACH Scholars, the 2024 cohort doubled the size of the inaugural class. This collaboration opens the possibilities of translating the research and innovative work of the Center for Research and Innovation in Technology-Enhanced Learning directly to classroom practice.

6. Leveraging the Illinois Innovation Network

One of the priorities of the Center for Research and Innovation in Technology-Enhanced Learning is to develop new technologies that have the potential to become part of the educational infrastructure of the State of Illinois and with the possibility of commercialization. We anticipate working with the Illinois Innovation Network (IIN) hubs and with Discovery Partners Institute (DPI) to harness these innovations and provide work and research opportunities for people in the state. We have already discussed potential internship programs with DPI for students who want to do educational technology-related work in Chicago as well as bolstering academic programs that help train people to do this important interdisciplinary work. The TIER-ED community invited the Director of the Illinois Workforce and Education Research Collaborative (IWERC) to speak at one of our recent community meetings; there is strong potential to collaborate with IWERC on the impacts of new technologies on districts and schools in Illinois.

7. Engagements with Business and Industry

"*The global education technology market size was valued at USD 123.40 billion in 2022 and is expected to expand at a compound annual growth rate (CAGR) of 13.6% from 2023 to 2030*." (Grand View Research, 2022). While the educational technology sector is growing rapidly there is still a tremendous need for innovation in tools that effectively address the unique needs of learners in the State of Illinois. Industry-driven educational technology solutions are often efficiency driven and offer a one-size-fits-all approach. The Center for Research and Innovation in Technology-Enhanced Learning aims to work with business partners and demonstrate the value of design approaches that incorporate the voices of students and teachers, and that align with research findings on how people learn and effective teaching practices. Center leadership has been meeting with industry outreach offices across campus (e.g., Illinois Office of Corporate Relations, NCSA Corporate Relations, etc.) to learn about how to build industry partnerships. We have also met with similar entities at other universities (e.g., Stanford MediaX) with a similar mission to learn how to establish programs where industry partners can support research and innovation efforts. Perhaps most importantly, the College of Education is exploring partnerships with the Gies College of Business to create avenues for innovation and entrepreneurship in the space of educational technology. In her letter of support for establishing the Center, Dean Elliot notes the "*great potential for student and faculty entrepreneurship, and for partnerships that add value for both of our Colleges.*"

8. Opportunities for Students

Design education and data science education are two areas in which Illinois has invested heavily in recent years, and the work of the Center for Research and Innovation in Technology-Enhanced Learning will leverage these strengths to create better technologies for learning. The Center will provide research and design activities for students that will augment academic programs in the College of Education and other units. Providing meaningful opportunities for undergraduate and graduate students at Illinois in the area of educational technology design and research is a key aim of the Center. The TIER-ED initiative granted numerous fellowships to students to give them time and resources to develop new technologies and contribute to impactful research. The Center for Research and Innovation in Technology-Enhanced Learning projects will continue to give students RA opportunities as well as work with Illinois partners to establish internships and other career paths.

Recruiting and mentoring Graduate Students is key to the success of faculty in the College of Education. The College has elevated recruitment efforts, offering a coordinated college-wide visit day for admitted students with funding provided by the College. The initiative is offered concurrently with the Community of Scholars campus visit organized by the Graduate College to boost our recruitment of diverse students. We continue to examine our capacity to increase graduate student funding through gifts and offer extensive support through research and teacher education grants.

In addition, College of Education faculty have been working to integrate culturally responsive teaching

standards across teacher education program to ensure they are prepared to engage with diverse populations. The College has the only endorsement in the state in computer science education, which aims at using equitable STEM practices to ensure all students have access to high quality computing experiences.

9. Expanding Models of Teaching and Learning

The College of Education is built on its commitment to expanding models of teaching and learning through its research, teacher education, graduate student preparation and outreach activities. A core part of its mission is "*harnessing the power of technology to revolutionize learning, personalize education, enhance accessibility and pave the way for a more inclusive future for all.*" The Center for Research and Innovation in Technology-Enhanced Learning will be a key component of enacting this mission. The aim is for the Center for Research and Innovation in Technology-Enhanced Learning to become a hub of research and innovation for investigating the ways new technologies impact learning and education. Scholarly teams from across campus with deep expertise in technology-enhanced learning will be brought together to initiate and support transformative and scaled-up research initiatives entailing the development of new educational technologies and studies in authentic contexts in K-12, higher education classrooms, and beyond (e.g., museums, community centers). At its core and as noted in the narrative above, the Center for Research and Innovation in Technology-Enhanced Learning is about expanding models of teaching and learning through the invention and innovative application of new technologies.

DRAFT – these bylaws will be revised and ratified upon the convening of the inaugural Center Steering Committee and Theme Leads.

Bylaws for the Center for Research and Innovation in Technology-Enhanced Learning

In the text below, the term Center refers to the *Center for Research and Innovation in Technology-Enhanced Learning* based in the Illinois College of Education

SECTION I — NAME

This Center shall be called the Center for Research and Innovation in Technology-Enhanced Learning.

SECTION II — OBJECTIVES

The mission of the Center for Research and Innovation in Technology-Enhanced Learning is to provides a hub for research and innovation on the Illinois campus for investigating the multitude of ways new technologies impact learning and education. Its purpose is to initiate and support transformative and scaled-up research initiatives surrounding the development of new educational technologies and studies in authentic contexts in K-12 and higher education classrooms and beyond (e.g., museums, community centers).

Ultimately, the Center for Research and Innovation in Technology-Enhanced Learning vision strives to position the University of Illinois as a leader in technology-enhanced learning and design. This positioning will occur across activities situated in 4 themes. These overlapping themes encompass a range of topics related to educational technologies that address emerging trends and issues in national and global circles, while also serving as a guiding framework to push innovations towards ethical, equitable, and scalable models aimed at making Illinois a leader in innovative technologies for learning.

1. **Theme 1: Learning and Interactivity Research** - This theme encompasses scientific investigations of how people learn in the context of interactive digital technologies such as investigating the effects of interactivity in digital environments on learning, exploring learning contexts and curricular designs involving digital environments, supporting socio-emotional learning with technology, and discussing contexts and advancements in online learning environments.
    Activities: Conducting and disseminating high-quality research findings on how people learn with and through their interactions with new technologies.
2. **Theme 2: Innovative Technology Design** - This theme entails developing new digital learning tools that push the frontiers of technology, such as building multi-device platforms for individual and group learning, developing tools for AI application in education and cybersecurity, applying machine learning, video analysis, and sensor technologies to enhance educational experiences, creating gamified and immersive learning experiences, and developing novel assistive technologies for learning.

Activities: The application of research findings to tangible technology designs, created through partnerships with educators and learners, that can be shared locally, nationally, and internationally for continued design and experimentation.

3. **Theme 3: Impact and Policy** - This theme involves working with community and industry partners to improve the policy and practice of digital technology use such as developing research practice partnerships to enhance teacher professional development in using digital technologies for STEM, investigating the impacts of technology programs in schools, and developing action research with justice-centered pedagogies.
   Activities: Rigorous evaluations of the impact of technology-enhanced learning designs in authentic educational environments that lead to guiding principles and policies.
4. **Theme 4: Digital Access and Equity –** This theme addresses the most pressing issues of access and equitable design of digital learning technologies. This can include a variety of investigations, such as exploring motivation, engagement, and STEM achievement. It also involves developing technologies to support the learning of minoritized youth and multilingual learners, as well as technologies for the Global South.
   Activities: Investigations of the barriers that prevent learners from accessing effective technology-enhanced learning environments and the ways in which these technologies can be designed to be culturally-responsive, equitable, and inclusive.

SECTION III — ENABLING CONSTITUTIONAL PROVISION

The Constitution and Bylaws of the College of Education of the University of Illinois at Urbana-Champaign and its associated Policies and Procedures, as said Bylaws and Policies and Procedures may be subsequently revised or amended, are hereby incorporated in these Bylaws by reference.

SECTION IV — ORGANIZATIONAL STRUCTURE & DUTIES OF LEADERSHIP

The Center for Research and Innovation in Technology-Enhanced Learning will have a director who will coordinate its activities and functions, have overall responsibility for enacting the charter of the Center, manage relationships with both internal and external units with shared interests, and communicate with the College and campus about the Center's progress and budgetary status. The Director will report to the Dean of the College of Education.

The Director will work closely with the Center's Steering Committee consisting of 5 members representing College of Education and/or other units or entities. No unit or entity will have more than 2 members on Steering Committee. The Steering committee will meet each semester to assess progress of the Center and make strategic recommendations.

The Center Coordinator will administer the research and logistical processes of the Center. This includes, but is not limited to, managing seed funding programs, establishing relationships with schools and industry partners, oversight of the Center's facilities and equipment, managing student RAs and hourly workers, coordinating with the Bureau of Educational Research and the College of Education's administrative team on HR and budgetary matters.

The Theme Leads will come from the range of departments within the College of Education and will serve staggered two-year terms in these roles. They will be charged with guiding a research agenda that adheres to the four themes. Theme leads will be appointed through consensus with the Director, Coordinator and Steering Committee, but these appointments will be reviewed every year with input from Center's faculty affiliates.

SECTION V — APPOINTMENT AND TENURE OF LEADERSHIP

The Dean of the College of Education will appoint the Director of the Center for Research and Innovation in Technology-Enhanced Learning. The Director shall serve in that office for three years, with no limit for re-appointments if so chosen by the Dean. The Director of the Center will be subject to a three-year performance evaluation per Provost Communication #24.

Appointment of members of the Steering Committee and Theme Leads will be made by the Director of the Center in collaboration with Dean and Department Heads or Chair (EPSY). Steering committee member terms will be two years, and a member can serve a maximum of two consecutive terms.

The Center Coordinator shall serve in that role for three years, with no limit for re-appointments if so chosen by the Director, upon agreement by the chosen candidate.

ARTICLE VI — MEETINGS

Steering Committee Meeting. The Steering Committee shall meet at least once per semester to plan, organize and facilitate the activities of the Center.

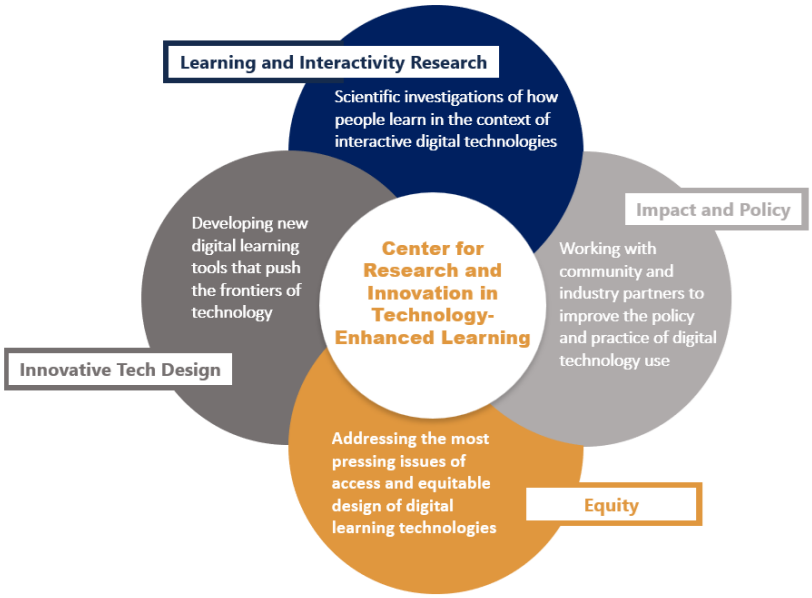
The Center will organize conferences, workshops, and activities to enhance research activity and synergy with other Centers and research groups at Illinois.

ARTICLE VII — PROCEDURE OF AMENDMENT OF BYLAWS

Proposal of an Amendment to these Bylaws may be made by the Steering Committee, or by a petition to the Director signed by not fewer than ten percent of the members of the Center. However initiated, revisions or amendments must be reviewed by the Steering Committee and approved by the Director and the Dean. Amendments to the Bylaws will be formally approved by a vote to approve by no less than two-thirds of the Steering Committee.

Technology-Enhanced Learning Research Portfolio
College of Education at Illinois

The College of Education at Illinois has a long-standing commitment to conducting timely and innovative research in the area of technology-enhanced learning. The Center for Research and Innovation in Technology-Enhanced Learning will harness and amplify these existing efforts with the aim of increasing the impact and initiating new collaborations across campus and with organizations external to the University. As a demonstration of our existing strengths and the foundation of research potential the Center can leverage, we have compiled a sample of papers and externally funded research projects organized around the four center themes shown in the diagram below. This list only includes work that was active or published in the last five years (since 2020). Also, it is not intended to be exhaustive, but rather it aims to offer a selection of scholarly contributions and a breadth of technology-enhanced learning work in which the College is engaged.



Theme 1: Learning and Interactivity Research

This theme encompasses scientific investigations of how people learn in the context of interactive digital technologies such as investigating the effects of interactivity in digital environments on learning, exploring learning contexts and curricular designs involving digital environments, supporting socio-emotional learning with technology, and discussing contexts and advancements in online learning environments.

Recent Publications from College of Education Faculty *(24 papers, 19 unique COE faculty represented)*:

- **Bosch, N.** (2021). Identifying supportive student factors for mindset interventions: A two-model machine learning approach. *Computers & Education*, *167*, 104190.
- **Cope, B.**, & **Kalantzis, M.** (2022). The cybernetics of learning. *Educational Philosophy and Theory*, *54*(14), 2352-2388.
- **Cromley, J. G.**, Chen, R., & Lawrence, L. (2023). Meta-analysis of STEM learning using virtual reality: Benefits across the board. *Journal of Science Education and Technology*, *32*(3), 355-364.

- **D'Angelo, C. M.**, & Rajarathinam, R. J. (2024). Speech analysis of teaching assistant interventions in small group collaborative problem solving with undergraduate engineering students. *British Journal of Educational Technology*, *55*(4), 1583-1601.
- Fan, Y., **Lane, H. C.**, & Delialioğlu, Ö. (2022). Open-ended tasks promote creativity in Minecraft. *Educational Technology & Society*, *25*(2), 105-116.
- Jeng, A., **Bosch, N.**, & **Perry, M.** (2024). Phatic expressions influence perceived helpfulness in online peer help-giving: A mixed methods study. *Learning and Instruction*, *91*, 101893.
- **Kang, J.**, Zhou, Y., Rajarathinam, R. J., Tan, Y., & Shaffer, D. W. (2024). Unveiling joint attention dynamics: Examining multimodal engagement in an immersive collaborative astronomy simulation. *Computers & Education*, *213*, 105002.
- **Kern, J. L.**, & Choe, E. (2021). Using a response time–based expected a posteriori estimator to control for differential speededness in computerized adaptive test. *Applied Psychological Measurement*, *45*(5), 361-385.
- Kumar, V., & **Tissenbaum, M.** (2022). Supporting collaborative classroom networks through technology: An actor network theory approach to understanding social behaviours and design. *British Journal of Educational Technology*, *53*(6), 1549-1570.
- **Li, J.**, Wong, S. C., Yang, X., & Bell, A. (2020). Using feedback to promote student participation in online learning programs: Evidence from a quasi-experimental study. *Educational Technology Research and Development*, *68*, 485-510.
- Li, X., Xu, H., **Zhang, J.**, & Chang, H. H. (2023). Deep reinforcement learning for adaptive learning systems. *Journal of Educational and Behavioral Statistics, 48*(2), 220-243.
- **Lindgren, R.**, Morphew, J. W., **Kang, J.**, Planey, J., & Mestre, J. P. (2022). Learning and transfer effects of embodied simulations targeting crosscutting concepts in science. *Journal of Educational Psychology, 114*(3), 462–481.
- **Mathayas, N.**, Brown, D. E., & **Lindgren, R.** (2021). "I got to see, and I got to be a part of it": How cued gesturing facilitates middle-school students' explanatory modeling of thermal conduction. *Journal of Research in Science Teaching*, *58*(10), 1557-1589.
- **Mercier, E.**, Goldstein, M. H., Baligar, P., & Rajarathinam, R. J. (2023). Collaborative learning in engineering education. In *International handbook of engineering education research* (pp. 402-432). Routledge.
- **Oh, E. G.**, & Hong, Y. C. (2020). Intellectual development and aging of adults in educational technology. *Handbook of Research in Educational Communications and Technology: Learning Design*, 229-246.
- **Paquette, L.**, & **Bosch, N.** (2020). The invisible breadcrumbs of digital learning: How learner actions inform us of their experience. In *Handbook of Research on Digital Learning* (pp. 302-316). IGI Global.
- **Perry, M.**, Azevedo, R. F., Henricks, G., Crues, R. W., & Bhat, S. (2024). Learning from online instructional videos considering video presentation modes, technological comfort, and students characteristics. *International Journal of Human–Computer Interaction*, 1-18.
- Puntambekar, S., Gnesdilow, D., **Dornfeld Tissenbaum, C.**, Narayanan, N. H., & Rebello, N. S. (2021). Supporting middle school students' science talk: A comparison of physical and virtual labs. *Journal of Research in Science Teaching*, *58*(3), 392-419.
- Siegle, R. F., Schroeder, N. L., **Lane, H. C.**, & Craig, S. D. (2023). Twenty-five years of learning with pedagogical agents: History, barriers, and opportunities. *TechTrends*, *67*(5), 851-864.
- **Tissenbaum, M.** (2020). I see what you did there! Divergent collaboration and learner transitions from unproductive to productive states in open-ended inquiry. *Computers & Education*, *145*, 103739.

- **Tissenbaum, M.**, Weintrop, D., Holbert, N., & Clegg, T. (2021). The case for alternative endpoints in computing education. *British Journal of Educational Technology*, *52*(3), 1164-1177.
- Worsley, M., Martinez-Maldonado, R., & **D'Angelo, C.** (2021). A new era in multimodal learning analytics: Twelve core commitments to ground and grow MMLA. *Journal of Learning Analytics*, *8*(3), 10-27.
- Zhang, Y., **Paquette, L.**, Pinto, J. D., & Fan, A. X. (2023). Utilizing programming traces to explore and model the dimensions of novices' code-writing skill. *Computer Applications in Engineering Education*, *31*(4), 1041-1058.
- Zhou, Y., & **Kang, J.** (2023). Enriching multimodal data: A temporal approach to contextualize joint attention in collaborative problem-solving. *Journal of Learning Analytics*, *10*(3), 87-101.

Recent Theme 1 Externally-Funded Projects from College of Education Faculty:

- *"Advancing the Science of STEM Interest Development with Machine Learning and Data Driven Interviews"* funded by the National Science Foundation (#2301172); **Luc Paquette** (PI), **H. Chad Lane** (Co-PI); 7/15/2022-6/30/2026; $698,019.
- *"Understanding and Improving Learning from Online Mathematics Classroom Videos"* funded by the National Science Foundation (#1621253); **Michelle Perry** (PI), Cheryl Moran (Co-PI), Megan Bates (Co-PI), Joseph Robinson-Cimpian (Co-PI); 7/15/2016-6/30/2022; $2,233,462.
- *"Meta-Analysis to Support an Integrated Theory of Multimedia Learning"* funded by the National Science Foundation (#1661231); **Jennifer Cromley** (PI), Susan Beretvas (Co-PI); 8/15/2016-7/31/2022; $289,753.

Theme 2: Innovative Technology Design

This theme entails developing new digital learning tools that push the frontiers of technology, such as building multi-device platforms for individual and group learning, developing tools for AI applications in education and cybersecurity, applying machine learning, video analysis, and sensor technologies to enhance educational experiences, creating gamified and immersive learning experiences, and developing novel assistive technologies for learning.

Recent Publications from College of Education Faculty *(13 papers, 14 unique COE faculty represented)*:

- **Cope, B.**, **Kalantzis, M.**, & Searsmith, D. (2021). Artificial intelligence for education: Knowledge and its assessment in AI-enabled learning ecologies. *Educational philosophy and theory*, *53*(12), 1229-1245.
- **Kang, J.**, Diederich, M., **Lindgren, R.**, & Junokas, M. (2021). Gesture patterns and learning in an embodied XR science simulation. *Educational Technology & Society*, *24*(2), 77-92.
- Kim, T., Nisar, H., **Lindgren, R.**, Zhang, J., Tang, X., Lira, M., & Talhan, A. (2024). Beyond the screen: Gestural perspective-taking with a biochemistry simulation. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems* (pp. 1-6).
- Kim, T., Planey, J., & **Lindgren, R.** (2023). Theory-driven design in metaverse virtual reality learning environments: Two illustrative cases. *IEEE Transactions on Learning Technologies*, *16*(6), 1141-1153.
- **Kang, J.**, & Liu, M. (2022). Investigating navigational behavior patterns of students across at-risk categories within an open-ended serious game. *Technology, Knowledge and Learning*, *27*(1), 183-205.
- Lawrence, L., **Mercier, E.**, Tucker, T., **Bosch, N.**, & **Paquette, L.** (2024). Accuracy and effectiveness of an orchestration tool on instructors' interventions and groups' collaboration. *Computers and Education Open*, *7*, 100203.

- Lee, J. D., Meadan, H., & **Xia, Y.** (2022). Impact of challenging behavior online modules on Korean parents of children with developmental disabilities: A randomized controlled trial. *Journal of Positive Behavior Interventions*, *24*(3), 222-235.
- **Morrow, D. G.**, **Lane, H. C.**, & Rogers, W. A. (2021). A framework for design of conversational agents to support health self-care for older adults. *Human Factors*, *63*(3), 369-378.
- **Mouza, C.**, Mead, H., Alkhateeb, B., & Pollock, L. (2022). A virtual professional development program for computer science education during COVID-19. *TechTrends*, *66*(3), 436-449.
- **Oh, E. G.**, Cho, M. H., & Chang, Y. (2023). Learners' perspectives on MOOC design. *Distance Education*, *44*(3), 476-494.
- Planey, J., Rajarathinam, R. J., **Mercier, E.**, & **Lindgren, R.** (2023). Gesture-mediated collaboration with augmented reality headsets in a problem-based astronomy task. *International Journal of Computer-Supported Collaborative Learning*, *18*(2), 259-289.
- **Ray, A. B.**, & Mason, T. (2024). Teaching middle school students with learning disabilities argumentative writing using SRSD with technology supports. *Journal of Research in Special Educational Needs*.
- Sung, J. S., & **Huang, W. H. D.** (2024). Motivational design for inclusive digital learning: Women college engineering students' motivation for online STEM learning. *Contemporary Educational Technology, 16*(1), Article ep489.

Recent Theme 2 Externally-Funded Projects from College of Education Faculty:

- *"The INVITE Institute: Inclusive and Innovative Intelligent Technologies for Education"* funded by the National Science Foundation (#2229612); **H. Chad Lane** (PI), ChengXiang Zhai (Co-PI), Diego Zapata (Co-PI), Kristy Boyer (Co-PI); Jamie Payton (Co-PI); 6/1/2023-5/31/2028; $19,998,746.
- *"Connections of Earth and Sky with Augmented Reality (CEASAR): Transforming Collaborative Learning Practices with Shared and Embedded Digital Models"* funded by the National Science Foundation (#1822796); **Robb Lindgren** (PI), **Emma Mercier** (Co-PI), **Jina Kang** (Co-PI), Nathan Kimball (Co-PI); 10/1/2018-9/30/2022; $748,022.
- *"SimSnap: Orchestrating Collaborative Learning in Biology through Reconfigurable Simulations"* funded by the National Science Foundation (#2010456); **Mike Tissenbaum** (PI), Alexandra Mazalek (Co-PI); 8/1/2020-7/31/2025; $1,846,074.
- *"Improving Collaborative Learning in Engineering Classes Through Integrated Tools"* funded by the National Science Foundation (#1628976); **Emma Mercier** (PI), **Luc Paquette** (Co-PI); 9/1/2016-8/31/2021; $1,349,576.
- *"Development of the Electronic Test of Early Numeracy (e-TEN)"* funded by the National Science Foundation (#1621470); **Arthur Baroody** (PI), Elizabeth McCarthy (Co-PI); 9/15/2016-8/31/2024; $2,777,614.

Theme 3: Impact and Policy

This theme involves working with community and industry partners to improve the policy and practice of digital technology use such as developing research-practice partnerships to enhance teacher professional development in using digital technologies for STEM, investigating the impacts of technology programs in schools, and developing action research with justice-centered pedagogies.

Recent Publications from College of Education Faculty *(29 papers, 23 unique COE faculty represented)*:

- Alrawashdeh, G. S., Fyffe, S., Azevedo, R. F., & **Castillo, N. M.** (2023). Exploring the impact of personalized and adaptive learning technologies on reading literacy: A global meta-analysis. *Educational Research Review*, 100587.

- Alrawashdeh, G. S., **Lindgren, S.**, Reyes, M., & Pisey, S. (2022). Developing youth's capacities as active partners in achieving sustainable global food security through education. *Environmental Sciences Proceedings, 15*(1).
- **Bosch, N.**, Chan, A. S., Davis, J. L., **Gutiérrez, R.**, He, J., Karahalios, K., ... & Wang, Y. (2022). *Artificial intelligence and social responsibility: The roles of the university*.
- **Bruno, P.**, & Lewis, C. M. (2022). Computer science trends and trade-offs in California high schools. *Educational Administration Quarterly*, *58*(3), 386-418.
- **Cope, B.**, & **Kalantzis, M.** (2024). A multimodal grammar of artificial intelligence: Measuring the gains and losses in generative AI. *Multimodality & Society*, *4*(2), 123-152.
- **Cope, B.**, & **Kalantzis, M.** (2022). Artificial intelligence in the long view: From mechanical intelligence to cyber-social systems. *Discover Artificial Intelligence*, *2*(1), 13.
- **Cope, B.**, & **Kalantzis, M.** (2021). Pedagogies for digital learning: From transpositional grammar to the literacies of education. In *Multimodal literacies across digital learning contexts* (pp. 34-54). Routledge.
- **González, G.**, & Vargas, G. E. (2020). Teacher noticing and reasoning about student thinking in classrooms as a result of participating in a combined professional development intervention. *Mathematics Teacher Education and Development*, *22*(1), 5-32.
- Hernández-Rodríguez, O., **González, G.**, & Villafañe-Cepeda, W. (2021). Planning a research lesson online: pre-service teachers' documentation work. *International Journal for Lesson & Learning Studies*, *10*(2), 168-186.
- **Huang, W. D.**, Loid, V., & Sung, J. S. (2024). Reflecting on gamified learning in medical education: A systematic literature review grounded in the Structure of Observed Learning Outcomes (SOLO) taxonomy 2012—2022. *BMC Medical Education, 24*(1), Article 20.
- **Kang, H. S.**, & Shin, D. S. (2024). Mobile-assisted language learning during short-term study abroad. *Frontiers: The Interdisciplinary Journal of Study Abroad*, *36*(1), 254-279.
- **Kang, H. S.**, Shin, D. S., & Cimasko, T. (Eds.). (2020). *Online education for teachers of English as a global language*. New York, NY: Routledge.
- **Lane, H. C.**, Gadbury, M., Ginger, J., Yi, S., Comins, N., Henhapl, J., & Rivera-Rogers, A. (2022). Triggering STEM interest with Minecraft in a hybrid summer camp. *Technology, Mind, and Behavior*, *3*(4).
- **Li, J.**, & Yeo, R. K. (2024). Artificial intelligence and human integration: a conceptual exploration of its influence on work processes and workplace learning. *Human Resource Development International*, 1-21.
- **Magee, L.**, Arora, V., & Munn, L. (2022). Structured like a language model: Analysing AI as an automated subject," *arXiv*, 2212.05058.
- McLeod, R. H., **Hardy, J. K.**, & Carden, K. C. (2024). A review of the literature: Distance coaching in early childhood settings. *Journal of Early Intervention*, *46*(1), 3-18.
- **Mouza, C.**, Codding, D., & Pollock, L. (2022). Investigating the impact of research-based professional development on teacher learning and classroom practice: Findings from computer science education. *Computers & Education*, *186*, 104530.
- **Mouza, C.**, Sheridan, S., Lavigne, N. C., & Pollock, L. (2023). Preparing undergraduate students to support K-12 computer science teaching through school-university partnerships: reflections from the field. *Computer Science Education*, *33*(1), 3-28.
- Munn, L., **Magee, L.**, & Arora, V. (2023). Truth machines: Synthesizing veracity in AI language models. *AI & Society*, 1-15.
- **Negrette, G. M.**, Laixely, J., Cordoba, T. E., & **Sanders-Smith, S. C.** (2022). "So we start from zero": Lessons and reflections from online preschool during the COVID-19 pandemic. *Journal of*

Early Childhood Research, *20*(4), 539-551.

- **Perry, M.**, Bates, M. S., Cimpian, J. R., Beilstein, S. O., & Moran, C. (2022). Impacting teachers' reflection on elementary mathematics classroom videos in online asynchronous professional learning contexts. *Teaching and Teacher Education: Leadership and Professional Development*, *1*, 100003.
- Rakisheva, A., & **Witt, A.** (2023). Digital competence frameworks in teacher education-A literature review. *Issues and Trends in Learning Technologies*, *11*(1).
- **Ray, A. B.**, Mason, T. E., Connor, K. E., & Williams, C. S. (2024). Online PBPD and coaching for teaching SRSD argumentative writing in middle school classrooms. *Education Sciences*, *14*(6), 603.
- **Ray, A. B.**, Poch, A. L., & Datchuk, S. M. (2023). Secondary educators' writing practices for students with disabilities: Examining distance learning and in-person instruction. *Journal of Special Education Technology*, *38*(4), 472-487.
- **Roegman, R.**, & Salloum, S. (2021). " I Never Touch Race": Teaching race in online spaces with future Indiana school leaders. In *Teaching Race in Perilous Times*. SUNY Press.
- Rosenberg, J. M., Reid, J. W., **Dyer, E. B.**, J Koehler, M., Fischer, C., & McKenna, T. J. (2020). Idle chatter or compelling conversation? The potential of the social media-based# NGSSchat network for supporting science education reform efforts. *Journal of Research in Science Teaching*, *57*(9), 1322-1355.
- **Sanders-Smith, S. C.**, Cordoba, T. E., Laixely, J., & **Negrette, G. M.** (2024). Early childhood inquiry and e-learning: recontextualizing a progressive pedagogy in online school. *Journal of Early Childhood Teacher Education*, 1-18.
- **Witt, A.**, Xu, L., Rakisheva, A., & Mazid, S. (2024). Creating boundary spaces through virtual global engagement: Training preservice teachers in virtual collaboration. In *Encouraging Transnational Learning Through Virtual Exchange in Global Teacher Education* (pp. 303-318). IGI Global.
- Whalen, J., & **Mouza, C.** (2023). ChatGPT: challenges, opportunities, and implications for teacher education. *Contemporary Issues in Technology and Teacher Education*, *23*(1), 1-23.

Recent Theme 3 Externally-Funded Projects from College of Education Faculty:

- *"Impacts of State Policy on Computer Science Participation and Teacher Preparation"* funded by the National Science Foundation (#2317943); **Paul Bruno** (PI), Colleen Lewis (Co-PI); 8/1/2023-7/31/2026; $265,273.
- "*College Ready: Reading and Writing to Learn*" funded by the Institute of Education Sciences (IES): Early Career Development and Mentoring (#R324B210014); **Amber Ray** (PI); 7/1/21-5/30/25; $700,000.
- *"Examining Elementary Mathematics Teachers' Behaviors and Learning with an Online Professional Development Platform"* funded by the National Science Foundation (#2301272); **Michelle Perry** (PI), **Nigel Bosch** (Co-PI), Megan Bates (Co-PI); 8/1/2023-7/31/2026; $1,016,210.
- *"Connected Spaces: A Technological Framework for Fostering Collaboration by Linking Novice Makers with Mentors and Peers"* funded by the National Science Foundation (#2048833); **Mike Tissenbaum** (PI), Nathan Holbert (Co-PI); 9/1/2021-8/31/2025; $856,386.
- "*Internet of Things (IoT) Cybersecurity Training for Law Enforcement*" funded by the Department of Homeland Security; **William Cope** (PI), **Mary Kalantzis** (Co-PI), Jen Whiting (Co-PI); 2023-2026, $2,270,000.

Theme 4: Digital Access and Equity

This theme addresses significantly pressing issues of access to and equitable design of digital learning technologies. While there has been much attention on the possibilities of digital technologies to enhance and expand access to educational interventions and opportunities, we also know that there are ways that these technologies can limit access (e.g., by reducing the availability of face-to-face and responsive teaching for underserved students). Research under this theme includes a variety of investigations, such as exploring motivation, engagement, and STEM achievement. It also involves developing technologies to support the learning of minoritized youth and multilingual learners, as well as technologies that are culturally responsive to people in places historically underrepresented such as the Global South.

Recent Publications from College of Education Faculty *(7 papers, 6 unique COE faculty represented)*:

- **Castillo, N. M.**, Adam, T., Alam, A., Alrawashdeh, G. S., & Tiwari, P. (2022). *Trends in digital personalized learning: Landscape review of personalized learning solutions in low and middle-income countries.*
- **Castillo, N. M.**, Wagner, D. A., Alrawashdeh, G. S., & Gidra, A. (2022). Language choice, technology and international education. In *International Encyclopedia of Education: Fourth Edition* (pp. 817-824). Elsevier.
- **Mouza, C.** (2022). Rethinking equity in EdTech teacher preparation. *Contemporary Issues in Technology and Teacher Education*, *22*(4), 621-624.
- **Paquette, L.**, Ocumpaugh, J., Li, Z., Andres, A., & Baker, R. (2020). Who's learning? Using demographics in EDM research. *Journal of Educational Data Mining*, *12*(3), 1–30.
- **Ruedas-Gracia, N.**, Botham, C. M., Moore, A. R., & Peña, C. (2022). Ten simple rules for creating a sense of belonging in your research group. *PLoS computational biology, 18*(12), Article e1010688.
- Shaw, M. S., **Toliver, S. R.**, & Tanksley, T. (2024). The Internet doesn't exist in the sky: Literacy, AI, and the digital middle passage. *Reading Research Quarterly*.
- **Wilson, A.**, & Henderson, D. (2020). Ambitionz az a Teacha: Understanding contemporary rap music's pedagogical implications. *The International Journal of Critical Media Literacy*, *2*(1), 31-55.

Recent Theme 4 Externally-Funded Projects from College of Education Faculty:

- *"Utilizing Photovoice to Understand Black Parents' Critical Parent Engagement"* funded by the American Psychological Association; **Marchand, Aixa** (PI); 7/1/2023-6/36/2025; $6,000.
- *"Minoritized Youth Computer Science Learning, Belonging and Career Interest: Coding and Creating with Beats"* funded by the National Science Foundation (#2048793); Lori Pollock (PI), **Chrystalla Mouza** (Co-PI); 5/1/2021-4/30/2025; $637,239.
- *"Underrepresented Student Learning in Online Introductory STEM College Courses"* funded by the Institute of Education Sciences (#R305A180211); **Michelle Perry** (PI), **Carolyn Anderson** (Co-PI), Lawrence Angrave (Co-PI), Suma Bhat (Co-PI), **Nigel Bosch** (Co-PI); 7/1/2018-6/30/2022; $ 1,399,194.

ILLINOIS

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

October 15, 2024

Dr. Nolan Miller
Chair, Educational Policy Committee
Via email: nmiller@illinois.edu

Dear Nolan,

I am writing about the proposal to establish the **Center for Research and Innovation in Technology-Enhanced Learning** in the College of Education. While we are committed to the name of the center, we are willing to work with campus constituents to identify an abbreviated name that does not create confusion with other entities on campus. Please disregard the abbreviation noted in the support letters. We have confirmed with Dr. Michel Bellini that once the Center is approved we will be in contact with him to identify a different acronym. As you can see from his response, he is excited about developing fruitful collaborations with the Center in the future.

Regards,

C. Mouza

Chrystalla Mouza
Dean and Gutgsell Professor

From: Bellini, Michel
To: Monda-Amaya, Lisa Ellen
Cc: Miller, Nolan H; Newell, Brooke; Mouza, Chrystalla; Lindgren, Robb; Summers, Amy
Subject: RE: Center for Research and Innovation in Technology Enhanced Learning
Date: Tuesday, October 15, 2024 2:47:55 AM
Attachments: image001.png

Dear Lisa,

I have no concern about proceeding the way you described it. I am very excited about the potentials that your center will offer, and I look forward to developing fruitful collaborations with you all.

Best wishes,

Michel

Michel Bellini, PhD
Associate Professor, Cell and Dev Biology
Director, Center for Innovation in Teaching and Learning
University of Illinois at Urbana Champaign
Office: 217 265 5297
email: bellini@illinois.edu

From: Monda-Amaya, Lisa Ellen <lmonda@illinois.edu>
Sent: Monday, October 14, 2024 5:00 PM
To: Bellini, Michel <bellini@illinois.edu>
Cc: Miller, Nolan H <nmiller@illinois.edu>; Newell, Brooke <bsnewell@illinois.edu>; Mouza, Chrystalla <cmouza@illinois.edu>; Lindgren, Robb <robblind@illinois.edu>; Summers, Amy <arsummer@illinois.edu>
Subject: Center for Research and Innovation in Technology Enhanced Learning

Dear Michel,
Thank you again for your support of the College of Education in our proposal for the new ***Center for Research and Innovation in Technology Enhanced Learning.*** We're very excited about the potential of this Center and the possibilities of collaboration with CITL. Once approved we will come up with an acronym for the Center that would allow for quick reference. We wanted to assure you that that we will not be using any sort of acronym that would confuse our Center with CITL, and we will be in contact with you as we make our decision. Please let us know if you feel comfortable with us proceeding in this way.

Sincerely,

Lisa

LISA MONDA-AMAYA
Professor Emeritus
Visiting Executive Director of Centers and Strategic Initiatives
University of Illinois
College of Education
1310 S. Sixth St.
Champaign, IL 61820

lmonda@Illinois.edu

LEARNING
TECHNOLOGY
CENTER of ILLINOIS

August 21, 2024

Dear Dr. Lindgren,

Thank you for reaching out to share your proposal for establishing the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL). I am thrilled about the potential of this new Center and the opportunity it presents for closer collaboration with the University of Illinois.

As the Executive Director of the Learning Technology Center (LTC), I oversee an organization committed to advancing K-12 education across Illinois through innovative technology initiatives, comprehensive services, and robust professional development opportunities. Our mission, in partnership with the Illinois State Board of Education (ISBE), is to support every K-12 district, school, and educator in the state. Our work addresses high-need technology and digital learning challenges, and we help schools increase access to and use of technology to improve educational opportunities for students.

We believe there are many potential opportunities for collaboration with C-TEL given our shared aims and initiatives. We look forward to potentially partnering with C-TEL on research projects that have tangible benefits for Illinois students and teachers. We are also excited about the prospect of developing new technologies and new tools that are responsive to the needs of our state, particularly our schools with underrepresented and underserved populations in both rural and urban contexts.

The LTC is enthusiastic about the establishment of a dedicated center at the University of Illinois focused on technology-enhanced learning environments. We are eager to explore how we can contribute to and support this initiative, and we look forward to discussing potential collaborations that will drive innovation and excellence in education across our state.

Please do not hesitate to reach out if there are specific ways we can assist in advancing this proposal.

Sincerely,

Tim McIlvain
Executive Director
Learning Technology Center

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

The Grainger College of Engineering
Office of the Dean
306 Engineering Hall, MC-266
1308 W. Green St.
Urbana, IL 61801

September 5, 2024

Dear Dean Mouza,

As the Dean of the Grainger College of Engineering, I am writing to offer my support for the establishment of the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL). There is a long history of collaboration between our colleges around the design and development of new technologies that augment human learning, and with C-TEL we have the opportunity to accelerate and amplify those efforts. I am especially excited about the possibilities around engineering and computing education, as well as exploring new applications of artificial intelligence in educational systems and contexts.

There are numerous ongoing collaborations between Grainger faculty and students with the College of Education, and many new opportunities that we can pursue. I am optimistic that C-TEL will offer more chances for interaction and engagement. Please let me know how Grainger can support the C-TEL proposal.

Sincerely,

Rashid Bashir, Dean
Grainger Distinguished Chair in Engineering
Professor of Bioengineering

ILLINOIS

CENTER FOR INNOVATION IN TEACHING & LEARNING

249 Armory Building, MC-528
505 E. Armory Ave.
Champaign, IL 61820-6241

August 20, 2024

Dear Dean Mouza,

I am writing on behalf of the Center for Innovation in Teaching & Learning (CITL) to express our full support for the creation of the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL). Our mission at CITL is to harness developments in the scholarship of teaching and learning and employ them in both in-person and online instruction at Illinois, including the use of new technologies in our classrooms and online platforms. I believe that the establishment of C-TEL will provide us with new insights and new tools that can be potentially employed here at Illinois, as well as open up new opportunities for collaboration.

C-TEL stands out for its potential to stimulate technological development and theoretical understanding on a national scale. We envision it as an innovation hub that can bolster the network and impact that CITL is striving to create here at Illinois. Providing a community for the sustainable growth and scaling of ideas, C-TEL can effectively function as an incubator for technological advancements in education.

We also appreciate C-TEL's commitment to interdisciplinary research. Our collaboration with TIER-ED, for instance, stands as a testament to the successful model of cross-disciplinary collaboration that C-TEL can further enhance. Several of our CITL staff have been active members of the TIER-ED community, and we look forward to continued partnership under the banner of C-TEL.

By bringing together scholars from diverse fields, C-TEL will foster groundbreaking research that explores the profound impact of emerging technologies on learning across various contexts and throughout the lifespan. The focus on transformative, scalable research initiatives, coupled with the development of new educational technologies in authentic settings, positions C-TEL to make a significant contribution to education not only within Illinois but also at the national and global levels.

I wholeheartedly support the establishment of C-TEL and am excited about the potential it holds for transforming education through research and innovation. I am confident that C-TEL will become a nationally recognized leader in technology-enhanced learning and a driving force for positive change in education.

Sincerely,

Michel Bellini
Director, Center for Innovation in Teaching & Learning
bellini@illinois.edu
1-217-265-5297

DISCOVERY
PARTNERS
INSTITUTE

PART OF THE UNIVERSITY OF ILLINOIS SYSTEM

Tech. Talent. Research.

Deba Dutta, Ph.D.
Executive Director (Interim)

September 4, 2024

Dear Dr. Lindgren,

I am writing to express DPI's strong support for the creation of the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL).

As a part of the University of Illinois System, DPI's goal is to propel Chicago and Illinois into a pre-eminent and inclusive tech economy. Through our Pritzker Tech Talent Labs (PTTL), our goal is to drive equitable economic growth in Illinois by cultivating a more inclusive tech workforce, equipped with in-demand skills. Our suite of connected programs reaches middle, high school, community college, 4-year, and graduate students; K-12 teachers; as well as adult learners with non-traditional backgrounds in tech.

We see many potential opportunities to partner with C-TEL in the development of new technologies to enhance learning and training, as well as the potential for new business ventures around educational technologies (e.g., AI, augmented reality, etc.).

The creation of C-TEL will provide DPI with insights from research that can guide the design and development of new tools and systems that can be put to work right here in Illinois. We are excited at the prospect of a Center focused on technology-enhanced learning, and we look forward to working with you on new initiatives. In particular, there may be opportunities to create new internships in Chicago for students interested in working in the educational technology sector.

Please let us know how we can support this proposal.

Sincerely,

Gies College of Business
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Office of the Dean
260 Wohlers Hall, 1206 S. 6th Street | Champaign, IL 61820
217-333-2747

August 16, 2024

Dear Dean Mouza,

Thank you for sharing your plans for the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL). As Dean of the Gies College of Business, I support the establishment of C-TEL and I believe there is great opportunity for synergy and collaboration with Gies faculty. I understand that a key aim of C-TEL is to develop innovative educational technologies and explore their impact on the landscape of educational institutions. There is great potential here for student and faculty entrepreneurship, and for partnerships that add value for both of our Colleges.

It is my understanding that Gies faculty have already participated in the precursor TIER-ED initiative, and that there is high potential to collaborate particularly in areas like the development of immersive technologies (e.g., XR) in schools and in the global dissemination of learning tech. We are excited about the possibilities with these initiatives and many others. Please let me know how Gies can support the C-TEL proposal.

Sincerely,

Brooke Elliott
Dean of Gies College of Business
Josef and Margot Lakonishok Professor in Business
wbe@illinois.edu

SCD

Siebel Center for Design
University of Illinois Urbana-Champaign
1208 S. Fourth St., Champaign, IL 61820

217.300.9100
designcenter@illinois.edu
designcenter.illinois.edu

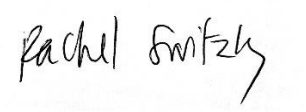
August 28, 2024

Dear Dean Mouza and Dr. Lindgren,

I am the Director of the Siebel Center for Design (SCD) and I am writing to offer my support for the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL). The mission of the SCD is to practice, model, and teach design thinking, using human-centered design, in collaboration with others, to re-imagine our campus, community, and collective world. C-TEL has complementary aims; it seeks to impact local and global communities through the thoughtful and human-centered design of new technologies to support learning and engagement. I believe that establishing C-TEL will further the mission of SCD by creating new opportunities for partnerships, and expanding our portfolio of design-based research projects.

There is already ongoing collaboration between SCD and College of Education faculty members centering around designs for human activity in educational contexts. SCD was the host venue for several events for TIER-ED, the precursor initiative to C-TEL, and we offer several courses on design thinking that could lead to new skillsets and projects related to the design of technology-enhanced learning. I look forward to working with you and the C-TEL leadership; please let me know how I can provide further assistance with this effort.

Sincerely,



Rachel Switzky
Director, Siebel Center for Design

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

CSBS Center for Social & Behavioral Science

105 Observatory, MC-191
901 S. Mathews Ave.
Urbana, IL 61801

August 16, 2024

Dear Dr. Lindgren and Dean Mouza,

As Director of the Center for Social & Behavioral Science (CSBS), it with much pleasure that I write to offer my strong support for the proposal to create the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL). The mission of CSBS is to bring together and cultivate expertise in social and behavioral science at the University of Illinois at Urbana-Champaign to ultimately address some of society's most pressing issues from these perspectives.

One of our three grand challenges is the 'digital revolution' and examining the impact of new technologies on people's daily lives, as well as how technology can be better designed to benefit people and their activities. In this respect there is key overlap with the mission of C-TEL and CSBS; there is a shared desire to create more usable and effective technologies based on a rigorous understanding of how people think, learn, and engage socially.

There are already several faculty members in the College of Education who are affiliates of the CSBS, and several CSBS affiliates participated in TIER-ED community meetings and pilot projects. I am confident that these synergies and partnerships will continue with the creation of C-TEL, and I look forward to exploring how our two Centers can work together on new initiatives and with shared purpose.

Sincerely,

Eva M. Pomerantz
Director, Center for Social & Behavioral Science

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Informatics Programs
School of Information Sciences
614 E. Daniel St., 4th Floor
Champaign, IL 61820

August 20, 2024

Dear Dean Mouza and Professor Lindgren,

We are writing on behalf of Game Studies and Design (GSD), which is situated within Informatics programs at Illinois. Hosted by the iSchool, Informatics coordinates the cross-campus interdisciplinary GSD academic programs that seek to foster critical skills in academic game studies, and technical skills in game design. We have reviewed the proposal summary, and we fully support the establishment of the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL). Because there is overlap between the design of games and the design of effective learning technologies, we believe that the creation of C-TEL has the potential to extend and amplify the aims of GSD, and provide many opportunities for cross-campus collaborations for our affiliated faculty as well as undergraduate and graduate students enrolled in GSD programs.

We understand that the C-TEL program draws significantly from the TIER-ED initiative, which we were both strong supporters of and active participants. One of the early recipients of TIER-ED funding was Dr. Ahu Yolac who was one of the first graduate students to become involved in and substantively contribute to the interdisciplinary Playful by Design (PbD) research cluster, intended to link interested faculty, design programs, game-relevant initiatives around campus, of which TIER-ED was one of the earliest. PbD was funded by the Illinois Program for Research in the Humanities (now the Humanities Research Institute), and it facilitated campus conversations which led to the creation of GSD and its degree-granting programs. Ahu is now a Game Studies faculty member at Lawrence Technological University. We are excited about the possibility that C-TEL could continue to support students like Ahu who have both education and game design interests. Additionally, there are opportunities for potential collaboration on large-scale development and research projects, and further academic program development.

Most immediately, we see tremendous potential for generative synergy between the proposed center and a two-year planning grant that GSD has just received from the Illinois Global Institute's New Approaches to International Area and Global Studies grant program. This initiative, "Extending the Capacities of Area and Global Studies to Shape the Future of Emerging Technologies," aims to bring humanists and social scientists into collaboration with designers across our campus. https://ischool.illinois.edu/news-events/news/2024/08/new-project-prepare-global-and-area-studies-units-emerging-technologies. As a center, C-TEL could provide resources, community, training, and much needed infrastructure to support what we expect to be an expanding flow of faculty and students working on “serious games” and other interactive media, often explicitly for educational purpose, which require cutting edge technological and professional level design skills, as well as input and guidance from educators.

In sum, we are excited about the prospect of C-TEL as a permanent center focused on learning technologies, providing infrastructure and leadership within the growing network of design-infused research and teaching across our campus. Please let us know if there is anything further we can do to support this proposal.

Sincerely,

Judith Pintar, Director of the Games Studies and Design Program
jpintar@illinois.edu

Lisa Bievenue, Director of Informatics Programs
bievenue@illinois.edu

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

IMMERSE Center for Immersive Computing

1205 W. Clark St.
Urbana, IL 61801

23 August 2024

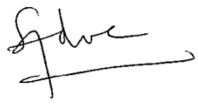
Dear Dean Mouza,

I am the Director of IMMERSE, the Center for Immersive Computing, a cross-campus interdisciplinary center at Illinois dedicated to the study and development of immersive technologies, applications, and human experience. Education is a strategic application for immersive technologies, as highlighted in our recent IMMERSE white paper. Among the goals of IMMERSE is to support the expansion of immersive technologies in the classroom while conducting assessments on their educational benefits. Our close partnerships with the College of Education and with C-TEL will be instrumental in these efforts. Dr. Lindgren, faculty member at the College of Education, is a member of the IMMERSE leadership and was a key contributor to the IMMERSE white paper and its current vision. Several other College of Education faculty members, including Dr. Kang, Dr. Cromley, Dr. Chen, and Dr. Tissenbaum are affiliates of IMMERSE and I expect that list will continue to grow. There are many research and design initiatives within IMMERSE that will benefit from an educational research perspective, and I believe that IMMERSE has the potential to augment the research programs of your faculty.

I am writing now to express my support for the establishment of the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL). I have reviewed the proposal summary and I have spoken previously with Dr. Lindgren about the potential for collaboration between our two centers. Immersive technologies can be very effective learning environments if designed thoughtfully and accompanied by rigorous research. By collaborating across these two centers and leveraging the expertise of both, I expect that we can have a significant impact on the landscape of immersive and interactive technologies for enhancing human learning.

I look forward to our continued collaboration and working with C-TEL faculty and students!

Sincerely,



Sarita Adve
Director, IMMERSE, Center for Immersive Computing
Richard T. Cheng Professor
Siebel School of Computing and Data Science
University of Illinois at Urbana-Champaign
201 N. Goodwin Ave
Urbana, IL 61801
sadve@illionis.edu
217-333-8461

From: Chodzko-Zajko, Wojtek <wojtek@illinois.edu>
Sent: Friday, September 6, 2024 2:48:52 PM
To: Monda-Amaya, Lisa Ellen <lmonda@illinois.edu>
Cc: Trello Board (wojtekchodzkozajko1+r211it5tfglkr7jnxvm7@boards.trello.com) <wojtekchodzkozajko1+r211it5tfglkr7jnxvm7@boards.trello.com>
Subject: Re: Proposal for new center in College of Ed

Dear Lisa

On behalf of the Graduate College, I am writing to confirm that we have received the proposal for the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL). We are impressed by the vision outlined in the proposal and excited about its potential to enhance the quality of education at the University of Illinois. The center's interdisciplinary approach has the potential to foster innovative research and solutions in technology-enhanced learning. The four research themes provide a comprehensive framework for addressing critical aspects of technology in education. The Graduate College hopes and believes that C-TEL will significantly contribute to the quality of education at Illinois.

The Graduate College enthusiastically supports the objectives outlined in your proposal. We are particularly excited about the potential for C-TEL to enhance graduate education through research opportunities and the development of innovative teaching methodologies. Please don't hesitate to reach out if you need any assistance or support from the Graduate College as you move forward with this initiative. We are eager to collaborate and contribute to the success of C-TEL in any way we can.

Best regards,

Wojtek

WOJTEK CHODZKO-ZAJKO (He, Him, His)
DEAN
Graduate College
University of Illinois at Urbana-Champaign
www.grad.illinois.edu

507 East Green Street | M/C 434

Champaign, IL 61820

217.333.6715 | wojtek@illinois.edu

College of Education Bylaws, approved May 23, 2024.

Sec III., articles E2 and E5:

2. All members of the tenure system faculty and specialized faculty of the College with a 50% or greater appointment shall enjoy the privilege of voice and vote. Emeriti faculty, staff, and students may speak at meetings but not vote.

5. Voting also may be conducted by electronic ballot. A simple majority of the voting faculty must participate in the vote electronically, and a measure will carry based upon the majority vote of those participating. The sole exception is changes to these bylaws, which require a 2/3 majority vote as outlined in Section VI.

Faculty Vote: Approval of the Proposal for the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL)

Total submissions: 67
Status: terminated
Type: PDF Summary with Answers
ID: 1827393920

1. Do you approve the proposal for the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL)?	*Percent*	*Count*
Yes, I approve the proposal for C-TEL.	**97%**	**65**
No, I do not approve the proposal for C-TEL.	**3%**	**2**

2. If you have any comments regarding the proposal for the Center for Research and Innovation in Technology-Enhanced Learning (C-TEL), please include them below.	*Count*
Answered	**10**
Skipped	**57**

9. Just a minor question regarding programs and certs: what is meant by a "floating concentration" of LDL?

18. Excellent and timely initiative.

27. I would like to make sure that there is still a role for literacy/reading/language in the proposed center, as writing is really the original "learning technology," and large language models/AI appears to be a central focus of recent edtech advances.

30. "C-TEL" is maybe too similar to "CITL" and would be confusing internally. And a good number of other institutions also have a "CITL" on campus (even using the same acronym), so it could be a little confusing even externally.

33. No further comments. The center proposal looks great.

36. What is the process for joining one or more of the thematic areas?

50. This looks like a very timely and dynamic Center

54. I apologize that I have not been at any of the discussions so far. I do think this is an important area and hope and suggest that this Center would also consider partnering with the School of Engineering, explore artificial intelligence, and how school-age children and adults with disabilities can be afforded access and enriched learning experiences through technology. Technology is for everyone but students with complex needs or learning challenges may not always be on educators and researchers minds. Thanks!

55. Please address how the technologies will enhance our understandings of how to provide thr best asynchronous learning experiences possible for our students and faculty.

66. The proposed center seems timely and carefully planned. I look forward to learning more about and from this proposed center.

From: Eweek <eweek@illinois.edu>
Sent: Sunday, October 27, 2024 9:07 AM

Click here to see this online

ILLINOIS

EWEEK

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 October 27, 2024

Announcements

Events

Public Hearing: Establish Center Tech. Enhanced Learning

The Senate Committee on Educational Policy is collecting information regarding a Proposal to Establish the Center for Research and Innovation in Technology-Enhanced Learning in the College of Education. A public hearing will be held at 1:30 p.m. on Nov. 4, 2024, in room 232 of the English Building. Follow this link to get more information, to RSVP to the hearing or to provide written comments.

November 4, 1:30 pm • 232 English Building

Nolan Miller • Senate Committee on Educational Policy

Eweek is published by Strategic Communications and Marketing.

From: Eweek <eweek@illinois.edu>
Sent: Sunday, November 3, 2024 11:07 AM

Click here to see this online

ILLINOIS

EWEEK

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 November 3, 2024

Announcements

Events

Public Hearing: Establish Center Tech. Enhanced Learning

The Senate Committee on Educational Policy is collecting information regarding a Proposal to Establish the Center for Research and Innovation in Technology-Enhanced Learning in the College of Education. A public hearing will be held at 1:30 p.m. on Nov. 4, 2024, in room 232 of the English Building. Follow this link to get more information, to RSVP to the hearing or to provide written comments.

November 4, 1:30 pm • 232 English Building

Nolan Miller • Office of the Senate

Eweek is published by Strategic Communications and Marketing.

SENATE COMMITTEE ON EDUCATIONAL POLICY
MONDAY, NOVEMBER 4, 2024
PUBLIC HEARING MINUTES

PUBLIC HEARING

As per Section 8, C.4 of its *Bylaws*, on November 4, 2024, at 1:30 pm, the Senate Committee on Educational Policy (EP) held a Public Hearing on a proposal to Establish the Center for Research and Innovation in Technology-Enhanced Learning in the College of Education (EP.25.024). Notice of this public hearing was published through the Illinois Faculty/Staff Notices on October 27, 2024 and November 3, 2024 (Eweek) online bulletin.

The following faculty members from the College of Education were in attendance: Robb Lindgren (Professor, Educational Psychology), Lisa Monda-Amaya (Professor Emerita, Special Education) and Chrystalla Mouza (Dean, Education Administration).

EP Subcommittee Wade Fagen-Ulmschneider introduced the proposal. The one guest in attendance (Robert Baird, Senior Associate Director, Center for Innovation in Teaching and Learning), spoke in favor of the proposal and expressed no concerns.

When no further questions or comments were forthcoming, Chair Miller thanked everyone and ended the Public Hearing at 1:35 pm.