

Provost's Teaching with Technology DELTA Symposium

May 5th, 2022
Hodson Hall, Homewood Campus, JHU

8:30am - 10:45am: Opening Remarks and Keynote Address

8:30am - 9:00am

Check-in

- Hodson Hall, 2nd floor lobby

Lite Breakfast

- Hodson Hall, 1st floor

NOTE: Review the [DELTA Grantee Exhibits](#) on the 2nd floor of Hodson Hall

9:00am - 9:05am

Opening Remarks by Provost Sunil Kumar

- Hodson Hall 110 (Auditorium)
 - Zoom link: <https://wse.zoom.us/j/96705266371> (Zoom ID: 967 0526 6371)
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9:05am - 10:05am

Keynote Address by Sarah Stein Greenberg,
Executive Director of Stanford University d.school
and author of [Creative Acts for Curious People](#)

- Hodson Hall 110 (Auditorium)
 - Zoom link: <https://wse.zoom.us/j/96705266371> (Zoom ID: 967 0526 6371)
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10:05am - 10:15am

Closing Remarks and DELTA Grantee Recognition by Executive Vice Provost for Academic Affairs
Stephen Gange

- Hodson Hall 110 (Auditorium)
 - Zoom link: <https://wse.zoom.us/j/96705266371> (Zoom ID: 967 0526 6371)
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10:15am - 10:45 am

Break and book signing

NOTE: Review the [DELTA Grantee Exhibits](#) on the 2nd floor of Hodson Hall

**10:45am - 11:45am:
Concurrent Sessions 1**

10:45am - 11:30am

“University Migration from Blackboard to Canvas”

Brian Cole and Mary Talalay, Center for Teaching Excellence and Innovation; Hilda Rizzo-Busack, IT@JH; Shawna S Mudd, School of Nursing

- Hodson Hall 110 (Auditorium)
- Zoom link: <https://wse.zoom.us/j/96705266371> (Zoom ID: 967 0526 6371)

This session will describe the University’s migration to Canvas, including the project history, timeline for change, resources available to assist faculty, and what instructors can do now to prepare for the change. The session will be facilitated by staff leading the project at the University and a faculty member who has been actively using Canvas as an early adopter. There will be time for questions from participants.

“Quest2Learn: A Gamification and Augmented Reality Approach to Advance Education”

Chinat Yu and Siddharth Ananth, Department of Computer Science, Whiting School of Engineering; Rahul Swaminathan, Department of Biomedical Engineering, Whiting School of Engineering; Jeffery Ji Zhou, Department of Biophysics, Krieger School of Arts and Sciences; Advisors: Eric Johnson, Department of Biology, and Jamie Young, Department of Chemistry, Krieger School of Arts and Sciences

- Hodson Hall 203
- Zoom link: <https://wse.zoom.us/j/99956463432> (Zoom ID: 999 5646 3432)

Spatial awareness and tactile-based learning are important components of a student’s success in science education. Our proposed solution is to use Augmented Reality to improve undergraduate laboratory education through the development of an interactive application called Quest2Learn. We are developing a number of robust laboratory modules to be implemented in the Biochemistry laboratory course, based on the groundwork laid by our beta micropipette lab module, which we presented at the DELTA Symposium this year. These lab modules will be designed for longitudinal

use in the Biochemistry Lab Course moving forward, and many of the technical lab modules, like micropipetting, can be repurposed for other lab courses such as the Introductory Biology Lab and Introductory Chemistry Lab.

“Utilizing the Procreate App to Create Animations to Enhance Student Learning and Pedagogy”

Ewa Harazinska and Sunita Thyagarajan, Department of Chemistry, Krieger School of Arts and Sciences

- Hodson Hall 211
- Zoom link: <https://wse.zoom.us/j/99377224427> (Zoom ID: 993 7722 4427)

Despite the abundance of visual learning tools and animations available for chemistry topics, there are still gaps in students' understanding of basic concepts in chemistry such as acid-base titrations, solubility rules, and kinetics of reactions, to cite a few examples. Herein we present a simple and effective tool in the Procreate app that has allowed us to develop short animations to help students visualize these concepts. The Procreate app is inexpensive, and it has a simple user interface as well as a variety of modifiable tools that can be used in all disciplines by both faculty and students.

“Modeling and Simulation for Human and System Performance Diagnosis: Exploring, Analyzing and Understanding the Intersection of Humans, Data and Technology Across the Health Professions”

Geoffrey T. Miller, Department of Emergency Medicine, and Michael A. Rosen, Department of Anesthesiology and Critical Care Medicine, School of Medicine

- Hodson Hall 216
- Zoom link: <https://wse.zoom.us/j/99094636779> (Zoom ID: 990 9463 6779)

This presentation introduces a comprehensive framework of modeling and simulation within the health professions that seeks to organize the growing diversity of capabilities and focus them on goals of improving human and system performance through high dimensional expert models. Our framework is based on a socio-technical systems view of performance and emphasizes the importance of human expertise at the center of a complex web of tasks, tools, technologies, work processes, and organizational constraints. We present several ongoing and past case studies from military and civilian medicine to illustrate the approach and identify future needs for the field to progress.

11:30-11:45

Break

NOTE: Review the [DELTA Grantee Exhibits](#) on the 2nd floor of Hodson Hall

**11:45am - 12:30pm:
Concurrent Sessions 2**

11:45am - 12:30pm

“The Impact of High-Quality Multimedia on Instruction”

Joseph Perkins, Justin Joseph, Maritza McMillian, Shawn Wilson, and Jaclyn Winkler, Instructional Resource Center, Advanced Academic Programs, Krieger School of Arts and Sciences

- Hodson Hall 110 (Auditorium)
- Zoom link: <https://wse.zoom.us/j/96705266371> (Zoom ID: 967 0526 6371)

In this presentation, we will discuss the importance of high-quality multimedia and how it impacts the student learning process. We will also showcase our cinematic lectures, dynamic presentations, infographics, and interactive learning objects. We will also discuss the resources and staff needed to produce this type of content in JHU courses.

“Statistics that “Stick:” Customizable Interactive Online Tools for Teaching Data Analysis Across the Sciences”

Jeff Bowen, Psychological and Brain Sciences, Krieger School of Arts and Sciences

- Hodson Hall 203
- Zoom link: <https://wse.zoom.us/j/99956463432> (Zoom ID: 999 5646 3432)

Skills in statistical programming software (R, Python) are in high demand for post-baccalaureate positions across many fields. However, these skills frequently feel inaccessible to undergraduates in non-computational natural/social science majors, even while statistics courses are foundational requirements in such departments. Students frequently find course materials dry, static, and unlikely to “stick.” I present here a series of guided tutorials, interactive dashboards, and data-analytic software packages to address these challenges. These open-source resources facilitate active participation in student learning through interest-tailored content, direct and conversational language, and clear connections between research inputs (materials, data, hypotheses) and outputs (written reports, data visualizations).

“UDL at JHU: Driving Institutional Change”

Amy Brusini, Center for Teaching Excellence and Innovation; Celine Greene, Center for Teaching and Learning, Bloomberg School of Public Health; Lindsay Ledebur, Office of Online Education, School of Medicine; and Donna Schnupp, Instructional Design Team, School of Education

- Hodson Hall 211
- Zoom link: <https://wse.zoom.us/j/99377224427> (Zoom ID: 993 7722 4427)

The Hopkins Universal Design for Learning (HUDL) initiative strives for equitable and inclusive opportunities for all learners to succeed at Johns Hopkins University. In doing so, HUDL is making an institutional shift in behaviors and expectations to embrace the tenants of UDL. One milestone includes the newly launched HUDL website. With the backing of JHU leadership, HUDL ambassadors collaborate with various stakeholders to support the integration of UDL into coursework. This session promotes this engagement through an open and honest dialogue regarding stakeholders' perceptions about the initiative's efforts, as well as UDL's personal impact on teaching and learning.

“Development and Evaluation of Open-Access Educational Media for Medical Trainees Studying MRI Physics”

Erin Gomez, Department of Radiology, and Jeff Day, Department of Art as Applied to Medicine, School of Medicine, and Christopher Devers, School of Education

- Hodson Hall 216
- Zoom link: <https://wse.zoom.us/j/99094636779> (Zoom ID: 990 9463 6779)

There is an established need for increased quality and quantity of radiology physics resources, but little data regarding the most effective methods and format. Based on the results of a needs assessment survey, we are creating and evaluating multimedia teaching tools illustrating the fundamentals of MRI (Magnetic Resonance Imaging) physics to determine which delivery method is most helpful for residents preparing for the radiology CORE exam. The results of this project will inform the creation of an open-access digital library of MRI physics resources for medical trainees.

12:30pm

Grab & Go Lunch