Engineering at Illinois IT Governance: Education Working Group

Final Recommendations and Report on Activities

during the 2023-2024 Academic Year

Members:

Molly Goldstein (ISE), Chair Joseph Irudayaraj (BioE) Erhan Kudeki (ECE) Dallas Trinkle (MatSE) Lucas Wagner (Physics) Rebecca Wiltfong (Physics) Elaine Robbins (EngrIT, *Ex Officio*)

Executive Summary

The working group makes the following recommendations:

- The College should invest in Audio/Visual refresh on a regular cycle with clear standardization.
- The College should invest in instructional GPUs and should continuously evaluate and update these options.
- EngrIT create a dashboard method for tracking recommendations
- Instructional Services conduct a faculty focused survey in the upcoming semester to better understand the broader instructional needs of the faculty
- Develop a succinct communication plan regarding EWS & virtual lab usage/support to the departments.

1. Introduction

At the request of Executive Associate Dean Phillippe Guebelle, a committee representing GCoE¹ faculty and EngrIT² was formed to conduct a strategic-focused assessment of GCOE's educational computing needs and return advisory recommendations and comments. In specific, the charge letter³ details the following primary responsibilities:

- Reviewing policies concerning the sustainability and prioritization of any needed educational IT that enhances the College teaching mission, both at the Engineering College level and at the campus level.
- Considering IT support for new educational pursuits in our College, anticipating new opportunities and responding to interests and initiatives from our units.
- Monitor, assist with prioritizing, and provide feedback on the implementation of any proposals concerning educational IT.
- Assist with monitoring, providing feedback, and reporting on the progress of work to align Engineering IT services with campus-level IT services, in particular with respect to teaching.
- Coordinating and communicating with the other IT working groups with overlapping interests.

And requests particular attention this year to these topics:

- Recommend near-term priorities and ongoing investments to ensure we have robust and sustainable classroom technology.
- Evaluate and recommend future directions in educational technology support necessary to keep us at the forefront of Engineering education both on campus and online.
- Propose possible model(s) for funding and allocating computing resources for instructional innovation.

¹ Grainger College of Engineering

² Engineering IT Shared Services

³ See appendix for entire letter.

2. Actions of the Committee

The working group met eight times during the year – roughly once a month. Meetings were held on: November 3, December 8, 2023, and January 26, March 1, April 12, and May 20, 2024. February 12, 2024, was a joint meeting with the Research Working Group).

The committee hosted the following guests:

- Jim Hurst, Executive Director of Engineering IT
- Michaela Jung, Interim Instructional Technology Facilitator
- James Babiarz, Associate Systems Engineer
- Rob Bennett, Instructional Technology Facilitator
- Sal Belahi, Associate Director for IT Operations
- Khlaf Alkhaldi, Labs Coordinator

3. Findings and Recommendations of the Committee – Specific Topics

At the request of Executive Associate Dean Philipe Guebell, the EWG focused on the following particular items, which are discussed in detail below.

3.1 Recommend near-term priorities and ongoing investments to ensure we have robust and sustainable classroom technology.

Recommendation #1. The College should **invest in Audio/Visual refresh on a regular cycle** with clear standardization. It is agreed that classroom AV is aging and fragile. The question of the responsibility of replacement cycle timeline and budget remains. To properly sustain both online course offerings and provide undergraduate courses with recorded lectures for instructional reinforcement, the College should support a budget model (e.g. cost share) that supports regular refreshment cycles for college supported classrooms.

Recommendation #2. The College should **invest in instructional GPUs and should continuously evaluate and update these options**. Computing resources for instruction continue to be desired. Investing in GPUs, either on-prem or cloud, is desired. Faculty should be informed about availability.

3.2 Evaluate and recommend future directions in educational technology support necessary to keep us at the forefront of Engineering education both on campus and online

Recommendation #3. Past EWG committees have requested, and this group seconds, that a method for tracking recommendations is important for the committee members to see where their work on these committees has actual impact. It is recommended that EngrIT create a dashboard with live data on current and historical recommendations and their standing.

Recommendation #4. Much like the student instructional survey that was conducted by Instructional Services, this committee recommends **Instructional Services conduct a faculty focused survey** in the upcoming semester to better understand the broader *instructional* needs of the faculty. We also would

like to get exposure and insight partnerships with AE3 to understand faculty needs (e.g., Collins Scholars, SIIP, etc.).

Recommendation #5. We recommend a **succinct communication plan regarding EWS & virtual lab usage/support** to the departments. Faculty are requesting more information and more guidance. We suggest a rebranding of EWS to be more encompassing of what all resources entail. EngrIT should develop a new webpage to elicit *instructional needs for what faculty are developing* to feed into the dashboard from recommendation #3.

Appendix 1: Charge Letter

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN THE GRAINGER COLLEGE OF ENGINEERING

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Philippe H. Geubelle Bliss Professor of Aerospace Engineering Executive Associate Dean

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October 13, 2023

Molly Goldstein (<u>mhg3@illinois.edu</u>, ISE – Chair) Joseph Irudayaraj (jirudaya@illinois.edu, BioE) Erhan Kudeki (<u>erhan@illinois.edu</u>, ECE) Elaine Robbins (<u>erobbins@illinois.edu</u>, Engineering IT – Ex Officio) Dallas Trinkle (<u>dtrinkle@illinois.edu</u>, MatSE) Lucas Wagner (<u>lkwagner@illinois.edu</u>, Physics) Rebecca Wiltfong (<u>rwiltfon@illinois.edu</u>, Physics)

Dear Colleagues:

Thank you for agreeing to serve on the Grainger College of Engineering IT Governance Education Working Group for the academic year 2023-2024. This working group is critical to helping ensure that IT support of the educational needs of faculty, instructors, and students in the College is of the highest quality and reliability.

Your recommendations and comments are advisory to the Executive Associate Dean, with primary responsibilities for:

- Reviewing policies concerning the sustainability and prioritization of any needed educational IT that enhances the College teaching mission, both at the Engineering College level and at the campus level.
- Considering IT support for new educational pursuits in our College, anticipating new opportunities and responding to interests and initiatives from our units.
- Monitor, assist with prioritizing, and provide feedback on the implementation of any proposals concerning educational IT.
- Assist with monitoring, providing feedback, and reporting on the progress of work to align Engineering IT services with campus-level IT services, in particular with respect to teaching.
- Coordinating and communicating with the other IT working groups with overlapping interests.

In particular, over this academic year, I would like to ask you to

• Recommend near-term priorities and ongoing investments to ensure we have robust and sustainable classroom technology.

- Evaluate and recommend future directions in educational technology support necessary to keep us at the forefront of Engineering education both on campus and online.
- Propose possible model(s) for funding and allocating computing resources for instructional innovation.

You will also be asked to provide an assessment at the end of the academic year on the current state of IT support for instructional activities. Dr. Goldstein has graciously agreed to chair this working group. She will be in contact with you soon to arrange for your first meeting.

I am thankful to all of you for your willingness to contribute to this important work for our College. I look forward to joining you at your first meeting to discuss the charge and answer any questions.

Sincerely,

Philippe H. Geubelle