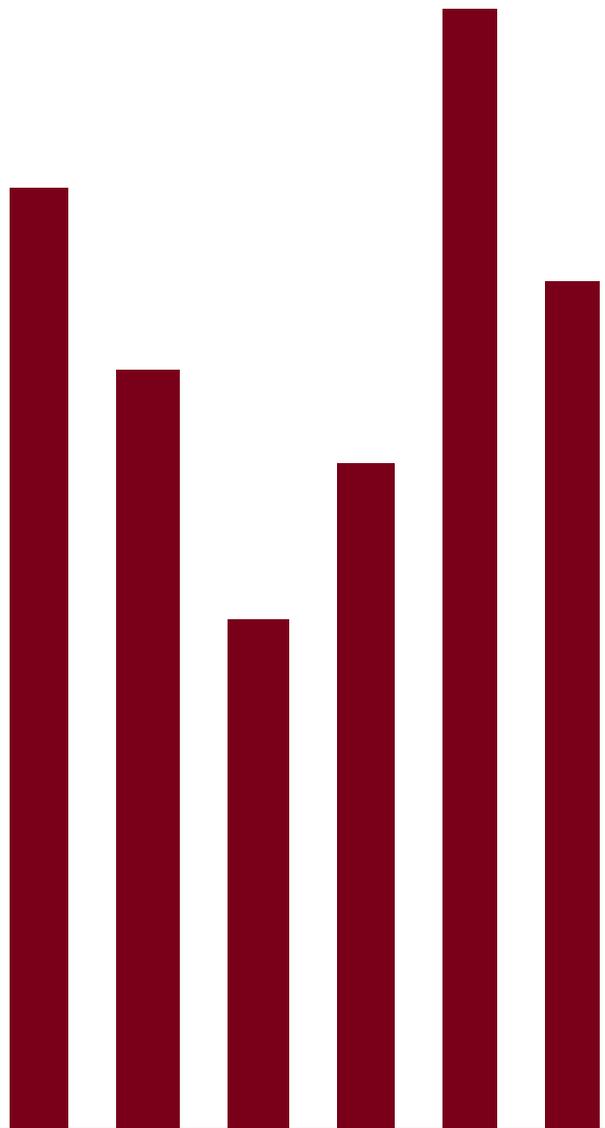# ENGAGING FACULTY AS CATALYSTS FOR CHANGE:

Transforming Education through University–Wide Faculty Development in Teaching with Technology

ABOUT THE FACULTY FELLOWSHIP PROGRAM

The Office of Information Technology's 18-month Faculty Fellowship Program fosters a multi-disciplinary learning community that explores possibilities and good practices in technology-rich learning environments, produces scholarship in this area, and advances faculty leadership around these issues. Participants each receive an award of $10,000. http://www.oit.umn.edu/faculty-programs/current-programs/faculty-fellowship

2010-2011 OIT Faculty Fellows

John Bryson, PhD
McKnight Presidential Professor of Planning and Public Affairs
Hubert H. Humphrey School of Public Affairs

Aaron Boyson, PhD
Associate Professor, Communication
College of Liberal Arts, UMD

Christina E. Clarkson, DVM, PhD
Assistant Professor, Veterinary and Biomedical Sciences
College of Veterinary Medicine

Sehoya Cotner, PhD
Associate Professor of Teaching, Biology Program
College of Biological Sciences

Michelle Driessen, PhD
Director of General Chemistry
College of Science and Engineering

Carol Flaten, DNP, RN, PHN
Clinical Assistant Professor, Population Health & Systems
School of Nursing

OIT Collaborative for Academic Technology Innovation

Bradley A. Cohen, PhD
Director, OIT Collaborative for Academic Technology Innovation
Office of Information Technology

Lauren J. Marsh, PhD
Manager, Faculty Development and Consultation Services
OIT Collaborative for Academic Technology Innovation
FFP Co-Manager

D. Christopher Brooks, PhD
Research Fellow
OIT Collaborative for Academic Technology Innovation
FFP Researcher and Evaluator

Kimerly J. Wilcox, PhD
Senior Academic Technology Consultant
OIT Collaborative for Academic Technology Innovation
FFP Co-Manager

Office of Information Technology
UNIVERSITY OF MINNESOTA

What would it take to bring about a learning revolution at the University of Minnesota? To enable faculty to develop the skills, adaptability, and resilience they need, not simply to *persist* through the challenges facing the University of Minnesota, but to be *catalysts* for creating the future of the academy?

We believe the answer lies in a coordinated, sustained, and holistic approach to faculty development in technology-rich teaching and learning. We, the 2010-2011 cohort of fellows from the Office of Information Technology's Faculty Fellowship Program (FFP), want to acknowledge how critical the FFP has been to informing and enhancing our individual crafts of teaching and learning. As a result of this program, we know better not only our own pedagogies, but also the signature features of our disciplinary pedagogies. We were inspired and carefully guided to improve those pedagogies by developing smart ways of integrating technology into what we do in and out of the classroom – sometimes even reinventing the classroom. We strongly believe that this kind of faculty development should not be a unique and isolated experience, but should permeate the teaching culture at all levels of the University. In particular, experimenting with educational technology and exploring its impact on emerging practices is a necessary requirement for effective teaching and learning in the 21st-century university.

University-wide faculty development is a critical innovation that has the potential to disrupt the nonaggression pact[1] (the tacit agreement between teachers and their students that neither demands too much of the other) that plagues higher education. A symptom of this is the prevalence of grade inflation, even while students are committing fewer hours to their studies. There is evidence to suggest that the thoughtful, innovative integration of technology into teaching practice may be the ground upon which the terms of the teacher/student relationship can be renegotiated.

Research indicates that demand exists for richer, more dynamic ways to engage in teaching and learning at the University of Minnesota. We know that faculty desire to learn more about the thoughtful application of educational technologies.[2] For their part, students find educational technologies useful for academic work and would embrace more innovative uses of technology that are well-designed and connected explicitly to course goals.[3] We know that faculty development programs in educational technology change values, beliefs, attitudes, and behaviors of participants.[4] We also know that faculty, given the skills, knowledge, and support provided by a faculty development program, can transform disciplinary practice to have far-reaching consequences for student learning.[5] Taken together, these findings suggest that a systematic approach to faculty development in the effective and engaging uses of technology might foster a renaissance in learning at the University of Minnesota.

There is a broad array of forces compelling change in teaching and learning at the University. We believe that a programmatic, evidence-based model of faculty development should be diffused widely in order to enable active examination and response to new and emerging environments. The absence of a university-wide approach results in the routine failure of the institution to learn from its own practices. This document represents our emphatic conviction that a successful approach to faculty development, promoting excellence in teaching and learning with technology, has identifiable features that can be implemented. We have examined the implications of each feature with regard to the university, the college or the department, and the individual instructor. It is our hope that this document will facilitate and structure discussion and will function as a planning document to help create these opportunities to inspire and energize faculty who in turn inspire and energize their students.

---

1. Hersch and Merrow, Declining by Degrees: Higher Education at Risk.

2. Walker and Jorn, "21st Century Instructors: Faculty Technology Survey."

3. Walker and Jorn, "21st Century Students: Technology Survey."

4. OIT's Collaborative for Academic Technology Innovation has empirical and anecdotal evidence demonstrating the effectiveness of OIT faculty development programs, including a validity- and reliability-tested protocol for program evaluation (University of Minnesota, "Program Evaluation"), peer-reviewed research publications (Walker, Brooks, and Baepler, "Pedagogy and Space: Empirical Research on New Learning Environments"), and conference presentations (Brooks, "Squaring the Circle: The Impact of Aligning Pedagogical Approaches to Classroom Spaces").

5. One such large-scale educational technology project that has enormous implications for disciplinary practice is the Hubert Project ("Hubert Project: Learning Materials that Transform Public Affairs"), spearheaded by FFP alumna, Jodi Sandfort. Other examples of the far-reaching impact of technology on disciplinary practice from FFP alumni include Schaber, Marsh, and Wilcox, "Exploring Signature Pedagogies: Relational Learning in Occupational Therapy Professional Education" and Brooks and Solheim, "Pedagogy Matters, Too: The Impact of Adapting Teaching Approaches to Formal Learning Environments on Student Learning."

A successful faculty development program, promoting excellence in teaching and learning with technology...

- Fosters use of **good practices**.

- Offers an ongoing **learning community** that includes peer learning and support.

- Incorporates **mentoring by experts** in teaching and learning with technology.

- Responds to **different levels** of skill, knowledge, and experience.

- Acknowledges that teaching is an **experimental and iterative** experience.

- **Evaluates** to ensure effectiveness, and to justify resources expended.

A successful faculty development program, promoting excellence in teaching and learning with technology, **fosters use of good practices.**

Good practices are grounded in the scholarship of how people learn and have been demonstrated to improve teaching and learning outcomes. These practices are embedded in a community of practitioners working within highly contextualized environments. For this reason, they change over time and in response to situational factors as diverse as student demographics, institutional priorities, disciplinary practices, and changing technologies.

THE UNIVERSITY

- promotes a culture of instructional excellence based on learning science and good practices;
- provides resources and infrastructure;
- makes exemplars of good practices available and discoverable; and
- designates funding for research into identifying good practices.

THE COLLEGE/DEPARTMENT

- promotes a culture of instructional excellence based on learning science and good practices;
- promotes good practices at the level of curricular development; and
- provides incentives to encourage the pursuit of improving one's teaching practice.

THE INSTRUCTOR

- discovers good practices in support of excellence in teaching and learning;
- integrates good practices into courses in support of learning goals;
- contributes to a shared body of knowledge about good practices; and
- advocates for improved teaching environments and practices.

A successful faculty development program, promoting excellence in teaching and learning with technology, **offers an ongoing learning community including peer learning and support.**

As part of a learning community, a member benefits from and contributes to the knowledge, experience, wisdom, and resources generated within the community, adopting an identity as co-learner or co-facilitator as needed. Such a community creates opportunities for discourse, feedback, and challenge, and is strengthened by the inclusion of individuals with diverse backgrounds and perspectives. The power of community lies in the potential to achieve outcomes greater than any that could have been achieved by one person working alone.

THE UNIVERSITY

- provides institutional goals and directives for creating collaborative communities of instructors;
- provides infrastructure and support for meetings and events related to faculty development;
- creates incentives and opportunities for cross-disciplinary communities; and
- creates incentives and opportunities for student-faculty collaboration in the scholarship of teaching and learning.

THE COLLEGE/DEPARTMENT

- provides an environment to support collaborations that enhance teaching and learning among faculty;
- provides incentives and opportunities for faculty to form learning communities;
- provides specific occasions for sharing and publicizing good practices; and
- creates incentives and opportunities for student-faculty collaboration in the scholarship of teaching and learning.

THE INSTRUCTOR

- seeks out and contributes to peer learning communities; and
- engages students appropriately as collaborators and co-creators.

A successful faculty development program, promoting excellence in teaching and learning with technology, **incorporates mentoring by experts in teaching and learning with technology.**

Mentors nurture a learning community and facilitate its development. Their experience and expertise benefit individuals and communities in an environment that supports ongoing engagement and exploration.

THE UNIVERSITY

- provides funding for experts in teaching and learning with technology who support instructors;
- offers expert-facilitated programs for faculty to engage in sustained exploration of technology-rich learning environments; and
- encourages collaboration across roles and units in support of programmatic opportunities.

THE COLLEGE/DEPARTMENT

- provides funding for local experts and services to support instructors in their exploration of effective teaching and learning with technology; and
- encourages faculty to engage in mentoring opportunities.

THE INSTRUCTOR

- seeks out mentors with expertise in teaching with technology;
- develops a professional growth plan in teaching with technology;
- accepts input from colleagues and experts; and
- looks for opportunities to mentor others.

A successful faculty development program, promoting excellence in teaching and learning with technology, **responds to different levels of skill, knowledge, and experience.**

Effective professional development depends on one's reflection on strengths, weaknesses, and goals in an environment that provides clarity about responsibilities and priorities for professional development in teaching and learning with technology.

THE UNIVERSITY

- clarifies responsibilities and priorities with regard to expectations for professional development in teaching and learning with technology; and
- provides a variety of offerings to meet the needs of instructors at different stages in their professional development.

THE COLLEGE/DEPARTMENT

- clarifies responsibilities and priorities with regard to expectations for professional development in teaching and learning with technology;
- provides a variety of offerings to meet the needs of instructors at different stages in their professional development; and
- encourages participation in programs devoted to professional development in teaching and learning with technology.

THE INSTRUCTOR

- participates in self-evaluation, sets professional development goals, and creates and implements a plan for realizing those goals; and
- commits to ongoing professional development.

A successful faculty development program, promoting excellence in teaching and learning with technology, **acknowledges that teaching is an experimental and iterative experience.**

In an environment of changing student expectations, emerging technologies, and evolving professional practices, an instructor's professional growth depends on trying new approaches in systematic and purposeful ways.

THE UNIVERSITY

- supports and encourages teaching experimentation structured on sound reasoning or currently recognized good practices; and
- develops awareness of policies that impact teaching and learning, and ensures that they do not hinder teaching experimentation.

THE COLLEGE/DEPARTMENT

- reduces administrative barriers to experimental endeavors;
- provides incentives to encourage innovation and risk-taking; and
- recognizes that we learn from failures as well as successes.

THE INSTRUCTOR

- understands that achieving better learning outcomes is an iterative process;
- tries creative new approaches grounded in a knowledge of good practices and learning science;
- participates actively in creating an instructional culture to support experimentation; and
- shares successes and failures.

A successful faculty development program, promoting excellence in teaching and learning with technology, **evaluates to ensure effectiveness and to justify resources expended.**

A culture of excellence in teaching with technology requires a commitment to assessment and evaluation in order to

- understand the effectiveness of changes made in a learning environment;
- share findings with the larger academic community;
- create the conditions for evidence-based practice; and
- be responsible stewards of university resources.

THE UNIVERSITY

- makes available professional staff to help guide faculty research and evaluation around teaching and learning with technology;
- collects data from across the institution that establish a profile of technology-enriched teaching at the university to inform practice;
- uses the results of teaching and learning research and evaluation to create compelling stories about teaching innovation to share with the public;
- creates effective instruments to measure the impact of instructor-level professional development programs; and
- celebrates evaluative efforts as part of a positive culture of accountability.

THE COLLEGE/DEPARTMENT

- welcomes scholarship of teaching and learning as a valid part of tenure and promotion decisions; and
- explores ways to use assessment and evaluation to move the department/college towards excellent teaching.

THE INSTRUCTOR

- plans for evaluation in order to understand the efficacy of changes made to teaching practice;
- complies with regulations around student privacy and determines if IRB approval is needed; and
- commits to sharing outcomes with colleagues and the university community, and to undergoing the scrutiny of peer review.

REFERENCES

Brooks, D. Christopher. "Squaring the Circle: The Impact of Aligning Pedagogical Approaches to Classroom Spaces." Paper presented at the 17th Annual Sloan Consortium, International Conference on Online Learning, Lake Buena Vista, FL, August 2011. http://sloanconsortium.org/conferences/2011/aln/squaring-circle-impact-aligning-pedagogical-approaches-classroom-spaces (accessed February 17, 2012).

Brooks, D. C., L. J. Marsh, K. J. Wilcox, and B. Cohen. "Beyond Satisfaction: Toward an Outcomes-Based, Procedural Model of Faculty Development Program Evaluation." *Journal of Faculty Development*. 25. no. 3 (2011): 5-12.

Brooks, D. Christopher, and Solheim, Catherine. "Pedagogy Matters, Too: The Impact of Adapting Teaching Approaches to Formal Learning Environments on Student Learning." *Australian Journal of Educational Technology*. Under review.

Hersch, Richard H., and John Merrow, eds. *Declining by Degrees: Higher Education at Risk*. New York: Palgrave Macmillan, 2005.

Humphrey School of Public Affairs, University of Minnesota. "Hubert Project: Learning Materials that Transform Public Affairs." Accessed February 17, 2012. http://www.hubert-project.org.

Schaber, Patricia, Lauren Marsh, and Kimerly J. Wilcox. "Exploring Signature Pedagogies: Relational Learning in Occupational Therapy Professional Education." In *Exploring More Signature Pedagogies*, edited by Nancy Chick, Aeron Haynie, and Regan A. R. Gurung, 188-202. Sterling, VA: Stylus Press, 2012.

Walker, J. D., D. Christopher Brooks, and Paul Baepler. "Pedagogy and Space: Empirical Research on New Learning Environments." *EDUCAUSE Quarterly*. 34. no. 4 (2011). http://www.educause.edu/EDUCAUSE Quarterly/EDUCAUSEQuarterlyMagazineVolum/PedagogyandSpaceEmpiricalResea/242683 (accessed February 17, 2012).

Walker, J. D., and Linda Jorn. "21st Century Instructors: Faculty Technology Survey, University of Minnesota Twin Cities." Last modified 2009. Accessed February 17, 2012. http://www.oit.umn.edu/prod/groups/oit/@pub/@oit/@web/@evaluationresearch/documents/content/oit_content_177145.pdf.

Walker, J. D., and Linda Jorn. "21st Century Students: Technology Survey, University of Minnesota Twin Cities." Last modified 2009. Accessed February 17, 2012. http://www.oit.umn.edu/prod/groups/oit/@pub/@oit/@web/@evaluationresearch/documents/content/oit_content_177146.pdf.

Office of Information Technology
UNIVERSITY OF MINNESOTA