

## ***Panel 4: Online Graduate Education: Curricular Innovations***

### **Panel Summary**

Innovations in online education are transforming not only the way that graduate education is delivered, but also the very nature of faculty teaching and student learning. In an ideal world, online learning involves much more than the presentation of content through online means because online innovations unlock new opportunities for student engagement and interaction. At the same time, opportunities to institutionalize online learning have been received with caution by the graduate community. Some have argued that the characteristics of master's, doctoral, and graduate professional education are not well-adapted to online learning environments due to the intensive and specialized nature of graduate study.<sup>1</sup>

The presentations for Panel 4 demonstrated that while this caution is often warranted, there are also many reasons to be optimistic about the future of online graduate programs. Focusing specifically on curricular “innovations,” speakers from Australia, Canada, Germany, and the United States addressed questions related to three areas of exciting new development in online programs and other graduate-level curricula:

- *Innovations in Online Program Delivery*: What are the benefits and costs of online graduate programs, including “hybrid” programs that combine online and traditional modes of delivery? Are there good or best practices for their delivery? What are the greatest challenges your institution has confronted in launching online programs, and how can they be overcome?
- *Curriculum Design in Science, Engineering, and Medicine*: How can graduate curricula in Science, Engineering, and Medicine be enhanced by technology-enabled tools? What are the risks of using such tools in graduate curricula? What are the risks of not using them? What are successful strategies for engaging faculty in the development and/or use of these tools?
- *Curriculum Design in the Humanities and Social Sciences*: How can graduate curricula in the Humanities and Social Sciences be enhanced by technology-enabled tools? What are the risks of using such tools in graduate curricula? What are the risks of not using them? What are successful strategies for engaging faculty in the development and/or use of these tools?

Answers to these questions varied widely by university, reflecting the diversity of their institutional priorities and student populations.

**Nicky Solomon** (University of Technology, Sydney) and **Brenda Brouwer** (Queen's University, Kingston) began the session by explaining how their institutions have sought to harmonize online learning with broader institutional objectives. University of Technology, Sydney has worked to align online learning opportunities with the goals of a new Framework for Doctoral Education. The Framework allows room for students to integrate available online resources in their plans of study, including courses in transferable skills supported by an “e-Grad

School.” Dr. Brouwer highlighted her own institution’s work to meet the demand for online programs sought by adult professionals and international students. Like many graduate institutions, Queen’s University, Kingston has found that a blended or hybrid model for these professionally-oriented programs has made it possible for graduate students to develop a sense of a “cohort” that many believe is an essential aspect of graduate student learning and professional socialization.

Focusing specifically on curricular innovations in Science and Technology, **Beate Paulus** (Freie Universität Berlin) and **Mark J.T. Smith** (Purdue University) presented contrasting perspectives on the usefulness of online tools to support science programs at their institutions. Dr. Paulus explained that at FUB, online learning has not yet become a feature of doctoral education because of the highly individualized nature of doctoral curricula. At Purdue, Dr. Smith explained, the approach has been to enhance science curricula through new technology tools. Simulations of professional situations, such as communications with clients in a medical setting, and technologies that enhance professional skills through gaming software, are examples of two new curricular tools currently being explored at Purdue.

The presentation by **Nick Mansfield** (Macquarie University) described the development of online learning curricula in master’s programs, a delivery option that has seen more popularity among faculty in the Humanities and Social Sciences. Despite this focus, his presentation raised questions about online curricula that are relevant to all online graduate programs: how deans and institutions can help develop a sense of a cohort among dispersed students, and how best to ensure that the “pastoral care” of online students is of a high quality. Dr. Mansfield noted the higher potential for disconnection and miscommunication when learning is done at a distance and invited summit participants to share their ideas for strengthening the “intellectual climate” shared by students and faculty.

### **Discussion Themes**

A number of important principles for building online curricula emerged in this session. The first was raised by Dr. Solomon, who argued that “good practice” in online curricula should be driven by factors beyond technological innovation. Other factors including internationalization, changing student demographics, and reforms in doctoral education should instead serve as the drivers, with universities calling upon online tools to support their goals. This belief was implicit in many comments from participants and was affirmed in several of the consensus points that were issued at the conclusion of the summit, in particular, the statement regarding online learning assessment: “Assessment of online learning should be linked to clear objectives and the development of appropriate tools to deliver online education.”

Yet another theme was the importance of building what Dr. Brouwer called a “sound business case” for online education. In the face of limited resources and skepticism about the value of online tools, it is critical, Dr. Brouwer said, to conduct a deep assessment of student needs and employer demands, and to conduct a rigorous cost analysis prior to program delivery.

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<sup>1</sup> For a more detailed discussion of the concerns that have been posed regarding online graduate education, see the introduction to the 2013 Global Summit, “Graduate Education and the Promises of Technology, by CGS President Debra W. Stewart.