Australian Council of Deans of ICT

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ICT Academic Standards and Threshold Learning Outcomes Workshop

Activity Sheet

Aims

Gain ALTA member input toward:

- Review of 2010 LTAS threshold learning outcomes statement for ICT
- Creation of an ICT-specific academic standards statement
- Involvement in ICT-specific assessment benchmarking

Learning outcomes

At the end of this workshop it is anticipated that a participant will be able to:

- *Differentiate ICT disciplines and appropriate accrediting bodies*
- Explain the value of building on TLOs to create academic standards for the ICT discipline
- *Critique "The nature and extent of ICT" statement to determine relevance and gaps*
- *List major ICT discipline knowledge and skills that would need to be demonstrated on completion of a capstone project in each discipline area (e.g. for ICT, IS, CS, or MM)*
- Explain the value of academic standards for quality benchmarking and accreditation

Activity 1: Brain starter (antifreeze) (10 min)

How would you divide / categorize the constituent areas of the ICT discipline?

a. *Disciplines:* Information Technology, Information Systems, Computer Science, and Multimedia
b. *Jobs:* Content and Design, Technology Services, Business Services, and Product Development
c. Other (please elaborate)

How should ICT programs that include the term "Engineering" in their descriptor be categorized and professionally accredited?

a. Engineering degrees accredited by Engineers Australia
b. ICT degrees accredited by Australian Computer Society
c. Both (Implies compatible academic standards)

(Report to members in 5 minutes)

Activity 2: Getting Critical (In groups critique the following) (20 min)

Nature and Extent of Information and Communication Technology

"In a general way, we can define ICT (Information and Communications Technology) to mean any goal-oriented activity requiring, benefiting from, or creating computers and/or telecommunications. Thus, ICT includes designing and building hardware and software systems, stand-alone and networked, for a wide range of purposes; processing, structuring, and managing various kinds of information; doing scientific studies using computers; making computer systems behave intelligently; creating and using communications and entertainment media; finding and gathering information relevant to any particular purpose, and so on. The list is virtually endless, and the possibilities are vast. ICT also has other meanings that are more specific, based on the context in which the term is used. For example, an information systems specialist will view computing somewhat differently from a software engineer.

A student typically earns a bachelor's degree in one of the main computing disciplines (arguably computer engineering, telecommunications and network engineering, software engineering, computer science, information technology, information systems), often with a named specialisation, to prepare for entry into the ICT profession. Because ICT provides such a wide range of choices, it is impossible for anyone to become proficient at all of them. Hence, an individual who wishes to become an ICT professional requires some focus for his or her professional life. The different kinds of undergraduate degree programs in computing provide different foci and perspectives on the ICT discipline of computing."
[ACM, AIS & IEEE-CS] (Joint Task Force for Computing Curricula, Sept 2005)

Critique: Is the statement still complete and relevant? Is anything missing? Is it future-proof?
(Report to members in 10 min)

Activity 3: Divide and conquer (different ICT discipline area at each table) (30 min)

Many graduate attributes are reflected in capstone course learning outcomes. Accreditation of an ICT program against academic standards would require evidence of threshold knowledge and skills in assessed learning outcomes.

Working in ICT discipline groups and on the supplied butchers' paper, briefly describe the industry relevant skills (assessable learning outcomes) that a student completing WIL or other capstone project in your discipline area would ideally demonstrate.
(Report to members in 20 minutes)

Comments: