Supporting Innovative Teaching and Responding to Change with an Intelligent Collaborative Design Environment

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Abstract: This workshop explores the potential of a Learning Design Support Environment (LDSE) software application under development to support teachers in planning, designing, resourcing, and reflecting on the design of learning activities for their students. Our investigation centers on how to support teachers who wish to develop their design skills and knowledge in order to benefit from the creative possibilities opened up by digital technologies. The LDSE software is underpinned by: i) a theoretically-informed model of learning (the Conversational Framework), ii) by our empirical work with teaching practitioners, and iii) by other research in learning design. In the workshop the participants will be given the opportunity to experience hands-on the way in which the LDSE, through its AI and community based support mechanisms, can aid them in three key areas of learning design practice: i) locating and adopting, iii) adapting and repurposing, and, ii) evaluating a hypothetical learning design.

Ideas to be Explored

A core principle of the project is "building on the work of others", that is, making it easier for teachers to draw inspiration from, or repurpose, existing innovative learning designs and learning patterns. The LDSE software aids teachers in doing this by analyzing their learning designs, producing visual representations of the pedagogic outcomes of teachers' design decisions, and proposing design alternatives. The conceptual framework supporting our approach is that of learning design as computer-supported collaborative learning (CSCL) for teachers (Laurillard and Masterman 2009).

Intended Outcomes

Participants will:
- Gain experience of, and contribute to, our evolving conceptualisation of CSCL for teachers;
- Deepen their awareness of the complexity of designing for students' learning;
- Gain greater understanding of the effect of the teaching-delivery modality on the pedagogy of learning design;
- Gain insights into the potential role of an AI-based system in promoting greater rigour and precision in the articulation of educational concepts.

Interested participants will be welcome to contribute to the project further: e.g. by taking part in later evaluations.

Session Activities

This is a hands-on workshop. Participants will be able to use the software on their own laptops and to explore how the software can support pedagogic design. This will consist of the following activities:
1. Introduction to the LDSE and familiarising the participants with the example learning design used in the workshop;
2. Participants in groups of 2-3 are asked to repurpose the example learning design to satisfy the change in circumstance (brought on by policy change) and to maximise the design's overall pedagogical potential;
3. The groups produce initial evaluation, exchange their designs with one other group and evaluate each other designs; and
4. Plenary

Reference List

Conole, G., and K. Fill (2005). A learning design toolkit to create pedagogically effective learning activities. Journal of Interactive Media in Education, http://wwwjime.open.ac.uk/2005/08/.

Koper, R. (2006). Current Research in Learning Design. Educational Technology & Society, 9(1), 13-22.

Laurillard, D. (2007). *The Dearing Report Ten Years On: Learning and Teaching in Higher Education*. London: Institute of Education.

Laurillard, D. (2009). The pedagogical challenges to collaborative technologies. International Journal of Computer-Supported Collaborative Learning, 4(1), 5-20.

Laurillard, D., and E. Masterman (2009). Online collaborative TPD for learning design. In J.O. Lindberg and A.D. Olofsson (Eds.), Online Learning Communities and Teacher Professional Development: Methods for Improved Education Delivery (pp. 230-246). Hershey, PA: Information Science Reference.

LDSE project website: http://www.ldse.org.uk

Oliver, R., B. Harper, J. Hedberg, S. Wills and S. Agostinho (2002). Formalising the description of learning designs. In A. Goody, J. Herrington and M. Northcote (Eds.), Quality conversations: Research and Development in Higher Education (Vol. 25, pp. 496-504). Jamison, ACT: HERDSA.

San Diego, J. P., D. Laurillard, T. Boyle, C. Bradley, D. Ljubojevic, T. Neumann, T., and D. Pearce (2007). Towards a user-oriented analytical approach to learning design. ALT-J,. 16(1),15-29.