An Interactive System Model of an Online System for Teaching & Learning Developed as a Scoping / Costing Instrument

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Abstract
Although there are strong reasons for purchase of an off-the-shelf system for online course delivery (including the competitive advantages of reliability, the comfort of a large client base and scalability), many universities develop a system themselves. These home-grown systems are often more responsive to specific needs. When James Cook University undertook to investigate available systems for university wide online course delivery it was important to explore costs of building a system using university resources. To this end a system model was designed as an interactive diagram reflecting each part of the system in prototype [http://www.tsd.jcu.edu.au/jcudevelop/jcuproto/jcuonline](http://www.tsd.jcu.edu.au/jcudevelop/jcuproto/jcuonline). The model is both an innovative example of organisational design method and a useful means of testing user pathways through the system, (use-case), which can assist costing and project management of the development of such a system.

As part of the search for the most suitable system for use at JCU we set out to determine the costs of building a system using university resources:

- there was a high level of interest in the ICU community;
- the possibility of economies of production;
- a collaborative venture of this kind with the potential for cross-institution partnerships could be of value to the university in the future.

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Discussions were held with the schools of IT and Computing Science. The interactive system model was felt to be helpful in this process in that it provided, by visible and testable means, a common understanding of the scope and direction of the exercise. Costing was based in staged development from base level, adding functionality as we saw a need.

There was found to be no case for developing DIY for immediate implementation:

- the real costs of DIY infrastructure are high for a one-off development which is not amortised over other products;
- time of development has to be compressed to keep pace with user needs and technical innovation: to compress time requires commitment of personnel which increases costs;
- when a university implements its own system, support for users becomes an internal budget decision not externally (market) driven: support is therefore subject to internal budgetary pressures rather than the wider driving client base.