Addressing the E–Learning Contradiction

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INTRODUCTION

In 1997, Drucker suggested that due to the availability of the Internet for delivering university courses and programs, traditional higher education was in deep crisis. He claimed that university buildings were about to become "hopelessly unsuited and totally unneeded" (Drucker, 1997, p. 127). Yet in spite of this, and the technological advances that support the design, development, and delivery of alternative pedagogical approaches, many universities and university professors have resisted integrating educational technology into their teaching practices. A look at today's university campuses, over a decade after Drucker's prediction that university buildings are "totally unneeded," suggests that the "brick and mortar growth" within universities is thriving. Part of what has prevented the proliferation of e-learning and other educational technologies is resistance on the part of teachers and professors to adopt it. For many, the amount of time necessary to learn new educational technologies and prepare materials and learning activities, as well as the lack of available support and resources, is a strong disincentive to the adoption of e-learning. Ironically, although it is common for universities and learning organisations to campaign professors to integrate technology into their

teaching practices, in reality, resources and support for developing e-learning and other technology-based learning tools are scarce and difficult for professors to secure (Thompson & MacDonald, 2005). There appears to be a growing contradiction between the goal of many universities to support the integration of new technologies into education and what is actually occurring. We have coined this situation the "*E-learning Contradiction*".

MacDonald and Thompson (2005) found that creating quality online courses takes an enormous amount of time in terms of research, design, and development. They suggested that the drive to create online courses is often due to the determination of the professor, his/her ability to marshal the necessary resources, and his/her willingness to take risk. To expand the development and integration of online resources, faculty require greater support systems to meet the challenges of authoring technology-enhanced learning resources that will help address the *E-learning Contradiction*. The need for more systematic and strategic approaches to educational technology innovation and implementation resounds in the literature (McGorry, 2003; Parrish, 2004). In this paper we suggest that sharing knowledge, resources, and expertise by way of cooperatively designing on-

line learning objects is one step towards addressing this problem.

BACKGROUND

Learning objects are small, instructional components that can be reused a number of times in different learning contexts. They provide many enhancements and benefits to the learning process: (1) an alternative way to learn that is engaging, interactive, and fun; (2) flexibility and convenience because they can be accessed at anytime and from anywhere there is an Internet connection; (3) a way to save time and resources as they can be reused and adapted by different users, with new versions available immediately; (4) any number of people can access and use them simultaneously due to their Web-based nature; (5) opportunities to share resources amongst colleagues thus creating an economy of sharing (the Linux model of shared benefits); and (6) an opportunity for learners to actively interact with the content. Interactions allow learners to tailor the learning experience to meet their specific needs or abilities. Being able to control the pace of their learning, learners have time to reflect and process information. The potential for reusability, adaptability, and scalability make learning objects a possible solution to many of the issues associated with the *E-learning Contradiction* (Gibbons, Nelson, & Richards, 2000; Hodgins, 2000; Urdan & Weggen, 2000).

While the merits of learning objects are prevalent in the literature, the definitions, processes, and procedures of developing learning objects are still ill-defined. The authoring of learning objects is not the same as when creating and teaching with text-based materials, thus, profound changes in how education is conceptualized for on- and off-campus delivery is required (Ally, 2004; Downes, 2004; Muirhead & Haughey, 2003; Porter, Curry, Muirhead, & Galan, 2002). The use of high quality, interactive learning materials requires changes to how instructors view their role in traditional "stand and deliver" approaches to instruction as well as in how and where students learn. These changes will likely lead to a greater use of asynchronous *virtual learning environments* (VLE) to complement synchronous on-campus classes. VLEs are software tools that bring together, in an integrated environment, a range of resources that enable participants to interact online and include content modules and tracking of learner activity and achievement (Hunt, Parsons, & Fleming, 2003). Most course management systems such as Blackboard and Moodle are VLEs. VLEs are characterized as highly interactive, with instructors and learners exploring knowledge and skill acquisition through interaction with both learning objects and each other.

THE CONCEPTUAL FRAMEWORK LEARNING OBJECT (C-FLO)

This project involved the development of an online learning object designed to support and guide learners in the process of writing research questions and developing a conceptual framework that can be used to frame research papers and/or theses and dissertations. We termed this object *C-FLO (Conceptual Framework Learning Object)*. The need for C-FLO emerged from years of practical teaching experience at Canadian universities and the realization that learners at all levels consistently report that they find the process of designing a conceptual framework demanding, abstract, and frustrating. The pedagogical challenge was, therefore, to determine how the process of developing a conceptual framework could be made more meaningful and less stressful for the learners and result in a framework that would help guide and enhance their future work. A secondary goal was to make the process of guiding learners as they develop their conceptual frameworks less of a demand on the professor's time so he/she can spend his/her time engaged in a higher level of discussion with the learner regarding his/her topic, rather than being distracted by a poorly developed framework. Such a learning tool would be valuable in courses and programs offered in diverse faculties. By providing criteria for expected rigor and examples of completed products, the learning object was envisioned to provide a standard that would facilitate the creation of superior quality conceptual frameworks. Specifically, the goals of C-FLO were to:

- Guide learners in the writing of research questions.
- Provide learners with a starting point for the conceptual thinking required when writing research papers in undergraduate, masters, and doctoral programs.

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