

Reviews / Comptes rendus

Networked Collaborative Learning: Social Interaction and Active Learning

by *Guglielmo Trentin*
(Oxford, UK: Chandos Publishing, 2010, 200 pages)

Instructor-led, fully online learning is an emerging, evolving delivery mode in distance and higher education (Cleveland-Innes, 2010). Because online learning represents a significant shift in educational practice, online educators need research-based recommendations to ensure they are on the right track, upholding academic standards of quality and providing students with instructors who are well trained in the new educational environment. Guglielmo Trentin, in *Networked Collaborative Learning*, provides detailed examples of and recommendations for the development of high-quality online courses and instructor training. While his research and writing focus on specific methodologies for networked collaborative learning, he presents the key principles of social constructivism, peer-to-peer teaching, and learning with well-designed communication strategies as foundational elements for any online course.

Trentin¹ is a senior researcher with the Italian National Research Council at the Institute for Educational Technology. He teaches network technology and human resources development at the University of Turin in the Faculty of Political Science and has been working in a variety of roles in educational technology since 1985. In this book, he uses many examples from his work with University of Turin professors and describes the challenges of motivating and inspiring them as they transition from traditional classroom lecturer/researchers to skilful online course developers and facilitators.

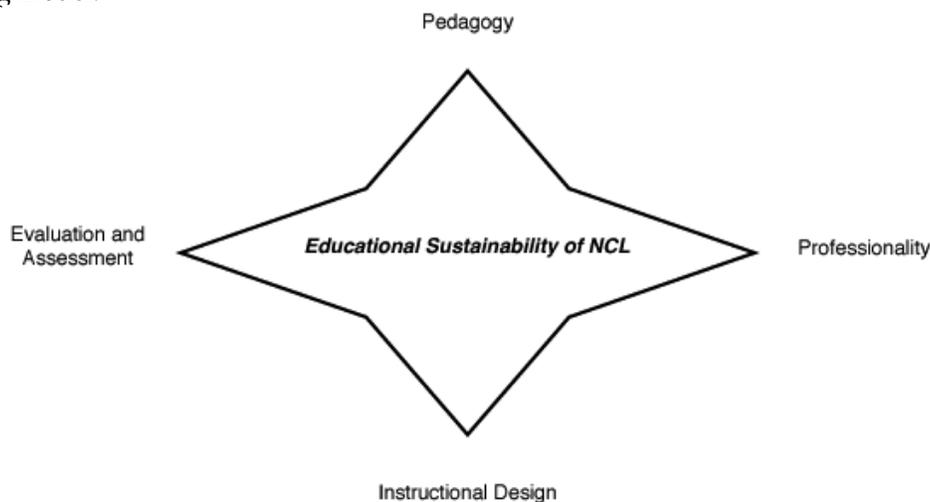
An excellent opening feature of Trentin's book is the acronyms page, which briefly defines all acronyms in the text. This may seem obvious, or a small detail, but very few books address this issue up front. Three key acronyms are used throughout the book: TEL, for technology-enhanced learning; NCL, for networked collaborative learning; and CMC, for computer-mediated communication. The key definition in this book is NCL. Trentin states,

The term "NCL" does not merely indicate that the education process is supported by a computer network, but also (and more importantly) that the process is underpinned by, and conducted through, a network of interrelationships among all those participating in the process: learners, teachers, tutors, experts. These interrelationships are intrinsic to collaboration within a community pursuing a common learning goal. (p. 8)

The book is organized with an introduction, four sections that follow Trentin's "Four-Dimensional Model for Educational Sustainability of NCL," and a conclusion. It is a short academic work, 165 pages plus references. Chandos Publishing does not seem to offer it as an electronic book, which is a disappointment considering the target audience of online learning administrators, instructional designers, and instructors. The content and references Trentin uses are well researched and competent. The voice and tone of the work support an audience that may be approaching both online learning and NCL for the first time. The case examples from his work with faculty at the University of Turin provide rich descriptions of his teaching and learning model in practice. Among the few drawbacks in the work are the figures used, as they are somewhat simplistic and do not fully match the professional academic quality of the writing.

In this work, Trentin acknowledges that there are many issues surrounding institutional decision making when approaching online programming. He chooses to focus on the pedagogic quality of TEL and NCL, explaining that "this book will focus specifically on educational sustainability, leaving aside the economic, technological and logistical-organizational facets of sustainability, which are explored elsewhere" (p. 19.) The primary reason for Trentin's emphasis is his acknowledgement that NCL, the development and facilitation of collaborative learning, works best for small classes of 10 to 20 students, when discipline-specific pedagogy aligns with NCL methodology. NCL is neither cost-effective nor logistically effective for large groups of students and requires significant training for instructors (p. 8). The investment in online instructor training that Trentin describes emphasizes research-based findings that online learning produces the highest-quality student learning experience when it is developed and taught with social constructivist, learning-centred, peer-to-peer content development and extensive computer-mediated social interaction (Anderson, 2008; Siemens, 2008).

In the introduction, Trentin provides definitions and describes the purpose and logistics of TEL and NCL delivery modes. He includes supporting research that identifies the potential of TEL and NCL for high-quality student outcomes. Trentin cautions that the use of NCL should be limited to topics and learning objectives that benefit most from its use. Not all disciplines or all academic course levels should be taught using collaborative methods. He approaches the discussion of how NCL may be implemented by examining its educational sustainability using the following model:



The four-dimensional model for educational sustainability of NCL (Trentin, 2010, p. 21)

The four main chapters of the book align with this model: the pedagogical dimension; the professional dimension; the instructional design dimension; and the evaluation and assessment dimension.

Highlights from the chapter on the pedagogical dimension include a brief tour of major learning theories and learning models as they relate to NCL, and a discussion of the importance of instructor-facilitated communication models in social learning situations. Trentin provides a four-module example of an NCL course that demonstrates the evolution of learning and communication, beginning with a traditional instructor-to-student (passive recipient) model in Module One and culminating in a rich peer-to-peer model in Module Four.

In his chapter on the professional dimension of being an e-teacher, Trentin examines the changing role of higher education teachers and the need for professionalism in the new paradigm; he then describes the skills required to be an effective e-teacher. He also touches on some of the motivation and conditions that support a teacher's transition from classroom to online. In the segment titled "An Italian experience in teacher training" (p. 63), Trentin describes his ODL (Open and Distance Learning) and Xanadu teacher training projects in brief detail. His descriptions serve to support online learning program administrators and potential online teachers in understanding the training needs, motivation, and conditions that enable successful delivery of learning in an NCL model.

The instructional design dimension chapter of Trentin's book presents foundational examples of adult learning instructional design, including the ADDIE model, the Polaris model (micro and macro elements of design), and Gagné's Nine Instructional Events and relates them to NCL. He emphasizes the need for structured objectives and content in NCL and states, "An NCL course cannot be designed using the criteria typically adopted for on-site education. Methods and strategies must be adopted that take into account the medium used and the communication dynamics it triggers" (p. 105). He then provides a "checklist for evaluating NCL course design and communication architecture" (p. 106) that may be used by NCL instructors and instructional designers.

The evaluation and assessment chapter of this work addresses the challenges of evaluating online discourse and learner-generated content. Trentin provides solutions and examines the basic questions of evaluation, such as why to evaluate, how to evaluate, and how to analyze online course artifacts to determine the quality of student learning taking place both collectively and individually. Several excellent evaluation and analytical methods are described, but what may be missing is a case example. The four-module pedagogic example in Chapter 2 is an excellent model for instructors and instructional designers. A similar description, perhaps outlining the steps leading to an individual student's grade in the context of an NCL course, would provide a useful context.

Trentin's conclusion echoes calls from other researchers for the use of TEL and NCL in ways that align with the delivery medium and depart from traditional face-to-face educational methods (Garrison & Akyol, 2009; Anderson, 2010). He states,

To make the most of the potential that network technologies offer, new collaborative learning scenarios are called for that go beyond what we might call "classical approaches". This doesn't mean pushing learners into unknown territory just for the chance to try out a "hot" new communication technology or because of market pressures. What it calls for is identifying methodological approaches that are of sound educational value and would not be possible to implement without network technology. (p. 145)

Trentin's book provides a solid framework for using NCL effectively in online education, describes methods for motivating and training faculty to be high-quality facilitators in online environments, and provides quality foundational advice and references for online delivery methods.

Reviewed by Jenni Hayman, Ryerson University, Toronto

END NOTES

1. Guglielmo Trentin's webpage with a listing of Papers can be found online at http://polaris.itd.cnr.it/gtpages/cv_en.htm. A link to his papers can be found at <http://polaris.itd.cnr.it/gtpages/paper.htm>

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