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Graduates' Reflections on an Online Doctorate in Educational Technology

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Editor's note: Authors are recent graduates of the online Doctor of Education program in Educational Technology at the University of Florida. See full text for citations.

The CoI [Community of Inquiry] model for online learning is consistent with social constructivism research and theory and guided this analysis of the Ed.D. program. The CoI directs the instructional design of meaningful learning experiences through elements that support cognition and professional growth among an online community of adult learners. Three principal elements critical to successful

development of online learning environments are social presence, cognitive presence, and teaching presence. These presences interact and at times overlap. Social presence in the online environment refers to a learner's ability to connect with others socially and emotionally, thereby generating expressiveness, openness, and cohesiveness among group members. An environment that cultivates this sense of community also contributes to satisfaction with the online learning experience and learning outcomes. Such learning communities begin with relationship-building interactions and gradually move toward focused and academic discourse among online learners....

The cognitive component of the CoI frame-

This article is excerpted from *TechTrends*, Vol. 58, No. 4, July/August 2014. Read the full text by logging in at the AECT website, <http://aect.org/>, and clicking on Publications.

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ISSUES IN FOCUS

The column this month discusses context in international comparisons.

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Recently, there has been increased consideration in CSCL for the propositional nature of technical artifacts in that technical artifacts make opportunities available for collaboration and learning that suggest a certain use, but do not causally determine learning activities or outcomes. It is argued that technology is a composite of the technical artifact and the practical actions of its users. Underpinning the argument is the assumption that a technical artifact itself is underdetermined, and that its use and effect as a technology take shape when brought into use in particular activity contexts (either by an individual user or in collaboration). It is maintained that a technical artifact carries a potential for action that becomes available when learner(s) and artifact connect, and that the availability and realization of this potential is relative to the one(s) who interact(s) with the artifact and to the socio-cultural context in which this takes place. This is not simply saying that learners do different things with artifacts, or that they may do things differently. Underlying this is a more fundamental concern: There is agency present in both the learners and the technical artifacts they are presented with. The artifact-in-use, consequently, is contingent on the interaction of these agents and it is—to a greater or lesser extent—shaped by both of them.

How to Bring a Technical Artifact into Use: A Micro-Developmental Perspective

Maarten Overdijk, Wouter van Diggelen,
Jerry Andriessen, and Paul A. Kirschner
The Netherlands

The task that lies ahead is to further detail how technical artifacts are brought into use, or rather, how they are attuned to, interacted with, and shaped in various and varied educational practices. It is necessary, we argue, to give precise accounts of how the uses and effects of particular technical artifacts are constructed within the contexts of particular classrooms. This is important also because classrooms—such as the one in this study—are increasingly open and heterogeneous environments wherein learning is often no longer centrally arranged. Instead, the learners themselves are at the centre of their own learning process, and are expected to shape their own learning activities in a trajectory that fits with their personal abilities, knowledge, and needs. To adapt to these new kinds of pedagogies the current breed of technical artifacts shows increased flexibility.

In this paper we adopt a micro-developmental perspective on the use and effect of artifacts....

Editor's note: This is an excerpt from the introduction to this detailed study. Readers are encouraged to read the full text, which is in *International Journal of Computer-Supported Collaborative Learning*, published online June 18, 2014. AECT members have online access at <http://aect.org/>. Click on Publications.

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AECT Mission

The mission of the Association for Educational Communications and Technology is to provide international leadership by promoting scholarship and best practices in the creation, use, and management of technologies for effective teaching and learning in a wide range of settings.

Goals:

- Define the disciplines and professional activities that comprise the field of educational communications and technology.
- Serve and represent professionals in the field and support professional growth.
- Advance scholarship and practice that contribute to and enlarge the knowledge base of the field.
- Promote policies that ensure the humane and ethical use of educational communications and technology at all levels, from the personal through the international.

Graduates' Reflections...continued from page 1

work emphasizes learners' aptitude for constructing meaning through sustained reflection and discourse. Cognitive presence students progress from understanding, to exploration, to integration, and finally to application. In forum discussions, a significant component of online courses, the initial discussion question affects the cognitive levels of student responses by encouraging in-depth discussion of topics.

Teaching presence is the instructional design and organization "to support and enhance social and cognitive presence for the purpose of realizing educational outcomes." In addition to design, teaching presence includes facilitation of discourse and direct instruction. Instructional design of online learning and the role of the instructor enhance learner engagement with content, suggesting a link between cognitive and teaching presences.

[What follows is an analysis of the UF Ed.D. program through the lens of the three presences defined in the CoI.]

The program increases access to those who may otherwise not be able to complete doctoral work without displacing themselves, and the program allows students flexibility and opportunities to match the coursework with their career goals. Professional advancement is understood to be a benefit from any advanced degree, but the online Ed.D. program goes beyond theoretical learning and places a special emphasis on connecting theory to practice in the field...

UF employs a full-time faculty member to develop the program, to guide other instructors, and to be a point person for all students' logistical issues. The program focuses on students' ability to integrate new knowledge and professional practice and also exposes students to and gives them experience with qualitative and quantitative research methods. Students are encouraged to use this knowledge to work on research projects directly related to their work and to share the research for applied purposes.

The core faculty members for the program are introduced during the summer orientation, and they work with the students collectively and individually until graduation.

Editor's note: Like most excerpts, this one cannot do justice to the actual study. Readers are advised to consult the full text online.

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Instructional Science

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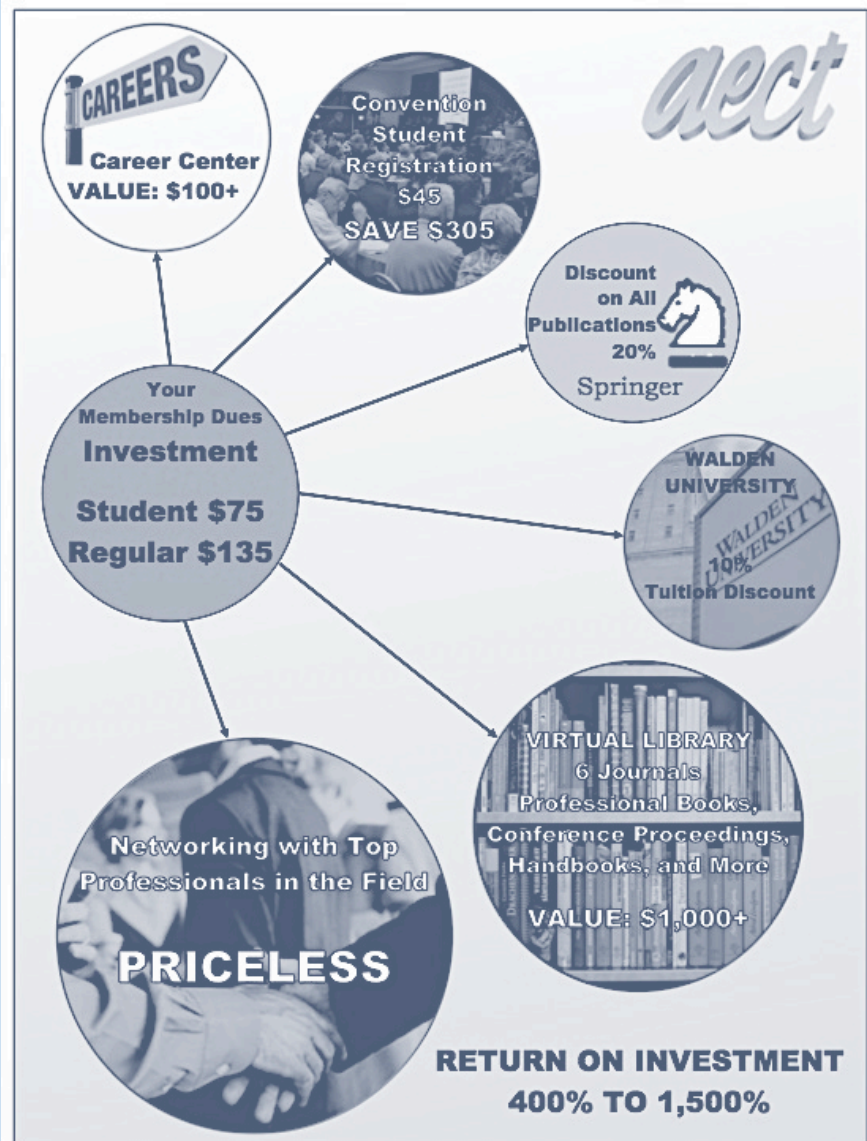
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Issues in Focus

Context, Context, Context

The center illustration has been making the rounds on Facebook for several years. Readers—well, most of us—can parse the text after only a moment's perusal. Our brains automatically convert the numbers into letters. But the automaticity, according to those who study such phenomena, has to do with context—i.e., reading the numbers in the context of words and phrases, not merely because they visually resemble certain letters.

Increasingly, politicians and policy makers frame education policies and rules for teaching and learning, whether for K-12 or higher, with scant regard for context. A recent article by Iris C. Rotberg in *Teachers College Record* offers an example.

Rotberg articulates some of the methodological concerns inherent in international test-score comparisons, concerns that too many pundits gloss over and too many politicians and policy makers fail utterly to understand. Consequently we get bad education policy.

The political *schadenfreude* of criticizing American education—at all levels—based on misunderstood comparisons to education achievements in other countries is a national mania, and it is undermining our education institutions.

Rotberg argues for a focus on what happens *within* countries, rather than making comparisons *between* countries. She cites findings by PISA that, for instance,

show that the proportion of variance in student achievement accounted for by socioeconomic status and other differences *within* member coun-

tries...is nine times greater than the proportion accounted for by differences *among* OECD countries....

The inescapable conclusion, which Rotberg and others arrive at, is that context is a central factor in any meaningful study of education conditions, achievement, or what have you.

And what happens inside a country's education system is far more meaningful when it comes to improving education than trying to compare that system to some other country's system.

Rather like the realtors' mantra of "location, location, location," perhaps the mantra of education research ought to be "context, context, context."

Critics of American public schools used to wring their hands and cry, "Why can't our students score as well as students in Finland?" (That was before Finland dropped from the #1 spot in international comparisons.) The most direct and reasonable response is simply that American schools are not Finnish schools. Nor is American society, econo-

my, and so on the same as—or even comparable to—Finnish society, etc.

Misbegotten comparisons do nothing to improve education. Some would contend that, indeed, political missteps and many of the bad policies currently being foisted on American education are a result, at least in part, of putting too much trust in untrustworthy, decontextualized international comparisons.

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Rotberg, I.C. (2014, May 19). "Tenuous Findings, Tenuous Policies." *Teachers College Record*.