

CONTINUOUS PARTIAL ATTENTION: TEACHING AND LEARNING IN THE AGE OF INTERRUPTION

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In the last quarter of the 20th century, the computer, and the seemingly endless repositories of data it generated, gave rise to what has been called The Age of Information. Today, the Internet and handheld devices offer the additional possibility of constant connectivity, which means that these technologies become sources of both endless information and perpetual distraction. For this reason, Thomas Friedman (2006) insists that we have moved from the Age of Information to the Age of Interruption. “All we do now,” he says, “is interrupt each other or ourselves with instant messages, e-mail, spam or cellphone rings.”

In the Age of Interruption, there is plenty of information, but attention has become a correspondingly scarce resource. “What the Net seems to be doing,” observed Nicholas Carr (2008) in a controversial *Atlantic* article, “is chipping away my capacity for concentration and contemplation” (p. 57). A number of other recent books and articles speak to a similar concern: the technology that was once associated with intelligence, and a widespread optimism about its power to liberate the human mind, is increasingly portrayed as diminishing our capacity to pay attention, to stop and think.

The emergent form of thought that is said to characterize the Age of Interruption has been labeled “continuous partial attention” by Linda Stone, a former Apple and Microsoft executive. Stone describes continuous partial attention as a “post multi-tasking” behaviour. While multitasking can be defined as doing several things at once in order to increase one’s productivity, continuous partial attention entails a constant fragmented attention to multiple online information and communications channels that is motivated not by productivity but by an insatiable desire for connectedness:

It is motivated by a desire to be a LIVE node on the network. Another way of saying this is that we want to connect and be connected. We want to effectively scan for opportunity and optimize for the best opportunities, activities, and contacts, in any given moment. To be busy, to be connected, is to be alive, to be recognized, and to matter. (Stone, 2005)

Cellphones and other handheld devices are the quintessential continuous partial attention gadgets, “always-on” and “always-on-you” (Turkle, 2008), and offering in one compact form a wealth of opportunities to send and receive information, from games and Internet access to email and texting. Twitter and Facebook are their online

counterparts, the means by which, through constant pings, users assert their relevance as nodes on the network.

Continuous partial attention caught my attention not too long ago, when I was doing some research on university students' experience of onscreen reading (Rose, 2010a). As I read and reread the interview transcripts, I noticed that most of the students who were participants in the study talked about the distractions that diffused their focus on the texts they were trying to comprehend. "The computer is right there," said one. "If I have MSN on and somebody goes dadoop, there's a message, sometimes I'll try to ignore it to get to the end of the paragraph, but often times even though I'm reading I'm still thinking in my head, I wonder what they want?" Another admitted, "I'm wasting more time not reading than reading, you know, with e-mail and talking to other people. If it was a book I would read more than if it was online because there are more distractions, easier ways to, oh, I'm just going to check this, and totally forget that you're reading, and then an hour or two goes by and you're like, I guess I should go back."

Intrigued, I wondered how this phenomenon of apparently fractured online attention affected learners who were taking courses (such as my own) in which some or all of the instruction took place in online learning management systems such as Blackboard. This led to a second research project (Rose, 2010b) in which I inquired specifically into the nature of university students' attention and distraction in online courses. A survey completed by 137 students from a range of disciplines and in-depth interviews with ten students confirmed that maintaining attention is an issue in online learning. As one participant observed, "Blackboard takes a lot more discipline and focus" than face-to-face instruction because "it's too easy to switch from Blackboard to Internet browser and check other e-mail accounts, read the news, etcetera. Compared to a classroom setting where no Internet is available."

However, the most interesting and unexpected finding from this research was that these students are in the process of redefining attention and focus, such that even those who admitted to breaking away often from online learning activities, sometimes for five minutes or more each time, described themselves as "very focused." Distraction is also being reconceptualized as not a hindrance to learning but a necessary diversion, and therefore a positive aspect of online learning. As one student said: "I find the multitasking ability that online learning allows you to do keeps me working for longer than if I couldn't." Whether or not the Internet is actually changing the way we think, as Carr and other commentators suggest, it would seem to be changing how we think about thinking.

As an expression of the contemporary zeitgeist, continuous partial attention has begun to capture the same kind of notice in the popular press that multitasking did in the 1990s. The discussion centres on whether the phenomenon should be regarded

as an inevitable adaptation to a new reality or a dysfunctional state of distraction, a form of cognitive dexterity or a cognitive deficit. Recently, this debate has carried over into investigations of the implications of continuous partial attention for workplace productivity—is it an essential job skill or the primary cause of employee stress and burn-out?—but there has been surprisingly little inquiry into the educational implications of this emergent cognitive style of short and constantly shifting attention. Yet the consequences are bound to be significant, because we know that learning cannot take place unless the learner is intellectually engaged, present in more than just body. Therefore, whether we consider continuous partial attention to be an affliction or an opportunity, what is needed now is much more research into this new phenomenon and what it might mean for teaching and learning in the 21st century.

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