Chapter 5
Digital Intelligence:
A New Way of Knowing

Nan B. Adams
Southeastern Louisiana University, USA

ABSTRACT

The multiple intelligences theoretical framework developed by Gardner (1983) is employed to argue for the recognition of the emergence of a new, digital intelligence. Each of the dimensions of a discrete intelligence as described by this framework is satisfied along with a discussion of the nature of knowledge, ways of knowing and the nature of how society describes intelligence. These discussions are then used as further evidence that considerations for the ways digital communication technologies are changing the way we think and learn are imperative to effective educational practice. The desired outcome is recognition of this emerging intellectual preference in the design of responsive educational programs and practices.

INTRODUCTION

Through interaction with digital technologies for work, play and communication human patterns for intellectual development are being altered. Instantaneous communication among world communities is commonplace, where 20 years ago it was a dream. Learning and communication modes among world populations have changed drastically as a result of interaction with digital technologies. This change is occurring without much thought for social implications or considerations for design for positive cultural outcomes. For educators who must prepare current and future generations for engagement in this rapidly evolving world environment, it is critical they be made aware of the emerging digitally-formed intellectual style. In our postmodern pluralistic global culture, Multiple Intelligence Theory has enjoyed success and an educational guide for teaching and learning and has impacted teaching practice. The Multiple Intelligences theoretical framework is easily employed to provide common understanding to acknowledge and accommodate the notion

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that a new Digital Intelligence has emerged. By acknowledging the existence of a new digital intelligence and all of the implications that may be created for education and communication, we increase our ability to develop effective strategies to accommodate and guide the development of this new intellectual style.

McLuhan (1964) told us "the medium is the message" (p.2), meaning our intellectual style is shaped by the communication media we employ. That was true with the television generation and is even more critical to recognize as our digital media take on more abilities to create virtual environments that mimic real environments but do not seek to understand the implications this has for society as a whole. Negroponte (1995) contends "the medium is not the message in a digital world… it is the embodiment of it" (p. 71). If this is true, then virtual environments are becoming our reality–and we must inquire what this means for our global society and work to insure this new reality is a complete reality rather than a partial reality. The observed but unclassified characteristics of changing intellectual style as a result of interaction with digital communication technologies are definite signs of an emerging digital intelligence. Healy (1990, 1999) speaks of similar concerns when she contends that changing lifestyles may be altering children's brains in subtle but critical ways and spoke of the development of a new intellectual style. Her observations are outlined especially as they relate to the changing communication patterns developed with young children who interact with digital technologies (1999). Levinson (1999), in his discussion of McLuhan's ideas observes "if multiplicity is the spirit of the digital age…as a vehicle for education not only formal but more importantly via living, the Web has obsolesced the seven liberal arts in favor of a curriculum with boundaries far less rigid, and populated by thousands of subjects constantly under revision" (p194). Palfrey and Gasser (2008) contend that "The educational establishment is utterly confused about what to do about the impact of technology on learning" (p. 238). The multiple intelligences theoretical framework developed by Gardner (1983, 1993) has been widely accepted as a guide for instructional consideration in classrooms around the world. Gardner (1999) acknowledges and identifies new evidence that did not fit easily into the original intelligences he described; this evidence, along with other considerations is used to argue that yet another of the multiple intelligences, digital intelligence, has emerged (Adams, 2004). Acknowledgement of this change in intellectual and communication style could be a beginning step for educators and educational practice. Gardner (2009), developer of the Multiple Intelligences framework, seems to call for this acknowledgement as he observes that "the world of the future–with its ubiquitous search engines, robots, and other computational devices–will demand capacities that until now have been mere options. To meet this new world on its own terms, we should begin to cultivate these capacities now" (p.2).

KNOWLEDGE, WAYS OF KNOWING AND INTELLIGENCE

Information may be viewed as a fluid that often takes on no form until a pattern is discovered that appears to take into consideration that many possibilities for assemblage exist, but settles on the most accommodating. As with most strong models and theories, Multiple Intelligence Theory has defined rules for organization of information that will accommodate new evidence in such a way that will further extend the organization and therefore substantiate existing understanding and work to create new knowledge. To facilitate a discussion of intelligence one must posses an understanding of the relationship between knowledge, modes of knowing and intelligence. While each has a distinct definition, all exist in an interactive relationship as shown in Figure 1.