

Chapter 10

ICT and Imagination

ABSTRACT

At the end a recurring question remains: What good are ICTs to design education and practice? To answer that, it is necessary to focus on imagination and the production of visual images as the core activity of design. What is imagination? And can ICTs “think” imaginatively and see visions? No, they cannot. Imagination is a concept with a long and shifting course of progression through Western civilization. In ancient Athens both Plato and Aristotle regarded imagination as mimesis or imitation of nature. For neither of these philosophers does imagination directly apprehend reality – only reason, they argued, can do that. But for Aristotle, imagination is necessary to intelligent thinking because imagination links sensation to reason, even more than memory, which can only look backward in time, is capable of doing. For Aristotle, imagination is a formal representation of both sensation and reason, and it is therefore an important mental power. The Classical conceptualization of imagination as imitation or “holding a mirror up to nature” dominated the philosophy of art until the European Renaissance in the 15th and 16th centuries. Then in the Romantic Age of the late 18th and early 19th centuries a new conceptualization of imagination claimed that imagination is not so much a mirror as a light that can actually apprehend and illuminate ultimate reality. The poet’s mind, the great Romantics believed, creates images of truth and beauty and goodness. Moreover, the modern philosopher Nietzsche in the late 19th century claimed that not only does imagination create visions of reality but it actually creates reality itself.

WHAT GOOD ARE ICTS TO DESIGN?

The postmodern pedagogical paradigm of constructivism illustrates how pervasive the conceptualization of imagination as creativity has become in Western civilization. It is accepted as an article of faith held by most designers today

that imagination is the ability to create visions through the exercise of imagination, but Aristotle’s belief that imagination is imitation should not be forgotten by designers. Aristotle, who has been the guiding spirit of much of this book, argues that *phantasia* is central to intelligent thinking because it both imitates sensations and perfects

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sensations in order to aid reason in making wise judgments. In the end the imagination of artists and the rationality of scientists are both needed by architects and engineers and all designers because they work, not in ideal isolation, but through the practical exercise of *technē*. ICTs, however, can imitate but they cannot create, and thus they are disqualified from any profound partnership with human designers.

As Natascha Radclyffe-Thomas (2008) states, “No consensus exists within art and design education as to the role of ICT or even its validity in the arts” (p. 158). This is a fact that is often overlooked in the arguments about the importance of ICT in architectural and engineering education and practice. There has been very little actual empirical evidence put forward to support the idea that ICT is of special importance in the world of design today. While it is obvious that computer technology is ubiquitous at the present time, the pertinent question is whether or not computer technology and human-computer interactivity (HCI) is actually making the design education and design practice better in meaningful ways. While it would seem absurd to ask whether or not typewriters or telephones or adding machines were ever capable of “radically transforming” design pedagogy and practice, it must be remembered what ICTs actually are. Computers are machines, period. That is, computers are instruments that can be used by designers to assist in the work, but they are not any different than numerous other instruments that might prove useful to designers. This is not to accept what Andrew Feenberg (2003) calls the instrumentalist view of technology that we examined so carefully in Chapter 1 – namely, the modernist idea that technology is “neutral” and does not carry human value. A technology may have human value, but it is always, first and foremost, a means to achieving an end. Therefore, the question becomes: What good are ICTs for design?

It is difficult to decide how to answer the question. The obvious way would be to seek out relevant

research in an attempt to prove, or to disprove, the hypothesis that ICTs are capable of improving the activity and the pedagogy of design. We might recall Bjørn Stensaker *et al.* (2007) saying that there is a “missing link” between the enthusiastic commitment of governments and educational institutions and big business interests – not to mention general public opinion – to the revolutionary value of ICTs and the actual demonstration of any empirical demonstration of this great value. Time and time again hopeful studies of the use of ICTs fail to find solid evidence of actual improvement in performance caused by the use of computers in design education and practice. No, it seems rather pointless to follow the path of empirical research to judge the possible good of ICTs in research. To stack up piles of such evidence calling ICTs into question would not really convince anyone today that designers might not really benefit from ICTs, as far as the quality of work is concerned.

A different and better approach to the question is needed. Perhaps surprisingly, this does not necessarily imply directing an appeal to the post-positivist, social constructivist model of technology. We do not need to turn to postmodern hermeneutics to find the meanings of technology in a meaningless universe. Instead, we might look to old-fashioned rational theory for the answer to the burning question about the good of ICTs to design. By examining both the facts of design and the ways that its operations are conceptualized we might hope to discover internal truths about design that will help us to judge the value of incorporating ICTs into the education and the practice of architects and engineers. We have already examined these matters more than once throughout the course of the book, but it might be useful now to re-examine them in a cumulative manner, in order to create a complete theoretical picture – perhaps even a paradigm – of how design is conceptualized and how it works. By doing this we might also become better able to judge the place of ICT in the world of design.

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