

Soft Technology Skills and the Teacher of the 21st Century

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INTRODUCTION

For many years, we have attempted to teach teachers technology for their own personal use and to help them use technology effectively with their students. We have introduced them to computers, to operating systems, peripherals, software, the Internet, and to all of the attending elements of digital technology. These, the knowledge and effective use of digital tools, are the “hard skills.” They are “hard skills” not because they are difficult to learn, but because they are time intensive and require the ability to put all of the disparate parts of technology together. They are the skills anyone would need were they to assume the responsibility of teaching them to someone else.

In recent years, there has been an amazing, steady stream of new digital capabilities in instructional technology. Many educational technologists optimistically assumed that the value of technology would become self-evident and that all teachers everywhere would, ultimately—and sooner, rather than later—get “on board” and begin using technology effectively with students. The evidence is now in: the transition to a technology-based “hard skilled,” instructional learning environment is not happening. The list of excuses and roadblocks to effective technology-based instruction continues to grow and includes the following:

- School boards lack vision for technology and fail to provide adequate funding for technology.
- Teachers lack time to learn technology on their own.
- Districts do not provide adequate staff development to help teachers learn technology skills.
- The movement to standards and high-stakes testing precludes teachers from using technology.
- Time with technology is viewed as time away from the core curriculum, which impacts student performance.
- Sophisticated networks have been designed without a clear understanding of why instructional networks exist in the first place.
- Technology is often dysfunctional; restrictions on its use are so great that it often is not worth the effort.
- There exists a persistent myth that technology is changing so rapidly that K-12 skills learned will be irrelevant because future technology will be so different. Without a vision for technology, any excuse will do.

The primary engine driving our economy today is information. What are we to think when we realize that our institutions of knowledge and learning are not yet aware that our corporate society has entered the Information Age? Essential skills sets for almost every career today are based on the ability to access information quickly, process information, and then communicate that information to other members of the team in order to make intelligent decisions. As information is analyzed, many different information-processing tools are used. Search engines are required to glean data from complex and dissimilar databases. Graphics tools are required to present the information in clear visual form. Presentation tools are needed to communicate the information to larger groups. In addition, each individual professional discipline has its own subset of special digital tools that calculate, drive, measure, weigh, design, shape, mold, and control the modern tools of our economy.

Certainly, there will be changes coming to technology, but the reality of those changes should not be a reason not to use technology for learning. Operating systems will change, the hardware will become smaller and faster and less expensive, but the essential skills of using technology will not change. For example, no matter what happens to operating systems and hardware, spreadsheets will remain fundamentally the same. With

more power, applications will become more sophisticated, but the core skills will remain the same.

MILLENNIUM TEACHERS

The new reality is that teachers in this new millennium do not have to be experts in the use of technology. Teachers will only need “soft skills”—a positive attitude toward technology, an easy disposition with technology, an understanding of the critical importance of technology for learning, and general insight into the generic world of technology. Teachers with soft skills encourage students to do everything they can with technology. Soft-skilled teachers “get out of the way” and allow students to become the technology experts.

Where teachers lack the time or the inclination to become experts with technology, students have the time, the inclination, the interest, and the willingness to learn the hard skills. These teachers create technology-based cooperative learning environments where the students work together to solve their academic problems with digital tools and digital resources. The soft-skilled teacher is the resident expert in the discipline/curricular area being taught, guiding the students to use the technology to discover information needed, to examine this information, and to compare and contrast various points of view.

Teachers and students learn together and share their expertise in the new technology-centered millennium. Come to think of it, that learning environment sounds like a 21st century corporate work environment!

This work was previously published in the Encyclopedia of Distance Learning, Volume 4, edited by C. Howard, J. Boettcher, L. Justice, K. Schenk, P. Rogers, and G. Berg, pp. 1641-1642, copyright 2005 by Information Science Reference, formerly known as Idea Group Reference (an imprint of IGI Global).

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