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Information Technology Skills. The ability to access information and manipulate it using a variety of digital tools.

Information Literacy Skills. The ability to evaluate information for validity and reliability through a variety of critical-thinking strategies.

Problem-Solving Skills. The ability to generate efficient, effective solutions that meet the needs of the marketplace.

Collaboration Skills. The ability to interact with colleagues, even in geographically disparate locations, to complete complex tasks.

Flexibility. The ability to adapt and adjust ideas as new information becomes available.

Creativity. The ability to present information and ideas in novel or unique ways in the marketplace.

Individually, each of these skills is already valued in the workplace. In combination, however, they create a profile of a worker functioning in a much more abstract environment in which goals and expectations change quickly. As we become the world's information superpower, the emphasis will be on teamwork and the marketing of ideas rather than on concrete products.

With the Information Age evolving so rapidly, how do schools adopt a new model of thinking and learning that adequately parallels society's demands? If we tend to teach in the same ways that we ourselves were taught, how then do we as teachers break away from the standardized, homogeneous approach to schooling that we knew as students? On what sound theory can those innovators in the classroom who have already recognized the changing needs of society base their evolving instructional practices?

Gardner's MI theory does an excellent job of addressing the needs of the Information Age. In fact, his intelligences nicely correspond with the very skills we have just discussed:

Information Technology Skills. The **kinesthetic** intelligence supports these skills as students manipulate tools that help them work successfully with information.

Information Literacy Skills. The **intrapersonal** and **naturalist** intelligences come into play as students identify and evaluate information for its usefulness.

Problem-Solving Skills. The **logical** intelligence operates as students offer varied ideas to solve problems.

Collaboration Skills. The **interpersonal** and **verbal** intelligences function when students interact to complete tasks and create products for the greater good.

Flexibility. The **musical** intelligence allows students to detect and follow patterns in information as it becomes available.

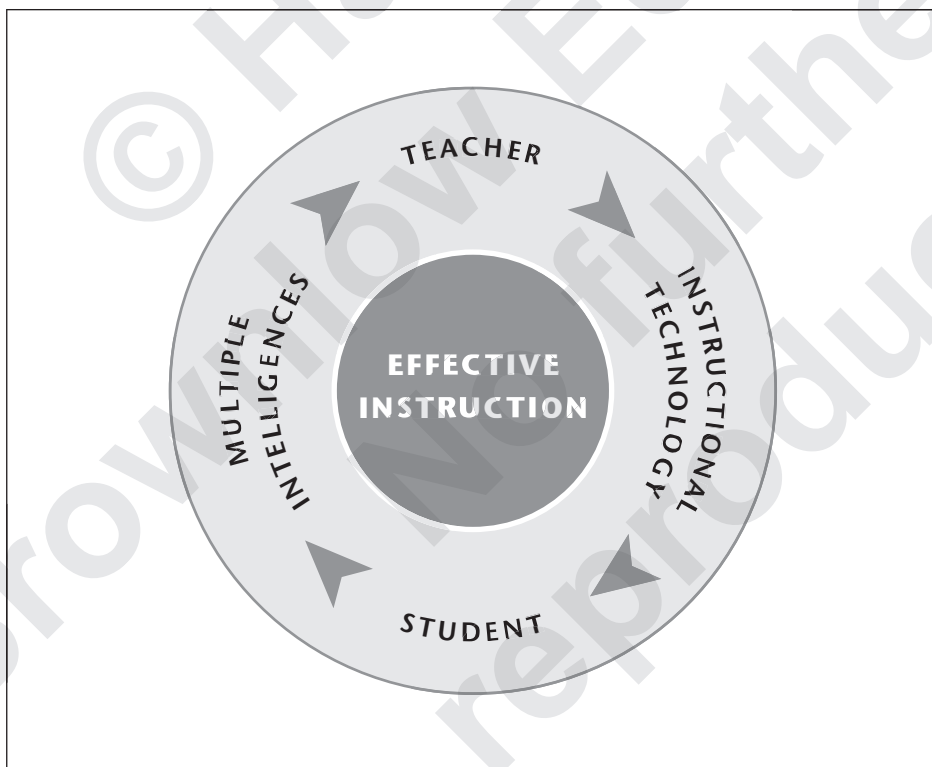
Creativity. The **visual** and **existential** intelligences allow students to envision ideas, solutions, and products that can improve the quality of their lives.

There has never been a better time for Gardner's ideas to take hold. They seem to answer so many questions and address so many needs in society. Perhaps this is why educators at all levels have embraced it so readily.

Effective Instruction

At the same time, technology can provide us with the tools we need to redefine how and what we teach. As the old saying goes, “If the only tool you have is a hammer, everything around you looks like a nail.” There is no longer a one-size-fits-all solution for providing instruction. This is a time of great growth that can also be a time of great peril. Technology advances so quickly it’s very easy to be impressed by new advancements, even to the point of letting technology take precedence over instruction. As educators, we have a responsibility to make sure that the use of technology is well grounded in sound educational theory and practice; instructional considerations must always come first. Without a sound educational foundation, instructional technology will not fulfill its promise. It will, instead, fall by the wayside like other innovations that have preceded it. In this regard we have come full circle: technology supports the accommodation of multiple intelligences in the classroom, while at the same time MI theory offers a strong theoretical foundation for the integration of technology into education (Figure 1).

FIGURE 1



The Multiple Intelligences and Instructional Technology Cycle

Digital Technologies and Education

As schools have tried to keep pace with society and provide students with the skills they will need to compete in tomorrow's job market, they have purchased the hardware and network infrastructure necessary to integrate digital technology into the traditional, Industrial Age classroom. Labs have been set up and acceptable use policies have been put in place to promote the use of these new technologies. Software has been purchased and local area networks built to try to keep up with the quickly changing digital world. Schools are truly on the technology bandwagon.

But where is that bandwagon headed, and how willing are teachers to stay on for the ride if there isn't a sound educational destination? Technology for technology's sake has a shine that loses its luster quickly. School systems have piles of hardware and software that are no longer in use because they didn't live up to their original billing. That, coupled with quickly changing technology, makes investing in digital technology seem like a very risky business. The only way to ensure that emerging technologies are going to be successful in the classroom is to make sure that they are well grounded in educational theory, thoughtfully implemented, and then carefully reflected upon. No theory is more capable of matching technology to the needs of learners than Gardner's model.

Consider how digital technologies map to each of the nine intelligences (Table 5).

TABLE 5

Intelligences and Digital Technologies

INTELLIGENCE	DIGITAL TECHNOLOGIES
Verbal	Keyboards, electronic mail, speech recognition devices, text bridges
Logical	Graphing calculators, FTP clients, gophers, search engines
Visual	Monitors, digital cameras, camcorders, scanners
Kinesthetic	Mouses, joysticks, assistive technologies
Musical	Speakers, CD-ROM discs, CD-ROM players
Intrapersonal	Online forms, real-time projects
Interpersonal	Chats, message boards, instant messengers
Naturalist	Floppy drives, file managers, semantic mapping tools
Existential	MUVes, virtual reality, virtual communities, blogs, wikis, simulations

Later, we will identify specific kinds of software that stimulate the different intelligences. By mapping available technologies to the nine intelligences, we can maximize the effectiveness of our use of technology in instruction.