What Every Teacher Should Know About Technology
By Bernie Poole

Ed-tech professor Bernie Poole identifies six essential technology-related skills every good teacher should possess -- or acquire.

There's no getting away from it; technology in schools is here to stay. But technology must be integrated effectively if it is to make a difference in the way teachers teach and students learn. What are some of the essential technology-related skills every teacher should possess?

PRODUCTIVITY TOOLS

Every teacher should be proficient in the use of productivity tools.
Teachers have to process many different types of data. Productivity tools (word processor, spreadsheet, database, and presentation software) are available on all computers and are the obvious tools to use for most teaching and learning tasks - and yet, it's probably true to say that 80 percent of computer users know only 20 percent of what a computer can do.

Most teachers consider themselves competent using a word processor, but are they? Are you? Do you know how to do mail merge (which involves familiarity with databases)? Do you know how to incorporate pictures into text? Do you know how to use indent markers? Do you know how to create columns of text? Do you know how to use tables? Those are not advanced word processing skills, by any means. The modern word processor is a multimedia tool. Its skillful use can enable capable teachers to create a host of visually attractive, information-rich learning materials. Every teacher should learn how to use it well.

Every teacher also should know how to capture numerical data in a spreadsheet, use formulas to manipulate that data, and display it in charts and graphs.

Every teacher should be familiar with presentation software such as PowerPoint -- not because presentation tools make great slide shows for teachers, but because they make great slide shows for *students.* Remember, we teach for one purpose and one purpose only -- to help students learn.

Drawing tools, which can bring out the creative artist in even the most artistically challenged teacher, often are bundled in with productivity software. Drawing tools, combined with other productivity tools, are invaluable for spicing up handouts, worksheets, slides, and the like. Drawing tools are cool. Check them out!

Teachers need to be skilled in the use of productivity tools, not just because they are the best tools for teaching, but also -- and more importantly -- because they are excellent tools for learning.

TROUBLESHOOTING

Every teacher should be able to troubleshoot technology-related problems that commonly crop up in the classroom.
For example, you should know that when a computer is behaving oddly in any way, the simplest solution often is to turn off the computer and then turn it back on. Sometimes plugs work loose from their sockets or disks get stuck in drives. Technology-using teachers should know how to do those and myriad other basic computer troubleshooting tasks.

TECHNICAL ASSISTANCE

Every teacher should know where to go for technical assistance.
Sometimes technical problems arise that are beyond a teacher's competence. Good schools will have responsive and skilled technical staff available full time. The technology-using teacher should establish a good working relationship with tech staff and know how to get in touch with them when the need arises.

WEB RESOURCES

Every teacher should be familiar with what's available on the Web in his or her subject area.
The Web is a magnificent resource for teaching and learning -- and getting better by the day. Conscientious technology-using teachers take time to research what's available so that they can enrich the learning experience for their students. Web sites such as Education World are good places to start.

SEARCH SKILLS

Every teacher should have well-honed Web searching skills.
Searching the Web has become an essential skill for all computer users. Teachers today spend a lot of time online looking for multi-media resources as well as for general informational material to use with students. Almost anything you can imagine is available on the Web -- if you only know how to find it.
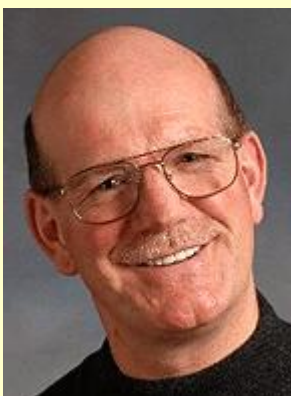
INTEREST AND FLEXIBILITY

Every teacher should be open to new ways of doing things.
That is so important today! Almost on a weekly basis, technologies become available that can change -- and sometimes utterly transform -- the way teachers teach and children learn. Good teachers maintain an avid interest in new technologies with a view toward improving the effectiveness of their teaching. Robert Kennedy's famous line (quoting George Bernard Shaw) captures the essence of that recommendation: "Some men see things as they are, and say 'Why?' I dream of things that never were, and say 'Why not?' "

Good teachers should be constantly on the lookout for ideas about how to do a better job in the classroom. One of the best ways to do that is to join an online discussion group, where teachers get together in an open e-forum to share ideas about teaching and learning. One excellent discussion group is the EDTECH listserv -- and it's free to join. With approximately 3,500 subscribers internationally and about 8000 readers, EDTECH plays an influential role in determining the future direction of education technology.

For more information on listservs, see the Education World articles Add Your Name to a Listserv - Today! and Stand By Me: Using Listservs to Collaborate with Other Educators.

About the Author

Bernie Poole, an associate professor of education and instructional technology at the University of Pittsburgh at Johnstown, Pennsylvania, has been a teacher since 1966. For the first 15 years of his career, he taught English, history, French, or English as a foreign language primarily to middle school children in England, Nigeria, and Saudi Arabia.

Poole has published several books related to instructional technology. Two of the latest editions are available free of charge online at http://www.pitt.edu/~poole.

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