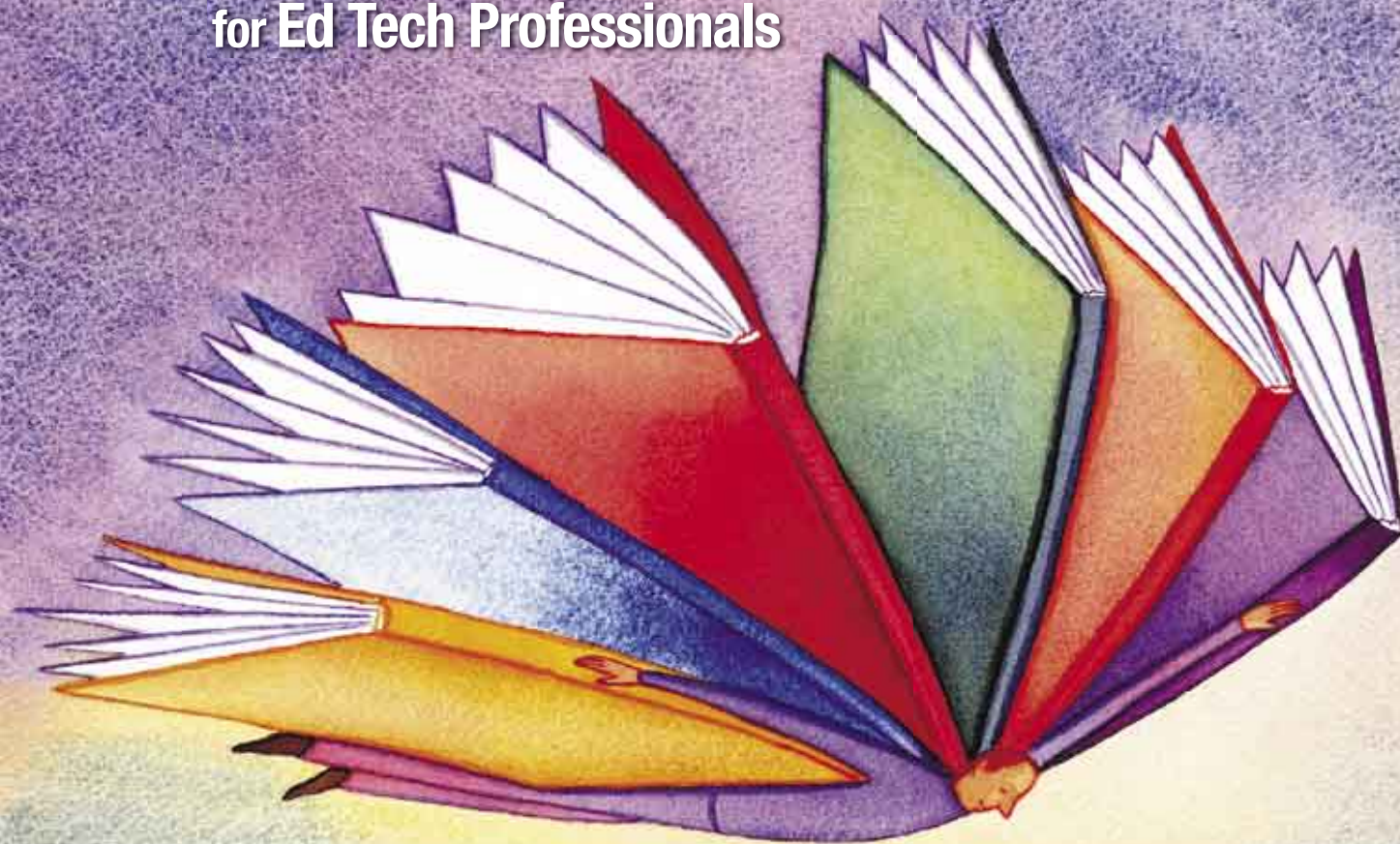# Sine Qua Non

Indispensable Resources
for Ed Tech Professionals

By Kate Conley

Subject: Professional development

Audience: Technology coordinators, technology integration specialists, technology facilitators, administrators, teachers, teacher educators

Standards: *NETS•T* V; *NETS•A* I, III (http://www.iste.org/standards/)

Part 1
Educational Technology

Because the field of educational technology is so broad and dynamic, it is extremely difficult to find time to keep up with the best practices, current research, and innovative ideas. In fact, that you found the time to read this article is a minor miracle in itself.

In an effort to help you keep up your knowledge of the field and to determine some of the most interesting and useful resources to date, we at *L&L* asked our large body of experts—ISTE members, volunteers, board and committee members, advocate network, and readers—to send us their top five essential readings and resources. Their responses provided a wealth of reference material. In fact, they suggested so many resources that we divided them into three categories and will deliver them to you across three issues of the magazine. Many of the suggested resources could fit into more than one category, but for the sake of space, we organized them as follows:

Part 1 includes resources in the field of Educational Technology and its inclusion in education. *Part 2,* in the April 2004 issue, will include resources for Leadership. *Part 3,* in the May 2004 issue, will cover resources for Technology Integration.

Don Hall, CIO for the Kent School District in Washington and *L&L*'s For Tech Leaders columnist, put it well by saying that regardless of where they are positioned within the hierarchy of their organizations, educational technology leaders will bring the most value to the field and to their jobs "if they are schooled in the instructional, strategic, technological, and political frames. They also need to balance their libraries with quick-hit information they can read on the run and material that requires deeper reflection and inquiry."

What Debbie Denise Reese, PhD, educational researcher at the Center for Educational Technologies at Wheeling Jesuit University, said about her suggested resources applies equally well to the whole collection:

These publications represent some of the finest insights of the finest minds of the last century as they reach on into the present one. The perceptive reader, one who can integrate across diverse conceptual strands and discourses, will delight in a discovery of convergence in theory and practice.

The *L&L* staff hopes you'll delight in discovering (or perhaps rediscovering) these resources and that they will help balance out your personal and professional libraries.

Educational Technology Resources
Articles & Reports

Being Fluent with Information Technology by the National Research Council's Committee on Information Technology Literacy. (1999). Washington, DC: National Academies Press. Available: http://www.nap.edu/catalog/6482.html

Fool's Gold: A Critical Look at Computers in Childhood by the Alliance for Childhood. (2000). Available: http://www.allianceforchildhood.net/projects/computers/computers_reports_fools_gold_contents.htm

About *Fool's Gold*, Richard Alan Smith, PhD, lecturer in instructional technology at the School of Education at University of Houston—Clear Lake, said:

Most educational technologists hate this book. However, it nevertheless is essential reading that will gain the unbiased reader a new perspective on how money could be spent for instruction for young children in ways that would provide important gains without large-scale investments in technology.

A Brief History of Special Education Technology by A. E. Blackhurst & D. L. Edyburn. (2000). *Special Education Technology Practice, 2*(1), 21–35.

The Digital Disconnect: The Widening Gap between Internet-Savvy Students and Their Schools by The Pew Internet and American Life Project. (2002). Available: http://www.pewinternet.org/reports/toc.asp?Report=67

How Exemplary Computer-Using Teachers Differ from Other Teachers: Implications for Realizing the Potential of Computers in Schools by H. J. Becker. (2000). *Contemporary Issues in Technology and Teacher Education* [Online serial], *1*(2). Available: http://www.citejournal.org/vol1/iss2/seminal/article1.htm

Glen Bull, PhD, Ward Professor of Education in the Curry School of Education at the University of Virginia, placed the article by Hank Becker on his current list of recommended readings for two reasons, he says:

(1) It's a textbook case on how to conduct longitudinal research (of which we have all too little) on a national scale, and (2) it challenges us to think about characteristics of exemplary technology-using teachers—an important consideration if we're going to become more effective in development of future exemplary teachers (of which we also have all too few).

Growing Up Digital: How the Web Changes Work, Education, and the Ways People Learn by J. S. Brown. (2000, April). *Change*, 11–20. Available: http://www.aahe.org/change/digital.pdf

> [Papert] provided rationale and description of educational technologies that apprentice young minds in the thinking of big thoughts. These tools allow ordinary minds to think like geniuses."
>
> —Debbie Denise Reese, PhD, Wheeling Jesuit University

Introduction to *The Computer in School: Tutor, Tool, Tutee* by R. P. Taylor. (1980). New York: Teachers College Press. Available: http://www.citejournal.org/vol3/iss2/seminal/article1.cfm

Reflections on *The Computer in the School* by R. P. Taylor. (2003). *Contemporary Issues in Technology and Teacher Education* [Online serial], *3*(1). Available: http://www.citejournal.org/vol3/iss1/seminal/article2.cfm

National Standards for Computer/Technology Teacher Preparation: A Catalyst for Change in American Education by H. G. Taylor & J. H. Wiebe. (1994). *Journal of Computing in Teacher Education, 10*(3), 21–23.

The Power of the Internet for Learning: Final Report of the Web-Based Education Commission. (2000). Available: http://www.ed.gov/offices/AC/WBEC/FinalReport/

Reconsidering Research on Learning from Media by R. E. Clark. (1983). *Review of Educational Research, 53*(4), 445–459.

Restructuring for Learning with Technology: The Potential for Synergy by K. Sheingold. (1991). *Phi Delta Kappan, 73*(1), 17–27.

Teachers and Technology: Making the Connection by the U.S. Congress, Office of Technology Assessment. (1995). Washington, DC: U.S. Government Printing Office.

Power On! New Tools for Teaching and Learning by U.S. Congress, Office of Technology Assessment. (1988). Washington, DC: U.S. Government Printing Office.

Teachers' Beliefs, Plans, and Decisions about Computer-Based Instruction by C. A. MacArthur & D. B. Malouf. (1991). *The Journal of Special Education, 25*(5), 44–72.

Tech-Savvy: Educating girls in the new computer age by the American Association of University Women's Commission on Technology, Gender, and Teacher Education. (2000). Washington, DC: AAUW Foundation. Executive Summary available: http://www.aauw.org

What Conditions Encourage Technology Use? It Depends on the Context by J. Willis. (1993). *Computers in Schools, 9*(4), 13–32.

Books

Assessing Students' Needs for Assistive Technology: A Resource Manual for District Teams. (4th ed., 2003). Oshkosh: Wisconsin Assistive Technology Initiative. Available: http://www.wati.org/WatiMaterials.htm

Empowering Students with Technology by A. November. (2001). Arlington Heights, IL: Skylight Pub. ISBN 1575173727.

The Evolution of American Educational Technology by P. Saettler. (1990). Englewood, CO: Libraries Unlimited. ISBN 0872876136.

The Flickering Mind: The False Promise of Technology in the Classroom and How Learning Can Be Saved by T. Oppenheimer. (2003). Random House. ISBN 1400060443.

Talbot Bielefeldt, director of Research & Evaluation at ISTE, in suggesting *The Flickering Mind* and *Silicon Snake Oil* (next page) said, "Certainly anyone who is going to be in the position of defending a technology program against its critics should have a mastery of the opposing view."

Growing Up Digital: The Rise of the Net Generation by D. Tapscott. (1999). New York: McGraw-Hill. ISBN 0071347984.

High Tech/High Touch: Technology and Our Accelerated Search for Meaning by N. Naisbitt, D. Phillips, & J. Naisbitt (2001). London: Nicholas Brealy. ISBN 1857882601.

Instructional Technology: Past, Present, and Future by G. J. Anglin (2nd ed., 1995). Englewood, CO: Libraries Unlimited. ISBN 1563082519.

Learning to Design, Designing to Learn: Using Technology to Transform the Curriculum by D. P. Balestri, S. Ehrmann, & D. L. Ferguson (1992). Washington, DC: Taylor & Francis. ISBN 0844817066.

Making Technology Standards Work for You—A Guide for School Administrators by S. Brooks-Young. (2002). Eugene, OR: ISTE. ISBN 1564841901.

Mindstorms: Children, Computers, and Powerful Ideas by S. A. Papert. (2nd ed., March 1999). New York: Basic Books. ISBN 0465046746.

About Papert's work, Reese had this to say:

> In 1968 Paul Drucker wrote that "teaching is … the only traditional craft in which we have not yet fashioned the tools that

make an ordinary person capable of superior performance." With *Mindstorms,* Papert met that challenge. He provided rationale and description of educational technologies that apprentice young minds in the thinking of big thoughts. These tools allow ordinary minds to think like geniuses.

National Educational Technology Standards for Students—Connecting Curriculum and Technology by the NETS Project. (2000). Eugene, OR: ISTE. ISBN 1564841502.

National Educational Technology Standards for Teachers—Resources for Assessment by the NETS Project. (2003). Eugene, OR: ISTE. ISBN 1564842029.

Never Mind the Laptops: Kids, Computers, and the Transformation of Learning by B. Johnstone. (2003). Lincoln, NE: iUniverse, Inc. ISBN 0595288421.

Raw Materials for the Mind: Teaching & Learning in Information & Technology Rich Schools by D. Warlick. (3rd ed., 2002). Raleigh, NC: The Landmark Project. ISBN 0966743202.

Shaking Up the Schoolhouse: How to Support and Sustain Educational Innovation by P. C. Schlechty. (2000). San Francisco: Jossey-Bass. ISBN 078795540X.

Silicon Snake Oil: Second Thoughts on the Information Highway by C. Stoll. (1995). New York: Doubleday. ISBN 0385419945.

Technology and Education Reform: The Reality Behind the Promise by B. Means. (1994). San Francisco: Jossey-Bass. ISBN 1555426255.

Watch IT: The Risks and Promises of Information Technologies for Education by N. Burbules & T. A. Callister. (2000). Boulder, CO: Westview Press. ASIN 0813390834.

Web Sites

Alan November: http://www. anovember.com/

Apple Classrooms of Tomorrow: http://www.apple.com/education/k12/leadership/acot/history.html

Center for Applied Research in Educational Technology (CARET): http://caret.iste.org/

CEO Forum on Education and Technology: http://www.ceoforum.org

enGauge: http://www.ncrel.org/engauge/. This NCREL site is designed to help districts and schools plan and evaluate the systemwide educational technology use.

From Now On (Jamie McKenzie): http://www.fno.org/

National Education Technology Plan (NETP): http://www.nationaledtechplan.org/. According to the Web site, "The NETP for the U.S. Department of Education is being developed as part of a long-range national strategy and guide for using technology effectively to improve student academic achievement—either directly or through integration with other approaches to systemic reform."

National Educational Technology Standards (NETS): http://www.iste.org/standards or http://cnets.iste.org

Teaching, Learning, and Computing: 1998: http://www.crito.uci.edu/tlc/html/tlc_home.html. A study of teachers' use of computer technology

Periodicals

Educause: http://www.educause.edu/pub/

Edutopia: http://www.glef.org

eSchoolNews: http://www.eschoolnews.com

Journal of Computing in Teacher Education: http://www.iste.org/jcte

Journal of Research on Technology in Education: http://www.iste.org/jrte

Learning & Leading with Technology: http://www.iste.org/LL

MultiMedia Schools: http://www.infotoday.com/MMSchools/default.shtml

Phi Delta Kappan: http://www.pdkintl.org/kappan/kappan.htm

Syllabus: Technology for Higher Education: http://www.syllabus.com

Technology & Learning: http://www.techlearning.com/

Technology Review: http://www.technologyreview.com

T.H.E. Journal: Technological Horizons in Education: http://www.thejournal.com

More To Come

We hope you'll find these resources useful and that we have sparked some thought about your own list of essential readings.

Maybe you found an old favorite, came across one that is just what you need, or think we missed one. Let us know! We always want to hear from the experts, and our readers are our experts. Drop us a line at letters@iste.org.

As Smith put it "not everyone might agree with what is in the articles, but they should have knowledge and understanding of their contents."

Look for resources on Leadership in the April 2004 issue and on Technology Integration in May 2004.

L&L's editor, Kate Conley, taught English and writing at the secondary and community college levels for eight years before pursuing a career in journalism. She holds a BA in English from the University of the Pacific and an MS in journalism from the University of Oregon.