

University of North Florida



*Active leaders and responsive partners
within diverse learning communities*

EDG 6434: Enhancing Instruction with Technology

Candidate dispositions for the development and demonstration of ethical and professional attitudes and beliefs.

On-going, active reflection on professional practice.

Multiculturalism through educators who value diversity and advocate for the success of all students within diverse learning communities.

Professional growth of pre-service and experienced educators and other helping professionals.

Academic programs that are rigorous, standards-based, and model and apply innovative and enduring ideas about teaching and learning.

Scholarship for advancement of the professional knowledge base.

Service to the University, P-12 schools, the profession, and the community.

Master Syllabus

Course Number: EDG 6434
 Course Title: Enhancing Instruction with Technology
 Number of Credit Hours: 3
 Required or Elective: Required in Instructional Technology MEd

Term: Fall 2005
 Day and Time: W 6-8:45 PM
 Location: 15/1105
 Course web site: <http://blackboard.unf.edu>

Professor/Instructor: Dr. C. Cavanaugh
 Office: 9/2249
 Office Hours: Wednesday 1-4 PM; others by appointment
 Telephone: 904-620-1751
 Email Address: ccavanau@unf.edu
 Instructor web site: <http://www.unf.edu/~ccavanau>

Required texts:

Jonassen, 2003. *Learning to Solve Problems with Technology*. Prentice-Hall. ISBN: 0-13-048403-2

ISTE, 2000. *National Educational Technology Standards for Students—Connecting Curriculum and Technology*. ISBN 1-56484-150-2. *Free electronic text online at* http://cnets.iste.org/students/s_book.html

Cavanaugh & Harris. 2006. *Clips from the Classroom, with Technology Video Cases*. Prentice Hall. ISBN: 0-13-171275-6. *Provided by instructor.*

Course Description

This course focuses on the development of strategies, concepts, and materials for the use of computer technology in enhancing instruction. The course explores the impact that computer technology can have on the nature of the teaching and learning process. Recent developments in educational software, the Internet and computers have provided educators with a new array of tools for enriching the educational process. The course prepares educators to create technology-integrated lessons for learning.

Topics include:

- Theoretical bases and critical issues in technology-enhanced learning
- Experience with hardware, software, and the Internet
- Developing strategies for a range of content areas and grade levels
- Applying technology and curriculum standards
- Creating and teaching standards-based lessons that effectively integrate technology for learning

The following concepts are a framework for the course.

- Educators know the subjects they teach and how develop experiences for learning those subjects.
- There are many ways teach well, but learning is mainly an active process.
- There are principles based on theory, research and experience to guide design of lessons.

In consonance with the conceptual framework, this course will be focused on the acquisition of knowledge and skills for designing and teaching effective standards-based lessons that integrate technology for PreK-12 grade levels.

Course Goals

In this course, teachers will develop and demonstrate dispositions of ethic and professional technology using educators as they learn skills and methods for integrating technology into standards-based instruction of all students. Teachers will use technology to reflect on their learning with technology.

Diversity Considerations

The course includes the topic of assistive technology and technology for ESOL students.

Technology Considerations

Instruction is enhanced using online resources and electronically delivered reading, presentations, and assignments. Teachers create assignments using a wide range of technology, including word processor, spreadsheet, database, presentation software, web page editors, scanners, digital cameras, and other means, and to submit assignments electronically. Teachers also participate in reflective discussion via online synchronous and asynchronous communication tools.

Assignments will be completed using software versions located on the computers in 15/1105, including but not limited to: Windows XP, Microsoft Office 2002/XP, Internet Explorer, and Inspiration.

Course Objectives

Objective Matrix

Course Objective	Knowledge	Skill	Disposition	Impact
Examine evidence for the effectiveness of educational technology in the educational process.	✱	✱		
Apply learning theories to the use of technology to support instruction.	✱	✱		
Describe uses for technology in content areas including: language arts and foreign language, science and mathematics, social studies, visual and performing arts, exceptional student education, ESOL and physical education/health.	✱	✱		
Develop lessons for various content standards that are enhanced by appropriate hardware, software and online resources.	✱	✱		
Design, deliver and assess student learning activities that integrate technology for a variety of student grouping strategies and for diverse student populations.	✱	✱		✱
Locate, evaluate and integrate appropriate online resources and software into standards-based lessons.	✱	✱		
Select appropriate tools for communicating concepts, conducting research, and solving problems for an intended audience and purpose.	✱	✱		
Develop instructional units that involve high-level thinking skills and use technology to support these processes.	✱	✱		
Develop strategies for training of educators in technology related content.	✱	✱		
Describe current and future trends in educational technology.	✱	✱		

Please notify the instructor within the first week if a reasonable accommodation to a disability is needed for this course. A letter from the Student Disability Office must accompany this request.

Course Assignments, Expectations and Grading Procedures

GRADING PROCEDURES

Course grades are based on activities, projects, and assignments. Assignments may be turned in during class meetings in print or on disk, or they may be placed in Blackboard. Be sure to use the “Send” feature when sending files to the instructor’s dropbox, and use the “Add” feature to put a backup copy of the file in your dropbox.

Professional Conduct is necessary to earn an excellent or good grade.

Reading response journals: 16

Digital resource summary: 16

Lesson plan: 16

Professional development plan: 16

School technology analysis: 20

Thematic materials: 16

All written work must be submitted in electronically created form.

All assignments have a 10% penalty per week for lateness, with no work accepted two weeks after the due date.

A	90-100	Excellent performance
B	80-89	Good performance
C	70-79	Fair performance
D	60-69	Poor performance

Assignment details and rubrics:

1. Professional conduct

Read assignments and engage in a positive way in all class discussions and activities. On-time attendance is required. Know and follow university policy regarding academic honesty. In your online work, follow standards of netiquette: be accountable for what you send, acknowledge online sources you reference.

2. Reading response journal

Reading assignments will be scheduled, both from course texts and from online sources. A Blackboard discussion area will correspond to each reading assignment, which will provide guiding questions to prepare you for class discussion. Check the assignment schedule and the Blackboard discussion area weekly for new response topics.

3. Digital resource summary

Learning with computer technology depends on the quality of the software and web sites with which students interact, and on the learning goals of the student. Working as an individual or with a group of two or three, design a learning situation centering on educational software or web sites used for student learning of content standards. Each group will develop a written summary and will submit it with either screen captures of the software or links to the website. Groups will present their summaries during a class session. The summary must be submitted to Blackboard as a digital file, and/or turned in on disk. Files will be shared with the class via a designated folder in Blackboard’s Course Documents.

Digital resource summary checklist:

- ✓ For software: Title and publisher, publication date, web address, cost
- ✓ For a web site: Name and sponsor/author, last update or publication date, web address
- ✓ Grade/learner levels
- ✓ Content standards
- ✓ Educational value: What can students learn better or differently with this resource?

- ✓ Instructional methods: How can the resource be used to enhance instruction?
- ✓ Evidence of effectiveness: What facts do you have from research on learning and on educational technology that this resource is likely to be effective?
- ✓ Screen capture or web links

Digital Resource Presentation Rubric 16 points

Value	2	4
Written summary completeness	Incomplete, lacking 2 or more items	All items present
Written summary quality	Questions answered incompletely or lacking depth	All questions answered thoroughly and thoughtfully
Presentation completeness	Incomplete, lacking 2 or more items	All items present
Presentation quality	Requirements lack depth or clarity	Requirements addressed with depth and clarity

4. Lesson/activity plan

Based on a software title, web site, hardware or combination, each individual will develop and submit a lesson or activity plan addressing the points listed below. The structure of the lesson plan is less important than the completeness and quality of the contents. The instructional methods described in the lesson plan should include examples that reflect effective practices and learning theories. The plan will be shared in class and via Blackboard. The lesson plan must be submitted to Blackboard or turned in on disk. For examples of lessons see <http://etc.usf.edu/index.html> (choose a subject and grade level to browse lessons) or the ISTE text/website (http://cnets.iste.org/search/s_search.html).

Lesson plan checklist:

- ✓ Name of lesson
- ✓ Author and date created
- ✓ Grade levels and content areas
- ✓ Content and student technology standards addressed. Content standards may be school, district, state or national standards. Cite your source.
- ✓ Intended outcomes
- ✓ Technology resources and other resources
- ✓ Rationale for methods: learning theory, information about effectiveness
- ✓ Learning activities including embedded assessments and tentative timeline

Lesson Plan Rubric 16 points

Value	2	4
Completeness and class discussion	Incomplete, lacking 2 or more items, plan described without clarity or detail.	All items present and plan described with clarity and detail
Standards connection	Connection between all standards and activities not evident	Connection between all standards and activities evident
Quality of activities and assessments	Activities are not important, engaging, or justified	Activities are important, engaging, and justified
Integration of technology	Chosen technology does not enhance instruction	Chosen technology enhances instruction

5. Professional development plan

We know that professional educators approach educational technology in a variety of ways. Using your knowledge of technology adoption, what works in adult education, and technology effectiveness, design a professional development experience that leads teachers to a more accomplished stage in the use of a selected

technology. The target teachers may be a group you know or work with, or the plan may be for you. The professional development plan will be shared in class and via Blackboard. The plan must be submitted to Blackboard or turned in on disk.

Professional development plan checklist:

- ✓ Title of plan
- ✓ Author and date created
- ✓ Entry level of teachers
- ✓ Teacher technology and professional development standards addressed
- ✓ Target outcomes
- ✓ Technology and curriculum focus
- ✓ Rationale for methods: technology adoption model, adult learning information
- ✓ Learning activities including embedded assessments and tentative timeline

Professional Development Plan Rubric 16 points

Value	2	4
Completeness	Incomplete, lacking 2 or more items	All items present
Outcomes	Insufficient correlation among entry level, activities, and outcomes	Sufficient correlation among entry level, activities, and outcomes
Technology focus and rationale	Technology focus does not connect to curriculum or enhance instruction, rationale for focus, outcomes and activities is not well-reasoned or documented	Technology focus connects to curriculum and enhances instruction, and rationale for focus, outcomes and activities is well-reasoned and documented
Activities	Activities are not engaging, well-paced, or do not include meaningful assessments	Activities are engaging, well-paced, and include meaningful assessments

6. Classroom technology analysis

As you explore the features and practices of the effective technology-enhanced learning environment, consider what you've learned in relation to a real classroom. Choose a classroom in your own school/institution or another school where you can visit, have conversations, and observe how and why technology is enhancing instruction. The analysis will be shared in class and via Blackboard. It must be submitted to Blackboard or turned in on disk.

Classroom technology analysis checklist:

- ✓ Visitor, date of visit
- ✓ School, grade level of class, number and types of students (regular, ESOL, ESE, etc.)
- ✓ Sketch (computer-generated or drawn by hand) of classroom, highlighting technology arrangement. Optional: photos, video, audio
- ✓ Summary of activities observed, with detail about technology in use
- ✓ Summary of interview with at least two students about using technology for learning, and about using the specific technology in class activities observed
- ✓ Summary of interview with the teacher about using technology for learning, about using the specific technology in class activities observed, and about professional development in the area of technology
- ✓ Your analysis of what worked well with technology in the classroom, and your suggestions for expanding the power of technology in the classroom. Include rationale for your statements from effectiveness literature and learning research.

Classroom Technology Analysis Rubric 20 points

Value	2	4
Completeness	Incomplete, lacking 2 or more items	All items present
Sketch and summary of activities	Unclear, insufficient detail to guide analysis	Clear with sufficient detail to guide analysis
Interviews	Insufficient detail to guide analysis	Sufficient detail to guide analysis
Analysis	Lacks thoroughness or detailed suggestions	Thorough, with detailed suggestions
Rationale	Not well-documented from literature or research	Well-documented from literature and research

7. *Thematic materials*

Educational technology is best used in an educational context. The context may address a specific content focus or may be interdisciplinary. This assignment involves developing educational materials related to a theme that will be adopted by the class for this term. The materials include original digital media with guidelines for their use by learners. The materials will be shared in class and via Blackboard. They must be submitted to Blackboard or turned in on disk. In addition, they may be made available for broad educational use.

Thematic materials checklist:

- ✓ Audience (adult, student grade levels)
- ✓ Connection to theme and rationale for materials
- ✓ Content standards addressed
- ✓ Instructions for teachers and students
- ✓ Original digital media, such as presentation, web page, word processed file, video, audio, etc.
- ✓ Learning assessment method

Thematic Materials Rubric 16 points

Value	2	4
Completeness	Incomplete, lacking 2 or more items	All items present
Standards and thematic connections	Connection between theme and all standards and activities not evident	Connection between theme and all standards and activities evident
Quality of activities, instructions and assessments	Activities are not important, engaging, or justified; instruction is unclear	Activities are important, engaging, and justified; instructions are clear
Digital media	Media are inappropriate for goal or are of poor quality; media do not enhance instruction	Media support goals, are of high quality; media enhance instruction

Course Policies and Guidelines

COLLEGE OF EDUCATION AND HUMAN SERVICES POLICIES

1. Americans with Disabilities Act (ADA) Policy. The College of Education and Human Services complies with ADA requirements in making reasonable accommodations for qualified students with disabilities. Students desiring reasonable accommodations should contact the UNF Office of Disabled Services (Founders Hall 2120; telephone: 904/620-2769) and are encouraged to inform the instructor as early in the semester as possible regarding desired accommodations.

2. College Undergraduate Admission Policy. In order to earn credit toward an undergraduate degree in the College of Education and Human Services, students must be admitted to a COEHS undergraduate program of study. Admission to the University does NOT in and of itself constitute admission to a given program of study. Transfer students cannot take more than 14 UNF hours toward any COEHS undergraduate degree without first having been fully admitted into a program of study.

Prior to being considered for full admission into an undergraduate program of study, students must (a) submit acceptable scores on all parts of the College-Level Academic Skills Test (CLAST) and (b) present official transcripts documenting a cumulative undergraduate GPA of 2.5 or better on a minimum of 60 semester hours from a regionally accredited college or university. Students are encouraged to consult the Undergraduate Catalog and/or contact the College's Office of Student Services (Schultz Hall 2305; telephone: 904/620-2530) for information regarding admission to a specific undergraduate program of study.

3. University Enrollment Policy. Only those students who are admitted to the University are entitled to enroll in classes, and only those students who are enrolled in a given course are permitted to attend class meetings for that course. Sitting through a class without registering does not constitute enrollment. Instructors are authorized to bar students who are not enrolled in a course from attending class sessions until evidence of enrollment is presented to the instructor. Even if unenrolled students are allowed via the instructor's oversight to remain in a class, university policy prohibits students from being added to a class roster after the reinstatement deadline. The primary responsibility for assuring that a student is enrolled in a course belongs to the student. Students are therefore encouraged to check their enrollment status several times during each semester with an advisor or via the UNF website.

4. Policies Governing Student Conduct. The University of North Florida has adopted a Student Conduct Code in order to promote responsible behavior for all students and to assure a physically, emotionally, and intellectually safe university community. This code addresses issues that may threaten the safety and order of the university environment and provides procedures and remedies for addressing these issues. Specific issues addressed include, but are not limited to, sexual misconduct; endangerment; harassment; hazing; possession/use of weapons, alcohol, and illegal drugs; damage or destruction of property; malicious mischief; computer misuse; and falsification/fraud. Students who are aware of and/or feel they are victims of any activity in violation of the Student Conduct Code should report the activity to the University Police or the appropriate campus administrator. The conduct code is available in its entirety on the University website at web address <http://www.unf.edu/studentaffairs/handbook/HB2002-2003.pdf>

5. Academic Integrity Policy. The University of North Florida has adopted a strict policy on academic integrity. As noted in the UNF 2003-2004 Undergraduate Catalog (p. 35) and the UNF 2001-2002 Student Handbook (p. 23), violations to academic integrity include, but are not limited to cheating; fabricating and falsifying information or citations; submitting the same work for credit in more than one course; plagiarizing; providing another student with access to one's own work to submit under this person's name or signature; destroying, stealing, or making inaccessible library or other academic resource material; and helping or attempting to help another person commit an act of academic dishonesty. The full policy on academic integrity is available on the University website at web address <http://www.unf.edu/studentaffairs/handbook/HB2002-2003.pdf>

The Academic Integrity Policy affords University instructors authority to assign penalties for these offenses. For example, the instructor may assign a grade of "F" on the assignment in question or for the course. In the case of flagrant violations of the Academic Integrity Policy, the instructor may recommend additional specific penalties to the university administration, including referral for academic counseling, expulsion from a program of study, denying of degree, expulsion from the University, or revocation of a degree already granted.

6. E-mail Policy. The University of North Florida's policy on student e-mail allows academic and service units of the University to use e-mail as the primary means for communicating certain types of information to students. Although individual instructors may determine that "external" (i.e., non-University-provided) e-mail accounts are a suitable means for communicating with students, the University policy specifies that the University-provided e-mail address serve as the "official" e-mail address for purposes of formal electronic communication with students. All students should become knowledgeable of their University-provided e-mail address and either check their account regularly or arrange for all e-mail delivered to their account to be forwarded to an external e-mail account of their choice. Students can find out their e-mail account username, reset their password, and set forwarding options by visiting <http://www.unf.edu/compserv/guidelines/glemail.html>

INSTRUCTOR POLICIES

- Attendance: Attendance at each class meeting is required because of the practical, hands-on nature of instruction.
- Academic integrity: Follow the guidelines of the UNF Student Handbook located at <http://www.unf.edu/studentaffairs/mainpage.html>
- Assignment and quality of work: Completion of all assignments is expected during the week indicated. Assignments submitted after the due date are considered late, and a 10% reduction in grade will occur for each class day the assignment is late.

Bibliography

Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice Hall Publishers.

Bransford, J. D., Brown, A. L. & Cocking, R. R. (1999). How people learn: Brain, mind, experience, and school. National Academy Press. <http://www.nap.edu/books/0309070368/html/>

Cuban, L. (2001). Oversold and underused: computers in the classroom. Cambridge, MA: Harvard University Press. <http://www.hup.harvard.edu/pdf/CUBOVE.pdf>

Duffy, T. & Jonassen, D. (Eds.). (1992). Constructivism and the Technology of Instruction. Hillsdale, NJ: Erlbaum.

Friedman, T. (2005). The world is flat: a brief history of the 21st century. New York: Farrar, Straus and Giroux.

Gardner, H. E. (1993). Multiple intelligences: The theory in practice. New York: Basic Books.

Gagne, R. (1997). The conditions of learning and theory of instruction. New York: Holt, Rinehart and Winston.

Jonassen, D. (2000). Computers as mindtools for schools. Englewood Cliffs, NJ: Prentice Hall Publishers.

Ohler, J. (2001). Future Courses: A Compendium of Thought About the Future of Technology and Learning. Technos Press of the Agency for Instructional Technology.

Papert, S. (1996). The connected family. Atlanta, GA: Longstreet Press.

Thornburg, D. D. (1998). Brainstorms and lightning bolts: Thinking skills for the 21st century. San Carlos, CA: David D. Thornburg and Starsong Publications.

Thornburg, D. (2002). The new basics: education and the future of work in the telematic age. Alexandria, VA: Association for Supervision & Curriculum Development.

Schedule

Week	Date	Topic	Reading	Assignment due
1	8/24	<i>Introduction:</i> Course goals and resources, learning in the digital age, examine educational technology uses	<i>Jonassen:</i> 1	
2	8/31	<i>What works:</i> Educational technology effectiveness research, best practices and cautions	<i>NETS:</i> Preface pp. xi-xii; Section 1 pp. 1-6; Section 2. <i>Jonassen:</i> 2	Reading journal 1
3	Week of 9/7 online	<i>How to make it work:</i> Learning theory, instructional design principles, assessment of learning, technology standards for students	<i>NETS:</i> Sections 3 & 4 (scan); Appendix D <i>Jonassen:</i> 9	Reading journal 2
4	9/14	<i>Technology in context:</i> Thematic learning with technology		
5	9/21	<i>Software:</i> Multimedia, Mindtools, and content software	<i>Jonassen:</i> 5, 6, 7	Reading journal 3
6	Week of 9/28 Online	<i>Webware:</i> Internet resources, WebQuests	<i>Jonassen:</i> 3, 4 <i>NETS</i> Appendix B	Reading journal 4
7	10/5	<i>Teaching with technology:</i> Share digital resources Work on thematic materials		Digital resource summary
8	10/12	<i>Hardware:</i> Beyond the computer, peripherals, input and output devices, handheld devices	<i>Jonassen:</i> 8	Reading journal 5
9	Week of 10/19 online	<i>Teaching with technology:</i> Lesson plans Work on thematic materials		Lesson plan
10	10/26	<i>Professional development:</i> Design for adult learners, NSDC standards		Reading journal 6
11	11/2	<i>Technology for all students:</i> Integrating technology for students with special needs Share professional development plan		Professional development plan
12	Week of 11/9 Online	<i>Technology for all students:</i> The digital divide, Work on thematic materials		Reading journal 7
13	11/16	<i>Technology in the classroom:</i> Organization of technology in schools		Reading journal 8
14	11/23	<i>Thanksgiving Eve—no class</i>		
15	11/30	<i>Technology in the classroom:</i> Share classroom technology analysis Work on thematic materials		Classroom technology analysis
16	12/7	<i>Next steps:</i> Looking ahead		Thematic materials

NETS standards for students are located at http://cnet.iste.org/students/s_book.html Blackboard 6 course: <http://blackboard.unf.edu> Use your Osprey user name and password.

Websites

Educator Accomplished Practices (AP) <http://www.beaconlc.org/ctech/apwebsite/APpage.htm>

FL DOE <http://www.fldoe.org/>

US DOE <http://www.ed.gov/index.jsp>

FL FCAT <http://www.firn.edu/doe/sas/fcathome.htm>

Concept Mapping <http://www.mindtools.com/mindmaps.html>

Code of Ethics and Principles of Professional Conduct of the Education Profession in Florida
<http://www.firn.edu/doe/bin00061/publications/ethics.pdf>

Educator Accomplished Practices-Teachers of the 21st Century
<http://www.firn.edu/doe/bin00061/publications/12practices.pdf>

Subject Matter Content Standards for Florida Teachers
<http://www.firn.edu/doe/bin00061/publications/smcstandards.pdf>

Performance Standards for Teachers of English for Speakers of Other Languages
<http://www.firn.edu/doe/bin00011/perstand.htm>

Sunshine State Standards <http://www.firn.edu/doe/cgi-bin/doehome/menu.pl>

NCATE Technology Standards
<http://www.ncate.org/standard/new%20program%2ostandards/iste%202001.pdf>

INTASC Standards (Interstate New Teacher Assessment and Support Consortium)
<http://www.ccsso.org/intascst.html>

Resources for Enhancing Instruction with Technology:**Cautions**

The Computer Delusion
<http://www.TheAtlantic.com/issues/97jul/computer.htm>

Fools Gold
http://www.allianceforchildhood.net/projects/computers/computers_reports.htm

Creating A New Culture of Teaching and Learning
<http://www.anovember.com/articles/asilomar.html>

Are Computers Bad for Kids?
<http://familyeducation.com/article/0,1120,1-3935,00.html>

Educational Technology Literacy Standards

NET Standards for Students (ISTE)

<http://cnets.iste.org/sfors.htm>

ISTE Standards for Teachers

<http://www.iste.org/Standards/NCATE/index.html>

Information Technology Underused in Teacher Education

http://www.milkenexchange.org/article.taf?function=detail&Content_uid1=131

Technology Competencies for Teachers

<http://www.itrc.ucf.edu/techstandards/proposed.html>

Technology Skills and the Sunshine State Standards

<http://www.itrc.ucf.edu/techsss/sssgl.html>

Learning Theories

Contrasting Teaching Philosophies among American Teachers

<http://www.crito.uci.edu/TLC/FINDINGS/internet-use/snapshots/snapshot-1.htm>

Teacher Pedagogical Differences by Computer Platform

<http://www.crito.uci.edu/tlc/findings/snapshot5/startpage.htm>

Constructivist Compatible Beliefs and Practices among U.S. Teachers

<http://WWW.CRITO.UCI.EDU/TLC/FINDINGS/REPORT4/>

Theory into Practice Database

<http://tip.psychology.org/>

MindTools

MindTool Resource Page

<http://members.aol.com/mind2ls/mindtool.htm>

Learning with Technology

<http://www.kelley.iu.edu/isweb/techn/mindtool.htm>

Internet

Internet use by teachers

<http://www.crito.uci.edu/TLC/FINDINGS/Internet-use/>

E-rate / Connecting Kids and Communities to the Future

<http://www.edlinc.org/pubs/eraterreport.html>

The Web -- Teaching Zack to Think

<http://www.anovember.com/articles/zack.html>

Grazing the Net

<http://www.fno.org/text/grazing.html>

Why in the World Wide Web?

<http://www.fno.org/mar97/why.html>

The New Plagiarism: Seven Antidotes to Prevent Highway Robbery in an Electronic Age
<http://questioning.org/Q4/cov98may.html>

Working the Web for Education
<http://www.ozline.com/learning/theory.html>

Web 4 Teachers
<http://4teachers.org/>

Technology Integration

Building Integrated Technology Projects (Large link list)
<http://www.essdack.org/building/>

WebQuest

The WebQuest Page
<http://edweb.sdsu.edu/webquest/>

A WebQuest about WebQuests
<http://edweb.sdsu.edu/webquest/webquestwebquest-hs.html>

Digital Divide

Falling Through the Net: Defining the Digital Divide
<http://www.ntia.doc.gov/ntiahome/digitaldivide/>

PBS: Digital Divide
<http://www.pbs.org/digitaldivide/>

Tech-Savvy: Educating Girl's in the New Computer Age
<http://www.aauw.org/2000/techsavvy.html>

Why girls don't compute
<http://www.wired.com/news/culture/0,1284,35654,00.html>

Research

Teacher and Teacher-Directed Student Use of Computers and Software
<http://www.crito.uci.edu/TLC/findings/computeruse/>

Technology Support: Its Depth, Breadth and Impact in America's Schools
<http://www.crito.uci.edu/TLC/findings/technology-support/>

5 myths about Kids writing with computers
<http://familyeducation.com/article/0,1120,1-260,00.html>

Can Computers Teach Kids a Foreign Language?
<http://familyeducation.com/article/0,1120,24-285,00.html>

Children and Computer Technology
<http://www.futureofchildren.org/cct/index.htm>

EdTechNot.com

<http://www.edtechnot.com/index.html>

Center for Applied Research in Educational Technology

<http://caret.iste.org/index.cfm>

Implementing Technology in the School / Staff Development

Technology Connections for School Improvement

<http://www.ncrel.org/tplan/tplanB.htm>

Learning with Technology Profile Tool

<http://www.ncrtec.org/capacity/profile/profwww.htm>

Staff Development Super Site

<http://wizard.district125.k12.il.us/webmasters/cchausis/super.html>

Reaching the reluctant teacher

<http://www.fno.org/sum99/reluctant.html>

School Technology and Readiness

<http://ceoforum.org/reports.cfm?RID=4>

Interactive Teacher Preparation Star Chart

<http://ceoforum.org/questions.cfm>

Professional Development for Effective Technology Use

<http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te1000.htm>

Suggestions for Success--Online Professional Development

<http://www.att.com/learningnetwork/virtualacademy/success.html>

National Staff Development Council (Includes standards)

<http://www.nsd.org/>

Major publications

Technology Counts '99

<http://www.edweek.org/sreports/tc99/index.htm>

Leader's Guide to Educational Technology

http://www.edvancenet.org/ax/metacontent_fs.html?res*guide

Meridian: A Middle Schools Computer Technology Journal

<http://www.ncsu.edu/meridian/index.html>

From Now On: The Educational Technology Journal

<http://www.fno.org/>

Converge

<http://www.convergemag.com/>

Learning and Leading with Technology (ISTE)

<http://www.iste.org/>