

Curriculum Vita

Richard S. Croft

Associate Professor
Computer Science and Multimedia Studies
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EDUCATIONAL EXPERIENCE

- Ph.D.** 1995 Virginia Tech, Blacksburg, VA.
Major: Instructional Systems Development
Dissertation: Effect of attribute emphasis in photographic illustrations for concept-attainment by learners with varying levels of field-dependence.
- 1986–1989 Virginia Tech, Blacksburg, VA.
Major: Computer Science MS coursework.
Specializations in software engineering and artificial intelligence.
- B.S.** 1982 Virginia Tech, Blacksburg, VA.
Major: Forestry and Wildlife.
Florida State University (1979–1980).
- A.A.** 1977 Polk Community College, Winter Haven FL.

PROFESSIONAL EXPERIENCE

Teaching/Academic

- Sept. 2003—Present: **Associate Professor**, Computer science and multimedia. Eastern Oregon University, La Grande OR. Develop and teach undergraduate courses in computer science and multimedia development, both on campus and at distance. Supervise student practica and capstone projects. Engage in academic and community outreach. Conduct research and disseminate findings. Advise students.
- Sept. 2000—Sept. 2003 Assistant Professor, Computer science and multimedia. EOU.
- Aug. 1996—May 2000: **Assistant Professor**, Western Illinois University, Macomb, IL. Develop and teach undergraduate and graduate classes in design and development of interactive multimedia, use of internet resources, imaging technologies, instructional video and visual literacy; supervise masters' theses and projects; engage in scholarly inquiry and dialog; participate in service to the academic community and the community at large.
- Jan. 1995—July 1995: **Instructor**, Virginia Tech, Blacksburg, VA. Teach undergraduate course in educational psychology during Spring and Summer sessions.
- Jan. 1994—June 1994: **Instructor**, Virginia Tech, Blacksburg, VA. Teach undergraduate course in educational psychology.
- Aug. 1993—Aug. 1994: **Project Assistant**, Virginia Tech, Blacksburg, VA. Design and develop a computer-based instructional CD-ROM for identification of large numbers of tree species.

- Aug. 1992—Aug. 1993: **Graduate Assistant**, Virginia Tech, Blacksburg, VA.
Assist in operation of Education Technology Lab: install software, troubleshoot hardware and software problems, assist users of application software.
- Jan. 1989—June 1989: **Teaching Assistant**, Virginia Tech, Blacksburg, VA.
Consult with undergraduates in COBOL programming courses, grade assignments and tests.
- July 1987—Dec. 1988: **Instructor**, Virginia Tech, Blacksburg, VA.
Instruct undergraduate courses, with enrollment of 50–135 students, in COBOL programming.
- Jan. 1987—June 1987: **Teaching Assistant**, Virginia Tech, Blacksburg, VA.
Consult with undergraduates in COBOL programming courses, grade assignments and tests.
- Sep. 1986—Dec. 1986: **Instructor**, Virginia Tech, Blacksburg, VA.
Team development and teaching of undergraduate computer literacy course.
- Aug. 1982—July 1983: **High School Teacher**, Radford City Schools, Radford, VA.
Teach high school algebra, general math, and computer science classes.

Software Development & Graphics Design

- June 1994—Dec. 1996: **Instructional Software Design Consultant**, Blacksburg, VA. Design, program and maintain multimedia instructional packages for veterinary practice and forestry.
- Jan. 1996—June 1996: **Programmer**, VISIT Virginia Project, Virginia Tech.
Design and write programs to support queries to Worldwide Web based database of Virginia tourism information.
- Oct. 1995—June 1996: **Graphics Designer**, EOAA Office, Virginia Tech.
Prepare training presentations using Microsoft Powerpoint and Authorware; design posters and publication covers using Adobe Illustrator and Adobe Photoshop.
- Nov. 1989—July 1992: **Programmer/Analyst**, Hercules, Inc., Radford, VA.
Design and develop mainframe computer based interactive application software for use by medical, administrative, and safety personnel. Analyze user needs, design and program software systems, develop user manuals and train users. Evaluate commercial software packages.
- Aug. 1989—Nov. 1989: **Computer Services Manager**, CTC Distribution Services, Roanoke, VA.
Maintain computer database for parcel shipping, troubleshoot office and warehouse computer systems for parcel delivery.
- July 1983—July 1986: **Programmer/Analyst**, Hercules, Inc., Radford, VA.
Design and develop interactive application software to run on mainframe computer for use by administrative and medical personnel.

PUBLICATIONS

- Croft, R. (2001): Digital enhancement of photographic illustrations for concept learning in nature. In R. E. Griffin (Eds.), *Exploring the visual future: Art, design, science and technology*, 69–75). Blacksburg, VA: International Visual Literacy Association.
- Dascanio J., Shires P., Croft R., Thatcher C. & Lewis L. (1997). Multimedia computer case simulation program for teaching veterinary nutrition. *Journal of the American Veterinary Medical Association* 211 (11),1380–1384.
- Croft, R. (1995). (Review of *Authoring-systems software for computer-based training*, edited by Milheim, W. D.) *Educational Technology Research & Development* 43 (2), 81–83.
- Croft, R. & Burton, J. K. (1995). Toward a new theory for selecting instructional visuals. In D. G. Beauchamp, R. A. Braden & R. E. Griffin (Eds.), *Imagery and visual literacy*, Blacksburg, VA: International Visual Literacy Association.
- Croft, R. (1994). What is a computer in the classroom? A Deweyan philosophy for technology in education. *Journal of Educational Technology Systems* 22 (4), 301–308.
- Croft, R. (1994). Fun and games with photoshop: Using image editors to change photographic meaning. In R. A. Braden, J. Clark-Baca, & D. G. Beauchamp (Eds.), *Visual literacy in the digital age*, Blacksburg, VA: International Visual Literacy Association.
- Croft, R. (1993). Adapting software design methodologies for instructional design. *Educational Technology* 33 (8), 24–32.

PRODUCTS DEVELOPED

- 2010, 2009, 2007, 2004 T-shirt designs for Intel FIRST Lego League Local Robotics Tournament at Eastern Oregon University. Developed using *Adobe Photoshop*.
- 2004 Web-based portfolio template for Eastern Oregon Regional Arts Council.
- 1996 Graphic image for undergraduate recruitment poster for ITT department at Western Illinois University. Developed using *Adobe Photoshop*.
- 1996 Multimedia veterinary nutrition case simulator for the American Colleges of Veterinary Nutrition. Developed using *Authorware Professional*.
- 1995 Program cover for the Eighteenth Annual Conference of the Eastern Educational Research Association. Developed using *Adobe Photoshop*.
- 1994 Multimedia veterinary case simulator for the American Animal Hospital Association, Denver CO. Developed using *Authorware Professional*.
- 1994 Woody Plant Identification System for Virginia Tech School of Forestry. A hypermedia course supplement for dendrology class presenting 131 tree species. Developed using *Authorware Professional* and *Adobe Photoshop*.
- 1994 Program cover for the Seventeenth Annual Conference of the Eastern Educational Research Association. Developed using *Adobe Photoshop*.
- 1993 Logo and sign for *Vintage Cellar*, a gourmet wine and cheese shop located in Blacksburg, VA. Used *Ray Dream Designer* and *Adobe Photoshop*.

INVITED LECTURES AND PRESENTATIONS

- Croft, R. (2004). Creating an on-line portfolio using the EORAC Template. Presentation at annual meeting of the Eastern Oregon Regional Arts Council.
- Croft, R. (2002). A history of the internet, and how the World-Wide Web works. Presentation at La Grande Public Library.
- Croft, R. (2000). Is Multimedia an Academic Discipline? EOU School of Arts and Sciences Colloquium.
- Croft, R. (1998, 1999). Introduction to Interactive Multimedia. One-hour presentation given once each semester to undergraduate survey course at Western Illinois University.
- Croft, R. (1996, 1997, 1998, 1999, 2000). Interactive Multimedia and Hypermedia Development. One-hour presentation given once each semester to graduate "preseminar" course at Western Illinois University.
- Croft, R. (1996). Using Video Cameras in the Classroom. Introductory 2-day workshop presented to public school teachers at Western Illinois University.
- Croft, R. (1995, 1996). Preparing Digital Still Images for Multimedia. Three hour presentation for graduate course in hypermedia at Virginia Tech.
- Croft, R. (1994). Using Multimedia Instructional Tools to Teach Woody Plant Identification. Presentation for Botany seminar at Virginia Tech.
- Croft, R. (1993). Introduction to Authorware for Macintosh, parts one and two. Two three-hour presentations to graduate course in hypermedia at Virginia Tech.
- Croft, R. (1993). Scanning Images and using Adobe Photoshop. Three hour presentation for graduate course in hypermedia at Virginia Tech.
- Croft, R. and Hergert, T. (1993). Introduction to photographic and cinematographic exposure, composition, and lighting principles. Three hour presentation for graduate course in interactive video at Virginia Tech.

PAPERS PRESENTED AT CONFERENCES

- Croft, R. (2003). *Instructional imagery: Research in visual communication*. Panel presentation at the Oregon Rhetoric and Composition Conference, Ashland, OR.
- Croft, R. (2003). *Tracking "frozen" concepts: Mapping alternate conceptions*. Paper presented at the Eastern Educational Research Association Annual Conference, Hilton Head, SC.
- Croft, R. (2000). *Digital enhancement of photographic illustrations for concept learning in nature*. Paper presented at the International Visual Literacy Association Conference, Ames, IA.
- Croft, R., Taylor, A., Hopp, S., Joyce, K., & Kim, S. (2000). *Fun with interactive multimedia*. (Poster session) TechFest 2000. Western Illinois University, Macomb, Illinois.

- Croft, R. (2000). *Frozen concepts in math and science*. Paper presented at the Eastern Educational Research Association Annual Conference, Clearwater Beach, FL.
- Croft, R. (1998). *Withstanding paradigm shift: A postpositivist look at instructional design*. Paper presented at the Eastern Educational Research Association Annual Conference, Tampa, FL.
- Croft, R. (1997). *Getting the most for the least: Preparing photographs for the World-Wide Web*. Paper presented at the International Visual Literacy Association Conference, University Park, PA.
- Croft, R. (1997). *Application and misapplication of technology in schools*. Paper presented at the Eastern Educational Research Association Annual Conference, Hilton Head, SC.
- Von Minden, A., Haught, P., Walls, R. & Croft, R. (1997). *Retention of at-risk students: Mapping and control*. Paper presented at the Eastern Educational Research Association Annual Conference, Hilton Head, SC.
- Croft, R., (1996). *Attribute isolation in illustrations for concept-learning*. Paper presented at the Eastern Educational Research Association Annual Conference, Boston, MA.
- Croft, R., Erskine, L., Farmer, S., Hinn, M., Burton, J. (1996). *Scenario-based design of portfolio for WWW*. Paper presented at the Eastern Educational Research Association Annual Conference, Boston, MA..
- Croft, R. (1995). *Hypermedia medical simulations for veterinary practice*. Paper presented at the International Visual Literacy Association Conference, Chicago, IL.
- Croft, R. (1995). *Accommodation gone awry: Functional fixedness, set and "frozen" concepts*. Paper presented at the Eastern Educational Research Association Annual Conference, Hilton Head, SC.
- Croft, R. & Burton, J. K. (1994). *Toward a new theory for selecting instructional visuals*. Paper presented at the International Visual Literacy Association Annual Conference, Tempe AZ.
- Croft, R. (1994). *Using digital image editing to enhance instructional illustrations*. Paper presented at the Eastern Educational Research Association Annual Conference, Sarasota, FL.
- Croft, R. (1993). *Fun and games with photoshop: Using image editors to change photographic meaning*. Paper presented at the International Visual Literacy Association Annual Conference, Rochester, NY.
- Croft, R. (1993). *Interdisciplinary convergence: Adapting tools for instructional design*. Paper presented at the Eastern Educational Research Association Annual Conference, Clearwater Beach, FL.

CHAIR/DISCUSSANT

Discussant, session of Cognitive Psychology at the annual meeting of the Eastern Educational Research Association, 1998.

Chair, session of Distance Learning at the annual meeting of the Eastern Educational Research Association, 1998.

Discussant, session of Special Populations at the annual meeting of the Eastern Educational Research Association, 1997.

Discussant, session of Education, Clinical, and Policy Implications at the annual meeting of the Eastern Educational Research Association, 1996.

Discussant, session of Educational Psychology: Simulations at the annual meeting of the Eastern Educational Research Association, 1996.

Chair & Discussant, session of Issues in Teaching at the annual meeting of the Eastern Educational Research Association, 1996.

Discussant, session of Cognitive Processing Capacity at the annual meeting of the Eastern Educational Research Association, 1995.

Chair, session of Physical Education by Television at the annual meeting of the Eastern Educational Research Association, 1995.

Chair, session of Cognition at the annual meeting of the Eastern Educational Research Association, 1994.

Chair & Discussant, session of Promoting Improved Writing Skills Among High School and College Students at the annual meeting of the Eastern Educational Research Association, 1994.

Chair, session of Computers in the College Classroom at the annual meeting of the Eastern Educational Research Association, 1993.

CURRENT RESEARCH INTERESTS

Integration of software engineering methodologies, psychological theory, and instructional design methods to improve multimedia educational tools.

Development of theory for selecting and digitally modifying instructional media for education and training applications.

Application of concept attainment theory to design choices in computer-based instruction, particularly as related to image modification.

Development of a learning model that integrates psychological, physiological, and evolutionary theory.

Factors involved in conversion of higher education courses from conventional to internet delivery.

ANCILLARY SKILLS

- Computer Languages: BASIC, Pascal, Java, Python, C, Lisp, Assembler, COBOL, HyperCard, Authorware, Director/Lingo, and Revolution.
- Photography/Videography: 35 mm, medium and large format still photography; studio lighting; digital image manipulation; video screen writing and programmed editing.
- Computer Graphics: Illustration using Adobe Illustrator, Carrara, Aldus Intellidraw, Ray Dream Designer, and Aldus Superpaint.

UNIVERSITY SERVICE

- Member, Communication/Journalism Search Committee (2010–2011)
- Member, EOU Industry Advisory Board
- Chair, Computer Science Search Committee (2009)
- Member, Faculty Senate (2008–2010)
- Member, College Personnel Committee (2008–2010)
- Chair, Computer Science Search Committee (2007)
- Member, Art Search Committee (2005)
- Member, Multimedia/Media Arts Search Committee (2005)
- Member, Media Arts Committee (2005–present)
- EOU General Education Review Committee (2004)
- EOU Educational Policy and Curriculum Committee (2004–2006)
- Member, Art Search Committee (2003)
- EOU General Education Committee (2002–2003)
- EOU Financial Aid Committee (2002–2003)
- School of Arts & Sciences Strategic Planning Committee (2002)
- Chair, CS Search Committee (2002)
- Chair, MM Search Committee (2002)
- Member, CS Search Committee (2001)
- CS/MM Discipline Representative (2001–2003; 2004 to present)
- Chair, Dean's Ad Hoc Committee for Lab Maintenance and Security (2000–2005)
- Honors Advisor for Instructional Technology and Telecommunications Dept (WIU)
- University Honors Council, WIU (2000)
- Chair, College of Education and Human Services Service Committee, WIU (1996–1998).
- College of Education and Human Services Service Committee, WIU (1996–2000).
- Chair, ITT Department Grade Appeals Committee, WIU (1996–2000).
- ITT Department Graduate Curriculum and Affairs Committee (2000)
- ITT Department Undergraduate Curriculum Committee (1997–2000)
- ITT Department Assessment Committee.
- Alternate, ITT Department Personnel Committee (1998–2000).

COMMUNITY SERVICE

Girls in Science Planning Committee (2005-present)
Girls in Science Curriculum Developer (2005-present)
Oregon Writing Project at Eastern Steering Committee (2005–6, 2009–11)
Director, Eastern Oregon Robotics Tournament (2004–present)
Group Leader, EOU Girls in Science Day (2003, 2004)
Presenter, Web History and Development, La Grande Public Library (2002)
President, RAAP (Radford Army Ammunition Plant) Toastmasters, 1992.
Programming Vice President, RAAP Toastmasters, 1991.
Chair, RovaCon Program Committee, 1988–1989. (RovaCon was an annual media convention which sponsored several scholarships from 1973 to 1990.)
Chair, RovaCon Scholarships Committee, 1987.
Youth Coordinator, Blacksburg Christian Church, 1984.
President, VPI Cave Club, 1981–1982.
Treasurer, VPI Cave Club, 1978.

COURSES TAUGHT

Graduate

ITT 516: Internet Resources for Education and Training (WIU)
ITT 537: Instructional Video Development (WIU)
ITT 538: Imaging Technology (WIU)
ITT 540: Interactive Multimedia Development (WIU)
ITT 541: Advanced Interactive Multimedia (WIU)
ITT 560: Visual Literacy (WIU)

Undergraduate

CS 121 Introduction to Software Development
CS 161, 2: Foundations of Computer Science I, II (EOU)
CS 210: Procedural Programming (EOU)
CS 244: Systems Analysis (EOU)
CS 260: Data Structures (EOU)
CS 321: Computing Theory (EOU)
MM 225: Introduction to Multimedia Development (EOU)
MM 315: Multimedia Design (EOU)
MM 319: Multimedia Programming (EOU)
MM 327: Introduction to Computer Graphics Applications (EOU)
MM 350: Multimedia Theory (EOU)
MM 360: 3-D Graphics and Animation (EOU)
MM 362: Screenwriting and Storyboarding for Video (EOU)
MM 364: Video Production (EOU)
MM 460: Advanced 3-D Graphics and Animation (EOU)
MM 419: Advanced Multimedia Programming (EOU)
MM 420: Multimedia Simulation (EOU)
ITT 205: Computing for Instructional Trainers (WIU)
ITT 230: Introduction to Interactive Applications (WIU)
ITT 273: Microcomputers and Technology in Education (WIU)
ITT 360: Analog Instructional Video (WIU)
ITT 370: Introduction to Interactive Multimedia and Hypermedia (WIU)
ITT 445: Advanced Interactive Multimedia (WIU)
ITT 480: Web-based Instruction (WIU)
EDCI 3054: Psychological Foundations of Education (VPI & SU)
CS 2030: Computing for Business (COBOL Programming) (VPI & SU)
CS 1000: Computer Literacy (VPI & SU)

ACADEMIC HONORS

- 1992–1995: Virginia Tech Instructional Fee Scholarship.
1987: Upsilon Pi Upsilon (Computer Science Honor Society).
1982: *Magna cum laude* graduate from Virginia Tech honors program.
1982: Xi Sigma Pi (Forestry Honor Society)
1981: Phi Kappa Phi (Honor Society).
1981: Patrick Henry Public Speaking Award (Virginia Tech speaking competition).
1977: Merit Scholar.
1976: Phi Theta Kappa (Community College Honor Society).

ACTING & THEATER

Magic Consultant for *Pippin* (2007)

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| Stage | <i>Macbeth</i> : | Siward, Earl of Northumberland (2008) |
| | <i>As You Like It</i> : | Duke Senior (2007) |
| | <i>Wit</i> : | Dr. Harvey Kelekian & Mr. Bearing (2003) |
| | <i>A Flea in her Ear</i> : | Herr Schwarz (2002) |
| | <i>A Winter's Tale</i> : | Old Shepherd (2001) |
| Film | <i>Owen Story</i> : | Man at Table 21 (2003) |