

Bill Ferster

34313 Welbourne Road | Middleburg, VA 20117
540-592-7001 | 509-694-0435 fax
bferster@virginia.edu

Academic Preparation

PhD in Education, University of Virginia, 2006
BFA in Design, George Washington University, 1979

Professional Experience

Senior Scientist, University of Virginia 2006-present

Joint faculty appointment at the Center for Technology and Teacher Education in the Curry School and the College of Arts and Sciences. Directed the *PrimaryAccess* project (www.primaryaccess.org), which enables K-12 students to create digital documentaries.

Director of the *VisualEyes* project (www.viseyes.org) at the Science, Humanities, and Arts Network Technology Initiative (SHANTI). Directed the *HistoryBrowser* project for the Virginia Center for Digital History. Taught undergraduate classes in history, religious studies, and architecture departments.

Founder, StageTools 1996-present

Developer of *MovingPicture*, a software tool used by all the major television networks, and a number of corporate and documentary film producers to create motion on still images, à la Ken Burns: (www.stagetools.com).

General Manager Editing Products, Dynatech Video Group 1994-1996

Transitional role in following EMC acquisition.

Founder, Editing Machines Corporation (EMC) 1988-1994

Founded EMC in July 1988 to develop and manufacture the first digital nonlinear video editing system for the film/video industry. EMC reached \$4.5M in revenues and won an *EMMY award for Outstanding Technical Achievement* in 1993.

Director Product Strategy, Pansophic Systems 1987-1988

Transitional role following the acquisition of *West End Film*.

Founder, West End Film 1980-1987

Designed and manufactured the first PC-based Oxberry motion control system, *The Cameraman*. Designed and marketed a series of software packages for computer animation and design; *Artwork*, *Brushwork*, *Chartwork*, *Pagework* and *VideoWork*.

Broadcast Graphic Artist, ABC News 1979

Produced on-air graphics for use on the *Good Morning America* and the *ABC Evening News* programs from the Washington, DC bureau.

Film Preservationist, US National Archives and Record Service 1977

Restored historic footage from volatile nitrate to cellulous formats.

Selected Publications

- Ferster, B. (in press). *Interactive visualization: Insight through inquiry*. Cambridge, MA: MIT Press.
- Ferster, B., Hammond, T., Alexander, C., & Lyman, H., (in press). Automated Formative Assessment as a Tool to Scaffold Student Documentary Writing. *Journal of Interactive Learning Research*.
- Fanning, E, Bunch, J., Brighton, C., & Ferster, B. (2011). Innovations in Education and Entertainment Settings: A Quest for Convergence. *International Journal of E-Learning* 10(2).
- Bull, G., Alexander, C., & Ferster B., (2009) "The Connected Classroom: Finding students who learn with Media" *Leading and Learning With Technology*, 37(5).
- Hammond, T., & Ferster, B. (2009). Student-created digital historical narratives in the classroom: research designs and methods. In Lee, J., & Friedman, A. (Eds.), *Research in social studies and technology*. Greenwich, CT: Information Age Press.
- Bull, G., Hammond, T., & Ferster, B., (2008). Developing Web 2.0 Tools for Support of Historical Inquiry in Social Studies, *Computers in the School*, 3(4), 275-287.
- Ferster, B. (2007). History Lesson: Making Documentaries for Students on the Internet, *Aim Home School Magazine*, 1(1), 38-41.
- Ferster, B., Hammond, T. & Bull, G. (2006). PrimaryAccess: Creating Digital Documentaries in the Social Studies Classroom, *Social Education*, 21(2)
- Bull, G., Ferster B., (2006) "Ubiquitous Computing in a Web 2.0 World." *Leading and Learning With Technology*, 33(4), 9-11.
- Ferster, B. & Steckroth, J. (2004). CameraScope: A tool for digital visualization for science and mathematics classrooms. *School Science and Mathematics*, 104(7).
- Ferster, B. (1998). Idea Editing: Previsualization for Feature Films, *POST*, April.
- Ferster, B. (1997). RC: Reconfigurable Computing, *AV Video*, September.
- Ferster, B. (1996). High Definition Digital Television is coming: Whether you want it or not, *Videography*, November.

Teaching Experience

Digital Humanities (2011) Undergraduate seminar class of 1st yrs explore visualization 1895 UVa Rotunda/USEMS_Spring_2011.html)

Cultural Landscapes (2010). Undergraduate/graduate seminar to explore digital cultural landscape reports about the Morven Farm, taught with landscape architect Ethan Carr.

Digital Humanities (2010) Undergraduate seminar class of 1st yrs explore visualization of the books in the 1828 UVa library, taught with religious studies professor Kurtis Schaeffer. (www.virginia.edu/provost/USEMS_Spring_2010.html)

Visualizing Vinegar Hill (2008-2010) Undergraduate seminar class of 4th year history majors to create visualization an African American neighborhood razed for urban renewal in the 1960's, taught with history professor Scot French. (www.viseyes.org/show?base=vh)

Jefferson's Travels (2008-2009) Undergraduate seminar class of 4th year history majors to create visualization Thomas Jefferson's 1786 travels in England, taught with history professor Scot French and Monticello Foundation. (www.viseyes.org/show?base=jt)

Presentations

NPR Kojo Nnamdi Show:

Washington, DC, January 2011

Exploring the Digital Humanities

With Bret Bobbley/NEH and Dan Cohen/GMU

edUI Conference:

Charlottesville, VA, November 2010

Visualization in Education

MIT HyperStudio: Visual Interpretations

Cambridge, MA, May 2010

Visualization 101- Escape from Etudes

Center for Educational Technology

Cape Town, SA March 2010

University of Cape Town

Teaching Historical Visualization

National Council on Social Studies Conference

Atlanta, GA, November 2009

Building History in the College Classroom: Thomas Jefferson's Travels

With Thomas Hammond

Digital Tools for Information and Democracy Conference

Monticello VA, November 2009

Jefferson Institute

Using Primary Source Documents in Digital Narratives

Digital History Workshop

Nashville TN, September 2009

Gore Research Center and Middle Tennessee State University

Historical Visualization

Seminar on Innovative Approaches to Turn Statistics into Knowledge

Washington DC, July 2009
OECD, World Bank, and United States Census Bureau
Data-Oriented Digital History Tools

Library of Virginia: Going to the Source Conference
Richmond VA, June, 2009
PrimaryAccess Workshop

Library of Congress / Fairfield University & Museum
Fairfield CT, May 2009
Teaching with Primary Source

American Association for History and Computing
Fairfax VA, April 2009
Advancing Digital History Tools and Scholarship in the Classroom

New Directions in Digital Humanities Scholarship / CLIR
Urbana-Champaign IL, February 2009
Jefferson's Travels

Visualizing the Past / NEH
Richmond VA, February, 2009
The Emancipation of Data: A call to action

Museum Computer Network Conference
Washington DC, November, 2008
Emergent Course Design: Univ. & Museum Partnerships for Student-Generated Content

Virginia Association of Independent Schools Conference
Richmond VA, November, 2008
Digital Storytelling with PrimaryAccess

Educational Testing Service (ETS)
Princeton NJ, September 2008
Invited talk: *Formative Assessment using Automated Essay Scoring*

EDUCAUSE Learning Initiative
Raleigh NC, March 2008
Digital Documentaries with PrimaryAccess

National Educational Computing Conference
Atlanta GA, June 2007
Workshop: *PrimaryAccess: Creating Digital Documentaries in the Social Studies Classroom* with Glen Bull and Thomas Hammond

Society for Information Technology and Teacher Education
Orlando FL, March 2006
17th Annual Conference
Symposium: *Digital History in Social Studies Teacher Education*
Workshop: *Digital Storytelling*

Multimedia Educativo Congresso V

Barcelona Spain, July 2005
University of Barcelona
The PrimaryAccess Initiative for Digital Historical Narratives

National Educational Computing Conference
New Orleans LA, June 2004
Digital Cameras and Digital Images in the Science Classroom

Society for Information Technology and Teacher Education
Atlanta, GA March 2004
15th Annual Conference
Digital Imaging in the Science Classroom with Randy Bell

Symposium on Public-Private Partnerships in Technology Education
Hamilton Bermuda, January 2004
International Education Collaborative Foundation
Capturing Authentic Learning

Pratt Institute Digital Imaging Conference
New York NY, March 1987
Pratt Institute of Art
PC-based Computer Graphics and Animation

Papers Presented at Conferences

Society for Information Technology and Teacher Education
San Diego, CA, March 2010
Expanding the Role of VisualEyes: Developing STEM Content for an XML-Based Online Interactive Spatial and Temporal Events Browser
With Daniel Tillman

National Educational Computing Conference
Washington DC, June 2009
Showing, Inquiring, and Doing History: Thinking Deeply with Web-based Tools
With Thomas Hammond

Society for Information Technology and Teacher Education
Charleston, SC, March 2009
Automated Formative Assessment as a Tool to Scaffold Script Writing in PrimaryAccess
With Curby Alexander

IOE Doctoral Summer Conference
London, England, June 2005
University of London Institute of Education
Using Primary Source Documents in Digital Historical Narratives

Grants (PI / co-PI)

PrimarySourceLearning (Library of Congress) 2008. \$122,000

National Endowment for the Humanities 2008. \$49,931
Smithsonian Institution 2008. \$10,000
J.B. DuPont Foundation. 2007-2008. \$154,700.
Adventures of the American Mind (Library of Congress) 2007. \$116,370
Northern Virginia Community College 2007. \$14,000.

Professional Memberships

International Society for Technology in Education (ISTE)
Society for Information Technology and Teacher Education (SITE)
Association for Computing Machinery (ACM)
Association for Computers & the Humanities (ACH)

Honors and Awards

Best 25 Educational Web sites 2009

American Library Association
Awarded to PrimaryAccess, as one of the best 25 educational web sites by the
American Association of School Libraries.

Jerry Price Innovative Technology Award 2008

Society for Information Technology and Teacher Education
Awarded to recognize an individual who has contributed a significant innovation
or advance to the practice of education

EDLF Dissertation Award 2006

Curry School of Education, University of Virginia
Awarded for the doctoral dissertation of highest theoretical, methodological, and
analytic quality.

Emmy Award 1993

National Academy of Television Arts and Sciences
1993 Emmy award for “*Outstanding Technical Achievement*” in pioneering the
nonlinear editing process.

Art Directors of Washington 1978

First Place – Graphics / Second Place - Advertising

Patents

US Patent Number 5,559,562 1996

MPEG EDITOR METHOD AND APPARATUS
A seminal patent for real-time editing and mixing of MPEG encoded video
streams, licensed by a number of leading manufacturers worldwide.