Professor Donna J. Cox, MFA, PhD

Professor in the School of Art and Design,
Director Advanced Visualization Lab (AVL)
Culture & Society Theme and Illinois eDream Institute
National Center for Supercomputing Applications (NCSA)
University of Illinois at Urbana-Champaign

4/08 … Present	Michael Aiken Chair
8/06 … Present	Director, Advanced Visualization Laboratory http://avl.ncsa.uiuc.edu
1/09 … Present	Director, eDream Institute http://edream.ncsa.illinois.edu/
8/92 ... Present	Professor, School of Art & Design
8/90 ... 8/99	Associate Director for Technologies, School of Art & Design
8/90 ... 8/92	Associate Professor, School of Art & Design
8/89 ... 3/92	Associate Director for Education, NCSA
1/89 ... 8/96	Project Leader/PI, Renaissance Experimental Lab
1990	University Scholars Award and Grant, Office of the President, UI
8/85 ... 8/88	Assistant Professor
12/08	PhD, Computing and Communications, University of Plymouth, UK
8/85	Master of Fine Arts in CGA, University of Wisconsin-Madison
8/82	Bachelor of Art University of Wisconsin-Madison

Selected Recognitions and Achievements

- *IMERSA international Lifetime Achievement Award 2017,* Feb 2017 https://www.imersa.org/summit-2017
- *University of Illinois Innovation Transfer Award* presented by UI Provost Cangellaris, Innovation Celebration, 3/29/18, for research potential for significant societal impact.
- First Place Winner, SC17 Data Analytics and Visualization Showcase, Dr. Donna J.Cox and AVL
- *Hubble3D* 2010 Giant Screen Cinema Awards, Best Film, Best Cinematography, Best Life-long learning major contributor to cinematic presentations of astrophysics.
- Named by Chicago Museum of Science and Industry as one of 40 Modern-Day Leonardo' http://www.news.uiuc.edu/news/06/0413leonardo.html
- Databasing the Brain: Data to Knowledge (Neuroinformatics), winner for the Best New Professional and Scholarly Publishing division (PSP) of the American Association of Publishers, February 7, 2006
- Finalist World Technology Summit Award 2005 http://www.wtn.net/2005/summit/finalists.html
- DomeFest 2005 and 2008 fulldome awards
- SIGGRAPH Electronic Theater 2005, Visualization of F3 Tornado, one of 60 out of 800 entries
- 2005 SIGGRAPH Emerging Technologies Chair http://www.siggraph.org/s2005/main.php?f=cfp&p=etech
- SC 2003 keynote speaker, 3000 attendees, Phoenix, AZ https://dl.acm.org/citation.cfm?id=1048935 2002 Golden Camera, International Film and Video Festival, "Runaway Universe", HDTV NOVA/WGBH, Producer and Art Director for Scientific Visualizations
- Appointed Editorial Advisor and member of the editorial board for Leonardo Journal of the International Society for the Arts, Sciences and Technology, January 1999-present
- Elected as a voting council member University Corporation for Advanced Internet Development (UCAID) Applications Strategic Council, Internet 2 Commission 1998-2003
- Patent No. 6,154,723,November 28, 2000: Virtual Reality 3D Interface System for Data Creation, Viewing and Editing, D.J Cox, R Patterson, M. Thiebaux, Ref. T96137, December 5, 1997
- Nominated for 1997 Academy Award in documentary short subject, "Cosmic Voyage" IMAX film, premiered August 1996. http://access.ncsa.uiuc.edu/Stories/97Stories/CosmicAward.html
- NICOGRAPH, 1st Prize Art and Entertainment, CGI Category1990, 1988, 1987; Tokyo, Japan.
- Elected to the Board of Directors ACM SIGGRAPH August 89-92
- Coler-Maxwell Medal for Excellence 1989, Leonardo, International Society in Arts Science and Technology for research article.

ABBREVIATED BIOGRAPHY:

Cox received the international Coler-Maxwell Award for Excellence granted by the Leonardo International Society in Arts Science and Technology for her seminal paper founding the concept of "Renaissance Teams," interdisciplinary groups of experts collaborating to solve visualization challenges. As an artist, she collaborates with scientists and technologists to create cinematic presentations of scientific data and concepts. She has created a large body of work and converged art and science through the cinematic presentation of scientific numerical data. Cox has published on the art of visualization, information design, and cultural theory and coined the term "Visaphors" to describe digital data visual metaphors, synthesizing concepts in art practice and the philosophy of science.

Cox is a recognized international keynote speaker on the convergence of art and science through data visualizations. She has addressed a wide variety of audiences in France, Australia, New Zealand, Brazil, Finland, Japan, Switzerland, Spain, Austria, UK, and Italy. Inviting institutions include MIT, Princeton, ATR, Eli Lilly, and the National Library of Medicine. Her collaborative work has been cited, reviewed, or published in hundred's of publications including Newsweek, TIME, National Geographic, Wall Street Journal, New York Times, The Chronicle of Higher Education, and Discover magazine.

She and her collaborators have thrilled millions of people through compelling virtual tours in IMAX movies, digital fulldome productions, interactive exhibitions, and high-definition television broadcasts. She was Associate Producer for Scientific Visualization and Art Director for the Pixar/NCSA segment of the IMAX film, "Cosmic Voyage," nominated for 1997 Academy Award in documentary short subject category. She and her Advanced Visualization Lab (AVL) team created virtual flight through Hubble data that comprised a significant portion of the "Hubble 3D" IMAX film that premiered at Smithsonian's National Air and Space Museum, March 2010. The film won three Giant Screen Awards for best film, best life-long learning, and best cinematography; over 8.7 million attendees have experienced the Hubble3D. She and AVL contributed the opening and closing shots for *A Beautiful Planet* IMAX 3D movie 2016 narrated by Jennifer Lawrence.

She has collaborated with numerous digital fulldome planetaria including the California Academy of Science, San Francisco, and American Museum of Natural History, NYC. She co-produced "Black Holes: the otherside of infinity" in collaboration with Thomas Lucas Productions and Denver Museum of Nature and Science. She uses best art and design practices to direct and co-produce content for original museum shows including the recent fulldome "Dynamic Earth" at the Denver Museum of Nature and Science. Both of these titles have become outstanding successes in the planetarium community.

She's the Principal Investigator of the National Science Foundation grant CADENS (the Centrality of Digitally ENabled Science) that has supported two fulldome shows and many television documentary digital films including "Solar Superstorms" fulldome documentary narrated by Benedict Cumberbatch, "Seeing the Beginning of Time" and numerous documentary shorts.

Cox exhibits scientific animations in international exhibitions, festivals, and performances, including shows at the Arts in the Academy, a program of the National Academy of Sciences, Washington D.C. She also collaborates with performance artists to bring digital visuals and interactive graphics to the interactive stage. Over the years, Cox has appeared in numerous television programs and was featured in the National Library of Medicine's exhibit, "The Once and Future Web." One of her most famous collaborative works is the first visualization of the NSFnet, co-created with Bob Patterson. It has become an icon of the early Internet and is reproduced in many of texts, articles and broadcasts. Cox, Patterson and Marcus Thiebaux hold a U.S. patent for a "Virtual Reality 3D Interface System for Data Creation, Viewing and Editing" system that her team employs to create movies. She is the co-Principal or Principle Investigator on a variety of research grants and creative commissions. Cox has also served on many research boards and advisory councils including the National Research Council, as a juror for the NSF Visualization Challenge juror and held various Chairs and Directorships at ACM SIGGRAPH.

She was honored by the Chicago Museum of Science and Industry as one of 40 the "modern-day Leonardos" and exhibited her digital collaborative works in the *Leonardo da Vinci: Man, Inventor, Genius* exhibition. In 2017, the *IMERSA (Immersive Entertainment Research Science Art) Summit* and organization for the fulldome museum community awarded Cox with the Lifetime Achievement Award for the positive and profound influence on the immersive media community and for public outreach projects in data-driven visualization. She is lead co-Editor and contributor of *New Media Futures: The Rise of Women in the Digital Arts* (published June 2018).
https://news.illinois.edu/blog/view/6367/466948