

Professor William Seaman, Ph.D.

Computational Media, Arts and Cultures; Media Researcher and Artist; Co-director Emergence Lab

Professor, Department of Art, Art History & Visual Studies; and Music; Duke University

bill.seaman@duke.edu; <http://billseaman.com>; <https://scholars.duke.edu/person/bill.seaman>

- 1999 Ph.D. — CAiiA, Centre for Advanced Inquiry in the Interactive Arts, University of Wales, Newport, Wales; Dissertation Title: Recombinant Poetics: Emergent Meaning as Examined and Explored Within a Specific Generative Virtual Environment
- 1985 Master of Science, Visual Studies  
Massachusetts Institute of Technology, Cambridge, Massachusetts

Biosketch:

Dr. Seaman is a media artist and a media researcher. He is pioneer in the field of interactive media. In particular, his PhD (1999) explored emergent meaning production in a specific generative virtual environment. This research focused on new forms of highly complex interactive computation and related articulated visualization. He began collaborating from the mid 1980s with media computer scientists / programmers, articulating new experimental forms of interactive media production. He has collaborated on a number of Art/Science publications and projects. Last year he was awarded a lifetime achievement award from ACM SIGGRAPH for his pioneering work in “Recombinant Poetics / Recombinant Informatics / Neosentience.”

TEACHING

- 2008-Present Professor (Tenured), Art, Art History, & Visual Studies, Duke University
- 2002-08 Professor, Founding Chair, Digital+Media Department and Graduate Program Director, RISD, Providence, R.I.,
- 1999-02 Professor (Tenured), Department of Design I Media Arts, UCLA, L.A., Cal.
- 1996–99 Associate Professor (Tenured) and Director of Graduate Program, Imaging and Digital Arts, University of Maryland, Baltimore County Baltimore, Maryland
- 1992–95 Senior Lecturer (Tenured) and 4D Area Head 93/94, Media Art  
College of Fine Arts, University of New South Wales, Sydney, Australia
- 1991 Senior Lecturer, Advanced Video  
The College of Fine Arts, University of New South Wales, Sydney, Australia
- 1987 Lecturer, Film and Video - Massachusetts Institute of Technology Cambridge, Massachusetts
- 1986–87 Lecturer, Visible Language and Sound—Visible Language Workshop. MIT Cambridge, MA

MAJOR WORKS

- 2022 The Engine of Many Senses, in the Group Show - Computational Poetics, Beall Center curated by Higgins/Familian, Irvine, CA  
Book - From the Architecture of Ideas: The Life and Work of Ranulph Glanville — Cybernetician, Edited by Seaman, Imprint Academic, UK  
Book - Chaos, Information, and Future Physics, The Seaman-Rossler Dialogue, with Information Annotations by Mark Burgin, Edited by Bill Seaman, World Scientific, (forthcoming)  
Encyclopedia Chapter, Interactive Art, Bloomsbury  
Chapter - The Insight Engine 2.0: the Body and Biomimetic Systems as Intelligent Environments, Professor Bill Seaman, PhD, with Quran Karriem, Dev Seth, Hojung Ashley Kwon, and John Herr. in Intelligent Environments, 2nd Edition - Advanced Systems for a Healthy Planet, . Peter Droege, Editor, Elsevier Press, forthcoming  
Overview: Neosentience, Biomimetics, and Insight Engine 2.0 Presented at the Conference on Theoretical and Foundational Problems in Information Studies  
Neosentience: Research Areas and Insight Engine 2.0 Foci, Presented at the Conference on Theoretical and Foundational Problems in Information Studies

## MAJOR WORKS

2021 B3 Show - in conjunction with Frankfurt Book Fair, Silo Solos 2, Sentient R\_Map (Room I Region I Relations, Unfolding), Video, Music, Text, Seaman  
 ADA - Archive of Digital Arts, Featured Artist, Seaman Archive and Interview, Danube University Krems, Austria  
 Special Session Organizer for Theoretical and Foundational Problems (TFP) in Information Studies, conference: Neosentience, Biomimetics and the Insight Engine 2.0

## COMMISSIONS

2018 The Oper& with John Supko, Experimental Generative Opera, Mary Duke Biddle Foundation & the Office of the Vice Provost for the Arts, Duke  
 2010 Exchange Fields (Digital Remake), Collaboration with Regina Van Berkel, ISEA, Dortmund, Germany  
 2008 The Architecture of Association, (Collaboration with Daniel Howe), MIS Museum, Sao Paulo. Brazil  
 2001 Inversion Tanz Performance Köln, Collaboration with Regina van Berkel, Premiered 2001, Cologne, Germany  
 2000 Exchange Fields Vision Ruhr, Collaboration with Regina Van Berkel, Premiered 2000, Dortmund, Germany  
 2000 Red Dice / Dés Chiffrés National Gallery of Canada, Premiered 2000 Ottawa, Canada  
 1995–96 Sleeper's Guts Frankfurt Ballet, Video and Set Design, William Forsythe, Frankfurt, Germany

## SOLO EXHIBITIONS

2023 Digital Photo Works, Experimental Drawings and Related Video – a print and experimental drawing retrospective, The Rubenstein Art Building, (forthcoming), Duke (including building-wide exhibition and site specific installation) Durham, NC  
 2018 Suspended Sentence, Solo Show UMASS Dartmouth Gallery, Dartmouth, MA  
 2017 Solo Concert, University of Vienna, Vienna, Austria  
 Solo Concert, University of Montreal, Montreal Quebec, Canada  
 Generative Music Engines, University of Montreal, Montreal Quebec, Canada  
 Engine of Many Senses Installation, Museum Quarter Gallery, Vienna Austria  
 2005 The ThoughtbodyEnvironment 1, Boston Cyberarts, Cambridge, MA  
 2004 Exchange Fields - List Gallery, Brown University, Providence, RI

## PUBLICATIONS

2022 Overview: Neosentience, Biomimetics, and Insight Engine 2.0. Proceedings 2022, 81, 89. <https://doi.org/10.3390/proceedings2022081089>  
 Neosentience: Research Areas and Insight Engine 2.0 Foci. Proceedings 2022, 81, 14. <https://doi.org/10.3390/proceedings2022081014>  
 From The Architecture of Ideas — The Life and Work of Ranulph Glanville, Cybernetician, Imprint Academic, UK (book)  
 Interactive Art, Encyclopaedia Chapter (forthcoming)  
 2020 Neosentience, long paper for Sentience - ISEA Online Proceedings 2020,  
 Design Cybernetics, Book Review for Cybernetics and Human Knowing

- 2020 Machinic Vision in the Neosentient is Potentially Associated With via Multimodal Sensing, in Ways of Machine Seeing, a special edition of AI & Society journal by Springer  
At the Interface - Multimodal Sensing and Intelligent Learning Systems -The Dynamic Transformation of the Cityscape, and Its Ongoing Study—  
In Digital Cities, Between History and Archaeology, Edited by Maurizio Forte and Helena Murteira, Oxford University Press
- 2018 Towards a Dynamic Heterarchical Ecology of Conversations in the Journal Cybernetics and Human Knowing. Vol. 25 (2018), no. 1, pp. 91–108  
Roy Ascott – Early Interactive Work and some Cybernetic Relationalities - Cybernetics and Human Knowing. Vol. 25 (2018), nos. 2-3,
- 2014 A Many-perspective Approach to Knowledge Production, ASC Conference Proceeding From Neosentience to Recombinant Informatics, A Research Overview, in Computer Science, Technology, and Application
- 2013 Computational Creativity - A Multi-perspective Approach, Keynote - RE-new Festival - Copenhagen  
Inventions and Recombinant Poetry, Bill Seaman and O. E. Rössler, in Ecologies of Invention, SU Press, Sydney Australia
- 2012 Neosentience - The Abstraction of Abstraction, EMSCR Proceedings, European Meetings on Cybernetics and Systems Research (forthcoming) organized by the Austrian Society for Cybernetic Studies in cooperation with the International Federation for Systems Research  
The Engine of Engines - Toward a Computational Ecology, in Integral Biomathics, Tracing the Road to Reality  
Plamen L. Simeonov, Leslie S. Smith, Andrée C. Ehresmann (Eds.)
- 2011 Neosentience I The Benevolence Engine, with Otto Rössler, Intellect Press (book)
- 2010 Recombinant Poetics, VDM Press, isbn-10 3639236513, isbn-13 978-3639236514  
(Re)Thinking — the body, generative tools and computational articulation, Technoetic Arts: A Journal Of Speculative Research, Volume 7, Issue 3
- 2009 OULIPO I vs I Recombinant Poetics (excerpt) Art & Electronic Media, edited by Ed Shanken, Phaidon Press (See also Leonardo Below)  
Combinatoric Micro-strategies for Emergent Transdisciplinary Education, in Rethinking the Contemporary Art School: The Artist, The Academy, The Ph.D. (NSCAD) 2008  
Neosentience – A New Branch of Scientific and Poetic Inquiry Related to Artificial Intelligence, Bill Seaman and Otto Rossler, Technoetic Arts Volume 6, Issue 1, March 2008  
Unpacking Simultaneity for Differing Observer Perspectives and Qualities of Environment in “Simultaneity” edited by S. Vrobel, O.E. Rossler, T. Marks-Tarlow, World Scientific  
A Generative Emergent Approach to Graduate Education, in M. Alexenberg, Educating Artists for the Future, Learning at the Intersections of Art, Science, Technology, and Culture
- 2007 Recombinant Poetics in Media Poetry, an International Anthology, edited by Eduardo Kac, Intellect  
Recombinant Poetics and Related Database Aesthetics, in Database Aesthetics, edited by Victoria Vesna, University of Minnesota Press  
Pattern Flows I Hybrid Accretive Processes Informing Identity Construction, Convergence Magazine  
Convergence: The International Journal of Research into New Media Technologies, Vol. 11, No. 4, 12-31
- 2004 (RE)Sensing the Observer — Offering an Open Order Cybernetics. coauthored with Andrea Gaugusch, Technoetic Arts 2.1  
Toward the Production of Nano-computers and in turn Nano-related Emotive Virtual/Physical Environments, Intelligent Agent 4.2 Spring 2004 Online Publication

- 2021 Panel organizer, ISEA, + artist presentation
- 2020 Invited Talk, Seaman Works – Processes, Methodologies, and Interactions Dept of Digital Arts at the University of Applied Arts, Vienna ,  
B3 - Invited Panel, AI, Frankfurt, Germany
- 2018 ISEA, Panel on AI/Neosentience, International Symposium on Electronic Arts, Montreal 2018  
Artist Talk, Suspended Sentence, UMASS Dartmouth Gallery, Dartmouth Mass
- 2017 Invited von Foerster Lecture, von foerster Society, Towards A Dynamic Heterarchical Ecology of Conversations, University of Vienna, Vienna, Austria  
Artist Talk, University of Montreal  
Artist 3 day Workshop, Universitat für Angewandte Kunst Wein, Vienna Austria  
Artist Talk, Universitat für Angewandte Kunst Wein, Vienna Austria
- 2015 Color and The Brain Symposium, Duke Institute for Brains Sciences, Session Moderator Durham, North Carolina  
Interrupt (conference) Invited Feature Presentation, Brown University, Providence RI  
World Photonics Forum, Session Chair, Fitzpatrick Institute for Photonics, Duke  
Emergence: Re-Cognizing Complexity, Insight Engine, SAT, Montreal, Canada
- 2014 NIAS workshop on the New Cultural Commons, invited presentaiton, Wiessnaar,Netherlands  
Shanghai Theatre Academy, Experimental Workshop, Shanghai, China
- 2013 Multi-perspective Approach to Knowledge Production - American Society for Cybernetics - conference Acting - Learning - Understanding Bolton, UK
- 2012 Artsit Talk, Abrechnung für Dienstleistungen/Aufwandsentschädigungen, Bremen, Germany  
Interaction Design Workshop, Jacobs University, Bremen, Germany

- 2020-22 Book Review Editor for Cybernetics and Human Knowing, Journal  
Graduate Program Director, Computational Media, Arts and Cultures (CMAC), Duke University
- 2019 Talk for Invited Panel on the work of Christian Marclay, Franklin Humanities Institute / Duke University
- 2018 Roy Ascott – Early Interactive Work and some Cybernetic Relationalities - Cybernetics and Human Knowing. Vol. 25 (2018), nos. 2-3, pp. xx–xx  
Towards a Dynamic Heterarchical Ecology of Conversations (invited talk by von Foerster Society, Vienna) was published in the Journal Cybernetics and Human Knowing. Vol. 25 (2018), no. 1, pp. 91–108
- 2016-20 Co-director, The Emergence Lab, Media Arts + Sciences, Duke University
- 2016 At the Interface — Multimodal Sensing and Intelligent Learning Systems — The Dynamic Transformation of the Cityscape, and Its Ongoing Study, Digital Cities in Between History and Archaeology, Edited by Maurizio Forte and Helen Muteira  
Advisory Board Member of the Handbook of Anticipation, Edited by Roberto Poli
- 2015 Co-director, The Emergence Lab, Media Arts + Sciences, Duke University  
Cyberworlds Invited Talk - Neosentient Architecture Generator, IEEE affiliated  
Emergent Relationally System - in Remote Sensing - Current Methods and Applications edited by Maurizio Forte and Stefano Campana

GRANTS

2013 Bass Connections, Duke University

2012 Duke Institute for Brain Sciences, Duke University

2009 Council for the Arts, Major Collaboration Grant, Duke University  
Wexner Museum - Video Artist Residency

2005 Video Production Grant - Avid / Boston Cyberarts  
Large Format Photographic Signs - Castle Graphics / Boston Cyberarts

2003 Rockefeller Grant Nominee  
Wexner Museum - Video Artist Residency  
Artslink Travel Grant

2002 Langlois Foundation, Poly-sensing Environment, with Dr. Ingrid Verbauwhede, UCLA, Electrical Engineering, Mark Hanson, Bell Labs

2001 Chancellor's Fund for Academic Border Crossing, UCLA, with Dr. Ingrid Verbauwhede, Electrical Engineering, L.A., C.A.

AWARDS

2021 The distinguished Artist Award for Lifetime Achievement in Digital Art for my work exploring "Neosentience, Recombinant Poetics, and Recombinant Informatics." ACM/SIGGRAPH

2003 Leonardo Award for Excellence, for "OULIPO I vs I Recombinant Poetics", Leonardo Digital Salon, 34:5 Edited by Christiane Paul

2002 Fulbright Distinguished American Scholar, Wellington, New Zealand

2001 Intel Research Gift, L.A., C.A.

2000 Intel Research Gift, L.A., C.A.

1999 Intel Research Gift, L.A., C.A.

1998 Industrial Forum Award Hannover, Germany

1996 Bonn Videonale Prize Bonn, Germany

1995 International German Video Art Prize Baden Baden, Germany  
Interactive Art, Prix Ars Electronica Linz, Austria  
First Prize, Berlin Film and Video Festival, Multimedia Berlin, Germany

1993 Siemens' Stipendium, ZKM Karlsruhe Karlsruhe, Germany

1992 Best International Video Cadiz, Spain  
Interactive Art, Prix Ars Electronica Linz, Austria

1989 Fellowship, Massachusetts State Council Artist Boston, Massachusetts  
Zone Video Festival Prize Springfield, Massachusetts

1987 Fellowship, National Endowment for the Arts Washington, D.C.  
Cannon Europa Prize, World Wide Video Festival Den Haag, Holland

1986 Awards in the Visual Arts, Rockefeller Foundation Winston-Salem, N. Carolina  
Finalist, Artist Foundation Boston, Massachusetts

1985 Monte Verite Invitational Prize Locarno, Switzerland  
First Prize, 2nd International Biennial Ljubljana, Yugoslavia  
Best Sound, Geneva International Video Festival Geneva, Switzerland