

Casey O'Donnell

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SUMMARY

Assistant Professor of Telecommunications at the University of Georgia in the Grady College. Ph.D. graduate of the Department of Science and Technology Studies (STS) at Rensselaer Polytechnic Institute (RPI). Research interests are directly related to the complex socio-technical intersections/interactions that occur during the design and development of software systems and new media. These interests extend to the power dynamics that occur in both organizations and the work of software development and new media production in the globalized new economy. Particular areas of inquiry are Video Game Development in the United States and India, Free/Libre Open Source Software (FLOSS), third world and postcolonial aspects of IT, IT offshoring/inshoring, work and work organization.

OBJECTIVES

1. Teach and cultivate undergraduate and graduate students, giving them tools to think critically with and pursue their own intellectual trajectories.
2. Publish and present regularly on current and future research findings.
3. Collaborate and pursue funding opportunities with colleagues on current and future research projects.
4. Use my experiences to connect issues of science, technology, and media production to broader global socio-political economic processes.
5. Identify pressure points where technology, science, and social production can be improved through deeper understanding of their global and lived ramifications.
6. Use games and game development as a means for evaluating and disseminating these intellectual endeavors.

EDUCATION

Ph.D. Science and Technology Studies

Rensselaer Polytechnic Institute, Troy, NY

Advisor: Kim Fortun

Dissertation Title: "The Work/Play of the Interactive New Economy: Video Game Development in the United States and India,"

May, 2008, GPA: 4.0

M.S. Science and Technology Studies

Rensselaer Polytechnic Institute, Troy, NY

Advisor: Ron Eglash

May, 2005, GPA: 4.0

B.S. Computer Science and Mathematics Double Major, Women's Studies Concentration

Drake University, Des Moines, Iowa

Advisor(s): Michael Rieck, Vibeke Petersen

May, 2001

BOOK AND JOURNAL PUBLICATIONS

"Wither *Mario Factory*? The Role of Tools in Constructing (Co)Creative Possibilities." Submitted to *New Media and Society*. August 2009. Currently under review.

"Production Protection to Copy(right) Protection: From the 10NES to DVD's CSS." *IEEE Annals of the History of Computing*. July-September 2009. Volume 31, Number 3.

["The Everyday Worlds of Videogame Developers: Experimentally Understanding Underlying Systems/Structures."](#) *Transformative Works and Cultures*. Publication Date: March 2009.

"The Nintendo Entertainment System and the 10NES Chip: Carving the Videogame Industry in Silicon." *Games and Culture*. Expected July 2010, Volume 5, Issue 3.

"The Utility of Science and Technology Studies in the Emerging Discipline of Game Studies." *Język Kultura Komunikacja*. 2.173-180. Fall 2007.

"Commentary: Making an Open Source Case for Offshoring." *IEEE Transactions on Professional Communication* 50.2:85-87. June 2007.

"Quality of Life in a Global Game Industry." *IGDA Article on Global QoL*. May 2007.

"The Labor Politics of Scratching an Itch." pp. 460-467 in the Edited Volume, *Handbook of Research on Open Source Software: Technological, Economic, and Social Perspectives*, edited by Kirk St.Amant and Brian Still. Hershey, PA: IGI Global. April 2007.

"The Wii-volution will not be Televised: The XNA-cution of a Business Model," *Flow: Special Video Games Issue*, February 2007.

"Culturally Situated Design Tools: Ethnocomputing from Field Site to Classroom." *American Anthropologist* 108.2:347-362. June 2006. With Ron Eglash, Audrey Bennet, Sybillyn Jennings, and Margaret Cintorino.

"A Case for Indian Insourcing: Open Source Interest in IT Job Expansion." *First Monday* 9.11. November 2004.

"Critique with a 'K' - From Military matters of Concern to Cat's Cradles that Matter: In Search of Metaphors that Frame Inquiry." *Technoscience: Newsletter of the Society for Social Studies of Science* 19.2:1-3. Spring 2004.

INVITED LECTURES

"Managing the Wild Wild East: Controlling the Frontiers of the Global Videogame Industry," *University of Utah, "Frontiers of New Media Symposium."* September 18-20, 2009.

"Game Development and QoL in India (and What it Means for Game Developers in the US)," *IGDA - Albany, New York Chapter Meeting*. August 1, 2007.

"Breaking (into) the Video Game Industry: Work, Play, and the Global Economy," *Drake University Science Colloquium Series* (Des Moines, IA). March 2, 2007.

"What's Cultural about Mathematics/Computing, and Why Does the Answer Matter?" *Drake University Department of Mathematics and Computer Science* (Des Moines, IA). March 1, 2007.

"Talking about Communication across Disciplines and across Scales," *Vicarious Visions Company Wide Presentation* (Albany, NY). July 21, 2006.

CONFERENCE PRESENTATIONS

"Software/Code is Society Made Malleable," *4S Annual Meeting*. October 2009.

"The Allure of the Closed: Why Closed Videogame Platforms Exceed and Open Platforms Flounder," *AoIR Internet: Critical*. October 2009.

"Writing Game Ethnographies: The Poetics and Politics of Interactive Narrative," *AAA Inclusion, Collaboration & Engagement*. November 2008.

"What's Up with EA's SEC Filings? On Some Serious Fears for the Future of New Media," *iDMAa Ideas for the Future*. November 2008.

"Taking the NES's PPU Bait: The Birth and Effects of the Graphics Processing Unit," *AoIR Internet Research 9.0: Rethinking Community, Rethinking Place*. October 2008.

Panel Organizer: "Game(play) Platforms in the Air: How Language, Gender, and Technology Shapes Creative Production," *AoIR Internet Research 9.0: Rethinking Community, Rethinking Place*. October 2008.

"Ethnography of a Moving Target: Thinking in Terms of a Vertical Slice," *AoIR Pre-Conference Workshop: In the Game*. October 2008.

"If Games are Speech, Why Can't I Speak?: Shutting Down Collaborative Game Development," *IEEE Professional Communication Conference* (Montréal, Canada). July 2008.

"Coercive Play and Consenting Work: The Gamer/Game Developer Connection," *Society for Cinema and Media Studies Conference* (Philadelphia, PA). March 2008.

"Playing with Silicon, Transistors, and Electrons - The Worlds of Console Video Game Developers," *Playful Technocultures Unconference* (Montreal, Canada). October, 2007.

Panel Organizer: "Ways of Knowing Within and Through Games and Play," *4S Conference: Ways of Knowing* (Montreal, Canada). October, 2007.

"It's like Spy vs. Spy': Playing the Global Video Game Industry Game," *4S Conference: Ways of Knowing* (Montreal, Canada). October, 2007.

"The Wii-volution will not be Televised: The XNA-cution of a Business Model," *AoIR Internet Research 8.0: Let's Play* (Vancouver, Canada). October, 2007.

"The Everyday Lives of Video Game Developers," *AAA Annual Meeting: Difference, (In)equality & Justice* (Washington, DC). November, 2007.

"Mixed Messages: Independent and Collaborative Console Video Game Development," *Media in Transition (MIT5): Creativity, Ownership, and Collaboration in the Digital Age* (Boston, MA). April, 2007.

"Quality of Life in a Global Game Industry," *Game Developers Conference (GDC): Take Control* (San Francisco, CA). March, 2007.

"Poster Session: Mapping Your Corporate Geomorphology," *Game Developers Conference (GDC): Take Control* (San Francisco, CA). March, 2007.

"'Thank you Mario. But our Princess is in Another Castle!': On Finding Some New Research Punchlines," *STS Graduate Student Conference: Metamorphosis* (Troy, NY). February, 2007.

"A Culture of Play: The Work and Play of Developing Video Games," *AAA Annual Meeting: Critical Intersections/Dangerous Issues* (San Jose, CA). November, 2006.

"Playing Hardware Games: Video Game Development as Heterogeneous Engineering," *4S Conference: Silence, Suffering and Survival* (Vancouver, Canada). November, 2006.

"The Nintendo Entertainment System and the 10NES Chip: Carving the Video Game Industry in Silicon," *Society for the History of Technology Annual Conference* (Las Vegas, NV). October, 2006.

"The Nintendo Entertainment System and the 10NES Chip: Carving the Video Game Industry in Silicon," *STS Graduate Conference: Practice, Process, Papers* (Cambridge, MA). February, 2006.

"Producing Technoscience Secrets: Intellectual Property and its Laborers." *Emergent Nature/Cultures Workshop* (Minneapolis, MN). September, 2005.

"Disciplining Punk Rock: The Utility of Marginality in STS." STS (R)evolutions Conference (Virginia Tech, VA) 2005.

"A Case for Indian Insourcing: Open Source Interest in IT Job Expansion." *4S/EASST Conference: Public Proofs: Science, Technology and Democracy* (Paris, France). August, 2004.

"Culturally Situated Design Tools: Designing Modest IT Interventions," *STS Graduate Student Conference: Heart-Shaped Black Box* (Troy, NY). February, 2004.

"3D Visualization Tool Creation Using Java and OpenGL." *Iowa Space Grant Consortium's Virtual Research Reports for 2000* (Ames, Iowa). 2000.

GRANTS, AWARDS, ASSISTANTSHIPS

University of Georgia, Athens, Georgia

Lilly Teaching Fellowship

March, 2009 - May, 2011

- \$2,000 Instructional Development

Rensselaer Polytechnic Institute, Troy, New York

NSF Dissertation Improvement Grant

May. 2006 - May. 2008

- NSF Dissertation Improvement Grant ([Award #0620903](#)) - "[Playing the New Economy: Video Game Development in India and the United States.](#)"
- Grant Award Amount: \$12,000
- Grant Summary: What can the everyday worlds of video game developers teach us about the “new” economy? How do these worlds differ across national and cultural boundaries? It is my contention that game developers and game development can shed new light on our understandings of work, the organization of work, and the market forces that shape and are shaped by industries in the new economy. This study examines the diverse forces and activities – laws, technologies, collaboration, and workplace cultures, for example – that shape console video game development, and make it tenable in today’s globalized economy. This study uses video game developers and video game development in the United States and India as a window into understanding these complex issues. The ways in which game companies work both literally and figuratively, organize work, and the market forces surrounding them offers an opportunity to rethink ideas about the new economy.
- More Details available: <http://homepage.mac.com/codonnell/nsfabstract/index.html>

Cultural Anthropology, Troy, New York

Journal Editorial Assistant (<http://www.culanth.org/>)

January. 2006 - August 2007

- Transitioned editorial process to new electronic workflow system (EWS).
- Assisted in initial screening of essays submitted to the journal.
- Assisted in identifying and requesting reviewers for submitted essays.
- Assisted in reviewing and making editorial decisions on submitted essays.
- Wrote “editorial footnotes” for issues 22.2, 22.3, and 22.4.
- Collaborated with the University of California Press on submission of journal materials.
- Developed new Website using the PHP/Drupal based Content Management System (CMS).
- Created teaching lists of essays in *Cultural Anthropology* centered around “Areas” and “Themes.”
- Wrote promotional paragraphs for essays which were circulated on the release of new issues.

Change the World Challenge

Design Award for Work on Virtual DJ

September 2005

- Award Amount: \$1,000

Rensselaer Polytechnic Institute, Troy, New York

NSF ITWF Grant Research Assistant

Sept. 2003 - August 2005

- NSF Grant ITWF0119880: " Evaluation of Culturally Situated Design Tools in the Recruitment and Retention of Underrepresented Minorities for Information Technology Careers. "
- Designed and developed educational software tools aimed primarily at inner city youth as part of the Culturally Situated Design Tools project. (See <http://www.rpi.edu/~eglash/csdt.html>).
- Performed quantitative analysis of survey data gathered by teachers and researchers.
- Created "Rhythm Wheels" and "Virtual DJ" Design Tools using Java, C++, FMOD, wxWidgets, and OpenGL.

Aerospace States Agency Award

Award for Work in Aerospace and Commitment to the Community

April 2001

- Award Amount: \$1,000
- Award Description: The Aerospace States Association sponsors an annual competition for Undergraduate Scholarships for students majoring in aerospace-related fields of study. Within your application, you are encouraged to discuss: any research activities you have been involved in, any community service, honors, or awards you may have received.

Iowa Space Grant Consortium

Grant for Cooperative work with NASA and Jet Propulsion Labs (JPL)

September 1999 - May 2001

- Grant Amount: \$1,000 / Semester
- Description: For continued collaboration and development with the WebWinds team at JPL on 3D scientific visualization tools.

Presidential Scholarship

Maintaining a 3.0+ GPA during Undergraduate Studies

September 1997 - May 2001

- Scholarship Amount: \$1,000 / Semester

TEACHING ASSIGNMENTS

Assistant Professor

“New Media Capstone” - NMIX 4510

Spring 2009

Assistant Professor

“Special Topics: (Video)games as New Media” - TELE 5990

“New Media Production” - NMIX 4110

Spring 2009

Assistant Professor

“Telecommunications Programming and Management” - TELE 3310

“New Media Technologies: Videogames” - NMIX 4200

Fall 2008

Teaching Assistant

“Information in History and Society”

Fall 2005

Teaching Assistant

“Introduction to Computer Graphics”

Fall 2000

Teaching Assistant

“Introduction to Computer Science II”

Spring 2000

Teaching Assistant

“Introduction to Computer Science I”

Fall 1999

COURSE DEVELOPMENT

New Course: “New Media Technologies: iPhone” - NMIX 4200

Spring 2010

New Course: “Videogames as New Media” - TELE 5990

Spring 2009

Redesign: “Intro to Telecommunication” - TELE 3010

Spring 2009

New Course: "New Media Technologies: Videogames" - NMIX 4200

Fall 2008

Redesign: "Telecommunications Programming and Management" - TELE 3110

Spring 2009

STUDENT ADVISEMENT

Master's Thesis Committee Member

C. Jordan Lynn - "Player Profiles: Understanding Immersion and Player Experience in Digital Games"

Summer 2009

Master's Thesis Committee Member

Eileigh Doineau - "Possible Space" - Honors Recipient

Spring 2009

SERVICE COMMITMENTS

Athens Chapter of the Georgia Game Developers Association

Chapter President

Fall 2008 - Current

Peer Review Commitments

Association of Internet Researchers (AoIR) Conference Panel Reviewer

Spring 2008

Spring 2009

Digital Games Research Association (DiGRA) Conference Reviewer

Spring 2009

"Games and Culture"

Spring 2008

Spring 2009

"New Media and Society"

Fall, Spring, Summer 2009

"American Anthropology"

Summer 2009

University of Georgia, Grady College, "Gradyfest"

Guest Judge

Spring 2009

Editorial Board Member

"Design and Implementation of Educational Games: Theoretical and Practical Perspectives"

Fall 2008 - Current

New Media Consultant

Cultural Anthropology (<http://www.culanth.org/>)

Spring 2008 - Spring 2009

Website Editor and Administrator

Cultural Anthropology (<http://www.culanth.org/>)

Fall 2007 - Spring 2008

Graduate Student Representative

STS Dept., RPI. Student Liaison to the STS Graduate Committee.

Fall 2005 - Current (Re-Elected)

Fall 2003 - Summer 2004

Editorial Board Member

"After Culture: Emergent Anthropologies Journal."

Fall 2005 - Current

Co-Editor

4S "Technoscience" Newsletter and Website (<http://4sonline.org/profession/events.htm>)

Spring 2005 - Spring 2008

Graduate Department Colloquium Speaker Organizer

STS Dept., RPI.

Fall 2005 - Spring 2006

PROFESSIONAL AFFILIATIONS

- Society for the Social Studies of Science (4S)
- American Anthropological Association (AAA)
- Society for Cultural Anthropology (SCA)
- Society for the Anthropology of Work (SAW)
- Association of Online and Internet Researchers (AoIR)
- International Digital Media & Arts Association (iDMAa)
- International Game Developers Association (IGDA)
- IGDA Albany Chapter Coordinator and Minute Recorder
- IGDA "SIG" - Special Interest Group on Tools
- Georgia Game Developers Association (GGDA)
- GGDA Athens Chapter President

PROFESSIONAL EXPERIENCE

Vicarious Visions, Troy/Menands, New York

Independent Researcher

October. 2004-July, 2008

- Examined corporate and workplace practices, technologies, and culture.
- Participant observation on teams working on Batman (PSP-Canceled), Ultimate Spiderman (PSP-Canceled), Call of Duty (PSP-Canceled), Spiderman 3 (PS2, Wii, PSP-Canceled), Marvel Ultimate Alliance 2.
- Worked to improve communication across disciplines and throughout the organization.

RedOctane, Chennai, India

Game Development and Production Consultant

December. 2006-January, 2007

- Worked with engineers, artists, and designers on a prototype game design for the Nintendo DS using Nintendo's Nitro SDK's.
- Moved the engineering group to an integrated development environment and debugging tools.
- Assisted engineers and artists in the creation of a data driven art-asset pipeline.
- Moved the art group to the newly created pipeline with Ensata Emulator integration for viewing asset changes in real-time.
- Spoke with developers regarding their experiences and how to streamline and improve processes in the future.

Avatech Solutions, Des Moines, Iowa

Senior Software Engineer

Sept. 2001-August 2003

- Designed and developed proprietary design automation software solutions.
- Functional and detailed design specifications of software contracts prior to development. Decisions made regarding breakdown of software components and their implementation. Design modeling done using UML.

- Coordination of multi-developer teams, including time and focus management. Frequently developers were spread over several offices requiring both face to face and remote collaboration.
- Visual Studio (Visual C++, Visual Basic, Visual Basic for Applications (VBA), Visual Source Safe) primary development platform.
- ObjectARX/ObjectDBX and VisualLISP for AutoCAD Development.
- VBA and C++ Development for Inventor.
- Development of COM API's for Interfaces Exposed via DLL's.
- Extensive MFC and STL use.

3D Pipeline, La Jolla, California

Software Engineer

Aug. 2000-Sept. 2001

- Designed and developed proprietary game development technologies.
- Breakdown of software components based upon often incomplete or unknown specifications, in such a way that major changes to API interfaces and underlying implementations would minimally impact development time.
- 5.1 Sound System API development using DirectX/DirectSound (for Windows based targets) and FMOD (for other operating system targets).
- Visual Studio (Visual C++) primary windows development platform.
- CodeWarrior and Project Builder both utilized for MacOS development platform.
- Animation viewer port (Windows to MacOS-Carbon). This included the creation of a system for customizing a user interface based upon skins defined by XML.
- OpenGL Effects System Development. This included the creation and modeling of a particle effects system for "tracer bullets" and other firing device. This system was later used as part of a helicopter simulation for the US Military.

NASA Jet Propulsion Labs, Pasadena, California

Software Developer

Sept. 1998-Aug. 2000

- Large scale Java application development on Solaris/Irix/Linux systems, targeting all major computing platforms. Application provided analysis of large data-sets, typically used for analyzing 3D datasets from satellites.
- OpenGL based 3D visualization. OpenGL support added natively through JNI (Java Native Interface). 3D visualization included the creation of isosurfaces, pseudo-volumetric rendering, and true volumetric rendering. Real-time optimization of models performed with scaling decimation routines that determined decimation levels based upon individual machine performance.
- Development of MacOS installer.

OPEN SOURCE SOFTWARE DEVELOPMENT

G3D Mac OS X Project Lead

June, 2005 - Current

- G3D is a commercial-grade 3D Engine available as Open Source Software (Released under the BSD License).

cURL and wxCURL

May, 2004 - Current

- Contributor to libCURL and creator/maintainer of the wxCURL project, a wxWidgets binding for libCURL.

wxWidgets

February 2005

- Contributed database based file-storage sample application.

SOFTWARE EXPERIENCE

- Programming Languages: C/C++, Java, Python, Lisp, Scheme, PASCAL
- API's: OpenGL, DirectX, FMOD, OpenAL, wxWidgets, LibCURL, SDL, ObjectARX/DBX, Win32, MFC, Mac OS X Carbon
- Dev. Environments: XCode, CodeWarrior, Visual Studio 6.0/2002/2003, KDevelop, Make, CMake, iCompile
- Web Technologies: HTML/XHTML, XML, XSLT, Java Script, CSS, PHP. Particular familiarity with the Drupal CMS.

REFERENCES

Prof. Kim Fortun (Dissertation Committee Chair)

Dept. of Science & Technology Studies
Rensselaer Polytechnic Institute
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Troy, NY 12180-3590
(518) 276-2199
fortuk@rpi.edu

Prof. Mike Fortun

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Rensselaer Polytechnic Institute
110 8th Street
Troy, NY 12180-3590
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Prof. Atsushi Akera

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Prof. Nancy Campbell

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Prof. Christopher Kelty

Dept. of Anthropology
Rice University
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FURTHER INFORMATION

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