

Casper Hartevelde, PhD

Website: <http://www.northeastern.edu/casperhartevelde>

EMPLOYMENT

- 2012-Current **Assistant Professor of Game Design at Northeastern University**
Department of Art & Design, College of Arts, Media & Design
Affiliated Appointment Department of Electrical & Computer Engineering,
College of Engineering
Affiliated Appointment Department of Mechanical & Industrial Engineering,
College of Engineering
Courtesy Appointment College of Computer & Information Science
Courtesy Appointment School of Law
- 2015-2016 **Part-Time Lecturer for thesis supervision at Northeastern University**
Law & Public Policy Program, College of Professional Studies
- 2007-2012 **PhD Researcher at Delft University of Technology**
Department of Policy, Organisation, Law & Gaming, Faculty of Technology,
Policy & Management

EDUCATION

- 2012 PhD in Systems Engineering, Policy Analysis & Management (SEPAM) at Delft
University of Technology
- 2007 MS in SEPAM at Delft University of Technology
- 2007 BS in Psychology at Leiden University
- 2006 BS in SEPAM at Delft University of Technology

AWARDS & NOMINATIONS

Personal Honors & Awards

- 2017 **Honorable Mention Paper Award at FDG'17** for "AI-assisted analysis of
player strategy across level progressions in a puzzle game"
- 2017 **Excellence in Research and Creative Activity Award Nominee**, at the College
of Arts, Media & Design
- 2016 **DARPA Young Faculty Award**, one of the 24 next generation of academic
scientists, engineers and mathematicians who will focus a significant portion of
their careers on DoD and national security issues
- 2015 **2016 Andrew Carnegie Young Fellow Nominee and Finalist**, nominated by the
President of Northeastern University
- 2015 **2015-2016 Northeastern University Faculty Scholar Mentor** to promote
interdisciplinary dialogue and advance teaching and learning
- 2015 **David M. Levine Best Paper in Innovative Education** award for "Exploring
digital games as a research and educational platform for replicating experiments."
- 2014 **National Science Foundation Fellowship 2015-2016** for Next Generation of
Hazards & Disasters Researchers (20 selected fellows out of 140 applications)
- 2014 **2014-2015 Northeastern University Faculty Scholar** to promote
interdisciplinary dialogue and advance teaching and learning

- 2013 **Best Dissertation Award on Simulation & Gaming** presented by SAGSAGA (the Swiss Austrian German Simulation and Gaming Association) in cooperation with the Centre for Management Simulation of the DHBW Stuttgart
- 2007 **Best Master Thesis Award on Information Systems** by the Royal Holland Society of Sciences and Humanities

Honors & Awards by Supervised Students

- 2016 **Outstanding Graduate Interdisciplinary Research Award** at Northeastern RISE for Michael Williams and Aybike Ulsan for the poster “*Human in the Loop Debris Collection*”
- 2016 **Dean’s Medal for Outstanding Doctoral Work** at College of Professional Studies for Hunter Hustus for the thesis “*Nuclear Arsenals at Low Numbers: When Less is Different*”
- 2015 **Outstanding Undergraduate Computer and Information Sciences Award** at Northeastern RISE for ChiSheng Liang for the poster “*VISTALights: A Game That Helps People Make Better Decisions*”

PUBLICATIONS

*Postdoc **Student

Books (3)

1. **Hartevelde, C.** (Forthcoming, contract signed). *Building blocks for game design and learning*. London, UK: Routledge.
2. **Hartevelde, C.** (2012). *Making sense of virtual risks: A quasi-experimental investigation into game-based training*. Delft, the Netherlands: IOS Press.
3. **Hartevelde, C.** (2011). *Triadic game design: Balancing reality, meaning and play*. London, UK: Springer.

Refereed Journal Articles (5)

1. Sutherland, S.C.*, **Hartevelde, C.**, & Young, M. (2016). Effects of the advisor and environment on requesting and complying with automated advice. *ACM Transactions on Interactive Intelligent Systems*, 6(4), XX-XX. doi:10.1111/bjet.12067 [SJR: 1.194; SJR Ranking: 19/346 Human-Computer Interaction]
2. Mayer, I.S., Bekebrede, B., **Hartevelde, C.**, Warmelink, H.J.G., Zhou, Q., van Ruijven, T.W.J.,... Wenzler, I. (2014). The research and evaluation of serious games: Towards a comprehensive methodology. *British Journal of Educational Technology*, 45(3), 502-527. doi:10.1111/bjet.12067 [SJR: 1.613; Impact Factor: 1.633; ISI Journal Citation Report Ranking 2015: 38/230 Education & Educational Research]
3. Heijden, J. van der, Heuvelhof, E. ten, Arend, S. van de, Broekhans, B., Bueren, E. van, **Hartevelde, C.**, & Ruijven, T.W.J. van (2013). Contrasting stories on overcoming governance challenges: The implementation of the EU Water Framework Directive in the Netherlands. *Local Environment: The International Journal of Justice and Sustainability*, 19(3), 318-333. doi:10.1080/13549839.2013.790349 [SJR: 0.820; SJR Ranking: 327/1370 Environmental Science | 85/623 Geography, Planning and Development]
4. **Hartevelde, C.**, & Bekebrede, G. (2011). Learning in single- versus multiplayer Games: The more the merrier? *Simulation & Gaming: An Interdisciplinary Journal*, 41(3), 316-340. doi:10.1177/1046878110378706 [SJR: 0.675; SJR Ranking: 44/285 Business, Management and Accounting | 193/1142 Computer Science Applications]

5. **Harteveld, C.**, Guimarães, R., Mayer, I., & Bidarra, R. (2010). Balancing play, meaning and reality: The design philosophy of LEVEE PATROLLER. *Simulation & Gaming: An Interdisciplinary Journal*, 42(1), 43-63. doi:10.1177/1046878108331237 [SJR: 0.675; SJR Ranking: 44/285 Business, Management and Accounting | 193/1142 Computer Science Applications]

Non-Refereed Journal Articles (5)

1. **Harteveld, C.**, & Suarez, P. (2015). Guest editorial: Games for learning and dialogue on humanitarian work. *Journal of Humanitarian Logistics and Supply Chain Management*, 5(1), 61-72.
2. **Harteveld, C.**, Thij, E. ten, & Copier, M. (2011). Guest editorial: Design for engaging experience and social interaction. *Simulation & Gaming: An Interdisciplinary Journal*, 42(5), 590-595. doi:10.1177/1046878111426960 [SJR: 0.675; SJR Ranking: 44/285 Business, Management and Accounting | 193/1142 Computer Science Applications]
3. **Harteveld, C.**, & Bruijne, M. de (2009). Hoe echt is een virtuele crisis? De rol van serious gaming in crisis- en rampenbestrijding [How real is a virtual crisis? The role of serious gaming in crisis and disaster management]. *Bestuurskunde*, 18(3), 60-69
4. Bueren, E.L. van, Mayer, I.S., **Harteveld, C.**, & Scalzo, R. (2009). Van tekenafel naar bestuurlijke implementatie. Gamen met bestuurders in rechtspraak en het Openbaar Ministerie [From the designers table to administrative implementation: Gaming with professionals in the judiciary and the public prosecution office]. *Bestuurskunde*, 18(3), 47-59.
5. Bekebrede, G., & **Harteveld, C.** (2007). Van COTS naar MODS: Ontwikkelmethoden voor serious games [From COTS to MODS: Development methods for serious games]. *Informatie*, 49(10), 20-25.

Book Chapters (5)

1. **Harteveld, C.**, & Drachen, A. (2015). Gaming on environmental issues. In M. Ruth (Ed.), *Handbook of Research Methods and Applications in Environmental Studies* (pp. 473-503). Northampton, MA: Edward Elgar Publishing.
2. **Harteveld, C.** (2014). Gaming to make sense of risks. In S. Swagele, B. Zurn, & D. Bartschat, & F. Trautwein (Eds.), *Planspiele: Ideen und Konzepte* (pp. 79-103). Norderstedt, Germany: Books on Demand GmbH.
3. Bekebrede, G., **Harteveld, C.**, Warmelink, H., & Meijer, S. (2013). Beauty or the beast: Importance of the attraction of educational games. In C. Gonzalez (Ed.), *Student Usability in Educational Software and Games: Improving Experiences* (pp. 138-160). Hershey, PA: Information Science Reference.
4. Warmelink, H.J.G., Bekebrede, G., **Harteveld, C.**, Mayer, I.S., & Meijer, S.A. (2012). Lessons learned from a decade of game development for higher education in Delft. In C. Nygaard, N. Courtney, & E. Leigh (Eds.), *Simulations, Games and Role Play in University Education* (pp. 171-188). Melbourne, Australia: Libri Publishing.
5. Mayer, I.S., **Harteveld, C.**, & Warmelink, H.J.G. (2009). Het politieke spel rond computer games: Voorbij de emoties [The political game surrounding computer games: Beyond the emotions]. In W. Pieters et al. (Eds.), *Gevoel voor Kennis: Jaarboek Kennissamenleving* (pp. 172-196). Amsterdam, the Netherlands: Aksant.

Refereed Conference Papers (42)

1. Barnes, J.*, Hoover, A.*, Fatehi, B.**, Moreno, J.**, Smith, G., & **Harteveld, C.** (2017). Exploring emerging patterns in student-made climate change games. In *Proceedings of*

- Foundations of Digital Games 2017 (Workshop)*. New York, NY: ACM Press.
2. Horn, B.**, Hoover, A.*, Barnes, J.*, Folajimi, Y.*, **Hartevelde, C.**, & Smith, G. (2017). AI-assisted analysis of player strategy across level progressions in a puzzle game. In *Proceedings of Foundations of Digital Games 2017*. New York, NY: ACM Press. [Acceptance: 40%] (Honorable Mention)
 3. Tucker-Raymond, E., Puttick, G., **Hartevelde, C.**, & Cassidy, M. (2017). “I broke your game”: Critique among middle schoolers designing computer games about climate change. Presented at *American Educational Research Association (AERA)*, San Antonio, TX.
 4. Puttick, G., Cassidy, M., Tucker-Raymond, E., & **Hartevelde, C.**, (2017). Middle schoolers developed systems thinking while designing computer games about climate change. Presented at *National Association for Research in Science Teaching (NARST)*.
 5. Moreno, J.**, Gonzalez, M. R., **Hartevelde, C.**, & Robles, G. (2017). On the automatic assessment of computational thinking skills: A comparison with human experts. In *Extended Abstract of CHI 2017*. New York, NY: ACM Press. [Acceptance: 38.7%]
 6. **Hartevelde, C.**, Manning, N.**, Abu-Arja, F.**, Menasce, R.**, Thurston, D.**, Smith, G., & Sutherland, S.C. (2017). Design of playful authoring tools for social and behavioral science. In *IUI '17 Companion: Proceedings of the 22nd International Conference on Intelligent User Interfaces Companion*. New York, NY: ACM Press. [Acceptance: 18%]
 7. **Hartevelde, C.**, & Sutherland, S.C. (2017). Personalized gaming for motivating social and behavioral science participation. In *HUMANIZE '17: Proceedings of the 2017 ACM Workshop on Theory-Informed User Modeling for Tailoring and Personalizing Interfaces*. New York, NY: ACM Press.
 8. Horn, B.**, Hoover, A.*, Barnes, J.*, Folajimi, Y.*, Smith, G., & **Hartevelde, C.** (2016). Opening the black box of play: Playtrace analysis of an educational game. In *Proceedings of ACM CHI PLAY*, Austin, TX. [Acceptance: 29%]
 9. Williams, M.**, Ullusan, A.**, Xiaofeng, Z., Zhang, S., Gharbi, H.*, Ergun, O., & **Hartevelde, C.** (2016). Toward human in the loop optimization through game-based experiments. In *Proceedings of ACM CHI PLAY (Work-in-Progress)*, Austin, TX.
 10. Hoover, A.*, Barnes, J.*, Fatehi, B.**, Moreno, J.**, Tucker-Raymond, E., Puttick, G., & **Hartevelde, C.** (2016). Assessing computational thinking in students’ game designs. In *Proceedings of CHI PLAY (Work-in-Progress)*, Austin, TX.
 11. Sun, Y.**, Liang, C.**, Sutherland, S.C., **Hartevelde, C.**, Kaeli, D. (2016). Modeling player decisions in a supply chain game. In *Proceedings of IEEE Computational Intelligence and Games (CIG)*, Santorini, Greece.
 12. Folajimi, Y.*, Horn, B.**, Hoover, A.*, Barnes, J.*, Smith, G., & **Hartevelde, C.** (2016). A cross-cultural evaluation of a computer science teaching game. In *Proceedings of Games+Learning+Society*. Pittsburgh, PA: ETC Press.
 13. Barnes, J.*, & **Hartevelde, C.** (2016). When is a game not a game? Considering player perceptions of an educational game. In *Proceedings of Games+Learning+Society*. Pittsburgh, PA: ETC Press.
 14. **Hartevelde, C.**, Sutherland, S.C., & Folajimi, Y. (2016). Sustainable life cycle game design: Mixing games and reality to transform education. In *Proceedings of Joint Conference of Digital Games Research Association and Foundations of Digital Games*. [Acceptance: 38%]
 15. Horn, B.**, Clark, C.**, Strom, O.**, Chao, H.**, Stahl, A.J.**, **Hartevelde, C.**, Smith, G. (2016). Design insights into the creation and evaluation of a computer science educational game. In *Proceedings of the 47th ACM Technical Symposium on Computer Science*

- Education* (SIGCSE), Memphis, TN. [Acceptance: 35%]
16. **Hartevelde, C.**, Sutherland, S.C.*, Stahl, A.J.***, Smith, G., & Talgar, G. (2016). Standing on the shoulders of citizens: Exploring gameful collaboration for creating social experiments. In *Proceedings of the 49th Hawaii International Conference on System Sciences (HICSS)*, Kauai, Hawaii. [Acceptance: 53%]
 17. Arnab, S., Nalla, M., **Hartevelde, C.**, & Lameris, P. (2015). An inquiry into business gamification. Paper presented at the *International Gamification for Business Conference (IGBC) 2015*, Birmingham, UK, September 21-22.
 18. Azadegan, A., & **Hartevelde, C.**, & Sutherland, S.C.* (2015). Design approach for collaborative cognitive games. In *Proceedings of Foundations of Digital Games 2015*, Monterey, CA.
 19. **Hartevelde, C.**, Sutherland, S.C.*, & Smith, G.M. (2015). Design considerations for creating game-based social experiments. Paper presented at the *2015 ACM Conference on Computer-Human Interaction (ACM CHI 2015) Workshop, Researching Gamification: Strategies, Opportunities, Challenges, Ethics*, Seoul, South Korea.
 20. Sutherland, S.C.*, **Hartevelde, C.**, & Young, M. (2015). The role of environmental predictability and costs in relying on automation. In *Proceedings of the 2015 ACM Conference on Computer-Human Interaction (ACM CHI 2015)*, Seoul, South Korea. doi:10.1145/2702123.2702609 [Acceptance: 23%]
 21. **Hartevelde, C.**, & Sutherland, S.C.* (2015). The goal of scoring: Exploring the role of game performance in educational games. In *Proceedings of the 2015 ACM Conference on Computer-Human Interaction (ACM CHI 2015)*, Seoul, South Korea. doi: 10.1145/2702123.2702606 [Acceptance: 23%]
 22. Sutherland, S.C.*, **Hartevelde, C.**, Smith, G., Schwartz, J., & Talgar, C. (2015). Exploring digital games as a research and educational platform for replicating experiments. In *Northeast Decision Sciences Institute Conference*, Boston, MA. (Best Paper Award)
 23. **Hartevelde, C.**, & Sutherland, S.C.* (2014). Finding the game in decision-making: A preliminary investigation. In *Proceedings of the 45th ISAGA Conference*. Dornbirn, Austria.
 24. **Hartevelde, C.**, Smith, G., Carmichael, G., Gee, E., & Stewart, C. (2014). A design-focused analysis of games teaching computer science. In *Proceedings of Games+Learning+Society* (pp. 109-117). Pittsburgh, PA: ETC Press. [Acceptance: 59%]
 25. Azadegan, A., & **Hartevelde, C.** (2014). Work for or against players: On the use of collaboration engineering for collaborative games. In *Proceedings of the Workshop on Game Design Patterns, co-located with Foundations of Digital Games*.
 26. Azadegan, A., Hauge, J. B., **Hartevelde, C.**, Bellotti, Betra, R., Bidarra,...Stanescu, I. A. (2013). The move beyond edutainment: Have we learned our lessons from the entertainment industry? In *Proceedings of the Games and Learning Alliance Conference*, Paris, France, October 23-25.
 27. Smith, G.M., & **Hartevelde, C.** (2013). Procedural content generation as an opportunity to foster collaborative mindful learning. In *Proceedings of the Workshop on Games for Learning, co-located with Foundations of Digital Games, Crete, Greece, May 16*.
 28. Kortmann, R., Bekebrede, G., Daalen, C. van, **Hartevelde, C.**, Mayer, I.S., & Dierendonck, D. van (2012). Veerkracht: A game for servant-leadership development. In *Bonds and Bridges: Facing the Challenges of the Globalizing World with the Use of Simulation and Gaming*, Warsaw, Poland, July 11-15, 2011. Warsaw, Poland: Kozminski University.
 29. **Hartevelde, C.**, Bekebrede, G., Lo, J.C., Plomber, A.-J., & Jordaan, B. (2011). Make it fun or

- real: Design dilemmas and their consequences on the learning experience. In *Bonds and Bridges: Facing the Challenges of the Globalizing World with the Use of Simulation and Gaming*, Warsaw, Poland, July 11-15, 2011. Warsaw, Poland: Kozminski University.
30. **Hartevelde, C.** (2010). An innovative longitudinal evaluation of a digital game: The first impressions. In G.Y. Kin, & Y. Cai (Eds.), *Changing the World through Meaningful Play*, Spokane, WA, July 5-9, 2010. Spokane, WA: Eastern Washington University.
 31. **Hartevelde, C.** (2010). Triadic game evaluation: A framework for assessing games with a serious purpose. In C. Raymaekers, K. Coninx, K., & J.M. Gonzalez-Calleros (Eds.), *Proceedings of the Design and Engineering of Game-like Virtual and Multimodal Environments Workshop*, Berlin, Germany, June 20. Published online.
 32. Warmelink, H.J.G., **Hartevelde, C.**, Mayer, I.S. (2009). Press enter or escape to play: Deconstructing escapism in multiplayer gaming. In Atkins, B., Kennedy, H., & Krzywinska, T. (Eds.), *Breaking New Ground: Innovation in Games, Play, Practice and Theory: Proceedings of DiGRA 2009*, September 1-4, 2009, London, UK. Published online.
 33. **Hartevelde, C.**, Lukosh, S., & Kortmann, R. (2009). Improving serious game design by collaborative storytelling. In: Cao, Y. et al. (Eds.), *Proceedings of the 2nd International Workshop on Story-Telling and Educational Games (STEG'09)*, Aachen, Germany, August 21, 2009 (Online, vol. 498). Aachen, Germany: CEUR Workshop Proceedings.
 34. **Hartevelde, C.**, & Kortmann, R. (2009). Triadic game design workshop. In G.Y. Kin, & Y. Cai (Eds.), *Learn to game, game to learn: Proceedings of the 40th ISAGA Conference*, Singapore, June 29-July 3, 2009 (CD-ROM). Singapore: National University of Singapore.
 35. Kortmann, R., & **Hartevelde, C.** (2009). Agile game development: lessons learned from software engineering. In G.Y. Kin, & Y. Cai (Eds.), *Learn to game, game to learn: Proceedings of the 40th ISAGA Conference*, Singapore, June 29-July 3, 2009 (CD-ROM). Singapore: National University of Singapore.
 36. **Hartevelde, C.** (2009). Making sense of studying games: Using sensemaking as a perspective for game research. In G.Y. Kin & Y. Cai (Eds.), *Learn to game, game to learn: Proceedings of the 40th ISAGA Conference*, Singapore, June 29-July 3, 2009 (CD-ROM). Singapore: National University of Singapore.
 37. **Hartevelde, C.**, Hounjet, M., Van den Bergh, R., & Maccabiani, J. (2008). Applying games in levee inspection training and education: a case study. In P. Samuels, S. Huntington, W. Allsop & J. Harrop (Eds.), *Flood risk management: research and practice: Proceedings of FLOODrisk: the European conference on flood risk management research in to practice*, Oxford, UK, September 30-October 2, 2008 (pp. 633-641). London, UK: CRC Press.
 38. **Hartevelde, C.**, & Bekebrede, G. (2008). The more the merrier? Learning in single vs. multiplayer games. In Y. Xiau & E. ten Thij (Eds.), *Gaming 2008: Design for Engaging Experience and Social Interaction: Proceedings of the MCCIS IADIS Multi Conference on Computer Science and Information Systems*, Amsterdam, the Netherlands, July 22-27, 2008 (pp. 11-18). Amsterdam, the Netherlands: IADIS Press.
 39. Warmelink, H.J.G., Bekebrede, G., **Hartevelde, C.**, & I. Mayer (2008). Understanding virtual worlds: An infrastructural perspective. In E. Bagdonas, I. Patasiene, & D. Jovarauskiene (Eds.), *GAMES: Virtual Worlds and Reality: Proceedings of the 39th ISAGA Conference*, Kaunas, Lithuania, July 7-11 2008 (CD-ROM). Kaunas, Lithuania: Kaunas University of Technology.
 40. **Hartevelde, C.**, Warmelink, H.J.G., Fumarola, M. & I. Mayer (2008). Bringing alive concepts in Second Life: A design-based experience. In E. Bagdonas, I. Patasiene, & D. Jovarauskiene

(Eds.), *GAMES: Virtual Worlds and Reality: Proceedings of the 39th ISAGA Conference*, Kaunas, Lithuania, July 7-11 2008 (CD-ROM). Kaunas, Lithuania: Kaunas University of Technology.

41. **Harteveld, C.**, & Bidarra, R. (2007). Learning with games in a professional environment: A case study of a serious game about levee inspection. In M. Taisch & J. Cassina (Eds.), *Learning with Games: Proceedings of the 1st Learning with Games Conference*, Sophia Antipolis, France, September 24-26, 2007 (pp. 555-562). Milano, Italy: Politecnico di Milano.
42. **Harteveld, C.**, Guimarães, R., Mayer, I. & Bidarra, R. (2007). Balancing pedagogy, game and reality components within a unique serious game for training levee inspection. In K. Hui et al. (Eds.), *Technologies for E-Learning and Digital Entertainment (LNCS 4469): Proceedings of the 2nd International Conference, Edutainment 2007*, Hong Kong, China, June 11-13, 2007 (pp. 128-139). Berlin, Germany: Springer.

Non-Refereed Conference Papers (4)

1. Deterding, S., Cooper, S., Canossa, A., Nacke, L. E., **Harteveld, C.**, & Whitson, J. (2015). Gamifying research: Strategies, opportunities, challenges, ethics. In *CHI 2015 Extended Abstracts on Human Factors in Computing Systems*. New York, NY: ACM Press.
2. **Harteveld, C.**, & Van den Bergh, R. (2008). Serious game design workshop. In P. Markopoulos, J. Hoonhout, I. Soute & J. Read (Eds.), *International Conference on Fun and Games, Eindhoven, the Netherlands*, October 20-21, 2008 (pp. 68-73). Eindhoven, the Netherlands: Eindhoven University of Technology.
3. **Harteveld, C.** (2008). A playful approach to flood defence. In S.P. Simonovic, P.G. Bourget, & S.F. Blanchard (Eds.), *Managing Flood Risk, Reliability & Vulnerability: Proceeding of the 4th International Conference on Flood Defence*, Toronto, Canada, May 6-8, 2008 (pp. 631-638). Toronto, Canada: Institute for Catastrophic Loss Reduction.
4. **Harteveld, C.** (2007). Using the Unreal Engine to build playful cities: How the modding experience of Levee Patroller can be applied to sustainable urban development. Paper presented at *The Playful City: Serious Gaming for Sustainable Development*, November 29, Delft, the Netherlands.

Refereed Abstracts/Posters (3)

1. Avera, A.** , Sun, Y.** , Liang, C.** , **Harteveld, C.**, Kaeli, D., & Sutherland, S. C. (2016). The best predictor of future reliance is past reliance. Presented at the *12th Annual Symposium of the Houston Human Factors and Ergonomics Society*, June, Houston, TX.
2. Abdoun, T., **Harteveld, C.**, El-Sekelly, W., Grover, D.** , Bennett, V., El-Shamy, U., & McMartin, F. (2016). A mixed reality field testing educational game for geo-engineering education. Presented at *Geotechnical & Structural Engineering Congress*, February 14-17, Phoenix, AZ.
3. Ozgun, O., Ruth, M., **Harteveld, C.**, & KC, B. (2015). Dynamics of urban warming: How human-environment interaction creates urban heat islands? Presented at *System Dynamics Conference*, July 19-23, Cambridge, MA.

INVITED PRESENTATIONS

1. Creativity and design in interdisciplinary research. *ACM International Conference on Computer Science Research and Innovations*. Ibadan, Nigeria, September 7, 2016.

2. Interactive games for legal services. *Legal Services Corporation's Technology Initiative Grants Conference*, San Antonio, TX, USA, January 14, 2016.
3. Finding the game in decision making: Advancing the use of games to study and train decisions. *MIT Lincoln*, Burlington, MA, USA, July 10, 2015.
4. Play for resilience and sustainability. *University of Rhode Island*, Kingston, RI, USA, March 13, 2015.
5. Serious gaming as a learning tool for self-represented parties (Session 1) and Collaborative Game Design Workshop (Session 2). *Legal Services Corporation's Technology Initiative Grants Conference*, San Antonio, TX, USA, January 15, 2015.
6. Play for resilience and sustainability. *Kansas State University*, Manhattan, KS, USA, October 16, 2014.
7. So why did you do that? The meaning behind player decision-making. *Game User Research Summit*, San Francisco, CA, USA, March 18, 2014.
8. Using games to visualize environmental risks. *Information Design and Data Visualization Symposium*, Boston, USA, June 20, 2012.
9. Making sense of virtual risks. Guest Lecture at MIT, RPI, Northeastern University, Indiana University, University of New Mexico, USA, May, 2012,
10. Practiceware, serious games, persuasive games, sims, immersive learning environments, and so on: About what are we talking? *New Media Event*, Delft, the Netherlands, November 26, 2009.
11. Virtuele nattigheid: De geschiedenis en toekomst van Dijk Patrouille [Virtual wetness: The history and future of Levee Patroller]. *Game in the City: Breaking the rules*, Amersfoort, the Netherlands, November 6, 2008.
12. Virtuele werelden als experience factory [Virtual worlds as experience factory]. *Experience Factory Exhibition*, Delft, the Netherlands, October 30, 2008.
13. Back to the basics: Serious games nader verklaard [Back to the basics: Serious games explained]. *Gaming@firstlife*, Utrecht, the Netherlands, December 11, 2007.
14. A research methodology for developing serious games. Panel at *DIGRA 2007: Situated Play*, Tokyo, Japan, September 28, 2007.
15. Splend leren in virtuele werelden [Playful learning in virtual worlds]. *Symposium Greetings from Second Life*, Breda, the Netherlands, April 18, 2007.

CREATIVE ACTIVITY: GAMES

- 2016-Current *Embrace*: Help female cancer survivors cope with how to face challenges in their daily life and building a community. Status: prototype.
- 2015-Current *Building Systems from Scratch*: Using Scratch we are developing a curriculum where students build games about climate change. Status: 3rd iteration.
- 2015-Current *Debris*: Explore how multi-objective infrastructure problems can be solved by having humans collaborate with algorithms. Status: 3 prototypes.
- 2015-Current *RePresent*: Help prepare citizens to face challenging courtroom experiences through an online game. Status: Launched first game, building second.
- 2014-Current *Urban Heat*: System dynamics and GIS driven game for decision makers around urban heat islands. Status: prototype.
- 2014-Current *VISTALights*: Building a flexible game engine to explore what-if scenarios of disruptions in global supply chains. Status: launched online game.

- 2015-Current *TinySea*: Teaching the important of climate change in the context of marine life to middle school students. Status: about to launch online game.
- 2015-Current *GeoExplorer*: Mixes laboratory experiments, computer simulation, lectures and virtual environments in order to improve decision-making skills and provide practical experience to engineering students. Status: 3rd iteration.
- 2013-Current *Mad Science*: Game-based platform that empowers users to participate in and create social and behavioral science experiments. Status: launched platform.
- 2012-Current *Gram's House*: Large-scale initiative to broaden the field of Computer Science through games. Status: multiple prototypes/studies, launching online game.
- 2011-2012 *Leadership Training Game for Public Service Managers*: A multiplayer tablet-based leadership game for Rijkswaterstaat, the executive arm of the Dutch Ministry of Infrastructure and the Environment Status: handed over game.
- 2008-2012 *Hazard Recognition Game*: Exploring the use of gaming for a multinational oil company. Status: two prototypes and report.
- 2008-2009 *Serious Gaming for Flood Control 2015*: Developed a vision for using games for flood control. Status: several prototypes and report.
- 2006-2012 *Levee Patroller*: A single player 3D first person game that helps to make sense of flood risks. Part of my MS and PhD research. Status: open source game.
- 2007 *TU Delft Island*: Developed an interactive tour of university highlights in Second Life. Status: work archived.
- 2007 *Cyberdam 3D*: Using ActiveWorlds developed a playground for educators and students to plan the redesign of an urban region. Status: work archived.

GRANTS

- Total external: \$5,176,436 (my part: \$1,913,020)
- Total internal: \$414,215 (my part: \$277,548)
- **Total: \$5,590,651** (my part: \$2,190,568)

External–Funded (13)

1. **National Science Foundation** grant for Cyberlearning for *Empowering Learners to Conduct Playful Experiments* with Camillia Matuk, Gillian Smith, Steven Sutherland (Co-PIs) for **\$550,000**. Role: PI. Period: Sept 2017-Aug 2019 (2 years).
2. **Defense Advanced Research Projects Agency** grant for *Advancing Methodology for Social Science Research with Alternate Reality Games: Proof-of-Concept Through Measuring Individual Differences and Team Performance* with Magy Seif El-Nasr (PI), Paola Rizzo, Truong-Huy Nguyen, and Paul Fombelle (Co-PIs) for **\$497,949**. Role: Co-PI. Period: Sept 2017-Aug 2018 (1 year).
3. **Legal Services Corporation** Technology Initiative Grant (TIG) for continuing *Self-Represented Parties Advocacy Game Design Project* with Statewide Legal Services of CT (PI), New Haven Legal Assistance, and NuLawLab (Co-PIs) for **\$123,563** (no overhead). Role: Co-PI. Period: Jan 2017-Jan 2018 (1 year).
4. **Defense Advanced Research Projects Agency** Young Investigator Award for *Personalized and Crowdsourced Scenario Generation* for **\$500K**. Role: PI. Period: Sep 2016-Aug 2018 (2 years).
5. **National Science Foundation** grant in Critical Resilient Interdependent Infrastructure Systems and Processes (CRISP) for *Multi-Agent Modeling Framework for Mitigating Distributed Disruptions in Critical Supply Chains* with Jacqueline Griffin (PI), Ozlem Ergun,

- David Kaeli, Stacy Marsella (Co-PIs) for **\$500,000**. Role: Co-PI. Period: Sept 2016-Aug 2019 (2 years).
6. **Renewal Schlumberger Foundation** 2015-2016 Faculty for the Future Fellowship grant for Yetunde Folajimi (University of Ibadan, Nigeria) with Gillian Smith for **\$40,000**. Role: Primary Advisor. Period: Sept 2016-Aug 2017 (1 year).
 7. **National Science Foundation** grant in STEM + Computing Partnerships (STEM+C) for *Research on the Development of Computational Thinking and Systems Thinking in Middle School Students through Explorations of Complex Earth Systems* with Gillian Puttick (PI), Gillian Smith, Eli Tucker-Raymond (Co-PIs) for **\$1,799,981**. Role: Co-PI for \$450,365. Period: Sept 2015-Aug 2018 (3 years).
 8. **Schlumberger Foundation** 2015-2016 Faculty for the Future Fellowship grant for Yetunde Folajimi (University of Ibadan, Nigeria) with Gillian Smith for **\$40,000**. Role: Primary Advisor. Period: Sept 2015-Aug 2016 (1 year).
 9. **Legal Services Corporation** Technology Initiative Grant (TIG) for *Self-Represented Parties Advocacy Game Design Project* with Statewide Legal Services of CT (PI), New Haven Legal Assistance, NuLawLab, and Gillian Smith (all Co-PIs) for **\$91,840** (no overhead). Role: Co-PI for \$38,000. Period: Jan 2015-Jan 2016 (1 year).
 10. **National Science Foundation** grant in Advancing Informal STEM Learning (AISL) for *GrACE: An AI-Based Game for Broadening Participation in Computer Science and Teaching Computational Thinking* with Gillian Smith (PI) for **\$298,605**. Role: Co-PI. Period: Sept 2014-Aug 2016 (2 years). [1st re-submission]
 11. **National Science Foundation** grant in Improving Undergraduate STEM Education (IUSE) for *Mixed Reality and Mobile Gaming for 21st Century Engineering Education* with Tarek Abdoun (PI), Victoria Bennett, and Usama El-Shamy (Co-PIs) for **\$659,875**. Role: Co-PI for \$218,250. Period: Aug 2014-Aug 2017 (3 years). [1st re-submission]
 12. **Deltares** grant for PhD research for continuing my master's thesis research for **€100,000**. Period: Mar 2007-Feb 2011.
 13. **SAGASNET** workshop participant grant for Developing Narrative Games/On-line Worlds workshop for **€800**. Period: 2006.

Internal-Funded (9)

1. **Tier-1 Northeastern University FY18** seed funding for *Measuring Team Performance with Alternate Reality Games* with Paul Fombelle (PI) and Magy Seif El-Nasr (Co-PI) for **\$50,000**. Role: Co-PI. Period: Jul 2017-Jun 2018 (1 year).
2. **Collaborative Faculty Research and Creative Activity Incentive Grant** by the College of Arts, Media and Design at Northeastern University for *Embrace: An Innovative Social Game for Women with Cancer to Improve Self-Management Needs* with Susan Mello (Co-PI) for **\$10,000**. Role: PI. Period: May 2016-Apr 2017 (1 year).
3. **Tier-3 Northeastern University** funding for Advancing Undergraduate Learning and Teaching for *Portal for Gamified, Online, Non-Linear Course Delivery* with Alessandro Canossa (PI) and Magy Seif El-Nasr (Co-PI) for **\$25,000**. Role: Co-PI. Period: Jul 2015-Jun 2016 (1 year).
4. **Tier-1 Northeastern University FY16** seed funding for Interaction between *Human in the Loop Design and Optimization for Resilient Infrastructure Networks* with Ozlem Ergun (Co-PI) for **\$50,000**. Role: PI. Period: Jul 2015-Jun 2016 (1 year).

5. **Advancing Undergraduate Teaching and Learning** grant at Northeastern University for *Mad Science: A Game-Based Learning Experience on Research Methods* with Gillian Smith and Joseph Schwartz (Co-PIs) for **\$10,000**. Role: PI. Period: Jul 2014-Jun 2015 (1 year).
6. **Tier-1 Northeastern University FY15** seed funding for *Interaction between Socio-Economic Changes and Urban Warming Problem: Modeling the Feedbacks and Identifying the Leverage Points* with Matthias Ruth (PI) for **\$50,000**. Role: Co-PI. Period: Jul 2014-Jun 2015 (1 year).
7. **Tier-1 Northeastern University FY15** seed funding for *An AI-Driven Game for Broadening Participation in Computer Science* with Gillian Smith (PI) for **\$50,000**. Role: Co-PI. Period: Jul 2014-Jun 2015 (1 year).
8. **Collaborative Faculty Research and Creative Activity Incentive Grant** by the College of Arts, Media and Design at Northeastern University for *Game-Based Platform for Crowdsourced Experimentation and Citizen Science* with Gillian Smith (Co-PI) for **\$10,000**. Role: PI. Period: Nov 2013-Oct 2014 (1 year).
9. **Delft University of Technology** grant for PhD research for continuing my master's thesis research for **€140,000**. Period: Mar 2007-Feb 2011.

TEACHING

At Northeastern University

GSND5130 Usability and Empirical User Research, Fall'17 (#22), 22 students
GSND5130 Game User Research, Spring 2017, 6 students, *revised course*
GSND5130 Usability and Empirical User Research, Fall 2016, 15 students
GAME2650 Intro to Game Research Methods, Spring 2016, 8 students, *new course*
GAME3300 Game Interface Design, Fall 2014, 18 students
GSND5130 Usability and Empirical User Research, Fall 2015, 8 students, *new course*
GAME3300 Game Design Capstone I, Fall 2015, 26 students, co-taught
GAME4701 Game Design Capstone II, Spring 2015, 14 students
GAME2500 Foundations of Game Design, Spring 2015, 33 students
GAME3300 Game Interface Design, Fall 2014, 18 students
GAME3300 Game Interface Design, Fall 2013, 23 students
GAME2200 Games and Learning, Spring 2013, 6 students, *new course*
GAME3300 Game Interface Design, Fall 2012, 13 students, *revised course*

At Delft University of Technology (all co-taught)

SPM6210 Serious Games & Virtual Worlds Colloquia, Fall 2011, 6 students, *new course*
SPM9250 Tools, Skills and Techniques for Consultants, Fall 2010, 25 students, *new course*
SPM9235 Game Design Project, Spring 2009–2011, 20-25 students

ADVISING

Co-op is 4 or 6 month internship of 40 hrs/w; RA is Research Assistant for 10-20 hrs/w; RS is research study for credit; IS is independent study for credit.

Postdocs (7/8)

2017 Hiring 2/3 postdocs Fall 2017.
2015-Current Jacqueline Barnes, PhD from Indiana University on Educational Games
2015-Current Yetunde Folajimi, PhD from University of Benin, Nigeria on Game AI. She will be returning to her Assistant Lecturer position at University of Ibadan, Nigeria after her postdoc

- 2015-2017 Amy Hoover, PhD from University of Central Florida on Computational Creativity. *Now Tenure-track Assistant Professor at New Jersey Institute of Technology per August 2017*
- 2015-2016 Hassen Gharbi, PhD from National Institute of Applied Sciences of Toulouse, France on Supply Chain Resilience. He returned to his Assistant Professor position at University of La Manouba, Tunisia after his postdoc
- 2014-2015 Steven C. Sutherland, PhD from Southern Illinois University on Experimental Psychology using games. *Now tenure-track Assistant Professor at University of Houston-Clear Lake*

Staff (4)

- 2017-Current Rick Menasce, designer, former student
- 2016-Current Dean Thurston, programmer, former student
- 2016-Current Nolan Manning, artist, former student
- 2016-Current Farah Abu-Arja, artist, former student

PhD Students (8)

- 2017-Current Omid Mohadessi, PhD in Industrial Engineering, *primary advisor*, co-advisor: Ozlem Ergun
- 2017-Current Nithesh Javvaji, PhD in Interdisciplinary Engineering, *primary advisor*, co-advisors: Ozlem Ergun and Auroop Ganguly
- 2016-2017 XiNa Jiang, Visiting PhD Student from Communication University of China
- 2016-2017 Malini Srivastava, PhD Student at Carnegie Mellon University, thesis committee member, advisor: Vivian Loftness
- 2016 Jesus Moreno, Visiting PhD Student from Universidad Rey Juan Carlos
- 2015-2016 Zhu Xiaofeng, Visiting PhD Student from Communication University of China, supervised together with Celia Pearce
- 2014-2015 Hunter Hustus (US Air Force), Law & Policy Doctoral program, *Nuclear arsenals at low numbers: When Less is Different*. Graduated August 2015. Note: this leads to a Doctorate Degree (2 years total), not PhD Degree
- Fall 2014 Christoffer Holmgard, Visiting PhD Student from ITU Copenhagen, supervised together with Alessandro Canossa

MS/MFA Students (21)

- 2017-Current August Orlow, MS Game Science and Design, RA, thesis supervision
- 2017-Current Ala Abrahimi, MS Game Science and Design, co-op
- 2016-Current Ria Mittal, MS Game Science and Design, RA
- 2016-Current Jing Kang, MS Game Science and Design, RA
- 2016-Current Tyler Corwin, MS Game Science and Design, RA
- 2016-Current Borna Fatehi, MS Game Science and Design, RA, thesis supervision
- 2015-Current Absinthe Wu, MS Game Science and Design, RA
- 2017 Divya Agarwal, MS Computer Science, RA
- 2017 Vaishnaviben Shah, MS Game Science and Design, RA, co-op
- 2016-2017 Shubham Gupta, MS Game Science and Design, RA
- 2015-2017 Shiyu Zhang, MS Game Science and Design, RA, co-op
- 2015-2017 Michael Williams, MS Game Science and Design, RA, co-op, research study
- 2015-2017 Rick Menasce, MS Game Science and Design, RA, research study
- 2015-2017 Jiayu Liu, MS Game Science and Design, RA, research study

2016 Yangdon Ye, MFA Information Design and Visualization, thesis supervision
 2016 Jeanie Choi, MFA Interdisciplinary Arts, RA, research study
 2015-2016 Farah Abu-Arja, MS Digital Media, RA
 2014-2015 Huichen Gao, MS Computer Systems Engineering, RA
 2014-2015 Nishitha Yoganand Thuljaram, MS Engineering Management, RA
 2014 Yuyang Zhao, MS Computer Systems Engineering, RA

Undergraduate Students (37)

2017-Current Zhuohi Li, Digital Art and Game Design, co-op
 2017-Current Andrew Barret, Games, RA
 2017-Current Zachary Lee, Computer Science, RA
 2016-Current Annie Cheng, Games, RA
 2016-Current Ciarra Peters, Computer Science, RA
 2016-Current Myra Afzal, Chemical Engineering, RA
 2016-Current Tasha Merchant, Psychology, RA
 2015-Current Isaac Schutz, Digital Art and Game Design, co-op/RA
 2017 Aaron Salomon, Digital Art and Game Design, co-op
 2016 Harrison Barclay, Electrical and Computer Engineering, RA
 2016 Devin Yang, Games, research study
 2016 Alexander Nathanson, Games, co-op
 2016 Shea Kernan, Industrial Engineering, work study
 2016 Joey Goode, Computer Science and Game Design, research study
 2016 Geovane Pereira, Game Design, summer intern
 2016 Daniela Yumi, Game Design, summer intern
 2015-2016 Chisheng Liang, Electrical and Computer Engineering, co-op/RA
 2015-2016 Oskar Strom, Digital Art and Game Design, co-op/RA
 2015-2016 Dean Thurston, Computer Science and Game Design, co-op/RA
 2015-2016 Christopher Clark, Computer Science and Interactive Media, co-op/RA
 2014-2016 Nolan Manning, Digital Art and Game Design, co-op/RA
 2015-2016 Cody Mello-Klein, English, RA
 2015-2016 Daniel Grover, Computer Science and Game Design, co-op/RA
 2016 Daniel Pilon, Sociology, co-op
 2014-2016 Wilfred Hsie, Computer Science and Game Design, RA
 2015 Courtney Toder, Computer Science and Game Design, research study
 2015 Mark Trueblood, Digital Art and Game Design, co-op/RA
 2015 Amy Stahl, Sociology, RA/research study
 2015 Michael Slemom, Digital Art, co-op/RA
 Summer 2015 Hilery Chao, Computer Science at Brown University, RA
 Summer 2015 Kaithlyn Roose, Psychology at Gannon University, RA
 2014 Max Lever, Computer Science and Interactive Media, RA
 Summer 2014 Russell Bradley, Digital Art and Game Design, RA
 2014 Deniz Ozkaynak, Computer Science and Game Design, independent study
 2013 Harrison Lavin, English, co-op
 2013 Wildo Perallon, Digital Art and Game Design, co-op
 2013 Bruno Agnellini, Graphic Design and Game Design, independent study

Worked closely with (10)

- 2017 Nathan Partlan, PhD student Industrial Engineering, advisor: Magy Seif El-Nasr
- 2015-Current Aybike Ulsan, PhD student Industrial Engineering, advisor: Ozlem Ergun
- 2015-Current Britton Horn, PhD student Computer Science, advisor: Gillian Smith
- 2014-Current Yifan Sun, PhD student Electrical & Computer Engineering, advisor: David Kaeli
- 2015-2016 Eduardo Gonzalez, Law school student, advisor: Dan Jackson
- 2015 Binita KC, Postdoc Public Policy, advisor: Matthias Ruth
- 2015 Lisa Stevens-Goodnight, Law school student, advisor: Dan Jackson
- 2014-2015 Waleed El-Sekelly, Postdoc Civil Engineering, advisor: Tarek Abdoun
- 2014-2015 Onur Ozgun, Postdoc Public Policy, advisor: Matthias Ruth
- 2014 Donald Bass, PhD student Computer Science, advisor: Gillian Smith

SERVICE

Institution Northeastern University–Department

- 2017-Current Graduate Coordinator for the MS in Game Science and Design
- 2016-Current Lab Space Coordinator (student working space, postdocs, usability lab)
- 2016-Current Member of the Task Force for a CAMD PhD program for a new PhD program to soft launch in Fall 2018
- 2015-Current Initiated and developed the Northeastern Game Studio, a collaborative studio for the development of games
- 2012-Current Local lead organizer of the Boston Global Game Jam @ Northeastern University, a 48-hour game jam with currently 160-170 participants
- 2014-2015 Chair of the Game Design Research Activities Committee
- 2014-2015 Member of the Game Design Events Committee
- 2014-2015 Member of the Game Design PhD Committee for creating a PhD Program
- Spring 2014 Helped organize the second Northeastern’s Annual Game Showcase
- 2013-Current Initiated and developed a Game User Research Protocol to accommodate faster processing of IRB approvals
- Spring 2013 Set up and organized the first Northeastern’s Annual Game Showcase
- 2012-2014 Helped develop and approve a Master’s Degree on Game Science and Design
- 2012-2014 Member on the Game Design Events and Website Committee
- 2012-2013 Member on the Art+Design Undergraduate Committee
- 2012-2013 Helped establish vision and strategy of the new Game Design Group

Institution Delft University of Technology

- 2010-2011 Helped develop and establish the first Serious Gaming DreamTeam and associated curriculum
- 2009-2010 Helped develop a Minor in Consultancy
- 2008 Theme leader of Grassroots Project for Games in Education where I advised then professors about the use of games in their curriculum
- 2007-2009 Helped develop and establish the GamingStreet (now called GameLab), a collaborative research studio for the development and evaluation of games

Discipline/Profession-Community Building

- 2016-2017 Co-Chair International Conference of Foundations of Digital Games (FDG)
- 2016 Workshop “Using games to teach computer science concepts” at Games+Learning+Society
- 2016 Senior Program Committee Member DiGRA-FDG Conference

- 2015 Participant Cyberlearning Workshop
- 2015 Co-Organizer Workshop Researching Gamification at CHI 2015
- 2014 Co-Organizer Workshop Playful Virtual Characters at Intelligent Virtual Agents
- 2013-2015 Guest Editor on Games for Humanitarian Work for the Journal of Humanitarian Logistics and Supply Chain Management
- 2010-2011 Guest Editor on design for engaging experience and social interaction for the Journal of Simulation & Gaming

Discipline/Profession-Journal Reviewing

- 2-3 per year Simulation & Gaming, Transactions on Computational Intelligence and AI in Games
- 1-2 per year Computers & Education, Entertainment Computing, Information Science

Discipline/Profession-Conference Reviewing

- 2-3 per year CHI, Foundations of Digital Games
- 1-2 per year CHI Play, ISAGA
- Past Information Systems for Crisis Response and Management Conference

Discipline/Profession-Other Reviewing

- 2014-Current National Science Foundation panel member, three panels + 1 ad-hoc review
- 2014-Current Reviewer CHI Game Competition, 1-3 games per year

Community/Public

- 2014-Current Active collaboration with Northeastern Center for STEM Education in their summer schools and outreach activities for K-12 students
- 2015 Open House workshop and demo of *TinySea* at the Marine Science Center
- 2015 Workshop at Youth Enrichment Day, which is organized to serve youth ages 15-18 and provide tools for success in the future
- 2007 Exhibited games at the NEMO Museum of Science and Science Centre Delft
- 2005-2012 Organized various cultural festivals for local communities that included the development and facilitation of large-scale games (>100 participants) such as a real life *Settlers of Catan* and a Harry Potter themed card trading game