

DREAMING WITH EYES OPEN

THE ART, HISTORY, PHILOSOPHIES, AND PRACTICES OF VIRTUAL REALITY

Tuesday, November 13, 2018
Friends of the USC Libraries Lecture Hall,
Doheny Memorial Library 240

THE PHILOSOPHY AND ETHICS OF IMMERSIVE MEDIA

Virtual Reality is finally making its way into our homes, professional lives, and public spaces. Many have predicted that immersive media will have a big impact on humanity. What are the philosophical and ethical implications of the way that we design and use virtual reality experiences? What will VR have to tell us about the way that we perceive, think, and act? What virtual nightmares and utopian waking dreams might lie in store? Join our panelists for a timely discussion of these important issues and ideas.

ABOUT THE PANELISTS

- ◉ **DONALD HOFFMAN** is the author of the forthcoming book *The Case Against Reality*, which expands on his much-viewed TED Talk, *Do We See Reality As It Is?* A professor of cognitive science at UC Irvine and a recipient of a Troland Award from the National Academy of Sciences, he has worked as a project engineer at the Hughes Aircraft Company and a research scientist at the Laboratory for Artificial Intelligence at the Massachusetts Institute of Technology.
- ◉ **KEVIN MACK** is an artist and visual-effects pioneer. He is known for his work on the film *What Dreams May Come*, and has exhibited VR artworks around the world.
- ◉ **ASAD J. MALIK** is an augmented-reality artist and designer, and the founder of 1RIC Studio.
- ◉ **JANET H. MURRAY** is an internationally recognized interaction designer. She directs the Prototyping eNarrative Lab at Georgia Tech and was named one of the “Top Ten Brains for the Digital Future” by *Prospect* magazine. An



associate dean and professor of digital media at Georgia Tech, she is the author of *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* and *Inventing the Medium: Principles of Interaction Design as a Cultural Practice*.

- **PAISLEY SMITH** is the creator of the VR story *Homestay* and the recipient of the 2018 Sundance Institute and Robert Rauschenberg Foundation Fellowship for her forthcoming work *Unceded Territories: VR*, a collaboration with acclaimed artist and VR innovator Lawrence Paul Yuxweluptun. A Canadian filmmaker and VR artist based in L.A. and Vancouver, she is a visiting artist at the Mobile and Environmental Media Lab at USC and holds an MFA from the USC School of Cinematic Arts.
- **KADRI VIHVELIN** is a professor of philosophy at USC and the author of *Causes, Laws, and Free Will: Why Determinism Doesn't Matter*.
- **AMELIA WINGER-BEARSKIN** is an artist, creative director, and organizer who develops cultural communities at the intersection of art, technology, and advocacy. She is the executive director of IDEA New Rochelle and a Google VR JUMP Start creator. She founded and directed the DBRS Innovation labs and is a founder of the Stupid Hackathon. Winger-Bearskin is Haudenosaunee (Iroquois) of the Seneca-Cayuga Nation of Oklahoma, Deer Clan.

DONALD HOFFMAN'S CASE AGAINST REALITY

“Evolution has shaped us with perceptions that allow us to survive. They guide adaptive behaviors. But part of that involves hiding from us the stuff we don’t need to know. And that’s pretty much all of reality, whatever reality might be. If you had to spend all that time figuring it out, the tiger would eat you.”—Donald Hoffman in *The Atlantic*

Donald Hoffman’s TED Talk, *Do We See Reality As It Is?*, has been viewed more than 2.6 million times. Drawing on three decades of research, the cognitive scientist argues that what humans see is not reality, but rather illusions—and that this has an evolutionary purpose. Hoffman suggests that natural selection has constructed interfaces (kind of like computer desktops) that we perceive, and that the actual world is nothing like what we see with our eyes. While this has maximized our evolutionary fitness, in today’s world it also makes us vulnerable to manipulations by marketing and design, Hoffman argues. His book on the topic, *The Case Against Reality: Why Evolution Hid the Truth from Our Eyes*, will be published in 2019.

VIRTUAL REALITY IN POP CULTURE

The exciting—and scary—potentials of virtual reality have long been a favorite subject of cinema. Some famous movies about VR:

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|---------------------------------|------------------------------------|
| <i>Tron</i> (1982) | <i>The Matrix</i> (1999) |
| <i>Videodrome</i> (1983) | <i>eXistenZ</i> (1999) |
| <i>Total Recall</i> (1990) | <i>The Thirteenth Floor</i> (1999) |
| <i>The Lawnmower Man</i> (1992) | <i>Vanilla Sky</i> (2001) |
| <i>Hackers</i> (1995) | <i>Inception</i> (2010) |
| <i>Strange Days</i> (1995) | <i>Ready Player One</i> (2018) |

FOR FURTHER REFLECTION

- What do you think is the most exciting thing about VR and its potential?
- What scares or concerns you about the future of VR?
- Asad J. Malik believes that virtual/augmented realities, artificial intelligence, nanotechnology, gene editing, and neuroscience will significantly alter the human condition in our lifetime, and that it is our job to make sure that this radical technological change leads to radical socio-political change instead of maintaining the established order. How do you think we can or should address this?

VOCABULARY CORNER

VIRTUAL REALITY is a computer-generated simulation of the real world that immerses users in a fully artificial digital environment.

AUGMENTED REALITY overlays computer-generated virtual objects on the real-world environment.

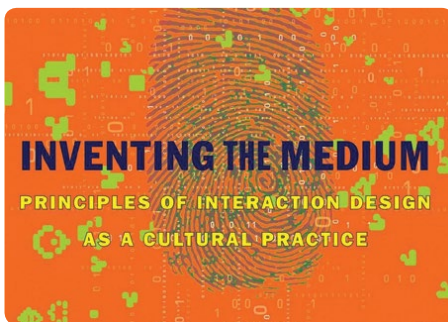
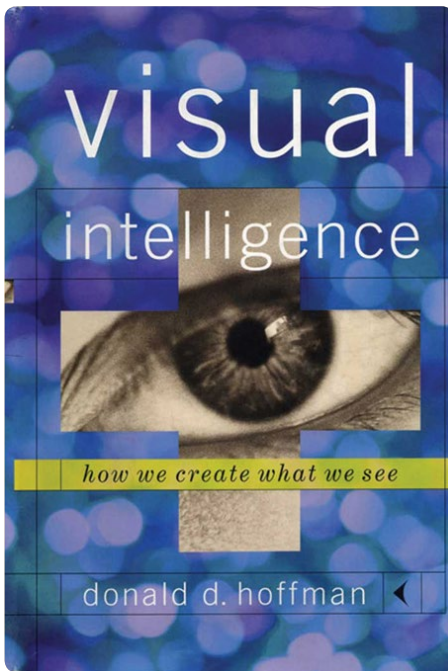
MIXED REALITY anchors virtual objects to the real world. (Of course, Donald Hoffman’s research begs the question: What is “the real world”?)



Donald Hoffman’s TED Talk, *Do We See Reality As It Is?*



Tron (1982)



Inception (2010)

IF YOU LIKED THIS EVENT, YOU MIGHT WANT TO CHECK OUT

- [The Mobile and Environmental Media Lab in the USC School of Cinematic Arts mobilemedia.usc.edu](http://mobilemedia.usc.edu)
- [Donald Hoffman's TED Talk ted.com/talks/donald_hoffman_do_we_see_reality_as_it_is?language=en](http://ted.com/talks/donald_hoffman_do_we_see_reality_as_it_is?language=en)
- [The podcast Voices of VR voicesofvr.com](http://voicesofvr.com)

DISCOVER MORE AT THE USC LIBRARIES

MELISSA L. MILLER of the USC Libraries selected the following resources to help you learn more about tonight's event. You can access online resources, including the databases and journals below, through the search bar on the USC Libraries homepage at libraries.usc.edu.

BOOKS

- [Hoffman, Donald D. *Visual Intelligence: How We Create What We See*. 1st ed. New York: W.W. Norton, 1998.](#)
- [Murray, Janet Horowitz. *Hamlet On The Holodeck: The Future of Narrative in Cyberspace*. New York: Free Press, 1997.](#)
- [Murray, Janet H. *Inventing the Medium: Principles of Interaction Design as a Cultural Practice*. Cambridge, Mass.: MIT Press, 2012.](#)
- [Vihvelin, Kadri. *Causes, Laws, and Free Will: Why Determinism Doesn't Matter*. New York: Oxford University Press, 2013.](#)

STREAMING MEDIA DATABASE: KANOPY

Citation:

The Internet and Virtual Reality. The Great Courses, 2015.
Accessed October 4, 2018.

Description: 36 episode series

For all of their ubiquity, personal computers, email, and the Internet represent a major departure in the evolution of computer technology. Witness the exciting and improbable birth of personal computing in the 1970s, and explore the nature of the virtual world where more and more people now reside.

<http://bit.ly/Dreaming-Kanopy>

DATABASES:

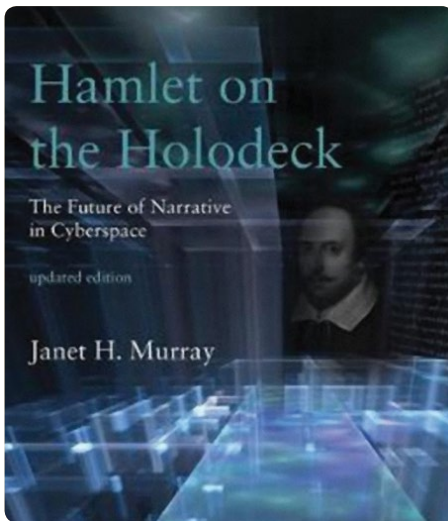
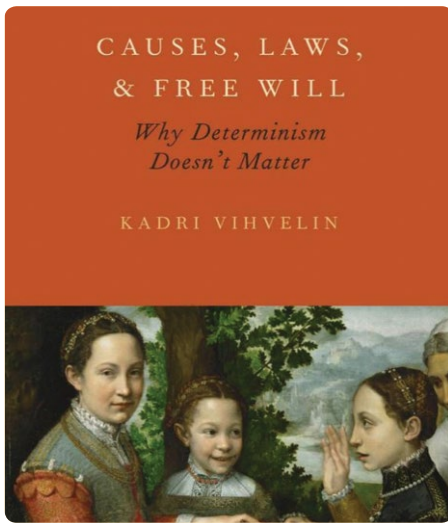
[ACM Digital Library](#)
[Xplore \(IEEE Electronic Library\)](#)
[Engineering Village 2](#)
[ProQuest SciTech Collection](#)
[ProQuest Science Database](#)

JOURNALS:

[Nature: International Journal of Science](#)
[Journal of Virtual Reality and Broadcasting](#)

ARTICLES:

- [Hayden, Scott. \(2017\) "Prolific VFX Artist Kevin Mack Brings Surrealist Sculpture to Life in 'Blortasia'" Road To VR. Retrieved from <http://bit.ly/Dreaming-KevinMack>](#)



- Marín-Morales, J., J.L. Higuera-Trujillo, A. Greco, J. Guixeres, C. Llinares, E.P. Scilingo, M. Alcañiz, and G. Valenza. “Affective computing in virtual reality: emotion recognition from brain and heartbeat dynamics using wearable sensors.” *Scientific Reports* 8, no. 1 (n.d.).
- Meek, Michele. (2016) “10 Filmmakers to Watch in 2016: Paisley Smith” *The independent-magazine.org*. Retrieved from <http://bit.ly/Dreaming-PaisleySmith>
- Mustatea, Kat. (2017) “How This VR Creator Can Make Your Eyes Fall Out Of Your Head”. *Forbes.com*. Retrieved from <http://bit.ly/Dreaming-Forbes>
- Vihvelin, Kadri. “Free Will Demystified: A Dispositional Account.” *Philosophical Topics* 32, no. 1/2 (n.d.): 427–450.
- Wissot, Lauren. (2018) “We Need to Strive for a Better, More Inclusive, Emerging Tech Landscape”: Paisley Smith on her VR Project Homestay and Advocating for Women in VR/AR.” *FilmmakerMagazine.com*. Retrieved from <http://bit.ly/Dreaming-HomestayVR>

THE ATLANTIC FEATURE ON DONALD HOFFMAN AND QUANTA MAGAZINE YOUTUBE VIDEO:

- Gefter, Amanda and *Quanta Magazine*. (2016) “The Case Against Reality” *The Atlantic.com*. Retrieved from <http://bit.ly/Dreaming-AgainstReality>
- McNew, David. “The Evolutionary Argument Against Reality”. Filmed [April 2016], *Quanta Magazine*. YouTube video, 02:12. Posted [April 2016]. <http://bit.ly/DreamingVideo-AgainstReality>

VENTURE BEAT FEATURE ON ASAD J. MALIK AND YOUTUBE VIDEO:

- Chan, Stephanie. (2018) “AR experience Terminal 3 puts you in the boots of a U.S. customs officer” *VentureBeat.com*. Retrieved from <http://bit.ly/Dreaming-AsadJMalik>
- Malik, Asad J. “Making of TERMINAL 3 An Augmented Reality Experience from Asad J. Malik” Filmed [April 2018], 1RIC. YouTube video, 02:39. Posted [April 2018]. <http://bit.ly/DreamingVideo-AsadJMalik>