

# HELLO

Rise of the Networked Generation

# AWATARR

B. Coleman

foreword by Clay Shirky

---

**HELLO  
AVATAR**



---

**HELLO  
AVATAR**

**Rise  
of the Networked  
Generation**

**B. Coleman**

The MIT Press  
Cambridge, Massachusetts  
London, England

---

© 2011 B. Coleman

All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from the publisher.

For information about special quantity discounts,  
please email [special\\_sales@mitpress.mit.edu](mailto:special_sales@mitpress.mit.edu).

This book was designed by Katie Andresen.  
Printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

Coleman, Beth.

Hello avatar / B. Coleman.

p. cm.

Includes bibliographical references and index.

ISBN 978-0-262-01571-4 (hardcover: alk. paper) 1. Virtual reality—Philosophy.

2. Reality. 3. Avatars (computer graphics)—Psychological aspects. 4. Human behavior models. 5. Shared virtual environments. 6. Human-computer interaction.

I. Title.

BD331.C565 2011

302.23'1—dc22

2010042676

10 9 8 7 6 5 4 3 2 1

---

HOW2



---

## Contents

ix	Foreword, Clay Shirky
xv	Acknowledgments
1	Rise of the Networked Generation: An Introduction
11	Chapter 1: What Is an Avatar?
53	Chapter 2: Putting a Face on Things
81	Chapter 3: Interview with the Virtual Cannibal
115	Chapter 4: Presence
143	Chapter 5: X-Reality: A Conclusion
163	Procession of Avatars
176	X-Reality Timeline
186	Glossary
189	Index



---

# Foreword

**Clay Shirky**

I started using the Internet in the early 1990s, when the web was just a gleam in Tim Berners-Lee's eye. One of the things I observed during the explosion of the online landscape at that time was a dramatic shift from the text-only medium it had been for its first twenty years of its life to one that was increasingly visual.

It was easy to extrapolate, from this embrace of the image, that the end-state of networked technologies would be our arrival in “cyberspace” and immersion in “virtual reality,” phrases bequeathed to us by science fiction author William Gibson and computer scientist Jaron Lanier, respectively. These phrases described a visual but mediated realm where we could interact with data and, much more important, with one another without regard to our geographic location.

By the late 1990s, the evidence for the spread of virtual reality was everywhere—Mark Pesce had created Virtual Reality Markup Language, a general-purpose tool for building virtual environments, and a variety of companies and technologies like Black Sun (later Blaxxun) and Alpha Worlds sprang up to offer computer-mediated visually

immersive experiences. It was easy to guess that virtual reality would soon become the principal way for people to interact with one another online.

And then a funny thing happened—it didn't. The second great change, not as immediately obvious as the Internet's visual turn but just as profound, was that the tools of digital connectivity would become ubiquitous.

Back in the day (around 1994), we had our real friends, whom we saw at work and in the bar, and we had our imaginary friends, whom we "saw" online. These two groups were different because the people we knew in the real world were mostly not online (and in fact had mostly not heard of the Internet). Conversely, our online friends didn't live near us, so we couldn't see them in what we used to call real life, back when it didn't include digital communication.

The notion of cyberspace was supported by this social separation—digital networks were seen as an alternative to the real world, conceptualized as a place where we would go when we went online. By the early part of this decade, though, the real and virtual worlds had begun to anneal.

The first source of this change was growing ubiquity of access. In 2000, if you were under thirty, you were, statistically, online, and if you were under 20, most of the people you knew were online as well. For this cohort, digital networks were increasingly an augmentation of the real world, rather than an alternative to it.

Ubiquity of access was followed by ubiquity of connection. A whole host of technologies, from laptops to wireless networks to pocket-sized computers masquerading as phones, forced us to give up the notion of connecting as travel, with the destination being online, a place we would go. To take advantage of digital communications and use digital tools to read and write digital traces from our friends and colleagues, we no longer had to sit in particular chairs in front of computers with special wires in the back. Instead, we could be periodically connected, in short bursts, all the time.

For most of us thinking about media, these two notions—of a visually immersive cyberspace and of portable, ubiquitous connectivity—exist as alternate interpretations of contemporary behavior. On the cyberspace side, Second Life and Cyworld and Habbo Hotel are visual environments built around architectural metaphors—rooms in which to socialize or visual scenes of travel as we move to different locations in order to converse with others. These spaces were meant as platforms for thick, immersive experiences that were meant to make the real world fall away by copying enough of its affordances and constraints to provide a partial digital substitute.

On the ubiquity side, we have services like Facebook and Flickr and Foursquare, thin tools that allow us to communicate and to share things with one another but which dispense spatial metaphors in favor of emphasizing the connections and locations of the real world over anything immersive.

These notions have generally been treated as incompatible views—if we think of the network as a cyberspace and ourselves as actors enveloped by it, we will analyze our life with the network in one way; if we think of the network as a light, ubiquitous communications substrate linking real-world actors and actions, we will think of it in an alternate way.

What Beth Coleman proposes to do in *Hello Avatar* is nothing less than reconciling those two visions, providing a means to escape the seeming incommensurability of two competing models. Coleman understands media use is a whole complex of cultural practices that represent not alternate visions but alternate choices, sometimes engaged in rapid succession, or even simultaneously. She presents the use of these tools not as fealty to one or the other metaphor for interpreting our behavior but rather as a whole, organic set of explorations and practices, and she wants to help us understand it that way as well.

The distinction between immersive and lightweight uses of the network was only ever theoretical anyway, happily ignored by the actual users of the technologies. People

who play World of Warcraft also send text messages to each other, and many of their communications outside the game world are with people they know in the game world as well. The different forms of communication just represent different ways for the same two people to communicate with one another—the presentation of facets in everyday life.

These alternate tools and practices, assumptions and traces, aren't alternates at all when we take a holistic view of the actors involved. Coleman sets aside competing technological metaphors for participation in these networks and shifts her view (and ours) to center on the human actors who are cheerfully and fruitfully crossbreeding these separate media experiences. Our choice of expressing selfhood in various ways, in a medium with this much fluidity and malleability, means that even when we merely set out to consume mediated experiences, we end up as designers of those experiences—sometimes by embracing that possibility as an alternative to a norm of pure consumption, but often just as a side effect of the ways the tools work and the way we work with them.

Coleman's framing image is of an avatar—a constructed trace, sometimes crafted, sometimes recorded, and often both—that represents us in digital congress. The word "avatar," borrowed from the Hindu idea of the manifestation of a god in a form that can be seen in this world, has been pressed into service to mean a manifestation of a person projected into a digital world.

Coleman describes the myriad ways that the idea of the avatar, of the virtual face by which we know one another in digital environments, is not in fact contained by the most explicitly designed virtual worlds but smears across all our digital relations, operating in any space where we recognize each other by our digital traces. A profile on a social network, a photo we use when messaging one another, a brief bio tied to a YouTube account—all of these things have some aspect of the avatar around them.

By insisting that the idea of the avatar be located not in one particular kind of space, around one particular set of media use, Coleman's signal achievement here is to

insist that the media landscape and our place in it is in fact as complicated as it seems to be. This in turn allows her to rehumanize a kind of analysis that has often regarded our own behavior as something so shaped by the medium that little regard needs to be taken for individual choice.

The cross-media landscape Coleman writes about, the “x-media” we increasingly swim in, doesn’t just cross from one kind of medium use to another; it crosses from the real to the mediated world and back, all the time. Despite the idea of the avatar as a kind of alternate self, identity isn’t just something we put on and take off like a coat—our roles online are all informed by our own persistent identities.

By rehumanizing the study of technologically sophisticated media use, Coleman shows that we play every role with deference to some facet of ourselves, and that when we play those roles with self-regard but without regard for others, we get the kind of predictable and negative outcomes such a platform for narcissism would produce. This kind of analysis doesn’t blame the tool—“The Internet makes us shouty and mean!”—nor does it blame us—“Behold the squabbling, anonymous masses, humanity in a state of nature!”—but rather says that when we interact with one another in a mediated landscape, we do so with regard to ourselves and to others as filtered through the expectations our digital traces create. As Coleman notes, when we play in the network using an avatar with little history or future, and with other avatars in the same state, the results can be dismal, but when we present facets of ourselves that we invest in, and interact with others so invested, the results can be astonishing.

*Hello Avatar* is a human account of the current media environment, concentrating not just on the human use of tools but on the human use of human beings, to quote Coleman quoting pioneering cyberneticist Norbert Wiener. For such a capacious theoretical vision, *Hello Avatar* is also remarkably concerned with not just theory but principles that can be used in design practice.

The tools and practices Coleman describes don’t just relate to utilitarian tool use but to our sense of self and of

society. She offers various principles throughout the book that can be abstracted from her observations, like this one, which frames her interview with a virtual cannibal: “Users may not see a virtual forum as central to their daily life; this does not mean they will not use it in a satisfying way.” In discussing the affordances of digital spaces, she offers this design principle: “It is the combination of the avatar appearance and behavior that makes for the most evocative results.” These observations are there to help us not just understand these digital environments and experiences better, but to perform them better, which means becoming better codesigners of our own experiences.

---

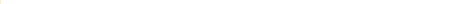
## **Acknowledgments**

Thank you to Howard Goldkrand, Wendy H. K. Chun, Hal Abelson, Henry Jenkins, and Stefan Helmreich for their devoted support of the project. With great generosity of time and spirit, each one read the manuscript at various stages of development. I am indebted to the amazing Katie Andresen for her cunning book design and acid wit—may the two never be parted. Ashley Linnenbank made sure the design was properly executed, for which we are all thankful. I am grateful to the broad community participating in this debate about what is real and how we locate it across our various networks. Mark Wallace and Ren Reynolds both played excellent Virgils as I made my way through the circles of virtual worlds. Clay Shirky, thank you for your provocations on participatory culture that started this ball rolling—it's all your fault;-) As I followed my trail across countries, in Paris and Berlin, Caecilia Tripp, Nico Guiraud, and Lucian Busse were exemplary hosts. I am very thankful to Joe Paradiso and Irving Wladawsky-Berger for their enduring interest and inspiration. Also, a sincere thank you to Jim Paradis for his faith in my investigation of networked subjects. My colleagues in the Columbia

University Engendering Archives group provided extremely helpful feedback on chapters, as did the wonderful Gabriella Coleman. Postdoctorate researcher Jaroslav Svelch provided great assistance on the timeline. My appreciation goes to my editor, Doug Sery, for his early and sustained enthusiasm, as well as to associate editor Katie Helke Dokshina and the rest of the MIT Press team. Additionally, I would like to acknowledge the anonymous peer reviewers for their insights. During my 2010 research fellowship at Microsoft Research New England, danah boyd and the social media research group swooped in at the end of the process to keep me in good company. And, finally, thanks to the Global Frequency massive for keeping things wobbly.

B. Coleman, Spring 2011  
Cambridge, Massachusetts





---

## **Rise of the Networked Generation: An Introduction**

```
{  
state_entry()  
{  
llSay(0, "Hello, Avatar!");  
}
```

Hello Avatar!

### *Hello Avatar: Worlds of Agency*

The script that begins this introduction, `{llSay(0, "Hello, Avatar!");}`, prints on the computer screen in human language to say, "Hello Avatar!" It is a tiny piece of code that uses the Linden Scripting Language (LSL) developed by Linden Lab for the Second Life virtual world platform. One of the beauties of this language is that it is designed to be inclusive. Many people without background in computer coding can and do write scripts to create the animations and events they choose to enact on the virtual platform. As with other forms of user customization or user-created content, LSL is a tool with which users can dig into the medium of virtual worlds and create their unique vision—

1. Network theory describes a set of behaviors to which a variety of systems—technical, natural, or social—adhere. Much like the network behavior it describes, the literature on network theory is expansive, crossing disciplines and connecting a diversity of thinkers. Among the key theorists, physicist Albert-László Barabási has been instrumental in defining the mathematical properties of networks, and sociologist Manuel Castells has helped to develop a theory of networks in regard to society.

2. Beth Coleman, "Race as Technology," *Camera Obscura* 24, Duke University Press (Fall 2009): 176–190.

one that others can now see right alongside them in a shared vista of virtual objects.

A collaborative space hosted across computers (such as a virtual world), a mesh of mobile phone calls among a group of friends, a live video stream connecting two people on the Internet, these are all examples of networked media we use to connect with each other across geographical distances and often in real time. At the most basic level, the term network describes a system in which nodes are connected to each other by way of links.<sup>1</sup> In a social network, the nodes would be people. In a biological one, the nodes might be proteins linked to form a metabolic network.

In this book, I argue that what we do with our networks of exchange helps to create the world in which we live. And the question of what we do is one of agency. In the field of game studies, agency is often defined as the player's ability to impact the world in which she is playing. Here, I define agency in a fairly narrow manner: user creation with networked media tools. That definition helps to mind the boundaries of my research even as it continues to resonate with the broader terms of agency. As I have argued in previous work, agency indicates presence, will and movement (the ability to move freely as a being) and is not restricted to individuals but also pertains to systems, i.e., it concerns how beings are subjected in systems of power, ideology, and other networks.<sup>2</sup> Technological agency speaks to the ways that external devices help us navigate the terrain in which we live. In thinking about the position of the networked subject, I see yet another turn in the framing of society and self in which agency itself is the disruptive technology of the pervasive media age. In calling agency a technology, I describe a world in which our reach is extended and amplified in terms of spheres of influence, sites of engagement, and presence to one another.

I see a changing face of real-world engagement affected by the emergence of pervasive media. The scale and scope of this change speaks to a generational shift, in which we create new practices of everyday engagement

around a set of real-time, highly visual, and cooperatively shared technologies. With this generation of networked media engagement, I see an end of the virtual and the acceleration of the augmented.

This, then, is the generation I address in this work: the emergent age of mobile, pervasive, networked connectivity. This generation is not defined by demographics since I do not speak exclusively of youth and media use (though, many of the examples I cite and people I have interviewed fit this description). The generational shift I discuss is societal and, as I argue, global as we adjust to the growing phenomenon of pervasive media engagement.

Over the past twenty years, much of the analysis in media studies has focused on the shift from analog to digital production as well as the network culture that has proliferated as a result of this shift. In this book I argue that we have already deeply incorporated network society into our lives and that the important change to understand is the continuum between online and off, i.e., the “X-reality” that traverses the virtual and the real. Recognizing the impact of these changes, it is imperative to understand in concert how media is designed and used. Technology does not determine the subject. Yet, we are not entirely free of cultural constructions, including the technological advances that inform who we are. This book addresses our next steps, for good or ill, in the story of the human use of human beings (to invoke the mathematician Norbert Wiener) and of media as the extension of man (to hail media theorist Marshall McLuhan). It also addresses our next steps, also for good or ill, in the story of accelerated mediation or how we continue to augment our reality. It is an exploration of the technical affordances and cultural values of our experience as networked subjects. I believe we are obliged to think about media from both technical and humanistic perspectives if we are to understand our past and build the future we want.

*Hello Avatar* focuses on what I call *X-reality*—a continuum of exchanges between virtual and real spaces. In this book I look at the emergence of a pervasive media

3. J. N. Bailenson and J. Blascovich, "Avatars." In *Encyclopedia of Human-Computer Interaction* (Great Barrington, MA: Berkshire Publishing Group, 2004), 64–68.

4. The 3D web or X3D refers to the idea that all of the things in which we engage in two dimensions on the web, such as web pages, very soon will be transformed into immersive space (3D) that can be navigated. The 3D web consortium describes its platform as "the real-time communication of 3D data across all applications and network applications," <<http://www.web3d.org/about/overview/>>. "Semantic web" is a term established by computer scientist Tim Berners-Lee to describe a metalayer of data or an informational "skin" that would make the Internet as it exists a more efficient and responsive database, <<http://www.w3.org/>>.

use that defines a world that is no longer either virtual or real but representative of a diversity of network combinations. In the course of this research I have found powerful ways in which we are already mixing realities. As a suite of use and design principles, i.e., technologies and ways of engaging those technologies, X-reality speaks to an extension of agency.

My argument is that it is the avatar's role to aid us in expressing this agency. I mean not only the animated figures moving across the screen but also the gestalt of images, text and multimedia that make up our identities as networked subjects. With his film *Avatar* (2009), Director James Cameron has helped to popularize the concept of other bodies representing a single identity. In regard to networked media, I argue that the meaning of avatar includes the many modes of representation we employ that make up the different roles we play and places we go. My broad definition coincides with the standard definition established by researchers of virtual identity and experience.<sup>3</sup> It also addresses the changing media landscape that we occupy. We find avatars in graphical, real-time, spatial simulation environments such as virtual worlds. In a network society, we also find them in the workings of our daily lives in the form of email missives, video connections, and other digital artifacts.

In the everyday life of the networked subject, what avatar culture and X-reality point to is not a new Internet as some have speculated in discussing a 3D web and a semantic web.<sup>4</sup> Rather, today's emergent use suggests signs of change in network behavior characterized by real-time collaborative networks and an experience of copresence that the text-based and asynchronous online world has barely touched upon in terms of the scale of participation. In my analysis, avatar provides a shorthand for the experience of the networked subject, describing different practices of agency, identity and network capability.

Some of the forums in which we are experimenting with new modes of mediated communication are charmingly goofy. By the summer of 2008, the cartoonish virtual

world Habbo (Finland) had 9.5 million unique users walking around looking like 8-bit cartoon characters. On the other side of the spectrum, researchers in fields such as neuroscience, psychology, and military are using avatars and 3D interactive forums for both training and experimental work. Both uses—that of popular culture and scientific study—represent serious forums for critical practice of real-time mediated interactions.

*Note on Method*

In *Hello Avatar* I explore the culture of mediated communication and not just its technologies. My goal is to combine a discourse of theoretical and applied knowledge relating to the subject at hand. I work to critically engage parallel histories of media technologies, scientific research agendas, and the experiences of media participants themselves to form a more holistic view of a networked generation. The scholarship on virtuality, simulation, and virtual worlds has grown over the past thirty years in parallel with the rise of international personal-computing cultures. I draw on that history for my analysis of the contemporary moment of pervasive media engagement. In addition to my analysis of history, state, and practice, I also conducted field research across multiple sites.

I began my field research on the subject of virtual world engagement in the fall of 2006. Over a two-year period, I traveled in various virtual world platforms, as well as to real-world conferences, industry gatherings, meetups, and all manner of X-reality road stops along the way. I conducted much of my research with the online players of Second Life, Club Penguin, There.com, and Habbo, as well as on the forums that served those communities. These interviews were conducted almost entirely via avatar or other forms of mediated communication such as email and Internet telephony. During the course of my fieldwork, I also interviewed virtual world participants, designers, and companies with whom I met in person at professional conferences and social meetups. The United States, Great Britain, France, and Germany were the primary

- [download online Karen's Kittycat Club \(Baby-Sitters Little Sister, Book 4\) pdf, azw \(kindle\), epub](#)
- [The Secret History of Science Fiction here](#)
- [read online The Authentic Animal: Inside the Odd and Obsessive World of Taxidermy online](#)
- [read Silence and the Silenced: Interdisciplinary Perspectives \(Studies on Themes and Motifs in Literature\)](#)
  
- <http://academialanguagebar.com/?ebooks/Accelerando.pdf>
- <http://wind-in-herleshausen.de/?freebooks/Odes-and-Sonnets.pdf>
- <http://cambridgebrass.com/?freebooks/The-Authentic-Animal--Inside-the-Odd-and-Obsessive-World-of-Taxidermy.pdf>
- <http://thermco.pl/library/Confusion-To-Our-Enemies--Collected-Journalism-of-Arnold-Kemp--1939-2002-.pdf>