



an initiative of the
AMERICAN ASSOCIATION OF MUSEUMS

“Gaming the Future of Museums” Lecture Discussion Guide

January, 2009

Note: This discussion guide is written for people who work in or with museums. We welcome viewers from all sectors to use this guide, view the webcast and participate in the associated discussions. However, depending on your background and area of expertise, you may want to look for additional resources to supplement this guide.

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Foreword—A Note from Our Speaker

Games are a powerful medium for engagement, and creating games can be a successful strategy for museums to heighten visitor experience and provoke intense engagement with ideas, exhibits and spaces. But I am not advocating that all museums need to make games. What I am advocating is that museums look to the game world to borrow and adapt highly successful, well-tested strategies for motivating participation, building community and increasing happiness. Museums don't have to become game worlds, but they would benefit enormously from working like game worlds—in other words, providing the four things that are common to both well-designed games and optimal human experience: clear goals/satisfying work to do; feedback/a feeling of success; social interaction/community with people we already know and like (e.g. friends, family, neighbors); and the chance to contribute and be a part of something bigger/a sense of “big story” or “mythology” that we can be a part of.

—Dr. Jane McGonigal

What Is the Lecture?

“Gaming the Future of Museums” was presented by Dr. Jane McGonigal, director of game research and development at the Institute for the Future, on Dec. 2, 2008, at the Newseum in Washington, D.C. This lecture was the first public event presented by AAM's new Center for the Future of Museums (CFM). CFM helps museums explore the cultural, political and economic challenges facing society and devise strategies to shape a better tomorrow. It is a think-tank and research and design lab for fostering creativity and helping museums transcend traditional boundaries to serve society in new ways. The purpose of this lecture is to bring in exciting ideas from the world of game design to spark new thinking about the ways museums can engage their audiences and help shape the future of society.

A Note about Games and Gaming

In the context of this lecture, “games” are play that has been formalized by a set of rules. “Gaming” refers to participation in role-playing games where the players help create and modify the game environment. Not all games, even role-playing games, are computer-based. (Think of the original Dungeons and Dragons, which was played with paper and dice.) Not all computer games involve animation—many of Dr. McGonigal's Web-based games simply use Web-based methods of communication (e-mail, blogs, shared documents) to enable people to exchange information and ideas.

It might seem like gaming, particularly computer gaming, has no intrinsic connection to the work museums do. The very word “gaming” may be a turn-off for you. As Dr. McGonigal points out, people often have preconceptions regarding computer games and the people who play them—believing, for example, that games are not serious, involve guns, are a waste of time and are “not for me.” Whether or not this is true (and at very least not all games involve guns), it is beside the point of the lecture. Dr. McGonigal's

central argument is not that museums should create games, or use games, but that they can function as large-scale participatory systems that work *like* games in the best way—motivating people to invest a lot of time, energy and creativity in their engagement with the museum. In this lecture, she analyzes what makes games so successful and rewarding, and suggests how museums can borrow these lessons and apply them to how they operate.

Why Watch This Lecture?

Games are astoundingly popular and pervasive, capturing a large share of our economy and attention at an ever accelerating rate. Dr. McGonigal challenges us to consider:

- What makes games so compelling, even addictive?
- How can museums become experiences as engaging as games?

Given the vast number of hours millions of people invest in playing complex, online games, how might museums harness this creativity to give their audiences opportunities to contribute to advancing their missions?

Dr. McGonigal contends that museums should care about gaming, and what we have to learn from popular games, because:

- Games are museums' competitors—vying for people's increasingly scarce leisure time.
- Games present an opportunity for museums to engage new audiences, and to interact in new ways with existing audiences.
- Successful games can teach museums how to create experiences that are deeply satisfying.
- Games may provide ways for museums to evaluate the effects of what they do, if they are designed—as alternate reality games are—to change people's real-world behavior.

Mechanics of the Webcast

The lecture will be webcast at 1:00 p.m. EST on Wednesday, Jan. 28. You can access the lecture through the CFM website at www.futureofmuseums.org. This webcast is sponsored and hosted by [Learning Times](http://LearningTimes).

The basic technical requirements to participate are:

A PC or Mac (OS X 10.2 or higher) computer with a standard Internet connection (56 kbps or higher)

The free Flash Player 8 or higher

Speakers or headphones connected to your computer

Please visit the following web page to check that the computer you intend to use is ready for the webinars: www.learningtimes.net/connectcheck

Login to the webcast through the site www.learningtimes.net/aamlogin

If you have any technical questions about the AAM webinars or require any assistance at all, please contact LearningTimes at help@learningtimes.net.

After the webcast, the video will be posted to YouTube on the CFM nonprofit channel for viewing on demand through April 2009.

How to Get the Most Out of the Webcast

Do some preparation:

- Read through this discussion guide.
- Pay particular attention to the glossary (page 8). Some of the terms and concepts Dr. McGonigal uses are specific to the world of game design. Familiarizing yourself with this specialized vocabulary ahead of time will help you get more out of the lecture.

- Self-identify your familiarity with online gaming. If you rank yourself relatively low in this area, it might be particularly useful to do some of the “Resources” on games and game design listed on page 11.
- Decide how you will participate (alone or with a group) and what level of engagement you want (low, medium, high) and select pre- and post-lecture activities accordingly from the menus on this page and page 6.

WATCH IT WITH COLLEAGUES!

Our experience of the live lecture suggests that it will leave you bursting with ideas you want to share. We encourage you to recruit a group with whom to watch and discuss the lecture and how it applies to your work. The major impetus for the Jan. 28 webcast (versus only posting the video to the Web) is to encourage discussion among staff at museums and across the field. Simultaneous viewing of the webcast will help foster a national dialogue on this topic by making it easier for you to exchange thoughts in real time with colleagues across the country (and perhaps the world) via an online chat window during the lecture and for two hours afterwards. If you can't participate in the webcast, we encourage you to recruit your own online group to exchange thoughts in the virtual realm (e.g., via e-mail, a chatroom, instant messaging.)

APPROACH THE TOPIC WITH CURIOSITY:

Dr. McGonigal sets forth some pretty provocative ideas, and you may disagree with some of her premises. To give her ideas a chance to percolate and shake up your thinking, mute your inner critic for now and listen with curiosity. After the lecture you can turn the critical volume up again and join the discussion (online or with your group) about the merits of her ideas.

Activity Menu: For people watching alone

Levels of Participation

Low

Watch the video.

Medium

The above, plus:

- Contribute to the list of “games people play in museums” at the CFM website.
- Before or after the lecture, take one or more of these online assessments:

The Happiness Inventory
(www.happier.com)

The Satisfaction with Life Scale
(<http://www.psych.uiuc.edu/~ediener/>).

Consider: What makes you happy? What makes you satisfied? How do your favorite museums make you happier or more satisfied?

- Read the report “Museums and Society 2034: Trends and Potential Futures,” available at the CFM website, for one picture of the future that museums may be helping society face.
- Participate in the online chat following the webcast.

High

The above, plus:

- Choose some of the guided discussion questions (page 6) and spend some time after the lecture writing down your thoughts.
- Select and participate in one or more of the lecture activities (page 7).
- Explore some of the museum/nonprofit games listed in “Resources” (page 11).
- Read in advance some of the material in “Resources” (page 11).

Activity Menu: For People Watching in Groups

Low

Watch the video.

Have an informal discussion during and after the lecture about any points that strike you as being particularly pertinent or interesting.

Medium

The above, plus:

- Meet ahead of time to discuss the “games people play in museums” assignment posted at the CFM website. Upload your contributions.
- Before or after the lecture, take one or more of these online assessments:

The Happiness Inventory
(www.happier.com)

The Satisfaction with Life Scale
(<http://www.psych.uiuc.edu/~ediener/>).

Trade thoughts with your group on the following: What makes you happy? What makes you satisfied? How do your favorite museums make you happier or more satisfied?

- Read the report “Museums and Society 2034: Trends and Potential Futures,” available at the CFM website, for one picture of the future that museums may be helping society face.

High

The above, plus:

- Choose some of the guided discussion questions (page 6) and structure your post-lecture discussions around these questions.
- Select one or more of the lecture activities (page 7) and participate individually, or with your group.
- Explore some of the museum/nonprofit games listed in “Resources” (page 11).
- Read in advance some of the material in “Resources” (page 11).

Discussion Questions

These are suggested questions to guide your thinking or your group’s discussions. You may wish to choose one section of questions to focus on, or one question from each section, to tailor this list to your available time. And feel free to write your own!

ABOUT HAPPINESS, AND MUSEUMS

1. What makes you happy?
2. Why does happiness matter to people? Is happiness the most important goal in life? If not, what is?
3. In what ways do you agree or disagree with Dr. McGonigal’s proposition regarding the four things needed to make people happy? (Satisfying work to do, the experience of being good at something, time spent with people we like, the chance to be part of something bigger.)
4. Discuss whether, and how, your museum fulfills these four criteria. (If you don’t work in a museum, use your favorite museum as an example.)
6. What emotions other than happiness can (or should) museums evoke? Are there institutions you feel are great museums that don’t make people happy? If so, what is it about the experience they provide that is compelling?

ABOUT GAMES AND GAMING

1. Think of your favorite game (card, board, computer or other). How does it fulfill Dr. McGonigal’s criteria for a good game (clear instructions, good feedback, a sense of community, generating good emotions)?
2. Are there things that your museum does (programs, activities) or ways that it is structured (exhibits, website) that are a game or operate in a game-like manner, providing rules, tasks to accomplish and a goal? If so, discuss how well these things stack up against these four criteria for a good game.

ABOUT THE PURPOSE OF MUSEUMS

1. Dr. McGonigal proposes that “we need a new kind of institution, one that explicitly seeks to create sustainable world-changing happiness as its primary mission.” Is it, could it, should it be part of the role of museums to make people happy?
2. Dr. McGonigal calls for museums to be “happiness engineers” in the service of creating a sustainable future. How is this compatible with the paradigm that has guided museums for the past 100 years or more, which casts them first and foremost as educational institutions? What kind of shift in how museums view themselves and their role in society would museums need to make? If you made this a major goal for your museum, how would you need to change how you operate?

ABOUT THE ROLE OF GAMES, AND MUSEUMS, IN INFLUENCING BEHAVIOR

1. Dr. McGonigal’s area of specialty is alternate reality games, and her ARGs are designed to influence people’s real-world behavior. What effect do you hope and dream your museum will have on people? Does it include changing their behavior? Is so, how do you try to do that?
2. Does your museum currently provide rewards or incentives to visitors to encourage certain types of behavior related to achieving your mission, and if so, what are they?
3. Read over Dr. McGonigal’s list of “superpowers” (abilities) she feels people need in order to help society thrive in the future (see list in glossary.) How can museums help people develop their skills in these areas? In what ways does your museum (or exhibits that you design) currently foster these abilities?

ABOUT BUILDING A BETTER FUTURE

1. Dr. McGonigal contends that one reason people spend so much time gaming is that “reality is broken” (i.e., many people don’t feel happy or

successful in the real world) and that virtual worlds provide a better, more rewarding experience than reality. Do you agree or disagree?

If you agree:

- a. What is “broken” about the world, what is most in need of fixing?
- b. How could your museum improve the real world, and fix what is broken?

If you disagree:

- a. Why do people spend so much time in gaming, then? What do they find more attractive there than in “real life?”
- b. Is there a way for museums to fill that niche?

Lecture-Related Activities

GAMES PEOPLE PLAY . . . IN MUSEUMS

In the post-lecture discussion by attendees at the live event, it became clear that many people have their own self-created games they play in museums, alone or with friends. They use these no-tech, self-directed games to stimulate their imaginations, structure their visit or interact with friends and family. Visit the CFM website to read about some of these user-generated games, or to record your own.

BADGES! PLAYING WITH INCENTIVES

Dr. McGonigal discusses how her games, such as Superstruct, award badges for activities that demonstrate behaviors she wants the game to encourage, such as cooperation, reaching out to appropriate collaborators, synthesizing diverse sources of information and trying out solutions. List behaviors you want your museum to encourage (see “About the Role” discussion question 1 on this page), and specific tasks visitors could accomplish to demonstrate these qualities. Design badges (names and logos!) that you could award visitors for accomplishing these tasks. Submit your badge designs, with an explanation of each and its purpose, on the CFM website.

GAMES AND HAPPINESS—AN EXPLORATION

If you are a non-gamer, find people who are gamers, and ask them to share with you why they find gaming so fascinating. What motivates them to game?

Play an old-fashioned board game as a group activity with your colleagues, preferably one that moves fairly quickly (i.e., Candyland, Chutes and Ladders, etc.).

Individually or as a group, evaluate your experience.

Did you behave differently with your colleagues playing a game than you do in the daily course of work?

Why or why not?

Next Steps

- Keep the discussion going!
- Engage in the lecture-related activities.
- Share the discussion guide and the video (posted on the CFM website) with those in your museum who might be interested (educators, exhibit designers, your director).
- Explore and share the resources.
- Tell us what you think about the lecture.
- Send comments to futureofmuseums@aam-us.org.
- Record your thoughts about the future of museums and society by participating in CFM's Voices of the Future video project. For more information e-mail futureofmuseums@aam-us.org.

“Gaming the Future of Museums” Lecture Glossary¹

alternate reality game (ARG): an interactive narrative that uses the real world as a platform, often involving multiple media and game elements, to tell a story that may be affected by participants' ideas or actions. The form is defined by intense player involvement with a story that takes place in real-time and evolves according to participants' responses, and characters that are actively controlled by the game's designers, as opposed to being controlled by artificial intelligence as in a computer or console video game. Players interact directly with characters in the game, solve plot-based challenges and puzzles, and often work together with a community to analyze the story and coordinate real-life and online activities. ARGs generally use multimedia, such as telephones, e-mail and mail, but rely on the Internet as the central binding medium.

blog (contraction of the term “Web log”): a website, usually maintained by an individual, with regular entries of commentary, descriptions of events or other material such as graphics or video. Entries are commonly displayed in reverse-chronological order. Blog can also be used as a verb, meaning to maintain or add content to a blog.

Facebook: a popular, free-access social networking website that is operated and privately owned by Facebook, Inc. Users can join networks organized by city, workplace, school and region to connect and interact with other people. People can also add friends and send them messages, and update their personal profile to notify friends about themselves.

game: a recreational activity guided by a set of rules.

gamer: historically, someone who played role-playing

¹ Definitions adapted from Wikipedia unless otherwise noted

games or war games. More recently the term has grown to include players of video games. While the term nominally includes those who do not necessarily consider themselves to be gamers (i.e., casual gamers), it is commonly used to identify those who spend much of their leisure time playing or learning about different games.

game world: the fictional setting within which the game takes place, with unique background elements such as an imaginary history or geography, and possibly fantasy or science-fiction concepts like magic or faster-than-light travel.

gaming: participation in role-playing games in which players engage in simulated situations and responses change the game environment in an iterative manner.

leveling up: increasing a character's "level"—a number representing overall skill and experience—in role-playing games. To level or level up means to accomplish tasks and thereby gain enough experience points (XP) to reach the next level. Gaining a level makes a player's character stronger and better able to accomplish more difficult tasks.

participation bandwidth (per McGonigal, informally): measurement of participation in an online game, reflecting number of people playing the game and the level of engagement (transfer of and accessing of data). Refers to **bandwidth** in computing, which measures the rate at which information can flow through a digital communication system.

podcast (conglomeration of "iPod" and "broadcast"): a series of audio or video digital-media files distributed over the Internet to portable media players and personal computers. Though the same content may also be made available by direct download or streaming, a podcast is distinguished from other digital-media formats by its ability to be syndicated, subscribed to and downloaded automatically when new content is added.

positive psychology: a relatively recent branch of psychology that focuses on healthy psychology rather than on mental illness, studying factors that enable individuals and communities to function productively.

social networking: use of Web-based applications to build online communities of people who share interests and/or activities, or who are interested in exploring the interests and activities of others. Most social networking services provide a variety of ways for users to interact, such as e-mail and instant messaging services. Examples: Facebook, MySpace, Friendster.

superpowers (as defined by Jane McGonigal): characteristics of activities (stories, projects, discussions) that encourage particular forms of behavior in the alternate reality game Superstruct. These powers (in the order mentioned in the lecture) are:

1. **mobability:** the ability to do real-time work in very large groups; a talent for coordinating with many people simultaneously; extreme-scale collaboration
2. **cooperation radar:** the ability to sense, almost intuitively, who would make the best collaborators on a particular task or mission
3. **ping quotient:** responsiveness to others' requests for engagement and the ability to reach out to others in a network
4. **influency:** knowing how to be persuasive and tell compelling stories in multiple social media spaces (each requiring a different persuasive strategy and technique)
5. **multi-capitalism:** fluency in working with and simultaneously trading different hybrid capitals, e.g., natural, intellectual, social, financial, virtual
6. **protovation:** fearless innovation in rapid, iterative cycles; the ability to lower the costs and increase the speed of failure
7. **open authorship:** content created for public modification; the ability to work with massively multiple contributors

8. signal/noise filter: filtering of meaningful information, patterns and commonalities from massively multiple streams of data and advice
9. longbroadening: seeing a much bigger picture; thinking in terms of higher level systems, bigger networks, longer cycles
10. emergensight: the ability to prepare for and handle the surprising results and complexity that accompany coordination, cooperation and collaboration on extreme scales

superstructs (short for “super structures”): “Superstruct” is a game (www.superstructgame.org) created by the Institute for the Future in which players respond to “superthreats” to society in the year 2019. Within the game, “superstructs” are multi-actor organizations created by players, designed to get people working together to face these threats.

Twitter: a free social networking and micro-blogging service that allows users to send and read others’ updates (known as tweets), which are text-based posts of up to 140 characters in length.

Web 2.0 (as defined by Wikipedia, along with Nina Simon, from her blog Museum 2.0 www.museumtwo.blogspot.com): the use of World Wide Web technology and Web design to create an “architecture of participation” in which users generate, share and curate content. The Web started with sites (1.0) that are authoritative content distributors. The user experience with Web 1.0 is passive; users are viewers, consumers. Web 2.0 removes the authority from the content provider and places it in the hands of the user. Users are participants: They determine what is on the site and judge which content is most valuable. Web 2.0 concepts have led to the development and evolution of Web culture communities and hosted services such as social-networking sites, video sharing sites, wikis and blogs.

wiki: a page or collection of Web pages that enables anyone who accesses it to contribute or modify content. Wikis are often used to create collaborative websites and to power community websites. The collaborative encyclopedia Wikipedia is one of the best-known wikis.

Wikipedia (conglomeration of “wiki” and “encyclopedia”): a free multilingual encyclopedia project supported by the non-profit Wikimedia Foundation. Wikipedia’s 11 million articles (2.6 million in English) have been written collaboratively by volunteers around the world, and almost all of its articles can be edited by anyone who can access the Wikipedia website.

World of Warcraft (WOW): a massively multiplayer online role-playing game (MMORPG) with more than 11.5 million monthly subscribers. In WOW, players control an avatar within a game world, exploring the landscape, fighting monsters, completing quests and interacting with other players.

Resources

READ:

Games and Game Design

Articles:

"From Content to Context: Videogames as Designed Experience," Kurt Squire, <http://website.education.wisc.edu/kdsquire/tenure-files/18-ed%20researcher.pdf>

"The Psychophysiology of Video Gaming," Digital Games Research Association Digital Library article, <http://www.digra.org/dl/db/06278.36196.pdf>

Books:

Patterns in Game Design, Staff Bjork and Jussi Holopainen, Charles River Media, 2004. Book preview available on Google Books: <http://books.google.com/books?id=IFQfyODK4wAC&printsec=frontcover&dq=Patterns+in+Game+Design#PPA7,M1>
This book breaks down hundreds of types of game design modules that can be applied to any game in any genre/medium. For people who play games somewhat regularly or are exposed to their kids playing games a lot, this is a good book, but not recommended for people struggling to get a handle on games in general.

Rules of Play: Game Design Fundamentals, Katie Salen and Eric Zimmerman.

This is the best guide to the basics of game design, and it considers non-digital and digital games equally. This is a *non-technical* guide to thinking in terms of game design, from how to develop a clear objective, to how to share different kinds of information with players, to how to create different emotional payoffs, etc.

What Video Games Have to Teach Us About Learning and Literacy, Paul James Gee, Paulgrave MacMillan, 2007 (2nd ed.).

Happiness

Articles:

"The New Science of Happiness," Claudia Wallis, *Time Magazine*, 2005. Available online at <http://www.authentichappiness.sas.upenn.edu/images/TimeMagazine/Time-Happiness.pdf>

"The Surprising Origins and Meaning of 'The Pursuit of Happiness,'" Carol V. Hamilton, George Mason University's *History News Network*: <http://hnn.us/articles/46460.html>

Books:

Authentic Happiness, Martin Seligman, Free Press, 2004. Limited preview available at Google Books: <http://books.google.com/books?id=3LOBCCoFMRgC&printsec=frontcover&dq=Authentic+Happiness#PPR13,M1>

Flow: The Psychology of Optimal Experience, Mihaly Csikszentmihalyi, Harper Perennial, 1991, and *Flow: Creativity: Flow and the Psychology of Discovery and Invention*, *ibid.*, HarperCollins, 1996. You may find some striking similarities between ideas in the lecture about the new science of happiness and Csikszentmihalyi's writings.

Nicomachean Ethics, Aristotle.

<http://www.mnstate.edu/gracyk/courses/web%20publishing/AristotleHappiness.htm>

Websites:

Authentic Happiness (<http://www.authentichappiness.sas.upenn.edu/Default.aspx>).

The website of Dr. Martin Seligman, director of the University of Pennsylvania Positive Psychology Center and founder of Positive Psychology, a branch of psychology which focuses on the empirical study of such things as positive emotions, strengths-based character, and healthy institutions. This website features a number of free online questionnaires

related to happiness, including the Authentic Happiness Inventory, intended to measure overall happiness.

Examples of Nonprofit Games and Game-like Activity

Kanu Hawaii (www.kanuhawaii.org): a nonprofit association founded in 2005 to reinforce traditional Hawaiian values and build a sustainable island culture. Their website engages participants in the process by providing the opportunity to make “commitments” to specific ecologically conscious behaviors, and then extrapolating the results. Exemplifies Dr. McGonigal’s four characteristics of happiness and four characteristics of good games (better instructions, feedback, community and emotions).

Wolfquest (www.wolfquest.org/): 3D wildlife simulation video game by the Minnesota Zoo and game developer company Eduweb. Learn about wolf ecology by living the life of a wild wolf in Yellowstone National Park. Enables people to play alone or with friends in online multiplayer missions, learning about wolf biology and behavior. An associated online community provides the opportunity for participants to discuss the game with other players, chat with wolf biologists, and share artwork and stories about wolves.

Ghosts of a Chance (www.ghostsofchance.com): Sponsored by the Luce Center of the Smithsonian American Art Museum (SAAM), this game ran from Sept. 8 through Oct. 25, 2008. It aimed to inspire renewed love for museums and all they provide our culture by creating assignments requiring finished works that were sent to SAAM for accessioning. This concluded with daylong festivities at the museum and an exhibit of the artworks created during the game.

The Past and Future of Museums

Books:

The Digital Museum: A Think Guide, Herminia Din and Phyllis Hecht, eds. American Association of Museums, 2007. The future is not all about technology, but technology will certainly be one of the major forces shaping museums’ future. This collection of essays explores the effects of recent technological advances on museums.

Riches, Rivals and Radicals: 100 Years of Museums in America, Marjorie Schwarzer. American Association of Museums, 2006. An understanding of the past is key to planning the future. This book is a wonderful and concise history of the major forces shaping museums in America in the last century.