

From Monopoly to “The Sims” to improvisational theater, some of the most engaging media experiences ever produced have been described as “game-stories.” We may sense that the holding power of the game-story is related to play, simulation, and narrative – but in general we aren’t sure how. This panel takes the often vague idea of the game-story and pins it down to concrete examples. The panelists are game theorists, game designers, and game players. They ask if there is a middle ground between game and story, or if game-stories exist in a space of their own. They ask what makes the games we call “interactive narratives” work, and how we can make them work better.

J.C. Herz

One of the most useful tools for understanding the relationship between game and story is the concept of dimensionality. A cube, for instance, is a 3D object. Reducing its dimensionality yields a square (2D), a line (1D), and finally a point. Reducing the dimensionality of a film yields a still frame. Reducing the dimensionality of urban planning gives you architecture. Reducing the dimensionality of a game, by eliminating all but one of the possible trajectories through the world, yields a story. Essentially, the story is a core sample of the game: one trajectory through the universe of all possible solutions. Outside the system, that story might be dramatic or undramatic, just as the game itself might be satisfying or unsatisfying.

Dimensionality is not a good in and of itself. But the challenge for game designers, as storytellers, is to build a world that’s interesting in multiple dimensions: the individual’s trajectory through the world, the game as a whole (an overall sense of “gameplay” and dynamics), and the social experience that happens around the game (trading custom skins or levels, fan sites, etc.). Creating a satisfying experience is a more complex task in many dimensions than in fewer dimensions. Herein lies the challenge, for game designers and storytellers alike, as media evolve into more sophisticated, multilayered forms.

J. C. Herz is the author of *Surfing on the Internet: A Nethead’s Adventures Online*, Little, Brown & Company. She has written for Rolling Stone, GQ, Wired, and Playboy. A native Texan now living in New York, her first Big Apple hack was crashing the Macy’s Parade.

Henry Jenkins

The false dichotomy frequently drawn between stories and games stems from a too-narrow conception of story. Too often, we value classically constructed narratives over a broader range of storytelling traditions, including accordion-structure narratives (for example, Comedia Del’Arte) that depend on interplay between fixed elements and open improvisation, or spatial stories that focus on exploring or mapping worlds rather than recounting an event chain. Drawing on a comparative media studies perspective, I suggest continuities between games and a broader range of storytelling traditions. My discussion focuses on three recent

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Joystick Nation Inc.

Electronic Arts releases that demonstrate alternative approaches to integrating story and game: American McGee’s “Alice,” which draws on the player’s preexisting familiarity with Lewis Carroll’s universe; Clive Barker’s “Undying,” which embeds backstory within elements of the story space; and “The Sims,” which provides a construction kit for players to create their own stories.

Henry Jenkins, director of the Comparative Media Studies Program at MIT, has spent his career studying media and how people incorporate it into their lives. He has published articles on a diverse range of topics relating to popular culture, including work on “Star Trek,” WWF Wrestling, Nintendo games, and Dr. Seuss. He testified last year before the US Senate during the hearings on media violence that followed the Littleton shootings and served as co-chair of Pop!Tech, the 1999 Camden Technology Conference. Jenkins has published six books and more than 50 essays on popular culture. His books include *From Barbie to Mortal Kombat: Gender and Computer Games* (1999), *The Children’s Cultural Reader* (1998) *What Made Pistachio Nuts: Early Sound Comedy and the Vaudeville Aesthetic* (1993), *Classical Hollywood Comedy* (1994), *Textual Poachers: Television Fans and Participatory Culture* (1992), and the forthcoming *The Politics and Pleasures of Popular Culture*. Jenkins holds a PhD in communication arts from the University of Wisconsin-Madison and an MA in communication studies from the University of Iowa.

Janet H. Murray

A compelling design problem for the next generation of story-game environments is creation of an experience for which I would propose the term “dramatic agency.” Dramatic agency draws from two domains. First, it involves interactivity, which I have defined in Hamlet on the Holodeck as drawing on the procedural and participatory properties of digital environments. When both the computer’s processing and the actions of the interactor are appropriately scripted, the result is the satisfying experience of agency. Secondly, dramatic agency draws on the domain of dramatic form and requires attention to the segmentation and granularity of events. My presentation draws on work done by students in the Information Design and Technology Program at Georgia Tech to demonstrate a range of approaches to dramatic agency.

Janet H. Murray is a professor in the School of Literature, Communication, and Culture at Georgia Institute of Technology, and director of the graduate program in Information Design and Technology. She is the author of *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* and the forthcoming *Inventing the Medium: A Principle-Based Approach to Interactive Design*, both from MIT press. She is a trustee of the American Film Institute and serves as a mentor in AFI's Exhanced TV Workshop. Before moving to Georgia Tech in 1999, she led humanities computing projects at MIT, where she remains a distinguished contributing interactive designer in the Center for Educational Computing Initiatives. She holds a PhD in English from Harvard University. Her research has been sponsored by the Annenberg/CPB Project, the National Endowment for the Humanities, the Andrew W. Mellon Foundation, IBM, and Apple Computer. She lectures and consults widely on the future of television, interactive narrative, and curriculum development for interactive design

Celia Pearce

The progress of interactive narrative is now in the throes of the evolutionary equivalent of a "small mammal explosion." The "warm-blooded" forms of narrative that are emerging are something halfway between game and story. They are both and yet neither, yielding entirely new forms that merge literature, game, cinema, and improvisational theater. Procedural narrative and collaborative narrative worlds have taken over from their more clunky forebears, such as so called "non-linear" narrative, hypertext, static navigational spaces, and puzzle games. These new experiences are dynamic, participative, and creative. In addition, they redefine notions of authorship as audience members begin to "take things into their own hands" and create, and in some cases trade and sell, their own characters and worlds. These emergent narratives and economies foreshadow a future where the current "narrative hegemony" of Hollywood is called into question by an increasingly interactive audience that has both the desire and skill to creatively partake in its own entertainment and narrative experience.

Celia Pearce is an interactive multimedia designer, artist, researcher, teacher, and author of *The Interactive Book: A Guide to the Interactive Revolution* (Macmillan.) She is a research associate at the University of Southern California's Annenberg Center for Communication and adjunct professor and production track-head of interactive media in the USC School of Cinema-Television. She has 18 years' experience as a designer of interactive attractions, exhibitions, and fine art projects. Past projects include: Iwerks and Evans & Sutherland's award-winning Virtual Adventures: The Loch Ness Expedition, a 24-player virtual reality attraction; the lounge@siggraph and The Virtual Gallery, a VR museum featuring walk-in paintings, both exhibited at SIGGRAPH 95; and Body of Light, an interactive performance piece that has been performed at the Electronic Cafe in Los Angeles and Canada's Banff Centre for the Arts.

Ken Perlin

Interactive character animation has focused mainly on animation, physical simulation, and rendering. Traditionally, behavior has been implemented by combining linear animation and motion capture. These techniques work reasonably well for interactive games, where the goal is mainly to explore worlds, gain points, kill enemies, and solve puzzles. But what if we want to go in the direction of interactive narrative – of an online drama or sitcom – of a game-story? In this case, we want to explore the personalities of the characters themselves. Is this possible or even desirable? How do we marry technology and content to find out? For audiences to buy into the believability and psychological presence of an interactive animated character, the whole notion of linear animation needs to be replaced.

Ken Perlin is a professor in the Department of Computer Science and director of the Media Research Laboratory at the Courant Institute of Mathematical Sciences of New York University. He is also director of the NYU Center of Advanced Technology, sponsored by the New York State Science and Technology Foundation. He completed his PhD in 1986 at the New York University Department of Computer Science. His dissertation received the Janet Fabri award for outstanding doctoral dissertation. He received his BA in theoretical mathematics at Harvard University in 1979. His research interests include graphics, animation, and multimedia. In 1991, he was a recipient of a Presidential Young Investigator Award from the National Science Foundation. In 1997, he was a recipient of a Technical Achievement Award from the Academy of Motion Picture Arts and Sciences for his noise and turbulence procedural texturing techniques, which are widely used in feature films and television. He was head of software development at R/Greenberg Associates from 1984 through 1987. Prior to that, from 1979 to 1984, he was the system architect for computer-generated animation at Mathematical Applications Group, Inc.

Eric Zimmerman

One of the difficulties in understanding the relationship between games and “interactive narrative” is that we lack a critical understanding of how they can be designed and deployed. Is every game a narrative? Are all narratives “at play” like a game? Isn’t every narrative interactive in some way? If so, what do we mean when we use the term “interactive narrative?” Using plenty of audience participation, this panel looks at some non-digital interactive narratives, such as Choose-Your-Own-Adventure books and surrealist language games, as well as some of my own work, like the interactive paper book *Life in the Garden* and the multiplayer online game SiSSYFiGHT 2000. These examples sketch a taxonomy of narrative and interactivity that can help shed light on the new kinds of narrative experience that digital technology makes possible.

Eric Zimmerman is a game designer, artist, and academic. He is co-founder and CEO of gameLab, a New York-based game developer (www.gmlb.com). gameLab’s first titles, BLiX and LOOP, are available on Shockwave.com. His pre-gameLab titles include the critically acclaimed SiSSYFiGHT 2000 (www.sissyfight.com, created with Word.com) and Strain (www.strainlab.com). His non-computer-game projects include the interactive paper book *Life in the Garden* (created with Nancy Nowacek and published in 2000 by RSUB); Organism, a board game published in ArtByte Spring 2000; and game installations in a variety of gallery and museum spaces, including Artists Space NYC. He has taught game design and interactive narrative design at MIT’s Comparative Media Studies program, New York University’s Interactive Telecommunications Program, and the Digital Design MFA program at Parsons School of Design. He is the director of RE:PLAY, a series of events about game design and game culture sponsored by Eyebeam Atelier. He has published and lectured extensively on the design and culture of play and games, and is currently co-authoring a book with Katie Salen about game design to be published by MIT Press in 2002.

Noah Wardrip-Fruin

Noah Wardrip-Fruin is a fiction writer, artist, and research scientist at the New York University Media Research Lab. He is currently the art and performance chair for DAC 2001 and an organizer of the art program for SIGGRAPH 2001, and he is editing *The New Media Reader* (forthcoming from MIT Press) with Nick Montfort and Michael Crumpton. His current fiction projects include a collaboration with a.c. chapman, Brion Moss, and Duane Whitehurst on The Impermanence Agent, a storytelling Web agent that customizes its story of impermanence for each user. This project was featured at SIGGRAPH 2000 and will appear this year in The Iowa Review Web, at a show curated by Harvestworks at The New Museum of Contemporary Art, and at the Brave New Word event at the Guggenheim Museum, New York.