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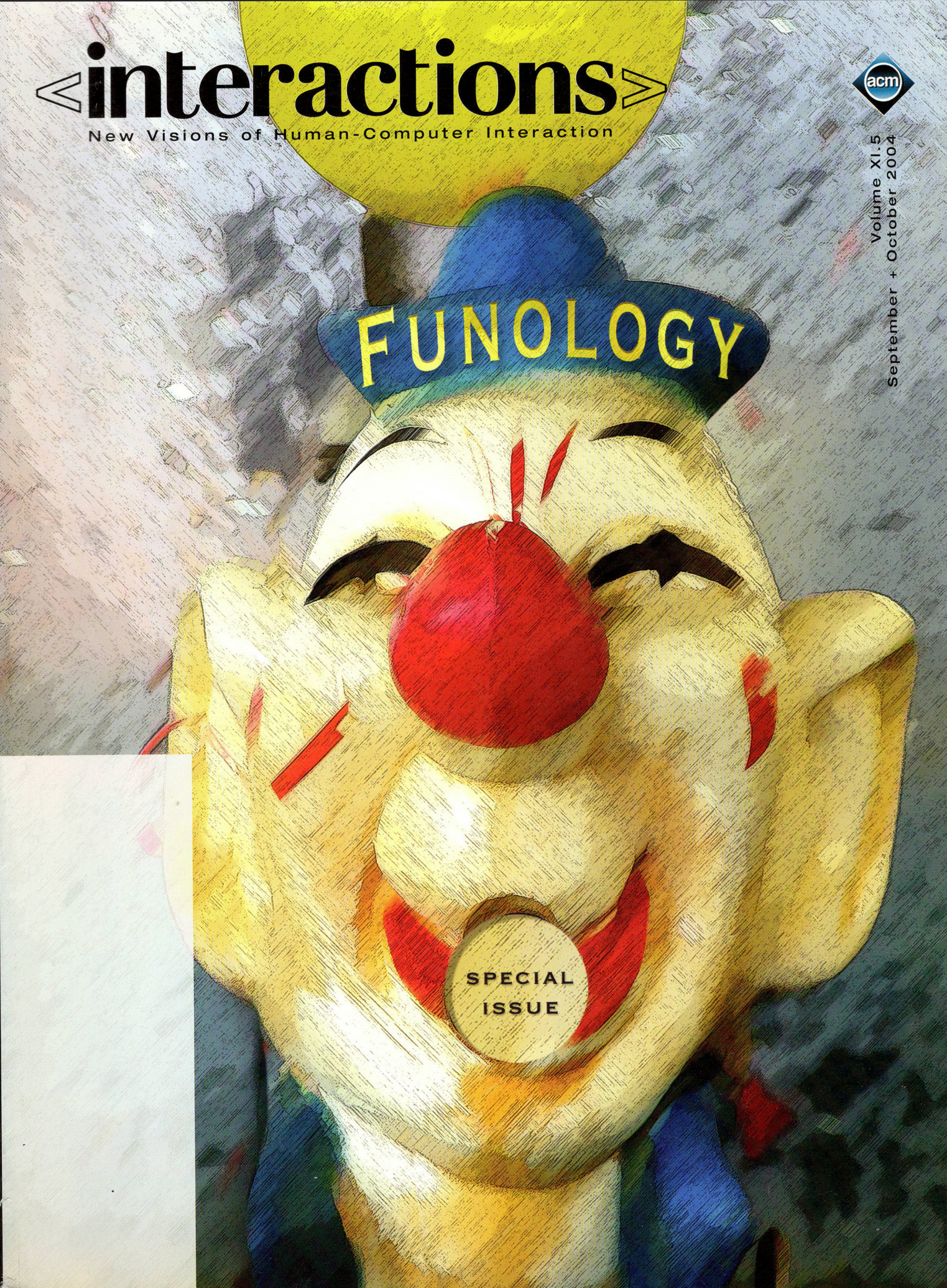

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NARRATIVE CONSTRUCTION AS PLAY
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Narrative construction as a kind of play highly underrated in the design of interactive media. I began to uncover evidence of this fact during my dissertation research. That quest eventuated in my first book, *Computers as Theatre* (Addison-Wesley, 1991). I learned more about the powers of narrative construction from the research on gender and play that I conducted during 1992-96 at Interval Research.

In academic taxonomies of play, "constructive play" is most often framed as play that utilizes objects (real or virtual) to construct other objects, mechanisms or environments. When defined in this way, constructive play is predominately engaged in by boys. But when you include stories as something that may be constructed, you find that girls engage in constructive play with at least the same frequency and relish.

My research at Interval led to the founding of Purple Moon (a transmedia company for girls) in 1996. As we set about to discover or invent computer games that would be attractive to girls, we were tempted at first to look at what girls thought of existing games. We did explore that path, but it gave us limited results simply because most girls were not playing computer games at the time and there were few examples of games that they really liked (Nintendo's *Mario* games and *Ecco the Dolphin* were the favorites). By far the more fruitful research approach was our exploration of how girls play in general. Through interviews with over 1000 children, our research indicated that narrative construction was the largest category of play for girls ages 8-12. Stories were made up about existing narratives or from whole cloth. Stories could be told, written, drawn, theatrically performed or improvised. How can this finding be translated into computer-based game-play?

First and foremost, materials for narrative construction take the form of characters - characters that are drawn with enough depth and potential to engage the player in imaginative construction of their motivations and thought processes. In other words, players should be enticed and enabled to create the backstory for characters that appear in the action of the game. During the course of our research, we queried girls about games that were popular at the time. In the context of the videogame *X-Men*, one subject (a 12-year-old girl) complained that "these characters are so boring you can't even *make up* stories about them."

The history of the audience for the *X-Men* property is relevant in this context. As a comic book series, the characters had plenty of narrative potential, but the medium of comic books was culturally gendered. As a result, girls were not a significant audience for the property. In its videogame incarnation, *X-Men* characters were stripped of most of their narrative qualities and placed in a flat action context. Both the game genre and the character construction discouraged female participation. But when the property was transformed into a film, the characters and backstory elements were plumped up to the point that girls formed a significant segment of the audience and fan community.

A similar story can be told about the *Star Trek* franchise. Almost from the beginning, females dominated the fan community, creating fanzines and slash videos galore (see *Textual Poachers: Television Fans and Participatory Culture* by Henry Jenkins, Routledge, 1992). Beginning as a geek-centric TV series that was explicitly pitched to males, *Star Trek* garnered a passionate female following primarily because of its social content. Through the lives of the various feature films and follow-on series as well as the hundreds of paperback books, Paramount slowly but surely recognized and responded to the gender makeup of its audience by morphing the genre from science fiction adventure to a soap opera in space. That is *not* a slam - as a die-hard *Star Trek* fan myself, I have appreciated the transition toward stories that have more to do with characters and relationships than dogfights in space. As Jenkins' analysis shows, the heart of fan culture is the ability to relate to, appropriate, and repurpose characters and story materials in order to create personal meaning. Fan behavior provides an excellent example of narrative construction as play.

[an image of Spock and Kirk from old Star Trek could be juxtaposed with an image involving Deanna Troi from The Next Generation or Captain Janeway from Voyager - permission from Paramount would be needed]

In the Purple Moon products (the *Rockett* and *Secret Paths* series of games), we concentrated on creating affordances for narrative play. We developed characters based on research of girls' descriptions of their own friends and foes, finding reliable patterns in our data that corresponded to character types. We modeled affiliation and exclusionary behavior and other social dynamics of our audiences in the structure of the game. Our research with our audience led us to develop a gameplay pattern we called "emotional navigation," where choices were made by the player in emotional rather than operational terms.

To encourage backstory creation, we populated the games with clues about the characters' inner lives, family situations, and histories by exposing journals, collections, and flashbacks. We gave our audience a publishing venue for their backstory constructions on our website. Girls played with the characters through contributions to the "school" newspaper, yearbook, journals, and bulletin boards. We learned Henry Jenkins' lessons well and made an environment that was all about supporting the sorts of things that fan communities do. The result was a site that beat disney.com for several months running in terms of both unique users and dwell-time per log-in. Although the site was closed down by Mattel after their acquisition of the company in 1999, I still get email every week or so from a fan who wants to know when the site will come up again. Boy, did Mattel miss the boat.

With the emergence of massively multiplayer online games like *Ultima Online* and *Everquest* we begin to recognize the construction of characters, habitats, social relationships and economies as flavors of constructive play. These play patterns have made girls and women a reliable segment of players in the adventure and role-playing genres from the beginning of the computer game era. It is this sort of constructive play that invites women and girls to join the computer-game party. Will Wright's recognition of these important play patterns has resulted in a 65% female player demographic for *Sims Online*. As Will describes in his interview in *Design Research: Methods and Perspectives* (B. Laurel, Ed., MIT Press 2004), aggressively incorporating female-inclusive play patterns has led to better game experiences for players in general.

Of course, games are not the only computer-based spaces in which narrative construction occurs! All but the most procedural activities can be seen to have a narrative arc. To re-cast the central

observation of *Computers as Theatre*, good experience design provides affordances for narrative construction of a particular type: a story of a successful or delightful action with a beginning, middle and end, where the interactor is typically the central character.

In order to construct a good narrative about an interactive experience, causes and effects cannot be opaque. This does not mean that the process needs to be "transparent" in the sense of faithfully representing the operations of an application or a game; it may simply mean that serviceable representations of those operations are available. Nor does it mean that every story must be a success story; the story of a Google search that yields bizarre results can be a comic masterpiece. But it's only funny, like the man slipping on the banana, if no real damage or injury results. The sense of play, like comedy, depends upon the absence of potential harm.

Narrative construction is a wonderful research tool and benchmark as well. I was recently involved in consulting for a group that is designing a middle-school science curriculum in an online environment. They asked me if I could point to gameplay patterns that would enhance a student's enjoyment of online science activities. I suggested that they take a step back and ask students to tell them stories about their most delightful moments in learning about science. Forcing a gameplay pattern into an educational activity is dicey precisely because the student / player knows that there is real risk involved - risk of failure. Modeling a happy experience with science learning takes the student away from the world of tests and grades and back into the world of wonder and discovery. Designing online experiences that would prompt students to construct narratives filled with delight would be a mark of real design success.

As Mike Mateas and Phoebe Sengers point out in their book *Narrative Intelligence* (John Benjamins, 2003), we understand the world largely through narrative construction. Researchers from Roger Shank to Jerome Bruner support this view. Story-making is a pleasurable activity because in a very deep way, we look at the world with storytelling brains. The designer of interactive systems should take our narrative predisposition into account in the same way that the designer of physical tools makes affordances for our opposable thumbs.