

Is ActiMates Barney Ethical?

The Potential Good, Bad, and Ugly of Interactive Plush Toys

BJ Fogg

(organizer and moderator)
Persuasive Technology Lab
CSLI / Stanford University
Box 8338, Stanford CA 94309
bjfogg@stanford.edu

Allen Cypher

Stagecast Software, Inc.
580 College Avenue
Palo Alto, CA 94306
cypher@pobox.com

Allison Druin

Human-Computer Interaction Lab/
College of Education
University of Maryland
College Park, MD 20742
allisond@umiacs.umd.edu

Batya Friedman

Dept. of Mathematics
and Computer Science
Colby College
Waterville, ME 04901
b_friedm@colby.edu

Erik Strommen

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052
erikstr@microsoft.com

ABSTRACT

Interactive plush toys, such as ActiMates Barney, raise new ethical concerns that we as HCI professionals need to address and understand. This panel is designed to bring those concerns to the forefront and allow panelists and audience members to debate key issues. The panel includes people with expertise in creating interactive plush toys, creating software for children, and investigating ethical issues of technology.

Keywords

ethics, children, entertainment, education, social actors, lifelike characters, persuasive technologies, tangible interfaces

BACKGROUND

Although ActiMates Barney is not the first plush toy to be given a silicon soul, this device seems to mark a new direction in consumer computing. Other interactive plush toys have recently emerged on the market and many are sure to follow.

What are the ethical implications—the good and the bad—of interactive plush toys like ActiMates Barney? What ethical issues do interactive plush toys raise specifically for HCI professionals? And what should our role be in guiding the development and use of such devices?

This panel discussion will address the above questions, as well as exploring other potential areas of controversy:

1. Barney has the potential to deeply shape a child's daily activities, which includes watching TV with Barney and using computers. *Is this a good thing?*
2. Children may perceive Barney as a living being. *Is this problematic or benign?*

3. Barney promotes an intimate relationship with children and may be a child's best friend. *Is this disingenuous?*
4. Barney could become a babysitter or a surrogate parent. *Does this happen? Is this desirable?*
5. Barney may lead to other less-desirable interactive plush toys. *What might be next? Bart Simpson?*
6. Barney's content is difficult to control and preview. *How can parents know what they are buying for their children? How should designers make this clear?*
7. Barney is a persuasive technology. *Could Barney and other interactive toys be too influential for kids?*

PANELISTS' POSITION STATEMENTS

Allen Cypher

As computer technology is incorporated more and more into children's toys, it is easy to get excited about the potential for smarter toys. It is harder to stop for a moment and imagine the negative effects these toys could have on children.

Our experience with other intelligent interfaces shows that users are very ready to ascribe high degrees of intelligence to a system that exhibits a slight degree of intelligence. So I was pleased to see how easy it was to get Barney to behave "stupidly." This indicates to me that the designers were not trying to mislead the user about the toy's intelligence. Repeatedly squeezing a hand or covering an eye leads immediately to mechanical interruption of whatever Barney is saying, and to repetitive responses. This makes the character's simple underlying model readily apparent.

Our experience with other computer programs shows that users also ascribe high degrees of emotional connection to a system that exhibits a slight degree of empathy. I recall hearing that Joseph Weizenbaum's secretary asked him to leave the room, since she wanted to have a private conversation with his Eliza psychologist program. So I reacted with dismay when Barney said "I really like you." I

experienced this as an attempt to defraud the child into believing that Barney had an emotional attachment to the child. Barney also says "You're my special friend." Nonetheless, I doubt that this disingenuousness will cause emotional distress for children.

My larger concern is that these types of toys are yet another alternative to real emotional connection with another person. But the detrimental effects of contemporary television programming are of a magnitude that far outweighs the problems with these toys.

Allison Druin

I think it's about time that our children can hug their technology. For too long "playing with computers" has meant pecking at a keyboard or staring at a hard plastic box. With stuffed-animal interfaces such as Microsoft's Barney, children can explore worlds in ways that come naturally. But I believe it is important that we think carefully about what children can and can't do with a stuffed-animal agent such as Barney. All too often our software technologies allow children only to explore pre-determined paths of an adventure. These experiences are, in a sense, interactive textbooks, where the software designer is more in control than the child. We must be careful not to allow this same thing to happen with physical interfaces such as Barney. Stuffed-animals are strongly compelling to kids. And Barney is cute. He has lots of ideas of what to do. But he says things in such a way that it sounds like he is telling the child what to do, for example, "Exercise with me," "Now let's move like this," "Let's sing." Children need to be supported with technologies that enable them to be expressive, creative people in control. If stuffed-animals like Barney tell kids what to do, will our children lose interest in thinking for themselves during playtime? Are we sending a message to our children through our stuffed-animals that it is ok not to think for themselves? Barney is a powerful computer interface, and we must be careful to use it wisely.

Batya Friedman

From the perspective of human values, technology is neither value-neutral nor is it deterministic. Rather, I argue that technologies in general, and computer technologies in particular, provide suitabilities which follow from features of the technology [1]. That is, a given technology is more suitable for certain activities and more readily supports certain values while it makes other activities and other values more difficult to realize. For example, an online calendar system that displays individuals' scheduled events in detail readily supports accountability within an organization but makes privacy difficult. Toys provide similar suitabilities for activities and values. Consider the toy rifle that readily supports war play; it can also be used to dig a hole, bat a ball, or mark the finish line of a relay race; however, it is not well suited to cuddling, comforting or nurturing.

Also of importance for this panel discussion, toys provide material with which children construct social and moral knowledge [2]. For example, when children act out their thoughts and feelings with dolls, stuffed animals, online "friends," and other surrogates, they often are constructing

knowledge about how to treat other human beings. Books, stories, movies, socially-focused computer simulations (such as the Purple Moon series) and other narratives provide children with ideas and materials for exploring fairness, emotions, feelings, and the consequences of actions.

I approach Barney (and related toys) in light of these two considerations: (1) the value suitabilities supported by the toy/technology and (2) the opportunities for the child's construction of social and moral knowledge. What then are the value suitabilities of a cuddly stuffed purple dinosaur that interacts with a child and a television program while espousing gentleness, inclusiveness, kindness, and self-worth? How well do these value suitabilities contribute to the conditions for the child's social and moral development? And finally, how does the child's "social" experience interacting with Barney and Barney's friends on television compare with what the child's "social" experiences might have been had the child been spending those moments engaged in other activities either alone or with other children? These concerns guide my contribution to the panel discussion.

Erik Strommen

What can it possibly mean for an interactive toy character to be "unethical"? What is the moral principle that is being violated by a doll that mimics human behavior by singing familiar songs and playing peek-a-boo? The only plausible moral issue of any substance concerning interactive Barney is whether such technology, which deliberately imitates human social interaction, is somehow harmful to children. Such fears are not only groundless, unsupported by any empirical findings, but they also underestimate our children's technological and epistemological sophistication.

Our children are smarter than we think. They are being raised in a world of striking technological sophistication that they take for granted in ways we as adults cannot. They also clearly distinguish between the real and the pretend, between human and machine, and between human interaction and toy interaction, as well. The worry that interactive characters risk confusing such distinctions is without foundation.

Interactive characters are best thought of as a form of puppetry, as props for a kind of consensual, participatory pretend play-acting. Pretend playmate interfaces are a form of technology, like televisions and web browsers. They are morally neutral. It is the ends to which they are put that matter. When properly designed, pretend playmate interfaces can engage children in a variety of ways that are beneficial to mental growth. Pensive brooding over the ethical implications of anthropomorphic interfaces themselves is not only unwarranted, it just plain spoils the fun. Pretend playmate interfaces are harmless, engaging, and enjoyable. As Barney says, all you have to do is use your imagination.

REFERENCES

1. Friedman, B. (ed.) *Human values and the design of computer technology*. Cambridge University Press, New York, NY, 1997.
2. Friedman, B. Social and moral development through computer use: A constructivist approach. *Journal of Research on Computing in Education*, 23, 1991, 560-567.