And technological innovations can also challenge us profoundly. Children are active, mobile, social beings who can easily find their way into violent video games, Web sites with sexually explicit materials, or chat rooms with adults posing as children. Young people can also be subjected to computerized library catalogues that make it almost impossible to find a simple book, and new computerized curricula that, sadly, take the joy out of learning.

Given the importance of technology in the lives of young people, it is critical to consider how to create new technologies for children that are easy to use, age-appropriate in content and interface, and foster exciting learning experiences in and out of the classroom. Researchers today are developing new technologies that enable children to question what they know, to explore and respect other cultures, and to make it possible to love learning, science, storytelling, and creative play. To do this, researchers must strive to understand the unique needs of children in order to develop innovative solutions through the development of new technologies.

Researchers today are developing new technologies that enable children to question what they know, to explore and respect other cultures, and to **MAKE IT POSSIBLE TO LOVE LEARNING, SCIENCE, STORYTELLING, AND CREATIVE PLAY.**

From these experiences, researchers have not only been able to contribute to the disciplines of computer science, information science, psychology, and education, but to the field of human-computer interaction (HCI). Within this field, a research area focused entirely on children has emerged: Interaction Design and Children (IDC). Researchers working in IDC can be computer scientists (who aren't afraid of children), or educators who want to empower children with new technologies. They can be library scientists looking for easier ways for children to access electronic information. They can be HCI practitioners who care about the design methods used *with* children to create new technologies. They can be psychologists who use technology to learn more about the process of learning. They can also be government representatives who influence policy as it relates to children and technology. And they can be media producers and toy designers who care about building an industry with quality products. Together, these researchers from an array of disciplines are building the IDC community. And it is the goal of this special section to share some of their latest efforts.

We open with a panel discussion involving a group of pioneers who have inspired an entire generation of researchers to focus on children. Marvin Minsky, Alan Kay, and Seymour Papert were members of the keynote panel at last summer's IDC conference and we present excerpts of their conversation with David Kestenbaum of National Public Radio.

The featured articles in this section explore three basic IDC research aspects: the technology design process, new technology development, and empirical evaluation. Guha et al. present a design method that enables preschool children (ages 4–6) to partner with adults in developing new technologies. This methodolgy compensates for young children's egocentric views of the world by mixing children's design ideas over several distinct stages.

Höysniemi et al. explore ways of designing user interfaces for children's vision-based action games. In particular, they discuss techniques used to elicit intuitive interactive gestures that children can use in these games.

Eisenberg discusses the potential impact of materials science innovations on educational technology. He shares some of his past experiences with these materials and proposes innovative uses. In the Ambient Wood project, Rogers et al. use ubiquitous computing to support learning. They design, implement, and evaluate technologies to augment children's exploration of an outdoor physical environment. And Robertson and Good study a novel approach to the use of games in educational settings. Their aim is to develop children's narrative skills by having them design the characters and storylines of computer games.

We hope this collection of work and insights offer a glimpse of the current and diverse research landscape for Interaction Design and Children. C

Allison Druin (allisond@umiacs.umd.edu) is an assistant professor at the University of Maryland's College of Information Studies and Human-Computer Interaction Lab (HCIL), College Park, MD.

Juan Pablo Hourcade (jpablo@acm.org) is a computer scientist at the U.S. Census Bureau, Suitland, MD. (The views expressed here are the author's own and do not reflect those of the Census Bureau.)