

Microsoft research unveils more than 100 innovations for future of computing

by Bend_Weekly_News_Sources

Researchers introduce new technologies to explore distant galaxies, bring friends and co-workers closer, and teach kids the magic of programming.

Whether it's helping people discover distant planets online, share their favorite digital photos with relatives, or show young kids how fun it can be to program computers, Microsoft Research speeds the way to a richer computing experience. Today the doors opened to Microsoft Research TechFest 2007, the company's annual showcase of research projects, unveiling more than 100 innovations. At TechFest, researchers and product teams form close and lasting ties to jointly advance the frontiers of computing for the industry and customers.

Speaking today at TechFest before an audience of customers, industry and government leaders and independent software vendors, Microsoft Research Senior Vice President Rick Rashid said, "TechFest is one-stop shopping to see and experience the breadth of software innovations we're pursuing that will allow people to explore their interests more deeply and share the things they care about more easily."

Rashid moderated demonstrations of a number of key research projects, including World-Wide Telescope, which allows people to peer deep into the heavens on their PCs; Mix: Search-Based Authoring, a new way to build and share digital content at home and work; and Boku, an innovative way of using Xbox(R) to teach kids how exciting and rewarding computer programming can be.

PC Becomes a Telescope

World-Wide Telescope allows people to turn their PC into one of the most powerful ground-based telescopes in the world. The technology draws on tens of millions of digital images of stars, galaxies and quasars from the Sloan Digital Sky Survey, an ambitious astronomical project started several years ago to map out a large part of the universe. But until now, the images were difficult and time consuming to search. "What we've done is give people the ability to become digital astronauts," Rashid said. "You can explore deep space from the comfort of your living room."

Researchers plan to add rich media narrative to the images to create compelling learning experiences. "These will be tantamount to guided tours of the universe," Rashid said. "People will have an immersive way to search, explore and discover the universe much like MSN(R) Virtual Earth(TM)."

A Living Scrapbook

Rashid also showed Mix: Search-Based Authoring, a technology that pulls data from many sources -- different Web sites, the computer's hard drive and databases -- and integrates the data into one document that can be easily shared with friends, family members or co-workers.

"Think of Mix as a kind of high-tech, living scrapbook," Rashid said. "You can create a page that has digital pictures of your family, e-mails you exchange with family members, and links to places you love to visit together. And you can send that page to any other member of your family -- all without having to build a Web page."

Mix also has important business values. Information workers often need to share the most up-to-date information in a group. This research technology would allow them to build a document about a particular project, and include search results related to the project, links to internal Web sites about the project, and even newsgroups that discuss the nature of the project. They can then share the document, and members of the group can continue to add content to it, automatically updating the document for the entire group.

Xbox as Teaching Tool for Future Scientists

Boku, a virtual robot in a simulated world, debuted as a research project to teach kids basic programming skills in a fun and entertaining way. "There is an ongoing and deepening crisis in computer science," Rashid said. "Our goal is to stem the tide by showing young kids the magic of software programming."

Using Xbox, kids as young as four years of age can program a robot to interact with its world, travel around among various objects the kids create, and even eat an apple. "It's very much like playing a game," Rashid said. "But it's a serious endeavor that we believe will begin to interest kids in programming and eventually make them more comfortable tackling the really big challenges in computer science."

New Managing Director Named for Redmond Laboratory

During today's event, Rashid announced that Henrique "Rico" Malvar, Ph.D., has been named the new managing director of Microsoft Research's laboratory in Redmond, Wash. Malvar, a native of Rio de Janeiro, Brazil, joined Microsoft nearly 10 years ago. He succeeds Dan T. Ling, who is retiring after 15 years with Microsoft Corp. More information about Malvar is available at <http://www.research.microsoft.com/~malvar>.