Culture and Technological Obsolescence

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Computer technology has already conquered text, and soon it's going to allow us to save nearly everything around us. As our cultural institutions shift to recording and preserving artifacts in digital form, it's less and less clear what the future holds for all of this material. With enough disk space to record whatever we write, talk about, photograph, and do, how can society plan for its use 10, 500, or 10,000 years from now?

That question is at the heart of a four-day conference starting Sunday in Los Angeles under the sponsorship of the Getty Conservation Institute (mission: to aid in preserving the world's cultural heritage), Getty Information Institute (dedicated to building a global cultural information infrastructure), and the future-focused Long Now Foundation (which promotes the notion of long-term responsibility to counteract what it describes as society's "pathologically short attention span").

"Time and Bits: Managing Digital Continuity" will bring together a high-voltage panel of thinkers to discuss preservation models for the future.

The conference organizer is Stewart Brand, cofounder of The WELL and founder of the Whole Earth Catalog. Others among the 14 participants include composer Brian Eno; Danny Hillis, Disney's chief of research and development; archivists Howard Bresser and Brewster Kahle; futurist Paul Saffo; computer scientist Jaron Lanier; Wired magazine executive editor Kevin Kelly; and author Bruce Sterling.

The vulnerability of our cultural data is a problem "much deeper than meets the eye," says Brand. "Perpetually obsolescing and thus losing all data and programs every 10 years (the current pattern) is no way to run an information economy or a civilization. Yet it's almost an intractable problem," he says. "Our aim is to help set in motion a long-term strategic path which will solve the problem, so any digital artifact can be kept alive as long as needed, even across gaps of decades."

Preservation is not a new concern for libraries and museums, but changing technology has created new problems and responsibilities for information safekeepers.

Major institutions are responding with projects like one at the Smithsonian's National Museum of American History to digitize the museum's holdings as part of a public exhibition. Other examples of the phenomenon include The Names Project's digitization of the AIDS Memorial Quilt and the Yale University-led Cambodian Genocide Project, which aims to digitally preserve evidence of the 1970s Khmer Rouge reign of terror.

Archivist and "Time and Bits" participant Brewster Kahle says that as people begin to understand how many cultural artifacts are in digital form, two things take place.

"The first reaction people seem to have is, 'Oh, shit,' because all the archiving isn't happening yet," Kahle says. "You may not have liked your television upbringing, but it's still a pretty important part of us, as a human species...."

"Something else - which is only starting to occur to us - is that you can do tremendous things when you can take what tens of millions of people are thinking about - aggregated human thought - and put it in computable form."

That mass of information is beyond the practical reach of any individual. So a central question for conference participants - as it is for the many computer scientists struggling to impose order on the data available on the Net - is how to develop tools to find and assess the world's cultural databank.