By Amanda Beck
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BERKELEY, California (Reuters) - The world's great art has long been chiseled into stone, painted onto canvas and set in architectural gems meant to last across the generations.

Today, a growing number of artists use computers to create, and with technology changing fast, their digital visions could face obsolescence in just a few years.

"I often joke with my students that digital media will last forever -- or for five years, whichever comes first," said Richard Rinehart, digital media director at the Berkeley university's Art Museum & Pacific Film Archive.

Digital art has broken into the mainstream with venerable institutions such as New York's Guggenheim Museum buying such works for permanent collections.

In 2002, it bought digital compositions "Unfolding Object" by John Simon and "net.flag" by Mark Napier and took responsibility for their preservation.

But museums face a digital conundrum: how will they ensure future access to these files? Is this work - perfectly preserved in binary code - doomed because it will be superseded by future hardware and software?

"The warning is that nobody, at this moment, has a handle on how to preserve digital documents -- from movies to government documents to anything else, even though our culture is now largely digital," Rinehart said.

PERFORMING DIGITAL ART

Changing hardware is not the only problem with digital preservation, as experts ponder the essence of such art. Museums are used to thinking of pieces in fixed form. The Mona Lisa, for example, is a single painting that will not be altered.
Yet digital art is often designed to be fluid. It is the combination of the Mona Lisa image and a computer program that alters it -- adding a mustache this time, sunglasses that time -- in a series of infinite variations.

In these cases, curators are confused about what to keep. The software? One image? And what happens if the original screen breaks?

"We see the world not through a lens anymore but through a monitor screen," said Marisa Olson, a curator of Rhizome.org, a Web platform that has archived 2,500 digital artworks online.

She said art lovers should consider digital art more like Beethoven's Fifth Symphony, something to be revisited periodically and brought back to life through different performances.

Olson was attending a gathering at California's Berkeley this week that brought together 150 artists, critics and computer-industry members to discuss preserving the first generation of digital art.

The Berkeley Museum and several other arts organization have created a written language, called the Media Art Notation System, which, like a musical score, will record the essential elements of a digital piece. It should allow future curators to copy, emulate or reinterpret the original.

"Museums have to start paying attention," said Jon Ippolito, former associate curator at the Guggenheim. "They risk not preserving the most relevant aspects of 21st century culture and, thus, their own relevance."