

Abstract for PV 2011: David Schade

This abstract is intended for the "Data at Risk" session that Elizabeth Griffin is working on.

The digital artifacts that we want to distribute to scientists or artists today, to store, and whose value we wish to protect for future generations are not standalone objects. They are ghostly traces of magnetism or electronic spin that are embedded within systems that have been designed to make them meaningful and useful. The infrastructure that supports these systems (storage media, processing software, database technology, operating systems) evolves quickly so that the present generation will be obsolete in a few years. Furthermore, the global environment in which scientists or artists exploit these artifacts changes over periods of a few years so that the systems need to be modified constantly in order to remain compatible with the work practices of the user community. Otherwise, digital artifacts will become inaccessible or unusable. This is entirely opposite to the situation with physical artifacts where preservation has the intent of preventing change in the artifact. In the digital era we need to continuously manage change and evolution of the artifact and the systems it is embedded within in order to preserve its value. This presents challenges in establishing funding to support the ongoing evolution activities for digital data collections.