

Translation of Asahi Shimbun article, 01/2012

Reliable record-keeping: is digital archiving the answer?

In Weimar, central Germany (population 60,000), a fire broke out one night in 2004. It started in the Anna Maria Library, a UNESCO World Heritage Library founded in the 18th Century. Among the 50,000 books burnt were rare volumes and manuscripts by Copernicus. 28,000 books were partially burnt and are under restoration.

The weather is very cold at Cambridge University, where a female member of staff is quietly working at a computer in the Museum of Archaeology and Anthropology. A conservation project for endangered oral culture was founded three years ago. Fieldworkers around the globe are sending materials (audio and film recordings and electronic data) to the project, where the staff archive them to a geographical map on the website.

Accessing anthropological cultural data used to mean a visit to the host country, because archives could not be placed on the internet, so were put in a drawer and forgotten about. "Losing traditional culture means losing one's identity. Digital recording helps to save historical records and makes our jobs easier", says Professor Alan Macfarlane, University of Cambridge. "We have been able to record materials twice as fast using digital methods. Ten years since the beginning of digital recording, we are targeting over 100 cultures to be preserved in this way. The communities themselves are able to see the recordings and pass these historical records to the next generation."

As demonstrated by the fire in the Anna Maria Library, the preservation of books and film in physical form is unreliable. UNESCO reported that in the 20th Century, over 100 libraries were damaged or destroyed by fire or war. This situation has recently been improved by digital recording.

Immediately after the Kobe earthquake, Mori (the property magnate) sent his urban research group to Kobe to film and survey the land using GPS, creating a precise record of the damage just nine hours after the quake. The huge amount of data passed on to the emergency services included statistics on damage to buildings, refugee centres, and food and dust mask stores. The data remains useful long after its collection. The paradox of museums is that, when you are collecting data, you don't know what will be most important. Professor Hirose, Tokyo University, says "The way that digital recording can keep everything dispels the paradox of the museum. Material deemed unimportant and not recorded later becomes important, and through digital recording everything can be kept".

Professor Takano of the National Data Research Group created the search engine *SOU* in 2006 that uses a single word to find information, using searches in the same way as a human brain: one word cascades to multiple links and connections in the search, so that individually created records connect to each other. National cultural monuments or old books and art gallery collections can

be viewed on a single database. For example, using the search term 'vase' results in national treasures, books about vases and museum prices displayed on the site. Previously, records were collected and then abandoned. The connections between these records can be surprising. This heightens the interest for the records."

On the other hand, digital recording can also be unreliable. "People are once again considering film as a system for making long-term records. 63,000 cinema films are now stored at the Tokyo National Modern Art Museum film centre", says the Chief Research, Mr Tochigi. The centre's warehouse keeps these films under specially controlled atmospheric conditions. The style of digital data filing, recording formats and playback system is changing all the time so one cannot see the previous data, and it is possible to accidentally delete it. Digital data should be used as a back-up of the original data and format, rather than a replacement".

At the Anna Maria Library, staff are now scanning and recording their data and transforming it to a digital format, but only since the fire. They are also working to restore original material that has been burnt and to re-collect books that were lost completely. The original book binding and the layout of the book itself (such as photos) are an important part of the author and publisher's original concept. We conclude that we still cannot tell the best way to keep records.