

Intergovernmental Council for the Information for All Programme (IFAP)
Twelfth Meeting of the Bureau (2 - 4 April 2007)

Outcomes of the Open Thematic Debate on “Information Preservation”
Bibliothèque nationale de France, 3 April 2007

KEY MESSAGES for GOVERNMENTS & INDUSTRY

“In the digital age, if we do nothing to preserve information, we will lose everything”

Dietrich Schüller, IFAP Vice-President and Audiovisual Archive Specialist

Dietrich contrasts the storage media of the digital world with the carriers of the analogue world. Our ancestors did not need to do anything special to preserve papyrus- or parchment-based content, which have preserved themselves for millennia. To a certain extent the same has been true for paper-based content, which generally has a live expectancy of centuries. However digital content is unlikely to survive 10 years, not necessarily because of carrier degradation, but because of format obsolescence.

UNESCO's Information for All Programme (IFAP) has identified the need to raise awareness of the importance of information preservation as one of its three strategic goals – the other two goals relate to information literacy and information ethics. IFAP has supported a number of pilot projects with specialist international and national organizations, including Southeast Asia-Pacific Audio Visual Archives Association (SEAPAVAA) with audiovisual archive workshops, International Council on Archives (ICA) with research into the preservation of, and access to archives and records providing evidence of human rights violations, and the Fundación Chile examining the preservation of cultural heritage and its educational applications.

The UNESCO IFAP Council wishes to convey the following key messages to governments and manufacturers of digital media carriers (the IT industry). These messages come from information preservation specialists who participated in the IFAP Thematic Debate in Paris at the Bibliothèque nationale de France on 3 April 2007.

The facts

- Digital heritage will disappear in 10 years (or earlier) without active preservation
- Digitization on its own is not preservation; preservation of digital content requires constant and ongoing attention forever!
- If all the world's information – text, audiovisual, film – was to be digitized, an estimated storage capacity of 12 ExaBytes (=12 billion GigaBytes) would have been required in 1999. The figure is even larger today and increasingly rapidly. The

pending introduction of high definition television will soon catapult the storage requirements to new heights.

- The present day cost of professionally preserving digital information is US\$5-8 per GigaByte per annum; this equates to a global cost of \$60-96 billion per annum for the amount of information at the start of this century.
- Preservation is not an aim in itself; but an indispensable pre-requisite for enabling the world's citizens to access information.
- Attention needs to be paid to the research-preservation balance, without preservation, there can only be limited research, yet researchers typically demand access without fully acknowledging the cost of preservation.
- Over 80% of the world's audiovisual collections referring to cultural and linguistic diversity are not in professional care.
- Climate change threatens world heritage; high temperatures and humidity speed up the destruction of archival materials. The cost of preservation also increases, with the additional energy needed for climate controlled storage environments.
- Trusted repositories are not just memories of the world but also provide authentic, complete and reliable information as well as evidence for good government.
- *"A stitch in time saves nine"* is a truism for information preservation.
- Digital repositories are not the solution for all audiovisual materials, e.g. film and coloured photographs are best preserved on their original carriers.
- Audiovisual associations have produced guidelines of good practice for preserving information.
- Procedures for preserving information need to be as robust as a nuclear power station.
- Scientific information is expanding rapidly, e.g. CERN's Large Hadron Collider (LHC)¹ is a particle accelerator that will generate 15 PetaByte/ year - and this information must be stored forever.
- Metadata is critically important in ensuring that in the future, we can not only read the data, but also understand what it means.
- Proprietary software is changing rapidly and there is no guarantee that future software will be backwards compatible; at the same time, open source software doesn't necessarily secure the future as support is dependent on volunteers.
- Training in preservation techniques as well as in the planning and development of preservation strategies is essential.

¹ CERN is the European Organization for Nuclear Research, the world's largest particle physics centre

What can Governments do?

Governments are urged to recognise and acknowledge that information preservation is important and develop pro-active strategies.

Governments should call on their universities to provide leadership in information preservation.

Governments are encouraged to pay more attention to preserving heritage as well as increasing access (digitization).

Recognising that resources will always be limited, Governments are urged to set priorities and make choices about what to preserve; Governments should take advice from information preservation professionals; they know what to do.

Legal deposit should cover audiovisual materials in countries where this is not yet so.

Governments should update copyright and legal deposit legislation to respond to the digital world (this is already the case in some countries).

Governments need to become stakeholders as well as funders, i.e. recognise that information is an asset and that preservation increases the value of this asset.

Governments need to position archive institutions into mainstream government; despite the importance of culture and cultural identity, many governments still view the culture sector as less important than other sectors such as economic, health, education.

In countries where archives are not part of mainstream government, it could help to ensure a senior minister is appointed to champion the cause – visits to other countries can often provide a stimulus.

Governments should commit resources to the ongoing training of information preservation specialists.

Governments should continue to collaborate at the global level with each other and with specialist NGO groups to raise awareness, coordinate standardisation efforts and co-finance preservation programmes, noting that special support is required for developing countries.

What can Industry do?

Industry must find more cost effective ways of preserving information, to bring the costs down from \$5-8/GB/year to \$1/GB/year.

Industry must be encouraged to build preservation into digital technologies, and reduce the rate of upgrading and obsolescence; this is also consistent with global efforts for greater sustainability.

Industry needs to develop technically viable solutions for preserving the integrity of great quantities of information, e.g. lossless compression.