(not forgotten)

DIGITAL FORMATS

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Preferences among digital formats will be based on a balance among the factors: disclosure, adoption, transparency, self-documentation, external dependencies, impact of patents, technical protection, quality, and functionality. Sometimes these factors compete. For example, some formats adopted widely for delivery of content to end users are proprietary or apply lossy compression for transmission over low-bandwidth networks. Disclosure can substitute for transparency; for example, the developers of the JPEG 2000 format based on wavelet compression are said to have tested the published specification by giving it to several programmers independently and asking them to program a compliant viewer based only on the specification. For content of high cultural value and for which a special functionality has particular significance, the ability of a format to support that functionality may outweigh the sustainability factors.

Red more:

https://www.loc.gov/preservation/digital/formats/intro/format_eval_rel.shtml

http://ohda.matrix.msu.edu/2012/06/digital-video-preservation-and-oral-history/

Photos and images	Choose the highest resolution available, not rescaled or interpolated • Highest bit depth available, 16 bits per channel if available • Embedded color profile or specified color space used in published version • Uncompressed • Unlayered • Clarity (support for high image resolution) • Color maintenance (support for color management) • Support for graphic effects and typography • Support for multispectral bands Recommended TIFF (*.tif) • JPEG2000 (*.jp2) • PNG (*.png) • JPEG/JFIF (*.jpg) • BMP (*.bmp) Acceptable Scalable vector graphics (*.svg)	
Audio	Music / Audio files should be saved in open, non-proprietary (meaning the format is not owned by a particular entity) and popular file formats. This will ensure the most flexibility for future use convert them to, more open formats such as WAV or MP3	Fidelity (support for high audio resolution) Support for multiple channels (including note-based, e.g., MIDI) Support for downloadable or user-defined sounds, samples, and patches

Video	Video formats that are widely-supported, documented, and open standards will have a much greater longevity than those proprietary formats subject to frequent change Video files should be saved in “open” and popular file formats. Using these will ensure the most flexibility for future use. In practice, however, this can be difficult, as encoding video files in open formats is not always easy if your camera or video editing software does not allow for it. In general, open formats like MPEG-2 (.mpg, .mpeg) and MPEG-4 (.mp4) are good choices for your digital video files It is also important to maintain original, high-quality files in their native codec and resolution. Long-term retention of proprietary video formats is not recommended. These formats change frequently, playback is limited to specific software, and the source code is not documented so that others can write codecs to read the files. If you have created or acquired proprietary video files as your primary preservation format (this includes Apple ProRes and AVID DNx), you may want to consider migrating these files to a more preservation-friendly file format. Acceptable: ProRes a. QuickTime (.mov) container b. 4444 (XQ), 4444 or 422 HQ codecs 3. MPEG-2 a. Compliant with ISO/IEC 13818 4. XDCAM a. MXF b. HD422, SHD422, HD codecs	Clarity (support for high image resolution) Fidelity (support for high audio resolution) Support for multiple sound channels
A Note on cloud	Choose cloud services owned by the biggest companies who are likely to have persistent backups, and will likely to survive as part of other corporations even if they no longer exist: Think Google, Microsoft, Apple, Amazon.	
USB	The stored charges of the bits of information slowly decrease in time. The JEDEC Solid State Technology Association sets basic industry standards for things like flash chips. JEDEC JESD218A endurance specification requires a flash memory chip that’s turned off and stored at 25C to retain data for 101 weeks. Not even two years. Along with a media copy in the capsule, you may want to store a digital copy on your servers (and LTO backup tape), as you could pack the software to open the files into an encrypted file with the key stored physically in the capsule	
M-Disc	M-Disc - according to their website is rated at 1000 years. But a pricey option	