

MANIFESTO

for the memory of Italian digital cinema

Digital Fragility

Memory seems to be an intrinsic property of digital technology. We are used to thinking of the web as a spontaneous archive where data accumulates indefinitely and every trace is indelible information. We are used to thinking of hard disks and the like as stable repositories. We call them memory devices.

This naive view must yield to the evidence that **even digital data can get lost forever**. What's more, at unpredictable moments. Countless pieces of information have become inaccessible over time due to the physiological failure of optical or magnetic media. It's the other side of the lightness of digital technology: false assurance, evanescence, dispersion.

Cinema is not in the clear.

The risk of oblivion naturally looms over the entire film industry, ever since it left film behind. It is a new risk that catches cinema unprepared.

While established celluloid preservation practices have fallen by the wayside, in the minds of producers and many others in the industry, they have not been replaced by up-to-date digital methods, but rather by a naive vision of easy, predictable, practically automatic memory.

Except for the major studios and global platforms, original works, their masters, and their essential assets that feed the historical catalog and all future forms of exploitation of the work are carelessly entrusted to digital devices that are presumed to be (almost) eternal.

The risk inherent in the physical decay of devices is compounded by that linked to the **fossilized practices of the past** that continue out of pure inertia. Producers who maintain a domestic archive without IT skills, or who entrust it de facto to post-production laboratories without an explicit service contract, placing a heavy burden on them in terms of physical space occupied, energy consumed, and responsibility for safekeeping. Not to mention the hidden costs.

Emblematic of this state of affairs is the basement full of tapes and hard drives that may still work, which someone may remember exist. Or perhaps not anymore.

The Memory Lapse of Italian Cinema

There is no need to dwell on the treasure that cinema represents, especially Italian cinema. Our Cinema and Audiovisual Law (220/2016) recognizes it as

an activity of significant general interest, which contributes to the definition of national identity and to the civil, cultural, and economic growth of the country, favors industrial growth, promotes tourism, and creates employment, including through the development of professions in the sector.

This description overlaps two aspects:

1. the **economic value**, of a private and entrepreneurial nature, which the Law provides for with **financial subsidies limited to production**, and
2. the **cultural clout**, of public and collective relevance, for which the same Law includes the work in the “public interest heritage” through the mandatory deposit of a copy of the master at the Cineteca Nazionale (National Film Archive), albeit **on magnetic media destined for obsolescence, in encrypted DCPs whose keys will expire**.

These two limitations highlight a **significant gap** in Italian legislation.

There is a lack of protection for value over time.

The naive view of digital memory also undermines the law. The obligation to file and verify documents in order to access funds or Tax Credit is a serious requirement, but it remains primarily an administrative and financial obligation that serves to certify the existence of the product and the expense incurred.

What the law **does not impose** is an explicit obligation for long-term preservation. No one is obliged to protect the work from the risks of obsolescence and digital oblivion. No one is obliged to ensure that the master (DCDM, DSM) will be accessible, intact, and usable in 5, 10, or 50 years for restoration in 8K, for release on a new platform, for the creation of derivative works, or for the transfer of future licenses.

Forgetting to safeguard digital patrimony is a short-sighted vision, a lose-lose situation both economically and culturally.

The regulatory gap goes hand in hand with technological lag, i.e., the lack of “official” recognition of the most reliable technological infrastructure for digital preservation today: the cloud.

Best Practices

Let's compare the position of the Higher Technical Commission for Image and Sound (CST), which guides legislation on this subject in France. Here is what they say about the cloud in their most recent recommendation document, dated May 12, 2025 (CST-RT-043):

the cloud meets, in a single preservation policy, both the requirements for long-term durability and those for rapid accessibility for future works

thanks to its

intrinsic advantages in terms of redundancy and operational practicality, relieving the user of the direct management of media.

This macroscopic gap in technological awareness is not confined to theory but illuminates the entire French legislation on cinema.

A small example: in Italy, the viewing copy must be delivered on a USB drive, accompanied by a hand-filled paper form. In France, the National Center for Cinema and the Moving Image (CNC) and the National Library of France (BnF) manage their own efficient web portal (DELIA, *Dépôt Légal des Images Animées*) where works can be deposited directly in dematerialized form with all the relevant metadata, in a simple and secure manner.

But the truly crucial aspect is the clear distinction between **two forms of preservation**:

- The **preservation of cultural heritage** (“conservation patrimoniale”) is a legal obligation under the Code du Patrimoine and applies to all works, not just cinematographic works. For the latter, this obligation is fulfilled, as under Italian law, by the legal deposit of a viewing copy with the CNC.
- The **preservation for continued exploitation** (“conservation pour la recherche d'exploitation”) is dealt with specifically for cinema in the Code du cinéma et de l'image animée (Cinema and Moving Images Code) in Article 211-15 as follows:

In return for the allocation of aid for the production and preparation of feature-length cinematographic works, production companies shall ensure the preservation of such works in order to enable their long-term exploitation, in line with their capital purpose.

Therefore, in order to obtain funding, French producers must fulfill **a second and decisive obligation**, in addition to the legal deposit requirement: they must submit to the CNC

a contract with a technical service provider to ensure the preservation of the material elements of the work for a period of at least five years.

This is forward-looking legislation in the truest sense of the word, naturally **combining culture and business**.

It is backed by the authoritative recommendations of the CST, starting with the **four necessary conditions** for preservation aimed at perpetual valorization:

- **durability**: files and their metadata must be stored away from loss, degradation, or damage, on multiple, independent, and redundant subsystems
- **usability**: files must be readable in the future regardless of the obsolescence of physical media, adopting open, non-proprietary, and unencrypted formats, and associating them with as much metadata as possible
- **accessibility**: the contract must be clear and transparent in defining the time and cost of accessing stored files and delivering them to third parties
- **reversibility**: at the end of the contract, the materials must be able to be returned to the producer without legal difficulties.

Among other things, the CST explains why

- it is advisable to ensure preservation for a **minimum of 10 years**, rather than the 5 years required by law
- **the producers themselves cannot be in charge of preservation**, except for very large companies:

A preservation policy cannot be limited to simply archiving files. ... The sustainable preservation of multimedia files in usable condition and the complementary services that accompany it require mastery of multiple technical and technological fields that are constantly evolving. It is a profession in its own right.

Planning Preservation

While who knows how many works are waiting somewhere for their apocalypse of indecipherability, time is running out in Italy to adopt a professional, regulated, and future-proof approach to monitoring and safeguarding digital cinematographic works.

Italy must fill the current gaps by updating the regulatory framework to a 21st-century ABC:

- A. officially accrediting **the cloud as a reference infrastructure**, alongside existing media
- B. equipping public film institutions with technologically appropriate **digital media asset management tools**;
- C. reframing **preservation as a guarantee** of future economic exploitation.

Only this particular implementation of preservation, in fact, allows us to continue to **extract value indefinitely** from the works created, keeping them alive, i.e., always close to the market, instead of keeping them safe in a vault but far from the market, or worse, abandoning them to fortune.

The perpetual valorization of digital patrimony must be based on three principles that directly reflect the interests of the producer and indirectly those of the community:

1. **Obligation to long-term protection of assets** (profit protection): the producer must be legally required to ensure the preservation of masters and metadata for a minimum recommended duration of ten years, treating masters as fundamental corporate assets from which future revenues will derive.
2. **Preservation contract as capital insurance policy**: the obligation must include the conclusion of a contract with a specialized technical provider, equipped with certified tools and methods to guarantee rights holders direct control over their historical catalog and its continuous commercial exploitation ad libitum.
3. **Technical standardization**: preservation cannot be generic but must adhere to international industry standards (see CST, FIAF) and established best practices that ensure the integrity and immediate reactivability of assets (durability and usability, see above).

The combination of these conditions gives rise to an unprecedented and highly virtuous scenario: it reclaims the current swamp of risk, transforming it into **fertile ground for a new services market**, from which the entire sector can derive **competitive advantages**.

Part of the virtue is the **emergence of hidden service relationships**, with their associated costs. These typical informal relationships disperse value and responsibility in the event of a series of possible abuses, such as lack of maintenance, misappropriation of entire catalogs by third parties, hacker attacks such as ransomware, etc.

On this front, a **cultural roadblock** is to be expected from traditional producers who are convinced that they can now count on a free archiving service from their post labs, periodic LTO refreshes aside. The illusion of zero cost may lead them to resist change from the status quo to a structurally different, small but continuous expense.

The **response** can be articulated as follows:

- **reveal the true costs** of the naive view, by measuring the real risks
- **assess the potential ROI** of business-oriented preservation
- **hook preservation expenditure to the Tax Credit received**, proposing that producers use a minimum fraction of this for preservation; in the same spirit, the preservation service provider could in turn be obliged to pay a portion of the service fee as a **contribution to the National Film Archive** to subsidize preservation for those who cannot afford it, closing the public-private circle

- help producers and rights holders in general to find additional sources of funding in **national and European tenders**.

Our Plea

- **to institutions:** legislate to defend digital patrimony, protecting the memory of Italian cinema and the economic future of its creators.
 - **to producers:** recognize that professional preservation is not a cost, but the best insurance on the value of works.
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