DigitalPreservationCoalition

AROUND THE WORLD

Risk Management: The Case of Brazilian Higher Education Institutions

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Cariniana Network
Ibicit - Brazilian Institute of Information in Science and Technology.

Cariniana

ibict


where there are
people, there is risk.


What does
“risk”
mean to us?



Risk is a constant in every human activity. We cannot eradicate it, but we can manage it. And the aim of managing it is to reduce the severity of the damage it can cause (Andrade, 2018, p. 94)



The international standards, ISO 9001 and ISO 31000, define risk as the effect of uncertainty. And here there is an essential distinction. Risk itself can be neither eliminated nor measured.

Unforeseeable hazards, beyond human control, produce an accident.

The Lisbon earthquake of 1755



Terramoto de Lisboa, detalhe da gravura Die VerwüstungvonLissabon der haupstadt in Portugal geschehenden 1. Nov. 1755 . Autor desconhecido. Museu de Lisboa / Palácio Pimenta.

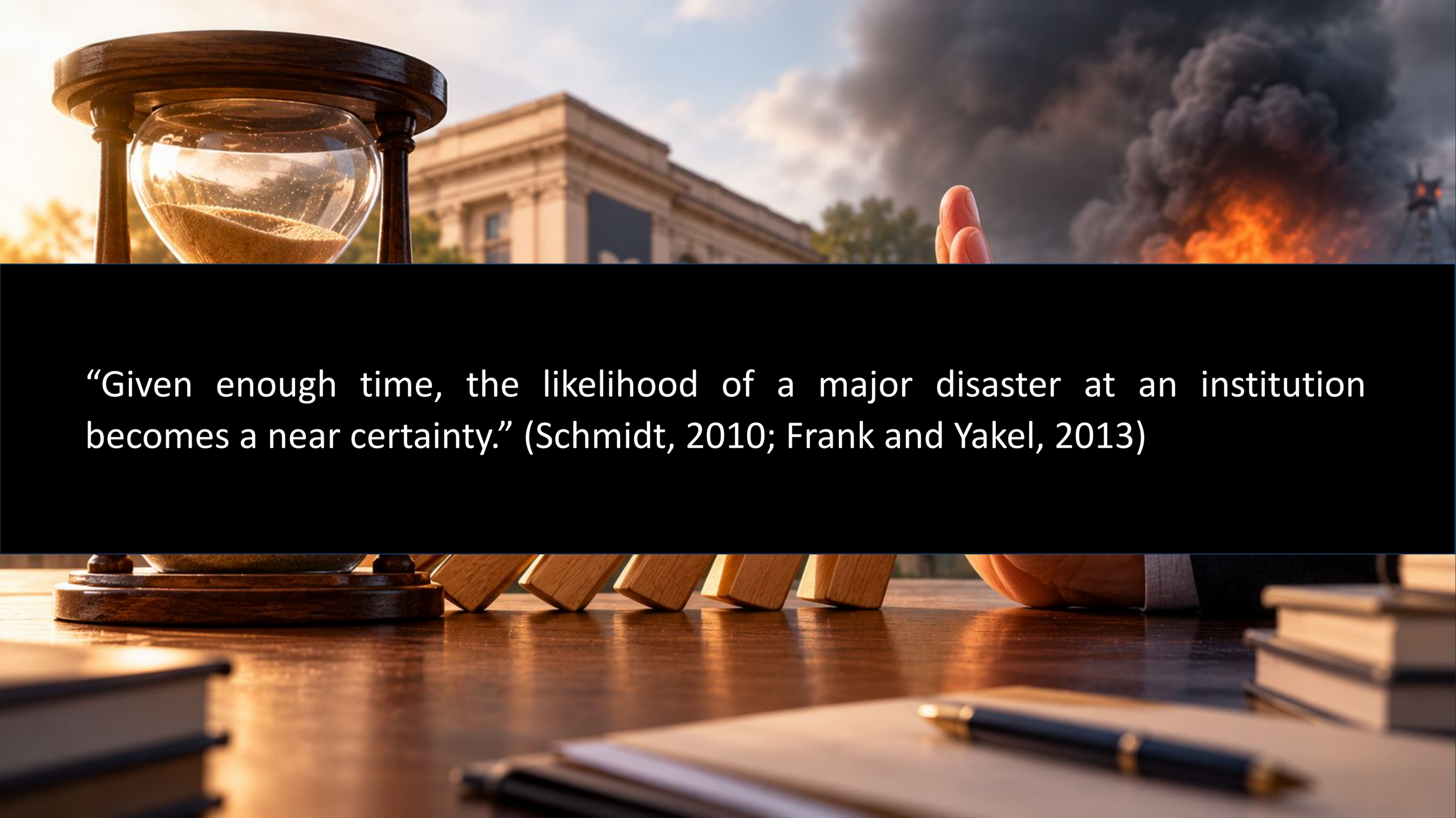
Foreseeable and preventable hazards, threats that become real through neglect, produce an incident, or negligence.





Marcelo Sayão (EFE)

The fire at the Imperial Museum in Brazil, in 2018.



“Given enough time, the likelihood of a major disaster at an institution becomes a near certainty.” (Schmidt, 2010; Frank and Yakel, 2013)


It is not a question of if, but of when, and of how early we take care.



Technological problem of digital preservation was largely solved, and that the big issues were political (Tammaro and Salarelli, 2008, p. 194).

Organizations with a strong organizational structure have well-managed digital preservation programs, clear and comprehensive policies and plans, and visible support for digital preservation within the organization (Kenney and McGovern, 2003).

Improves access to capital and lowers its cost, by attracting greater confidence from investors (ISO 37000, 2021).



To build a **Risk Mindset** in our community


What are the
greatest risks
we face?

The Brazilian Diagnostic

41
repositories of public Brazilian institutions analyzed.

~1,900
risks evaluated, covering severity, frequency, and detectability.





Note: This index does not reflect losses that may occur, but rather the absence of controls (lack of policy, planning, and audit based on ISO 16363).

The Root Cause: A Clash of Priorities

Access and Visibility

Our institutional repositories need to be structured exclusively to ensure easy access to scientific production.

Preservation and Longevity

There are no requirements or infrastructure planned for digital preservation in the long term.

The Structural Void: Two Root Causes

Absence of a National Standard

The Reality:
Institutions rely on a patchwork of practices, piecing together fragments from different references.

The Gap:
No unifying ABNT standard to guide institutions in building programs on ISO 14721 and ISO 16363.

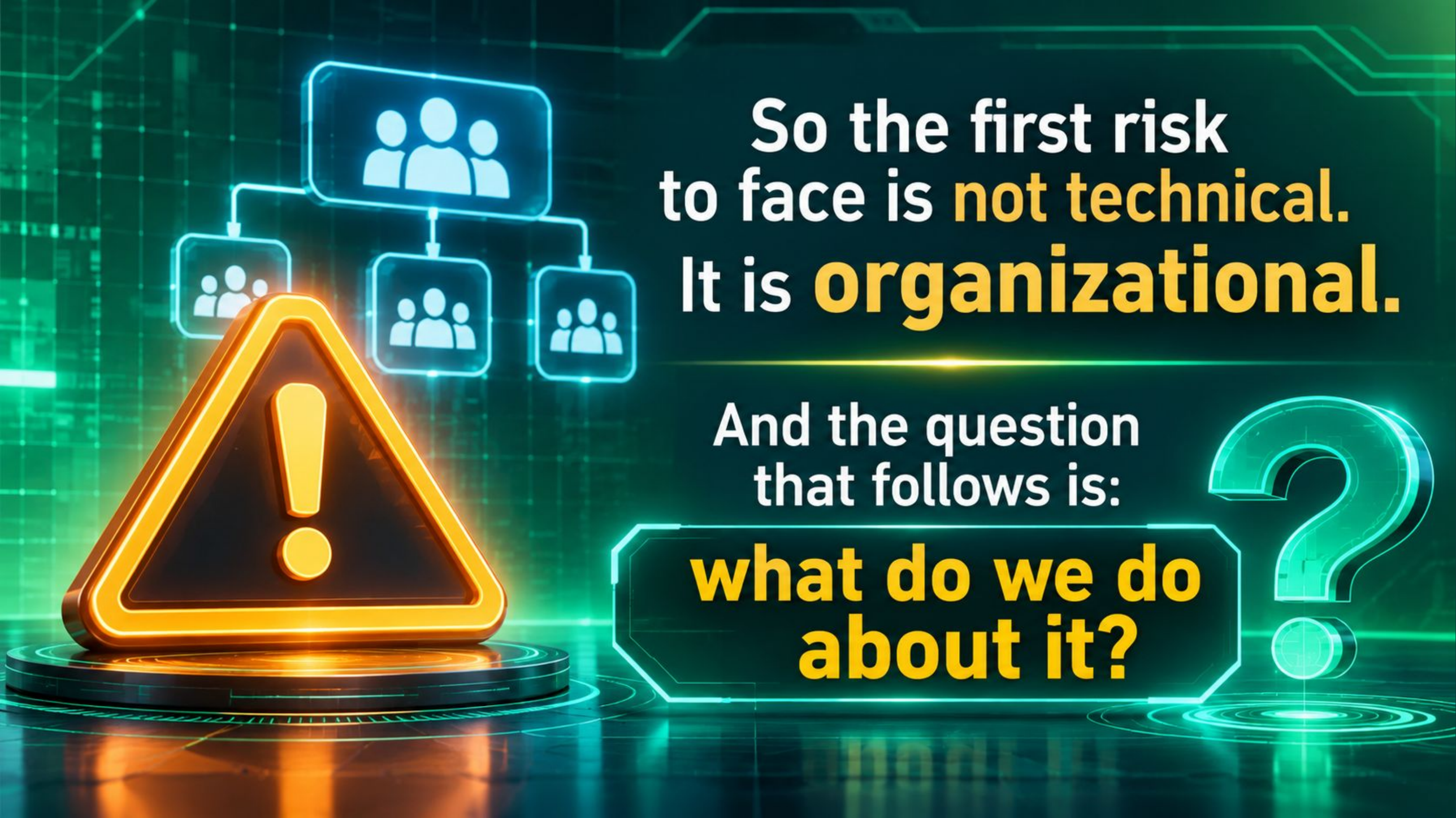


The Talent Pipeline Gap

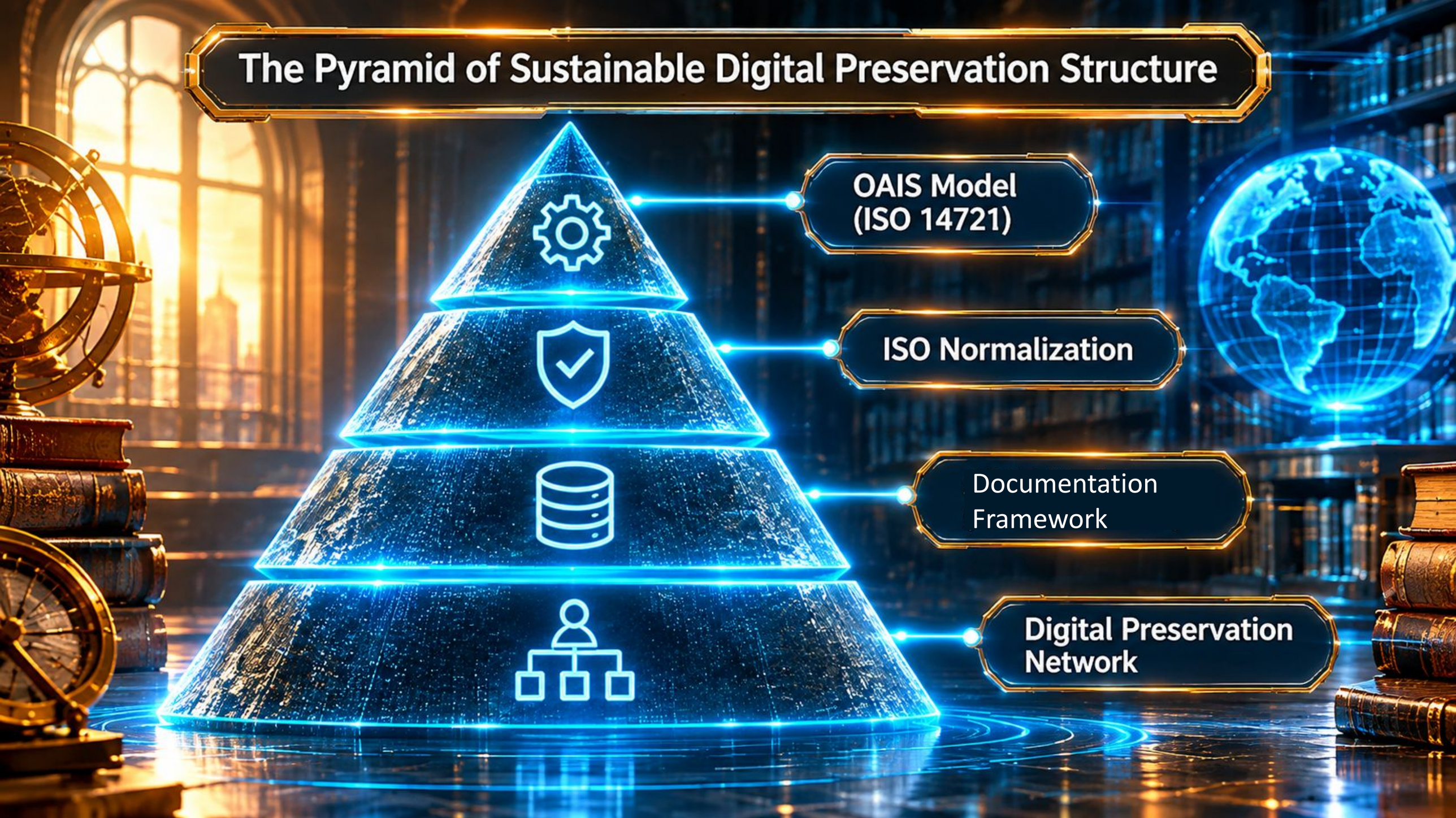
The Reality:
Dedicated professionals (archivists, librarians, IT) rely on legacy curricula designed for traditional, non-digital institutions.

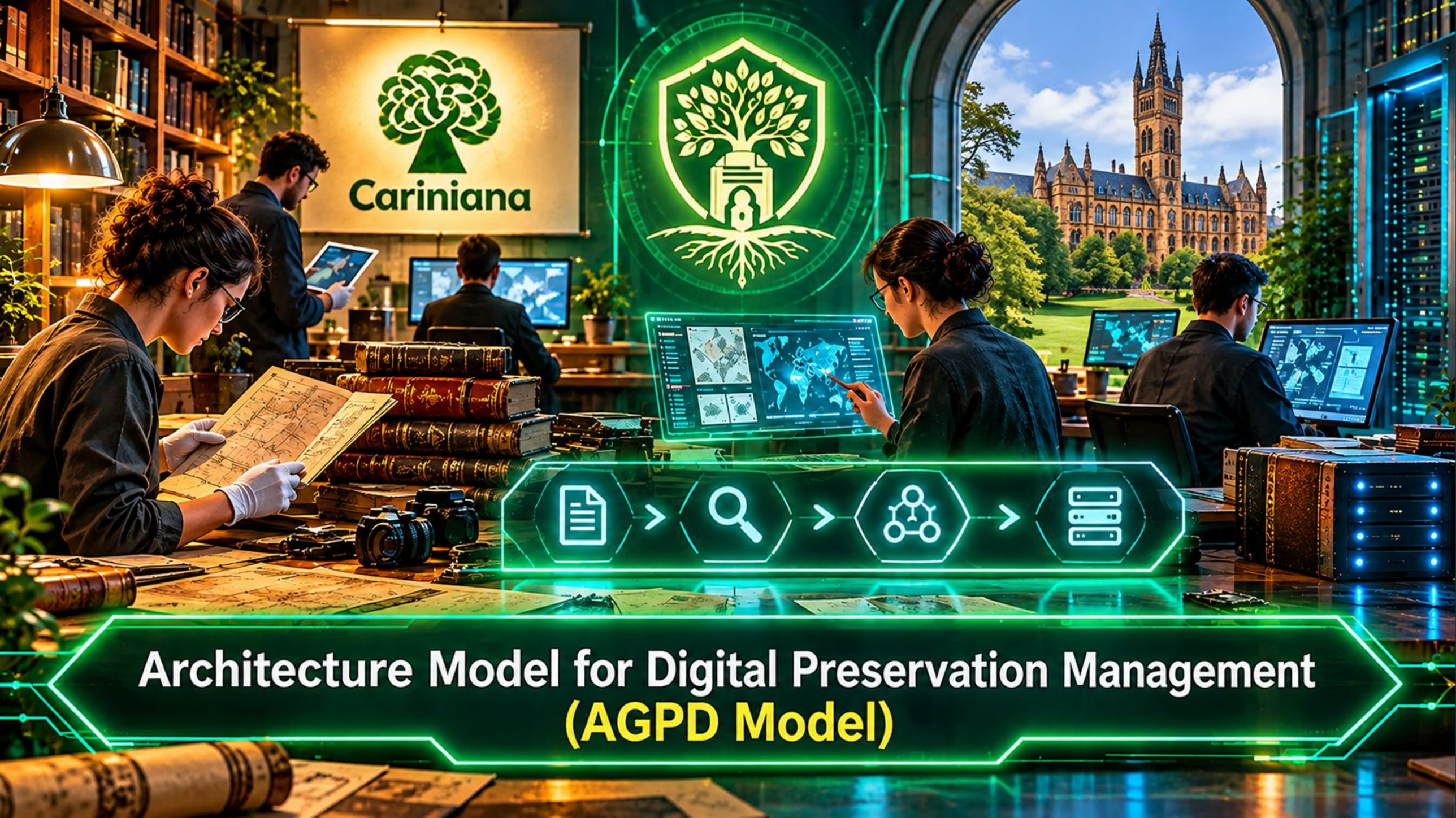
The Gap:
A critical lack of specialized, certified digital preservation training and formal professional certification.

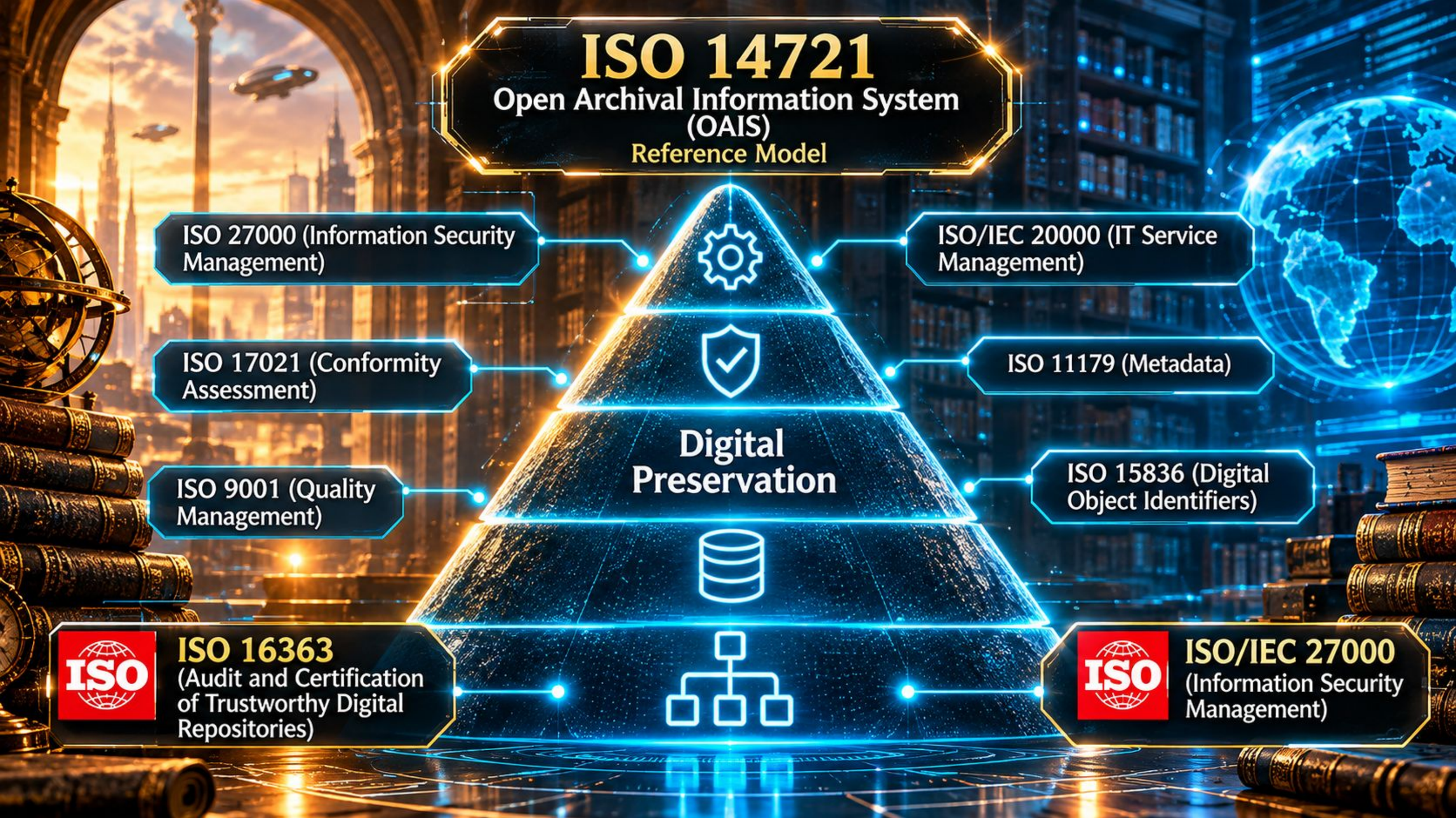
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So the first risk
to face is not technical.
It is organizational.
And the question
that follows is:
what do we do
about it?


RISK
What is the Network's
attitude to risk,
and what steps are in place
or planned?


The Pyramid of Sustainable Digital Preservation Structure
OAIS Model
(ISO 14721)
ISO Normalization
Documentation
Framework
Digital Preservation
Network


Cariniana
Architecture Model for Digital Preservation Management
(AGPD Model)


ISO 14721
Open Archival Information System (OAIS)
Reference Model
ISO 27000 (Information Security Management)
ISO/IEC 20000 (IT Service Management)
ISO 17021 (Conformity Assessment)
ISO 11179 (Metadata)
Digital Preservation
ISO 9001 (Quality Management)
ISO 15836 (Digital Object Identifiers)
ISO
ISO 16363
(Audit and Certification of Trustworthy Digital Repositories)
ISO
ISO/IEC 27000
(Information Security Management)

AGPD: Architecture Model for Digital Preservation Management



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The Roadmap to Implementation

1

Turn AGPD into an ABNT Standard



Today Brazil does not have a national digital preservation standard. We want this architecture, aligned with ISO standards, to become a **national reference**.

2

Certify Cariniana's Instructors



to work with international standardization in digital preservation. Those who train others must themselves be **qualified and certified** in the standards they teach.

3

Make the Cariniana Network a Certification Body, or Create One



with qualified and certified professionals trained through Ibict's graduate program, and with outreach across the whole country. That way, the standard stops being a recommendation and **becomes practice**.

In short:

one architecture, one standard, certified people, and a network that certifies.

This is how we face organizational risk.


FRAMEWORK
DE PRESERVAÇÃO
DIGITAL
(Modelo AGPD)
Modelo AGPD
Acervo
Requisitos
Planejamento
Infraestrutura
Preservação
ARQUIVÍSTICA
BIBLIOTECONOMIA
MUSEOLOGIA
PRESERVAÇÃO DIGITAL


LUDUS
Dríade
Cariniana

The Thread in the Labyrinth

Introducing the AGPD Architecture

Because risk cannot be eliminated, it must be managed. And management requires structure. The solution is not a tool; it is an architecture.

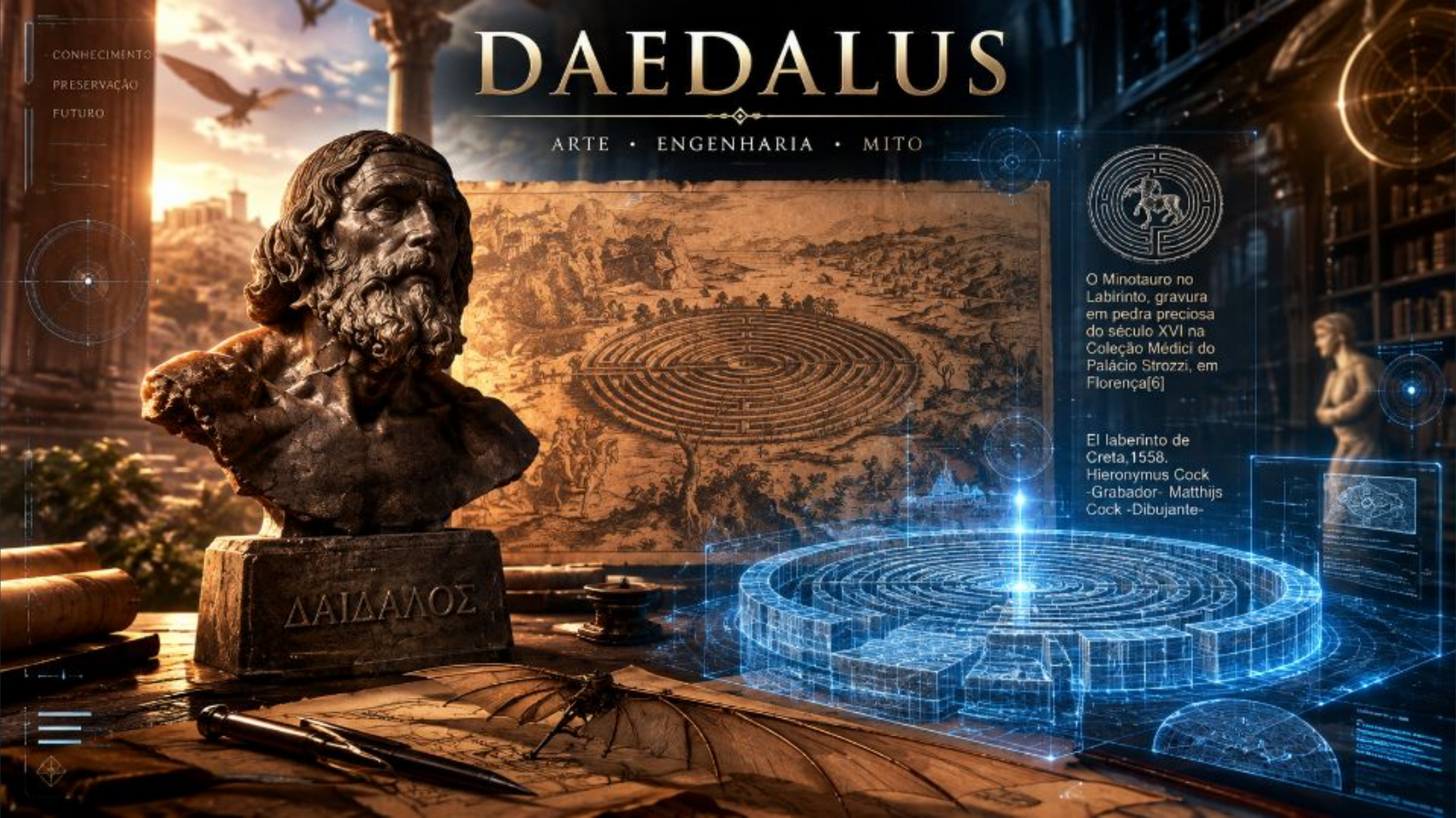
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DAEDALUS
Laboratório para Estudos e Práticas de
Preservação Digital da Memória Lúdica
Processo Criativo · Narrativas Transmídia · Worldbuilding

DAEDALUS

ARTE • ENGENHARIA • MITO

- CONHECIMENTO
- PRESERVAÇÃO
- FUTURO



O Minotauro no Labirinto, gravura em pedra preciosa do século XVI na Coleção Médici do Palácio Strozzi, em Florença[6]

El laberinto de Creta,1558. Hieronymus Cock -Grabador- Matthijs Cock -Dibujante-

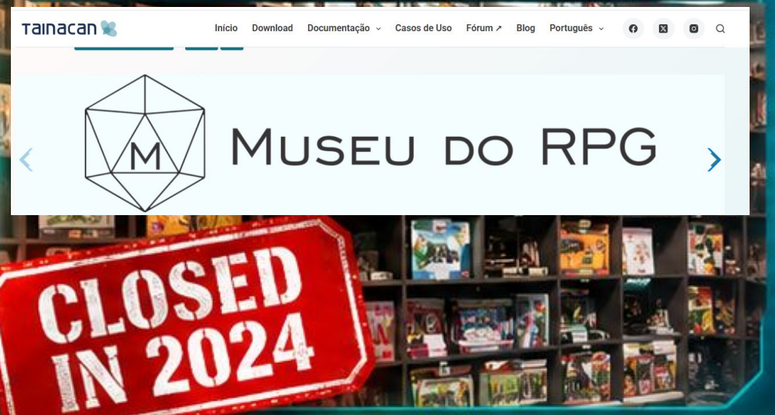

MODELO
AGPD
Compreender o acervo
Organizar e descrever
Definir estratégias
Preservar
Garantir acesso


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Museu CríticaSVerso


Do we face particular
kinds of risk, and which ones
has the community
not yet addressed?

Digital Preservation in Brazil:
Real Risks for Our Heritage

In 2024, the RPG Museum ceased its activities.



The VGDB, Bojogá and Museum Críticasverso are in a critical situation regarding their digital collections.

VGDB

BOJOGÁ

Museu Críticasverso





In 2018, in the fire at the Museu Imperial, we lost the collection of Indigenous Peoples made by **Curt Nimuendajú**, with only the digitized material surviving.

These facts highlight the urgent need to preserve our digital heritage.

Unmapped Territories: Community Blind Spots

Panel 1: Indigenous Memory

The Finding:

Over 60,000 digital objects in Brazilian universities related to Indigenous peoples.

The Risk:

Stored almost entirely without preservation policies, adequate metadata, or the active participation of the communities themselves.



Panel 2: Ludic Memory (Play & Games)

The Finding:

Creative processes, project drafts, and game iterations.

The Risk:

Native software formats trapped in commercial cloud services without any archival treatment (currently being tested via the Daedalus open lab).

Museu do RPG

VGDB

BOOJOGA

Museu CriciaVerso

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Are the risks being underestimated or overestimated?
RISK
RISK
?
UNDERESTIMATED?
OVERESTIMATED?


We are looking for them
in the wrong place!
Physical
Archives
Digital
Preservation

Synthesis: Navigating the Labyrinth Together



The Labyrinth

The complex reality of digital ecosystems and technoiogical sprawl.



Theseus

The preservation professionals—archivists, librarians, IT staff, and museum curators walking into the unknown daily.



Ariadne’s Thread

The AGPD Model—providing a common path so distinct disciplines don’t walk isolated corridors.

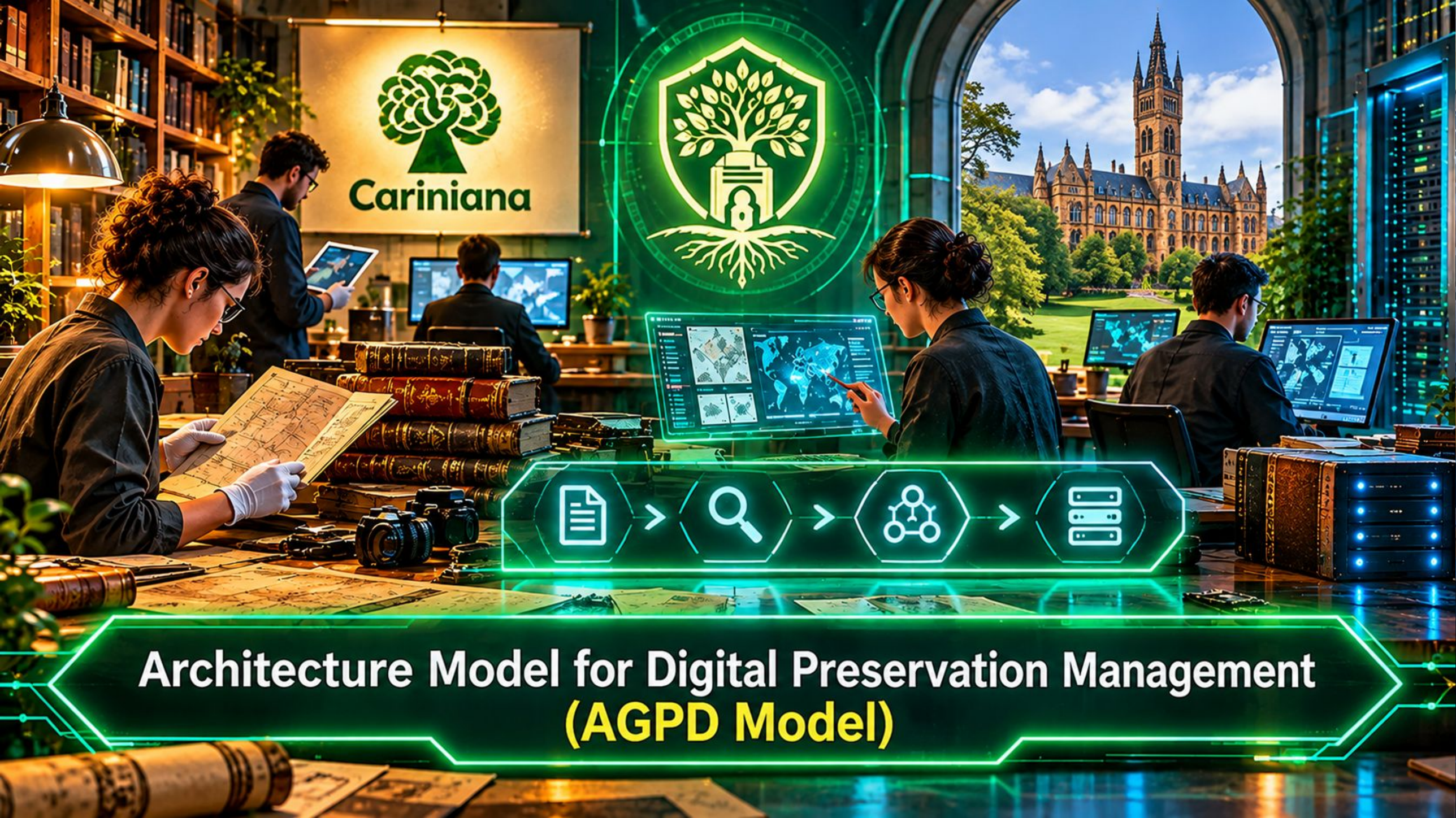




The Guide

The Cariniana Network—handing over the thread and preparing professionals to follow it.

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Architecture Model for Digital Preservation Management
(AGPD Model)

Looking in the Right Place

Are risks being underestimated or overestimated? Neither.
We have simply spent two decades looking in the wrong place.
The true vulnerability is not the technology we buy; it is the organizational context we build.

The AGPD model is open. The risk map data is public. Let us compare our maps. What do you see in your repositories that we do not see in ours? It is in this exchange that the thread gets stronger.

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Thank you!

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