

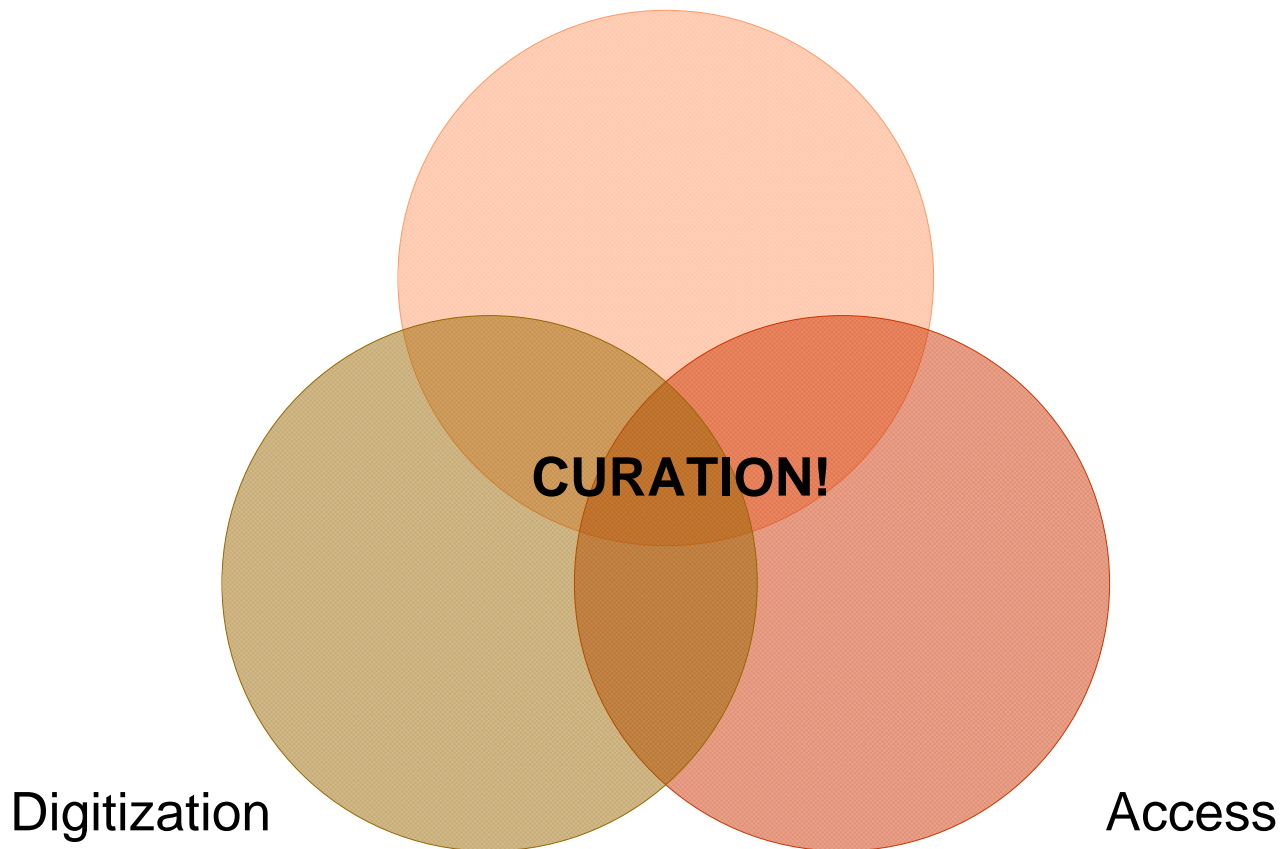


Computer
History
Museum

The digital preservation software stack

Heather Yager
Digital Media Archivist

Preservation

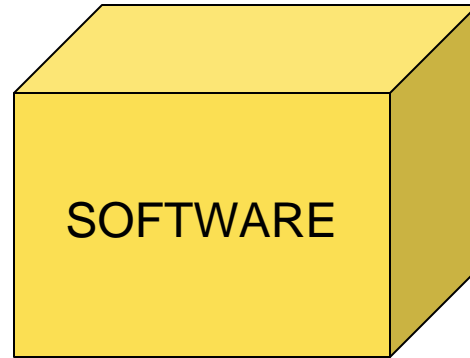


Digitization

Access



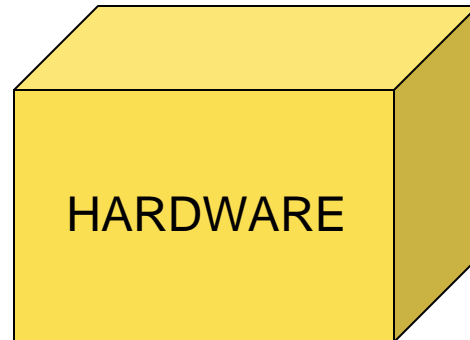
Computer
History
Museum



+

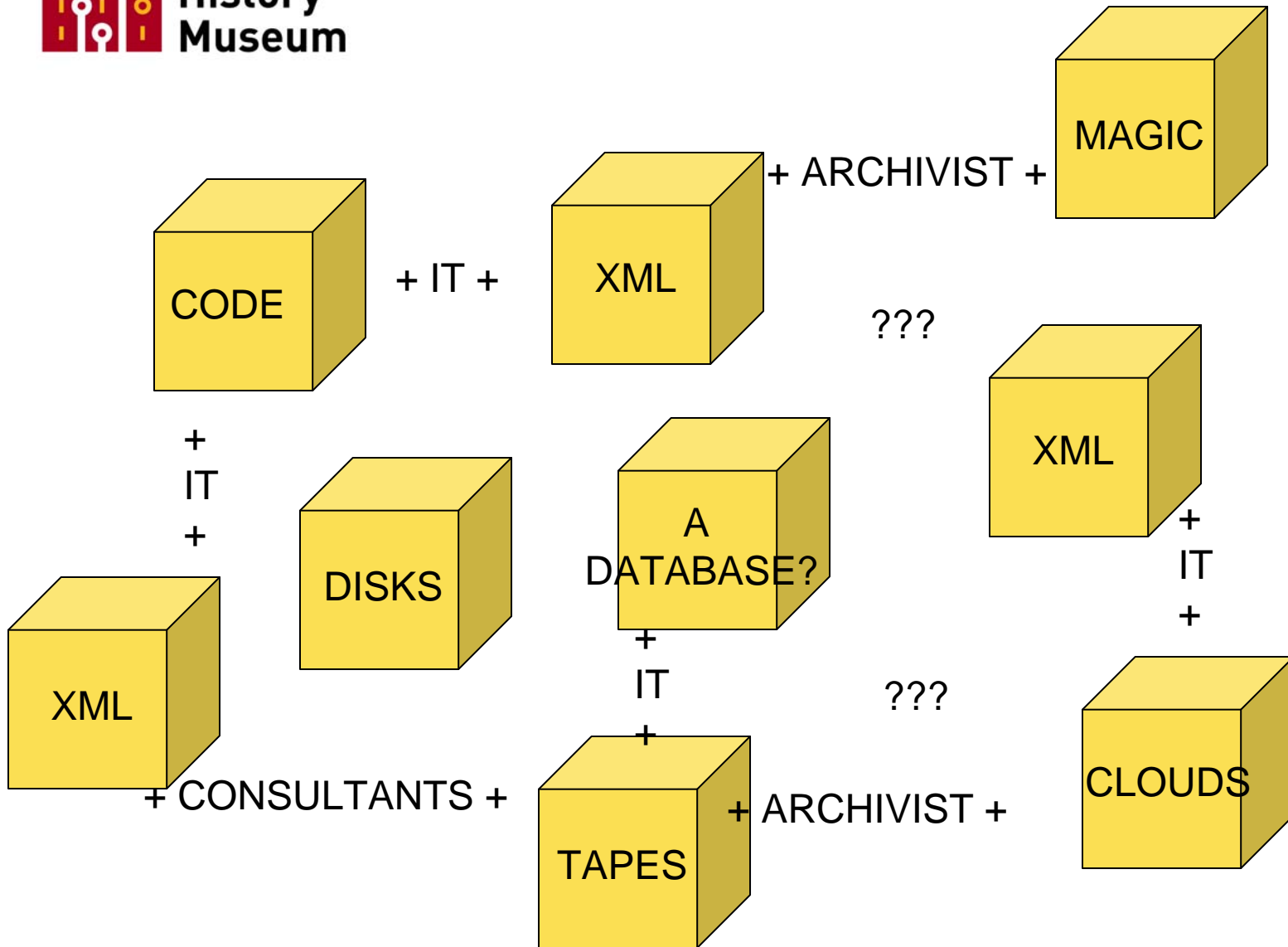
IT DEPARTMENT

+



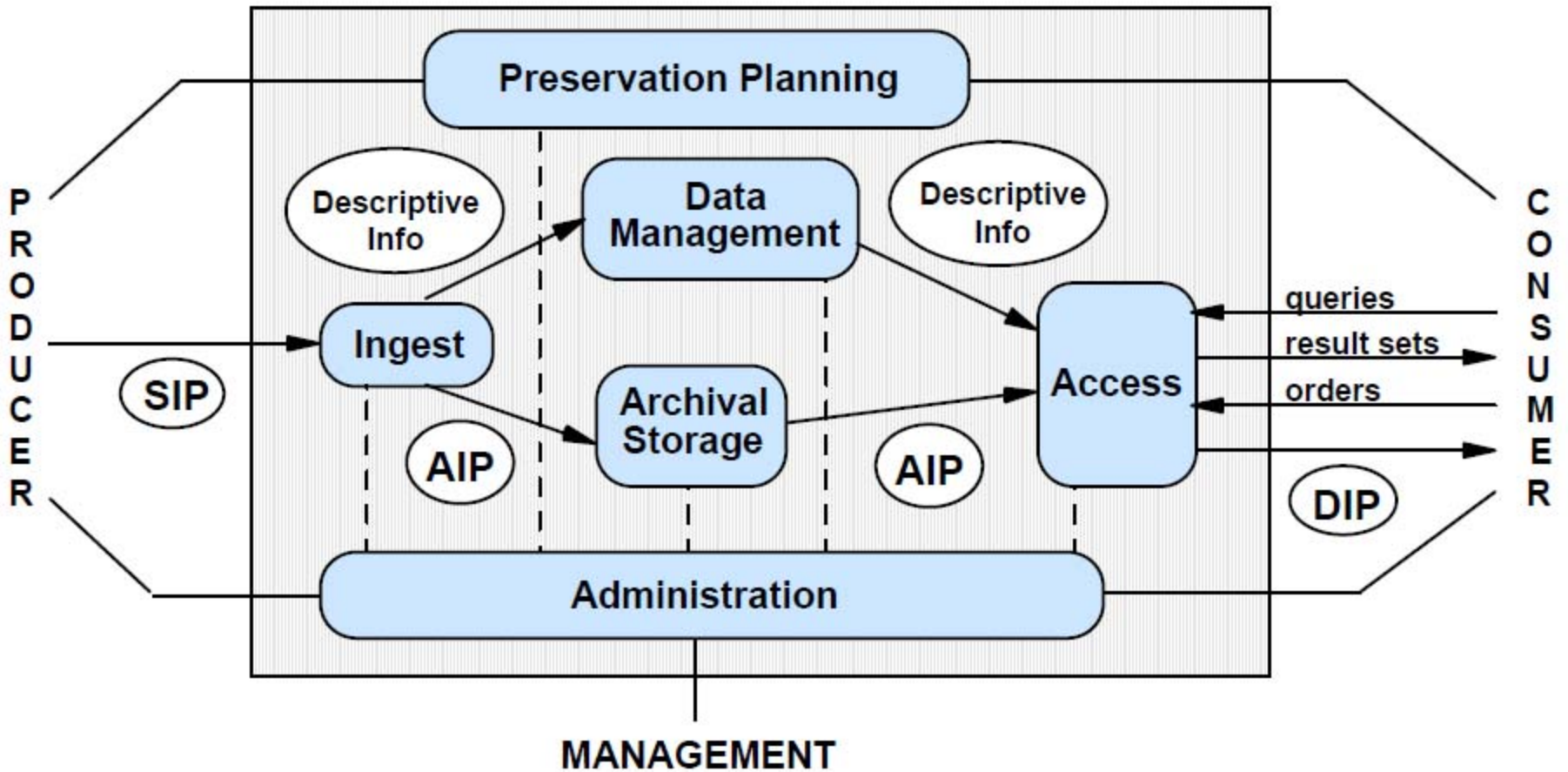


Computer History Museum





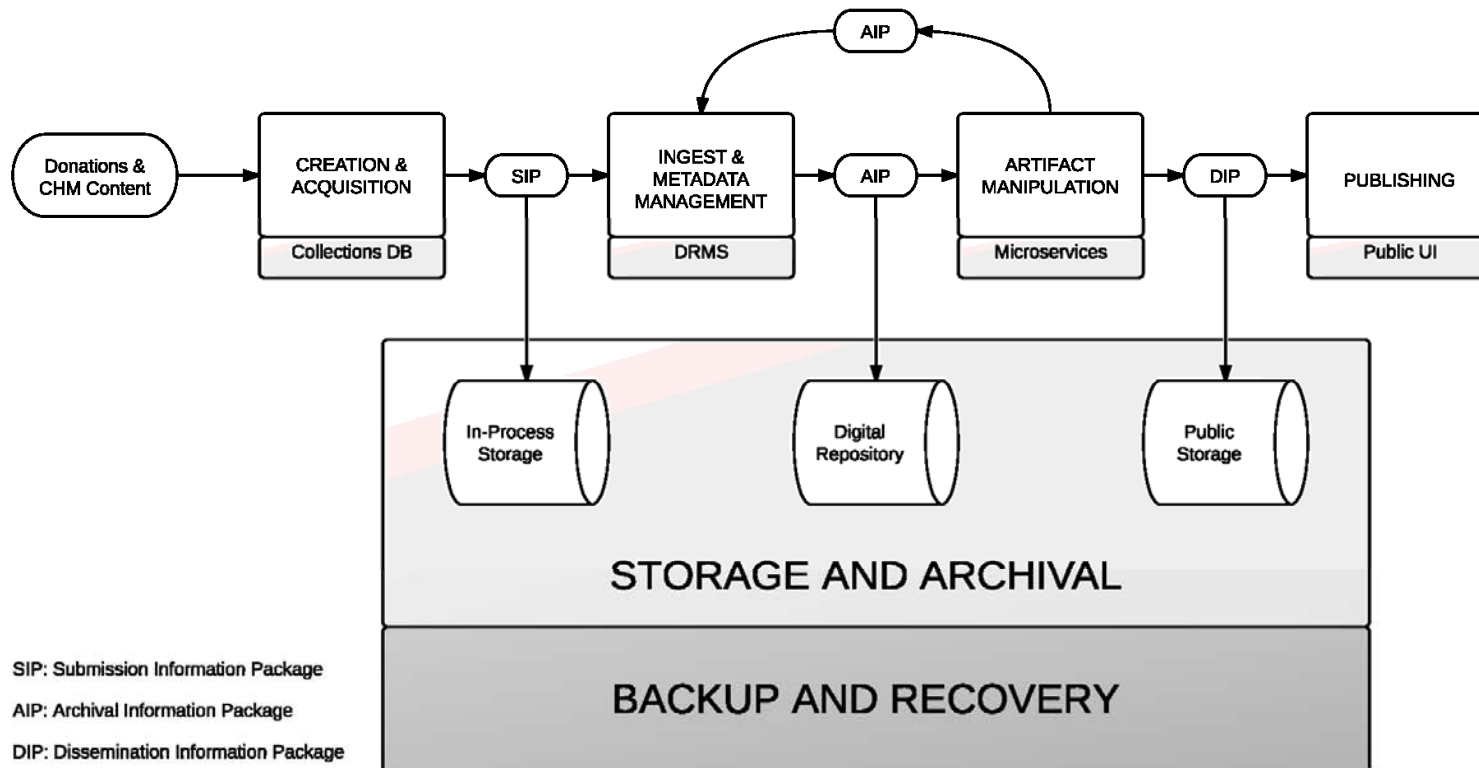
OAIS MODEL





Three key documents for developing a digital preservation program:

- ISO OAIS (Open Archival Information System)
- PLATTER (PLanning Tool for Trusted Electronic Repositories)
- TRAC (Trusted Repositories Audit and Certification)



Requirements interviews with a variety of
museum staff:





Computer History Museum

			published.
3.2.21	A copy of backups must be stored offsite.	P0	
	Preservation management software		
3.2.22	The system must provide storage for donations-in-process, pre-ingest, which can be retrieved using the registrar-assigned lot number.	P0	
3.2.23	The system must be able to generate and assign unique identifiers (UIDs) to both simple digital objects and complex digital objects (such as a software package, or a collection-level object).	P0	
3.2.24	The system must treat the UID as the primary, unique identifier for digital objects.	P0	
3.2.25	The system must use a naming convention that generates visible, persistent, UIDs for all Archival Information Packages (AIPs), and which accounts for collection growth over time.	P0	

Our top 5:

- Archivematica
- DAITSS
- Hydra Fedora (with head options)
- Islandora
- Fedora (for the sake of comparison)

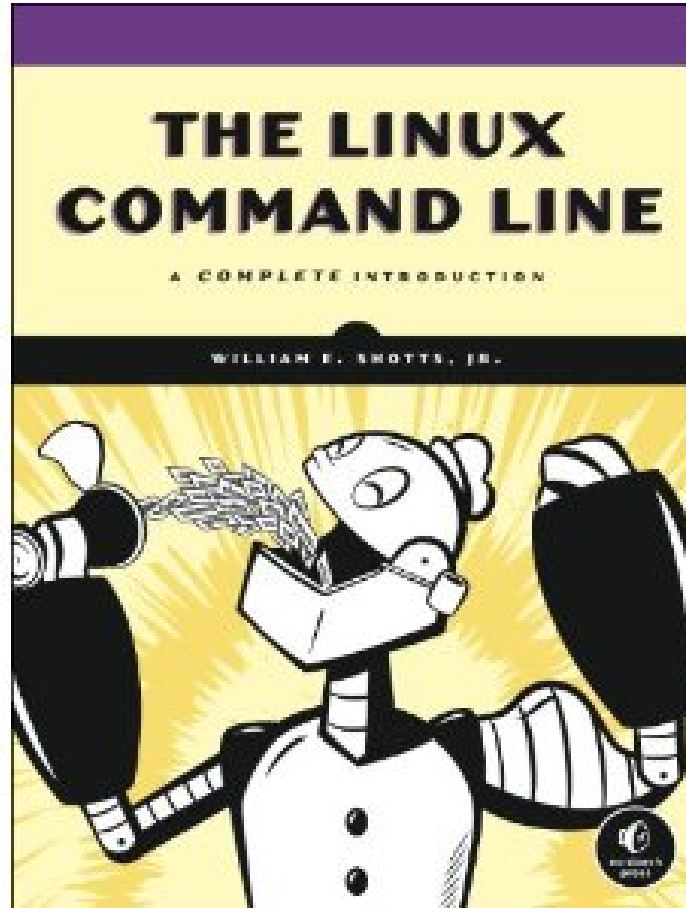


Computer History Museum

	B	C	D	E	F	G
15	Does the software support PREMIS for preservation metadata?	yes - metadata stored in METS file with full PREMIS implementation (includes FITS-extracted technical metadata and object headers eg. TIFF)		see above		no - PREMIS metadata may be added as a Fedora datastream outside of Islandora, but requires significant effort
16	Does the system logically bind the metadata, object, and UID into a package? How?	AIP is "bagged and zipped" with METS file	AIP is bundled into a TARball during ingest	y/n - packages are stored in directory with no external bindings		y/n - packages are stored in directory with no external bindings
17	What protection does the system offer against alteration of the object?			none		
	What search capabilities does the software provide?			gSearch (indexing of FOXML), CRABOL / PDF		

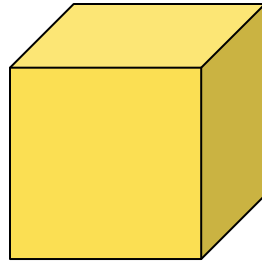


Computer
History
Museum

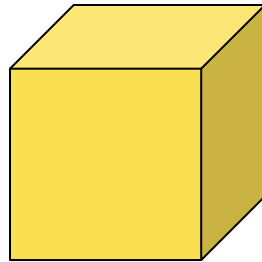




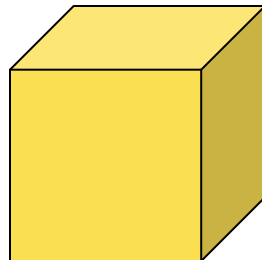
Computer
History
Museum



+



+



INGEST TOOLS

- Virus checks, format checks
- Metadata management
- Artifact transfer

PRESERVATION TOOLS

- Fixity checks, more virus checks
- Error log management
- Artifact replication

STORAGE TOOLS

- System-wide replication
- Disaster recovery backups
- Archival backups

The moral?

- Digital preservation is daunting.
- But you can do it.
- Make friends with your IT department.
- Email your colleagues!
(hyager@computerhistory.org)