Tool Academy: Web Archiving

Nicholas Taylor
@nullhandle

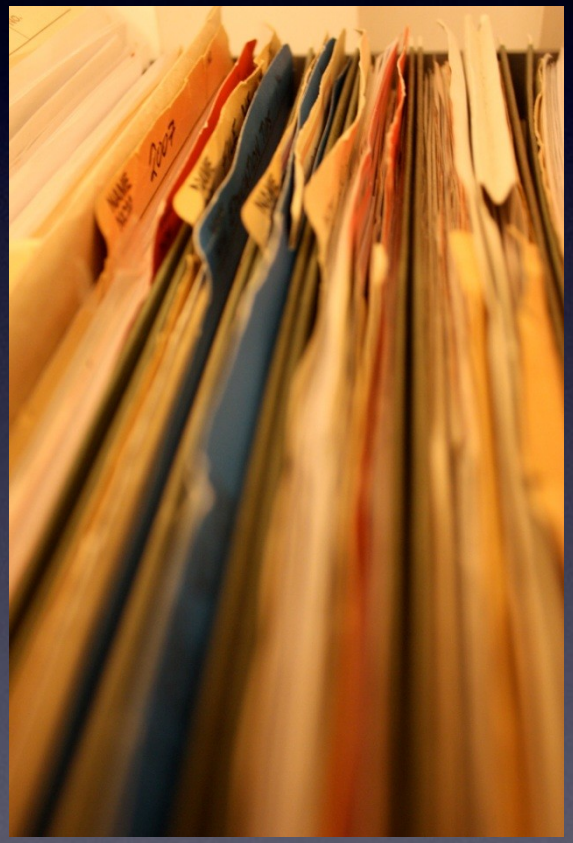
Digital Cultural Heritage DC Meetup
December 20, 2012

what does a web archive look like?

W/ARC (web archive container format)

"Buckets and Buckets" by Flickr user Josh Kenzer under CC BY-NC-SA 2.0

flat files, directory tree



"Files" by Flickr user Artform Canada under CC BY-NC-ND 2.0

CAPTURE TOOLS

HTTrack

http://www.httrack.com/

- small-scale website copier
- recreates website structure as filesystem hierarchy
- Windows GUI or CLI
- *nix local web service or CLI

Heritrix

https://webarchive.jira.com/wiki/display/Heritrix/Heritrix

- web-scale archival crawler
- WARC output
- configure and run through web service
- Java app, runs best on *nix

Wget

http://archiveteam.org/index.php?title=Wget_with_WARC_output

- retrieve Internet-accessible files
- supports WARC output
- CLI utility

WARCreate

http://matkelly.com/warcreate/

- archive single webpage(?) to WARC
- Chrome extension
- no production release yet
- may eventually bundle a self-contained Wayback Machine

Warrick

http://warrick.cs.odu.edu/

- reconstruct website from web archives
- uses Memento protocol
- web service or downloadable Perl script

ArchiveFacebook

https://addons.mozilla.org/en-US/firefox/addon/archivefacebook/

- archive an individual (authenticated) Facebook profile
- Firefox add-on

REPLAY TOOLS

Wayback Machine

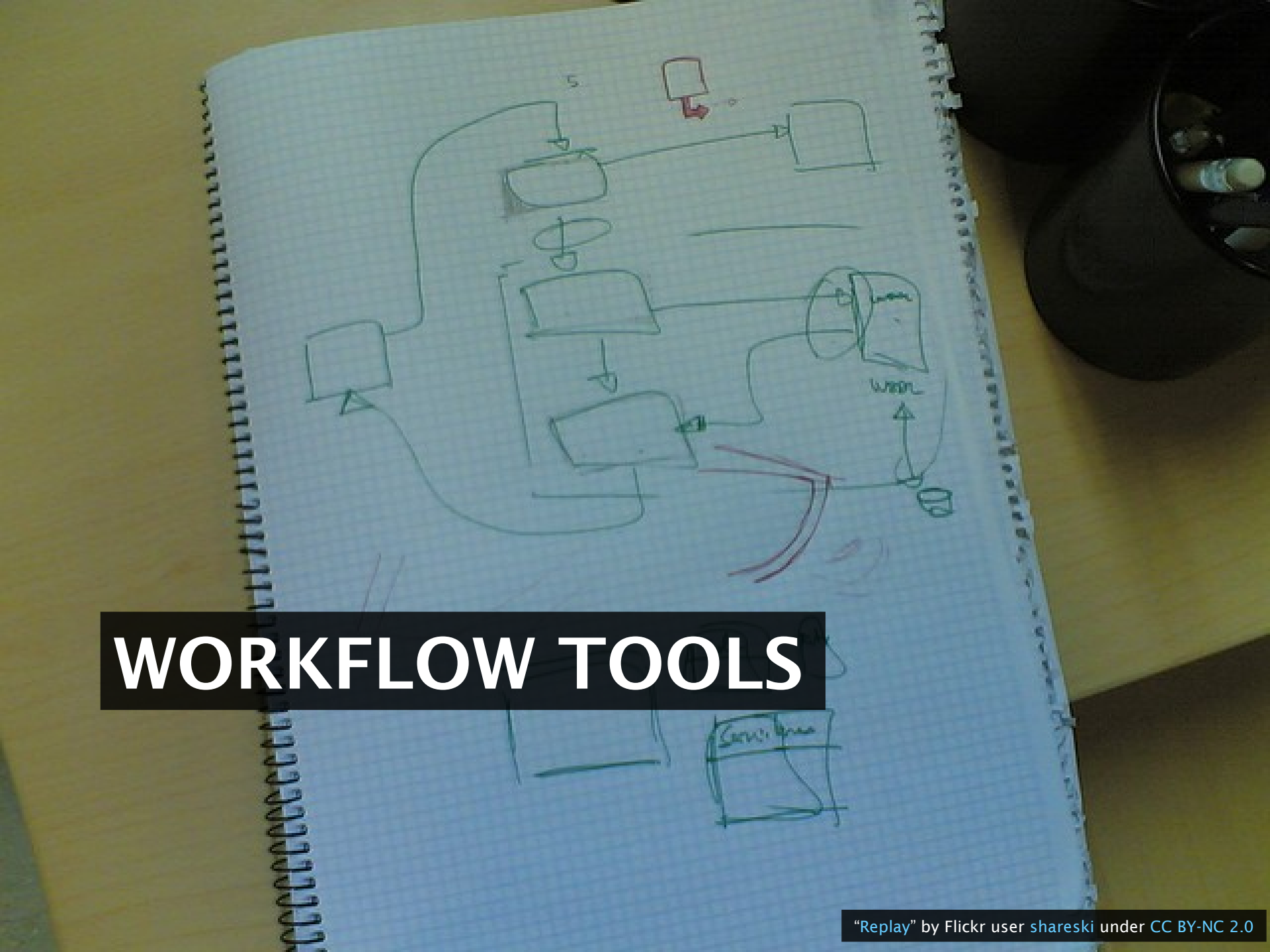
https://github.com/internetarchive/wayback

- replay web resources stored in WARC and ARC files
- web service provided by Internet Archive
- also, downloadable software package
- Java app (Tomcat), runs best on *nix

MementoFox

https://addons.mozilla.org/en-us/firefox/addon/mementofox/

- federated discovery of web archive resources
- uses Memento protocol
- utility limited by paucity of aggregated indexes



WORKFLOW TOOLS

Web Curator Tool

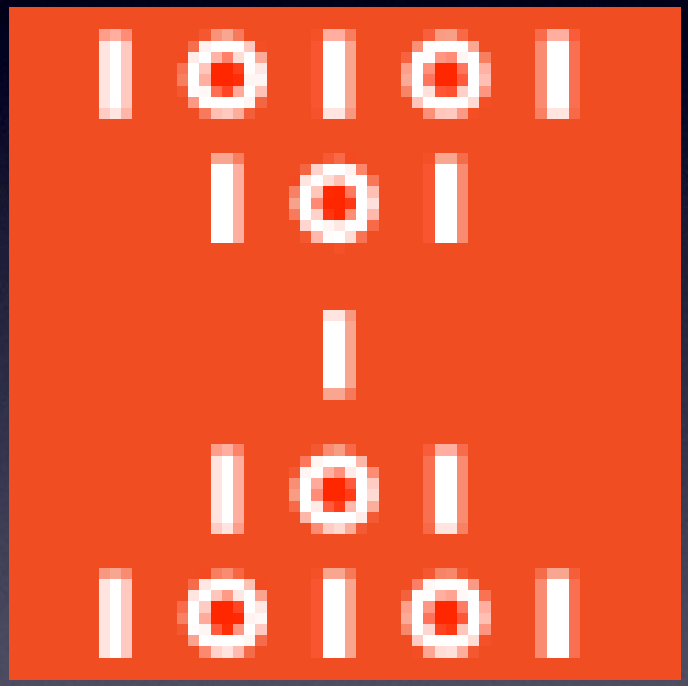
http://webcurator.sourceforge.net/

- permissioning, job scheduling, harvesting, quality review, storing descriptive metadata
- coupled with Heritrix v1.0
- Java app (Tomcat)

NetarchiveSuite

https://sbforge.org/display/NAS/NetarchiveSuite

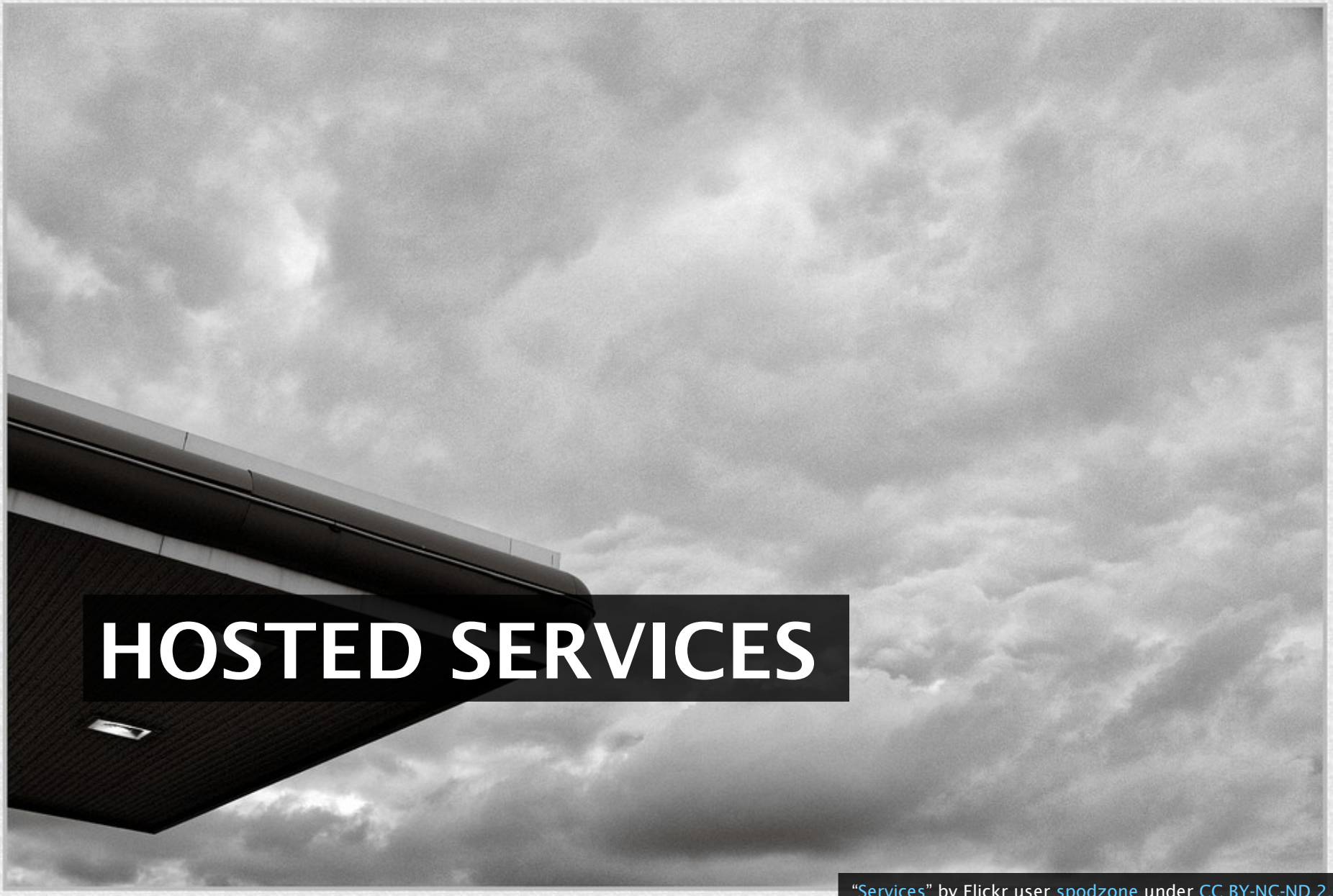
- job scheduling, data transfer to preservation system, proxy replay
- built for national domain crawls
- coupled with Heritrix v1.0
- Java app (JMS)



CINCH

http://cinch.nclive.org/Cinch/

- batch retrieval of Internet-accessible documents and transfer to preservation system
- web service for NC state government
- also, downloadable software package
- runs on *nix



Archive-It

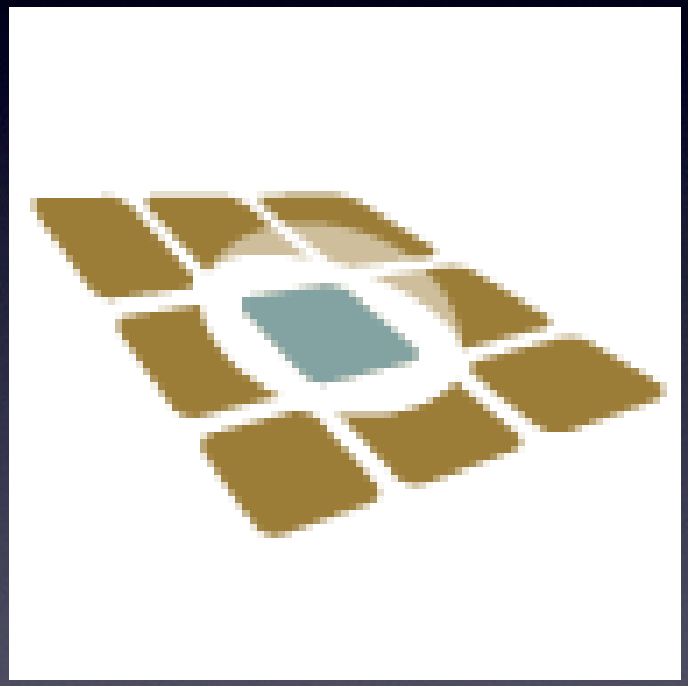
http://www.archive-it.org/

- integrated web archiving platform
- uses Heritrix and Wayback Machine
- contract service provided by Internet Archive

Web Archiving Service

http://webarchives.cdlib.org/was

- integrated web archiving platform
- uses Heritrix and Wayback Machine
- contract service provided by California Digital Library



FILE UTILITIES

HTTrack2Arc

http://code.google.com/p/httrack2arc/

- convert HTTrack output to ARC format
- CLI Java utility

warc-tools

http://code.hanzoarchives.com/warc-tools

- parse and re-write WARC files
- convert ARC files to WARC files
- no production release yet
- CLI Python utilities

Web Archive Transformation (WAT) Utilities

- extract metadata from WARCs for data analysis
- read data from local, http, or hdfs-accessible W/ARCs
- output JSON

https://webarchive.jira.com/wiki/display/Iresearch/Web+Archive+Transformation+%28WAT%29+Specification,+Utilities,+and+Usage+Overview

thank you!

Nicholas Taylor
@nullhandle