Accessibility of Content in Institutional Repositories

Going Beyond Open Access

Texas Conference on Digital Libraries
May 17, 2018
Austin, Texas
Presenters

Colleen Lyon
● Scholarly Communications Librarian, University of Texas at Austin

Christopher Deems
● Recent MSIS Graduate, UT Austin iSchool; Systems and Technology Librarian, Ohio Northern University

Laura Waugh
● Digital Collections Librarian, Texas State University

Nerissa Lindsey
● Catalog Librarian, Texas A&M International University
Berkeley Will Delete Online Content

Starting March 15, the university will begin removing more than 20,000 video and audio lectures from public view as a result of a Justice Department accessibility order.

By Carl Straumsheim  // March 6, 2017
Submission

Works submitted to Texas ScholarWorks (TSW) should fulfill the requirements outlined below. For instructions on how to submit works to TSW, please see the Help section or contact TSW staff.

- Works must be produced or sponsored by University of Texas at Austin faculty, staff, or students. Submission of works produced by individual undergraduate students must be sponsored by a faculty member or department.
- Works must be submitted to a Collection. Submitters need authorization to submit works to a Collection. For information on gaining authorization, please see How do I gain authorization to submit to Texas ScholarWorks? in our FAQs.
- Works must reflect the nature of the Collection to which they are submitted. All submitted works may be reviewed by the Collection or Repository Curator. Please see the Collections Policy for more information.
- Works must be in digital form. Although any digital format will be accepted, submission in a recommended file format is strongly encouraged to facilitate long-term preservation.
- Works may be comprised of individual or multiple files, but each work must have at least one file associated with it. Metadata only records are not permitted. Individual files over approximately 700 MB in size may require staff assistance to upload. For submission of files larger than 700 MB, please contact the Repository Curator.
- Works should be ready for dissemination and copyright owners must be able to grant non-exclusive rights to distribute and preserve the works. Please note that copyright owners retain copyright; see the Copyright and Licensing Policy for more information.
- Any audio or video content should have captions or an associated transcript to facilitate accessibility.
- Any text-based files should have searchable text or an associated text file.
- Works may be submitted individually or in batches of at least 100 items. Batch loads require special programming and scheduling. For batch submissions, please contact the Repository Curator.
Our initial focus is A/V content
Export content from TSW and sort for A/V
Put in proposal to pay for captioning of existing library managed content (about 1400 items)
  ○ Proposal approved in March 2018 and we’ve just started the workflows for getting this done
  ○ Rough estimate of cost is $20,000
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For non-library managed content we need to work with collection administrators regarding their A/V content.
Working with OGS on new guidelines for supplemental materials and PDFs
UT Austin

Moving forward

- Make referrals to our captioning unit
  - https://legacy.lib.utexas.edu/services/captioning-and-transcription

- TSW staff cannot assist with transcribing or captioning
Lots of remaining questions

- How much is good enough?
  - Specifically with PDF - the W3C guidelines have tons of steps for making a PDF fully accessible. What is good enough?

- What about DSpace itself?

- PDFs?
  - We have over 100K, so how do we check those for accessibility?
Up next, Christopher Deems
Types of Captioning/Transcription Tools

Automated Captioning Software

● Faster in generating full captions and transcripts
● Inaccuracies in newly developed captions/transcripts
● Requires less manpower to operate
● Potential slowdowns if software utilizes internet
● Licensing fees

User-Generated Captioning Software

● Slower in long-term
● On average, more accurate than automated
● May require additional editors/creators
● Less likely to encounter slowdowns
● Licensing fees
Example of Automatic Software: Docsoft

- Automated software with an online interface
- Ability to set different detectable vocabularies
- Downloadable transcripts can be easily edited
  - Software still produces errors in generated text
- Can slow down depending on internet
Example of User-Generated Software: Inqscribe

- DIY software with media player
- Automatically creates captions from transcripts
- Unique keyboard shortcuts to operate software
  - Foot pedal compatible!
- Limited potential; software only fully works on Macs
New Tools: Watson Captioning from IBM

- New cloud-based software service developed by IBM using Watson
- Speech-to-Text API
- Chat space for student collaboration
- Self-Learning, but still requires someone to steer the ship
Up next, Laura Waugh
Accessibility Standards

● Texas State’s standard for website accessibility is the **WCAG 2.0 Level AA standards**, which **requires captioning** for live and prerecorded audio and visual content

● Web Accessibility Initiative
  ○ [https://www.w3.org/WAI/intro/wcag](https://www.w3.org/WAI/intro/wcag)

● Amigos Library Services
  ○ [https://www.amigos.org](https://www.amigos.org)
Initial Steps

- Established a Captioning Workflow Team
  - Infrastructure
  - Costs
  - Tracking caption orders/invoices
  - Multiple language captioning
  - Updating catalog records
  - Statistics for reporting/updates
Initial Steps

- Established a Captioning Workflow Team
  - Infrastructure
  - Costs
  - Workflows
    - Tracking caption orders/invoices
    - Multiple language captioning
    - Updating catalog records
    - Statistics for reporting/updates
TXST

Infrastructure: Mediaflo

● Online media management system
● Locally hosted platform
● Linked from DSpace repository
## TXST

### Costs: Mediaflo

- **Existing Mediaflo Video:** 257 hours

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<th>1 Minute Caption</th>
<th>Cost</th>
<th>Total</th>
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<td><strong>Amara Do-It-Yourself</strong>&lt;br&gt;<strong>Student Worker</strong></td>
<td>10 minutes time (&lt;i&gt;per 1 minute captioning&lt;/i&gt;)</td>
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## TXST

### Costs: Mediaflo

- Annual Mediaflo Video Added: 85 hours

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Requests: Copyright Librarian
- Review the audio/video to be captioned
- Create a Fair Use Checklist
- Document Fair Use Analysis for each audio/video

All A/V: Acquisitions Department
- Seek out captions from start (vendor, extracting, etc.)
- Upload caption file to Mediaflo (srt or vtt)
- Rev service, if not available otherwise
TXST

IR Accessibility Considerations

- Metadata
- File naming
- Web design
- Policies
- Time and Workflows
JAWS Screen Reader Software

- Free trial available: [https://www.freedomscientific.com/Downloads/JAWS](https://www.freedomscientific.com/Downloads/JAWS)
- Browse your repository…

*You may be surprised!*
The Search for Late Pleistocene pre-Clovis Archeology in Texas: Problems and Potentials

Date
2007

Author
- Bousman, C. Britt
- Skinner, S. Alan

Metadata
Show full metadata

Geoarchaeological research in the North Sulphur River valley indicates the presence of an alluvial sequence that spans 17,000 years and provides a basis for the Lower Sulphur River Formation. Stone artifacts recently discovered on the eroded surface of the Lower Sulphur River valley have been interpreted as representing a pre-Clovis occupation. Before such a claim can be substantiated, however, it is necessary to establish the age of the sediments in which the artifacts were found and to determine whether there are similar deposits elsewhere in Texas. This requires the development of a systematic approach to identify Late Pleistocene deposits older than 11,050 B.P. site searches must focus on these sediments.

Uri
https://digital.library.txstate.edu/handle/10877/5612

Collections
Faculty Publications-Anthropology
The Search for Late Pleistocene pre-Clovis Archaeology in Texas: Problems and Potentials

Geological research in the Texas Southern Plains has yielded a well-dated alluvial sequence that spans 17,000 years and provides evidence for pre-Clovis habitation in the Lower Sulphur River Valley. The most striking evidence is the occurrence of stone artifacts on the eroded surface of the Lower Sulphur River valley in the vicinity of the Sulphur Springs reservoir, a site that is currently under review for its potential to document in situ evidence of Late Pleistocene pre-Clovis occupation. Before such a claim can be made, however, pre-Clovis habitation in northern Texas, systematic geoarcheological research in the Lower Sulphur River Valley, and a reassessment of the age of the Sulphur Springs reservoir must focus on these sediments.

https://digital.library.txstate.edu/handle/10877/5612

Collections
Faculty Publications-Anthropology

Author
Bousman, C. Britt
Skinner, S. Alan
The Search for Late Pleistocene pre-Clovis Archea in Texas: Problems and Potentials

Geoarcheological research in the North Sulphur River valley of southwest Texas has resulted in the documentation of an alluvial sequence that spans 17,000 years and provides a framework for interpreting and relating archeological features on the eroded surface of the Lower Sulphur River Formation. Stone artifacts associated with the Late Pleistocene deposits were recorded in these Late Pleistocene sediments in the Winter Garden area in Texas, systematically geoarcheological sequences in the Early Holocene and Early Pleistocene deposits or beds. This paper will focus on these sediments.
Policies/Considerations

- Deposited Content (e.g., PDF, A/V)
  - Who is responsible for ensuring accessibility?
- File Naming
  - Standardized naming or author-supplied file name?
- Web Design
  - Challenging on a larger-scale for developers
Up next, Nerissa Lindsey
Texas A&M International University
Web services team announced that all videos being uploaded to the university website needed to be captioned

This prompted OIT to start captioning videos for two speaker series that go into the repository

We got a site visit and presentation from the IT Accessibility Director from A&M Commerce, Lydia Harkey
TAMIU

New Video

- OIT pays for captioning (using rev.com, cost: $1/min.)
- Rev sends back a .SRT file and .TXT file
- Student Employee in OIT uses a program (Submerge) to merge the .SRT file with the MP4
- I’m given the final captioned MP4 and a file with the transcript- I upload both files into the repository
The library director approved funding captioning for archival videos for the IBC speaker series.
The goal is to have all repository video captioned.
Most services are about $1/min.
Media Player Accessibility

Image: https://www.w3.org/WAI/gettingstarted/tips/designing
Borderwall as Architecture: A Manifesto for the U.S.-Mexico Boundary

URI
http://hdl.handle.net/2152.4/125

Subject
Border wall
Architecture
U.S.-Mexico Border
Border security
Immigration enforcement
Video recordings for the hearing impaired

Collections
International Bank of Commerce Keynote Speaker Series

Date
2017-11-26

View/Open
- Filmed Presentation (882.9Mb)
- Speaker profile (387.9Kb)
- Film transcript (41.84Kb)
Image Accessibility

- Alternative-text is the minimum level for image accessibility
- A screen reader will usually say: “image of (alt-text)” or (“alt-text”)
- Can’t easily edit those alt-text fields to be more descriptive in DSpace

https://www.w3.org/WAI/tutorials/images决策树/
Improvements for dSpace media player for accessibility
TAMIU Challenges - AV

- **Time:**
  - The captioning will add time onto an already lengthy process

- **Cost:**
  - Limited library funding for professional captioning
  - Will OIT continue paying for captioning for future videos?
TAMIU Challenges - Other Content Formats

- We haven’t begun to address accessibility of other formats in our repository
  - Can a PDF accessibility checker could be built into Vireo for ETD’s?
  - Some sort of automated checking process for PDF’s already in the repository?
TAMIU Challenges - Repository Platform

- Can future updates be made to DSpace to make improvements for accessibility
- Many library vendors have a VPAT (Voluntary Product Accessibility Template) [https://vpats.wordpress.com/](https://vpats.wordpress.com/) or a statement of accessibility
THANK YOU

Gracias
Arigato
Shukuria
Grazie
Mehrban
Bolzín
Merci
Discussion

Colleen Lyon: c.lyon@austin.utexas.edu

Christopher Deems: christopherdeems@outlook.com

Laura Waugh: lwaugh@txstate.edu

Nerissa Lindsey: nslindsey@tamiu.edu