

2-2019

Investigation of accessibility of electronic music resources for the visually impaired

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WMU ScholarWorks Citation

Rinna, Geraldine; Duffy, Michael J. IV; Arndt, Taylor E.; and Behr, Michele D., "Investigation of accessibility of electronic music resources for the visually impaired" (2019). *University Libraries Faculty & Staff Presentations*. 21.
https://scholarworks.wmich.edu/library_presentations/21

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Investigation of accessibility of electronic music resources for the visually impaired

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Western Michigan University



Outline

- Background and Project Overview
- Screen readers
- Developing testing procedures
- Database selection and testing results
- Recorded Demonstration of RILM Abstracts Search with screen readers
- Conclusion



WMU and Patrons with Visual Impairment

- WMU has large population of visually impaired students
- In addition to the University Disability Services for Students, the State Bureau of Services for Blind Persons has a rehabilitation counselor assigned to WMU
- Academic departments include Blindness and Low Vision Studies, as well as programs in Low Vision Rehabilitation, and Rehabilitation Counseling



WMU Libraries and Accessibility

- WMU Libraries services to visually impaired patrons include making interlibrary loan and e-reserves documents accessible.
- Specialized Technology labs on main campus and the Health Science campus
- In Spring of 2018 the open access screen reader software NVDA was installed on all public computers in the Libraries.
- Library databases and resources often require librarian mediation for visually impaired students to use



Electronic Resource Accessibility Project

- Library Administration worked with the Rehabilitation Counselor to employ a temp worker to do database testing for our website, LMS, and selected electronic resources
- Physical navigation of spaces and staff training was also part of the project
- Libraries' IT Services, Electronic Resources, and Information & Outreach departments were involved in the planning



Screen Readers

Most blind and visually impaired students use screen reader software

Screen readers are software programs that allow blind or visually impaired users to read the text that is displayed on the computer screen with a speech synthesizer or braille display... The user sends commands by pressing different combinations of keys on the computer keyboard or braille display to instruct the speech synthesizer what to say and to speak automatically when changes occur on the computer screen.

Programs include JAWS, NVDA, and VoiceOver (Mac)



Developing Testing Procedures

Electronic Resources Librarian:

- Read about:
 - Screen readers
 - ADA / Rehabilitation Act of 1973
 - W3C (Web Content Accessibility Guidelines)
 - Vendor Product Accessibility Templates
 - Big10 Academic Alliance
 - Scholarly Articles
- Assigned tasks and provided guidance to the ERM team
- Produced:
 - Questions for Taylor to answer
 - Spreadsheets for Taylor to record results
 - Project report for library administration



Developing Testing Procedures

2 Electronic Resource Specialists:

- Identified interfaces that provided access to a variety of content, including:
 - Streaming video and audio
 - Downloadable .pdf, html, ePub formats
 - Digitized Images
 - Data sets
 - Reference entries
 - 3D models
- Identified search terms for querying specialty database
- Provided technical support during testing



Developing Testing Procedures

Integrated Library Systems Specialist:

- Created a list of step by step instructions to test every feature in the discovery layer:
 - Perform basic and advanced search
 - Navigate through search results
 - Use embedded chat widget
 - Use facets
 - Follow links to vendor platforms
 - Log into library account
 - Place hold
- Created step by step instructions for testing database A-Z list
- Provided technical support during testing
- Updated HTML and CSS when possible to better conform with WCAG 2.0.





Selection of Databases/Interfaces

- Discovery Layer
 - WMU Library Search (Primo)
- Bibliographic Utility
 - WorldCat (WorldCat Discovery)
- Literature and Periodical Index Databases
 - Music Periodicals Database (ProQuest)
 - Findings could be applied to other ProQuest interfaces
 - RILM Abstracts of Music Literature (EBSCO)
 - Findings could be applied to other EBSCO interfaces
- Grove Music Online (Oxford Music Online)
 - Principal subscription-based online reference source in music at WMU





Selection of Databases/Interfaces



Best Bets!

Music & Performing Arts (formerly Music Online)  **Best Bet** 



Access the content of all the databases below--audio, video, scores and text--through one centralized interface: African American Music Reference, American Song, Classical Music Library, Classical Scores Library, Contemporary World Music, Dance in Video, The Garland Encyclopedia of World Music Online, Jazz Music Library, Opera in Video, Smithsonian Global Sound

Music Periodicals Database  **Best Bet** 



Indexes and abstracts articles, reviews and other features from more than 430 music periodicals, with full text coverage of 125 journals and magazines.

Naxos Music Library  **Best Bet** 

Access almost 700,000 tracks from over 47,000 CDs from 300 labels, including the entire Naxos catalog. Includes classical, world, folk, and new age. Features text resources such as music terms, a pronunciation guide, opera synopses and libretti, historical notes, and more.

Oxford Music Online  **Best Bet** 

Covers music and musicians of all types and time periods; includes bibliographies, composers' worklists, links to related sites, audio and music examples. Provides access to Grove Music Online (incorporating the New Grove Dictionary of Music and Musicians, the New Grove Dictionary of Opera, and New Grove Dictionary of Jazz), as well as The Oxford Dictionary of Music and The Oxford Companion to Music. **This subscription is limited to eight simultaneous users. Please logout when finished.**

RILM Abstracts of Music Literature  **Best Bet** 

Indexes and abstracts over 475 music journals as well as dissertations, Festschriften, yearbooks, symposia, and other publications and electronic resources. Coverage is from 1967. Updated monthly.



Keyword Searches

Selected “Scriabin, Alexander” as a test case

Results and feedback from Taylor for

- WMU Library Search (Primo)
- WorldCat Discovery
- Music Periodicals Database (ProQuest)
- RILM Abstracts of Music Literature (EBSCO)
- Grove Music Online



WMU Library Search (Primo)

Taylor Arndt:

- Primo is essentially unusable as-is
- Suggests that we create an API that would call Primo and display search results on a stripped-down webpage for easier use

The Library Staff has done some work adding Alt-Tags to Library Search after Taylor's evaluation.

Primo has a Voluntary Product Accessibility Template (VPAT) stating that Primo meets accessibility standards.



RILM Abstracts of Music Literature (EBSCO)

- Taylor found no issues with RILM Abstracts using screen readers.
- Basic Search and Advanced Search Options are available
- Additional search box lines can be added in the advanced search





WorldCat Discovery

- .

- Taylor found no issues with WorldCat Discovery using screen readers.



Music Periodicals Database (ProQuest)

- The search box is not labeled explicitly for a screen reader to identify it.
- The ProQuest interface has options for a Basic Search, an Advanced Search, and a Command Line Search
- Additional search box lines can be added in the advanced search



Oxford Music Online

- The page elements are not labeled explicitly for a screen reader to identify them.
- Basic and advanced search options are available for Oxford Music Online as well, with the addition to add search boxes in the advanced search
- Unlike Music Periodicals Database and RILM Abstracts, Oxford Music Online displays both advanced search and basic search screens at the same time



Project Findings

Accessibility is a moving target:

1. Testing for accessibility is not sustainable
 - Continuous platform updates
 - Continuous software updates
 - Not enough staff or time
2. Cannot guarantee accessibility
 - Every hardware configuration is unique
 - Every accessibility issue is unique



Recommendations for Technical Staff

- Training
- Provide feedback to vendors when their sites fail to work with screen readers
- Monitor local code
- Update renewal processes to include the request and review of vendors Voluntary Product Accessibility Template (VPAT) or Accessibility Statement
- Update acquisition process to request that vendor licenses or license addendums have language indicating that vendor's compliance with the Americans with Disabilities Act.



Recommendations for Public Staff

- Training
- Think about how you can adapt “The Framework” for visually impaired users
- Advocate on behalf of visually impaired users
 - Consider whether electronic resources conform to federal guidelines on accessibility before recommending them on behalf of teaching faculty
 - Provide feedback to vendors when their sites fail to work with screen readers



Questions?

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Helpful Information

[Accessibility Basics \(Usability.gov\)](#)

[American Foundation for the Blind](#)

[Association of Research Libraries Web Accessibility Toolkit](#)

[Big 10 Academic Alliance Accessibility Testing](#)

[Web Content Accessibility Guidelines Overview](#)

[World Wide Web Consortium Accessibility Page](#)

