

# Scope Drift: Alternate Formats

Victoria Sigurdson

Head, Visual Resources & Special Collections

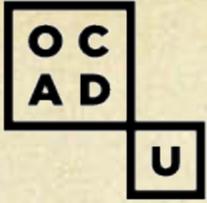
Dorothy H. Hoover Library

OCAD University, Toronto Canada

## **Transcript: Slide 1**

### **Scope Drift: Alternate Formats**

I'm so pleased to be presenting at the ARLIS North America and VRA joint conference this year. I'll be speaking about how our service scope broadened to increase access to Library resources and course materials through alternate format production.



# Alternate Formats

“Alternate format materials are electronic, audio, Braille, or large print versions of standard print educational materials (e.g. textbooks, novels, student guides, etc.). Electronic versions include, but are not limited to, e-text, scanned text, and web-based text.”

Inclusive Design Research Centre, “What are Alternate Formats?” *SNOW: Education, Access, and You!* SNOW, 2013. Web. January 27, 2016.  
<http://www.snow.idrc.ocad.ca/node/127>

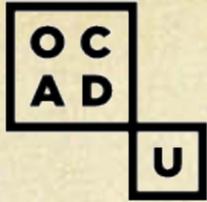
“Assistive technologies (or ATs) are specialized technology (software and/or hardware) that are used by people with and without disabilities to adapt how specific tasks can be performed.”

Inclusive Design Research Centre, “Assistive Technology” *SNOW: Education, Access, and You!* SNOW, 2013. Web. January 27, 2016.  
<http://www.snow.idrc.ocad.ca/content/inclusive-technology>

## Transcript: Slide 2

### Alternate Formats

An alternate format of print materials could be a title in electronic text, a large print version, or an audio book. In our context, students access alternate formats using, for the most part, an assistive software application called Kurzweil 3000. Through the library's accessibility planning we have been implementing a number of strategies to improve access to library materials and services, so taking on the alternate formats service was a logical step. Visual Resources is the digitization capacity for the library, so alternate format production fit well within our skill set and current services.



# Organizational Context

## **Ontario College of Art & Design University (OCAD U)**

<5,000 FTE (very large by AICAD standards)  
17 Undergraduate programs  
6 Graduate programs

## **Dorothy H. Hoover Library**

Visual Resources & Special Collections (1 of 4 Library Units)  
We are not co-located with the other 3 Library units  
VR/SC: 3.5 FTE Staff, 1.2 FTE Interns, 0.4 FTE Student monitors

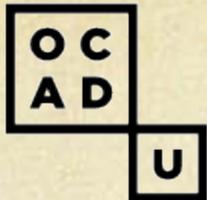
## **Centre for Students with Disabilities (CSD)**

Well-established alternate formats service  
More capacity for front line service and assistive technology support

## **Transcript: Slide 3**

### **Organizational Context**

To give you some organizational context, the Ontario College of Art and Design University (OCAD U) is a community of just under 5,000 FTE students. This is very large by AICAD standards. We offer a number of undergraduate programs and graduate programs in Art and Design.



# Operational Context

Visual resources reference service

Archives reference service

Instructional Image service (sourcing, acquisitions, production)

Instructional Video service (sourcing, acquisitions)

Photographic documentation service (production, ingest)

Documentation deposit service (ingest)

Digitization service (production, ingest)

Manage physical collections

Manage digital assets

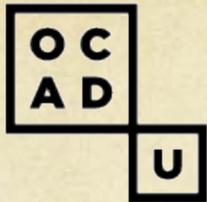
**Alternate formats processing for course materials (September 2013)**

**Alternate formats service for library materials (September 2014)**

## Transcript: Slide 4

### Operational Context

Visual resources and special collections is one of four library units. We are not located in the main library space and this had an impact on the design of our service. We have a little over 1 FTE staff member devoted to our alternate format service, where the processing is split between a Coordinator (Technician) and an Intern. Our alternate formats services are run in collaboration with the Center for Students with Disabilities (CSD) at OCAD U. They had already been providing alternate formats to students for quite some time, but they were looking to reassign their production capacity to their front-line services. Operationally, we offer a number of services within visual resources already. We provide Reference and Research Services for Visual Resources and the University Archives. We also offer image and video procurement services for instructors. We produce photographic documentation and provide digitization services, in addition to managing physical collections and digital assets. The processing for alternate formats service for required course materials came under our umbrella in September 2013 and our service for library materials has been in operation since September of 2014.



# Legislative Requirements

## **Accessibility for Ontarians with Disabilities Act (AODA)**

Provide in alternate formats upon request:

January 1, 2013

Educational or training resources and materials

January 1, 2015

➤ Educational libraries - print-based resources

Producers of educational or training materials - textbooks

January 1, 2020

➤ Educational libraries - multi-media/digital resources

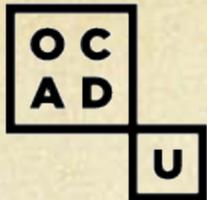
Producers of educational or training materials - supplementary print materials

Ontario Council of University Libraries, "Report on Accessible Media (ROAM)". *Ontario Council of University Libraries*, 2015. Web. January 27, 2016. <http://ocul.on.ca/node/3132>

## Transcript: Slide 5

### Legislative Framework

Legislation was one of many drivers behind the adoption and expansion of the alternate formats services in the library. Under the AODA, educational libraries were required to provide, upon request, alternate formats of print based resources in their collection by January 1st, 2015. This excludes Special Collections and Archives, but we have received a few requests for those materials and have had the capacity to process them (we had reference copies of the requested materials, so their condition was not a factor). While the CSD had already been providing alternate formats of all types of materials, we had our own library materials service in place by September of 2014; four months ahead of the deadline. By January 1st 2020, educational libraries will also be required to provide, upon request, multimedia and digital resources in alternate formats (but that is a whole other undertaking/presentation). Also, you'll see some of these requirements are directed towards producers of educational materials such as publishers and universities. This is one of many reasons, in addition to copyright compliance, why we include publishers in our sourcing procedure.



# Leveraging Expertise

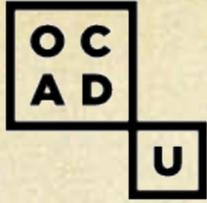
## **Library/Visual Resources Transferrable Skills**

- Digitization
- Search and retrieval
- Rights management
- Digital asset management
- Managing course materials

## Transcript: Slide 6

### Leveraging Expertise

When the University library and brought the alternate format service project to visual resources, we immediately saw the connection to our established digitization practices. When we looked out what the CSD was doing, we realized that our search retrieval skills would be very useful in terms of maximizing use of the materials available electronically through the library license resources. There is also quite a bit of rights management work involved where we ensure that we are working within 'fair dealing' and educational or accessibility provisions within the Canadian Copyright Act. We also manage the provision and storage of files we receive from publishers. Finally, the library had a long history of managing course materials such as print reserves and video bookings for classes as well, so we consulted some of the reserves procedures as well.



# Leveraging Expertise (cont'd)

## **Alternate Formats Working Group (2012)**

- Reported to the University Accessibility Committee
- Library, CSD, Accessibility Manager, Inclusive Design Research Centre (IDRC)

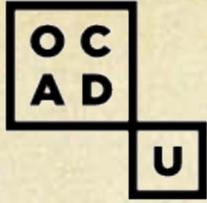
## **Alternate Formats Service Agreement (2013)**

- Outlined departmental service roles, defined service parameters, documents development of service

## Transcript: Slide 7

### Leveraging Expertise (cont'd)

We looked across the university and beyond to identify expertise, and we began by working with the Manager of Accessibility to form the alternate format Service Group in 2012, which reported to the university Accessibility Committee. Representation for this group included staff from the Library and the CSD, in addition to the University's Accessibility Manager. We are very fortunate that we can count the Inclusive Design Research Center amongst our research groups on campus. They specialize in adaptive technologies and universal design, and sent a representative to the committee as well. Through the efforts of this working group, we created and adopted the Alternate Format Service Agreement in 2013, which outlines departmental roles, service parameters, and serves as a way to document the ongoing development of the service.



# Alternate Format Production

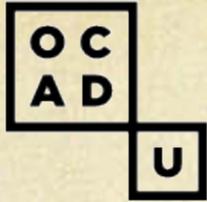
## **Phase 1: Sourcing**

- Local files: previous requests
- Library collections: E-Resources, E-Reserves, Accessible Content E-Portal (ACE)
- Public domain repositories
- Textbooks: request from publisher

## Transcript: Slide 8

### Alternate Formats Processing

I won't go into the finer details of our alternate format processing. Anyone working in digitization or imaging environments will be familiar with this workflow. Phase 1 is sourcing, where we look at what we've processed already or what we might have on hand through licensed online library resources that are viable for conversion. We also have access to a provincial repository of alternate format files called the Accessible Texts E-Portal ACE. We have been able to source some electronic versions of titles in the public domain from open online repositories. And, as I mentioned, we contact Publishers for accessible versions of their textbooks for processing in-house.



# Alternate Format Production (cont'd)

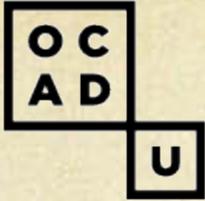
## **Phase 2: Processing**

- Optimization: scan texts using Optical Character Recognition (OCR) software or remediate electronic files, test accuracy of OCR
- Mark-up: designate areas to be read, identify and prioritize text blocks/page elements, process equations/tables/charts
- Output: separate chapters, convert to multiple formats (Kurzweil, PDF, MP3), apply naming conventions, upload

## Transcript: Slide 9

### Alternate Formats Processing (cont'd)

Phase 2 in our alternate format production is processing. If we have an electronic file on hand, we will optimize it to be read by Kurzweil 3000 or we will scan print items and apply optical character recognition software to create a machine-readable (or conversion-ready) file. We have to tell Kurzweil 3000 the order in which to read the text on a page through marking-up the document. For example, pages have headers and footers that may repeat the book title or chapter title on each page, so we tell the software not omit that information. We also have to process equations, tables, and charts and those usually require quite a bit of human intervention (e.g. vertical text). They often need more context than the figures themselves immediately provide, and sometimes the software doesn't parse out information in charts and graphs in a logical order. Lastly, we create chapter files, when applicable, then we convert to multiple formats and we apply naming conventions before uploading them to a server.



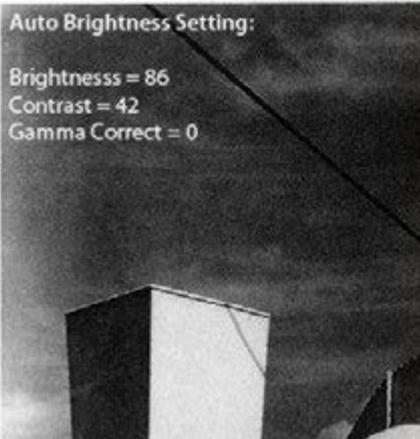
# Text File Optimization

## Sheeler Charles

Taken on the S.S. *Majestic*, this photograph of electric motor and ventilation intakes and outlets served as the basis for Sheeler's painting of 1929, also entitled *Upper Deck*. It is true that he refers to the entity, the ship, by means of significant details, so that the whole can be imagined from its parts; but the picture has other and larger meanings written into its iconography of vents and ducts. Sheeler, like many of his contemporaries in the 1920s, anticipated a new order which would be sharply distinguished from the sensuous world of heavy industry. The future, as displayed here, would be

Auto Brightness Setting:

Brightness = 86  
Contrast = 42  
Gamma Correct = 0

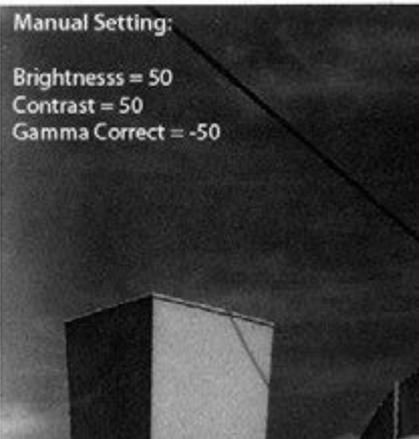


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Manual Setting:

Brightness = 50  
Contrast = 50  
Gamma Correct = -50

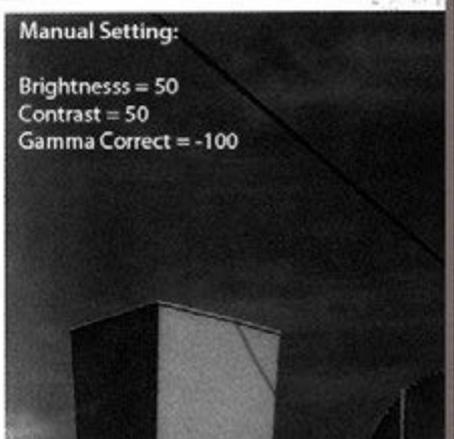


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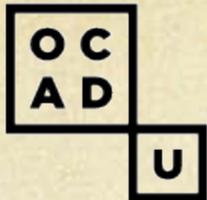
Brightness = 50  
Contrast = 50  
Gamma Correct = -100



## Transcript: Slide 10

### Text File Optimization

This image demonstrates how we can apply some of our digital Imaging know-how to optimizing text files. This was a file processed in the early days of our alternate format production. We asked our intern to look at these earlier files and apply our established imaging processes to see what kind of remediation would be possible. You can see here that simply by adjusting brightness, contrast, gamma correct settings that we are able to remediate a file so that it could be more accurately read by assistive software. Keep in mind that a file that can be read by human eyes is not necessarily easily read by optical character recognition software, so some back-and-forth was required between optimizing the text file settings and verifying the OCR accuracy in the processing software.



# Service Ecology

## **Library Processes**

- Image requests/Digitization projects
- E-reserves
- Interlibrary Loan/Document Delivery

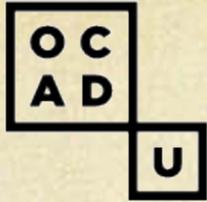
## **External Processes**

- Online course development/delivery
- Coursepack production
- Textbook assignment/purchasing
- Accessible documents training

## Transcript: Slide 11

### Service Ecology

We surveyed the service environment, or service ecology, within the library and beyond, to identify where there may be workflows that we could share or adapt, and also to take account of other processes that may affect our turnaround time. Within the library our image digitization requests are filled using a workflow that was easily adaptable to providing the service. We also worked with electronic reserves and provided some cross-training to ensure that everything they were posting to the course management system (CMS) was conversion-ready or machine-readable. This is a universal design principle that allows increased access for all students. Some students could be using adaptive technology and not even realize it. For example, Adobe Reader's functionality includes text-to-speech, which a student may have adopted to assist with reading comprehension. There are a number of university processes that impact alternate formats production, such as online course development and delivery. The workflow changes as students submit their requests on an item-by-item basis while new course materials are posted on an ongoing basis. Course-pack production and textbook availability also impact student access to alternate formats, as they must provide proof of purchase before they can request these materials.



# Collaborative Service Model

## **Library**

Library Accessibility Services Coordinator

(Reference Unit): library materials contact and service point

Alternate Formats & Documentation Coordinator

(Visual Resources Unit): sourcing/production

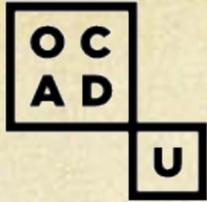
## **Centre for Students with Disabilities (CSD)**

Adaptive Technologist: course materials contact and service point

## **Transcript: Slide 12**

### **Collaborative Service Model**

VR is not co-located with the rest of the Library, but we needed to provide an in-house service point. Our Library Accessibility Services Coordinator (LAS) is the on-site contact for library materials in alternate formats. They are a member of the library's Reference & Instructional Services unit. In VR, the point person for this service is our Coordinator, who liaises between the Library's LAS and the CSD's Adaptive Technologist.



# Expanded Accessibility

## **Alternate Formats Service:**

- Increased efficiency, expanded markup process
- Increased quality control of visual content and plate/figure/image captions

## **Visual Resources Imaging/Digitization Service:**

- Image cataloguing: required Description field to populate ALT tags for accessible presentations

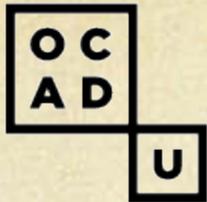
## **E-Reserves**

- Posting conversion-ready files: improves accessibility for all students

## Transcript: Slide 13

### Expanded Accessibility

We have experienced an increase in volume since taking on the alternate formats processing in 2013 and have been able to maintain our turnaround time while increasing the extent of processing as well. We've been able to accomplish this by finding efficiencies and minimizing the amount of scanning that we do. Approaching this from a Visual Resources background, we've included maintaining the quality of visual content whenever possible as well. To support increased accessibility when end-users are using our digital instructional images (e.g. in PowerPoint), we have designated the Description field as a required cataloguing field so that students and instructors have information on hand to use in the creation of ALT tags.



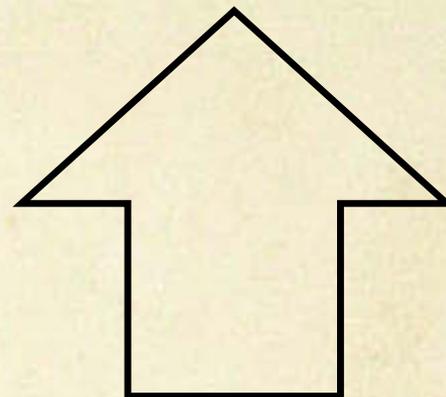
# Service Volume

**2013/14:**

3,455 pages requested

**2014/15:**

11,986 pages requested



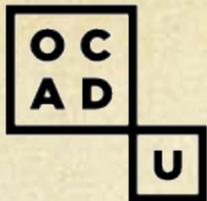
**247%**

increase

## **Transcript: Slide 14**

### **Service Volume**

As you can see, we've experienced quite an increase in the volume of material requested in alternate formats, so there is definitely a great need for materials in alternate formats. We are so pleased that we are able to put more and more accessible materials into students' hands every year.



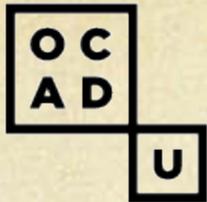
# Collaboration

- OCAD U Alternative Format Working Group established (Feb 2012)
- Accessible Documents training sessions (2013-15)
- Joined OCUL ACE Working Group (Sept 2013) and OCUL Accessibility Committee (Nov 2013)
- Site visit to York University Library (Oct 2013)
- E-Reserves cross-training on creating 'conversion ready' text files (Dec 2014)
- Participated in OCUL's ACE Deposit Pilot Project (Jan 2015)
- Adaptive Technology training with the Inclusive Design Research Centre (IDRC) for Library staff (Feb 2016)

## Transcript: Slide 15

### Collaboration

I've mentioned a few of these collaborations already, so I'll highlight our visit to the York University Library where we learned about their robust alternate formats service (they have a very large student population) and their in-house created Content Delivery System called Papyrus. It is Open Source and you can download it from GitHub. A couple of weeks before the conference, the IDRC provided adaptive technology training for all library staff. We had the opportunity to experience how members of our community might be accessing our resources and services using a range of adaptive hardware and software. Now we can better address patron questions regarding these technologies and can apply this knowledge to future service planning.



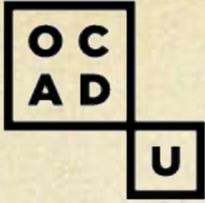
# 2015-2016

- Implement Papyrus Software (York University)
- Consult on expansion of staff/faculty service (with Human Resources)
- Share processing capacity with E-Reserves
- Build workflow for course-based requests
- Integrate Bookshare (publisher lead initiative)

## **Transcript: Slide 16**

### **2015-2016**

Over this academic year, we are hoping to implement Papyrus and are consulting with our Human Resources department on expanding alternate format services for staff and faculty. We are also looking at a developing a course-based workflow so that students won't have to make requests at the item level. Some of you here may be familiar with the US publisher-lead repository of alternate formats called Bookshare. We are looking at adding this resource to our sourcing workflow.



# Resources

## Alternate Formats

<http://www.snow.idrc.ocad.ca/node/125>

## OCUL Accessibility Toolkit

<http://ocul.on.ca/accessibility/>

## Papyrus - Content Delivery System

<https://github.com/yorkulcs/papyrus>

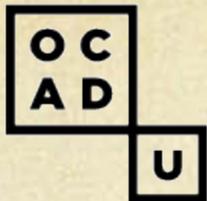
## OCUL Report on Accessible Media (ROAM)

<http://www.ocul.on.ca/node/3132>

## Transcript: Slide 17

### Resources

I've compiled a few of the resources we consulted as we built our service, in case you are interested in learning more about the benefits of conversion-ready text files or if you will be adopting something similar at your institution.



# Thank you

Victoria Sigurdson

Head, Visual Resources & Special Collections

Dorothy H. Hoover Library

OCAD University, Toronto Ontario, Canada

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## **Special thanks to my colleagues:**

Ryan Moore (Coordinator, Alternate Formats & Documentation)

Cathy Cappon (Manager, Accessibility)

Melissa Clark (Former Visual Resources Intern)

## **Transcript: Slide 18**

### **Thank You**

I'd like to thank a few of the key people who helped develop our alternate formats service and thanks to everyone here today who attended this session.