# **REVELATIONS OF DESIGN LOVE**

Designing a Non-linear, Academic Web Book with Scalar

by

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# Abstract

In 2015, UBC Press, along with the University of Washington Press, submitted a proposal to the Mellon Foundation to create an enhanced, non-linear Web book project that focuses on Indigenous knowledge. UBC Press launched a pilot project to turn a print book by Robert J. Muckle called *The First Nations of British Columbia: An Anthropological Overview* into a website that would facilitate the reading experience in a way unique to the Web, using the platform Scalar. Scalar is an open-source publishing platform created by the Alliance for Networking Visual Culture that provides a unique, non-linear reading experience with text, images, audio, and video. It is mainly for educational topics and offers authors and publishers several templates that encourage digital publishing first. A website template enables designers to work with a pre-designed website or webpages that can end up being very similar or very different from the original template, depending on the amount of work put in by the designer. The use of templates to design websites has its strengths and limitations, which will be explored in this paper. This report documents the experience of testing Scalar from a design perspective.

Keywords: Scalar; web template; design; academic publishing; online book; UBC Press

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# Introduction

The future book — *the digital book* — is no longer an immutable brick. It's ethereal and networked, emerging publicly in fits and starts. An artifact 'complete' for only the briefest of moments. Shifting deliberately. Layered with our shared marginalia. And demanding engagement with the promise of community implicit in its form.

The book of the past reveals its individual experience uniquely. The book of the future reveals our collective experience uniquely.

 Craig Mod, "Post-Artifact Books and Publishing: Digital's Effect on How We Produce, Distribute, and Consume Content"<sup>1</sup>

In "Post-Artifact Books and Publishing," Craig Mod, a writer and designer, examines the way that books have changed and are still changing along with technology. These changes are particularly salient in online, non-linear reading and design. As Mod explains, things have changed in the development of a book: technology has affected how authors write and the way a book lives on after publication.<sup>2</sup> The Internet allows for a system of texts that are linked, fragmented, and forever in flux, with an army of editors.<sup>3</sup> Readers have become much more involved in the process than ever before: skimming lengthy texts for relevant information, clicking on links, and taking charge of their own experiences.<sup>4</sup> Publishers are therefore being challenged to adapt to these behaviours by developing new ways to keep the attention of readers. Whereas the print book offers a private, static, and closed-off experience—which does have its own value—the Internet is much more social and active. As Kathleen Fitzpatrick, a digital humanities scholar, writes in *Planned Obsolescence*, digital and web-native publishing requires us to rethink the structure and design of the text, because network-based communications

<sup>1</sup> Craig Mod, "Post-Artifact Books and Publishing: Digital's Effect on How We Produce, Distribute and Consume Content," @craigmod, June 2011, http://craigmod.com/journal/post\_artifact/.

<sup>2</sup> Ibid.

<sup>3 &</sup>quot;Wikipedia," *Wikipedia: The Free Encyclopedia*, December 5, 2015, https://en.wikipedia.org/w/index. php?title=Wikipedia&oldid=693909189.

<sup>4</sup> Maria Konnikova, "Being a Better Online Reader," *The New Yorker*, July 16, 2014, http://www.newyorker.com/ science/maria-konnikova/being-a-better-online-reader.

technologies allow for more interaction among readers, between texts and readers, and between texts themselves.<sup>5</sup>

Take Wikipedia, Public Secrets, and BioBook as examples. Wikipedia, which is constantly subject to modifications and updates,<sup>6</sup> pushes designers to rethink digital book design and its suitability for non-linear, online reading. The website Public Secrets by Sharon Daniel, for instance, represents the experiences of a female inmate in California's Criminal Justice System by taking readers on an open-ended journey with interactive images, text, and audio.<sup>7</sup> A third example is BioBook, which teaches biology by appealing to different senses using multimedia, interactivity, and collaboration.<sup>8</sup> Types of information are organized using the structure of a tree as inspiration: leaves, branches, and roots.<sup>9</sup> According to Biobook, "Its core framework has been built from the ground up around how we learn naturally."<sup>10</sup> This type of reading is called "non-linear" because readers are choosing their own path and not reading an article from beginning to reading topic has never been easier.<sup>11</sup> In support of the development of websites that encourage a non-linear reading, research has shown that online readers have a different way of understanding information that is more like skimming, getting the gist and moving on, possibly clicking for more interesting information linked on the page.<sup>12</sup>

In the academic publishing world, where there is pressure for publishers to break even and engage with audiences in new ways, publishers are experimenting with innovative ways to create books. This report focuses on the experience of one such publisher, UBC Press, a mid-sized scholarly book publisher in Vancouver that specializes in the social sciences, particularly law,

6 Mod, "Post-Artifact Books and Publishing."

<sup>5</sup> Kathleen Fitzpatrick, "Planned Obsolescence: Publishing, Technology, and the Future of the Academy," *MediaCommons Press*, accessed November 5, 2015, http://mcpress.media-commons.org/ plannedobsolescence/.

<sup>7</sup> Sharon Daniel, "Public Secrets," accessed November 20, 2015, http://vectors.usc.edu/issues/4/publicsecrets/. "Nonlinear Narrative," *Wikipedia: The Free Encyclopedia*, November 12, 2015, https://en.wikipedia.org/w/ index.php?title=Nonlinear\_narrative&oldid=690335081.

<sup>8 &</sup>quot;What Is BioBook?," *BioBook: The Adapa Project*, accessed November 20, 2015, https://adapaproject.org/ biobook/what-is-biobook/.

<sup>9 &</sup>quot;How Does BioBook Work?," *BioBook: The Adapa Project*, accessed November 20, 2015, https:// adapaproject.org/biobook/how-does-biobook-work/.

<sup>10</sup> Ibid.

<sup>11</sup> Konnikova, "Being a Better Online Reader."

<sup>12</sup> Annie Sneed, "Everything Science Knows about Reading on Screens," *Fast Company*, July 8, 2015, http:// www.fastcodesign.com/3048297/evidence/everything-science-knows-about-reading-on-screens.

the environment, and Aboriginal studies, publishing seventy books per year.<sup>13</sup> UBC Press has a long history of embracing technological innovation. In 2014, then-intern Alex Sutcliffe reported on an alternative workflow using PressBooks, which the press was testing.<sup>14</sup> Although this experiment showed that UBC Press's needs were beyond the services offered by PressBooks, it shows that the press has a willingness to venture into new territory within evolving technologies. The press was also one of the first to adopt an XML-early workflow. This concept allows publishers to "produce content for multiple channels and to easily reuse content."<sup>15</sup> For example, a print book can easily be converted to an e-book if XML tagging is applied beforehand.

In 2015, UBC Press, along with the University of Washington Press, submitted a proposal to the Mellon Foundation to create an enhanced, non-linear Web book project that focuses on Indigenous knowledge. They have since been awarded the grant. The goal is to develop a digital platform for collaborative research and publishing in Indigenous studies. The two presses will collaborate with archives and Indigenous peoples on this project, which will showcase various aspects of Indigenous culture, such as language and art. Traditional Knowledge (TK) labels will be applied to the content to guide website visitors on culturally sensitive ways of reading the text and viewing or listening to the media. The collaborative aspect of this plan requires a platform that will facilitate online participation by multiple people and organizations.

In order to test out existing digital writing and publishing platforms, UBC Press decided to test out a publishing platform called Scalar by developing a digital edition of a pre-existing book, *The First Nations of British Columbia* by Robert Muckle. Scalar was developed by the Alliance for Networking Visual Culture, an organization that seeks to use technological advancement to create new ways of experiencing scholarly publishing.<sup>16</sup> The ANVC works with sources such as university presses and online archives to create new types of reading experiences; collaboration is a central part of what they bring to the table.<sup>17</sup> Scalar is an online and open-source publishing platform that provides a unique, non-linear reading experience with text, images, audio, and video.<sup>18</sup> It offers authors and publishers several templates that encourage digital publishing

<sup>13 &</sup>quot;About UBC Press," *University of British Columbia Press*, accessed September 5, 2015, http://www.ubcpress. ca/company/about.html.

<sup>14</sup> Alex Sutcliffe, "The Search for an Alternative Workflow at UBC Press: Support- and Service-Based Models" (Master's Project Report, Simon Fraser University, 2014).

<sup>15</sup> Ann Rockley and Charles Cooper, "How to Create a Successful Digital Publishing Plan," *Peachpit*, accessed April 4, 2016, http://www.peachpit.com/articles/article.aspx?p=1845243

<sup>16 &</sup>quot;About The Alliance," *The Alliance for Networking Visual Culture*, accessed September 5, 2015, http://scalar.usc.edu/about/.

<sup>17</sup> Ibid.

<sup>18 &</sup>quot;About Scalar," *The Alliance for Networking Visual Culture*, accessed September 5, 2015, http://scalar.usc. edu/scalar/.

first, and it is mainly for educational writing.<sup>19</sup> Scalar allows users to create their own reading experience, whether it be through a pre-determined path or media or through a research topic.

The main goal of the pilot project was to test Scalar, and my role was to see how far the template could be pushed, in terms of design, to customize a book. For this reason and because the press was awarded the grant, the website has served its purpose and was not completed. The narration and analysis of this project will be of use to those who are considering using a website template, since they will find that other templates will offer strengths and challenges similar to Scalar, but also to those generally interested in creating non-linear, online reading experiences.

<sup>19</sup> Ibid.

# **1. Project Partners**

UBC Press's Scalar pilot project started out with a book by Robert J. Muckle called *The First Nations of British Columbia: An Anthropological Overview.* This book provides information about First Nations culture in British Columbia, with accompanying images, maps, and side notes. Because the book is not a story but rather a basic educational reference—including information such as perceptions, labels, mysticism, treaties, and the fur trade—for a general audience, it lent itself to a non-linear experience and was a good fit for the Scalar pilot project. The aim was that visitors to the website, who could be children and adults not necessarily familiar with the First Nations of British Columbia, would create their own narrative or research project by following paths through subject areas and topics.

To enrich the experience, UBC Press has partnered with the Reciprocal Research Network (RRN), which is an archive website that enables users to search images of First Nations objects from the Northwest Coast from twenty-six institutions.<sup>20</sup> It is part of a project called "A Partnership of Peoples" at the University of British Columbia's Museum of Anthropology.<sup>21</sup> Other collaborators to the RRN project are the Musqueam Indian Band, the Stó:lō Nation/ Tribal Council, and the U'mista Cultural Society.<sup>22</sup> The intention is to support collaborative research among institutions and people.<sup>23</sup> Since Scalar allows for and encourages the integration of media from archives, this partnership was ideal for the *First Nations* project.

In deciding whether to use Scalar, UBC Press also looked at examples of other websites that either used Scalar's default templates and design or designed a custom website with content brought in through Scalar's API. One excellent example of a website that makes use of the template is Hearing the Music of the Hemispheres: Symphony for 100,000,000,000 Neurons by Erin B. Mee.<sup>24</sup> This website takes advantage of Scalar's multimedia capabilities to engage readers in an experience that includes video, audio, images, and text. Another example is Growing Apart:

<sup>20 &</sup>quot;RRN Homepage," *Reciprocal Research Network*, accessed September 12, 2015, https://www.rrncommunity. org/.

<sup>21 &</sup>quot;About the RRN," *Reciprocal Research Network*, accessed September 13, 2015, https://www.rrncommunity. org/pages/about#about\_rrn.

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

<sup>24</sup> Erin B. Mee, "Symphony for 100,000,000 Neurons," *Hearing the Music of the Hemispheres*, accessed November 7, 2015, http://scalar.usc.edu/anvc/music-of-the-hemispheres/index.

A Political History of American Inequality by Colin Gordon.<sup>25</sup> This website, which was also built with Scalar's template, includes interactive data visualizations.

Freedom's Ring by Evan Bissell and Erik Loyer is an example of a custom website built without the Scalar website template. Instead, it brings its content in through Scalar's API.<sup>26</sup> Scalar could not achieve the website creator's intended effect, which was to showcase Martin Luther King, Jr.'s "I Have a Dream" speech with scrolling text and audio. For the pilot project, however, the press decided to test Scalar's template.

Lesley Erickson, production editor at UBC Press and one of the main contacts for the project, had the following to say when asked why the press decided to use Scalar for this project:

Darcy [Cullen, the press's acquisition editor] drew my attention to Scalar, and it looked like it offered many of the things that she wanted for the larger digital multipath books in Indigenous studies project. She wanted an authoring and publishing platform that could showcase both text and media in a nonlinear way and allow for interactivity within and between books. At the time she drew it to my attention, she was considering partnering with PressBooks, but the HTML-based publishing platform didn't fulfill all of the project's needs.<sup>27</sup>

With the previous Scalar examples in mind, UBC Press decided to go the template route to test its efficacy on a small pilot project. Lesley Erickson set out the following expected outcomes for the *First Nations* and future projects from the perspective of UBC Press's production department:

(1) evaluate Scalar and its appropriateness for the larger project and (2) establish within the Production Department a new workflow for digitally enhanced books.<sup>28</sup>

28 Ibid.

<sup>25</sup> Colin Gordon, "Introduction," *Growing Apart: A Political History of American Inequality*, accessed November 23, 2015, http://scalar.usc.edu/works/growing-apart-a-political-history-of-american-inequality/.

<sup>26</sup> Martin Luther King, Jr., "King's 'I Have a Dream' Speech," Freedom's Ring, accessed November 7, 2015, http:// freedomsring.stanford.edu/?view=Speech.

<sup>27</sup> Lesley Erickson, Interview with Lesley Erickson of UBC Press about the Scalar First Nations Project, Email, August 24, 2015.

# 2. About the Scalar Web Platform

One of Scalar's main strengths is that it can be thought of as a platform that brings together archives of materials and makes them accessible to the public. Media elements can be displayed different ways in Scalar, depending on reader and author needs. Scalar does not host the media; it is hosted on other websites and displayed through Scalar's platform. This encourages collaboration between websites and archives, and it allows the public to see information in context instead of having to dig through an archive.

Scalar is also a social platform; readers can make comments, either at the bottom of a page or with Hypothes.is. Hypothes.is is a web annotation add-on that allows users "to discuss, collaborate, organize [their] research, or take personal notes."<sup>29</sup> It can be added to a Scalar website so users do not have to install it in their browser.

Scalar presents website content in several different ways. Visualizations are the main elements that facilitate a non-linear reading of a Scalar website. There are five different visualizations that serve to present the information on the website. The "paths" visualization represents different linear paths that a reader can take and is the easiest for new readers to grasp quickly (Figure 2.1). Paths are similar to chapters in a book, except that they are visually represented in a sideways tree-like pattern, with the top-level topic branching out into smaller sections, which branch out as well. Each point in the tree has a colour attached that signifies the type of information. The tree layout is a common visual tool, so there is a precedent that aids readers in understanding what they are looking at.

<sup>29 &</sup>quot;Hypothes.is," Hypothes.is: The Internet, Peer Reviewed, accessed December 10, 2015, https://hypothes.is/.



Figure 2.1. Paths visualization<sup>30</sup>

<sup>30</sup> Muckle, "A Bird's Eye View of the Book."

Scalar also provides a "radial" visualization that depicts the content's structure as a donut shape (Figure 2.2). The shape is divided by information type: paths, pages, media, tags, annotations, commentaries, reviews, comments, and people. When hovering over the visualization, readers are shown how the different pieces of information are linked. For example, hovering over the section that represents a page shows links to media elements that are on the page, people mentioned on the page, and paths that the page is part of. Clicking once selects a piece of information and shows the relationships, and double-clicking takes the visitor to a webpage. This visualization is likely difficult to understand for the uninitiated reader, since there are several new ideas to grasp at once: what each section represents, what the links are, and how the links are made. This visualization is good for a page that has a lot of links to different information types that wouldn't display as clearly or as succinctly as in the paths visualization.



Figure 2.2. Radial visualization<sup>31</sup>

A third visualization is Scalar's "index," which shows the information as boxes lined up and grouped according to information type (Figure 2.3). As with the "radial" visualization, hovering over the boxes reveals the relationships.



Figure 2.3. Index visualization<sup>32</sup>

Finally, the "media" and "tags" visualizations show the relationships between pieces of information in a spatial way, with dots that can be dragged around and lines connecting the dots (Figure 2.4). Unlike the "paths" vizualization, the "media" and "index" visualizations do not represent the document structure, but rather the relationships between different media and topics.



Figure 2.4. Media visualization<sup>33</sup>

<sup>32</sup> Ibid.

<sup>33</sup> Bob Muckle, "Spotlight: Totem Poles," *The First Nations of British Columbia*, accessed November 9, 2015, http://scalar.usc.edu/works/the-first-nations-of-british-columbia/totem-poles.

In addition to providing several ways to visualize the website map, Scalar provides six ways to view individual pages. The following describes these views and how they are best used.

The "text emphasis" view puts the text on the left side, with the media elements on the right and not too large (Figure 2.5). When reading the text, readers can click on a link to a media element, and the page will scroll to the element on the page. If it is audio or video, it will play. Readers can also click under the element to see more details, which are displayed in a popup. The "text emphasis" view is best for visitors viewing the website on a desktop or laptop computer. It is necessary to have a large enough screen (viewport) to fit the text and the media side-by-side. This view prioritizes the text, as the media elements take up less than half of the content area's width.



Figure 2.5. Text emphasis view<sup>34</sup>

In contrast, the "media emphasis" view displays the media large and above the text (Figure 2.6). The media elements are displayed one at a time, and readers click to see more. The elements are then switched like a carousel. This view is good for pages where the main focus is the media. It is what visitors see and possibly interact with first. It also works with different screen sizes, as the media is not beside the text and can be resized according to the viewport width.

<sup>34</sup> Bob Muckle, "Popular Perceptions," *The First Nations of British Columbia*, accessed November 10, 2015, http://scalar.usc.edu/works/the-first-nations-of-british-columbia/popular-perceptions.



Figure 2.6. Media emphasis view<sup>35</sup>

As a compromise to the text and media-centric views, Scalar offers a "split emphasis" view that aims to put equal emphasis on both the text and the media elements (Figure 2.7). The media elements are displayed on the left, and the text on the right. Again, this view is best for desktop or laptop computers, which have a large enough screen to accommodate both text and media side-by-side. The difference between this view and the "text emphasis" view is that the "split emphasis" view aims to give equal emphasis to the text and media.



## **Popular Perceptions**

For many British Columbians as well as visitors to the province, art is what usually first comes to mind when thinking of First Nations. Totem poles and other forms of First Nations art are central themes of tourism marketing campaigns. First Nations public art abounds, including many kinds of art welcoming travellers at Vancouver International Airport, many placements of totem poles in public spaces throughout the province, such as

Figure 2.7. Split emphasis view<sup>36</sup>

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

The other three views are the "single column" view, which shows the text only, and the "media per paragraph (above)" and "media per paragraph (below)" views, which show the media above or below the paragraph in which they are linked.

The content creator can set a default view for each page, but the user can set which of the six views they wish to use. The reader's choice, however, does not persist between pages, so even if a reader changes the view on one page, the next page continues to have whatever default view was set when creating the website. That is, there is no mechanism for a reader to change their default view across the whole website (they have to keep selecting it for each page, which could get tiresome).

There are other, more technical views, such as the metadata and the RDF views, which show the metadata and the page's style and XML. For the website's authors, there is also a history editor and a history browser, which allow those working on the website to go back to previous versions of a page.

The following describes and analyzes the project from a design perspective. It explores Scalar as a template that can be used for a long-form, non-linear, online book.

# 3. Designing the Website

A website template enables designers to work with a "pre-designed" website or webpages "that anyone can use to 'plug in' their own content and images into to create a website" that can be very similar or very different from the original template.<sup>37</sup> The use of templates to design websites has its strengths and limitations. For this project, the design was more involved than that of the examples on Scalar's website (where the template was used) but does not go as far as building a custom website.

The topics of editing the CSS and figuring out how best to introduce the website to readers through design will be explored extensively. Although the reading experience of a non-linear website is another interesting topic to explore, this narration looks at the development of the website through the lens of design first. This topic will be useful for designers who would like to know more about what they are getting into when considering the use of Scalar or a similar platform.

Although Scalar offers much more than just a template, the template was a major part of the design process. Designing with templates in general has made it a lot easier for people, including those without knowledge of web markup and programming, to easily create functional and clean websites. However, the effect has not all been positive. Templates have created a landscape of drag-and-drop websites that all look the same, a "human assembly line" of designers prioritizing safe choices and predictability over originality.<sup>38</sup> Templates are not the only reason for this lack of originality and thought, of course, but they do make it much easier for those designing websites to go with a nice looking theme over putting effort into creating a website that stands out from the crowd and is customized to its specific content and audience. For example, most other websites that have used Scalar's template have minimal design applied to reduce the obvious appearance of the template itself. The two websites Hearing the Music of the Hemispheres and Growing Apart have very different purposes, but their design looks very similar.<sup>39 40</sup>

However, this is not to say that templates are not incredibly useful—only that they must be used as one type of tool in the process of design, with care and awareness of what is best for

<sup>37 &</sup>quot;What Are Website Templates?," *Allwebco Design Corporation: HTML Web Templates*, accessed April 4, 2016, http://allwebcodesign.com/website-templates.htm.

<sup>38</sup> Travis Gertz, "Design Machines: How to Survive the Digital Apocalypse," Louder Than Ten, accessed November 23, 2015, https://louderthanten.com/articles/story/design-machines.

<sup>39</sup> Mee, "Symphony for 100,000,000 Neurons."

<sup>40</sup> Gordon, "Introduction."

each website. With this in mind, the goal in designing the *First Nations* website/book was to edit the CSS enough so that the template would not dominate the design. The content, which was already written, had to come first, and the design had to complement and support it.

The *First Nations* project's text was written for print. When asked why the press chose this particular book, Erickson referred to the simplicity of the book and its important topic, the First Nations of BC, which is one of the main topics that the press covers.<sup>41</sup> The book was not written with the intention of displaying it in an online, non-linear book. This makes it an ideal case because it creates a comparison between writing for print and writing for the Web. When transferring the text from Muckle's *The First Nations of British Columbia*, the key was to keep in mind which text works for the Web and how to display it. Because a website is different from a book, the information needed to be adjusted, shortened, or separated in a way that made sense for the website's purposes.

One consideration was the appropriate text length on a webpage. A Microsoft Canada study reported that attention spans have gone down from twelve seconds in 2000 to eight seconds in 2013.<sup>42</sup> This means that tailoring a webpage to today's readers can involve shortening word counts and dividing information into more manageable sections. The average length of a book chapter is appropriate for a book, but on a webpage, it is possible that readers would see the amount of scrolling involved, become discouraged, and leave. Because of web users' tendency to jump from one website to another, it is important to think of the audience and how to keep them on the website. To this end, the *First Nations* website was divided into sections based on smaller topics, which would at the same time facilitate the online reading experience by subject.

Another consideration was about which information contained in the book would be left off the website. For example, would the text in the print book that served as an aside, inserted as a box for more information on a topic, be left off the website?

Some information from the print book was also adapted and repurposed for the website. The book's "story map," which shows archaeological sites, was transformed into an interactive map that visitors can click on to view the information in terms of geography (Figure 3.0.1). The map was added through ArcGIS, a platform that provides an interface to create maps for multiple uses, including "traffic patterns, demographics, customers, and competitive data."<sup>43</sup>

Media elements that a print book could not support were also added, such as video and audio hosted by other websites.

<sup>41</sup> Erickson, Interview with Lesley Erickson.

<sup>42 &</sup>quot;Attention Spans," Consumer Insights, Microsoft Canada, Spring 2015.

<sup>43 &</sup>quot;Put Your Maps to Work with ArcGIS, the Mapping Platform for Your Organization," *ArcGIS*, accessed September 13, 2015, http://www.arcgis.com/features/.



Figure 3.0.1. ArcGIS story map in progress<sup>44</sup>

The biggest challenge with building a website using Scalar is that it requires visitors to read in a different way from what they are used to, so the design must make navigation as clear as possible. Continually decreasing attention spans make this more important than ever. <sup>45</sup> Because readers will leave a website that does not catch their attention in ten to twenty seconds, the question was how the *First Nations* website would be designed to be as accessible as possible. <sup>46</sup>

Upon first entering the website, visitors are met with an opening page that acts as a "cover" for the book (Figure 3.0.2 and Figure 3.0.3). Here, they are introduced to links that are styled depending on link type. The first link takes visitors to a page outside the website; it turns grey on hover and has a curved arrow that hints at the link's destination. The second is another type of link, which takes readers to a page introducing the rest of the site; this link turns blue on hover, as blue is the colour for this type of link all over the website (as will be discussed later). Instead of being presented with a traditional menu of choices, readers are given two links with two different functions so as not to be overwhelming right away.

<sup>44</sup> Bob Muckle, "Prominent Sites," *The First Nations of British Columbia*, accessed December 13, 2015, http:// scalar.usc.edu/works/the-first-nations-of-british-columbia/prominent-sites.

<sup>45 &</sup>quot;Attention Spans."

<sup>46</sup> Nielsen Jakob, "How Long Do Users Stay on Web Pages?," *Nielsen Norman Group*, accessed September 15, 2015, http://www.nngroup.com/articles/how-long-do-users-stay-on-web-pages/.



Figure 3.0.2. Website "cover"47



Figure 3.0.3. Cover on hover<sup>48</sup>

The different link colours used depending on information type are described in the visualizations, so that all of the design works together to create a unified experience that helps readers understand how to read the website. As well as the links being styled, each webpage has a border on the left side of the content that is coloured to signify the information type (Figure 3.0.4 and Figure 3.0.5).

<sup>47</sup> Bob Muckle, "Homepage," *The First Nations of British Columbia*, accessed November 13, 2015, http://scalar. usc.edu/works/the-first-nations-of-british-columbia/index.



Figure 3.0.4. Path page with blue border and blue illustration<sup>49</sup>



Figure 3.0.5. Media page with green border<sup>50</sup>

After clicking on the second link, visitors are taken to a "paths" visualization (Figure 2.1). This visualization is on by default to start familiarizing readers with the way the website is meant to be read and to show them that they are expected to read the website in a non-traditional way.

On the top left menu, the "View" dropdown link is highlighted in yellow to make it as obvious as possible that visitors are encouraged to explore the dropdown (Figure 3.0.6). The intention is for readers to click the menu, see the choices of views and visualizations, and experiment with them. Although the website has the disadvantage of being unusual to readers

<sup>49</sup> Bob Muckle, "Languages, Population Estimates, and Traditional Lifeways," *The First Nations of British Columbia*, accessed November 14, 2015, http://scalar.usc.edu/works/the-first-nations-of-british-columbia/ languages-population-estimates-and-traditional-lifeways.

<sup>50 &</sup>quot;Stanley Park Totem Poles," *The First Nations of British Columbia*, accessed November 15, 2015, http://scalar. usc.edu/works/the-first-nations-of-british-columbia/stanley-park-totem-poles.

and of taking longer to learn how to navigate, it has an advantage in that it can be fun to see the different views and visualizations, and this has the potential to keep readers' attentions.



Figure 3.0.6. View menu<sup>51</sup>

If visitors are not interested in exploring the different views, they can simply click on one of the subject areas presented in the website map and be taken from page to page using the "next page" top right link. If they wish, they can easily read the entire website this way.

If visitors are interested in exploring the different views and advantages the website has to offer, additional design details that make this easier include path covers (Figure 3.0.7). Each path has a "cover" or unique design that also displays on pages within that path to let readers know where they are on the website.

<sup>51</sup> Bob Muckle, "A Bird's Eye View of the Book," *The First Nations of British Columbia*, accessed November 13, 2015, http://scalar.usc.edu/works/the-first-nations-of-british-columbia/raven.



Figure 3.0.7. Path cover<sup>52</sup>

To show what it is like to visit the *First Nations* website, the following is an example tour. After the cover page, the first page is "A Bird's Eye View of the Book." If a reader looks at the radial visualization, they can pick a subject that they find interesting in any of the following information types: paths, pages, media, tags, annotations, commentaries, reviews, comments, and people.

Once the reader has decided to click a tag, say, "Through the Lens of Archaeology," the reader is shown the links to this tag within the visualization (Figure 2.2). In this example, the visualizations shows that the tag links to the path and page "Introduction: Popular Perceptions and the Anthropological Perspective" and to the media page "Floyd Red Crow Westerman — 'Here Come the Anthros," which in turn is also linked to the tag's page, "Through the Lens of Archaeology." Double clicking on the tag takes the reader to its page, where the reader can decide to continue on that path by clicking the forward button or look at the visualization again and choose to click on one of its links instead. The next step could be to look at the path "Introduction: Popular Perceptions and the Anthropological Perspective" (Figure 3.0.8).

<sup>52</sup> Muckle, "Introduction."

#### 📶 Begin this path

- 1. Popular Perceptions
- 2. Spotlight: Totem Poles
- 3. Spotlight: The Imaginary Indian, the Textbook Indian, and Chief Dan George
- 4. Through the Lens of Anthropology

#### Figure 3.0.8. Overview of "Introduction" path<sup>53</sup>

The first page on that path, "Popular Perceptions," has three media links. Looking at the "details" link of the second media element, "*Spirit of Haida Gwaii, the Black Canoe*, by Bill Reid" gives the reader additional information about this element (Figure 3.0.9). The reader might decide to pursue this interest, continue on the path, or look at a visualization again to find other links.



#### Figure 3.0.9. Media details as viewed on a laptop<sup>54</sup>

<sup>53</sup> Bob Muckle, "Introduction: Popular Perceptions and the Anthropological Perspective," *The First Nations of British Columbia*, accessed November 13, 2015, http://scalar.usc.edu/works/the-first-nations-of-british-columbia/part-1-introducing-first-nationas-popular-perceptions-and-the-anthropological-perspective.

<sup>54</sup> Muckle, "Popular Perceptions."

All of these different ways of moving through the website make the experience non-linear. Instead of having the reading experience dictated to readers, as in a print book, readers can choose to navigate based on their interests.

To facilitate multiple readings of the *First Nations* website, the Scalar template was styled using Cascading Style Sheets (CSS), such that it created a uniform visual experience throughout the different facets of the site.

### **3.1. STYLING THE WEBSITE**

Scalar's dashboard contains text boxes and menus to style much of the site (Figure 3.1.1). It is generally user-friendly, and contains fields to enter information such as the website's title and description, the background image, and the website's styling using CSS and JavaScript. CSS is a simple language that can be used to define the look of a website, while JavaScript is a programming language that is commonly used on websites for interactive features (although no JavaScript changes were necessary in the making of the *First Nations* website). <sup>55 56</sup> Scalar also offers tutorials to change certain simple elements with CSS, such as the background colour. The main dashboard is where the website's creators enter global elements, such as CSS that will affect the entire website. Each page also has its own dashboard page in case users want to change an element on a page-by-page basis. All of these elements work well for those who are interested in making minimal changes to the template and don't want to get too much into the CSS or JavaScript.

<sup>55 &</sup>quot;Cascading Style Sheets," *Wikipedia: The Free Encyclopedia*, November 30, 2015, https://en.wikipedia.org/w/ index.php?title=Cascading\_Style\_Sheets&oldid=693056964.

<sup>56 &</sup>quot;JavaScript," *Wikipedia: The Free Encyclopedia*, December 7, 2015, https://en.wikipedia.org/w/index. php?title=JavaScript&oldid=694117436.

THE FIRST NA	TIONS OF BRITISH COLUNY Dashboard	Sophie Pouyanne Sign o You have Author privileg Back to book
My account Book prope	ties Book users Sharing Pages Media Relationships Categories Import/Export	
Basics		
Fitle	<pre><span data-hypothesis="true" data-joinable="true">THE FIRST NATIONS OF BRITISH COLUMBIA &gt;<span <="" pre="" style="font-weight:norr"></span></span></pre>	nal; font-size:90%;">by Bob Muckle
ubtitle	digital edition	
Description		
IRI Segment	http://scalar.usc.edu/works/the-first-nations-of-bri	
able of Contents rag TOC items to reorder	Introduction: Popular Perceptions and the Anthropological Perspective (remove)     Defining and Situating First Nations Today (remove)     Achaeology (remove)     Achaeology (remove)     S. From the Late 1700s through the Twentieth Century (remove)     Achtropology in the 21st Century (remove)     Add table of contents item	
tyle		
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ackground image	Select image: background ~	
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Custom style xample: wody (font-family:Helvetica;} lo <style> or </style> tags	body { background-position:center top; font-family:"Lato",Arial,sans-serif; color:#282828; font-size:14px; } a { text-decoration:none; color:inherit; } a:hover { text-decoration:none; padding-bottom:2px; border-bottom:1px solid; },pathink { color:#66666d; }	
Custom Javascript .g., Google Analytics code		
o sacipo o stacipo luga		
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ublisher logo a> in previous field makes link	media/publisher_thumbnail.jpg         Upload image:       Browse         No file selected.         JPC, PNG, or CIF format; will be resized to 120px         Remove image	
		Save

Figure 3.1.1. Scalar's dashboard<sup>57</sup>

<sup>57 &</sup>quot;Dashboard: The First Nations of British Columbia by Bob Muckle," *Scalar*, accessed November 9, 2015, http://scalar.usc.edu/works/system/dashboard?book\_id=3806&zone=style#tabs-style.

For designers who want to make bigger changes, the first thing they will notice about Scalar's dashboard is that the box to enter the CSS is tiny; this makes things difficult for those who would like to make many edits requiring a substantial amount of code (Figure 3.1.2). The designer must scroll up and down a lot to find their place in the CSS box, which is not the user friendly text editor, with colour coding and a resizable window, that a website designer is used to. One possibility when using Scalar is to use a text editor and then copy the code it into the CSS box. However, when making a lot of small changes to the website that require that the designer update the page frequently, this gets tiresome.

Custom style	body { background-position:center top: font-family:"  ato". Arial.sans-serif: color:#282828: font-size:14px: }	*
Example:	a { text-decoration:none; color:inherit; }	
body {font-family:Helvetica;} No <style> or </style> tags	a:hover { text-decoration:none; padding-bottom:2px; border-bottom:1px solid; } .pathlink {color;#5d6d6d; } .pathlink:hover { text-decoration:none; padding-bottom:2px; border-bottom:1px solid; color;#27828B; }	-
		1.

#### Figure 3.1.2. Teeny tiny CSS box<sup>58</sup>

Furthermore, when editing the CSS of an existing template, the designer needs the website's underlying information that has already been put in place to describe different elements of the page or the website. If asked, the Scalar team will provide the source CSS, but that could also be achieved by looking at the site's source code online; however, there are no instructions for directly editing the code instead of only overriding it on the Dashboard. Scalar template websites are hosted by the University of California, so making edits to the original files would require access through UC. "Selectors," pieces of CSS that identify webpage elements (i.e., the element's name, ID, or Class), are needed to make edits to the website's design. For example, the largest headers on the website are called "h1," and setting h1 to "font-size:20px" in the CSS means that all of the top-level headers on the website will have a size of 20 pixels. This is much more efficient than editing each header individually, and it guarantees consistency across pages. Firebug, a free add-on for Firefox that allows users to see the source code of a website, was used to help uncover the classes and IDs because it is not always clear from the source code which selector is the right one to define.<sup>59</sup> And the instructions that Scalar provides do not always produce the intended results, as they are brief. For example, Scalar has instructions for changing the background colour of a website as a whole but does not provide accurate instructions for changing the content area's background colour. In the example for changing the background colour of the content area, Scalar's user guide indicates that the ID #content-wrapper will change the background

<sup>58</sup> Ibid.

<sup>59 &</sup>quot;Firebug: Web Development Evolved," Firebug, accessed October 1, 2015, http://getfirebug.com/.

around the main text in the content area.<sup>60</sup> However, in practice, using the "Minimal" template, the header and footer elements are not included within #content-wrapper, as well as space surrounding the text, which means that these parts retain the original background. Firebug was helpful in finding the selector that was overriding the CSS for the content area's background.

The first elements to look at were those already part of the website, such as the visualizations. When starting out with a template, the underlying structure is already laid out. For those who are happy with the layout of the template, this saves a lot of work and is a big advantage to using a template, but this was not the aim with the *First Nations* website.

For the *First Nations* website, the aim was to heavily edit the design to make it unique to the purposes of the website and to find out how much could be done with CSS while staying within the limits of the template. First, within the website's structure, the alignment had to be adjusted. One example is the media elements (Figure 3.1.3). The CSS of these elements varies because of the multiple ways to view media on a page, so designing a smooth, responsive website was tricky. The amount of padding above or under a media element also adjusts depending on browser window size. Furthermore, changing one element can cause a chain reaction that changes other elements. Finally, there is more than one way to solve a problem, and trying to figure out the line of thinking of Scalar's template designer was an additional challenge.



Figure 3.1.3. Unintended media padding<sup>61</sup>

<sup>60 &</sup>quot;Custom Styling in the Content Area," *Scalar User's Guide*, accessed October 1, 2015, http://scalar.usc.edu/ works/guide/custom-styling-in-the-content-area.

<sup>61</sup> Muckle, "Spotlight: Totem Poles."

Another challenge when styling the structure of a Scalar template is the views and visualizations that change the layout of the page. As described above, Scalar gives visitors the option to look at webpages in multiple ways (a fundamental feature to encourage a non-linear reading of the website). However, because of the changing nature of each view, it was important to introduce the views and visualizations to readers in a way that is clear and simple. Therefore, the website's entire design had to be based on the design of the views and visualizations, with each element aiming to support readers in understanding how the website's creator wanted visitors to navigate and read the website.

Each individual page can have a specific view and/or visualization set as the default for the page. For example, the introductory page, after the cover, has the paths view on by default to immediately familiarize readers with the way the website is laid out and the way paths work. Other pages have a variation of media and text views, depending on what's important on the page. The best views for pages that have both text and media are the "media per paragraph" views, because having the media beside the text is not appropriate for reading on small browser sizes, as they both cannot fit comfortably next to each other on the screen.

The colours in the visualizations are important in that they create a distinction between different types of information, such as paths and people. The website thus needed to be designed to go with the visualizations, because the colour-coded information offered another way for readers to understand the website. For example, links can have different colours assigned based on what they link to. For these reasons, the colours used in the visualizations were a major influence in the design of the website. Instead of only having the colours in the visualizations, the *First Nations* website familiarizes readers with the visualization colours and what they represent over and over again in the website's design. The result is a unified experience that helps readers understand what they are reading and how to read it.

To further facilitate navigation, hints are dispersed throughout the site. Because every webpage on a Scalar website is assigned an information type, the *First Nations* website was designed to make it clear to readers what type of information they are looking at by styling different types of pages according to their function.

#### **3.2. WEBPAGE TYPES**

One idea was to assign different background colours, so "path" pages would have blue, "page" pages would have orange, etc. However, this proved to be too overwhelming and made the website look disjointed, and the idea was to be subtle but clear. Going from a "path" page with a blue background to a "page" page with an orange background would have confused readers more than helped.

Instead of having different background colours for different types of webpages, a ten-pixel border was added to the left side of the content area to signify the information type by colour (Figure 3.0.4 and Figure 3.0.5). This is less distracting, more subtle, and easier to understand. For example, having a border beside a link on hover or when a page is currently being viewed is already a common element on websites, so this precedent makes it more likely that readers will understand that a changing border on the side of the content area signifies the information type that is currently being viewed.

Furthermore, because the aim for this project was to create a digitally enhanced book, considerations were different from those of most websites. For example, nowadays, splash pages are not used as before because visitors want to go straight to the content. However, because the *First Nations* website was a print book first, and is meant to be read as a sort of digital, non-linear book, those working on the website decided that a "cover" page would be a good idea to ease readers into the book, similar to what a cover does for a print book.

### 3.3. THE WEB COVER

Like a print book's cover, the page had to be designed to best fit its purpose. So unlike a print book cover, which is one static size, the cover for the website had to be responsive to the browser dimensions—flexible with a layout that is not tied to any specific ratio. The main image that is laid on top of the background was designed not to have clear boundaries or outlines but to integrate with the rest of the page. These considerations were in addition to the usual considerations of visual appeal and functionality, such as allowing visitors to focus on getting to the content. As with a print book's cover, this cover also had to relate to the rest of the website and give visitors an idea or feeling of what to expect for the rest of their experience. For example, the background remains the same, the illustrations echo the rest of the website's illustrations, and the links display differently on rollover, depending on the information that is linked.

A drop shadow was added to the cover image for the *First Nations* website to help it stand out against the background (Figure 3.0.2). Unlike a print book cover, on which translucent drop shadows usually do not work well, drop shadows look better on the Web because the screen lends itself more to a three dimensional look, whereas on a printed page shadows looks flat. On the *First Nations* cover, the shadow's translucent property reveals some of the background behind it. This contributes to creating a cover that is not static, but changes depending on browser size, because the shadow resizes with the image, consequently covering—and revealing—different parts of the background.

Furthermore, because the *First Nations* website experiments with an alternative way of reading a book, it is much more complicated to understand than a regular print book for a first

time visitor. Because of this, the first page was kept simple, so as not to overwhelm the visitor, but with a colour coding scheme that hints at what is to come.

The first page also directs the visitor to "A Bird's Eye View of the Book" (Figure 3.0.3) which is a page with the "paths" view of the website, so that the reader's first experience upon entering the website is seeing how the website is laid out and how it can be viewed in different ways. On the left-hand menu at the top of this page, the "views" button is highlighted in a glowing yellow to make it as obvious as possible that the visitor is expected to click on this button (Figure 3.0.6). Like the functions of a cover, title page, and other preliminaries in a print book, the aim of the introductory pages of the *First Nations* website are to ease readers into the experience instead of dropping them right into the middle of it without context.

In addition to the main cover, which is the first thing visitors see when they enter the website, the *First Nations* website has multiple "mini" covers that introduce readers to different paths within the website.

A "path" has been previously defined as a series pages linked together by the website's builder to create a linear story within the mass of information on the website (Figure 3.0.8). Those who designed the *First Nations* website chose to have each path link to the next because the text only includes that which is found in the chapters of the book. This way, a visitor can be directed and have the facility of being able to click on the next link to read the entire website instead of choosing their own reading path. Readers who are more accustomed and comfortable with reading in a linear fashion will thus not feel alienated by the website's design.

Because each path is essentially a short story or chapter in itself, a different illustration, a "cover," for each path was created to emphasize that each path is a story that can be read separately from the rest of the website. For example, the "Popular Perceptions" path features an illustration of a feather (Figure 3.0.7). Each page that is part of the path has this illustration, although smaller, at the top of the page to build continuity and let readers know they are still on the same topic (Figure 3.3.1).

Taking a cue from Craig Mod's essay "Hack the Cover," the covers were designed not with a rectangle book format but as images that fit and make sense within the webpage.<sup>62</sup> The illustrations are blue, which is the colour code for paths, and which emphasizes that these are covers for paths (Figure 3.0.4). Each path page has a blue colour scheme that emphasizes that the page is the start of a path: a blue border on the left of the content, a cover with a blue illustration, and a link to begin the path that turns blue on hover.

<sup>62</sup> Craig Mod, "Hack the Cover," @*craigmod*, accessed September 7, 2015, http://craigmod.com/journal/hack\_ the\_cover/.



## **Popular Perceptions**

For many British Columbians as well as visitors to the province, art is what usually first comes to mind when thinking of First Nations. Totem poles and other forms of First Nations art are central themes of tourism marketing campaigns. First Nations

Figure 3.3.1. Page with feather cover design<sup>63</sup>

In an aim for consistency across the site, deciding how to display the links on the *First Nations* website was a delicate process. Somehow, the colour coding had to be employed in the same way as with page types while confusing the reader.

### **3.4. STYLING THE LINKS**

Because there are several different types of links on a Scalar website (to media, to pages, to glossary terms, to paths, to outside links) it was necessary to let readers know what a link is going to do so they know what to expect. At the same time, this approach could have easily been problematic, as too many link decoration types and colours would be confusing and distracting for the reading experience. Choosing to colour the links by type, using the visualizations as a colour guide, could also be problematic because not all link types are described in the visualizations, such as outside links and glossary terms.

In the end, colours were eliminated from links, except on hover, because having several different colours on a page would have been distracting (Figure 3.4.1). Underlines were also eliminated, except on hover, to make the reading experience as distraction-free as possible. When not hovering over a link, all links are grey. Media links and outside links also have icons beside them to make their purpose clear. Links stand out from the surrounding text but do not impede the reading experience. On hover, media links turn green, page links turn orange, and path links turn blue, just as described in the visualizations that are part of Scalar's template.

<sup>63</sup> Muckle, "Popular Perceptions."

 totem poles in public spaces through
 the totem poles of Stanley Park, and around many museums, such as the Roy or totem poles in public spaces throughout
 the totem poles of Stanley Park, and puaround many museums, such as the Royal

#### Figure 3.4.1. Media link on hover<sup>64</sup>

In addition, an underline was added on hover, as links that don't fall under the categories described by Scalar's visualizations needed to change on hover, and this needed to be consistent among links in the page contents. Link underlines were inspired by those of Medium, which don't have the underlines common on most webpages, but instead are customized to achieve a specific look chosen by the designers.<sup>65</sup> The *First Nations* website's text underlines were achieved by mimicking underlines with the border-bottom property with a two pixel padding on the bottom of the text of to avoid the line covering the text's descenders. This way, the border (underline) floats nicely below, giving readers enough room to read the text without interference. This also gives the text more breathing room, which is in keeping with the rest of the website's design.

Scalar's default CSS also creates information popups when readers hover over a link. Depending on the type of link, this popup can include the destination, title, information, and an image from the target destination. For the purposes of the *First Nations* website, most of these popups were disabled because it was felt that they impeded the reading experience. Instead of having popups for every type of link, such as links to media, pages and paths, other websites, and glossary terms, popups were only kept for glossary terms (Figure 3.4.2). This way, readers can quickly get a definition while reading without having to click and be taken to another page, then click to go back.

<sup>64</sup> Muckle, "Popular Perceptions."

<sup>65</sup> Marcin Wichary, "Crafting Link Underlines on Medium," *Medium: Designing Medium*, March 18, 2014, https:// medium.com/designing-medium/crafting-link-underlines-on-medium-7c03a9274f9.

carving. Poles on the central coast, on the other hand, often were deeply carved with pronounced features, and widely flaring wings

Coast Salish

#### Click to view

The grouping used to describe several major ethnic groups and dozens of First Nations occupying the south coastal mainland, southeast Vancouver Island, and the islands in between. The major ethnic groups usually considered as being Coast Salish include the Halq'emeylem (Musqueam, Sto:lo, and Tsawwassen), Homalco, Hul'qumi'num, Klahoose, Sechelt, Squamish, Straits Salish, and Tsleil-Waututh.

that created them. Forem poles are intricately linked with other aspects of First Nations cultures: they commemorate important events and people, document histories, validate political and social positions, visualize myths, and assert rights and identity. Replicas made for mass-market sale as tourist items and images



Furthermore, the distinct features of links and page types help to demonstrate the importance of all the information types. For example, giving media links and pages a colour throughout shows that media is considered to be an information type that can stand on its own. Giving media the same types of features as text helps to shows that media has equal importance.

### 3.5. ADDING MEDIA

One of the purposes of a designing a website with Scalar is to give readers the ability to navigate the information in many different ways, including through different media. The different views and visualizations, along with a multi-media experience, encourage these types of reading experiences. Scalar achieves this in a way that is relatively easy to understand for readers, as well as easy for the website's designer to manage. The designer also needs to design the website with the reading experience in mind, always remembering that the text is not necessarily the most important type of information, but one of several types. The following looks at the strengths and challenges of displaying media and pulling contents from other websites through Scalar's interface.

Websites that use Scalar as a platform do not need to host their own media. Instead, the media is pulled in from other websites, such as archives (the Reciprocal Research Network in this instance, as explained in the Introduction) and YouTube. One of the biggest benefits of using

<sup>66</sup> Muckle, "Spotlight: Totem Poles."

Scalar for creating a website is creating context for media through partnerships with archives. Those reading the website, either for entertainment or education/research purposes, have the opportunity to see images in context; to see how they relate with other media within stories, maps, timelines, and other information.

There is one challenge when inserting media elements from websites, such as YouTube, that are not library archives. Content on such sites is frequently deleted or moved, causing it to appear as a deleted video on the website. This was the case with the Sonny Assu video that was on the *First Nations* website as it was being designed. Such occurrences interfere with the reader's experience, as this content is linked from within the text.

When looking at a page that displays media, whether beside, above, or below the text (Figure 2.5, Figure 2.6, and Figure 2.7), the media elements that have been linked within the text are shown. The image, video, and audio elements are displayed in the order in which they are linked.

To give additional context to the media, clicking on a media link's "details" button opens a box with information that includes a description, annotations, information about the media, the "permalink" that takes visitors to the media's page on the Scalar website, and the media itself (Figure 3.0.9). Designing the default details window was challenging, and illustrates the types of issues designers face when using templates. The details window was not scrollable if, for example, the metadata information took up more space than the window's height. If users tried to scroll down, the box bounced back up, and longer information sections could not be seen entirely. For the *First Nations* website, CSS was added to have the box view scrollable and for it to adjust, or be responsive, to the height of its content instead of to the height of the browser window. These challenges existed because the theme was not designed to be entirely responsive.

#### **3.6. RESPONSIVENESS OF THE TEMPLATE**

The entire *First Nations* website is designed to be responsive to mobile devices, but the templates that came with Scalar were not entirely so. The intention of website responsiveness is to have the website be readable at any browser size. This has become essential in today's environment because websites need to respond to any device that readers use to navigate the Web, including tablets and smartphones.<sup>67</sup>

Scalar's template on its own has issues in this area that needed to be addressed. For example, the main content area does adjust to a changing window size, but the overall layout does not change (Figure 3.6.1). This means that at a small screen size, the main content is squished to one or two words per line, while the left navigation menu does not change at all. The template

<sup>67</sup> Dave Chaffey, "Mobile Marketing Statistics Compilation," *Smart Insights*, April 27, 2016, http://www. smartinsights.com/mobile-marketing/mobile-marketing-analytics/mobile-marketing-statistics/.

is designed to be responsive up to a certain point, but it does not work perfectly, with elements overlapping and making it impossible to read at smaller browser sizes.



Figure 3.6.1. Example of a website with minimal edits to the template<sup>68</sup>

In media details pop-ups, the CSS was also adjusted so that when the browser window shrinks down to a certain width, the information is stacked instead of laid out side-by-side to accommodate smaller devices (Figure 3.0.9 and Figure 3.6.2).

Fixing issues with the website's responsiveness also included figuring out how to move the left navigation menu to the top of the page at smaller browser sizes.

<sup>68</sup> Seth Rogoff, "Introduction," *The Nature of Dreams*, accessed November 14, 2015, http://scalar.usc.edu/anvc/ the-nature-of-dreams/index.



Figure 3.6.2. Media details viewed on a smartphone<sup>69</sup> Figure 3.6.3. Menu above the content<sup>70</sup>

### **3.7. CHANGES IN TECHNOLOGY**

Finally, it should be said that when undertaking such a project, one should not discount the effects of changing technology. During the time that the *First Nations* website pilot project was rolled out to test the feasibility of creating a website with Scalar for a bigger, future project, Scalar released a new version, making many of the changes and challenges in this report potentially obsolete. This is an issue with using templates and platforms such as Scalar for web design—they can be updated at any time, and code added to the old template will not necessarily be useful on the new template. The need for constant upgrades is a drawback, but the challenges faced during the pilot project provided valuable lessons that will be applicable as the new version of Scalar is implemented.

<sup>69</sup> Ibid.

<sup>70</sup> Ibid.

# Conclusion

Overall, the experience of customizing a template for the *First Nations* project suggests that the best overall design can be achieved by building a custom website, using Scalar to manage the content, but without the use of a Scalar template. A custom website allows builders to design the website from the ground up for their own purposes, instead of being restrained by an existing design. It allows for greater creativity because they can start with a blank canvas. Unless only minor modifications are sought from the template's design, stretching the limits of a template was extremely onerous and, based on this project's experience, it would make more sense to build a custom website with the content of the specific book in mind.

However, the reality is that the costs of building a custom website, and the time involved in creating a design strategy for a specific "book," must also be considered as part of the website planning. UBC Press does not necessarily have the time, money, or staff to make a fully custom website project feasible. Because of this, UBC Press will likely use Scalar's available templates with modifications for the larger project.

Since the website was not available to the public, questions about reader response remain mostly unanswered. Nevertheless, Harmony Johnson, the academic sales & marketing manager at UBC Press kindly tested the *First Nations* site as someone who did not work on the site or see it while it was in development. According to Johnson, who looked at the website on a desktop computer, the cover page (Figure 3.0.2 and Figure 3.0.3) and the paths visualization on the first inside page (Figure 2.1) were interesting to look at and easy to understand.<sup>71</sup> However, at this point, Johnson was a bit confused as to how to proceed next and suggested the site have instructions to show readers how to use the visualization, for example, is unusual, and most readers will be encountering this type of navigation for the first time, as well as the other visualizations and the overall structure of the book. Furthermore, other non-linear examples have included instructions, such as other Scalar websites and Public Secrets by Sharon Daniel.<sup>73</sup> Those who are not interested in reading a tutorial will still have the option to skip the instructions and figure out navigation themselves. Johnson, after being asked whether she would visit another,

<sup>71</sup> Harmony Johnson, Interview with Harmony Johnson of UBC Press about the Scalar First Nations Project, Email, November 13, 2015.

<sup>72</sup> Ibid.

<sup>73</sup> Daniel, "Public Secrets."

similar website, says, "Absolutely. This site is so cool!"<sup>74</sup> Hopefully, the excitement of reading in a new way will keep readers on the website.

While Scalar was being tested, and before an official partnership with Scalar was formed for the larger project, Lesley Erickson from UBC Press had the following to say about the platform:

Although Scalar's design templates are a bit rigid from a design perspective, it can be adapted to suit the needs of different types of books and projects. For that reason, it would be easier, and more sustainable, to adapt the platform to suit our needs rather than designing an entirely new site that would quickly become obsolete and likely wouldn't meet the needs of future projects. The larger LLKP project also seeks to promote greater collaboration between university research and First Nations communities. Scalar is accessible and fairly user friendly.<sup>75</sup>

Scalar 2's template improves on a lot of the issues with Scalar 1, especially concerning responsiveness. However, as with Scalar 1's template, as well as templates in general, because the template comes first, it tends to dictate the way the website looks and is used. Ideally, most websites would be customized to their needs and content to create the best reading experience possible, but creating a customized website is very expensive and time consuming. Much more research and testing also comes with creating a customized website, since it's all new territory. Furthermore, some would argue that the similarity between websites creates a better user experience because visitors know what to expect, and that this experience is "a reflection of what users expect from a website."<sup>76</sup> This could potentially be a strong point of Scalar 2's template, since its design is much more generic and clean, having a bar at the top where users can access menus in an intuitive way. However, the possibility remains that having a generic design for a very non-generic type of website could work against the website's goal of encouraging visitors to read in a new way. In any case, the upcoming creation of UBC Press's Indigenous knowledge project will be an exciting enterprise to test audience response to Scalar's platform, hopefully discovering new and better ways to read and design for the Web.

<sup>74</sup> Johnson, Interview with Harmony Johnson.

<sup>75</sup> Erickson, Interview with Lesley Erickson.

<sup>76</sup> Antonio Pratas, "Every Website Looks the Same, and That's OK," *Web Designer Depot*, accessed December 18, 2015, http://www.webdesignerdepot.com/2015/10/every-website-looks-the-same-and-thats-ok/.

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