DIGITAL HUMANITIES | RESEARCH ARTICLE

# Traces of humanity: Echoes of social and cultural experience in physical objects and digital surrogates in the University of Victoria Libraries

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# Traces of humanity: Echoes of social and cultural experience in physical objects and digital surrogates in the University of Victoria Libraries

Robbyn Gordon Lanning[1]* and Jonathan B. Bengtson[2]

**Abstract:** The relationships between primary source materials and their digital surrogates warrant consideration about how different materials translate into digitized forms. Physical primary source materials found in library special collections and archives and their digital surrogates challenge the viewer to consider what these objects are communicating through their materiality or lack thereof. For example, how does a clay tablet represent itself digitally, as compared to a parchment manuscript, or a paper accounts book? What qualities, stories or narratives do these resources communicate in their original forms, as digital surrogates, or when engaged with together, and how do these differ? How do both physical and digital resources serve as archival objects with the ability to reflect our social and cultural experiences—and indeed our humanity—back to us? As more and more library and museum resources are digitized and made open to researchers, such questions must be addressed as the use and reuse of digital surrogates becomes increasingly complex as digital scholarship evolves.

**Subjects:** Aesthetics; Art & Visual Culture; Digital Imaging; Humanities; Information Science; Information Technology; Librarianship; Material Culture; Social History of Art; Visual Anthropology

**Keywords:** digital humanities; digital libraries; digitization; materiality; material culture; special collections; archives; collective memory; libraries; visual studies

### ABOUT THE AUTHORS

Robbyn Gordon Lanning holds an interdisciplinary master degree (visual anthropology and art history) from the University of Victoria, and is a master of library information science student at the University of Washington Information School. Her research interests include collecting and curatorial practice, photography and identity and digital humanities.

Jonathan B. Bengtson is the University Librarian at the University of Victoria. He has been director of academic and special libraries in Canada, the US and the UK, including University of St. Michael's College at the University of Toronto and the Queen's College, Oxford. Lanning and Bengtson's combined interests in the transition of print to digital resources and the enduring power of books in all forms resulted in this collaboration.

### PUBLIC INTEREST STATEMENT

Through an introduction to resources held at the University of Victoria Libraries, this article investigates the relationships between objects found in special collections and archives and their digital surrogates. By asking questions about how various artistic materials, including clay, animal skin or paper, appear differently when digitized; how physical and digital resources convey alternative types of information; and how analogue and electronic documents communicate stories about human experience; the authors of this paper reflect on how digital and physical resources can be used together to enhance or produce complementary types of knowledge. The social and cultural significance of "traces of humanity"—evidence of human use or workmanship—found in physical books, digital reproductions and hybrid works (digitally created or influenced physical books) is also explored.

The relationships between primary source materials and their digital surrogates warrant consideration about how different materials translate into digitized forms. Physical primary source materials found in library special collections and archives and their digital surrogates challenge the viewer to consider what these objects are communicating through their materiality or lack thereof. For example, how does a clay tablet represent itself digitally, as compared to a parchment manuscript, or a paper accounts book? What qualities, stories or narratives do these resources communicate in their original forms, as digital surrogates, or when engaged with together, and how do these differ? How do both physical and digital resources serve as archival objects with the ability to reflect our social and cultural experiences—and indeed our humanity—back to us? As more and more library and museum resources are digitized and made open to researchers, such questions must be addressed as the use and reuse of digital surrogates becomes increasingly complex as digital scholarship evolves.

Creating digital surrogates of library, special collections and archive resources and making them available to the public domain provides librarians and archivists the opportunity to offer users immediate and unfettered access to resources and collections. The digitization of cultural heritage items—full text resources, objects and ephemera alike—is an increasingly viable and essential way for information organizations to make the resources they hold accessible and expose them to analysis using a wider variety of digital tools (Clough, 2013, p. 41). Online collections of digital surrogates serve to provide rapid and remote access to high-demand materials: they can virtually reunite works and collections separated by geographical location; possess the ability to enhance and manipulate the colour, size and positioning of resources allowing for new insights into and readings of previously studied works; render books and the text they contain searchable, discoverable and primed for mathematical, text mark-up (and other) processing through transcription and optical character recognition (OCR); enhance the interrelatedness of the objects and their meanings through the linking of data; be integrated into a variety of learning materials; facilitate communal and collaborative research processes; reduce the handling of, and conserve, fragile and rare specimens; and, decrease financial costs associated with travel to and analogue reproduction of items for research (Bengtson, 2001, p. 192; Clough, 2013, p. 6; Terras, 2011, pp. 46–47, 49–50).

The integration of digitized items into publicly accessible online cultural heritage collections also allows for, and helps encourage, collaborative, interdisciplinary and community-focused participation in the creation of knowledge (Bengtson, 2001, p. 192; Clough, 2013, p. 2). Through independent search functions, interactive game play and lesson plans, wiki interfaces and user-generated feedback and commenting forums, members of the public are able to investigate the aspects of the collections they most want to learn about, seek answers to the questions and contribute to the archive by sharing their own stories and analysis: such democratization of knowledge is a key, though yet fully realized, outcome of digitization (Clough, 2013, p. 31).

As technology continues to develop, new tools such as hyperspectral cameras, 3-D printers and sophisticated linguistic analysis approaches, provide researchers with new data-sets and innovative avenues for research. These tools allow us to see in more detail, investigate previously unexamined aspects of physical resources (for instance, using spectral analysis),and even create or re-make physical forms from historic and literary descriptions (Morgan, 2014; Sayers, 2014). The creation of digital surrogates brings with it the potential for gaining deeper insights into the technologies and materials used during certain time periods, as well as the motivations behind the initial creation of certain objects, accompanied by the social and cultural identities they influenced (Sayers, 2014).

The digitization of cultural heritage resources of course comes with a number of challenges. Choosing what to digitize and when (or sometimes what not to digitize) reflects institutional priorities and biases that are determined by factors such as the interests of various stakeholders (including librarians, archivists, donors and scholars), financial and human resources available (Bengtson, 2001, p. 193), and the popularity of a particular subject at any given time. Similarly, bias may also be

embedded into the metadata of digital surrogates through subjective and interpretive transcription and description processes.

Technical issues with digitization processes such as poor or inconsistent quality of images, technological malfunctions, differences in how the human eye and digitization technology (scanners, cameras, etc.) perceive light, variations in the viewing conditions of end-users (including monitor quality or colour calibration) or the absence of colour targets and measurement bars to contextualize pigmentation and scale can make it difficult for those using digital surrogates to accurately perceive the size, texture, weight, chroma or other physical characteristics of a resource (Taylor, 2010, p. 175; Terras, 2011, p. 52). The size and shape of the artefact itself may also make capturing a digital surrogate that is visually representative of the item challenging. Depending on the surrogate, details of the object's materiality may become ambiguous or lost completely (Taylor, 2010, p. 177). While many institutions have established best-practice guidelines for digitization to circumvent these issues, standards can vary from institution to institution, or even from project to project, and are not always adhered to, thus leading to inconsistency between digital surrogates (Bengtson, 2001, p. 204; Taylor, 2010, p. 176; Clough, 2013, p. 6).

Also influencing the quality and appearance of surrogates is the proposed end-use for the digitized resource: creating digital surrogates for a limited term exhibition is likely to require the production of different file formats, size configurations, and types of metadata generated than a surrogate produced for scholarly use as part of a permanent research collection (Taylor, 2010, p. 176). Time too has its role to play: as technology develops, resolution rates that were previously considered of high quality become outmoded, undesirable, and even unusable.

Storage media and data formats degrade or become obsolete with the passage of time. As a result, data migration processes and software emulators are required to conserve digital resources, just as physical resources require suitable environmental infrastructure for preservation. Digital surrogates that exist as part of larger digital humanities projects require additional consideration. Digital humanists and librarians need to ask how and when a DH project ends. Should the project and its related surrogates be deleted, remain in stasis to be preserved in a virtual environment, or be forward migrated for continued use? Copyright too can be a tremendous challenge in the creation and sharing of digital surrogates—libraries and other institutions must be careful to comply with complex and often ambiguous international and national copyright legislation.

Many of the challenges may appear mechanical in nature or appear to reduce books and special collections resources into fragments or discrete aspects of a whole or complete resource. Anyone who has a love of books, who experiences a feeling of wonderment when visiting a special collections or becomes impassioned when presented with an ancient artefact, knows that such items are more than the sum of their parts. Books and other cultural heritage resources embody social and cultural histories (Bengtson, 2001, p. 194). They provide us with physical and phenomenological links to the past—not only through their textual and illustrative content but through their physicality; their touch, feel, smell, sound and material presence (Taylor, 2010, p. 180). Primary resources are capable of eliciting strong emotional responses, curiosity and a quest for knowledge when viewed or interacted with (Clough, 2013, p. 5; Conway, 2010, p. 431, 459; Taylor, 2010, p. 177). As new technologies are introduced and written traditions change, individuals adapt to or are enculturated with the performative knowledge of how to use the documents they read (Bengtson, 2006, p. 6); the layouts of newspapers, paperback novels, scrolling webpages and smartphones each elicit significantly different patterns of usage and cerebral experiences (Bengtson, 2001, p. 194; Rosenwald, 2015; Taylor, 2010, p. 175, 177).

The University of Victoria's (UVic) Special Collections contain an array of materials illustrative of the complex nature of physical resources. The holdings represent a range of documents produced using a variety of materials. For instance, a Sumerian cuneiform tablet records a receipt for copper tools received (Figure 1). Made from a deeply hued sepia clay, burnished with age and dating to

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**Figure 1. Cuneiform tablet of Amar-Suen (2046–2038 BCE).**

Source: University of Victoria Libraries, Brown Collection, 1989-69-1.



2,000 years BCE, keen-edged text characters are impressed into the slab's kiln-hardened surface. Contrasting the cool density of the Sumerian clay is an Egyptian papyrus fragment dating from approximately 200 BCE (Figure 2). Containing an ode to the sun god in Hieratic writing (a text form short-hand alternative to hieroglyphs), the woven reeds form a gossamer foundation to convey swiftly drawn characters made with a dark and now-fading ink. Finally, a thirteenth-century (c. 1201 CE) charter granting land to an Abbey by Hubert de Burgh (d.1243), Chamberlain to King John and Justiciar of England is inscribed on vellum with a heraldic seal attached (Figure 3). The waxen hide of the animal—hair follicles still visibly discernible—was stretched and conditioned to create a
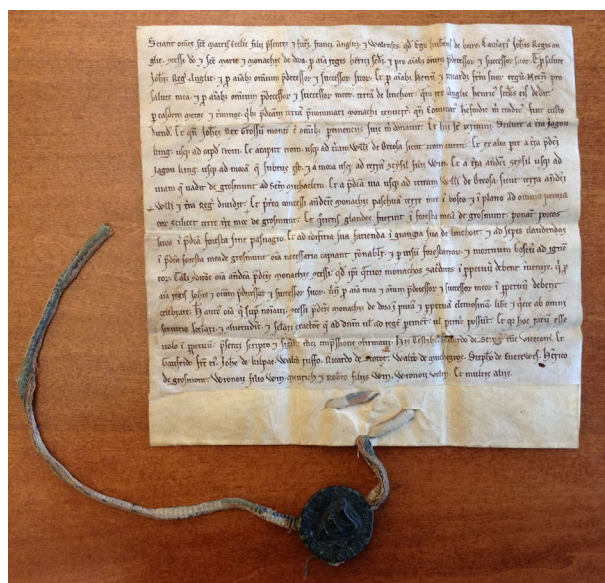
**Figure 2. Papyrus fragment containing ode to the sun god.**

Source: University of Victoria Libraries, Brown Collection, 2013-039.
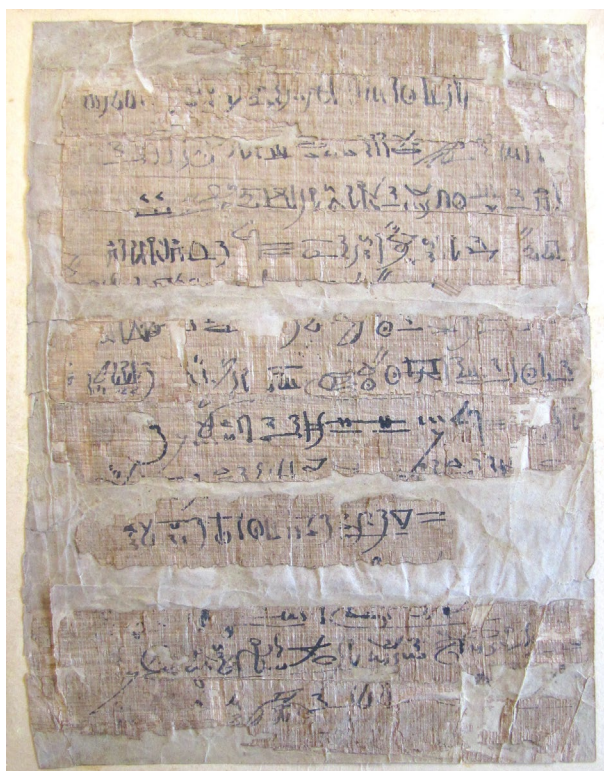
**Figure 3. Land granting charter from Hubert de Burgh (d.1243), Chamberlain to King John and Justiciar of England.**

Source: University of Victoria Libraries, 1989-069-2.



flexible and enduring record well suited for transport. The physical characteristics of each of the materials used to produce these documents vary greatly. Some surfaces are smooth or rigid, others malleable or rough. The ways in which the materiality of each of these documents is interpreted by the viewer, how one "feels" when confronted with their distinct physicalities, whether animal skin, plant or earthen materials, is a subjective experience (Conway, 2010, p. 431; Miller, 2014; Taylor, 2010, p. 181). Such variations in the surface, though perhaps not the size, of various materials can be well represented by high quality digitization and even make it easier to read the texts in digital form compared to the originals. However, what is harder to capture, without engaging directly with the objects, is the sense of how they were intended to be used by their creators.

Consider, for instance, the sixteenth–seventeenth-century English Genealogical Roll in the UVic Special Collections. The roll is one foot five inches wide by twenty-one feet long, and was created using nine animal skins (Figure 4). The document is kept in a compact (rolled) state, however, when uncoiled is striking in its physical appearance due to its remarkable length and decorative embellishments. Multi-coloured floral motifs of green, blue, pink, red, yellow and grey pigments with brown, silver and gold detailing create a frame enclosing the lineage. The genealogy traces decent from Ethelbert of Kent in the sixth century (the first English king to convert to Christianity), through to Henry VI in the fifteenth century and is accompanied by a parallel papal linage and significant historical events. Undoubtedly, the document would have been designed to visually astound its viewers as it was likely used to associate the lineage of its patron to the royal court or papacy. The roll form itself, when unfurled, physically expresses a notion of continuity and visually reaffirms the preordained destiny of the royal line it presents. Commissioning such a work was an expensive undertaking due to the animal skins, pigments and tools used, as well as the artisans required to produce the labour-intensive calligraphy and design. It would also be difficult to view the roll other than by looking at short segments at a time unless its possessor owned a table of considerable length. It is likely the roll was experienced most often as a linear unveiling, digested by the reader in brief sections of the whole. The English Genealogical Roll can arguably be seen as an embodiment of human designs or devotion; its materiality potentially inspiring awe and loyalty in its viewers.

How might a creating a digital surrogate of this item enhance its physical counterpart? The substantial length of the genealogical roll, not to mention the faded quality of much of the text (in particular, many of the names on the genealogical tree are almost unreadable until such a time as it is digitized using a hyperspectral camera or similar technology) would make producing a single

**Figure 4. English genealogical roll (detail).**

Source: University of Victoria Libraries, Brown Collection, 1989-069-6. http://www.uvic.ca/library/locations/home/spcoll/collections/medieval/ms-brown-lat-1.php.



cohesive spatially impressive digital surrogate of the artefact a challenge. However, digitization technology could be used to create an on-screen "scrollable" digital surrogate that could be used as a learning aid. For example, a digital surrogate of the roll could be annotated to provide transcriptions of its text, biographies of the individuals represented or a range of disciplinary context and other relevant information. Potentially, the surrogate could also be manipulated (or linked to additional manipulated images) that render hard-to-see portions of the roll more distinct; or even to recreate the experience of viewing the roll in parts in the same manner as a reader of the physical roll would.

Human contact with and usage of books also influences the ways in which we interpret and relate with them (Mak, 2011). One interesting example from UVic Special Collections is the 1667 *Mellificium Chirurgiæ* by Dr James Cooke (Figure 5). A medical reference manual used during the seventeenth century, the doctor using this text would have taken it with him as a reference tool wherever he needed to go. As a result the object contains evidence of the continual use this resource underwent—the protective leather cover has generated a patina from frequent handling over the years, the pages are dog-eared and worn.

When the back cover of the volume is opened, or the leaves of the book are examined, there are examples of marginalia and other post-production embellishments which provide clues as to how and by whom the book has been used over the centuries (Figures 6 and 7).

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**Figure 5.** *Mellificium Chirurgiæ* by Dr James Cooke, 1667.

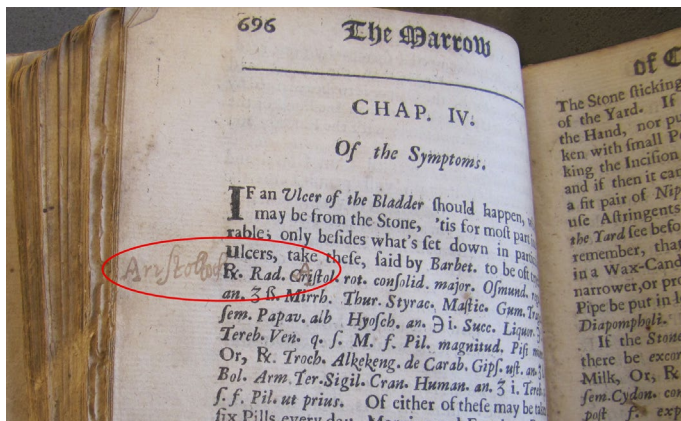Source: University of Victoria Libraries, RD30 C66 1676.



**Figure 6. Example of marginalia in** *Mellificium Chirurgiæ* **by Dr James Cooke, 1667 (detail).**

Source: University of Victoria Libraries, RD30 C66 1676.



**Figure 7. Annotation in** *Mellificium Chirurgiæ* **by Dr James Cooke, 1667 (detail).**

Source: University of Victoria Libraries, RD30 C66 1676.

The physicians who used travelling medical manuals such as this often also owned a modest home library for more detailed reference. Relationships between marginalia found in the travelling medical texts can often be drawn to the static collection. Teasing out these connections between texts can be complex. A travelling manual may be collected and digitized as a singular resource, removed from its greater context in the physician's collection or through institutional collaboration, it may be reunited with the greater collection through digital surrogates. If brought together via institutional collaboration and electronic copies, it is possible that a greater understanding of the texts, those that use them, as well as their medical and social-cultural impact could be investigated.

Diaries, arguably the most personal kind of document people create, also elicit an emotional response. When handling well-worn, personal and pocket-sized books such as Archie Will's 1916–1917 First World War diaries (Figure 8), viewers are brought closer to the thoughts and events described in the diaries, or perhaps find themselves transported to the trenches alongside Archie and the Canadian Field Artillery 58th Battalion. Knowledge of their past proximity to the text's creator during harrowing circumstances, along with their well-worn appearance and hand-written contributions, such objects have the power to evoke both collective and individual memory. In addition to the powerful textual narratives within, the original object of the diary itself can become a conduit imparting lived experiences, communicating histories and even connecting us with those long dead (Miller, 2014). Indeed, as evidenced through the collection of religious relics, travel souvenirs and museum artefacts, humankind has a significant history of connecting physical items with people, ideas, places and events (Miller, 2014).

The value we place on objects, and the types of knowledge we choose to derive from them is fluid. Since the late 1940s in particular, libraries and special collections have moved from exclusively privileging "high culture" resources to include items that represent an array of popular and folk social and cultural histories (Bengtson, 2001, p. 189; Miller, 2014). This shift has influenced the kinds of objects being collected: increasingly objects of ephemera and the "everyday", news clippings, posters, zines, buttons and even promotional pens,[1] are being accumulated for what they can tell us about our own social and cultural histories—how we shape and are shaped by the commonplace things in our lives (Bengtson, 2001, p. 190; Devor, 2014, pp. 38–39; Miller, 2014).

Two items that simultaneously encompass both the mundane and extraordinary are held in the Peggy and Nicolas Abkhazi fonds. Nicholas, an exiled Georgian prince, and Peggy Abkhazi (*nee*



**Figure 8. Archie Wills, War Diaries, 1916–1917 (Volumes 1–5).**

Source: University of Victoria Libraries, Archie Wills Fonds, 3.11 2005-36.

Pemberton Carter) are known internationally for the rhododendron garden they developed in Victoria, British Columbia. An archive consisting of their manuscripts, photographs, correspondence and memorabilia is held at the University of Victoria Libraries. The first of these objects is a civilian internee's armband assigned to Peggy (Figure 9). Made of red cotton, and numbered "B2268", Peggy was interned in the Lunghua Prison Camp in Shanghai by the Japanese from 1943 to 1945. The armband bares evidence of customization: Peggy's initials, "P. P-C." are hand-written into the backside of the garment providing more personal identification than the number assigned to her. In addition, hand-sewn snap-fasteners have been added to the band to provide a customized fit for her slender arms.

The second item, a prisoner of War sign Nicolas Abkhazi was made to wear when he was interned in Germany during the Second World War (Figure 10). The rope, board and string have all been made smooth with continual wear. Both objects have been digitized and are publicly accessible online, currently through the Libraries' Content DM interface.

These objects from UVic's Abkhazi fonds are fashioned out of simple, inexpensive materials, however are of profound significance both for what they represent to the individuals that wore them, and to the international community who are still, in many ways, grappling with the events of the Second World War. These are physical objects that speak to intangible ideas. They can evoke

**Figure 9. Civilian internee's armband assigned to Peggy Pemberton Carter Abkhazi.**

Source: University of Victoria Libraries, Abkhazi Fonds, 1990.068.1.8.2. http://contentdm.library.uvic.ca/cdm/compoundobject/collection/abkhazi/id/264/rec/11.



**Figure 10. Prisoner of War number on a piece of wood strung on rope and string.**

Source: University of Victoria Libraries, Abkhazi Fonds, 1990.068.2.12. http://contentdm.library.uvic.ca/cdm/compoundobject/collection/abkhazi/id/288/rec/32.

emotions of fear and grief, and they can speak to the mixed triumph of survival. The materials the Abkhazi fonds objects were made from were easily accessible and not meant to last. Their disposable nature hints at their historical value, and the worth assigned to those that wore them (Bengtson, 2001, p. 200). The endurance of these ephemeral, "throw-away" objects serves to strengthen their present-day value as cultural signifiers far beyond the inexpensive materials they are made from.

The meaning conveyed through the physicality of these objects leads digital humanists and information professionals working with such items to question if it is possible for some digital surrogates to convey the same transcendental experience as primary source materials do. As special collections are increasingly accessed electronically, questions arise as to what role digital surrogates play in communicating such emotive forms of knowledge. How do, or can, these bits of ephemera work in conjunction with their digital surrogates, and how might we enrich the stories these objects tell using digital tools? It is the intangible and emotive qualities that books, manuscripts and other artefacts possess that may be most challenging to communicate through a digital surrogate. The knowledge that people distant from us in years, geography and social and cultural practice, commissioned, created, bought, sold, traded, used and reused such items in their daily lives, during both commonplace and incredible experiences holds immense potential to create empathy and understanding. As the production of digital ephemera in the form of Facebook, Twitter and Tumblr posts increases exponentially, we can reflect on the value and meaning that may be ascribed in the future to any of these newly generated born digital documents that survive.

Many of the resources we have discussed thus far have been reproduced with care and individual attention by the University of Victoria Libraries' digitization team.[2] But what of mass-produced digital surrogates? How does the large-scale digitization of primary source material effect the quality and nature of digital surrogates? Mass digitization projects by not-for-profit institutions and commercial companies can influence the quality accuracy, and usability of digital resources. For example, both the Open Content Alliance, administered by the non-profit Internet Archive and working with various universities and archives (as well as commercial partners) from around the world, and the corporation Google, are part of large-scale digitization projects to make books and information accessible for the public domain. Both entities are working towards scanning and preserving the entire full-text holdings of university libraries, indeed with the ambitious goal of making the "world's written heritage" freely accessible online (Bengtson, 2006, p. 3). The Open Content Alliance however, strives to produce high-quality digital surrogates while collaborating with copyrighted content owners to take care in complying with copyright laws. Alternatively, Google has repeatedly come under fire for failing to comply with copyright legislation or correct errors in digital surrogates produced through automated digitization processes (Bengtson, 2006, pp. 2–3; Conway, 2015, pp. 52–53; About: What is the Open Content Alliance?, n.d.).[3] How are these differences in digitization, preservation and dissemination practices influencing the digital culture we create?

The errors and anomalies present in the corpus of Google's digitized books are so ubiquitous that a Tumblr page, The *Art of Google Books*, was created by Krissy Wilson, currently an instructional designer at DePaul University.[4] Viewers visiting the page can view a wide range of screen-captured evidence illustrating uncorrected mistakes in resources digitized by Google (Wilson, n.d.). Digitized images of hands covering text (Figure 11), ink-blotches in damaged documents (Figure 12), aftermarket hand-colouring (for example, children using a text as an impromptu colouring book) and marginalia (Figures 13 and 14), torn pages, obscured illustrations (Figure 15) and unintended moiré patterns (Figure 16) are featured.[5] Wilson likens the digitization process as part the visual art process of *rephotography*, which she describes as taking a photograph of an existing photograph or other item of visual culture (Fleischer, 2012). Thus, the Google employees documenting book pages are seen as the authors of newly created digital surrogates which possess both the potential to provide insights into photographic processes and exist as aesthetic images in their own right (Fleischer, 2012). Google's emphasis on the speed in its digitization project has an impact on which physical resource becomes the "primary copy" for research. Whether these images are viewed as reproductions or originals, they are evidence of a corporate reality: for Google, spending time searching for

**Figure 11. Image of a Google employee's hand covering the page.**

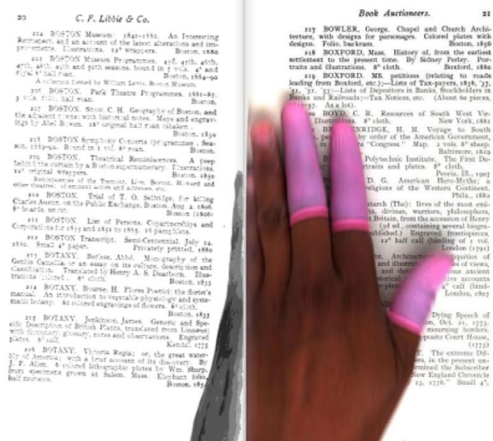Source: Featured in *Art of Google Books*. From pp. 20–21 of *Auction Catalogue, pt. 2* by C.F. Libbie & Co (1750). http://theartofgooglebooks.tumblr.com/image/104766093100.



**Figure 12. Ink-stains in *Rosalynde* or, *Euphues' Golden Legacy* by Thomas Lodge (1910).**

Source: Featured in *Art of Google Books*. Original from the University of Michigan. Digitized October 10, 2007. http://theartofgooglebooks.tumblr.com/image/104707682190.
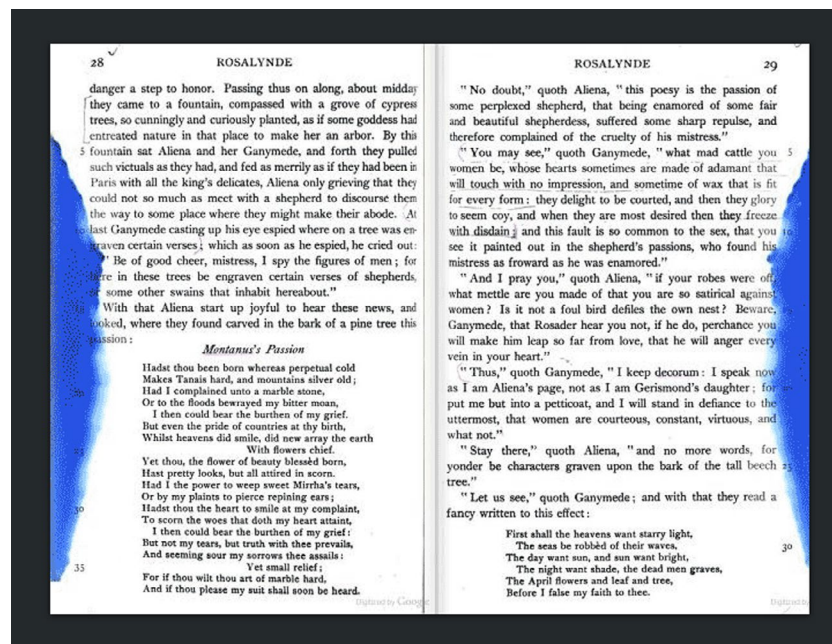


the "best" copy is not a priority. Though this decision does not account for bibliographic variance or even readability of resources, it does impact how these valuable physical resources will be represented for future generations. It needs to be determined whether the variance (and readability) of primary source material is worth preserving, and if so, determining ways in which this can be accomplished.

**Figure 13. Black and white illustrations hand-coloured-in by a child in *Alnomuc* or, *The Golden Rule* by John H. Amory (1837).**

Source: Featured in *Art of Google Books*. Original from the New York Public Library. Digitized May 18, 2007. http://40.media.tumblr.com/4f0d77457d2b1da2924f928873992eb1/tumblr_nf1lztkTBU1qixa76o3_1280.png.
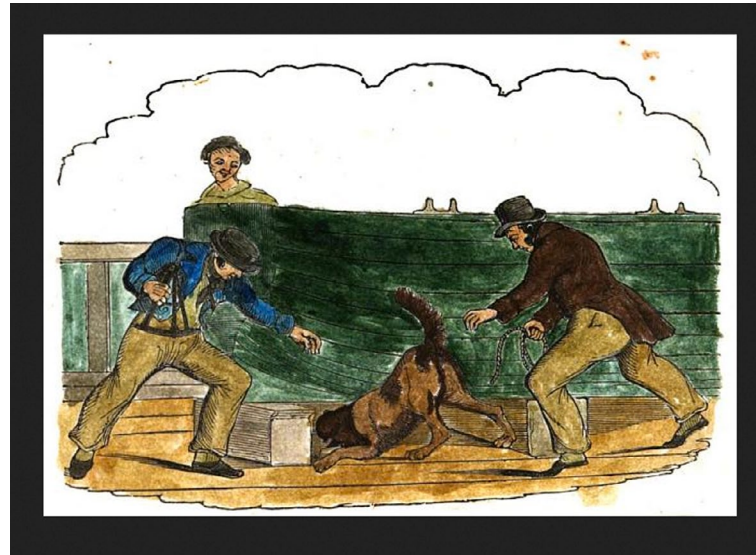


**Figure 14. Eighteenth-century marginalia from the front matter of *Nouvelle Pratique d'Arithmétique* (1697).**

Source: Featured in *Art of Google Books*. Original from Lyon Public Library. Digitized May 30, 2012. http://41.media.tumblr.com/ e4b65f508d969ecb9d069b7258a38fed/tumblr_nezku7P1YU1qixa76o1_500.png.
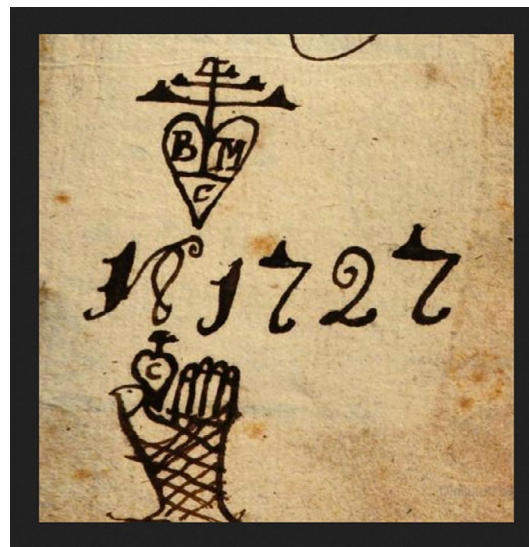


**Figure 15. Illustration photographed through folded tissue, pages 54–55 of "The Eagle's Nest" in *The Valley of Sixt* by Sir Alfred Wills (1860).**

Source: Featured in *Art of Google Books*. Original from Oxford University. Digitized June 15, 2006. http://theartofgooglebooks.tumblr.com/image/102240403325.
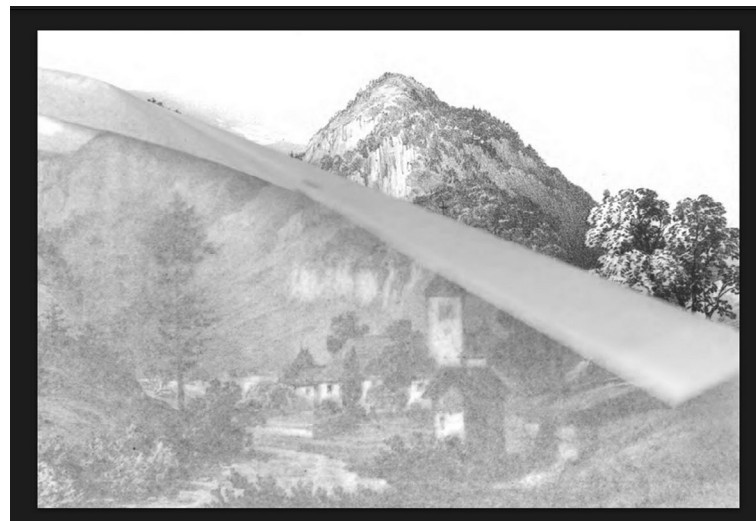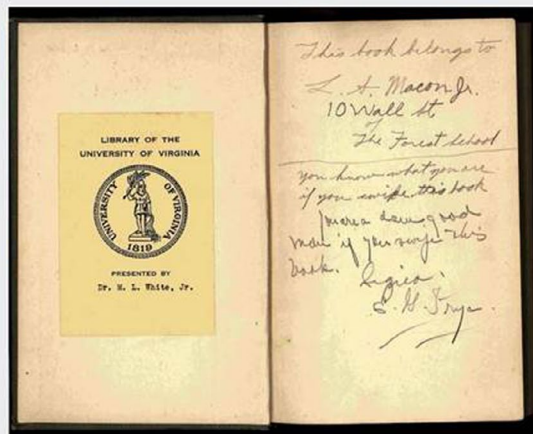
**Figure 16. Unintended moiré in *Alpha Portland Cement for Eternity* (1913).**

Source: Featured in *Art of Google Books*. Original from the New York Public Library. Digitized September 28, 2010. http://41.media.tumblr.com/015aeb9d74487b679922b6c7127e461d/tumblr_nbbvjoIVJz1qixa76o4_1280.png.
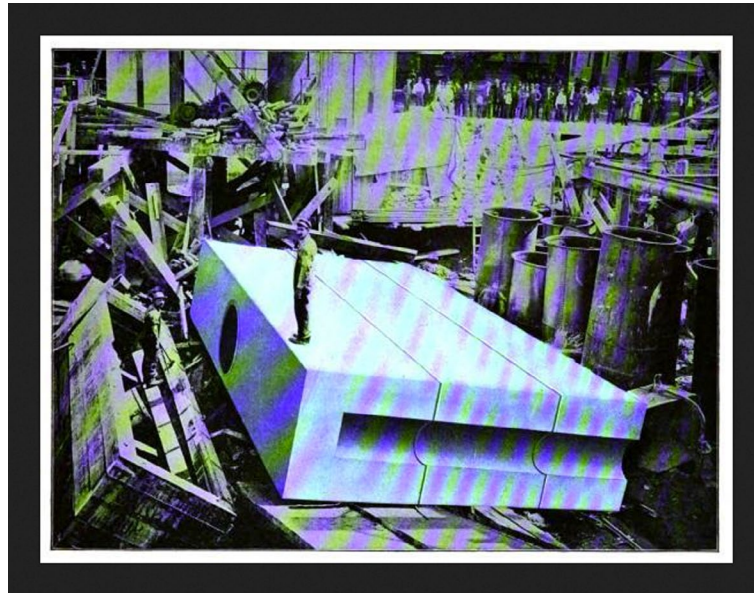


**Figure 17. Warning to potential book thieves in *Treasure Island* by Robert Louis Stevenson.**

Note: The warning reads: "This book belongs to L.A. Macon Jr. 10 Wall St |of The Forest School | you know what you are if you swipe this book | Signed | E. H. Frye | (*following, in a different hand*). |you are a darn good man if you swipe this book. Featured in *Book Traces*. Source: From "Book Traces [Tumblr blog]," ed. by G. Hurley (2015), Book Traces, Copyright 2014 by A. Stauffer. Reprinted with permission. http://booktraces.tumblr.com/. In January 2016 Stauffer visited the University of Victoria conducting a "Traces in the Stacks" workshop which lead keen members of the campus community through the McPherson library in search of human additions made to UVic's collection of nineteenth century books. A range of unique embellishments and ephemera where found, including personal dedications, annotations, drawings, bits of ribbon, and even book plates signifying the texts as awards to students for work performed (Figure 18).

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**Figure 18. Prize for Fred Maynard, 1884 in *Saved by the Lifeboat* by R. M. Ballantyne.**

Notes: Text located in University of Victoria Libraries, featured in Book Traces (http://www.booktraces.org/book-submission-saved-by-the-lifeboat/). Source: "Book Traces", Copyright 2016 by A. Stauffer. Reprinted with permission.



Like the anomalies present in manuscripts, books and primary source objects, surrogates created from these resources constitute archival materials and collections in their own right. The "Book Traces" blog, spearheaded by University of Virginia professor Andrew Stauffer, is a crowd-funded web project designed to work against the speed-focused wide-scale digitization of library materials through the creation of an alternative digital record of marginalia, annotations, inserts and other customizations made to nineteenth century books. Library users discovering customizations made to books by their original owners are asked to digitally photograph and submit a copy of what they find with as much contextual information as possible. Annotations, drawings, poems and even cautions written for those who might deign to steal a book constitute cultural production (Figure 17). Stauffer (2014) argues that the variety of customizations and additions to texts made by original book owners constitutes a unique body historical of data that is both being overlooked by large-scale digitization projects and subsequently being discarded by university libraries down-sizing their collections as a result of the aforementioned digital archive being produced.

Mistakes and idiosyncrasies, whether deliberate or unintentional, or other forms of evidence of the digitization process used to produce these re-presentations, and the corresponding metadata encoded into them, demonstrate the uniqueness of surrogates (Conway, 2015, pp. 52–53) and a "trace" of the human role in producing them.[6] Similar to the way Dickens' serials were manufactured en masse by factory workers due to nineteenth-century advances in printing technologies,[7] the digital surrogates of today represent a blend of new technological tools and old-fashioned manual labour (Conway, 2015, p. 55)—in particular people are employed, as evidenced by Google's large-scale digitization programme, in the labour-intensive activity of turning pages. Nowadays we look at surviving editions of the once thought to be mass-produced *Pickwick Papers* with a sense of value for the social and cultural evidence embodied in their pages. Perhaps in the future, digital surrogates will be seen in a similar light.

The Saint John's Bible—Heritage Edition is a unique blend of both an original resource and a cutting-edge high-quality digitally produced surrogate. The original Saint John's Bible is the first handwritten illuminated bible to be commissioned by a Benedictine monastery since the advent of the printing press. Each two foot by one and a half foot pages in the seven-volume set are made of

**Figure 19. Correction of missing line in the Saint John's Bible Heritage Edition, Volume 3, Book of Wisdom.**

Note: "Error Treatment, Bumblebee", by Sarah Harris and Chris Tomlin, Copyright 2006, The Saint John's Bible, Saint John's University, Collegeville, Minnesota USA. Scripture quotations are from the New Revised Standard Version of the Bible, Catholic Edition, Copyright 1993, 1989 National Council of the Churches of Christ in the United States of America. Used by permission. All rights reserved. Source: University of Victoria, Centre for Studies in Religion and Society.



**Figure 20. Qur'an, China, 1 leaf in Sini Script (detail).**

Source: University of Victoria Libraries, 2005-010.

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translucent vellum, with the text and images being marked using hand-ground pigments and further adorned with gold and platinum leaf. A new calligraphic script was developed by the project's Artistic Director, Donald Jackson, for the bible's text and was applied using feather quills and Chinese black ink. The Heritage Edition, of which a total of 299 copies will be made is a full-size fine art reproduction of the Saint John's Bible. Printed on custom-made 100% cotton paper, the text and images of the original bible were digitally reproduced and transferred via an ultraviolet wet ink printing process using the Heidelberg XL-105 press. Exacting care was taken to ensure that image and colour quality in the Heritage Edition texts were reflective of the original source. Gold and silver foil was added by hand to each of the Heritage Editions to mimic the gold and platinum leafing of the original. This mixture of digital reproductive techniques and unique hand-embellishing makes the Saint John's Bible Heritage Edition a true hybrid of original artistry and digital duplication.

Adding to the complexity of these hybrid documents includes the fact that the original Saint John's Bible also made use of digital technology in its production. Its page layouts and line breaks were developed on a computer. Despite this pre-planning, several omissions of text can be found throughout the volumes; these have been whimsically corrected using various birds, insects and animals to "deliver" the missing lines from the page margins to their rightful place (Figure 19). Similarly, the text overflowing the bounds of the left-hand margin on UVic's copy of an eighteenth-century Qur'an may demonstrate an unintentional error (or lack of spatial planning) on the part of the document's calligrapher in keeping the text within the manuscript's frame (Figure 20).

Digital surrogates are imperfect clones. They, like photographs, photocopies and earlier types of facsimiles are products of the times, cultures and circumstances in which they are produced (Bengtson, 2001, p. 199). Digital humanists, students, scholars, and everyday readers are drawn to these works, forming engaged communities of bibliophiles interpreting and producing their own new products from both the intellectual content and physical properties of previously existing texts (Burdick, Drucker, Lunenfeld, Presner, & Schnapp, 2012, pp. 10–11; Samuels & McGann, 1999, p. 26). The practice of generative scholarship (whether it manifests as intellectual, digital, or physical creation) brings together a diverse cohort of individuals through the performative act of creation—what makes such action so engaging is that it can occur anywhere—online and in classrooms, libraries, makerspaces, basement workshops and beyond. As with the marginalia on the *Mellificium Chirurgiæ*, the inclusion of hands, moiré patterns or distortions caused by the scanning process are a contextualization and communication of our present-day relationships to texts, objects, archives, collections, and, of course, digital surrogates. As new digital technologies emerge, and an increasing amount of documents are born digital or, like the Saint John's Bible, as a hybrid primary and surrogate resource, the ways we think about digitization processes as producing potentially less "authentic" or valuable artefacts are likely to change. Depending on the provenance, reproduction quality and even the anomalous "traces" of humanity they contain, digital surrogates can be seen as trustworthy objects of mediated information (Terras, 2011, p. 55). Like other objects contained within a library, archive or museum, surrogates hold power. They may be used as a means to remember, or their absence or erasure as a way to forget. Digital surrogates are politically charged; they accrue cultural, institutional and political capital. This is perhaps most visibly evident through digital repatriation projects, such as the Inuvialuit Living History Project, that aim to reconnect Indigenous objects and knowledge long held in information institutions with their communities of origin (Christen, Bell, & Turin, 2012). Often, digital repatriation is a first step towards the repatriation of physical resources. Viewed from a technological standpoint, digital surrogates are more easily manipulated than original physical sources, their use is flexible and can be repurposed to become part of something new in a way not possible with original documents. Increasingly, resources that have not been made into digital surrogates are viewed as so inaccessible they might as well not exist (Conway, 2015, p. 52). This in itself is a telling indication of the value digital surrogates will hold for information institutions such as libraries and museums in the upcoming years. Our desire to digitize is perhaps only matched by our compulsion to collect and interact with physical objects. At present, libraries are the spaces where in we can foster such human experiences to co-exist.

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## Cover image
Mellificium Chirurgiæ by Dr James Cooke, 1667.
Source: University of Victoria Libraries, RD30 C66 1676.
Photograph by Robbyn Gordon Lanning.

## Notes
1. For example, the University of Victoria's "Transgender Archives" ( http://www.uvic.ca/transgenderarchives/) holds a number of ballpoint pens marked with the name of Reed Erikson's Educational Foundation (Devor, 2014, pp. 38–39).
2. For insights into the challenges faced by UVic Libraries' Digitization Team (see DeWolfe, 2015).
3. Despite such criticisms, the American judicial system has ruled in support of Google's practices as not infringing on copyright, but rather as being a value-added fair use research tool that increases access to and preserves texts (*Google wins legal victory*, 2013; McSherry, 2013).
4. http://theartofgooglebooks.tumblr.com/.
5. Note. Figures 11–16 from "Art of Google Books [Tumblr blog]," by K. Wilson, Copyright 2015 by K. Wilson. Reprinted with permission.
6. Any one of these examples could potentially connected by linked data to form vast online collections of marginalia, hand-coloured images, etc.
7. Increased literacy levels also played a significant role in the demand for serials in Victorian-era periodical publications.

## References
About: What is the Open Content Alliance? (n.d.). *Open content alliance*. Retrieved from http://www.opencontentalliance.org/about/
Bengtson, J. B. (2001). Reinventing the treasure room: The role of special collections librarianship in the 21st century. In F. C. Lynden (Ed.), *Advances in librarianship* (Vol. 25, pp. 187–207). Bingley: Emerald Group.
Bengtson, J. B. (2006). The birth of the universal library: 'The Open Content Alliance is our opportunity to shape the future of access to information, writes Jonathan B. Bengtson'. *Net Connect, 2006*, 2–6.
Burdick, A., Drucker, J., Lunenfeld, P., Presner, T., & Schnapp, J. (2012). *Digital_Humanities*. Cambridge: Massachusetts Institute of Technology Press.
Christen, K., Bell, J., & Turin, M. (2012, January 31). The digital return: Digital repatriation and indigenous knowledge [Blog post]. *PLOS Blogs: Diverse Perspectives on Science and Medicine*. Retrieved from http://blogs.plos.org/neuroanthropology/2012/01/31/the-digital-return-digital-repatriation-and-indigenous-knowledge/
Clough, G. W. (2013). *Best of both worlds: Museums, libraries, and archives in a digital age*. Washington, DC: Smithsonian Institution. http://dx.doi.org/10.5479/si.9780981950013
Conway, P. (2010). Modes of seeing: Digitized photographic archives and the experienced user. *The American Archivist, 73*, 425–462. http://dx.doi.org/10.17723/aarc.73.2.mp275470663n5907
Conway, P. (2015). Digital transformations and the archival nature of surrogates. *Archival Science, 15*, 51–69. http://dx.doi.org/10.1007/s10502-014-9219-z
Devor, A. H. (2014). *The transgender archives: Foundations for the future*. Victoria: University of Victoria.
DeWolfe, C. (2015, April 28). Glitches and imperfections [Blog post]. *The open book: Digitization at UVic Libraries*. Retrieved from https://onlineacademiccommunity.uvic.ca/theopenbook/2015/04/28/glitches-and-imperfections/
Fleischer, V. (2012, February 15). Q&A: The art of google books. *PBS Newshow Art Beat*. Retrieved from http://www.pbs.org/newshour/art/qa-the-art-of-google-books/
Google wins legal victory in quest to digitize world's books. (2013, November 14). *CBC Books*. Retrieved from http://www.cbc.ca/books/2013/11/google-wins-legal-victory-in-quest-to-digitize-worlds-books.html
Hurley, G. (2015, June). *Book Traces [Tumblr]*. Retrieved from http://booktraces.tumblr.com/
Mak, B. (2011). Introduction. In B. Mak (Ed.), *How the page matters* (pp. 3–8). Toronto: University of Toronto Press.
McSherry, C. (2013, November 14). Court upholds legality of Google Books: Tremendous victory for fair use and the public interest. *Electronic frontier foundation: Defending your rights in the digital world*. Retrieved from https://www.eff.org/deeplinks/2013/11/court-upholds-legality-google-books-tremendous-victory-fair-use-and-public
Miller, P. N. (2014, August 11). How objects speak. *The Chronicle of Higher Education*. Retrieved from http://chronicle.com/article/How-Objects-Speak/148177/
Morgan, D. (2014, September 25). *Drawings by L. Bienfait now on GitHub. Maker Lab in the Humanities*. Retrieved from http://maker.uvic.ca/bienfait/
Rosenwald, M. S. (2015, February 22). Why digital natives prefer reading in print. Yes, you read that right. *The Washington Post*. Retrieved from http://www.washingtonpost.com/local/why-digital-natives-prefer-reading-in-print-yes-you-read-that-right/2015/02/22/8596ca86-b871-11e4-9423-f3d0a1ec335c_story.html
Samuels, L., & McGann, J. (1999). Deformer and interpretation. *New Literary History, 30*, 25–56.
Sayers, J. (2014, November 24). The relevance of re-making. *Maker Lab in the Humanities*. Retrieved from http://maker.uvic.ca/remaking/
Stauffer, A. (2014). *Book traces: Find unique copies of 19th- and early 20th-century books on library shelves*. Retrieved from http://www.booktraces.org/about/
Taylor, B. L. (2010). Reconsidering digital surrogates: Toward a viewer-oriented model of the gallery experience. In S. H. Dudley (Ed.), *Museum materialities: Objects, engagements, interpretations* (pp. 175–184). New York, NY: Routledge.
Terras, M. (2011). Artefacts and errors: Acknowledging issues of representation in the digital imaging of ancient texts. In F. Fischer, C. Fritze, & G. Vogeler. (Eds.), *Codicology and palaeography in the digital age 2* (pp. 43–61). Norderstedt: Books on Demand. Retrieved from http://discovery.ucl.ac.uk/171362/
Wilson, K. (n.d.). *The art of google books—The adversaria of Google Books: Captured mark of the hand of digitization as rephotography*. Retrieved from http://theartofgooglebooks.tumblr.com/

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