

"The Face in The Fun-House Mirror"— How E-books, Apps, and Other Realities Are Changing the Face of Special Collections

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Abstract:

The future face of special collections, if we look at extant emergent forms of collection materials, will be a very different than that of 100 years ago. Starting with William Gibson's controversial_Agrippa_, the changes to the underlying means of literary conveyance, the re-definitons of "literature," the very meaning of what is a "book", and the production of e-books are all considered as agents of future change. An exam Dennis Moserination utilizing a current e-book project will be made of how recent technologies such as mobile apps, augmented/virtual realities and environments, combined with the use of digitized special collections materials, are continuing the push towards the "dematerialization of the art object" that comes from contemporary and postmodernist literary and art theory of the 20th Century. These new forms demonstrate a merging of traditionally disparate media, as evidenced by the development of apps and ebooks for smartphones and other mobile devices.

These often intensely software- and technology-based works will also drive new directions in the preservation of cultural heritage, disrupt the traditional markets of collecting with ripple effects for sellers and buyers, and reflect changes in the aesthetics and mechanics of both creative and scholarly communication. These changes themselves are affecting how special collections will provide service to users, the manner in which users access and use the collections, and perhaps even how we think of special collections in the future.

I. Prologue — From Object to Collection and Beyond

The future face of special collections — if we consider the extant and emergent forms of collection materials —will be a very different one than that of 100 years ago. With the controversial "Agrippa" by William Gibson et alia as a starting point, the changes to the underlying means of literary conveyance, the re-definitions of "literature," the very meaning of what is a "book", and the production of e-books are all considered in their roles as change agents of the face of special collections. An examination of several current e-books will be made of how recent technologies such as mobile apps, augmented/virtual realities and environments, combined with the use of digitized special collections materials, are continuing the push towards the "dematerialization of the art object" that comes from contemporary and postmodernist literary and art theory of the 20th Century. These new forms demonstrate a merging of traditionally disparate media, as evidenced by the development of apps and e-books for smartphones and other mobile devices.

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II. From Analog to Digital Realities: The Dematerialization and Disembodiment of the Text and Book as Object—

For several centuries, the book has been the essential carrier of text; text had achieved a primacy of communicative and aesthetic power, though often joined with the visual arts to enhance its impact. Text-carrying objects of significant cultural and artistic value were, and continue to be, collected by institutions in a global context, though often such collecting activities were often not informed of each other; libraries, archives, and museums might collect examples of identical objects for divergent reasons or might collect different objects for highly convergent missions, and yet never share this information. Over time, such collections have developed distinct characteristics, characteristics as defined by the physical objects therein as much as the institutions themselves. This is really simply a reflection of extant — if not sometimes monolithic — attitudes about the significance of objects, what constitutes "art" or "culture" in a greater context, or how we perceive cultural value in the majority of Western societies.

If special collections can be seen as reflecting the broader strokes of the greater societies in which they exist, then they also reflect, to a lesser or greater degree, the changes occurring within those societies. The late nineteenth and early twentieth centuries were periods in which significant changes in attitudes toward art, aesthetics, and concepts of "value" as well as "culture," began to take place. By the late 1960's, these concepts of cultural value had changed dramatically. The concept of the art "object" was now "art as concept" and it was no longer mandatory that an "object" be the outcome of the creative process. Literature was not immune from such considerations, though the transformation would not be as quick as the visual arts. Take, for example, these two statements from Sol Lewitt's "Sentences on Conceptual Art1":

"Since no form is intrinsically superior to another, the artist may use any form, from an expression of words (written or spoken) to physical reality, equally.

If words are used, and they proceed from ideas about art, then they are art and not literature; numbers are not mathematics."

If words are used, and they proceed from ideas about art ... consider the following four examples that definitely qualify as "artists' books" but also consider the breadth of differences that embody.

A. Agrippa (a book of the dead)

On 9 December 1992, some 550 years after the printing press made the widespread physical distribution of text possible, a shift in the opposite direction took place with the release of a project entitled "Agrippa (a book of the dead)". This artist's book, created by writer William Gibson and visual artist Dennis Ashbaugh, had been conceived by publisher Kevin Begos Jr.

Begos had originally discussed the idea with Ashbaugh that they "put out an art book on computer that vanishes.²" The two of them contacted Gibson, a friend of Ashbaugh from several years earlier, who then provided an electronic text: a 300-line semiautobiographical poem on a 3.5" floppy disk. This disk was embedded in a niche in the back of the book created by Ashbaugh. The text had been programmed to begin to self-erase after the first reading. Ashbaugh had created a set of etchings for the book, printed with a photosensitive ink that would begin to fade upon the first exposure to light. In short, the three men had devised a way to create a self-dematerializing work of literature. This is the descriptive entry from The Center For The Book Arts' Exhibition Archive entry for "Agrippa," accessed May, 2012:

AGRIPPA: (a book of the dead)

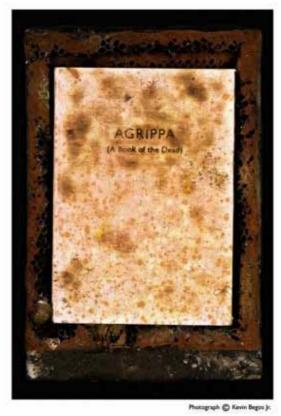
William Gibson Dennis Ashbaugh

The deluxe edition of AGRIPPA was set in Monotype Gill Sans at Golgonooza Letter Foundry, and printed on Rives heavyweight text by the Sun Hill Press and by Kevin Begos Jr. The etchings were made by the artist and editioned by Peter Pettingill on Fabriano Tiepolo paper. The book was handsewn and bound in linen by Karl Foulkes. The housing was designed by the artist, and the encryption code used to destroy the story was created by (BRASH), with help from several other individuals who will go unnamed. The regular edition of AGRIPPA was also set in Monotype Gill Sans, but in a single column page format. It was printed by the Sun Hill Press on Mohawk Superfine text and the reproduction of the etchings were printed on a Canon laser printer. The book was Smythe sewn at Spectrum Bindery and is enclosed in a clamshell box. published by Kevin Begos, Jr.³

The illustrations are all taken from The Agrippa Files website (http://agrippa.english.ucsb.edu/). All the photographs are by the book's publisher, Kevin Begos, Jr.



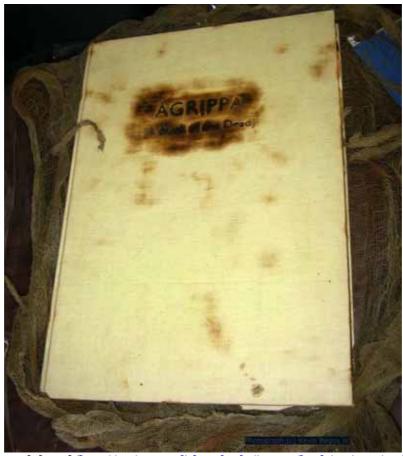
 $Figure~1.~The~case~of~the~book~(\underline{http://agrippa.english.ucsb.edu/images/book/full-images/agrippa-case-fs.jpg)$



 $Figure~2.~Open~Case, without~Shroud~(\underline{http://agrippa.english.ucsb.edu/images/book/full-images/agrippa-case-open-fs.jpg)$



 $Figure~3.~The~book, case, and~shroud~(\underline{http://agrippa.english.ucsb.edu/images/book/full-images/agrippa-case-shroud-fs.jpg)$



 $Figure \ 4. \ The \ book \ cover \ and \ shroud \ (\underline{http://agrippa.english.ucsb.edu/images/book/variants/agrippa-archive1-cover-a-fs.jpg)$

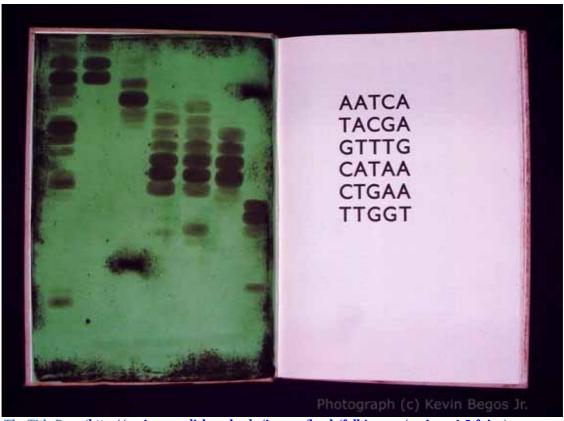


Figure 5. The Title Page (http://agrippa.english.ucsb.edu/images/book/full-images/agrippa-4-5-fs.jpg)

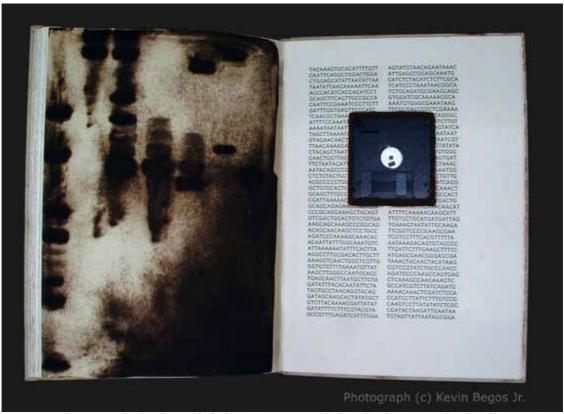


Figure 6. Last page, showing niche for floppy disk (http://agrippa.english.ucsb.edu/images/book/full-images/agrippa-62-63-fs.jpg)

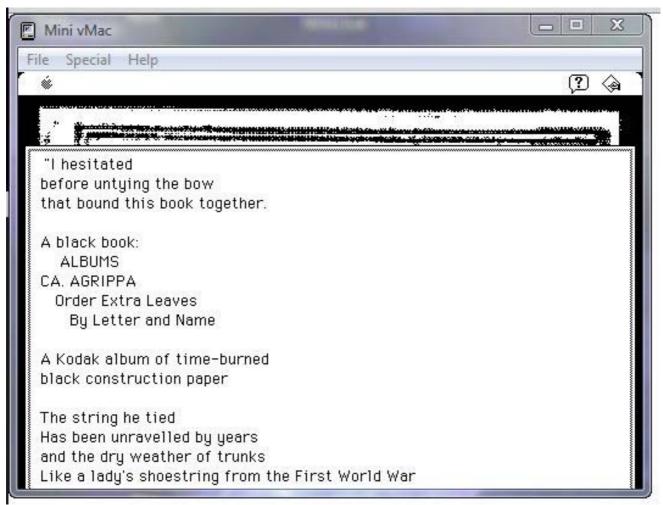


Figure 7. A screenshot of the beginning of Gibson's poem from the disk, running in emulation (this is the text that self-destructed after reading) http://agrippa.english.ucsb.edu/images/emulation/agrippa-emulation4.png

Since the emergence of the World Wide Web roughly twenty years ago, we have taken the mounting of text online as a given, if not an outright expectation. The act of digitization effectively "disembodied" the text, freeing it from a purely physical instantiation. In most cases, one could describe it as a process of "dis-instantiation" as the physical texts now exist as digital texts.

B. Editoras and "amoreodio"

These processes have allowed for the creation of new works that build on this disembodiment and portability. Combining the technology of the smartphone, the compressed information capability of the QR, or "Quick Response⁴," codes, and the near-explosive acceptance of Twitter, new literary forms are being created that combine the digital and the physical "book" object.

In 2009, Brazilian publisher Editoras created a "living book" (http://www.thelivingbook.org/) using two hundred QR codes and utilizing Twitter feeds to update the content of the codes on a weekly basis. The physical object itself is a collection of two hundred QR codes. The codes themselves are "read" by a smartphone to reveal a text derived from a Twitter feed for each page

with its individual code. One half of the codes are about love, the other half is about hate. The content thus revealed changes every seven days, yielding a "book" whose literal content is not human-readable, but is intermediated through the technology of the QR code and continuously changing over time⁵. A blog exists for the Twitter feed; the physical book is currently sold out.

The following are screen captures of the video prepared for "The Living Book" campaign, accessible at the previous URL or here: http://amoreodio.org/.



Figure 8. "Amor" ("Love")— the QR codes and the "Amor" side of the book.



Figure 9. "Amor" content; each page has a QR code with unique content



Figure 10. An "Odio" ("Hate") QR code and Twitter text



Figure 11. The "Odio" cover of the book

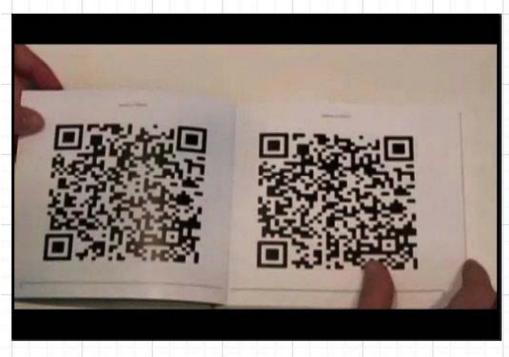


Figure 12. Examples of the "Odio" pages of the book



Figure 13. How to "read" the book

C. "The Fantastic Flying Books of Mr. Morris Lessmore"

The rise of the "ebook" has been the result of some of this same technology applied to the platform of smartphones tablets, and dedicated "ereaders." While there continues to be low-level warfare between the various formats and reading platforms, the artists and writers continue to create works. Some of these works cross categories or appear in multiple — and different — formats. One such purveyor is Moonbot Studios, creators of "The Fantastic Flying Books of Mr. Morris Lessmore."

"The Fantastic Flying Books of Mr. Morris Lessmore" is, on the one hand, an Academy Award-winning Animated Short Film. On the other, it is a highly interactive ebook App⁶ for the iPhone and iPad combining, text, animation, sheet music, and audio into an otherwise seemingly traditional narrative. This App is a purely digital creation, existing only on the reader platform and has no physical form in and of itself. To collect such treasures (and surely after experiencing this beguiling work, one would certainly want to consider it) would require the institution to consider collecting the hardware to support the material. This is, of course, one of the considerations that will need to be made on the part of the special collections libraries of the near future.

The highly interactive nature of this ebook precludes easy screen captures and stills; Moonbot Studios has several trailers that demonstrate the book itself (http://www.moonbotstudios.com/).



Figure 14. Scene from "The Fantastic Flying Books of Mr. Morris Lessmore"



Figure 15. From "The Fantastic Flying Books of Mr. Morris Lessmore"



Figure 16. From "The Fantastic Flying Books of Mr. Morris Lessmore"

D. "Between Page and Screen" by Amaranth Borsuk and Brad Bouse

This final example is a book that transcends the boundaries of the preceding ones. Where "amoreodio" was collection of QR codes, readable by smartphone and whose content changed on a regular basis, "Between Page and Screen" is as much a "book as object" as "Agrippa" but with the interactivity of "The Fantastic Flying Books of Mr. Morris Lessmore." Poet Christain Bök described the book as having "reinvented visual poetry" in a review on the publisher's website⁷. What is about this book in particular, then, that makes it another example of the confluence of "dematerialization," 21st Century book arts, and networked objects?

This description, taken from the publisher's page, explains more specifically:

Coupling the physicality of the printed page with the electric liquidity of the computer screen, Between Page and Screen chronicles a love affair between the characters P and S while taking the reader into a wondrous, augmented reality. The book has no words, only inscrutable black and white geometric patterns that—when seen by a computer webcam—conjure the written word. Reflected on screen, the reader sees himself with open book in hand, language springing alive and shape-shifting with each turn of the page. The story unfolds through a playful and cryptic exchange of letters between P and S as they struggle to define their turbulent relationship. Rich with innuendo, anagrams, etymological and sonic affinities between words, Between Page and Screen takes an almost ecstatic pleasure in language and the act of reading. Merging concrete poetry with conceptual art, "technotext" with epistolary romance, and the tradition of the artist's book with the digital future, Between Page and Screen expands the possibilities of what a book can be. Writer and book artist Amaranth Borsuk and (her husband) developer Brad Bouse, have created a magical space for the reader to discover what lives in the "in-between8"."

The direct interaction of reader, computer web-camera, and the screen-projected content being delivered over the network and changing with each page is a new direction for interactive text and book objects. While seemingly exotic in its use of technology, the book itself pays respect to the long history and tradition of the hand-made book— Amaranth Borsuk speaks about the creation of the physical book:

For the limited edition version, it was important that the book was in dialogue with the history of book art and fine-press printing. The markers that trigger the animation already reminded me of mid-century book artist Dieter Roth – he did all these beautiful cut books where he would cut out shapes and the pages would layer one on top of the other and you would get different designs. And I knew I wanted to work in a square format – which is also a format he used very often. The paper it's printed on is fine-press paper, letter-press printed and hand-bound, in order to take part in that tradition⁹.

Once again, the highly interactive nature of this book precludes easy description or depiction. The image below is a still from an interview; most depictions online are videos that show exactly how the book is experienced. The need for a computer with an attached web camera is obvious and the video shows how that encoded content seems to "pop up" off the book in the computer screen. Likewise, animation of the text is more obvious.



Figure 17. "Between Page and Screen" —(http://news.cnet.com/8301-17938 105-57373708-1/digital-pop-up-book-gets-poetic-with-qr-codes/

This avowed historical perspective suggests a direction for future book-object creation and, in turn, for book collecting. Each of the four titles have qualities of a future that continues to evolve and as institutions charged with the collection and preservation of such object, we will likewise be evolving.

III. Virtual Realities: Collection-Level Experiments in Immersive or Online Environments

"Virtual" reality is, in fact, not a recent concept, particularly if we accept that the concept of "immersion" so integral to what we accept today as "VR" is actually rooted in the 360° panoramas of the mid-19th Century and, perhaps, even earlier in the late Renaissance and Baroque artists creating various spatial illusions. Once hardware, and later, appropriate software, had been developed it became possible create highly individual experiences of this same kind of "trompe l'oeil" and immersion through electronic and digital means. The transition to the virtual environments experienced through personal computer has taken a bit longer, but the rise of video games — such as World of Warcraft or Everquest — utilizing the constructs of these environments has resulted in a kind of ubiquity.

Linden Lab's "Second Life¹⁰" is one of the better-known environments and two of the following examples are specifically situated in it. Experienced through an "avatar," the richness of this environment would be hard to deny and much has been written in the past few years of its growth and impact in the "real" world. The use of Second Life for education and creative arts has led to an interest by cultural heritage institutions as a place for reaching new audiences. Numerous institutions have created virtual presences there, with varying degrees of success.

A. SULAIR's Virtual Archive

The Special Collections and University Archives of Stanford University (SULAIR) has been a leader in the use of Second Life to promote their archive holdings, in 2009 having created the Virtual Archives in Second Life. This labor-intensive effort represents the quintessential elements of an immersive environment and actually encourages the use of virtual reality for research. SULAIR has attempted to create a virtual environment that provides a seamless experience between the Second Life and access to their physical archival holdings. By creating a simulation of their reading room, replete with details such as photo-realistic representations of archival boxes full of documents and photographs, it is actually possible to browse through the collections and "handle" the materials contained inside. Because the Second Life client software utilizes the same protocols as a standard web browser such as Firefox, it is possible to encode these virtual objects in a manner that allows a web browser to open directly to the SULAIR website with additional information about the physical objects being represented. It is thus possible to arrange to view the physical object in the physical reading room in this manner. It is likewise possible to determine if such a trip is necessary at all.

While the selection of surrogates in the SULAIR Virtual Archives is necessarily limited, this initiative shows how such environments could be used by other special collections libraries and archives. One other use that SULAIR has found effective is the mounting of exhibitions in Second Life, utilizing their collection materials. These changing exhibits serve as a way of drawing attention to the physical collections in much that same manner as a "web exhibit" but with the added capabilities that the virtual environment offers.

The following screen captures from Second Life show how a simulation of the reading room, Hollinger boxes, and a Reference Bulleting board have been created for users —



Figure 18. SULAIR's Open air archives (because it never rains in Second Life!)



Figure 19. Instructions on how to use the Archives in Second Life



Figure 20. Virtual Hollinger boxes



Figure 21. Closer view of the boxes

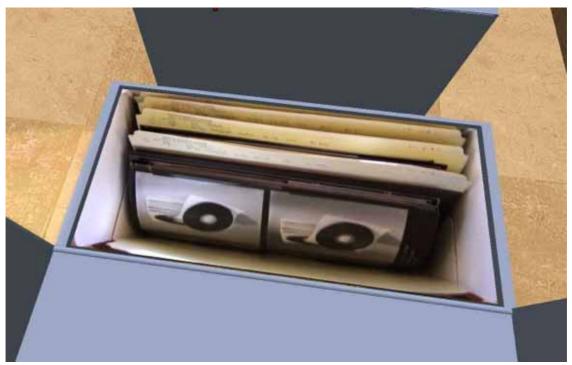


Figure 22. Folder contents



Figure 23. Individual photos and instrucitons on accessing the Finding Aid from Second Life

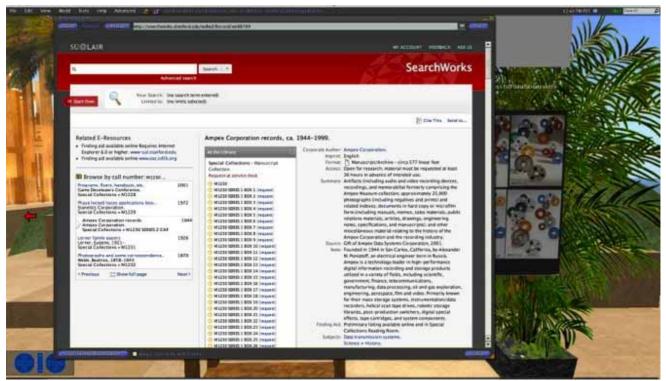


Figure 24. The actual Finding Aid displayed inside the Second Life client software



Figure 25. The Virtual Reference Desk Bulletin Board

B. David Rumsey Maps

What began as a private collection of maps and other cartographic-related materials has since become an example of the application of digitization and immersive reality technologies. The website of the David Rumsey Map Collection of Cartography Associates is, itself, an excellent example of how special collections are being presented online. But Rumsey and Company have taken things a step further by creating immersive versions of maps that can be "experienced" in a three dimensional simulation called Rumsey Map Islands in Second Life¹².

Rumsey has taken maps and "mapped" them to a three dimensional representation showing the elevations of the maps. While these are "three dimensional" representations in the two dimensions of a computer screen, doing so in Second Life and "experiencing" in that immersive environment them via an avatar gives a whole new understanding of the map's qualities. Again, these highly interactive aspects inhibit easy description, but the screen captures do reveal something of the experience.

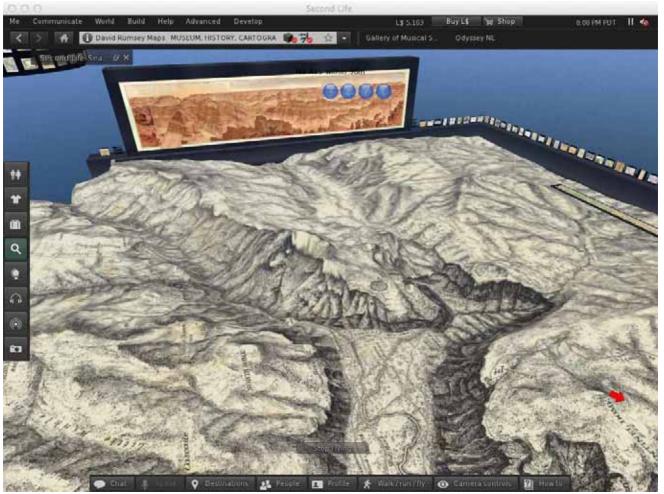


Figure 26. Avatar's aerial view of Rumsey Maps Island, shwoing the 3D presentation



Figure 27. Example of a single map



Figure 28. Avatar surveying a detail of the 3D representation

IV. Future Realities: Today and Tomorrow —

Special collections libraries are embracing the use of tools including social media such as Facebook and Twitter, as well as others that incorporate some of the interactivity seen in some of the preceding examples of objects. QR codes, in particular, are beginning to be used in other parts of the library. Their ability to convey directional information, with links to actual collections, is making them quite effective. Likewise, geocaching has been used both in the UK and the US as an incentive to students to learn more about the libraries. Scott HIbberson¹³ blogs, among other topics, about the specifics of using both QR codes for a murder mystery¹⁴ set in the library and how geocaching can give students a first-hand experience with the library's resources, in this case the Hesburgh Library at the University of Notre Dame¹⁵.

Blogging is not that unusual for libraries, but for special collections there have been some unforeseen benefits. Daryl Green, Acting Rare Books Librarian and Rare Books Cataloguer at the Special Collections department at the University of St Andrews Library, provides us with an explanation in this excerpt from an interview with Brooke S. Palmieri:

"In any given month, a full-time rare books librarian or cataloguer will have worked with dozens, or even hundreds, of books deemed 'special' enough (i.e. old, rare, racy, falling-to-bits, or locally important) to be put aside in a rare books or special collections library. Each of these books have a story to tell, and it is the cataloguer's job to distill the elements of each individual book's history into the most concise description possible to make an accurate, but not too verbose, catalogue record. This process, like most others in the library world, comes with its own set of prescribed and detailed rules which assists in the creation of a uniform and fully indexed catalogue that is the first port-of-call for library users and researchers. However,

the work that we do as rare book cataloguers, sellers and enthusiasts is 90% Sherlock Holmes and 10% Fredson Bowers: the behind-the-scenes story of how a cataloguer found out what bookplate belonged to who — how that person related to a signature found on the title page of the book — the potential story of how that book changed hands — how that book relates to other books in a collection, can be lost in the indexing, classifying and processing and rarely makes it into our finished catalogues.

The ability to express fully the amazement of the job that we do can be realized in the blog format. Cataloguers and librarians are in constant contact with fantastic material, and, sure, some of it may not be of interest to the ultra-scholarly crowd, but recording a cataloguer's or student's initial reactions to having worked with a Nuremberg Chronicle or the first edition of Shelley's Frankenstein, or, The modern Prometheus is just as important as finding out the more esoteric elements of any period of printing. It tells us why these books matter in this age...¹⁶"

Green and Palmieri received further attention from the popular press, as this essay was picked up by The Atlantic¹⁷ a few days after it appeared. Such exposure and positive PR is vital for reinforcing the message of the significance of special collections.

Other rare books curators maintain regular blogs to update and inform the public and their users of what is happening in their institutions. Lynne Thomas, Curator of Rare Books and Special Collections at Northern Illinois University, is tireless in her writing on her blog, "Confessions of a Curator.¹⁸" Thomas is also the co-author, with Beth M. Whittaker, of *Special Collections 2.0: New Technologies for Rare Books, Manuscripts, and Archival Collections*¹⁹. Besides her blog and Twitter feeds, she is an active user of Facebook, sharing news about her collection and the activities there.

Maintaining a presence on Facebook has, like blogging, become more and more of an accepted practice. The creation of institutional accounts, usually through the use of a "fan page," allows an institution to have news and images posted on a regular basis.

The Emmett Chisum Special Collections, at the William R. Coe Libraries of the University of Wyoming, has maintained a Facebook presence for several years (http://www.facebook.com/pages/Emmett-Chisum-Special-Collections-at-UW/109335266282). With rich collections focusing on Wyoming's history and culture, this has had the benefit of bringing the Special Collections to the attention of users. Special Collections librarian Tami Hert has been able to quantify the impact of this presence through increased reference requests and physical visits. Her regular updates, especially those celebrating dates of note for Wyoming such as the foundation of Yellowstone as a national park, allow her to showcase materials digitized from the collection and whet the appetite of researchers and other users.

But one must exercise a modicum of caution in using social media this way, Facebook in particular. In January, 2012, a project by University of Nevada at Reno librarian Donnelyn Curtis was taken offline by Facebook for violations of the terms of service. Curtis had created two profiles for historical figures, Joe McDonald and Leola Lewis, both of whom had been students at the University at the beginning of the 20th Century. Facebook deemed this to be in violation of the ToS, having created an account for someone other than herself without permission. But a creative solution was reached by creating a "fan page" for the two students and so the experiment in sharing the personal and public history was able to continue. Joe has his page —

 $\frac{\text{http://www.facebook.com/pages/Joe-McDonald/274017182657487}}{\text{well} - \frac{\text{http://www.facebook.com/pages/Leola-Lewis/128487107270652}}{\text{http://www.facebook.com/pages/Leola-Lewis/128487107270652}}.$

So what remains is not to ask what will be the face of special collections in the future but rather:

How will you use all of these tools to change the face of your institution?

¹ From Sol Lewitt's "Sentences on Conceptual Art," accessed May, 2012. Literature is not immediately considered when discussing conceptual art, so Levitt's comments are helpful from an historical perspective: http://www.altx.com/vizarts/conceptual.html

http://www.centerforbookarts.org/newsite/exhibits/archive/workdetail.asp?workID=747

http://library.stanford.edu/depts/spc/pubserv/outreach2.htm

http://scotthibberson.co.uk/eLearningLibrary/?page_id=629

¹⁴ "The QR Code Killer" — as described by Scott; accessed May 2012:

http://scotthibberson.co.uk/eLearningLibrary/?p=916

¹⁵ "Caching In At the Libraries," accessed May, 2012:

http://www.librarv.nd.edu/instruction/cachingin/

¹⁶ From an interview with Brooke Palmieri, 15 May, 2012, on the blog "Echoes from the Vault," available at https://standrewsrarebooks.wordpress.com/2012/05/15/bloggers-of-the-world-unite-rare-book-bloggers-and-the-links-they-build/ — accessed May, 2012.

¹⁷ "Chronicling Discovery: The Online Journals of Rare-Book Collectors" by Rebecca Rosen, 17 May 2012; accessed May, 2012:

http://www.theatlantic.com/technology/archive/2012/05/chronicling-discovery-the-online-journals-of-rare-book-collectors/257274/

² Schwenger, Peter (1995). "*Agrippa*, or, The Apocalyptic Book". In Dellamora, Richard. *Postmodern Apocalypse*. Philadelphia: University of Pennsylvania Press. pp. 277–278. <u>ISBN 0-8122-1558-3</u>.

³ Entry accessed May, 2012:

⁴ Accessed May, 2012: http://en.wikipedia.org/wiki/QR_code

⁵ Accessed May, 2012: http://amoreodio.org/amoreodio.php

 $^{^6}$ Accessed May, 2012: <u>http://itunes.apple.com/us/app/the-fantastic-flyingbooks/id438052647?mt=8&ign-mpt=uo%3D4</u>

⁷ Accessed May, 2012: http://www.sigliopress.com/books/bps.htm

⁸ Ibid., Siglio Press has several enthusiastic and perceptive reviews in the sidebar of this page. Johanna Drucker, for example, is quoted, discussing some of the aspects that make this particular title revolutionary.

⁹ Accessed May, 2012; an interview with Amaranth Borsuk by Daily Brink: http://www.dailybrink.com/?p=1934

¹⁰ Accessed May, 2012: https://secondlife.com/whatis/?lang=en-US

¹¹ Direct link to the SULAIR initiative, accessed May, 2012:

¹² A preview video can be seen here, giving a flavor of the experience (accessed May, 2012): http://www.davidrumsey.com/view/articles/second-life-preview

¹³ Blogs have become something of a fixture for libraries; Scott's blog focuses on learning strategies in libraries. He often discusses innovative ways of utilizing various technologies to engage students. Accessed May, 2012:

¹⁸ Lynne's blog can be read, or subscribed to via RSS feed, at http://niurarebooks.blogspot.com/ In addition to her blogging, she is active on both Facebook and Twitter.

¹⁹ http://www.amazon.com/Special-Collections-2-0-Technologies-Manuscripts/dp/1591587204