> "What is decisive in collecting is that the object is detached from all of its original functions in order to enter into the closest conceivable relation to things of the same kind… It is a grand attempt to overcome the wholly irrational character of the object's mere presence at hand through its integration into a new, expressly devised historical system: the collection." (Benjamin, 1999, pp. 204-205)

Collecting has long been an under-considered topic in information studies. Although cultural heritage institutions such as libraries, museums, and archives are invariably the stewards *of* collections, the origins, status and development of the collections they maintain have consistently considered a secondary concern (see Bates, 1999, 2006). However, the current context of collections and collecting activity, as well as the enduring social significance of collecting, proves to be an area ripe for inquiry, as user-centered tools and collecting technologies provide a challenge to the collecting landscape in the digital age. This review asserts that collecting, and collections, remain a key aspect to the theory of information's organization, its social context, using collections as evidence, and collecting access and retrieval across systems.

With the growth of personal, ubiquitous, and social computing, collecting poses more challenges than ever before. Users select and save items via their browser's bookmarks, online shopping carts and wish lists, on their blogs, Pinterest boards, and citation management tools. What's more, the collection process, which is at times framed as individual (Belk, 1995), has been subject to the social turn (Wang, Carley, & Zeng, 2007) in computing. The result is a changed landscape for collecting from the physical to the digital realm.

In their 2010 work, *What's Mine is Yours*, Rachel Botsman and Roo Rogers argue that we have entered an era of *collaborative consumption*, facilitated by social technologies that allow for organized sharing, bartering, trading, renting, swapping, and collectives. This review examines the notion of *collaborative collecting* as a contemporary modality, exploring both the collections that are borne out of social technologies and the process of collecting in a social realm. In order to do so, it is necessary to position the project in a larger body of information science literature.

We can extend Botsman and Rogers' hypothesis that social technologies that have made car sharing and apartment swapping mainstream may facilitate new ways of knowing and being towards collecting. In doing so, we can consider how social sharing can contribute to collaborative memory building. I propose an inquiry into collaborative collecting, as users build collaborative collections as a means of expression and social interaction. Moreover, I argue that this process is a concern of increasing importance for information scholars and those who set out to design new technologies.

I define collaborative collecting as a conscious process of building collections among groups of individuals. Furthermore, we can identify collaborative collecting as a key component of community archives (Flinn, 2010). The means by which collaborative collections take place will become an area of increased importance and attention for information studies, and in particular, archival studies and the design of archival technologies.

The Critical Significance of Collecting

Before examining collaborative collections in light of computing and social media research, I will provide a brief review of collections and collecting's theoretical significance for cultural and critical studies. By doing so, I aim to position this inquiry as part of a larger project of examining the significance of collections in contemporary culture. The history of collections and collecting over the past two centuries reflects larger changes in media, literacy, governance, and social organization. Thus, inquiry into future directions in collecting benefits from an understanding of this history.

Jeremy Braddock (2012) argues that the birth of modern museum collections and the growth of private collecting during the modernist period allowed collections to serve as "a powerful instrument of cultural intervention" (p. 15). The establishment of collecting institutions and the individual experience of collecting allowed for new modes of thinking and knowing. Art collector Dominique De Menil described collecting and the experience of collections in social terms as "an alchemy, by which we all become collectors… rather than passive consumers" (Smart, 2011, p.771). To draw on Walter Benjamin's terms, collecting allows the collector a way to sort and sift through "irrational" orders and historical trajectories to draft new narratives.

Collections, their interpretation, and the experience of such has figured heavily in much of the twentieth century's critical and cultural theory. Jacques Derrida's (1997) work on the archive speaks as much to the implications of memory as to the representational challenges of the physical collection. In his argument, the physical nature of the archive corresponds to an underlying relationship with corporeal bodies—the archive feeds the death drive, and thus exists in service of memory as well as history.

Michel Foucault (1995, 2012) refers to collecting and collections as a means of governance and discipline in organizing intellectual history. The archive generates a discursive realm—multiple possible interpretations and conversations are formed within it. For Foucault, the archive speaks in what it documents as well as what it does not speak in silences of documentation. Scholars working from Foucault argue for "reading against the archival grain" (Stoler, 2009, p. 50), noting the narratives left out of collections as well as those included.

Moreover, much of the work done by radical scholars in the twentieth century (Espiritu, 1993; Fabre & O'Meally, 1994) sought to build archival collections that represented cultural experiences and viewpoints hidden by dominant social and historical narratives. Creating an archive through collecting, then, offers a static assertion of being.

Collecting, especially at the individual and social scale, serves as a counter-hegemonic strategy: challenging dominant narratives and offering new standpoints for understanding social history. Joan Nestle (2011), founder of the Lesbian Herstory Archives, introduces the term *radical archiving* to describe the development of personal and community archives in order to preserve history that would otherwise be lost. Likewise, Verne Harris (2002), a South African archival scholar, employs the term *oppositional memory* in relation to archive-building. In order to engage with the significance of collecting and archiving, we draw on perspectives such as these to demonstrate the incredible power that collecting can yield.

In a more practical sense, the field of community archives lends an important analytical understanding to this review's framing of collaborative collections. Specifically, examining community archival traditions contributes an understanding that informally developed collaborative collections can function in many ways that traditional archives do. Flinn, Stevens and Shepherd (2007) define community archives as "collections of material gathered primarily by members of a given community and over whose use community members exercise some level of control" (p. 73). Such archives, which represent a gathering of collections within social circumstances, articulate social identities as they relate to notions of place and memory.

Using the term *community generated content* to refer to contributions to collections, Flinn (2010) examines the ways in which community archives intersect with social media technologies. He argues that "professional working and historical practice may be newly challenged by community-generated content" (p. 40) but that the challenges are similar, if not identical to those inherent in community archive undertakings. The challenges "remain the same as the ones posed by the emergence of oral history and communities telling their own stories in response to the absences in the sources and orthodox historical narratives" (p. 49).

Social theorists have examined collections and collecting, through lenses of both individual and social interaction. While Belk's (1995) studies are perhaps the most obvious touchpoints for considering collecting as a human behavior, others leverage collecting as a source of social-meaning making. Bourdieu's (1984) work on taste references collecting (e.g. antiques) and visits to museums as

key indicators of taste performance. Likewise, Goffman's (1959) work on self-presentation also touches on collecting activities' role as social identifiers.

A wide reading in critical perspectives on collecting is necessary for developing a lens by which to understand collaborative collecting in contemporary life. The relationship of collecting with the process of identity is directly correspondent to that of its relationship with community. In turn, the use of collecting as a strategy to challenge (or enforce) historical narratives or to enact social change is intrinsically necessary for any consideration of collecting. Because collections loom so large, and are so broadly interpreted in critical theory, it is at times difficult to isolate them as a variable. However, noting these touchpoints equips us to see underlying motivations and their consequences in social life.

Digital Collecting

There are many ways to approach collaborative collecting in terms of computing and technology development. This section of the review focuses on two main areas: work in human-computer interaction (HCI) that approaches collaborative collecting and studies of collecting activities in social media.

Collections and Computing

Several strains of HCI research have examined access to collections, although their emphasis has varied widely. Efforts to explore the capability of system design to facilitate *memory work* (Ackerman & MacDonald, 1996; Ackerman, 1998) intersect with efforts related to specific types of collaborative collections such as shared music collections (Brown & Sellen, 2006). Others have examined shared *media content* (Jacucci, Oulasvirta & Salovaara, 2007), using the term *collective content* (Olsson, 2009) and examining interactions facilitated by collections. Various aspects of personal archiving have been the subject of HCI research (Marshall, 2008; Kaye et al., 2006) and explorations of heritage and memory provide valuable frameworks. Several design methodologies touch on long-term access and preservation (Friedman & Nathan, 2010) although design methods that operationalize archiving have yet to be developed.

Much more work remains to be done to bridge the research done by HCI scholars in order to design operational systems for collecting and the aforementioned work exploring the social aspects of collections. In order to develop critical perspectives on collecting technologies, we must foreground the social significance of collecting.

Social Media and Collecting

While collaborative collections represent a distinct and substantial phenomenon, they exist within a broader media and technology landscape. Understanding context is important for the purpose of framing this study, especially in terms of defining scope and approach. Key elements to consider are the *platforms* (Gillespie, 2010), which facilitate collaborative collecting, and by extension, major analyses that have been done in relation to them.

Journaling platforms, such as livejournal.com, have been the basis of several iterations of analysis (Raynes-Goldie, 2004; Kendall, 2007). Yet while journaling platforms provide several functions that facilitate user and post grouping, they do not allow for explicit collection formation. Similarly, blogging platforms such as Wordpress and Blogspot facilitate the production of a kind of collaborative collection, but do so firmly within the context of specific blogs. Unlike social media platforms, most blogging platforms also feature straightforward content export strategies.

Perhaps the most salient critique of social media platforms is in relation to the "locked" nature of content created in them (Zittrain, 2009). Social media scholars point to the movement from individually owned web sites to the use of platforms as a boon for the ease of content creation (and collection), but with a significant tradeoff for its use. While data portability has become a point of contention for activists, other factors, such as interoperability between platforms and data standards, have received little attention.

Much work has been done within the field of Knowledge Organization on collections within bookmarking sites, such as del.icio.us, CiteULike and Zotero (Kipp and Campbell, 2006; Tonkin et al., 2008). However, the collections built in these sites are largely representational (e.g., the components of collections are links to content). Similarly, bookmarking sites also pose data portability questions, in terms of both contextual relationships within data and interoperability between them.

While blogging and collecting citations demonstrate a few of the possibilities for collaborative collecting, e-commerce presents another site of collaborative and public collecting. Collection features for shopping integrate the aspirational nature of consumer activity with the tools for aggregation and colocation that have developed with the social web. Sites like Polyvore.com (Feldstein & Wilson, 2010) and Pinterest allow users to create and share *sets* and *boards* with images of clothing and other consumer goods. Usually, these are bound by individual accounts, but group collecting has been slowly rolled out as a feature.

Likewise, online retailers such as Amazon.com have long relied on listmaking features (e.g., Listmania) allowing individual users to create topical

groupings (e.g., Yoga Essentials) with narrative content to accompany them. Amazon lists can be shared with family or friends as a "wish" list, but can also be made public as a site of expertise. For example, if I practice yoga and want to demonstrate my expertise in terms of mats, clothing, and other props, making a public Amazon list is a way to do so.

Reviews of products, services, and businesses also represent a realm of collecting. Amazon's reviews host a substantial amount of narrative content, and reviews represent a powerful aspect of the site's use. Review sites such as Yelp.com (Dearman & Truong, 2010) offer the ability to form collections, grouped by business, neighborhood, and personal profiles, documenting public place and habitats. Again, both of these contexts are bounded firmly by individual user accounts and subject identifiers (e.g., place or product).

Other examples of outlying platforms include sites devoted to crafting (e.g., ravelry.com), cooking (e.g., allrecipes.com), and genealogy (e.g., ancestry.com) (see Torrey et al, 2009; Humphreys, 2009). Each represents an emergent practice of collaborative collecting, integrating social media platforms into an applied offline activity. As collaborative collections are a relatively new development in interactive design, it is inevitable that new spaces for them will emerge over time. Developing an understanding of their dynamics within the present context will be valuable to future research and development.

As I have argued, critical theory concerning collecting teaches us that all of the listmaking, citation collection, and compilation is not simply an end unto itself. Collaborative collecting reflects both sociotechnical context and everyday politics. Collecting reflects values, sentiment, and worldview, and collaborative collecting exposes these factors to an added public and social process.

In the next section, I examine larger underlying factors of collaborative collections in light of archival theory. Looking at factors such as intent, curation, identification, and representation, I pose questions for archivists and information scholars going forward. By developing this line of inquiry, I hope to develop a framework for better understanding of how we develop, shape, and maintain collections that form our contemporary archives.

Defining Collaborative Collections: Facets and Features

After examining the social importance of collecting and the landscape of collaborative collecting, I aim next to identify aspects of collaborative collections that differentiate them and pose challenges. In order to move forward in this inquiry, I propose a framework that identifies key components observed in collaborative collections and ground them in archival theory (see Table 1). In research and fieldwork on collaborative collecting I have identified seven factors for key consideration in this review, which include: object-orientation, deliberate

inclusion, collaboration, curation, identification, distribution, and direct data entry.

Collaborative collections are *object-oriented.* I borrow the term from programming, where object oriented languages code data as a collection of interacting *objects*, rather than processes or commands (Abelson, Sussman & Sussman, 1996). Collaborative collections are organized around the object that they contain: metadata, narrative accounts, and discussions all generate from the point of a single object or a grouping. This enables collaboration, but it also sets the stage for the type of contributions possible.

The next distinguishing factor in collaborative collections is their *deliberateness*. While one might argue that a group of reviews for a product or business on Amazon or Yelp constitute a collaborative collection, their grouping is not deliberate. Instead, individual users each cast their accounts in relation to the main entity: the listing for the product or business. The narrative commentary (despite tendencies of users to refer to previous reviews) is ascribed to the main entity, even 1000 word reviews serve a metadata function.

Deliberation is an important factor in both establishing archives and determining agency in social media platforms. Eric Ketelaar (2000) uses the term *archivalization* (from Derrida's (1997) *archivization*) to refer to the deliberate decision to archive something. Likewise, amidst the prevalence of automated aggregation, web crawlers, bots, and search engine optimization, the conscious human effort to save and group digital things is significant and rare.

We can also see deliberate collecting through the lens of Manovich's (2007) notion of the database as a cultural form. Although data is compiled automatically within social media platforms, deliberate grouping of data represents a reinterpretation of the database for expressive and communicative purposes. Collaborative collections embody Manovich's prediction and open up possibilities for not only the creation of collections, but also their use.

Moving forward, collaborative collections must be in some way *collaborative*, resultant of a group effort. Despite the ubiquity of collaborative tools and the "social" promise of social media, most platforms presently are unique in that they allow users to collaboratively gather content for a deliberate purpose. To draw on the previous example of online reviews, the current design of platforms like Amazon and Yelp do not allow users to form groups, a design limitation that curbs the possibility for collaborative collecting (Olsson et al., 2008).

Flinn et al. (2007) assert that community archives exist as "collections of material gathered primarily by members of a given community and over whose use community members exercise some level of control" (p. 151) The ability to assert group identity is key as well: group formations are particularly key in

establishing control. The relationships formed by building collections together, either tacit or explicit, is an area for future consideration.

Curation has become a heavily used term in social media circles, for reasons directly related to the relationship between users, platforms, and digital collections. While the term is used loosely in relation to its more formal connotations in cultural institutions, the functions of selecting, describing, and narrating collections are commonly referred to as curation. Liu (2011) identifies seven activities associated with the vernacular use of the term:

- Preserve and Maintain
- Collect and Archive
- Categorize and Organize
- Edit and Verify
- Synthesize and Craft a Story
- Exhibit and Juxtapose
- Guiding and Conversing (p. 48-52)

Curation is significant for collaborative collections as it signifies labor directly related to building and maintaining collections. Social media platforms offer different models of curation: Flickr relies on a group "moderator," while Facebook groups have "owners." Tumblr blogs, which are assigned to user accounts, accept "submissions" which the main owner can then "publish."

As I noted previously, the relationships between individuals and groups inform and shape collaborative collections. More so, the way that individuals are positioned and designed for users shapes the ways in which they may interact within the platform, including collecting. Thus, the composition of groups within social media platforms relies on the *identification* of individuals. The prevalent form of this is by way of individual accounts and profiles (Gillespie, 2010). The ability to post and share content is a designed feature of platforms, and the development of collaborative collections relies heavily on capabilities for identification.

Perhaps what distinguishes digital collaborative collections most from their analog counterparts is the extent to which their content is *distributed* across physical and virtual spaces and identities. The materials that constitute the collaborative collections in case studies come from multiple users who have either created digital surrogates of analog materials, created original digital materials, or repurposed digital materials found elsewhere. The materials they contribute to collections can be, and often are, held elsewhere. For example, a photograph that has been uploaded to a Facebook group could also be held on a hard drive, a cloud storage space, in another platform account.

In studies of personal digital archives, Marshall (2008) found that users could articulate a set of intentions in putting their materials in a particular place,

proposing a *distributed* model of archiving. Instead of relying on a central digital or physical space in which to organize collections, the collaborative collections process integrates individual, physical, and digital archives, forming a new collection that is distributed in ways that traditional collections are not. Moreover, many of the archival markers, such as provenance and creatorship, are developed through the collaborative process in new and distributed ways.

The last factor of note is the dimension of collections as *directly entered* data. While aggregation and search engine optimization tools often duplicate and recontextualize user data (Gillespie, 2010), the key measure of control in social media collections is the authenticity of the data: by virtue of curation and moderation, spam is kept to a minimum (Brunton, 2012). Because collaborative collections must be deliberate, intention is necessary. Moreover, data must be directly entered in a way that meets the standards of the collaborative.

Moving forward, I propose this framework for collaborative collections as a starting point for examining archival practice. For example, the processes of description and appraisal, which traditionally rely on a linear narrative of how a collection comes to be, must be reexamined in light of the challenges posed by collaborative collections. One step towards doing so might be to recognize the challenges built into data structures, and the importance of recognizing infrastructure (Star and Ruhleder, 1999).

Provenance: Personal and Social

After examining the critical aspects of collecting, the landscape of collaborative collecting, and the ways in which collaborative collections are established, I move forward to the crucial factor of *provenance* (Bearman and Lytle, 1985). Provenance serves as a marker of where a collection has been formed and where parts of a collection disperse or come together. The archival perspective sees the value of materials as "heavily dependent on the context of their creation" and in turn, the "purpose and function" in which materials are then used (Henson, 1993, p. 57).

Collections that are collaborative disrupt the literal reading of provenance that is prevalent in archival theory. Can provenance be collective? Can the simultaneous experience of and asynchronous development of collections enrich our understanding of provenance? Critical archival scholarship remains to be done on developing concepts of provenance that can reflect a rapidly changing media environment. Perspectives such as the records continuum model (Upward, 1996) reflect on the notion of evolving media types, but fail to conceptualize this in terms of archival practice. As Sue McKemmish (1994) notes, collections are "always in a process of becoming" (p. 4). Research on collaborative collecting will then anticipate the layers of provenance that occur in contemporary media

environments and aim to explore their development. Such work would identify key processes in which users identify markers of provenance and ways in which they create meaning and value.

Data Provenance

Archivists have begun to critically examine the developments of e-Science's use of provenance. It is also likely that commercial technologies may capitalize on adapting provenance-based retrieval tools for use. Among the scientific data community (and the e-Science movement), provenance has taken on an increased importance in recent years. *The Provenance Challenge* provides the rationale that provenance "is a critical concept in scientific workflows, since it allows scientists to understand the origin of their results, to repeat their experiments, and to validate the processes that were used to derive data products" (Moreau et al., 2008). They propose elements for provenance-based systems (Moreau, 2000). The ensuing "challenge" programs have developed a "multilayered" approach to data provenance, focusing on areas such as visualization and retrieval (Scheidegger et al., 2007).

Social Provenance

In their archival use, shared items and collections gain meaning and significance as part of larger networks of media and identities. In many media contexts, visibility is afforded to even the most casual viewing and observing. With this, each act of listening or following registers as a measure of the collections and their meaning. (Crawford, 2009). Different registers of meaning may serve as markers of social provenance, as a collection is experienced, built, seen, and contributed to. Collaborative collections are not only sites of collecting, they are experiential destinations. One might argue that each experience of a collection, tracked and traced through platforms, adds yet another layer of provenance.

Eichhorn (2008) suggests we consider new media collecting as a series of "archival genres" which are sites of "power and narrative production" (p. 8).
Collaborative collections present an ever-evolving set of challenges for archival practice. As they develop, they present challenges not just for understanding provenance, but also for ownership and preservation in context. Burton (2006) articulates this concisely as: "archives are always already stories" (p. 20). Collaborative collections allow us to re-imagine archives in light of the possibilities for collecting.

Conclusion: The social value of collaborative collecting

By reviewing the extant literature related to collaborative collections, surveying the landscape in which they are created, and developing factors by which we may analyze them, I have outlined an approach for future work in both the archival studies field and related information science subfields. An interdisciplinary approach is necessary not only to understand and design for future collecting spaces, but also in the practical work of preserving collaborative collections. This review emphasized the significance of collections and collecting as an area of study, computing research that compliments collecting research, areas of archival theory that are particularly relevant to collecting research, and raised a larger question of provenance in relationship to both data curation and archival theory. In conclusion, I hope to reengage with what I assert to be the main contributions of future research into collaborative collections. First, we must develop critical frameworks for conceptualizing collections as collaborative. Next, we can develop and theorize the contexts of collaborative collecting. Finally, we can develop and design functional requirements for systems that facilitate collaborative collecting in order to ensure the enduring value of today's collaborative collections.

References

Abelson, H. (1985). Gerald Jay Sussman with Julie Sussman. *Structure and Interpretation of Computer Programs*. MIT Press.

Ackerman, M. S. (1998). Augmenting organizational memory: A field study of answer garden. *ACM Transactions on Information Systems (TOIS)*, *16*(3), 203–224.

Ackerman, M. S., & McDonald, D. W. (1996). Answer garden 2: Merging organizational memory with collaborative help. In *Proceedings of the 1996 ACM Conference on Computer Supported Cooperative Work* (pp. 97–105).

Bates, M. J. (1999). The invisible substrate of information science. *Journal of the American Society for Information Science*, *50*(12), 1043–1050.

Bates, M. J. (2006). Fundamental forms of information. *Journal of the American Society for Information Science and Technology*, *57*(8), 1033–1045.

Bearman, D. A., & Lytle, R. H. (1985). The power of the principle of provenance. *Archivaria*, *1*(21).

Benjamin, W., & Tiedemann, R. (1999). *The arcades project*. Harvard University Press.

Belk, R. (1995). *Collecting in a consumer society*. Routledge. Retrieved from http://books.google.com/books?hl=en&lr=&id=80moGTqFfQUC&oi=fnd&p

g=PA10&dq=belk+collecting&ots=Lozu-DF3Ba&sig=mt9sSPz3QW60jpQtVoT590VDNNk

Botsman, R., & Rogers, R. (2010). *What's mine is yours: The rise of collaborative consumption*. HarperBusiness. Retrieved from http://books.google.com/books?hl=en&lr=&id=LiC2foFeXQYC&oi=fnd&pg=PR9&dq=botsman+and+rogers&ots=kVsoPXKl-z&sig=5S_1ndQ6fvwPRkeOKsLHEhei6Yw

Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Harvard University Press.

Braddock, J. (2012). *Collecting as Modernist Practice*. Johns Hopkins University Press.

Brown, B., & Sellen, A. (2006). Sharing and listening to music. *Consuming Music Together*, 37-56.

Brunton, F. (2012). Constitutive Interference: Spam and Online Communities.*Representations*, *117*(1), 30-58.

Burton, A. (Ed.). (2006). *Archive stories: facts, fictions, and the writing of history*. Duke University Press Books.

Crawford, K. (2009). Following you: Disciplines of listening in social media.*Continuum: Journal of Media & Cultural Studies*, *23*(4), 525-535.

Dearman, D., & Truong, K. N. (2010, September). Identifying the activities supported by locations with community-authored content. In *Proceedings of the 12th ACM international conference on Ubiquitous computing* (pp. 23-32). ACM.

Derrida, J. (1997). *Archive fever: A Freudian impression*. University of Chicago Press.

Deleuze, G. (1987). *A thousand plateaus : Capitalism and schizophrenia*. Minneapolis: University of Minnesota Press.

Eichhorn, K. (2008). Archival genres: Gathering texts and reading spaces. *Invisible culture*, *12*, 1-10.

Espiritu, Y. (1993). *Asian American panethnicity: Bridging institutions and identities*. Temple University Press. Retrieved from http://books.google.com/books?hl=en&lr=&id=q2BqIYxOghsC&oi=fnd&pg=PR9&dq=asian+american+archives+&ots=abDlJ3d48v&sig=1A4HtedP81ZRNVDKWXSKHQg_cCc

Fabre, G. E., & O'Meally, R. G. (1994). *History and Memory in African-American Culture*. Oxford University Press.

Feldstein, A., & Wilson, B. (2010). Polyvore collaboration: Innovation in informal online affiliation networks. *Procedia - Social and Behavioral Sciences*, *2*(4), 6561–6570. doi:16/j.sbspro.2010.04.066

Flinn, A. (2007). Community histories, community archives: some opportunities and challenges. *Journal of the Society of Archivists*, *28*(2), 151–176.

Flinn, A. (2010). Independent community archives and community-generated content. *Convergence: The International Journal of Research into New Media Technologies*, *16*(1), 39.

Flinn, A., Stevens, M., & Shepherd, E. (2009). Whose memories, whose archives? Independent community archives, autonomy and the mainstream. *Archival Science*, *9*(1), 71-86.

Foucault, M. (2012). *The order of things*. Routledge.

Foucault, M. (1995). *Discipline & punish: The birth of the prison*. Vintage. Retrieved from http://books.google.com/books?hl=en&lr=&id=AVzuf-r22eoC&oi=fnd&pg=PA135&dq=discipline+and+punish&ots=O8uPz-Gytm&sig=zMys7CWjruyxWuLbGYsRYHMymow

Friedman, B., & Nathan, L. P. (2010, April). Multi-lifespan information system design: a research initiative for the hci community. In *Proceedings of the 28th international conference on Human factors in computing systems* (pp. 2243-2246). ACM.

Gillespie, T. (2010). The politics of 'platforms'. *New Media & Society*, *12*(3), 347-364.

Goffman, E. (2002). The presentation of self in everyday life. 1959. *Garden City, NY*.

Harris, V. (2002). The archival sliver: Power, memory, and archives in South Africa. *Archival Science*, *2*(1), 63-86.

Hensen, S. L. (1992). The first shall be first: APPM and its impact on American archival description. *Archivaria*, *1*(35).

Humphreys, S. (2009). The economies within an online social network market: A case study of Ravelry. In *ANZCA 09 annual conference : Communication, Creativity and Global Citizenship*, QUT Brisbane.

Jacucci, G., Oulasvirta, A., & Salovaara, A. (2007). Active construction of experience through mobile media: a field study with implications for recording and sharing. *Personal and Ubiquitous Computing*, *11*(4), 215–234.

Kaye, J. J., Vertesi, J., Avery, S., Dafoe, A., David, S., Onaga, L., … Pinch, T. (2006). To have and to hold: exploring the personal archive. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 275–284).

Kendall, L. (2007). Shout into the wind, and it shouts back:Identity and interactional tensions on LiveJournal. *First Monday*, *12*(9).

Ketelaar, E. (2010). Ten years of archival science. *Archival science*, *10*(4), 345-352.

Kipp, M. E., & Campbell, D. G. (2006). Patterns and inconsistencies in collaborative tagging systems: An examination of tagging practices. *Proceedings of the American Society for Information Science and Technology*, *43*(1), 1–18.

Nestle, J. (2011). An Early Conversation about Gay and Lesbian Archives: From the Pages of The Gay Insurgent, 1978. [ONLINE] Available at: http://www.outhistory.org/wiki/An_Early_Conversation_about_Gay_and_Lesbian_Archives:_From_the_Pages_of_The_Gay_Insurgent,_1978#Voice_2:_Radical_Archiving:_A_Lesbian_Feminist_Perspective_by_Joan_Nestle. [Last Accessed 28 January 2013].

Olsson, T., Toivola, H., Wäljas, M., Väänänen-Vainio-Mattila, K., & Lehikoinen, J. (2009). Collective content as a facilitator of community interaction: A user study of four close-knit communities. *Online Communities and Social Computing*, 246–255.

Manovich, L. (2002). *The language of new media*. MIT press.

Marshall, C. (2008). Rethinking personal digital archiving, Part 1: Four challenges from the field. *D-Lib Magazine*, *14*(3), 2.

McKemmish, S. (1994). Are records ever actual. *The Records Continuum*, 187-203.

Moreau, L., Groth, P., Miles, S., Vazquez-Salceda, J., Ibbotson, J., Jiang, S., ... & Varga, L. (2008). The provenance of electronic data. *Communications of the ACM*, *51*(4), 52-58.

Moreau, L., Freire, J., Futrelle, J., McGrath, R., Myers, J., & Paulson, P. (2008). The open provenance model: An overview. *Provenance and Annotation of Data and Processes*, 323-326.

Raynes-Goldie, K. (2004). Pulling sense out of today's informational chaos: LiveJournal as a site of knowledge creation and sharing. *First Monday*, *9*(12), 2006–1.

Smart, P. G. (2011). *Sacred modern: Faith, activism, and aesthetics in the Menil Collection*. University of Texas Press. Retrieved from http://books.google.com/books?hl=en&lr=&id=BcSD8Zk4JjQC&oi=fnd&pg=PR7&dq=pamela+smart+modern&ots=zXpjIYcLNb&sig=sD1fl808D5JoGR13P8fsLLd1Hgk

Star, S. L., & Ruhleder, K. (1996). Steps toward an ecology of infrastructure: Design and access for large information spaces. *Information systems research*, *7*(1), 111-134.

Stoler, A. L. (2010). *Along the archival grain*. Princeton University Press.

Tonkin, E., Corrado, E. M., Moulaison, H. L., Kipp, M. E. ., Resmin, A., Pfeiffer, H. D., & Zhang, Q. (2008). Collaborative and social tagging networks. *Ariadne*, (54).

Torrey, C., Churchill, E. F., & McDonald, D. W. (2009, April). Learning how: the search for craft knowledge on the internet. In *Proceedings of the 27th international conference on Human factors in computing systems* (pp. 1371-1380). ACM.

Upward, F. (1996). Structuring the records continuum-part one: postcustodial principles and properties. *Archives and Manuscripts*, *24*(2).

Van House, N., & Churchill, E. F. (2008). Technologies of memory: Key issues and critical perspectives. *Memory Studies*, *1*(3), 295.

Wang, F. Y., Carley, K. M., Zeng, D., & Mao, W. (2007). Social computing: From social informatics to social intelligence. *Intelligent Systems, IEEE*, *22*(2), 79–83.

Zittrain, J. (2009). *The future of the internet--and how to stop it*. Yale University Press.

Table 1
Collaborative Collecting: Archival Directions

Features	Definition
Object-oriented	Collections are comprised of objects, between which relationships are either inherent or constructed (Abelson, Sussman, & Sussman, 1996).
Deliberate	Collaborative collections can be defined as *deliberate*, meaning that participation in their creation is done with the specific intent to build upon an established precedent (Ketelaar, 2000).
Collaborative	Collections are *collaborative* when they incorporate the efforts of a group of individuals who are recognized as contributors. Collection materials are gathered centrally, wherein they may be commented on, replied to, reposted, or annotated by collection participants (Flinn, 2007; Olsson et al., 2008).
Curated	Collections are *curated* when the inclusion of materials within them in them is monitored, traced, and tracked. Moreover, curation of materials in collections can occur at several levels, with multiple users and participants annotating and repurposing them. Modes of curation are usually established informally in establishing collections. Different platforms offer different options for and levels of curation (Hogan, 2010; Liu, 2011).
Identifiable and personal	Contributions to collections are *identifiable* and *personal*. Users are identified as they contribute to collections through user profiles. Their contributions are personal, reflecting individual experiences and points of view (Marshall, 2007).
Distributed	Multiple individual participants gather materials in collections collaboratively through a *distributed* set of processes. Collaborative collections differ from traditional collections in that materials are not centrally stored; instead, materials are contributed by individuals and made available through the platform. When that analog originals or master files exist, they are stored within the individual collections of the contributing users (Marshall, 2007).

Directly entered data	The majority of data that constitutes the selected collections is *directly entered*, rather than gathered from other contexts. This is the key difference between a collection and an automatically generated aggregate (Olsson et al, 2008).

Author

Amelia Abreu is a PhD candidate at the Information School, University of Washington. Her research is on preserving new and social media, it informed by Science and Technology Studies, feminism, and cultural studies.