Short Documents, Histories and Archives in the 21St Century

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Archives serve as the protector of public memory, providing access to rich histories and heritage. In the technologically enhanced and highly networked environment of the 21St century, the archival practices of preserving paper-based documents must now turn to born-digital materials. A handwritten letter on personal stationery now takes the form of an email. Business transaction records are no longer stored in filing cabinets but in electronic databases. In many ways, born-digital content are contemporary counterparts for analog or physical objects but invoke a different set of processes for preservation. The changing landscape in information exchange not only marks shifts in the types of archival materials and collections that will need long-term care but also adaptations in archival practice to identify and preserve historic memory[1]. These shifts have resulted in the management of hybrid collections where analog, digitized, and born-digital materials co-exist within the archival space. Digitized materials are often linked to an analog object in the archival collection and may function as an electronic representation of the physical collection items such as a photograph or newspaper article.

The spread of digital information not only marks the increased presence of digital formats in the archival collection but also the visibility of archive initiatives. Personal and community-based archiving efforts have become more prominent and inclusive. Such projects include the Center for History and New Media's "September 11 digital archive"[2], which was created to document and preserve public response and personal accounts of the devastating events that impacted the United States. Contributions are digitally submitted and encompass the stories, photographs, images, videos, and audio from individuals across the country and are now preserved at the Library of Congress[3], which is recognized as the national library of the United States and has one of the primere holdings of digital cultural assets in the world. Bringing together the expertise of preservation and archival professionals, collective memories of a community, and the support of an institution such as the national library benefits the long-term preservation and care of these emergent hybrid collections.

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[1] H. R. Tibbo, *On the Nature and Importance of Archiving in the Digital Age*, "Advances in Computers" 57 (2003), p. 1-67.
[2] http://911digitalarchive.org/.
[3] http://www.loc.gov/index.html.

With the constant evolution of the digital landscape, archival practices must keep pace with the new forms of born-digital content emerging in the information space. The advent of social media technologies has fostered the production of "short documents" (text-based entries that are several words in length), which are representative of a number of social, political, and cultural issues impacting a global community. This paper focuses on one such collection of short documents, the PMAN archive, a personal initiative to collect digital content from microblog sources surrounding the 2009 Moldova parliamentary elections. Short documents and the distinctive attributes they embody provide a key component to the formation of the 21st century archival record.

Social media and the emergence of short documents

In this age of networked digital communication, information is created and disseminated at the global scale. Breaking news from one part of the world can instantaneously reach a worldwide audience. Likewise, that same news item may change in a matter of minutes, replaced by updated information or more pressing and current details. Because of this rapid change, digital information is many times considered dynamic and ephemeral, where it may only last for a short period of time before transforming or disappearing[4]. This ubiquity of information communication is in part facilitated by development and widespread distribution of innovative technologies, such as mobile devices and wireless instruments that allow for ease of transmission and contact. In particular, the development of social media applications to complement the Web 2.0 movement have fostered increased sharing, collaboration and social exchange that allow individuals to better interact as part of a virtual community[5]. Applications such as wiki spaces, blogs, and social networking sites were designed with low barriers for use, allowing people with minimal technical skills to access and communicate information.

As such platforms are becoming a constant fixture in the digital information landscape, the information being shared through these social media technologies have potential implications for what archives may need to preserve. Specifically, the output and content from the short phrases that compose microblog posts have exponentially increased and have gained recognition on an international scale. Considered as "short documents", one of the ways they are created is through the web service, Twitter (https://twitter.com/), which was launched in 2006 and has more than 140 millions of active users[6]. As digital entities, these short documents possess a certain amount of automatically imprinted metadata; for Twitter microblog data, the time and date are included as part of the output without manual input[7]. Given the

[4] D. Caron & R. Brown, *The Documentary Moment in the Digital Age: Establishing New Value Propositions for Public Memory*, "Archivaria" 71 (2011), Spring, p. 1-20.

[5] R. Mason, & F. Rennie, *Using Web 2.0 for learning in the community*, "The Internet and higher education" 10 (2007), 3, p. 196-203.

[6] *Twitter turns six*, [Blog post] 2012, March 21 [= http://blog.twitter.com/2012/03/twitter-turns-six.html].

[7] L. S., *What's in a Tweet*, "The Economist", 2012 [= http://www.economist.com/ blogs/dailychart/ 2011/09/digital-verbosity]. [Accessed December 15, 2012.]

short length of these types of documents, they tend to accumulate quickly, especially when actively following an event, issue, or person. One example is the record set in Japan for New Year's Eve where nearly 7,000 messages were posted in one second on Twitter[8].

Microblogs have been adopted for use by the academic and scholarly community, not only as a device to educate and communicate with colleagues but also as an object of study, as seen in such fields as health communication, consumer behavior, and information science[9]. This platform of communication is also widely utilized by national political and social leaders from around the world; during the 2012 United States presidential elections, president Barack Obama received hundreds of thousands of messages per minute through Twitter in response to a post he made. These responses represented the global community from foreign dignitaries to local supporters, all of whom were able to publicly communicate and be recognized in the same information space which may have been more difficult to display through more traditional media channels[10]. In addition to social media content, other examples of microblogs can be seen in text messaging, instant messaging, or digital audio and video.

In contemporary history, Twitter has garnered attention as the platform utilized in the coordination of a number of political protests, collectively known as "Twitter revolutions". Situated in 2009 Moldova, the first of such "revolutions" is the foundation for the development for the PMAN archive, the authors' personal archiving efforts to document first-hand accounts of the events as they were unfolding on Twitter. The attributes observed in these short documents and the information about the events communicated and documented in these messages presents an analytic space for conceptualizing the archival document of the 21ˢᵗ century and their preservation for future use.

Case: PMAN Archive

On April 5, 2009, parliamentary elections took place in the young democratic republic of Moldova. The exit polls showed a majority of votes for the Communist party, which would allow them to once more nominate the new president. A handful of young people decided to start an "I am anti-Communist" flash-mob, a sudden silent assembly to mourn the "no future" situation they believed would ensue with the continuation of Communist governance[11]. The news about the 'silent

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[8] *Celebration New Year with a new Twitter record* [Blog post], 2011, January 6 [= http://blog.twitter.com/2011/01/celebrating-new-year-with-new-tweet.html].

[9] A. Java, X. Song, T. Finin, & B. Tseng, *Why we twitter: understanding microblogging usage and communities*, in *Proceedings of the 9ᵗʰ WebKDD and 1ˢᵗ SNA-KDD 2007 workshop on Web mining and social network analysis*, 2007, p. 56–65; K. L. Costello, & J. Priem, *Archiving scholars' tweets*, in *Proceedings of the Fourth Annual Society of American Archivists Research Forum*, Chicago, IL, 2011.

[10] *Election Night* [Blog post], 2012, November 6 [= http://blog.twitter.com/2012/11/election-night-2012.html].

[11] Unimedia, *Mii de tineri protestează în centrul Chișinăului în acest moment împotriva fraudării alegerilor și regimului comunist*, 2009, April 6 [= http://unimedia.info/stiri/-10238.html].

protest' were transmitted through online and mobile technologies, including Twitter, blogs, SMS, along with face-to-face discussions. On the evening of April 6, approximately 10,000 people showed up at the protest calling for free elections, pro-European and pro-democratic measures.

In the following day, the number of protesters tripled as they gathered at the National Assembly Square in Chisinau, the capital of Moldova. Violence towards the police forces and vandalism of the Presidential and the Parliament buildings broke out as the protests escalated. Police arrested more than 200 people, yet there was no official broadcast about these arrests on national television and in the succeeding days, three people were reported dead. Moldovan president Vladimir Voronin condemned the violence and called the events "an anti-constitutional coup" organized by the leaders of opposition parties. Further declarations by the government also incriminated Romania as being involved in sustaining the protesters. The social unrest was followed not only by those in Chişinău but also by people from all over the world. Since the Moldovan state television "ignored the protests most of the day"[12], the primary timely sources of information about these events were posted through social media outlets. Twitter was one of the leading platforms through which information about the events was shared and discussed.

The protests resulted in a recount of election votes. No great frauds surfaced and the Communist party remained in power. However, since the elected Parliament failed to nominate the new president, additional elections took place in July 2009. This time, the Communist party won again the majority of seats in the Parliament but it did not get the majority needed to name the president.

Contents of the PMAN archive

The common identifier chosen and used by the digital community to report on the election events through Twitter was "PMAN", which stands for "Piata Marii Adunari Nationale" otherwise recognized as the public square in Chisinau where protesters gathered. This identifier fostered the creation of the PMAN Archive, a personal archiving endeavor that comprises Twitter digital media content surrounding the Parliamentary election events. With over 20,000 posts created in the span of 4 days by approximately 1800 users, these posts represent one of the first instances where a dramatic rise in social media use was seen to report on social unrest. Deemed a "Twitter Revolution"[13], the important role that social media tools had in influencing pro-democratic protests in Moldova was recognize[14]. Subsequent

[12] Nicu Popescu, *An European response to Moldova's «Twitter Revolution»*, "European Council of Foreign Relations", 2009, April 7 [= http://ecfr.eu/content/entry/commentary_an_eu_response_to_moldovas_twitter_revolution_popescu/].
[13] Evgeny Morozov, *Moldova's Twitter Revolution*, "Foreign Policy", 2009, April 7 [=http://neteffect.foreignpolicy.com/posts/2009/04/07/moldovas_twitter_revolution] [Accessed December 20, 2010]
[14] M. Forte, *This failed revolution, powered by Twitter: Revising the recurring themes of the Moldova Twitter Revolution, and raising some new doubts* [Blog post], 2010, January 21 [= http://webography.wordpress.com/2010/01/21/this-failed-revolution-powered-by-twitter-revisiting-the-recurring-themes-of-the-moldova-twitter-revolution-and-raising-some-new-doubts/].

"revolutions" were witnessed in the 2009-2010 Iranian elections protest[15] and the 2011 Tunisian revolution[16], further supporting the widespread use of social media devices and the value of content transmitted.

Figure 1. The first message posted on Twitter regarding the use of #pman for the Moldovan parliamentary election protests

Displayed in Figure 1 is the first Twitter message that brought worldwide attention to protests in a small country in Eastern Europe. The message is shown in the Twitter web interface, similar to how the public would be able to view and interact with the content within that social media platform. At the top of the figure is the user's full name or chosen identity ("Vitalie Eşanu"), followed by the user's identification ("@evisoft") for Twitter. This is accompanied by the text or primary content of the short document along with the time and date of when the text was posted for the public. The message reads "morning, I propose we use the #pman tag for messages from the grand national assembly square" (evisoft, 2009). Character symbols (i.e. "@", "#") have specific functions within Twitter; within a message, the hashtag demarcates a keyword or phrase that can serve as an organizational device in searching and retrieving past messages while the at symbol is typically used with a user's identification name to designate that specific individual.

While the original message was posted in 2009, Figure 1 reflects changes to the web interface of Twitter when the message is retrieved and viewed in 2012; such shifts in presentation are all part of the dynamic nature of the digital environment and the challenges involved in long-term preservation. For instance, icons for "reply", "retweet" and "favorite" along with the images for "favorites" were not available at the time of the original post. Such visual cues may assist with future interpretations of short documents but were not explicitly archived as part of the PMAN archive.

<entry>

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[15] E. Morozov, *Iran: Downside to the "Twitter Revolution"*, "Dissent" 56 (2009), 4, p. 10-14.

[16] Ethan Zuckerman, *The First Twitter Revolution?*, "Foreign Policy", 2011, Jan. 14 [= http://www.foreignpolicy.com/articles/2011/01/14/the_first_twitter_revolution].

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<id>tag:search.twitter.com,2005:1467645316</id>
<published>2009-04-07T04:40:08Z</published>
        <link type="text/html" rel="alternate"
href="http://twitter.com/evisoft/statuses/1467645316"/>
        <title>neata, propun sa utilizam tag-ul #pman pentru mesajele din
piata marii adunari nationale</title>
        <content type="html">neata, propun sa utilizam tag-ul &lt;a
href="http://search.twitter.com/search?q=%23pman"&gt;&lt;b&gt;#pman&l
t;/b&gt;&lt;/a&gt; pentru mesajele din piata marii adunari
nationale</content>
<updated>2009-04-07T04:40:08Z</updated>
        <link type="image/png" rel="image"
href="http://s3.amazonaws.com/twitter_production/profile_images/9473289
6/twitter_normal.jpg"/>
        <author>
        <name>evisoft (Vitalie Eşanu)</name>
    <uri>http://twitter.com/evisoft</uri>
        </author>
    </entry>
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Figure 2. XML representation of content for Twitter as stored in the PMAN archive.

From Twitter, the content of messages with the marker "#PMAN" were collected and saved as part of the PMAN archive. This resulted in thousands of text-based short documents captured in XML (see Figure 2), which provides structured information for each message; for example, the <author> field of the XML entry identifies the name and user identification of the message author along with a unique URL. The XML format does not necessarily preserve the "look and feel" of the original document as viewed at the time of release through the Twitter web interface (similar to Figure 1) but represents what was possible to collect through personal means. For the PMAN archive, the online commentary discussed through Twitter was automatically collected using a customized programming script. Other options for gathering such microblog information include for-profit and not-for-profit/donation based online services, with many more possible techniques available since 2009[17].

As a functionality of Twitter, the tag "#PMAN" gave the protesters and the public a way to categorize messages about the events in Chişinău (evisoft, 2009). As the protest continued and the number of messages related to the elections on Twitter increased, the use of other hashtags like #Moldova or #Chisinau were also observed in conjunction with the #PMAN tag. However, it seemed that #PMAN related specifically to the protest events whereas messages with only #Moldova or #Chisinau tags appeared to correspond with the geographic region and not necessarily linked with the current protests. To this end, short documents with the #PMAN tag provided

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[17] M. Braga, *Liberate your tweets: Archiving without Twitter*, "Ars Technica", 2012, March 30 [= http://arstechnica.com/uncategorized/2012/03/liberate-your-tweets-archiving-without-twitter/].

the basis of the PMAN archive as the hashtag signified the most accurate indicator at the time to locate and group together messages related to the parliamentary protests. This presumes Twitter users that posted short documents with #pman tag during the protest in Chisinau were knowingly contributing to a larger media conversation about these events.

The content of the PMAN archive short documents includes news about the protest in Chişinău and on its media coverage, advice for the protesters on how to effectively fight the police, and the sharing of self-made media products such as photographs and videos covering the events. The variety of topics presented in the archive mapped the specific ways in which participants contributed to the coverage of the events in Chisinau whether on the ground or remotely connected. As a complement to the output of traditional media outlets and historical sources on the parliamentary election events of Moldova, the documented messages, presented through the PMAN archive from the perspective of the participants, can add to understanding the context of events for future analysis and interpretation.

Short documents for the archive

The collection of short documents from the PMAN archive revealed unique functional elements that contribute to the potential value of this information source for scholarly research and beyond. In particular, two key attributes were observed in short documents: multiple layers of information embedded in a single document and the flexible aggregation of documents to examine different perspectives. These interrelated characteristics appear to be distinctive of short documents and are detailed in the following sections.

Complex information objects

Short documents may be distinguished as having a limited number of words but they are complex digital objects with multiple layers of information that provide both content and context information for preservation. As discussed previously, certain character symbols within Twitter denote attributions to other users of the social media application or to keywords or phrases pertaining to a particular topic or issue. While the application of these symbols is particular to Twitter, other aspects of message content can be potentially generalized to digital short documents. This includes the formatting of the text and the use of embedded hyperlinks to connect with external websites, which present different layers of information important to the archiving and preservation of short documents.

Across the thousands of short documents in the PMAN archive, the formatting of message text is a layer of information important to the communication and interpretation of the content posted. The graphical representation of the text is usually a purposive decision made by the user. The message conveyed in one short document, "In the square they shout DOWN WITH COMMUNISM #pman" [18]

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[18] Some of the Twitter documents quoted were originally written in Romanian but have been translated into English within in the body of this paper for fluency. These messages are referenced at the end of the papers in their original form.

(anti_impozit, 2009a) appears enhanced given the use of capitalization to emphasize particular words. Textual emphasis is also noted in the use of certain punctuation which may signal the importance of the messages or suggestions, "#pman who can write in english – write in english 'cause many will join!!!!" (bunelul, 2009). In preserving such text, the graphic representation of the content is a vital layer of information to maintain for future users.

The presence of embedded hyperlinks in the content of short document reveals another layer of information unique to this digital entity. The inclusion of hyperlinks makes visible the larger context in which this information source is situated by introducing those bodies of evidence that support the document content. External links from the PMAN archive lead to news sites, personal blogs, photographs, and even videos. Hyperlinks may be included in the message with some contextual information, "Video from anti-communist protests in Chisinau, Moldova – http://www.youtube.com/watch?v=u9676ubIVwc #pman"[19] (Moscovici, 2009). In some cases, the message will contain information about what the hyperlink will lead to or there may be clues in the URL that are suggestive of the external site. More common though is a condensed version of the URL and very little accompanying information in the message, "http://tiny.cc/UdU2H #pman"[20] (danielnylin, 2009); while this message is related to the discussion of parliamentary protests in Moldova (as noted by the "#pman" demarcation), it is not clear in what or where the URL may be in reference to and whether the linked information can be trusted.

The embedded hyperlinked information provided in the short documents played an important role in bringing together disparate information resources related to the protests in Chișinău from the Web. These external sites offered corroboration for those statements made about on-site events and served as an extended digital space for conversation and information exchange (i. e. blogs, forums) given the limitations of social media and the character restrictions on Twitter. Archiving the content of hyperlinks (i .e. external web pages) associated with the short document remains a persistent challenge. As noted, archiving these short documents without encapsulating the content of the pages linked in the documents significantly reduces the possibility of accurately following the dialogue and what information was shared. Moreover, given the ephemerality of the online content, a number of the links are no longer active making it difficult to understand what the original short document was referencing. While the PMAN archive does not have a record of the external sites from hyperlinks, future collections of short documents may want to locate and document where the hyperlinks resolve as part of the archival record.

Individual and aggregate perspectives

The second attribute of short documents is reflected in the volume of viewpoints that can be captured from a single information space. For the PMAN

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[19] Moscovici, *Video from anti-communist protests in Chisinau, Moldova*, 2009, April 7 [= http://www.youtube.com/watch?v=u9676ubIVwc #pman] [Twitter post].
[20] This URL links to a news site: http://www.aljazeera.com/news/europe/2009/04/2009481010869454.html.

archive, this attribute is exemplified through the coverage of particular themes and topics that organically emerged over the course of events as well as multi-lingual content creation. The prevalence of a specific topic among the documents shared on Twitter was not dictated by a moderator but progressed from a combination of the real-time events and sharing past experiences and histories.

One topic participants were heavily invested in commenting on was the "revolution". This subject was looked at from a number of perspectives and numerous short documents convey its coverage. Events in Moldova were being referred to as a "revolution" and due to the popular use of Twitter in communicating on-the-ground actions, the term "Twitter revolution" was also attributed[21]. The protests in Moldova were also characterized as an "anti-communist revolution"[22] which reflected the experiences of other Eastern European countries in challenging Communist governance. A number of short documents from the PMAN archive conveyed this familiarity and recognition of past histories.

> "#pman except the velvet revolutions from Prague and Sofia in 1989, the history of revolutions were violent" (junk_box, 2009)

> "#pman Voronin threatening to find the organizers of the protest; comparing the protests with 1989 events" (vchiperi, 2009)

> "RT: Bucharest 1989: first revolution live on TV. Chisinau 2009: first revolution live online…#PMAN"(ralu_nantu, 2009)

> " '89 reloaded: TV stations are blocked, army is ordered to intervine, the Presidency is under attack... #pman" (purple_ro, 2009)

> "Moldavians have not learned anything from 1989. If they are not taking the state television, in vain they assault the Presidency #pman" (Petreanu, 2009)

The Romanian anti-communist revolution of 1989 was the most prominent example repeatedly referenced[23]. The shared history of Moldova and Romania and the natural parallel between "the first televised revolution" from 1989 and the first "Twitter Revolution" in 2009 (a connection also made by Romanian television) contributed to the online discussion and brought a historic and personal lens to understanding the events in Chişinău. The context of the 1989 Romanian Revolution inspired conversations that converged on a shared interpretation of the events on the streets of Moldova in 2009. Individual short documents shared advice on how to force the State Television to cover the events and inform the country of the protests (Petreanu, 2009), yet other messages were less supportive of the revolutionary

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[21] E. Morozov, *Moldova's Twitter Revolution* cit.

[22] Moscovici, *Video from anti-communist protests in Chisinau, Moldova* cit.

[23] See above examples from PMAN archive: junk_box, 2009; vchiperi, 2009; ralu_nantu, 2009; purple_ro, 2009; Petreanu, 2009.

movement. On the whole, a theme such as "revolution" could be observed in individual short documents but it is only through mass aggregation of documents that the degree of diverse and multiple perspectives on a theme are realized.

Another aspect of the short document aggregation observed in the PMAN archive is the importance of the credibility of the information posted about the protests for Twitter. If the content of a message seemed questionable, participants would request additional proof (such as images or who the source was); the following documents from the PMAN archive present such an exchange:

> "european parliament transmitted to moldavian authorities to start a dialog with the protesters" #pman (anti_impozit, 2009b)

> "#pman @anti_impozit publish also the source" (adyrip1, 2009)

> "source is voceabasarabiei #pman" (anti_impozit, 2009c)

To a certain degree, the authority of information collected in the PMAN archive was ensured by the participants contributing to and following the information exchange. The involvement of the participating community offers content creators a sense of control and authority over personal statements but also an opportunity to manage the content contributed by others through responses and comments in the same venue[24]. As seen in the PMAN archive, response and feedback to the veracity of information posted is immediate and made visible to the public. This information confirmation may not be characteristic of all collections of short documents produced but may also provide guidance on the scope of a short document collection and selecting what to collect (i. e. short documents with explicit provenance).

The other aspect of short document collections distinguished in the PMAN archive is the variety in languages used in contributions. Foreign language use can also be considered one of the many layers of information embedded in a short document necessary for preservation. The content of the messages from #PMAN archive was originally communicated in Romanian, English and occasionally Russian. While the majority of documents were in Romanian, the primary language spoken in Moldova, messages in English became increasingly prevalent as interest in the events grew. International media and the global community used English primarily to solicit information about the events while the protesters and supporters used it to inform international audiences about what was taking place; this message in Romanian was the first to explicitly call for participants to provide English translations to engage the greater community "#pman cine poate scri in engleza - scriti in engleza ca se alatura foarte multi!!!!" (bunelul, 2009). While communications in English were used to amplify the news about the events to larger audiences, communications in Romanian conveyed the emotional response and imparted more of the context and interpretations of the protest events.

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[24] S. Bailey, *Managing the crowd: rethinking records management for the Web 2.0 world*, London, 2008.

Rather than being a barrier, multiple languages were consistently used in the production of short documents. As a means of fostering participation, Twitter participants would often translate those messages in Romanian into English. For example, @Moscovici offered timely translations of the microblog posts starting on the first day of protests in Chişinău[25]. When the announcement was made of the protesters breaking into the Presidential building, the Romanian message "Protestatarii intră în preşedinţie prin ferestrele sparte de la primul etaj #pman" (valeriu, 2009b) was seamlessly transcribed into English "@valeriu Protesters enter the Presidency building through broken windows #pman #alegeri"(olivine 2009b). Both the Romanian and English-translation messages were then re-posted and spread throughout the community, echoing the importance of foreign language in public communication.

Short documents are created in the global community of social media where local interest events now have international coverage. As witnessed in the PMAN archive, the response of international reporting resulted in short documents contributed in different languages which is a vital aspect to be mindful of in the formation and sustained maintenance of short document digital collections. Even with the presence of a dominant language, accounting for each dialect used in the collection provides a more cohesive presentation of the available information for future reference. This is important not only for discussion themes and topics that emerge from aggregated short documents but also in following how credibility of information posted is established through the communication space.

Conclusions

Characterized by few words or brief phrases, the rapid production and accumulation of digital short documents in the contemporary age of information communication offers a new type of document for archival collections of the 21ˢᵗ century. Short documents not only convey the thoughts, ideas, and opinions of a diverse and international community but also possess great potential for scholarly research in a variety of areas. For the archives, the preservation of these information sources introduces a new scale of sustainability as hybrid and digital collections become more prevalent. The analysis of digital microblog content from the PMAN archive of public reports from Twitter of election events in Moldova revealed distinctive attributes of short documents that contribute to their interpretation and understanding which should be retained for the long-term. These attributes consist of the overall complexity of a single short document, which contains numerous layers of embedded information and the aggregative power of multiple short documents to reveal collective and individual voices.

While short documents may not be a priority for preservation in most archives, it is important to be aware of their role as potential evidence of public

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[25] Ellen Barry, *Protests in Moldova explode, with help of Twitter*, "The New York Times", 2009, April 8, A1 [= http://www.nytimes.com/2009/04/08/world/europe/08moldova.html]. [Accessed January 5, 2013.]

memory and the implications on collection planning, documentation, and policies if steps are taken to acquire them. The collection of short documents may stem from interest in specific individuals, events, or time periods. Keywords or hashtags (as seen with the PMAN archive) also serve as identifiers in gathering relevant documents from the vast amount of information transmitted but may be limited depending on their application and actual use within the digital community. The presence of hyperlinked content within the collection of short documents raises several points to consider in a collection plan: with documents including external URLs to various sites across the Web along with multimedia venues, there not only is a potential issue with the long-term persistence and availability of these links but the content posted may also be in violation of intellectual property rights making it difficult to preserve alongside the documented link. Even with viable external sites, decisions must be made regarding the amount of information that should be captured from these extended paths in order to complement the original document.

Providing appropriate documentation for short document collections offers a vital resource in building a contextual foundation for why and how a particular grouping of documents was obtained. The archival record for short documents will need to balance the amount of information that a single message encodes with the overall aggregative collection, which may be a challenge given the hundreds of thousands of documents that may compose a single collection. However, these records have direct implications on how short documents can be accessed and retrieved and the types of resources and services necessary to facilitate their use. As illustrated by the PMAN archive content, the presence of multiple languages necessitates the development of appropriate tools to work with the short documents. Building collaborations with partner institutions and projects provides a first step in cultivating fluency and maintaining infrastructure for born-digital collections as they continue to grow in size and complexity. Institutions such as the Library of Congress in the US or groups like Activist Archivists (http://activist-archivists.org/wp/?page_id=574) provide instruction and training for working with digital products in order for them to be discovered and used by future generations. Personal archiving efforts such as the PMAN archive will benefit greatly for these shared knowledge resources.

Not all short documents may exhibit the same sets of attributes observed in the PMAN archive but the variations in attributes are critical to building a common understanding for a new type of document and enhancing digital archiving practices. The composition of the archival record in the 21ˢᵗ century certainly differs from the record of the 19ᵗʰ century and will be transformed again in future generations. Nonetheless, it is through continual examination of our information landscape that we can further contribute to the advancement and preservation of memory institutions.

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