

Everyday Cinema

Aisling Kelliher

MIT Media Lab

20 Ames Street, E15-320b

Cambridge, MA 02139

(617)253-9787

aisling@media.mit.edu

ABSTRACT

Stories make our experiences memorable over time. In constructing and sharing our personal and communal memories, we move in a reflective manner back and forth between our life-world and our life-stories. Advances in network communications and the growing abundance of personal media recording devices provide new opportunities for collecting, examining and re-imagining our life experiences. This paper describes the ‘Media Fabrics Experiment’, an online rich-media weblog populated by the day-to-day media messages submitted by a group of participants using camera cellphones. The construction, participant use and activity trends of the weblog are discussed and the impact of this approach for the collection and sharing of everyday story experiences is evaluated.

Categories and Subject Descriptors

H.5.3 [Information Interfaces and Presentation]: Group and Organization Interfaces – *collaborative computing, computer-supported cooperative work, web-based interaction*; H.5.4 [Information Interfaces and Presentation]: Hypertext/Hypermedia – *architectures, navigation*; I.7.2 [Document and Text Processing]: Document Preparation – *desktop publishing, multi/mixed media*

General Terms

Design, Human Factors

Keywords

Video weblogs, distributed story construction, mobile storytelling, co-constructed documentary.

1. INTRODUCTION

Telling stories is a fundamental part of what makes us human, arising from the desire to transform the fragmented chaos of our daily lives into a pattered, coherent and shareable narrative. Storytelling, in its most primitive form can be described as the simple exchange of experience where we aspire to communicate that which is memorable and valuable. In so doing, we answer our most fundamental questions about who we are, where we come from and what we are trying to do.

Throughout our lives we strive to move fluidly between our direct experiences, our cognitive and emotional reflections, and our storied representations and interpretations. In transforming our experiences from raw event to enunciated description, we participate in a formative process of identity construction and refiguration that helps us understand and convey who we are as individuals and as members of a larger, cultural society. J. M. Bernstein claimed that ‘no individual on their own can substantially remake themselves’, but, through sharing and divulging our narratives, we engage in a lifelong and necessary process whereby we can indeed come to understand ourselves and our actions in a profound and more meaningful way [2].

The cultural activity of storytelling originated over a million years ago and has assumed many genres and styles over the centuries [12]. The ancient Greeks used oral storytelling to transmit and preserve primordial myths, telling ‘stories of the gods...spun from the ungodly, human heart’ [6]. The advent of written narrative historically separated into distinct empirical and fictional story types which in modern times became increasingly blurred together as authors wove autobiography, confessional and fiction conceits together to create representative, yet illustrative works (James Joyce, Marcel Proust). Similar complex strategies have been implemented in the production of personal audiovisual narratives, where the camera has been used to bear witness and memorialize human experiences, such as in Claude Lanzmann’s ‘Shoah’. Within the last twenty years, the existence of the Web has supported the production of hypermedia stories, comprised of non-linear interactive narrative presentations constructed using multiple media artifacts [10].

The proliferation of personal video recording devices, user-friendly editing systems and advances in network communications provide opportunities today for exploring alternative forms of mediated storytelling that will invigorate and re-imagine our represented experiences. The combination of cheap, mobile, ‘always-there’ capture devices and easy-to-use online sharing and publishing environments creates the potential for the emergence of a new form of distributed audiovisual literacy; one that is technical, affective, storied and above all, connected. The distributed nature of this form of mediated storytelling supports the spontaneous capture and immediate exchange and publication of daily experiences in a process where story themes and threads emerge, fade and reappear. Such storytelling requires appropriate tools and technologies for promoting competence and fluency of expression, along with the development of carefully designed supporting structures for engaging audiences and building communities of active participants.

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This paper describes the ‘Media Fabrics Experiment’, a mobile cinematic project for documenting the everyday experiences and interactions of a group of friends, the theme of which is initially focused around the surgery and recovery of one of the group. Using video cell-phones, the participants construct and share multimedia artifacts, publishing their daily story exchanges as mediated conversations on a group weblog. The paper begins by examining the motivation and methodologies for documenting our experiences, before considering some related work in story construction, moviemaking tools and online publishing environments. The Media Fabrics rich media weblog experiment is described and evaluated and some future research directions discussed.

2. DOCUMENTING EXPERIENCE

Described by Aram Saroyan as ‘a kind of willed immortality’, the desire to leave a trace and have our existence matter compels us to create and share representations of our lived experiences, in a process whereby we ‘write [our] names over and over and over again’ [11]. From the earliest cave drawings to oil portraits, written journals, photograph albums and video recordings, we have used a variety of technologies and tools to support our endeavors to render our life experiences visible to ourselves and others. With this autobiographical process we construct and relate the story of our lives. We not only recount, but also justify our actions at the originally experienced time and in the later moment of recollection. The radical filmmakers of the 1960’s took their cameras to the streets and created a cinema that was inexpensive, free from slavery to technique and as close to reality as possible. The camera became a witness, testifying to experiences in a cinematic form that created beauty from the informal and the non-organized. In the last 50 years, amateur home-moviemakers have begun to take charge of their own personal documentation. In replaying and watching their home movies, viewers experience a rich ‘afterglow’ as their verbal memories supplement the recorded events and additional anecdotes and thoughts are shared.

3. RELATED WORK

Computational story tools such as AgentStories allow participants to write potential sequences of story text for later production in video, while story playback engines such as Dexter use story presentation modules to create ‘evolving documentaries’ [4][5]. Another system for story construction is MAD which is designed to manage ‘words, images, sounds, and video for visualization during the pre-production, production, and post-production phases of motion picture development’ [1]. These tools generally prove useful for tightly scripted productions and manipulating finite sets of media data, but do not support casual everyday use as they relegate the possibility of the ‘rare event’ and the serendipitous moment to the sidelines.

Online story construction is exemplified by MIT’s Silver Stringers initiative, a community-centric Web publication, where members participate as reporters, photographers, illustrators and editors, using specifically designed software tools that are tailored towards all levels of technical experience [13]. The Zora project explores narrative as a communicative and cognitive process in an online 3d virtual world aimed at looking at how personal identity grows within the context of a reflective community [3]. More recently, the development of free and easy-to-use weblog software has resulted in the emergence of almost a million

‘bloggers’, creating their online journals or diaries to entertain, inform or perhaps educate their readers (Blogger.com, MovableType.org). Weblog services for mobile devices have also become more prevalent where ‘mobloggers’ can update their online musings with photos, videos and text posted sent their cellphones or PDA’s (Textamerica.com). Video weblog practitioners such as Adrian Miles are experimenting with ‘writerly video and audio’ to produce ‘vogs’ – weblogs containing multimedia presentations that interrogate and probe the very process of producing and constructing mediated stories [9].

The OneWorld TV project provides participants with an online environment for uploading and constructing their own hyperlinked video stories, predominately focusing on issues of social justice (OneWorld.net). The Shareable Media Project at MIT’s Media Lab pushes the construction and collaboration process even further by allowing the entire community of users to construct media sequences using all uploaded video contained in the database. Novel editing and visualization tools (Individeo, PlusShorts) reinvigorate the traditional timeline interfaces while additionally demonstrating how the participants are using the content [7].

4. MEDIA FABRICS EXPERIMENT

The documentary filmmaker Albert Maysles describes how using his digital video camera inspired him ‘to tape the little things that I witness in everyday life. They’d be pieces of poetry’ [8]. The Media Fabrics Experiment supports Maysles’ methodology by using video cellphones to witness and capture life’s poetic moments, but elaborates further by placing those pieces into a shared, open and fragmentary rich-media weblog. The weblog provides an alternative spatial framework for the viewing of media content as opposed to the more traditional sequential or timeline approach. Media artifacts exist as discrete entities displayed chronologically, each posting seeking to elicit a response or comment from the viewer. These comments additionally can be used to preserve the creator’s experiential ‘afterglow’, allowing them to describe in more detail their emotional and cognitive reflections on their submission.

The weblog is built using Movable Type software, a low-maintenance decentralized web-based personal publishing system. Additional Perl modules have been developed to handle the parsing and integrated publishing of incoming multimedia messages sent from participant’s cellphones. Each participant can send email messages to the weblog consisting of a title, media artifact (photo/audio/video) and additional descriptive text. These messages can be sent either to one other person, to a group of people and/or published directly on the weblog where they appear as chronologically ordered posts.

The Media Fabrics Experiment described below is an explorative study using a small sample of participants engaged in a particular task. The findings and results from this initial investigation will help determine the feasibility of using mobile recording devices and rich-media weblogs to document the experiences of larger dynamic groups engaged in a multitude of pursuits. For the experiment, a sample group of six colleagues and friends from the MIT Media Lab were provided with camera cellphones and instructions on how to exchange and upload multimedia messages to the weblog. The purpose of the project as explained initially to the group was twofold. First, one of the

group members was shortly to have surgery requiring an extended period of convalescence and recovery. The cellphones and weblog were to be used to spontaneously document and make visible her recovery process, while at the same time serving to connect and extend the physical reach of the rest of the group in providing the patient comfort and support. Secondly, the experiment would also act as a connection point for the patient to the group, where her individual progress could be contextualized by the uploaded media representations of the day-to-day experiences of the other participants.

The Media Fabrics Experiment has no fixed end or completion date and at time of writing, continues to be used by group members. Free form multimedia content is generally difficult to analyze in a wide-ranging and comprehensive manner. For the purposes of this study and in keeping with the long-term objectives, a number of particular attributes have been selected for observation, such as fluctuations in participant activity and the emergence and dissipation of various subjects/themes. Because of the small number of participants and the manageable amount of daily messaging, simple content analysis can be done by human observation. For example, the classification of messages according to subject matter (recovery/support/life/food) and comparison of rates of participation compared with member feelings of ownership or sense of appropriate message subject matter. Data that can be automatically mined from the weblog itself include frequency of posts, comparison of participant posting to participant commenting behavior and measurement of the amount of posts using various media formats.

Beginning with the first post on March 24th, 2004, over the subsequent three month period there have been 247 original media postings and 149 responding comments by a total of 6 participants. For the first two weeks of the experiment the messages are predominantly concerned with the patient's recovery, with messages of support a consistent secondary theme. Posts depicting the daily activities of other group members are a consistent presence but at a considerably smaller volume (see Figure 1).

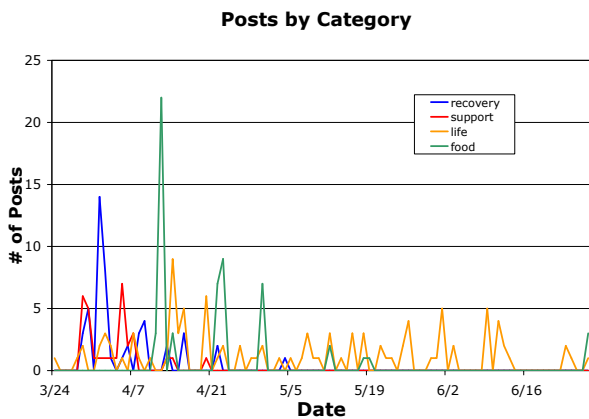


Figure 1. The number and frequency of weblog posts from each main subject category.

A surprising spike in the number of posts occurs around April 12th that also introduces a new message topic, classified as 'food'. This topic appears sporadically throughout the three months, where with each appearance it corresponds with a high volume of

postings. The study elected to classify 'food' as a separate topic from 'life' owing to the large number of multimedia messages posted depicting only food objects. This spike in activity also corresponds with the gathering of almost all the group participants, including the patient, at a dinner party. Over 20 of the messages posted at this time depict the event itself, while follow-up posts referencing the event occur over the following week.

Towards the end of April and almost one month after the experiment begins, messages of support peter out, followed by the decline in the next week of postings about the recovery process. This development coincides naturally with the full recovery of the patient and her integration back into the group. The last two months of the experiment has seen considerable effort expended on documenting and exchanging messages about the daily experiences and observations of group members, in particular representing the professional and work interests of the group, along with extensive use being made of the weblog by one participant as a travel log depicting the places visited during a vacation.

On observing all of the messages posted over the three month period, particular group members seem to focus predominantly on specific topics, for example submitting the majority of their messages solely about food (participant p2) or regarding life (participant p1) (see Figure 2). In this instance, participant p2 is also somewhat of an anomaly, being the only person to contribute to the high volume of postings regarding food, while also electing to contribute many messages one straight after the other. In contrast, participant p3 balances their postings across a broader spectrum of topics.

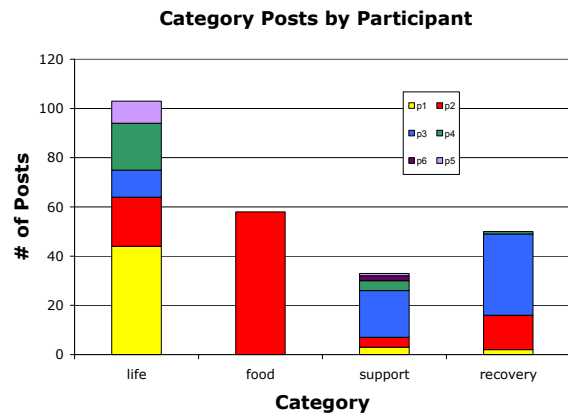


Figure 2. The number of posts per participant in each main subject category

Distinct and consistent patterns are also detectable in participant posting and response behavior. Two group members clearly favor posting only original messages with little evidence of their commenting on the posts of others (p2, p3), while two other participants function in almost the opposite way, mainly contributing responsive comments and only sporadically adding new postings to begin discussion threads (p4, p5) (see Figure 3).

Over the course of the three months of activity, there have also been some marked changes in the format of multimedia messages posted.

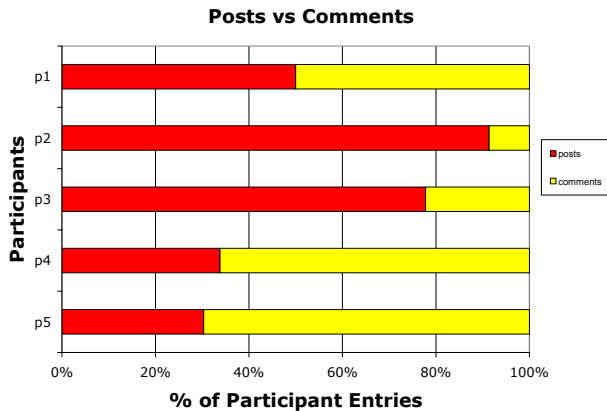


Figure 3. Percentage comparison between numbers of participant original posting and participant responsive commenting.

Only 3 video messages were posted over the months of May and June combined, compared to 50 videos from the end of March through April. The posting of video messages declines rapidly in correspondence with the decline of postings around the topics of recovery and support, while the posting of images also declines, but steadies again at a lower plateau of activity.

5. CONCLUSION

Everyday group documenting on a rich-media weblog would appear particularly conducive to the recording of episodic events, or an extended period of extraordinary events. In this experiment, the highest levels of activity and response occurred at a particular event (the dinner party) and when there was a very definite subject matter being investigated (the patient's recovery). As the primary story theme began to fade away, there was hesitancy on the part of several group members to introduce new story subjects, fearing it might be deemed inappropriate or a challenge to the 'ownership' of the weblog (considered to be the patient's). The possibility of creating separate 'sub-blogs' for exploring and experimenting with new themes before introducing them to the main display area could perhaps alleviate this problem. The chronological and fragmentary list-like ordering of entries is currently not appealing enough as a display form for reflective cinematic storytelling. More expansive interfaces for encouraging participants to consider the collected material as an archive to be looked at afresh in the context of newer material could help produce more reflective, meaningful and connected story threads.

6. FUTURE WORK

The Media Fabrics Experiment is moving in several new research directions, following on the evaluation of participant activity, type of media content and the 'in-the-field' construction and sharing process. A next-generation version of rich-media weblogs is being planned for accommodating more fluidly the display and visualization of the messaging exchange process. Currently constrained by either chronological or categorical ordering only, the next iteration will focus on creating alternative user interfaces for browsing through postings, environments for reusing and revisiting archived material and real time personalized analysis of participant/group activity.

The Movits application, currently in prototype mode will also be introduced to the experiment. Movits is a custom-designed Java application for Series 60 cellphones that presents users with an integrated interface for capturing content, constructing, exchanging and publishing multimedia presentations. Selecting from a variety of default layout templates, participants can populate their Movits presentations with photo, video, text and audio files that can then be stored and added to later, shared and constructed with a group of people or published directly online as a finite artifact. Movits can be used for sharing fragments of activity immediately, or used in a piecemeal manner as a personal recorder, where the creator seeks out moments to document that correspond to dedicated ideas or themes.

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8. REFERENCES

- [1] Baecker, R. & Posner, I. Children as Digital Motion Picture Authors. *The Design of Children's Technology*, Druin, A. (Ed.), 1999.
- [2] Bernstein, J.M. Self knowledge as Praxis. *Narrative in Culture: The Uses of Storytelling in the Sciences, Philosophy and Literature*. New York: Routledge.
- [3] Bers, M.U. Narrative Construction Kits: Who am I? Who are you? What are we?" *Proceedings of "Narrative Intelligence" Fall Symposium, AAAI'99*. pp. 44-51.1999.
- [4] Brooks, K. *Metalinear Cinematic Narrative: Theory, Process, and Tool*. Ph.d. Thesis, MIT Media Laboratory, 1999.
- [5] Davenport, G; Murtaugh M. Dexter and the evolving documentary. *Proceedings of the Fourth ACM International Conference on Multimedia*. November 1996, p 441-442.
- [6] Kearney, R. *On Stories*. New York: Routledge. 2002
- [7] Kelliher A., Seo JJH., Pan P., Lin C., Davenport, G. Visual Interfaces for Shareable Media. *ISEA 2000 International Symposium on Electronic Art, Proceeding*. 2000.
- [8] Maysles, A. Documentary: I Spy. *FEED Special Issue*, 02.14.2000.
- [9] Miles, A. Softvideography. *Cybertext Yearbook 2002-2003*. Eds. Eskelinen M., and Koskimaa R. . Vol. 77. Jyväskylä: Research Center for Contemporary Culture, 2003. 218-36.
- [10] Morgenroth, L. Movies, Talkies, Thinkies: An Experimental Form of Interactive Cinema. *MIT Masters Thesis*, 1995.
- [11] Saroyan, A. *Last Rites: The Death of William Saroyan*. New York: Morrow. 1982
- [12] Scholes, R. & Kellogg, R. *The Nature of Narrative*. New York: Oxford University Press. 1966.
- [13] Smith, B., Bender, W., Endter, I., Driscoll, J., Turpeinen, M., and Quan, D. Silver Stringers and Junior Journalists: Active information producers. *IBM Systems Journal, Vol 39, Nos 3 &4, 2000*.