New Media Documentary

Explorations in the Changing Form, Theory and Practice of Documentary

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The Computer as an Expressive Medium
Professor Stephen Mamber and Eugene Thacker
Introduction

The advent of digital technologies has created marvelous opportunities for the world of documentary making. Digital recording and archiving, the internet, and increasingly instantaneous global communication is changing the way media can be created and viewed. It is a marvelous time to both augment old forms and create completely new ones. This paper explores the ways in which these changes and creations are going on, and seeks to propose a new process in the creation of documentary media.

Defining Documentary

The term documentary comes to us from the cinema, and has been around since the creation of the motion picture camera. John Grierson defined the term in the 1920’s while producing films for the British. He dubbed this new genre “creative treatment of reality”. The photograph’s seeming ability to capture some aspect of reality, to preserve a moment of truth, has been a compelling force for filmmakers who find themselves drawn towards non-fiction subjects.

Over the course of the last century a rich lexicon and body of documentary work has grown. These films themselves have been divided into a plethora of sub-genres: travel & ethnography, didactic/teaching & propaganda, the silent observer, the nature documentary. In Representing Reality (p 27) Bill Nichols offers this about our perceptions of documentary film: “One fundamental expectation of documentary is that its sounds and images bear an indexical relation to the historical world. As viewers we expect that what occurred in front of the camera has undergone little or no modification in order to be recorded on film and magnetic tape.”

This is getting harder and harder to accept in a postmodern age where the inherent “truth” of any image is open to question. No longer is the photograph or film considered objective proof of an object or event. This questioning came into being well before the widespread use of digital tools, which offer an unprecedented ability
to manipulate and alter images. Nichols addresses this issue of representation by quoting Plato’s famous analogy of the cave to describe the mimetic nature of fictional cinema. In Plato’s analogy, the clear and bright light of the sun represents our intimate experience of reality. The flickering shadows on the wall of a cave, representations of real objects, are difficult to understand fully, and allow only the formation of shifting opinions. The same can also be held true for documentary film, which “may illustrate a point that must finally return to words for its meaning or implications.” (p3). Even Nichols, a staunch advocate of documentary’s social importance, acknowledges the essential dilemma of representation.

Stuart Kaminsky emphasizes this point by defining documentary as “Film which through certain conventions creates the illusion that the events depicted were not controlled by the filmmakers.” The representation of the thing can never be the thing - it always passes through both a technical filter (the camera and display devices) and a psychological or social filter (the filmmaker). Postmodern theory often argues that reality is itself a social construction. The practices and activities that we undertake create our world. Documentary can be seen as being a part of this constructive process, in the same company as such discourses as law, education, economics and politics.

As it is with all forms of media, literacy is imperative when observing and creating documentary. Ultimately an ability to extract a truth will depend on the individual viewer and their knowledge of both the subject being discussed, the ideology of the producer, and the conventions of the medium. Stuart Hall’s three viewer positions apply to documentary as to any other media form: a viewer may accept without question the message of the work, negotiate a reading by accepting some elements and not others, or rejecting or ignoring the work completely.
Digital Technologies and New Media

It is unquestionable that the future of media gathering, production, and distribution, be it text, sound, still or motion imagery, is digital. Digital media offers incredible advantages. Already computer-based word processing is ingrained within our daily lives. Our music is stored in ones and zeros on neat little disks. Digital image manipulation dominates the print industry and is increasingly common at the consumer level. Non-linear digital editing is rapidly replacing linear editing in professional video production and is also making inroads into the consumer market. Digital special effects dominate commercial movie making and soon might become the primary recording and distribution medium for big-budget Hollywood releases. The explosion of the internet via email and the world wide web represents one of the most rapid adoptions of a technology in history. The ability to convert any media item into a digital file offers media makers an incredible tool for the creation and distribution of their work.

These technologies are often dubbed “New Media.” Are they really new media forms or are they just new tools for creating older media forms? While many of these advances make old jobs easier, there is more to New Media than just new ways to write a letter or edit a sitcom. New tools very often beget new thinking, and serious re-evaluations of the existing media forms, both by intention and by accident. The discrete nature of digital media has a potentially profound effect on the very way we understand the structure of such art forms as cinema. Instead of a medium of temporal montage, which has dominated filmmaking since the days of Eisenstein, we are moving into an era where the composite is the fundamental visual construction (Manovich, p. 155). The representational questions of the differences between the continuous nature of analog capture and the discrete nature of digital capture are fascinating, but unfortunately they must be saved for another essay.
There are other elements of New Media that distinguish it from many of the previous forms. Particularly important are the notion of the network and interactivity. The concept of the peer-to-peer network arrangement is a monumental change, not just for distribution but for the concept of what defines a media “work.” Interactivity is another fundamental shift. The need to allow some element of user control is dramatically different from the top-down product oriented model that has dominated music, television, and film for decades.

The varied nature of the presentation forms of New Media leads to a compelling question regarding the definition of what constitutes the “real” final version. Is it the website? Is it the book? Is it the video? Is it the database that stores the files? Is it the act of interaction between participants?

**New Media Documentaries**

The Last twenty years have been a good time for documentary filmmaking in many ways. Although not really classified as “New Media” cable television should be included in any discussion of the changing media-scape. Cable services are full of channels devoted to documentary-type programs. Some might argue that a great deal of what is depicted is not in fact documentary but rather “docu-drama” - a hybrid of documentary and fictional story telling. Regardless, an aesthetic heavily influenced by documentary filmmaking is exposed to tens of millions of viewers a day. The Discovery Channel, the History Channel, The Travel Channel and more show documentaries twenty-four hours a day. Is this availability driving demand or vice-versa?

During the 1990’s there was an explosion of experimentation in documentary making utilizing New Media, coinciding with the boom in the internet and other explorations of computer capabilities. The robust economy made many companies willing to take risks in areas that previously would not have had an easy time securing funding. The Voyager company of the early 90’s released a wide variety of works on CD-ROM. The
efforts of companies like Voyager were offshoots of research that had been undertaken at universities for quite some time. These efforts ranged from presentations of Mozart’s Music (pictured below) to stories pulled from the pages of National Geographic Magazine. These media works incorporated an enormous variety of media sources: sound, graphics, and interactive games and tests. Unfortunately, the limitations of graphics, playback, distribution, and cost meant that the company went of business by the mid 90’s.

The internet has, however, proven to be an incredibly rich place for documentary. The vast network of computers that comprise the world wide web opens up distribution possibilities unheard of in the past. And the ongoing convergence of text, video, and audio provided media makers with a wide array of compositional tools. An excellent example of the convergence of programming and interface and interaction design can be found in A Random Walk through the 20th Century, a tribute to Professor Jerome B. Wiesner. This website, created at the MIT Media lab, offers a densely layered exploratory interface containing a timeline with links to text and audio. The interface offers both chronologically and relationally or
associatively based navigation. It also offers viewers the opportunity to add their own thoughts regarding the career of this distinguished researcher.

The notion of audience interaction and participation is a driving force when creating New Media documentaries. AkaKURDISTAN uses the internet and new media to build awareness of the state of the Kurdish people, an ethnic group that stretches across the nations of Turkey, Syria, Iraq, and Iran. User submitted stories and images are an integral part of the very creation of the project’s content. AkaKurdistan also includes a book and a museum exhibition, rendering it a truly multi-media work. This issue of multi-form development is an important one in New Media documentary making, and will be addressed at greater length later in this paper.

The ability to communicate instantaneously over great distances is another aspect of New Media documentary making. In 1995, the author participated in a multi-disciplinary expedition of ham radio operators and marine biologist to Easter Island. The expedition used a NASA facility with an internet connection to provide data and expedition updates to radio enthusiasts and scientists. A new documentary in production for PBS has taken a similar path. The New Americans website includes dispatches and updates to the activities of a film crew as they spend two years tracking the following the lives of people planning to immigrate to the United States from countries like Nigeria and the Dominican Republic.
BecomingHuman.org is a fascinating website documentary that brings the expository form into the new media realm. The site presents information on human origins and evolution and combines encyclopedic information organization, narrative filmmaking, and interactive principles to great effect. Users can watch video streams, explore 3D models, and access the latest news on evolutionary discoveries. This form and style has become a popular presentation format on the web for museums like the American Museum of Natural History and organizations such as National Geographic.

Self-mediation is an interesting trend that has been growing over the last several decades as consumer grade video cameras have made their way into more and more homes. The average citizen is now accustomed to seeing themselves represented on screen. Many of the barriers between the performer and audience have started to collapse.

One outcome of this trend is the “cam” phenomena. Perhaps the best-known and earliest of the “cam” form of self-mediation is JennyCam. In 1996 a young woman installed cameras around her apartment that automatically updated a webpage with the latest view. These cameras were always operating and showed views whatever happened to be going on in their view - be it mundane or innocent. An online journal, email and chat groups provided ongoing correspondence between Jenny and audience members. An act of narcissism? The ultimate for of self-cinema verite?

Regardless of the opinion of the viewer, the site has spawned a host of imitators, ranging from pornographers to major television networks. The television show “Big Brother” brought the cam notion to a mass notion in a multi-form variant. This game show placed a contestants into a house from which they were forbidden to leave.
Cameras displayed the interaction of the housemates online to viewers around the world. A weekly show was broadcast by CBS. The contestants were eliminated by a combination of votes cast by their fellow houseguest and online user polls.

Bug Brother is but one example of a late 90’s trend of popular programming dubbed “reality shows.” These programs range from MTV’s long running “The Real World” which was certainly one of the precursors to both Big Brother and JennyCam, to “Lost” in which show participants are dropped off in an unknown location and are expected to find their way back to a specified location, to “Cops” wherein a camera crew follows police officers on their rounds. Few would argue that these programs, with the possible exception of “Cops,” constitute “real” documentary. They are however powerful demonstrations of the way documentary and new media practices have become ingrained into the media culture. They are also strong examples of the notion of self-mediation, in that those portrayed are “real people.” Viewers may identify more readily with this representation, as they might be able to see themselves occupying that place more easily than say, trading places with a movie star in a big-budget television show or film.

This desire to feel personally connecting to the media shows itself in other forms as well. As the populace becomes more and more visual literate, they seek involvement in creating their own entertainment and expression. They also demand the ability to re-arrange media to suit their own purposes in a form of pastiche or the negotiated reading presented by Stuart Hall. Digital media compositing makes this easier than ever. What impacts might it have on the documentary?
The Database Media Model

The question was raised earlier of what constitutes the end product of the documentary process. Scholars such as Lev Manovich and Fabian Wagmister advocate that in the New Media age, the database serves as the greatest model for media works. Wagmister argues that digital audio-visual databases and interactive techniques offer a major change in the way media works are conceived, produced, and produced, and a viable future that is radically different from the authoritarian bounds of modern cinema. In his article *Modular Visions* he writes: “Database Media Structures empower the constituent elements by defining, conditioning, and valuing them independently of each other. Each may contain a multiplicity of qualifying definitions which identify them as unique.” He later proposes processes to enable users to effectively navigate this audio visual database landscape. “A data-entry/indexing module is used to unify all of the media units into a common digital environment. This module permits for flexible viewing and analysis of the material.”

What the database media model does, besides discretize the individual elements of a media work, is allow the end user to come one step back into the production process, or to put it another way, define the end result and product of a media work at an earlier stage. This leaves the work far more fluid and dynamic, and far less likely to become either redundant or a tool of hegemonic ideology.

**Simultaneous Multi-form Development & Delivery**

In practical terms, this might take some time for the common audience to accept and for established media industries to incorporate or even become remotely comfortable wit. The seeds are certainly there for this transformation of the popular notion of what “finished media product” is, however. This model does offer benefits and advantages for producing finished works in the here and know though, while creating the media forms of the future.
A keen problem in creating any media work is audience reach. Although many people may share an interest in a subject, or be open to a particular message, the ways in which they view media may be drastically different - some like the straightforward linear presentation of television, some read books, others move rapidly through hypertext. Most media producers start to create a work for a specific media, and therefore often times further narrow their audience beyond what the subject matter has already. A solution to this dilemma is the simultaneous multi-form development of content. The database approach facilitates this by focusing on ALL media types and conceptualizing each as a product of that process.

**The Database Documentary Process**

The first step in the process is the definition of the subject area or thesis or whatever else it is that motivates the mediamaker to undertake the project. Clearly this definition will vary greatly depending upon the interests and motivations of the creator. This area can be dubbed the “Subject Space.”

Creating multi-form projects can be extremely difficult. Most media creators define the medium in which they will work while generating their thesis: “I will make a film about X,” “I will write
an essay illustrating Y” etc... The database documentary approach seeks to streamline the process of simultaneously creating and compiling as many different forms of media as possible. It doesn’t matter whether it’s a scrap of paper from an old newspaper article, an MRI scan of a Peruvian mummy, a 3D rendering of the formation of the universe, or video footage of the Zapatistas, it can all be digitized and put into a form that a database can catalog. This area we will call the Database/Artifact Space. Within space we can deposit the various elements that will comprise the documentary project. All the media forms that might be used for presentation to the public can be extracted from (or fall within) the Database/Artifact Space.

In the diagram above, the Subject Space surrounds the remaining knowledge spaces to suggest that complete coverage of any subject is highly unlikely. One level below the subject space lies Knowledge of Media Types. This knowledge need not be an exhaustive understanding of the means of production of each media type but a basic understanding of what is both possible and obtainable about the subject. This facilitates the population of the Database/Artifact Space, where the components that will make up the presentation forms reside. The presentation forms or output modules are derived from the artifacts within the database. There is overlap between these presentation forms, although the diagram does not illustrate the complete range of crossover. The chart on the following page illustrates the crossover between several media forms and output modules:
Media Crossover

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Broadcast Video</th>
<th>Website</th>
<th>DVD</th>
<th>Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video</td>
<td>S</td>
<td>P</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Still images</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Text</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Searchability</td>
<td>U</td>
<td>S</td>
<td>P</td>
<td>S</td>
</tr>
<tr>
<td>Numeric Data</td>
<td>S</td>
<td>S</td>
<td>U</td>
<td>S</td>
</tr>
<tr>
<td>Dynamic Data</td>
<td>S</td>
<td>S</td>
<td>U</td>
<td>S</td>
</tr>
<tr>
<td>Message Boards</td>
<td>U</td>
<td>S</td>
<td>U</td>
<td>S</td>
</tr>
<tr>
<td>Interactivity</td>
<td>U</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>User defined</td>
<td>U</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Narrative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replayability</td>
<td>P</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Multiple Languages</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

**Pros**
- Quality Video
- Broad Audience Reach
- Professional Editing
- Set Viewing Time
- Universally accessible
- Branching Narratives
- Multiple Linear Narratives
- High Quality Video

**Cons**
- Linear Only
- Low Quality Video
- Limited Interactivity
- No Interactivity
- Bandwidth Issues
- Read Only
- Platform
- Compatibility Issues
- "2 Screen" Issue

**Key**
- S = Suitable
- U = Unsuitable
- P = Possibly Suitable/Provisional/Problematic

**Process Flow**

While in the process of gathering material for a documentary project, the database documentarian should gather ALL material they come across. This material once entered within the database, will become a rich repository for the creation of the presentation modules. It is imperative, of course, that each media object placed within the database be assigned characteristics to distinguish it from the other elements within the system. An asset management system, even a simple one, is necessary for the process to be a success. This system does not need to be technically sophisticated in nature, but merely a logical way in which each item is labeled with
characteristics. The following sample table suggests a database labeling structure for a project focusing on immigration. It represents a series of media assets and the ways in which they might be labeled for further use:

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Format</th>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.04.2001-1</td>
<td>Video</td>
<td>DV</td>
<td>03.04.2001</td>
<td>1:00 AM</td>
<td>Nigeria</td>
<td>2min</td>
</tr>
<tr>
<td>03.04.2001-2</td>
<td>Video</td>
<td>DV</td>
<td>03.04.2001</td>
<td>3:30 PM</td>
<td>Palestine</td>
<td>5min</td>
</tr>
<tr>
<td>03.04.2001-3</td>
<td>Video</td>
<td>DV</td>
<td>03.04.2001</td>
<td>12:00 PM</td>
<td>Nigeria</td>
<td>2.3 min</td>
</tr>
<tr>
<td>Nigeria Map Data</td>
<td>data</td>
<td>geoData</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nigeria Map</td>
<td>image</td>
<td></td>
<td></td>
<td></td>
<td>Nigeria</td>
<td></td>
</tr>
<tr>
<td>03.15.2001-Message</td>
<td>Email</td>
<td>ascii</td>
<td>03.15.2001</td>
<td>9:48 PM</td>
<td>Nigeria</td>
<td>1200x300 pixels</td>
</tr>
<tr>
<td>Jim&amp;Sally</td>
<td>image</td>
<td>jpeg</td>
<td>03.23.2001</td>
<td>11:42 PM</td>
<td>Palestine</td>
<td>500x600 pixels</td>
</tr>
</tbody>
</table>

This second chart shows other ways of classifying the data. In this case, the labels are far more thematic, which might allow for greater social analysis and explorations of narrative themes within the material.

<table>
<thead>
<tr>
<th>Name/ID</th>
<th>Type</th>
<th>Note</th>
<th>Player1</th>
<th>Player2</th>
<th>Player3</th>
<th>Theme1</th>
<th>Theme2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jim&amp;Sally</td>
<td>image</td>
<td></td>
<td>Jim</td>
<td>Sally</td>
<td></td>
<td>Family</td>
<td></td>
</tr>
<tr>
<td>Paula&amp;Ray</td>
<td>image</td>
<td></td>
<td>Paula</td>
<td>Ray</td>
<td></td>
<td>Family</td>
<td></td>
</tr>
<tr>
<td>Steve</td>
<td>image</td>
<td></td>
<td>Steve</td>
<td></td>
<td></td>
<td>Family</td>
<td>Departure</td>
</tr>
<tr>
<td>Annual Report - INS</td>
<td>Text</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Immigration</td>
<td></td>
</tr>
<tr>
<td>Chat - Immigration Issues</td>
<td>data</td>
<td>Ongoing Internet Chat</td>
<td>Jim</td>
<td>Sally</td>
<td>Alex</td>
<td>Immigration</td>
<td></td>
</tr>
<tr>
<td>Chat 3.01.2001-tran</td>
<td>text</td>
<td>Internet Chat Transcript</td>
<td>Paula</td>
<td>Ray</td>
<td>Tom</td>
<td>Immigration</td>
<td></td>
</tr>
</tbody>
</table>
Conclusions

New Media technologies and thinking present a rich field of opportunities to both rethink the nature of the documentary form and present new ideas to the viewing public. Interactivity and audience expectations, new technologies and critical theory suggest a new process for the creation of this media form. A great deal of excellent work has been accomplished. This hybrid media has also produced many unexpected and un-anticipated products as well.
The database oriented process suggested within this paper is a beginning, not the final result. Many key issues seek to be addressed in areas from questions of representation to the synthesis of production knowledge between fields. It is the authors hope that through time and continuing research, this process might prove both a vital and useful personal tool but also and interesting aid for other media makers as well.

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