

Videoblogs as "Collective Documentary"

« An entire subculture of people is obsessed with these bits of footage, and anybody who can create that kind of brand loyalty would be a gold mine... »

William Gibson

Abstract

Blogging has been a textual activity, but text is only one aspects of the diverse skills which are needed in order to understand and manage different aspects of modern communication. Broadband connections are likely to stimulate a rapid increase in audio-visual services on the web, presumably changing the future conditions for blogging.

Videoblogs can facilitate practices which promote *media literacy* and collaborative learning through the making of *collective documentaries*. Videoblogs with wiki-like functions promise to turn users into producing collectives rather than individual consumers of audiovisual content. This paper outline parts of the theoretical and technical framework which is needed in order to design an online environment stimulating collective production of video.

Introduction

Arguably textual blogging has an effect on journalism by making the process of gathering information more dynamic, potentially involving the public before the moment of print publication, or even as providers of content. When it comes to audiovisual media the users begin to abandon broadcasting in favour of broadband services (Ofcom 2004). This development will probably continue as new technologies transform the viewing experience into a more personalized activities, potentially by-passing the traditional broadcaster completely (Ofcom 2004:65).

Television will probably continue as broadcasting in the foreseeable future, but broadcasted journalism, documentaries and fiction will be accompanied by a number of broadband services. Quite a few of these services will not be delivered by the traditional broadcasters. This will affect the traditional media-economy which is going to be further undermined by new media technologies stimulating new forms of consumption and user-contributions. The "consumption" of moving images is hardly going to decrease - the opposite is more likely to happen - but production, distribution and use will change profoundly (IBM 2004).

Consumers of media will not stop enjoying "passive" consumption, regardless which medium they prefer to use, but in the future they are going to spend less time doing so. Quite a few users will demand possibilities for interaction giving them the opportunity to control their own

programming or act as producers of content. This has already happened with text media: A number of different services like OhmnyNews.com, Wikipedia.org and Slashdot.org are examples which all rely heavily on user participation. It is also happening with pictures (e. g. Fotolog.net and Flickr.com). At last it is going to happen with moving images: BBC has already given some of their reporters standard mobile videophones in order to make them able to instantly record and transmit video from the field. Similar technology is used by individuals, making their pictures and video available through the WWW. Internet technology becomes an arena where individual publishers and traditional broadcasters meet.

The development towards mobile video-recording and consumption, combined with user participation comes along with the introduction of broadband access which make television viewing decline more than any other traditional media. Still people use television far more than any other medium (SSB 2003) and the overall demand for video is hardly going to decrease in the future. What is going to change is the technical solutions which are used in order to access video material: Different kinds of computers will make an increasing number of consumers able to record, edit, and share content. As a result they will gain more potential control and their experience and attitude towards media will probably change profoundly. Our position as users of audiovisual media will become more complex, making it important to help youngsters understand the “grammar” of different media and how they interact.

Media literacy

Traditionally the term “literacy” has been used to describe the ability to communicate through the written language, but textual literacy is only one of the diverse skills which are needed in order to understand and manage different aspects of modern communication. In order to assimilate the increasing use of computers one have been talking about “digital literacy” for some years, reflecting a notion that it is possible to differentiate between “digital” and other kinds of literacy. As a contrast to “print culture” this have been a useful approach, but the convergence of media technologies has made the distinction between “digital” and other media somewhat obsolete. When characterizing the skills and knowledge needed in order to take advantage of “new media” we might as well use the more general term “media literacy”, which can be defined as the "ability to access, analyse, evaluate and communicate information in a variety of forms" (AMLA).

Those who are media literate know the way different media works, they have an understanding of the way content is produced, the way it is delivered, and the way people access it, regardless whether it is through a digital medium or not. Papert and Resnick use a similar term, “technological fluency” (Papert and Resnick 1995) in order to describe the ability to master all parts of a technology, not only technical artefacts, but also the social aspects. When applied to the future of media literacy “fluency” is going to include the ability

to use technology in order to collaborate in groups, defined by the problems the members want to solve, not by their physical localization.

It is important that our notion of media literacy reflects an awareness of both the consuming and the producing aspects of media technology. This is an area where textual blogging already seems to prove its potential. Maintaining a weblog is primarily an individual activity, but since production is closely connected to media consumption blogging often becomes part of a collaborative effort where a number of people might contribute in a multitude of ways. Blogging also seems to be popular among adolescents (Perseus 2003), and a major part of the bloggers are girls (LiveJournal 2004). As long as computers have been considered to be the boys domain, these are promising figures for those who believe in the benefits of using computers in education.

Videoblogs

The importance of video, being a very powerful medium, the increased amount of video material on the web, and the possibilities offered by weblogs when it comes to collaboration sums up in "videoblogs" as one of the most promising tools which may foster media literacy.

Blogs began as a textual genre of personal publishing, but the genre has developed visual expressions, like photoblogs, and more recently adapting sound and video. Most bloggers publish short posts, they write quite often with an extensive use of hypertext-linking. Linking and commenting makes blogging a kind of collaboration, where individual bloggers are writing in context created through collective, but often unorganised effort.

Textual blogs have at least three characteristics, apart from usable and easy accessible software, which have made them easy to use whether as a "producer" (writer), a "consumer" (reader) or both: Textblogs are based on non-temporal media which is easily controllable, they are easy to cite and they are part of long textual tradition, "re-mediating" many of the features known from diaries and journals. Even though there are several substantial differences the easiest way to explain blogging often is to begin with referring to "an online diary".

When it comes to audiovisual blogs these are more difficult to explain: Audio- and videoblogs are based on temporal media and there are no established tradition which they are closely related to. Audioblogs can hardly be compared to radio or recorded sound and videoblogs are not like television or private filmmaking: In contrast to broadcasting blogs are personal and at the same time they are shared by people outside the private sphere. The personal

aspects are important to blogging, distinguishing the genre from other kinds of webpublishing and content management.

Production, presentation and distribution: In all these areas blogging promise to be close to the opposite of broadcasting. Looking for the sources of a videoblogging language we therefore have to explore other aspects of audiovisual culture.

Several videoblog-traditions

First one have to come to terms with what characterizes a videoblog. We have to distinguish between several significantly different technical solutions which claim to be videoblogs, ranging from simply uploading unedited videofiles, via play-lists to edited sequences, sometimes with complex interactivity. It becomes difficult to define distinct genres, but in general there seems to be some major traditions, which of course interfere into a number of sub-genres. I make a distinction between "vogs", which are based on pre-edited sequences with interactive features, video-"moblogs", consisting of relatively short, autonomous video-clips, and playlists, which are collections of references to video-files on different servers.

Some of the characteristics of vogs and "vogging" are formulated in a manifesto written by Adrian Miles (Miles 2003), inspired by the danish filmmaking initiative Dogme 95. In this tradition videoblogs are personal publishing of video, exploring the potential of linking, using technology which is easy available. Vogs are made of edited sequences which normally include interactive elements. They are typically made with different kinds of software on the producers computer and posted to individual websites.

The other major tradition has emerged along with the introduction of mobile input-devices with internet connection (smartphones, PDAs, camera cellphones). Blogging from mobile devices is particularly interesting in relation to documentary filmmaking, trying to grasp moments in life provoked or captured by the presence of a camera. A pioneer within the moblogging tradition is Steve Mann who has experimented with wearable cameras, posting images to the Web since 1994 (Mann 1997). Today most moblogs are based on technology quite similar to textual blogs with posts containing uploaded pictures or videoclips and additional text. Moblogs are often hosted by professional service providers where a large number of blogs share the same infrastructure. Videos on moblogs normally contain individual videoclips, not edited sequences.

Vogs and moblogs are quite different, both regarding they way they are produced and the way they are consumed. Miles (2003) makes a good distinction between the two traditions by emphasizing that "a vog is a video blog where video in a blog must be more than video in a blog". The posts in vogs are edited and may offer quite complex interactivity. Therefore those

who produce vogs have to combine skills in the use of software with the ability to manipulate moving images and add hypertextual interactivity. If we restrict vogs to video-content there are not many voggers around, even including those posting cinematic 2D- and 3D-animations the number is still relatively small. Even though there are no major technical barriers some skills are required, preventing most users from becoming "voggers". Moblogs on the other hand are easy to use, in most cases it is just a matter of simply uploading video-files to a dedicated webserver. However, this is not only a question of ease of use, possibly even more important is the time which the producer has to invest in order to get his material on the web. When posting is not time-consuming bloggers are encouraged to post often, an aspect which has made a lot of text-bloggers and blog-readers become avid users. The same criteria for success apply to videoblogs.

Playlists are perhaps not videoblogs, but an interesting genre because they use technologies which may bridge the gap between "vogs" and "moblogs". Playlists adress individual files on different servers and may even provide a level of interactivity without manipulating the content in these files. One way to achive this is by using SMIL (Synchronized Multimedia Integration Language) an established XML-dialect defined by The World Wide Web Consortium in order to control different media distributed through the internet. SMIL seems to be an ideal platform for distributing various content as "movies" without moving or manipulating the original source-files (videoclips, pictures and text). Since SMIL-files are based on an open format (XML) stored as ASCII-text it is quite easy to make alternative versions of playlists, taking advantage of server-side applications and the internets transparent nature.

“Collective Documentaries”

Looking for existing genres which videoblogs re-mediate the closest we get are some traditions known from documentary filmmaking. One of these is diary-films, which are personal first-person narratives. Another tradition is found-footage films, which often are based on old private material filmed by others than the filmmaker himself. Found-footage films are part of a larger tradition known as compilation film, using material from a variety of sources, including archived material. Any kind of film and video have the possibility of ending up as found footage: Your grandfathers Super-8 movies, old commercials, parts of feature films, recorded television etc. Quite a few excellent filmmakers have made their first movies with material found as leftovers in a studio or in a film school.

William Wees discusses three general ways in which found footage is most often used (Wees 1992):

1. Compilation : Film where the editor cuts together pieces of footage in order to illustrate a point. The images are intended to represent “reality” and is typical in television documentaries.
2. Collage : Film which use found footage to create metaphors, provoke self-consciousness and encourage critical viewing. The viewer is able to read images critically with attention to the metaphors.
3. Appropriation : Film where images are reused in order to be decorative. Representation is about surface, rather than creation of secondary meanings. Wees relates this to postmodernism and to the loss of the film-material’s historical meaning.

Wees’ discussion represents a general view of found footage as film- and video-material which is recorded in a historical context: The footage is recorded and used for a specific purpose, then forgotten and in the end found, typically several years later in a completely different context. Re-contextualisation is what often makes the use of found footage interesting, both in documentaries and fiction. This is most strongly associated to Wees’ second category, “collage”.

Videoblogs are related to both diary-films and found footage: The material is a combination of personal recordings and material provided by others.

With the introduction of mobile cameras and fast, easy and reliable ways of sharing video-clips the concept of found footage is going to change. In the future video recorded by individuals promise to be a kind of found footage more closely related to recent or ongoing events. This material is hardly going to be used in the same way as traditional found footage, because the time between recording and use will be much shorter. Instead new patterns of use will emerge: Different aspects of voyeurism are quite obvious, but hopefully also ways of using online video in order to make individual statements about issues not covered by today’s mass-media.

In relation to the use of online (found) footage the term “collective documentary” becomes highly relevant, at one hand emphasizing the intention of telling something significant about real life events, on the other hand telling that the work is made as a result of several people working together, not as a organized team defined by a given task, but rather as a small community with shared interests. When making video online the most important aspect of collective documentaries is that the raw material is provided by a number of persons and the collective editing-process where the concept of re-editing is essential.

A Learning Perspective on “Collective Documentaries”

Before we look into the different stages of the videoblogging process we have to consider the basis for an online community fostering the kind of collaboration needed in order to promote media literacy through the making of collective documentaries.

We may consider collaboration as communication where there are no clear distinction between senders and receivers of information. Nevertheless, all communication has to begin with individual producers who provide some kind of context, transforming data into information by creating relationships between data (text, images, video and sound). Through our experience of different sources of information we construct knowledge in interaction with others by sharing and discussing the different patterns in which information may be organized. In the end knowledge is the basis for wisdom, the most intimate level of understanding. Wisdom can be reckoned as a kind of "meta-knowledge" of relationships achieved through personal experience. Wisdom can not be shared with others like knowledge, but provides an essential individual position when sharing knowledge with others (Shedroff 1994:4-5).

When it comes to our relationships with media wisdom relates to personal conceptions made in negotiation between our previous experience of mediated information, our understanding of a specific work and our knowledge about media in general. Those who are media literate need a high level of understanding, knowing the conjunction between content-production, -distribution, -delivery and -consumption. This process of transforming information to wisdom correlate to what Lev Vygotsky described as a "process of internalisation" : First an operation that initially represents an external activity is reconstructed and begins to occur internally. Every function in cultural development appears first on the social level and later on the individual level. First, *between* people (*interpsychological*), and then *inside* each person (*intrapsychological*) (Vygotsky 1930).

Vygotsky's thinking about social processes of internalisation are closely related to learning theory emphasizing that there is no distinct separation between what individuals learn and how they learn and use their learned skills in co-participation with others. Jean Lave's and Etienne Wenger's model of situated learning propose that learning involves a process of engagement within a "community of practice": A community of practice is "defined by knowledge rather than by task, and exists because participation has value to its members". The community's life cycle "does not appear the minute a project is started and does not disappear with the end of a task. It takes a while to come into being and may live long after a project is completed or an official team has disbanded" (Wenger 1998). Initially people join a (learning) community at the periphery. Becoming more competent and self-confident they move towards the 'centre' of the community being more active in the ongoing communication. Learning is in this context mainly considered as a process of social participation, not merely an individual achievement: "A person's intentions to learn are

engaged and the meaning of learning is configured through the process of becoming a full participant in a sociocultural practice" (Lave & Wenger 1991:29).

When designing a collective videoblogging environment one have to take both the personal and the collective aspects of "learning by participation" into consideration. Too many systems have been designed with superb tools for sharing information, but without being considerate to the level where individual "newbies" are supposed to enter the producing parts of the system. Everyone does not have to be a producer, "lurkers" will always be a large and important part of any open online community, but it is a problem if a lot of people who consider to post information into the system turn away because of the cost of entering, due to social or technological reasons. The most successful online environments seems to be those which are designed in order to make it possible to post information at different levels, socializing new users into the systems publishing-culture. Blogs provide some of these socializing effects providing an individual base for entering a community, blurring the boundaries between production, distribution and consumption.

The videoblogging process

In order to make a videoblogging community of practice where the members benefit from each others creative effort one have to take into consideration the different stages of the production process. Trying to build a theoretical and practical framework for a "digital cinematography" one have to acknowledge that networked computers cause significant changes to some parts of the production process while others remain almost the same as if the process was done with an offline computer.

After the video-material is recorded the videoblogging process can be divided into five stages : 1. "Posting", 2. "Selecting", 3. "Editing", 4. "Storing" and 5. "Re-editing".

1. Posting

The success of blogging is partly a result of cheaper net connections and the increasing number of computer literate people using the web. But even more important is the availability of software where publishing and citation of other websites has been made extremely easy. "Push button"-publishing is more than a catchy phrase, it is probably the single most important reason for the success of weblogs.

Videologs may become a genre where "href tracks", "sprites" and "interactive" elements enhance the users personal experience in ways that are unique to computer mediated communication. The considerable downside is that advanced interactive features have consequences for the amount of work which each user have to put into his posts. When posting becomes a task the most important advantage of blogging disappears and the "media literacy-potential" will decrease. Following the moblog tradition, emphasizing

simplicity, posting should be as easy as possible. The users should be encouraged to post short clips of unedited video-material which is transformed into a unified video-format on the server, becoming a common resource for future editing and citation.

In order to make sure that the videos become a common resource the users have to give away some of their exclusive rights when it comes to copyright. The intention is that any user of the system should be able to make their own edit using clips provided by a number of other users without having to ask for permission for using a specific clip or sequence.

In order to keep a system as simple as possible there will be no way which the users can manipulate individual video-clips or pictures within the system. Once a clip is posted it will not be possible to change anything else than it's duration when it is used in sequences, which is done in the SMIL-editor described below. The user is able to "delete" a video-clip from his personal blog in a way which will make it "invisible", but the clip will still exist within the system in order not to corrupt any "movies" which already have used the clip. This means that a "deleted" clip might continue to exist in a number of re-edited "movies".

Comments

Comments is a way of posting which is important when building an online community for at least two major reasons: First comments is the easiest way to become a part of a community without having to be among those who provide the content in the first place. Comments are the first step from what Lave and Wenger call the "periphery", where users are merely looking, becoming participants and learning the community's rules through active participation. Secondly comments help maintaining a community by making different members aware of each other. Frequent comments give those who post an explicit confirmation of their public presence in addition to some substantial feedback. This is particularly important in photo- and video-blogs because these are personal expressions, often even more vivid than most textual blogs which in many cases might be considered as varieties of content management.

Textual comments in response to pictures and video are often used in order to express some kind of gratification. Statements like "Wow!", "Great shot", "Beautiful" etc are common in large communities like Fotolog.net. From time to time there are comments with more substantial feedback where the commenter have express reflected thoughts about a picture. A individual blogger might find the latter more rewarding, but when it comes to building a community the first kind of comments are probably more important.

In the case of commenting video one might have to consider the possible problem of "where" to comment. This is not obvious, especially when it comes to sequences where the

commenter may want to comment on specific parts, not on the sequence as a whole. Blog comments are usually written text, but a media specific way to comment on video would be to make it possible to comment with video. Such a feature would allow novice users to post, allowing them to experiment without having their own blog, lowering the entrance to the videoblogging community. At the same time such features will take the problem of comment-spam to a whole new level.

2. Selecting

"...free of the limits of time and space, I put together any given points in the universe, no matter where I've recorded them"

Dziga Vertov (1923)

In *The Language of New Media* Lev Manovich argue that very few designers create new media objects from scratch. They usually construct an object on the basis of ready-made parts. Authentic creation are replaced by selection (Manovich 2002:123). In the case of editing film or video this has always been the case, one might actually argue that "authentic creation" relies on selection.

As soon as video-material are shared among a large number of videobloggers we might come close to the computer-age's version of Dziga Vertov's saying. Where Vertov was talking about his freedom to use film-material in any order, we might be able to extend this freedom by using the material which others come up with, potentially using material recorded at the same time, but in different parts of the world, reducing some of the constraints of physical space.

Finding audiovisual material

When the number of videoclips grow large the users of a collective system will need strategies to find material of interest. In text-blogs this is achieved by providing free-text search in combination with categories and time-based archives. As long as the major content is text this kind of searching is quite efficient. When it comes to non-text media this becomes more complicated. Searching in audiovisual media requires metadata, which must be provided in addition to the posts content. Foreseeing a system where a majority of the users may be posting from mobile devices one can not assume there will be posted much additional information at all. This will of course have to influence on the approach when designing a interface finding non-text material.

A flexible system must allow a media-object to be assigned to multiple categories, allowing hierarchy but without enforcing it. This will in most cases be an excellent system usable for a large videoblogging environment, perhaps even with features combining personal and global categories. Combined with personal information, time and date of posting and possibly

geographical information, this provides enough metadata for searching or automatic generation of play-lists which may be re-edited manually.

The problem with searching and search results is that the information is shown out of context. In order to get an idea of the quality of a specific clip it might be helpful to know how many who have used it in a sequence. If a lot of people have used it you have an indication that it might be worth looking at. Sequences are in fact the best way to view a clip as long as it provides both context and an example of how the clip might be trimmed (where to begin and where to end).

Actually the most important way of selecting will probably be by browsing and features for easy selection when browsing are going to be essential. Whenever the user comes across a clip or sequence which he wants to use in a re-edit he must have an option in the blog interface which store a reference which becomes available in an editing-session. Each session must be able include a large number of these references.

When looking at a specific video-clip the user should get immediate access to sequences which use this clip. Having movies (SMIL-documents) to include sections of a number of video-clips by reference resemble what Ted Nelson call "transclusion". Transclusion represent the ability to make a virtual copy of part of one document, for inclusion in another document, leaving the original untouched (Nelson 1999). Depending on how the system is designed a specific video-clip can be linked to all the movies which are using it and vice versa: Every sequence which use a clip is accompanied by links to the clips which is used.

Another useful feature is an extension of the kind of blogroll which I believe has made Fotolog.net and Flickr.com becoming successes when it comes to the level of activity and "community-feeling". Taking advantage of RSS it would be easy to implement multiple "rolls" which could be used for selecting and automatic-editing purposes.

Citation

The right to cite is probably one of the most important rights we have in a democratic society, but questions regarding reuse of copyrighted material is rather complex as long as the users are not forced to accept some kind of agreement which allows other users to use the material for creative purposes. In order to be successful a videoblog-system made for "collective moviemaking" will require editing possibilities where the users could take advantage of each others creative work without involving copyright issues as long as some general rules are followed.

Text-based blogging tradition relies on the ability to make citations from other webpages. Even bloggers who provide unique material in their personal blogs benefit from getting their message known to a large number of possible readers. Citation in other blogs have proven to

be a very effective way to achieve this. Both the original author, the blogger who makes the citation and their readers benefit from this regime: The original author is credited, the one who cite gets interesting content and the readers get different perspectives on a given issue. Links which follow the citations is material for useful services like Technocrati, Daypop, Google etc.

When it comes to video and images citation becomes more complicated, involving commercial interests, tradition and the originators "moral rights". There are also a number of technical issues which makes citation of video-material and images a task which involve technical skills beyond trivial editing.

If you only link to a video which is presented in its original context there are hardly any problems at all, but if you only link to a part of a movie the legal questions are far from obvious. If you link to parts of several different movies, as you will do in an online "collective" work, the questions of moral rights may become substantial. An example would be to make a SMIL-document linking to two pornographic videos and placing parts of a third "serious" video in the middle, and in the end storing the sequence as one movie. Any of the originators might claim that the integrity of their work has been offended. This part of copyright law is difficult to handle, even from a strictly legal perspective. "Moral rights" are to a larger extent an issue which can't be answered with simple rules. What it means to be cited in a proper way changes with available media technology.

Discussing the legal (and economic) aspects of citation in depth goes beyond the scope of this paper. For those interested in these important issues I will recommend Lawrence Lessing's book Free Culture (Lessing 2004).

3. Editing

"Everyone who has had a piece of film to be edited knows by experience how neutral it remains, even though a part of a planned sequence, until it is joined with another piece, when it suddenly acquires and conveys a sharper and quite different meaning than that planned for it at the time of filming"

(Sergei Eisenstein 1949:10)

Film theory have been dealing with editing as a major part of cinematography since the russian filmmaker Lev Kuleshov introduced the term "montage" in relation to film. Kuleshov demonstrated through a number of experiments that the combination of unrelated images could reveal a separate meaning external to the individual clips. He argued that montage should not function in terms of collision and conflict, but in terms of linkage and unification. Sergei Eisenstein, who formulated the most significant theory of cinematic montage, did not share this position. Being familiar with the films of D. W. Griffith, Kuleshov's montage experiments and re-editing techniques used by Esfir Shub (who taught Eisenstein editing),

Eisenstein was convinced that in order to create new meanings cinema should manipulate time and space by juxtaposition, not merely by the linking of shots, like Kuleshov suggested.

Video-clips which are accessible online will be like autonomous nodes which can be part of a number of sequences connected by links. This makes online video a major step towards a merging of cinematography and hypertext. In cinematic montage the edit is external to the content of the individual shots, but it produces an effect which is an integrated part of cinematic language. The same happens in hypertext where the author use links in order to connect previously unrelated nodes (Miles 1999:5).

Both the edit and the link provides context to separated segments, but both theory and practice addressing editing / linking tend to concentrate on the segments. In film this is exemplified by the dominant "continuity editing" which purpose is to make the transitions between shots as close to invisible as possible. The perfect edits are considered to be those which have no duration an which the viewer hardly notice at all. In order to achieve this the editor spend most of the time finding the optimal match between the end of one shot and the beginning of the following one. Editing techniques which have a duration, like dissolves and wipes, are easier to identify, but they are almost never used unless the director wants to call for the viewers attention. In an analogous manner theory and practice in hypertext design emphasize the nodes in hypertext should be designed in order to make navigation as intuitive as possible, emphasizing the importance of a unified design in order not to confuse the user. Hypertext theory concentrates on links as devices of connection, emphasizing the coherency between the nodes of origin and destination, but not on the links themselves (ibid. 3).

When thinking of editing as linking every editor in a online videoblogging environment becomes close to what Vannevar Bush once named trail blazers, being "those who find delight in the task of establishing useful trails through the enormous mass of the common record" (Bush 1945). When making movies/trails the editors increase the selected clips' value because each they normally select what they consider to be the best material to include in the story which they want to tell. Clips which in this way becomes part of several movies are of course more likely to be seen by a large public and possibly draw attention to the originators own videoblog.

The editing interface has to display all the clips which the user have selected during a session. Focusing on simplicity the interface will give the editor very limited control, but he must be able to make new sequences by moving selected clips to a time line. The core concept is that the users make sequences without manipulating the source-material. The editing process result in a text-document (SMIL), small enough to allow storage of an almost infinite number of sequences, which can be made by combining a limited number of video-clips.

4. Storing

"cinema already exist in the intersection between database and narrative. We can think of all the material accumulated during shooting forming a database ././ During the editing the editor constructs a firm narrative out of this database, creating a unique trajectory through the conceptual space of all possible films which could have been constructed"

(Manovich 1999:46)

A useful principle in all kinds of "digital design" is to separate content and presentation whenever possible. The first question one has to answer before designing a system is: What is the smallest pieces of information which is a carrier of meaning and how might they be represented within the system? In a movie the these pieces are ranging from a frame, a single shot (frames in sequence) or a scene (shots in sequence) and the complete movie (scenes in sequence). Digital video is not limited to a fixed framerate, like the 25 fps known from PAL or NTSC's 30 fps. How do we distinguish between digital video and a "slideshow"? Is it the framerate, or maybe temporal differences in the sequencing of pictures? If you are moving a large still image within a smaller frame, does it become a movie? It's hardly possible to give distinct answers to these questions. It tells us that it may be difficult to differentiate between "text-blogs", "photo-blogs" and "video-blogs". Given the blurred boundaries between sequenced still images ("slideshows") and video it makes sense to design a videoblog-system in a way which makes it possible to post pictures and give them specified durations.

Collective editing capabilities relies on storage which consume as little disk-space and bandwidth as possible. Downloading video-clips in order to re-edit a sequence and uploading a new version will not be effective. I would like to propose an approach to videoblogs focusing on the simplicity known from moblogs combined with an easy to use editing-interface which makes it possible to combine clips from different logs into sequences and store these as SMIL-documents (Synchronized Multimedia Integration Language). In order to make a flexible system all references to users, shots and sequences are stored in a database, generating SMIL-documents "on the fly". Because SMIL documents are plain text files which might be played in Quicktime it becomes an easy task to generate customized movies using server-side applications.

The online editor must be capable of combining clips into sequences and store these as SMIL-documents in the creators blog. The SMIL-document include references to the video-clips, controlling order and duration, positioning, and additional text. SMIL-documents can be made quite sophisticated, however this example is simple as it could be:

```
<smil>
  <head>
    <layout>
      <root-layout id="main" width="320" height="240" />
```

```

    <region id="r1" width="240" height="180" />
  </layout>
</head>
<body>
  <seq>
    <video src="1.mov" region="r1" begin="00:03.000" end="00:15.000" />
    <video src="2.mov" region="r1" begin="00:10.000" end="00:18.000" />
    <text src="credits.txt" dur="10 sec" region="r1" />
  </seq>
</body>
</smil>

```

The above SMIL-document describe a "display area", which become the size of the window when the document is opened in the QuickTime player. Inside the display area there are one region used to display video and additional text. This example starts by playing a video-clip for 12 seconds, this video is the first within a sequence where the second video starts when the first one is finished, playing 8 seconds of the video. The text with credits is displayed for 10 seconds after the last video.

The beauty of this is its openness and simplicity, making the users able to manipulate order and duration without affecting the original videoclips. If the editor or another user wants to re-edit the sequence they simply open the references to the movie in the editor, make a new edit and store the new references which is used to generate another SMIL-document. Still none of the users have done anything which affects the source material.

5. Re-editing - The blog meets the wiki

"In collage and photomontage as in hypertext, to create is to rearrange existing forms. In photomontage the pre-existing forms are photographs; in literary hypertext they are paragraphs of prose; and in hypermedia they may be prose, graphics, animations, videos, and sounds. In all cases, the artist is defining a space through the disposition and interplay of forms that have been detached from their original context and recombined"

(Bolter & Grusin 1999)

Re-editing techniques are by no means a new invention, once introduced in Russia after the revolution, and used in order to make foreign films "suitable" for viewing by a Soviet audience. Sergei Eisenstein followed this tradition when he successfully used re-editing of old newsreel material in his fictional films. Later his knowledge of editing was the basis for his important theory of cinematic montage

There is a long filmmaking tradition where new films are created by re-editing material made by others, but the process of making films this way will become much easier when the material is accessible online. The development of digital storage systems for audiovisual media will most likely change the way the material is presented just as it will change the way it is accessed (Sjöberg :67). Online distribution of video material also makes it possible to produce films in ways we have not seen yet, having a large number of persons provide the

content and an infrastructure which does not imply any limitations on the number of different edits.

Re-editing in a videoblogging environment means that any user can take a sequence or a number of individual video-clips into the editor, make a re-edit and store the result as a new sequence in his own blog. The idea of making "collective documentaries" or fiction in this way is intriguing: Those who are unhappy with a version, may comment on the original sequence or just make their own version, possibly adding their own content.

The process of re-editing brings cinema and hypertext closer together. Both cinematic montage and hypertext is about rearranging existing order and use the elements in a new contexts. When re-arranging becomes easy one might hope this will encourage experiments with cinematography. This might be techniques already known from experimental film, like "contrapuntal editing" were the editor confronted with two important shots which are carriers of meaning, tries to create a distance between the shots, a technique which acquires a stronger and much more complete approach than by pasting related shots into sequences and thereby fulfill the requirements of ordinary continuity editing.

Conclusion

"- Since we can only speculate about it's position in a hypothetical narrative, how can we judge its relative significance? /../"

- That's not my question. I'm not asking vis-à-vis segments of a narrative, but in terms of the actual sequential order of uploaded segments.

Cayce isn't used to thinking of the footage in those terms, although she recognizes them."

(William Gibson, 2003:64)

In his fictional book William Gibson grasps some of the essence of online, collective filmmaking, questioning the significance of specific video-clips when multiple narratives use the same material. More research has to be done on the different levels of user-participation and the possible combinations of static and temporal media, exploring the effects of hypertext and interactivity in relation to cinematic narratives, created and distributed online. This also has to involve important questions regarding the use of sound and possibilities related to different kinds of "spatial montage".

There are also quite a few practical issues regarding usability and scalability. A system like the one I have outlined may reduce the demand for storage, but storage and effective distribution will always be important when we talk about digital video on the net. The principle of transclusion involve two-way links between clips and sequences and vice versa. In Nelson's vision transclusion implies reference without copying the original material. When it comes to the distribution of video this is probably not an ideal model. In order to cope with bandwidth limitations popular clips should be distributed, preferably through peer-to-peer

technology where the number of copies increase with the demand for specific clips. There is some promising work going on combining peer-to-peer technology (BitTorrent) and RSS in order to distribute large media files.

An ideal system would be open, making it possible to incorporate material on different servers, facilitating citation of stored material from archives and "television" news. This requires deep linking into the video-material, which is possible using SMIL, but involving a number of legal questions. Within a limited system these problems can be solved by making all users post their content with a Creative Commons license, but this does not solve questions regarding citation in a truly open environment.

The future of videoblogs and collective cinematic works are in the making and the technological limitations which we experience today will be overcome. Which technical solutions that is chosen is of course of some importance, but the real challenge will probably be the cultural and legal limitations working against participatory media.

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