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**Visual diaries in networked communities – Design patterns  
and the concept of genre as tools for media analysis**

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**Abstract**

This paper summarises an interdisciplinary research project aimed at designing interactive, visual support in a networked community.

A basic idea of the project is to use visual diaries as raw materials in the building of a shared, immersive 3-D world environment. The concepts of design patterns and genre are discussed in relation to their usefulness as analytical tools to support collaborative design. The generative possibilities of these tools are at the centre of the discussion.

The conclusion is that the concepts of genre and design patterns, by their power to involve community members in an early phase of the design process, may prove to be useful analytical tools. Another important possibility is that these conceptual tools may provide fruitful common ground for the joint studies of digital media from the perspectives of Cinema Studies and Computer Science.

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# **Visual diaries in networked communities – Design patterns and the concept of genre as tools for media analysis**

## **Introduction**

How will non-fiction film be used in future digital, networked media? Will the newsreel reappear in new formats? This time initiated, recorded and used in a decentralised manner, responding to the needs of its users? If so, what conceptual tools are there to help develop such uses?

In this paper I will summarise a research project aimed at designing interactive, visual support in a networked community.<sup>1</sup> First, the overall problem that the project address will be described in some detail. The rest of the paper tries to answer the questions above that deal with the Cinema Studies aspects of the project. The use of visual diaries as an organising tool within the community will be presented. Then the concepts of design patterns and genre as analytical tools will be discussed. Finally, a glimpse of the generative possibilities of these tools will be given, short narratives that exemplify the practical usefulness of the concepts of patterns and genre.

The project as a whole represents an interdisciplinary effort and introduces some concept that may appear futuristic, both to the film scholar and to the computer scientist. The concept of pattern languages have an operational air about them that will probably seem overly constructivistic to some readers with a background in the humanities. On the other hand, some key concept of the paper – like genre, rhetoric and narration – may seem overly philosophic to many computer scientists. In the Concluding remarks, these interdisciplinary challenges to Cinema Studies – to incorporate new perspectives and to rethink old ones – will be briefly discussed.

## **Problems in workplace studies – fragmented images of change**

A constant but relatively unnoticed problem of organisational reform is the lack of means to monitor ongoing organisational change. This problem is most evident when the organisational change is market driven, forcing swift adaptation to new patterns of technology and competition. But the problem is also noticeable in projects that directly address questions concerning the quality of work environment.<sup>2</sup>

Even in such projects, driven by an explicit strategy of participation and mobilisation, the difficulty of tracking patterns of change often result in fragmented and contradictory views of the processes involved. Employees use everyday language to express their first hand experiences of change in the work process. Technical and financial decision makers have their own, quite different conceptions and formal languages to describe change. The task to interpret these different views and to build consensus is a hard one indeed.

A considerable amount of research has been directed towards developing new kinds of business ratios and indices to, in effect, make intangible factors more tangible. Still, these efforts have been more informed by the abstract languages of specific research disciplines than by the cognitive demands inherent in the everyday working experience. The methods of presentation and visualisation is more attuned to an orderly, academic environment than to the ad hoc, complex environments of a competitive business. As a result, the lack of means to monitor change in a (more) truly participatory way leads to fragmented images of the processes of change.

### **Practical setting – mobilising collaborative documentation**

With the new labour laws initiated in the mid-seventies as an influential impetus, the LO (the Swedish TUC) have taken part in a long series of programs to support organisational change in local workplaces. These programs have all been aimed at augmenting the quality of working life and have focused on technological and organisational change, participation in decision making and the problems of interregional structural change. They have been supported by the Swedish Employers Confederation and by different research groups. The researchers' aim have been to advise, document and evaluate the programs, from the scientific point of view as well as from the practitioners'.

Following a program where some fifty workplaces participated for four years, a new program is now initiated with the aim to build a network through which these workplaces, and new ones, can keep in contact. The primary means of contact between the workplaces are those of printed newsletters and regional conferences. An important element of the networking is the informal face-to-face meetings where people get to know each other and obtain a deeper understanding of their respective problems. As many of their problems revolve around implementing new technologies, a special interest is expressed for how new on-line services could play an integral role in the networking process itself. Well established services like email, forum discussions and on-line lecturing will be used to extend the verbal and written exchange within the community. For the direct sharing of concrete work experiences, more novel visual technologies will be explored. Photos, posters and video clips will be exhibited in shared 3-D virtual worlds. As a visitor you are depicted as a named avatar in the company of all other visitors. In a simple, game-like environment, you can navigate through the exhibition, chat with old and new colleagues and explore the interactive paths through posters, photos and video clips. The challenge is to make a visit to the forum a lively and dynamic experience.

The short diary note will be the basic format for the written texts within the community. The compositional and narrational challenge is thus to make the arenas visual layout evolve step by step as an interactive and cooperative diary. The patterns reported by the members in diary notes, photos and video clips will be accessible for further analysis and comments by the members themselves. The task to develop a pedagogical framework for such a collaborative visualisation is the theoretical challenge for the project at CID.

## **Theoretical approach – a framework for collaborative visualisation**

The profound technological change that the medium of film is undergoing forces us to rethink much of the conventional knowledge about the rhetoric and the narrative possibilities of the medium. The task of the Cinema Studies aspect of the project is to reflect on the pedagogical possibilities of film that address the problems of organisational change. Such a thematic focus is of great help in the formal analysis of how the medium can be used. As far as form is concerned, the implementation of the diary as a model, helps focus the analysis further to the area of the short non-fiction film.

The fast diffusion of new interactive, visual recording technologies, and the great hopes linked to their capabilities in education, has led to a revived interest in a wide spectrum of documentary formats. Well known time-delineated narrational forms, such as the diary, the chronicle and the journal, receive renewed attention. So do space-delineated forms like the investigative journey and the descriptive travelogue. This in turn leads to a new interest in the rhetorical approaches of the interactive and the reflexive modes of representation, modes of documentary filmmaking that have evolved during the last four decades. But this time, the interest is not limited to critics and scholars primarily concerned with non-fiction film. The challenge is not only for the documentary to receive the legitimation of sobriety.<sup>3</sup> The magnitude of the technological shift has brought the challenging questions of rhetoric and narrativity to the established scientific disciplines themselves. The new tools of recording, editing and communicating has brought a new urgency to the questions of sobriety and the soundness of methods in most of the social and some of the natural sciences.

As the established disciplines are forced to use the new visual, aural and textual aids, they are confronted with the same questions that the documentarists have been wrestling with since the camera was first hailed as a supreme tool for science in the middle of the nineteenth century. Questions of rhetorical contexts, visual perception and historiography are now debated with new interdisciplinary insights in the literature on non-fiction film.<sup>4</sup> These debates may soon reach new categories of readers in educational settings as well as in small-scale industrial and community settings. But how will the debates within the established sciences contribute to the understanding of the new documentary? It is here that the necessity of the thematic focus may turn into a productive advantage.

Focusing on "organisational patterns of change" as a documentary theme, the two narrational axes of time and space leads us to two academic disciplines that focus on those dimensions of change. Economic history studies technological and organisational patterns of change in terms of how natural and man-made resources are circulated over time. Economic geography (at the Swedish universities often termed Culture geography) studies the same patterns as they are manifested in space, in the building of houses, communities, regional and global clusters. In both these disciplines digital video archives may soon come to play an important role as a scientific and educational instrument. The use of interactive visual aids in these disciplines can play an important role in the abstract modelling faces of research as well as in the observational and presentational faces. It is highly probable that the literature on non-fiction film can inspire these new disciplines in their quest to understand and make meaningful use of the new visual aids. But this also

amounts to a challenge for the film-scholar, to address the need for practical source-books on new methods of archive compilation and use.

### **Design patterns as a tool for workplace and media studies**

As far as the interplay between the established academic disciplines and the younger media- and IT-oriented disciplines, there is an inspiring example in the exchange between Cultural geography and Computer science around the concept of "pattern languages". In 1977 and 1979 respectively, the American architect and mathematician Christopher Alexander published his two influential books, *A Pattern Language – Towns, Buildings, Construction* and *The Timeless Way of Building*. Both books got, and today still keep, high rankings on the best-seller lists of the architectural field. But the interesting thing is that the recognition they receive comes not only from academic architectural circles. Passionate amateurs use the books as practical manuals for building their own houses and understanding their own community surroundings. Sophisticated software engineers use them as source-books for a powerful methodology of object oriented programming. As their methods for identifying generative patterns in software design has proven more and more fruitful, researchers studying the implementation of new technology in concrete workplace settings have become a third group of border-crossing readers.

Which are the building blocks that makes this methodology useful in such diverse contexts? The primary concern of the pattern language approach is to develop, in a collaborative manner, a formal way of describing our subjective experience of physical form and context. The overwhelming complexity of today's society invites us all to ponder recurrent patterns in our working life as well as in our personal spheres. Even if the methodology rests on a mathematical reasoning about "sets of (possible) misfits", the mathematical foundation is highly transparent and reveals itself most clearly in the systematic use of graphs. By fully taking into account the power of the visual pattern to contextualise everyday knowledge, this approach amounts to an abstract, yet poetic and multilingual, system of annotation for the physical, and virtual, worlds.

As the patterns are used to analyse and visualise systems and the interdependencies between its subsystems, a crucial point is how the "interfaces" between the subsystems are annotated. In *A Pattern Language*, Alexander and his colleagues identifies 253 patterns, from "Independent regions" to "Things from your life". Each pattern is presented as a sequence of seven aspects (pictures): a photograph, depicting in a poetic and rich way the context for that pattern; a list of the "larger" patterns that it supports; a short paragraph identifying the context in everyday language; a short text, reasoning about its internal forces; a short paragraph describing the resultant form; a diagram depicting the pattern; a list of the "smaller" patterns that support this pattern.<sup>5</sup> The power of this open and flexible formalism has shown itself in the area of workplace studies in at least three ways. The researchers can share their findings between themselves in a much more effective manner than before. Practitioners can play a more constructive part in the design process, thanks to the multilingual approach. Source-books of patterns with proven value can be compiled for further use and elaboration.

In the challenge to help build a cooperative visual diary in the LO network, the pattern language approach seems to be well worth trying. The practicalities of presenting ones own workplace in textual and visual notes can be captured in a series of illuminating patterns.<sup>6</sup> In the same way, the use of the online network can be captured in simple



patterns of computer interaction.<sup>7</sup> To work with patterns in this way, as printed one-page manuals that describe how and why the diary notes are made, may very well help to keep the notes short, concrete and focused.

### **Design patterns in mediated reality – the concept of Genre**

In the fields of architecture and workplace studies, patterns are used as handwritten or printed visual and textual documents that facilitates understanding and verbal communication. They are of a very operational kind. This makes them as expressive as they are descriptive and to the point – a double quality that Christopher Alexander describes as the poetic quality of the image and its accompanying text. To the documentarist and the Cinema scholar the poetic quality of such visual documents is interesting in its own right. Will the diary notes, the short videos or series of stills recorded at the workplace, share some of this poetic quality? Will their expressiveness match their descriptiveness in depicting relevant problems and solutions of their workplace? To my mind, this is definitely a goal worth striving for.

If the notes indeed share the conciseness of the patterns that inspired them, then one could talk about a meta-use of the pattern concept. This refers to the fact that patterns could be helpful not only in the practical design of the media but in the formal design as well. This brings us over to the familiar concept of genre. A taxonomic scheme, common to many art forms, that help characterise the regular features of groups of expressive and informational materials.

The concept of genre has recently been discussed from the perspective of computer-science by Thomas Erickson and others.<sup>8</sup> Erickson's use is very clearly formulated and general enough to harmonise with the Cinema studies perspective.<sup>9</sup> Since we are dealing with computer mediated information, it seems to be a good choice to summarise his use of the concept as a starting point.

How do you identify a genre, which are its characteristics? First of all, a genre has a specific *communicative purpose*. Secondly, it has unique regularities in form and substance, and it is these regularities that I will here propose to call *patterns*.<sup>10</sup> As a third distinctive trait, genre also has a *discourse community*, that is, a community of participants with different roles among its members. As its fourth distinctive trait, a specific genre has a *shared understanding* of its specific patterns within its specific community.

So, how do we best study the way a certain genre evolve, its dynamic traits? Well, according to Thomas Erickson, this is done through analysis of how *socio-technical forces* shapes its specific patterns. Applied to virtual worlds, the focus on these forces help us understand how the interaction between users shape the specific patterns of the world. This focus on socially and technically constrained interactions help us to concentrate on the concrete, community-specific patterns and artefacts of the world in question.

Thomas Erickson also notes that Genre-theory challenges a few concepts in the field of Human-Computer Interaction (HCI). Traditional genres, as we know them from printed media, film and television, have a marked separation between the producer and the consumer. To what degree will this be the case in the evolution of interactive media too? That is indeed a key question for all participants, active in the field of IT-design.

Another challenge is the fact that traditional genres evolve slowly. This observation points to the fact that social conventions take time to evolve. As I see it, this calls for an attitude of patience in a field that is, on the whole, marked by dynamic change and highly pitched expectations. Even if there are obvious tensions between the different paces of social and technological change, this notion points to the fact that there is a lot to gain from having a close and long-term relationship with the community you want to study. To my mind, such a long-term relationship is also necessary if you really want to bridge the gap between producer and consumer in the evolution of new community-oriented digital media.

### **Genre and its relation to Rhetoric and Narration**

Before I try to exemplify the usefulness of the genre perspective, I will make a short comment on the relation between the concepts of genre and narration. Recent developments in computer gaming and multimedia production shows that an awareness of the narrative aspects of the particular design is essential. Expectations has to be met. Anticipation on the part of the audience/participants has to be established and withheld by paying attention to temporal, spatial and intentional continuity.

But the concept of narration does not help us solve the broader questions of the relation between audience/participants, content and form. And this is where the notion of genre comes in. Putting the focus on the communicative purpose of the design can help contextualise the narrative aspects in fruitful ways. While the focus on narrative emphasise the craftsmanship of composition and continuity, the focus on genre emphasise the underlying questions of communicative purpose, shared understanding and generative patterns of design. An established genre can thus be said to constitute an organically linked and historically tested group of media artefacts with similar narrative patterns.

Another way to see this relationship is to think about rhetoric.<sup>11</sup> The key elements in an analysis of the rhetoric aspects of a text or film are: 1) the Facts, 2) the Logic, 3) the Metaphor and 4) the Narrative. The most general observation here is that these elements just don't match each other in any arbitrary way. A more pointed and useful notion is that there is a specific interplay between the metaphorical and the narrational aspects of the design. In this way, understanding the rhetoric aspects of the design can, in a way similar to the genre-aspect, be said to contextualise narration.

This immediately leads us to the question about the relationship between rhetoric and genre. And here, one acceptable answer, I think, is that the individual genres can be seen as *historic manifestations* of successfully adapted rhetoric patterns. They are "rhetorics come true". If they really evolve, and people recognise them (like in talking about "Adventure", "Simulation", "Shoot 'em up" etc.), their underlying patterns have been tested the hard way, and proven to be generative. Another, related sign of the usefulness of a concept that can group many, *relatively different*, narratives together is the flexibility and wide use of the word genre. It seems to work, quite undramatically, in everyday language as well as in more formal discourses.<sup>12</sup> The word has proven its usefulness in the critique and analysis of literature, film and television. Now, the question is how we can use it in the analysis and design of networked digital media.

## Genre as applied to interactive visual workplaces

The general domain for the genres and stories that I am interested in here is that of the immersive 3-D worlds, now available on the World Wide Web. Active Worlds (TM) is a good example of this new kind of immersive environment.<sup>13</sup> It is also the particular environment that we have used at CID in the development of a prototype for the TCO (Swedish Confederation of Professional Employees), one of the user-organisations that sponsor the research at CID. The prototype is called the "TCO Congress Arena".<sup>14</sup> It can be characterised as an electronic version of the actual Congress that the TCO organised in June 1997 in Stockholm. Its overall purpose was to present the work of the Environmental Department of the TCO in a somewhat futuristic, yet user-friendly, fashion. (Fig. 1)

The "TCO Congress Arena" is what inspired the contact-persons from the LO to include the 3-D worlds as a visualisation environment in its networking project. Therefore, the TCO-prototype has been used in a series of organising meetings within the LO-project to explain what the local workplaces could do within this communicative environment and how they could do it. This makes the TCO-prototype a good test-bed for trying out the usefulness of the genre-perspective as a tool for more systematic media analysis. If this perspective helps us in specifying what immersive 3-D worlds are about, then it should be useful as a means to transform the TCO-prototype to the needs of the LO-project. The following description of the TCO-prototype is done within the framework presented above: its communicative purpose, patterns in form and substance, discourse community and shared understanding among its members.

### Communicative purpose of the prototype

*To inform about the different environmental certification programs* of the TCO was the prime purpose of the TCO prototype. Secondary aims was *to exhibit a virtual version of the Green Office*, a physical office with good environmental solutions. Other explicit goals were *to promote the policy of personal initiatives* in the local workplace (both real and virtual) and *to provide a meeting place* at the Internet for experts and laymen to discuss local solutions.

### Patterns in form and substance

Significant traits in the patterns of form and substance can be summed up in a similar way. One of the crucial form-oriented traits provided by the Active Worlds environment is *a gamelike 3-D rendering environment* with multiple views, (1:st person and bird-eye's view). The individual user is represented by *a realistic avatar*, (in comparison with more stilised strategies of other environments). Navigation and teleporting is provided through *a simple and straight forward mouse and keyboard interface*, (state-of-the-art procedures). *Parallel scaleable chat- and browser-windows* provided for good connectivity to other visualizing environments, (both QuickTime movies and QuickTime VR panoramas were demonstrated withing the prototype).

The more substance-specific traits of the TCO Congress-Arena were that *the Congress event was signalled through signs and posters* fetched from the actual Congress. The family of *communities were identified through posters* early upon entrance into the virtual Arena. *The Green Office was placed at the centre* in the far back

of the Arena. (Fig. 2) *Key web-pages about the Office was placed according to their internal relations* (from the specific subjects of furniture to the general questions of economics) and the physical *Office was rendered in three interactive QuickTime Movies*, (the office lay-out and a table in the office were demonstrated through two QuickTimeVR panoramas and an interactive flowchart visualized data types from the 6E-program).

### **Discourse community**

As far as the Arena specific discourse community and its different subgroups and activities, a similar preliminary and tentative description could be made. *The visualization expert* identified and tested a versatile community environment. *The project group* as a whole, with one member coming from the TCO, discussed and sketched the overall layout. *The researchers* implemented the sketch in HTML, Active Worlds, QuickTime and QTVR. *The TCO member* in the project group demonstrated the Arena at the Congress and *the Congress delegates* provided the questions and, sometimes, tested the navigational interface themselves.

### **Shared understanding**

The most difficult aspect to describe is that of the shared understanding, the concrete signs that articulate the common conception of genre-specific traits. A tentative description characterising the explicit feedback given to the Arena would comprise the facts that the overall look and feel of *the Arena made delegates stay and discuss*. The "feeling" of dragging the panoramic view of an ergonomic table up and down was *a popular feature when tested* by the delegates. The interactions and chats between the avatars were *met with curiosity and interest* by the delegates at the Congress.

### **Interactive narratives in visual workplaces**

Without wanting to overstate the importance of the framework, I think the four key concepts of genre really do help to grasp the essentials of the Arena. It brings a measure of order, in a concise way, to the description of the prototype. Perhaps "Conference Exhibition" would be a useful name for the general genre that the prototype incorporates. Now, the question is if this framework can be used to change and mould the TCO-prototype to fit the slightly different uses that could be envisioned in the evolving LO-network.

If the generative and "invitational" quality of the genre-concept lies in its power to envision the common traits of a group of stories, then a further test of this generative quality would be to sketch a few "plots" or "problem solving paths" through the 3-D environment. If the stories "makes sense", if they invite you to alter, contradict and elaborate the paths *within the genre framework*, then, I think, one could say that a basic feature of the "envisioning" function is in place.

So, let's construct a few paths that capture typical events in an enhanced TCO Arena and that could be interesting for the LO-network as well. First, "The Shopping Trip". (Fig. 3):

- a member/avatar arrives at the Congress Arena
- she looks for new ergonomically sound tables to replace the old ones at her office
- she passes the posters that are not relevant, one by one, briefly commenting each

- she finds the poster about tables that lets the user mould it after her own needs,
- she browses through the web-pages linked to the poster and dives into the detailed information
- some are too expensive, some the wrong size and others don't fit the existing set-up
- the furniture expert gives her hints on new combinations
- in the end, she finally settles for one and records it's info on size, price and address

In a similar fashion we could lay out another path called "Visiting the expert" (Fig. 4):

- a member arrives at the Congress Arena
- she has been confronted with a budget that does not account for environmental costs
- she finds the "Revised costs/benefits database" and browses its "revised budgets"
- she discusses her own case with the strategy expert
- the strategy expert gives her hints about similar cases and the type of info it reveals
- in the end, she finds a relevant case and records its info on cost, benefits and implementation

These kind of plots or paths seem to be well suited for informal, brain-storming-kind of meetings. If this is so, then the genre-concept would provide the framework that is often needed to keep the discussion focused without constraining it too much. The practical usefulness of the approach could be further reflected upon, (for example suitable contexts for the brain-storming meeting, tools for annotation, quick implementation schemes and so on). A more important step is the practical application of the approach. To start to generate more stories together with the users. If that works well, the somewhat abstract concepts of genre and narration can become concretised and animated in the expressive and practical terms that belong to the particular community.

## **Concluding remarks on the concepts of modes, genres and thematization**

In this paper I have discussed the usefulness of the genre-concept as a framework for envisioning new services in already existing immersive 3-D environments. I have exemplified this approach by sketching a few problem solving paths through one such environment that we are currently using at CID. The paths were easy to sketch but it remains to be seen how well they work as invitations to users to build their own paths – visualising what they themselves find to be the most important services to be provided in their respective workplace.

The concept of genre is not widely used in the literature of non-fiction film. Instead, the terms used are "modes of representation". One influential scheme of identifying different modes of representation have been proposed by Bill Nichols. In his latest book, *Blurred Boundaries*, he describes six distinct modes, starting with the fiction film of the 1920s as a point of departure and marking what he call the (possible) deficiencies of each mode with a minus-sign:

**Hollywood fiction**

- absence of "reality"

**Expository documentary** (1930s): direct address the real

- overly didactic

**Observational documentary** (1960s): eschew commentary, observe things as they happen

- lack of history, context

**Interactive documentary** (1960s-'70s): interview, retrieve history

- excessive faith in witnesses, naïve history

**Reflexive documentary** (1980s, formal and political): question documentary form, defamiliarize the other modes

- too abstract, lose sight of actual issues

**Performative documentary** (1980s-'90s): stress subjective aspects of a classically objective discourse

- possible limitations: loss of referential emphasis may relegate such films to the avant-garde; "excessive" use of style

This list amounts to a description of each modes formal traits and how these traits eventually can turn into a deficiency. In relation to the framework of genre discussed above, what is not described is: the traits of substance, or *thematics* to put it in another way, the communicative purpose (in more concrete terms than hinted at in the list), the discourse community and the common understanding of the constitutive traits that underlie the respective mode. Although most of these aspects are touched upon, and some are meticulously discussed in this and in earlier books by Nichols, the need to concretise certain groups of non-fiction films in terms of genre is never explicitly stated. What is discussed is the problematics of the concept of modes. That they blend, that they are non-exclusive and never "pure". Perhaps contextualising the analysis in terms of historically situated user communities with their specific purposes would be a way to investigate how and why different "modes of representation" blend and overlap.

In *Theorizing Documentary*, Michael Renov rethinks the taxonomy of Nichols, stressing the functional aspects as a more profound dimension of identification. Envisioning a "Poetics of Documentary" he argues for the fact that the desire for knowledge is not the only desire that audiences seek to satisfy in non-fiction film, a notion that the immense popularity of the "genres" of sports-, nature- and "rockumentary"-programming forcefully confirms. The four "fundamental tendencies or rhetorical/aesthetic functions" that Renov identifies are:

1. to record, reveal, or preserve
2. to persuade or promote
3. to analyse or interrogate
4. to express

This focus on communicative purpose is very much in line with the genre concept as discussed above. Renov's perspective help us understand the deeper emotional impacts, and its interplay with our quest for "knowledge", in different groups of documentaries. Here, as in Nichol's books, the audiences/communities of users is not really within the

scope of definition. On the other hand, "the common understanding" underlying the different formal conventions are more closely examined from the viewpoint of "desire". As in Nichols books, the thematic aspects of the films is not a main point of reference. On the other hand, neither Renov nor Nichols sets out to examine particular groups of films and how they are received and used by particular audiences with historically specific communicative purposes.

In my view, there are several good reasons today to start to talk about common traits between media artefacts in a systematic way that can grasp aspects of thematization. The use of non-fictional moving pictures in digital media range from news-oriented video clips and scientific visualisation of (very) different sorts to complex, non-linear narratives where video is but one of the expressive forms employed. The digital technologies forces people from different academic disciplines and design traditions to understand all these new uses of film. This, in turn, also forces them to understand each others special vocabularies. We need common concepts to be able to build common grounds for these discussions.

It goes without saying that the grouping in genres has to be done with caution. They should be kept non-exclusive, not losing sight of the overlaps and the dynamics of interplay between them. In the same line of thinking, the genre-concept may help the different disciplines involved to deconstruct the borders between themselves. Practical, manual-like literature from the field of computer science may be used in new ways, focusing on how they can contribute to the understanding of moving pictures. The extensive critical literature on the history of cinematic technology and its use may contribute to a broader context for the practically oriented analysis of new state-of-the-art media technology. In the face of the dynamics in the field of media, it is very important that there is a cross-fertilisation between these two genres, as well as among the other genres involved. The critical and philosophically inclined cinema studies may not distance itself from such an interplay. And the practical reporters on new media features may not deem the critical writings as strictly historic or philosophic.

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## References

- Alexander, Christopher and Ishikawa S., Silverstein M., Jacobson, M., Fiksdahl-King, I., Angel, S. 1977; *A pattern language: towns, buildings, construction*, Oxford University Press.
- Alexander, Christopher 1979; *Timeless Way of Building*. Oxford University Press.
- Corner, John 1996; *The Art of Record. A critical introduction to documentary*. Manchester University Press.
- Erickson Thomas 1998; *Genre Theory as a Tool for Analyzing Network-Mediated Interaction: The Case of the Collective Limericks*, Paper submitted to CHI'98 Conference, [http://www.pliant.org/personal/Tom\\_Erickson/Genre.chi98.html](http://www.pliant.org/personal/Tom_Erickson/Genre.chi98.html).
- Erickson Thomas 1996; *Social Interaction on the Net: Virtual Community as Participatory Genre*, [http://www.pliant.org/personal/Tom\\_Erickson/VC\\_as\\_Genre.html](http://www.pliant.org/personal/Tom_Erickson/VC_as_Genre.html)
- Gamma, Erich and Richard Helm, Ralph Johnson, John Vlissides 1994; *Design Patterns: Elements of Reusable Object-Oriented Software*, Addison Wesley.
- McCloskey, Donald 1990; *If You're So Smart – the narrative of economic expertise*, The University of Chicago Press.
- Nichols, Bill 1991; *Representing Reality*, Indiana University Press.
- Nichols, Bill 1994; *Blurred boundaries: questions of meaning in contemporary culture*, Indiana University Press.
- Walldius, Åke 1997; *Visualisering av miljöekonomiska förlopp*. CID-rapport Nr 25, KTH, Stockholm.
- Renov, Michael (red.) 1993; *Theorizing Documentary*, Routledge.

## Notes

<sup>1</sup> The project is initiated at the Centre for User Oriented IT-design in Stockholm. A key concept of the Centre is the interdisciplinary approach to IT-design. The project group is composed of computer scientists specialised in visualisation and doctoral students in cinema studies and in journalism. The group functions as an advisory resource for practitioners at Landsorganisationen, the Trade Union Congress for blue collar workers, setting up a network to support local initiatives in organisational reform. The questions of the research project relevant to cinema studies will be reported in the doctoral thesis of the author. The project builds on earlier work for the TCO (described later in the paper) which was led by Sören Lenman, coordinator of the project area Digital Worlds on the World Wide Web.

<sup>2</sup> The first hand experience that I base the following discussion on is drawn from my participation, since 1976, in numerous workplace studies where short video-reports have been used to complement written documentation and to provide a common ground for the dialogs between researchers and practitioners.

<sup>3</sup> In his groundbreaking book, *Representing Reality* (Indiana University Press, 1991), Bill Nichols identifies the argumentative power as one of the distinctive marks of the documentary. In this power to represent the real, it has a quest to be taken seriously. "Documentary film has a kinship with those other nonfictional systems that together make up what we may call the discourses of sobriety. Science, economics, politics, foreign policy, education, religion, welfare – these systems assume they have instrumental power; they can and should alter the world itself, they can effect action and entail consequences. ... Documentary, despite its kinship, has never been accepted as a full equal. (Page 3-4)

<sup>4</sup> Among the current books that revisit the area of non-fiction film are *Theorizing Documentary* (ed. Michael Renov, 1993); *Blurred Boundaries* (Bill Nichols, 1994); *Claiming the Real* (Brian Winston, 1995); *The Art of Record: A Critical Introduction to Documentary* (John Corner, 1996)

<sup>5</sup> Threads of interlinked patterns deal with work: 9. Scattered work, 41. Work community, 80. Self-governing workshops and offices, 157. Home workshop, to name a few. Others deal with learning: 18. Network of learning, 57. Children in the city, 83. Master and apprentice. But the distinctive quality of these threads is that they transcend the usual modern life borders between work and free time, free time and learning and so on. An example from the Network of learning pattern could be cited: "Above all,



encourage the formation of seminars and workshops in people's homes – Home workshop (157); make sure that each city has a 'path' where young children can safely wander on their own – Children in the city (57)."

<sup>6</sup> How to document one's own workplace could be outlined in patterns with names like "Picturing my main routines", "Telling about contacts with colleagues", "Accounting for administration" etc.

<sup>7</sup> Exemplary pattern names here could be "Supplying your note to the net", "Commenting on the notes of colleagues", "Join a study-tour on the net" etc.

<sup>8</sup> Two inspiring articles by Thomas Erickson can be found at:

[http://www.pliant.org/personal/Tom\\_Erickson/Genre.chi98.html](http://www.pliant.org/personal/Tom_Erickson/Genre.chi98.html)

[http://www.pliant.org/personal/Tom\\_Erickson/VC\\_as\\_Genre.html](http://www.pliant.org/personal/Tom_Erickson/VC_as_Genre.html)

<sup>9</sup> The concept of genre appear quite frequently in the different analytical and theoretical traditions of film studies. Although it is an important underpinning for the critical evaluations of new films in news media and magazines, the use of the concept in film analysis as a whole is somewhat scattered. Genre is referred to in influential authorships, like those of Siegfried Kracauer and André Bazin, and in the field of Cultural Studies. But, to my knowledge, there is no current attempt to develop genre-theory as a more over-arching critical tool to understand the medium of moving pictures in relation to today's dynamic changes in audience reception and technology. This makes contributions to genre-theory from the viewpoints of computer science and organisational communication all the more welcome.

<sup>10</sup> This is an addition to Tom Erickson's interpretation that I don't think he would object to since he has written a few interesting articles on the concept of pattern languages, and since one of the aims of patterns, in this context, is exactly the depiction of complex "regularities" in a pedagogical and efficient way. The similarities between the concepts of genre and patterns can be discussed at great length. The purpose of this article however is just to propose that both could be used in complementary ways to bridge the language differences between computer science, cinema studies and workplace studies.

<sup>11</sup> These reflection on "the art of persuasion" are strongly influenced by Donald McCloskey's book *If You're So Smart – the narrative of economic expertise..* Chapter seven of McCloskey's book has the title "The Poetics and Economics of Magic" with the subtitle "The story uncriticized by a metaphor or the metaphor uncriticized by a story is magic, against which economics warns". (Page vi) In this chapter, McCloskey maps out the activities of economists in terms of maturity: "Grown-up economics is not voodoo but poetry. Or, to take other models of maturity, it is history, not myth; politics, not invective; philosophy, not dogma. A correct economics – which is to say, most of the rich conversation of economics since Adam Smith – is historical and philosophical, a virtual psychoanalysis of the economy, adjusting our desires to the reality principle. On this score Marxian and bourgeoisie economics can be similarly childish in giving in to temptation." (Page 109)

<sup>12</sup> The intensity of less productive "classification discussions", about what should be regarded as being "within" or outside a certain genre, is another sign of the inherent power of the concept.

<sup>13</sup> A browser to this environment can be found at: <http://www.activeworlds.com>.

<sup>14</sup> With an Active Worlds browser installed, the url: "[http://www.worlds.net/cgi-bin/teleport?aw\\_7735.2N\\_8016W\\_270](http://www.worlds.net/cgi-bin/teleport?aw_7735.2N_8016W_270)" will bring you to the "TCO Congress Arena". The project work behind the design of the prototype, specifically the dynamic flowcharting technique that was exemplified within the prototype, is described in CID-report 25, "Visualisering av miljöekonomiska förlopp", (in Swedish).

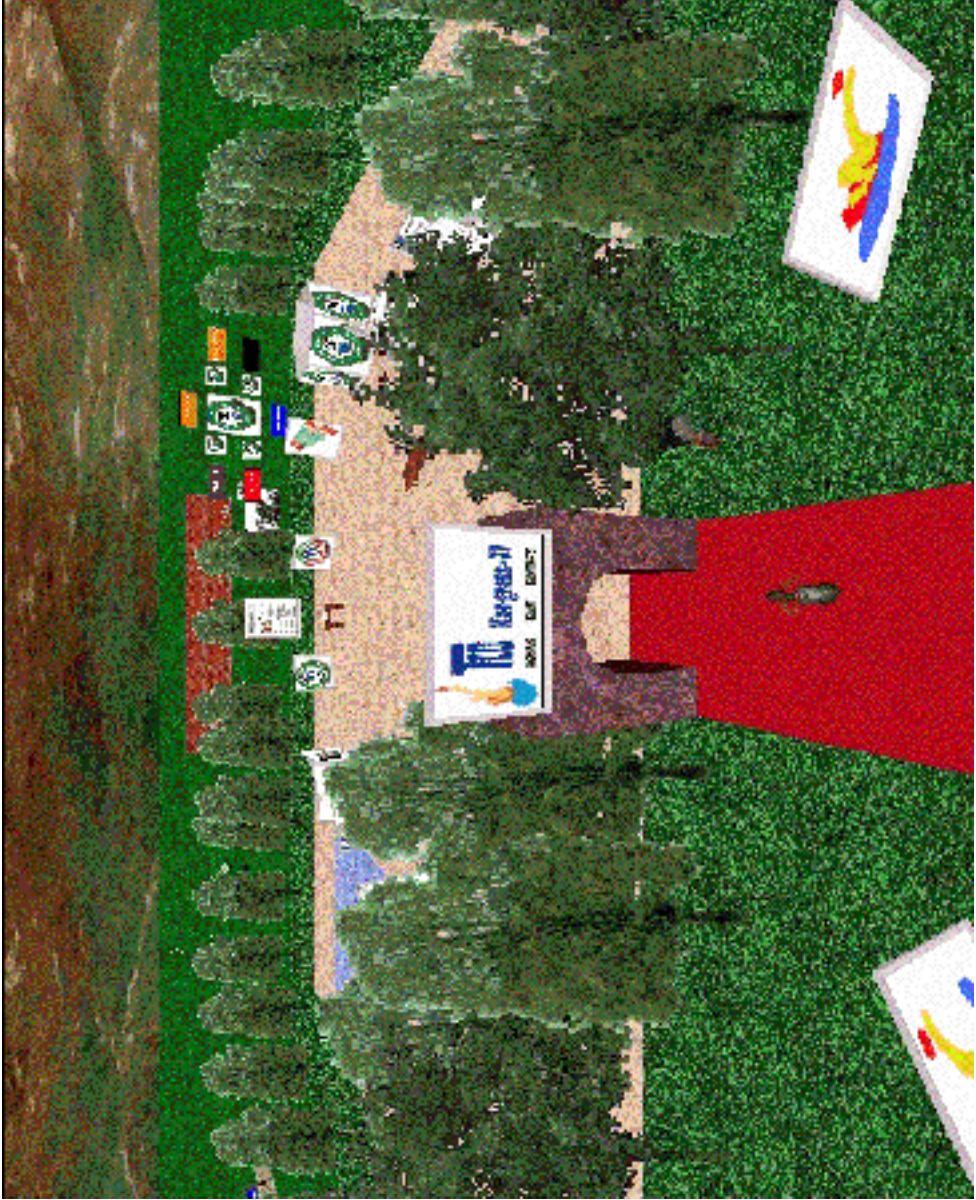


Figure 1. A birds-eyes view of the TCO Congress Arena.



Figure 2. The Green Office was placed at the centre in the far back of the Arena. Clicking the monitor brought up a web page with a QuickTimeVR panorama of the office lay-out and its furnishing.



Figure 3. A visitor to the extended TCO-site discuss tables with the furniture expert in the envisioned path of the "Shopping Trip".



Figure 4. A visitor to the extended TCO-site discuss cost-benefit issues with the budgeting expert in the envisioned path "Visiting the expert".