Genres and Design Considerations of iTV Cases

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With the marriage between computers and television a combination of practices and theories from both human-computer interaction and mass communication is needed to consistently and efficiently produce and design interactive television, iTV. This paper relates use qualities to the mass communication concept of genres in the light of two iTV design cases.

In mass communication the term genre is applied to any distinct category of products. McQuail (2000) describes genres of products as being identified equally by producers and consumers, by their function, form and meaning. They are established over time and preserve cultural forms. A genre will also follow an expected structure, use a predictable stock of images and have a variant of basic themes. It helps a producer to produce consistently and efficiently, and to relate the production to the expectations of the consumers.

It is our belief that genre is a useful concept in all product design, including interaction design. Within the area of computer games genres are established at this date. Both producers and consumers agree on terms like strategy, adventure, etc., and these genres guide game consumers in their choices and game designers in their work. Löwgren & Stolterman (1998) as well as McQuail use what can be called *use qualities*, to describe individual products as well as their genres.

In the field of iTV, several divisions of genres might be constructed even though none has settled today. We will distinguish between *interactive narrative*, *on-demand applications* and *add-ons*, focusing on the latter two. Other distinctions can be constructed, such as informative, functional or leisure appliances. These are not in conflict with the former set, and might define sub-genres such as functional add-ons, or informative on-demand applications.

We have chosen to consider the act of TV-viewing as a whole, instead of breaking it up in different acts. Therefore, we've chosen the former set of genres. We believe that they are more likely to become relevant genres as the conventions build up over time, and also the kind that the design community should promote. Two genres will be described in more detail here.

1.1 On-demand Application

A wide genre is the on-demand applications, with a few sub-genres. They have in common that they are largely independent of the broadcast, and are viewed as stand-alone products. Three sub-genres can be defined; traditional computer applications such as banking, the electronic program guide, which guides the TV-viewing, and the information applications, such as enhanced text-TV. The main use quality of this genre is stand-alone, i.e. interaction outside any broadcast.

1.2 Add-on

The primary idea behind an add-on is to provide information in parallel with the broadcast. Add-on productions do not demand more narrative content. The limitation lies in the need for provision of correct information, in some cases at the very same time the events take place. The main use qualities are layering, complementing, focus shifting, freedom of choice, and adaptivity.

2 GENRES AND CONSIDERATIONS

For our discussion, two design cases will be used. As a concept test of a navigation model for iTV, Ampler (1998) designed a sports information add-on. In a Formula 1 racing broadcast, the viewer was provided with interactive information. Arvola (1999) designed an on-demand turn-taking quiz game for two co-present

players to study the relation between the people in front of the TV-set.

2.1 Distribution of Control

In traditional TV-viewing, only one person is in control. The issue of the *by-sitters lack of control* was raised in the racing case. Aspects such as *tolerance for lack of control*, different *levels of control*, and *asymmetric distribution of control* were identified. In the quiz game, the players took turns. During *turn-taking* it's important to consider *sequencing of control, symmetric distribution of control*, and how to give *clear feedback to both individuals and groups*. Distribution of control is an important issue in both add-ons and on-demand applications but the important aspects of the distribution can differ.

2.2 Strong and Weak Visualisations

When an action is visualised, the idea is traditionally to either communicate as elegantly as possible to a focused operator, or to assume that noise, i.e. disturbances, is kept as low as possible. Contrary to that, there are in both cases examples of how the power of visualisations must be considered in relation to the background noise.

The design issue is to maintain the *quality of the noise*. In an add-on, it is the broadcast that is in focus. This creates a *split attention* situation where the noise is as important as the add-on. In an on-demand application the design might rely more heavily on minimizing the total *amount of noise within the application*, but in case of the quiz game, there was a split attention situation between the application and the other player. In both cases there were examples of too weak visualisation, strong enough visualisations, and over-visualisations.

In the racing add-on, *weak visualisations* were drowned in the noise of the broadcast, resulting in users not knowing what was happening. In the quiz application weak visualisations resulted in players using their talk to compensate for poor game interface and mechanics, instead of engaging in the game play.

A *strong visualisation* stands out from the background without causing breakdowns. With strong visualisations in the quiz game, players seemed to use their talk to engage in the game play. The visualisations were very useful in *critical moments of the interaction*, such as when the remote-owner answered a question. The most prominent visualisations, however, slowed down the

interaction between the remote-owner and the quiz game. These *over-visualisations* should be avoided.

2.3 Socialisation

The quiz game shows an interesting aspect of social competition games. The possibility of *social challenge*, such as friendly competition, deception, etc., is very important. It is the basis for *immediate togetherness* as well as *delayed togetherness*. In the quiz game case it was evident that important aspects of socialisation, such as teasing, were lost if the by-sitter didn't know what the remote-owner answered. Furthermore, it was important to reach *eye contact* for the small visual queues of the social play. In the racing case *the screen is in focus* for creation of the social situation; the *focus of the activity* differs between the cases as well as the *role of the artifact*. The *immediate togetherness* is created in the tension between the focus of activity and the role of the artifact.

2.4 On the Idea of Genres

Even though conventions have not settled, we believe that using genres will give added value to product design. From the analysis of the two iTV cases we can see both similarities and differences in design considerations and use qualities, which can be attributed to their genres, be they sports information add-ons or on-demand turn taking quiz games.

Having an agenda set out from genres, challenges designers not only to design products, but to design a product form for social situations that almost does not exist. It becomes important to notice when and where both the producers and viewers understand the conventions of a genre.

REFERENCES

Ampler, F. (1998). *Designing navigation for interactive television*. Master's thesis LiU-KOGVET-D-0005-SE, Linköpings universitet, Sweden.

Arvola, M. (1999). *A battle of wits: Shared feedback in multi-user applications with single-user control*. Master's thesis. LiU-KOGVET-D-0015-SE. Linköpings universitet, Sweden.

Löwgren, J., & Stolterman, E. (1998). *Design av informationsteknik: Materialet utan egenskaper*. Studentlitteratur, Lund. In Swedish.

McQuail, D. (2000). *Mass communication theory. An Introduction, 4th ed*. SAGE Publications, London.