In Proceedings Volume 2 of the Conference HCI 2003: Designing for Society. Bath, UK, September 2003. British HCI Group.

# **GENRES, USE QUALITIES, AND INTERACTIVE ARTIFACTS**

Jonas Lundberg jonlu@ida.liu.se Mattias Arvola matar@ida.liu.se Stefan Holmlid steho@ida.liu.se

Human-Centered Systems Dept of Computer & Information Science Linköping University SE-581 83 Linköping, Sweden Fax: +46 13 14 2231, Telephone: +46 13 28 2602

### ABSTRACT

This workshop will deal with genre analysis and use-quality analysis in relation to interactive artifacts, as well as provide an opportunity to apply these concepts. Starting out with a wide look at genres of interactive artifacts, we continue into a focused discussion on a *repertoire of genre elements*. As a tool for design, such a repertoire is needed to be able to understand what experience one might expect from specific designs within a genre. Furthermore, the *use qualities* of interactive artifacts relate to the concept of genre, and to specific genres in complex ways. We wish to extend the ongoing discussion on the concept of genres in relation to interactive artifacts, as well as further develop tools and insights to advance the genre concept within our field of practice.

#### Keywords

Genre analysis, Use quality, Interaction design, Repertoire, Professional vision, Creativity

#### **1.** INTRODUCTION

The meaning of the term usability began to diversify in the 1990's and one should no more only design for learnability, flexibility, effectiveness, efficiency, and satisfaction, but also for criteria like co-operation, work practices, common ground, knowledge management, fun, accessibility, customisation, localization, creativity, pleasure, et cetera. The sheer number of criteria for assessing interaction design this ever-growing list leaves the designer with is quite difficult to manage. The assumption behind the *use quality* (or quality-in-use) approach is that not all of the criteria are important design objectives for every system, or to meet them all in one design solution is quite unlikely. The basic idea is to take a step back and ask what make a certain artifact good to use from several different value perspectives, and stakeholders' points of view. The desirable qualities it has in use are, however, not completely unique to that solution. There is overlap between similar interactive artifacts within genres. The idea that we want to further develop in this workshop is that genres can structure knowledge about the use qualities of artifacts, providing transferability between design examples within a repertoire, and hence help in building professional vision [4] and a reflective interaction design practice. The goal of the workshop is to introduce the genre concept in order to create common ground, share experiences, and develop the breadth of topics of concern to genres of interactive artifacts.

### 2. GENRES OF INTERACTIVE ARTIFACTS

The most common way of looking at genres is with a commonsense perspective. It is such a perspective that has brought concepts such as First-person shoot 'em up. By describing a game as belonging to a well-known genre, we all know what kind of game we are talking about. The commonsense perspective is built upon the idea of, loosely and by experience, inferring over similarities and differences between interactive artifacts. This means that commonsense genres can be understood in several different ways; distinguishing between application areas, between styles of interaction, or between interactive artifacts, but it provides only limited support as a tool in the design process. Although it provides understanding of what makes a specific design part of a genre, it does so only informally and loosely. The commonsense perspective needs, however, to be complemented with a systematic analytic account of genres in order to work as a tool for developing professional vision, repertoires of examples and reflection-in-action [8].

Genres are normally seen as consisting of form and content. Recently, with the analysis of interactive artifacts, purpose has been added to the description, resulting in a triad of *form*, *content* and *purpose* [6]. To analyse a genre, several genre instances are compared. They may then be defined as belonging to a genre, based on any of the dimensions. However, similarities along more than one of the three dimensions make a more distinct genre.

Furthermore, Miller [7] proposes a hierarchical decomposition of a genre. The idea is to couple the purpose of a genre with specific elements of it. Consider, for example, the *first page* of an *online newspaper*. One of its purposes is to provide an overview of the most important and latest news. This overview is realized by *news items* in a repeated form, recurring at the same position on the first page of the online newspaper. A collection of news items make up an element of the first page, the *headlines section*, normally presenting the most important news item in the top position, and less important items further down on the page. Thus, the news items themselves contribute to the purpose of presenting the latest news.

The headlines section of which the news items are part, contribute with the purpose of differentiating the importance of the news on the page.

In order for genre to be used as a design tool, and not only descriptive/analytical tool, it needs to be connected to use qualities of an artifact. In order to learn from previous examples a designer need to reflect on what qualities the examples have.

## 3. Use Quality of Interactive Artifacts

An interactive artifact can be said to have many different qualities in its usage [5]. Some of the qualities are objective and others are not; some are social and yet other qualities are subjective. Another aspect of use qualities is their level of abstraction. Examples of very high-level aspects include, the Changeability in terms of freedom to change the form, structure, or functionality of the system; and the Interaction Character in terms of what kinds of actions the system is designed to allow, support, and afford. Others are more specific descriptions of how the usage of the artifact is, or how it should be. These specific 'use qualities' can be expressed in the form of adjectives or short phrases like Effectiveness, Elegance or Integration. All of these statements about how the usage of an interactive artifact is, or should be, can be utilized for designing and assessing solutions. Use qualities in the form of design objectives can for example, be ordered in a dependency hierarchy using the objectives tree method [2, 1].

Every action, or even the entire activity of using a system has practical, social, and aesthetic aspects. Some actions are more easily described as being practical, social or aesthetic, while other actions are more complex and is easily described from any of these perspectives. Therefore when a user, designer, or other stakeholder of a computer system argue that the system ought to be, for example, 'reliable', its Reliability should be designed and assessed from a practical, a social, and an aesthetic perspective. Other perspectives such as affective values, construction or ethics should be applied to understanding the usage of any artifact. [3]

## 4. WORKSHOP PROCEDURE

The workshop has the duration of one day. Before noon, we will introduce the genre concept in order to develop common ground, share experiences, and create closure. We will perform familiarity exercises around the ideas of genre analysis and use-quality analysis. In the afternoon, we will discuss and develop topics of concern to genres of interactive artifacts in order to develop the breadth, suggest tentative solutions, and produce ground for future work. The discussions will be structured by different creative and analytic techniques according to both pre-defined topics and topics of concern evolving during. The material produced with the workshop method will be used as a poster to share our collective insights with other conference participants.

### 5. References

- [1] Arvola, M. (2003). *Good to Use! : Use Quality of Multi-user Applications in the Home*, Licentiate's Thesis No. 988, Linköping: Linköping Studies in Science and Technology.
- [2] Cross, N. (2000). *Engineering Design Methods: Strategies for Product Design: Third edition*, Chichester: John Wiley & Sons, Ltd.
- [3] Ehn, P., & Löwgren, J. (1997). Design for Quality-in-Use: Human-Computer Interaction meets Information Systems Development. In M. Helander, T. Landauer, & P. Prabhu (eds.), *Handbook of Human-Computer Interaction. Second, Completely Revised Edition*, Amsterdam: Elsevier, pp. 299-313.
- [4] Goodwin, C. (1994). Professional Vision. American Anthropologist 96(3), 606-633.
- [5] Holmlid, S. (2002). *Adapting Users: Towards a Theory of Use Quality,* Dissertation No. 765, Linköping: Linköping Studies in Science and Technology.
- [6] Ihlström, C., and Lundberg, J. (2003). The Online News Genre Through the User Perspective. In *Proceedings of 36' Hawaii International Conference on Systems Science*, Hawaii, CDROM.
- [7] Miller, C. M. (1984). Genre as Social Action. In *Quarterly Journal of Speech* 70, 151-167.
- [8] Schön, D. A. (1983). *The Reflective Practitioner: How Professionals Think in Action*. New York, NY: Basic Books.