Chapter 23

The Conceptual Pond: A Persuasive Tool for Quantifiable Qualitative Assessment

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ABSTRACT

“The Conceptual Pond” is a persuasive application designed to gather qualitative input through a multi-platform assessment interface. The process of using the application serves as a conceptual aid for personal reflection as well as providing a compilation and evaluation system with the ability to transform this input into quantitative data. In this chapter, a pilot study of this application is presented and discussed. The aim of this chapter is the discussion of central issues in the system, the use of semantic fields, user freedom vs. default options, graphical interface, persuasive technology design, and the epistemological potential of the application. In this discourse, contextualized rhetorical and persuasive technology theories are implemented. Functionality and epistemological impact is exemplified through several use cases, one of these linked to the EUROPlot project. In a more comprehensive scope, this chapter adds to the discussion of the role of IT systems in experiencing the world and reflecting on it, thus breaking new ground for designing persuasive applications supporting human recognition.

INTRODUCTION

How can qualitative data be collected and transformed into quantitative data? This is a challenge in many fields, including development, research and evaluation. This chapter suggests an approach to utilizing persuasive technology, graphic interface and intuitive design to fulfill this.

In the course of developing persuasive learning objects in an EU research project on IT supported learning it has become evident to the authors that reliable assessment and monitoring of impressions and opinions is a very important factor. Evaluation and assessment is a central part of most pedagogical theories. Nevertheless there is often not much consensus concerning how this observation and assessments should be performed and optimized.

It is essential that the challenges of evaluation are met in a way that respects human nature and cognition. For a system to be truly persuasive and
create satisfaction and ownership with the users it will need both intuitive handling and considerable user freedom. It is obvious that the questions of bias and validity are essential.

At the same time the increasing use of different digital devices in education supports the possibility of utilizing these technologies in creating contextually relevant evaluation processes.

The Conceptual Pond is designed to solve tasks primarily in the field of learning, social sciences and human sciences. The theoretical background and functionality however makes it no less relevant in other sectors such as human computer interaction, psychology, or social sciences. The need for analyzing humanly expressed thoughts is central in a broad variety of academic, pedagogic, cultural or societal projects.

Collecting reliable qualitative data and analyzing it has always been a time consuming challenge. Could a persuasive evaluation system support this process and even open doors to possibilities hitherto less explored? The Conceptual Pond suggests a new approach to assessment facilitating the quantification of the qualitative.

The purpose of this chapter it to present The Conceptual Pond as a framework for performing quantifiable qualitative assessments supported field studies demonstrating its potential. We first analyze the background and conditions of the assessment challenge. We then present the semantics and interface of The Conceptual Pond, including a discussion of important implementation concerns. Next, we present case studies of The Conceptual Pond and suggest further possible domains for the application of The Conceptual Pond. Finally, we discuss persuasive properties and potential of the application, followed by suggestions for further work and finally our conclusion.

**BACKGROUND**

This chapter serves to present a pilot study of The Conceptual pond. Before digging into the concept and the potential it is however important to address a number of background questions related to the origin and nature of the application.

The Conceptual Pond was originally developed to meet challenges in the environment of the EUROPlot-project (www.eplot.eu). The objective of this research project is to facilitate e-learning and blended learning supported by a framework of persuasive, pedagogical tools. The scope of The Conceptual Pond is nevertheless more comprehensive and should support assessment, creativity and productivity in numerous contexts in the areas of learning and research.

In more detail the aim of the EUROPlot project is to create and develop generative learning designs and educational applications with the use of primarily GLOmaker (www.glomaker.org), Plotlearner and Plotlearner for Munk software, including an EMDROS database (www.emdros.org) of searchable and annotated full texts (Gram-Hansen et al., 2011; Gram-Hansen et al., 2012). The overall task in the relevant part of the project is the mediation of knowledge about Danish playwright and vicar Kaj Munk (1898-1944). Such cultural discourse displays specific characteristics as stated by e.g. Hooper-Greenhill (2004). A central challenge to cultural mediation is evaluating impressions and outcomes that are frequently too complex to fit meaningfully in predesigned response patterns. In the Munk Case the central mediation aims at the following goals:

1. It should enhance interest and engagement in the biography and contemporary time of Kaj Munk.
2. It should offer easy access to Munk’s literary works and support reading and semantic searches in relevant archives.
3. It should generate engagement and discussion about topics related to Munk’s ideology, thoughts and beliefs. This should be done in a reflective process.
4. It should facilitate these objectives for recipients ranging from primary school children to academics.