PROS (Promoting Researchers Online Supervision) Needs Analysis: Establishing the needs of the online research process
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Abstract

The PROS (**P**romoting **R**esearchers **O**nline **S**upervision) project aims to explore the ways in which a **Vi**rtual **P**roject **E**nvironment for **R**esearch (ViPER) system can support the investigative process. A pilot website can be assessed from:
http://www.iclml.mdx.ac.uk/pros/ by clicking on the 'Operation Area' button.

E-learning projects are commonly done based upon previously conducted research or worse, with no measurement of the learner's needs at all. This paper addresses this particular gap in the research process. Web-constuctivism and the Transitional Autonomy Model (TAM) are the supporting theories for this study. This is the adaptation of Constructivism to a virtual learning environment. It also incorporates Transactional Distance Theory.

Guiding the design process for ViPER was a needs analysis and usability study. There were two goals of this study. First, collecting data to validate the online researchers and supervisors needs was done. Secondly, it was necessary to gather evidence about the human computer interaction (HCI) usability of the ViPER system. This was done through an on/off-line survey with a follow-up interview. A variety of media and tools were used to collect quantitative and qualitative data. Web-based forms, email and paper-based questionnaires were distributed to university researchers, project students and supervisors to assess their online research needs. Follow-up interviews were conducted to gather supporting qualitative data. This was done by telephone and face-to-face focus groups. This information was then critically compared to data collected from experts in online pedagogy.

Induction material was produced for face-to-face workshops in paper form supported by online dissemination follow-up. The purpose of this resource was to orientate the online researchers / project students and supervisors to the system. This was also assessed in the needs analysis.

Several key issues arose from the study that prompted modifications to the ViPER system:

- There was a need for online research materials.
  Access to online university library facilities, web-based digital libraries, e-journals and powerful search tools were among the items investigated.
- Communication tools were needed to support an online research community.
  Various online tools and resources were added to provide a/synchronous collaboration such as web-conferencing and web-casting.
- Organisational tools and resources were required.
  Calendars and FAQ pages were adapted to meet this need.

The information collected in this study provided evidence to support the online pedagogical and HCI design decisions made for the ViPER system. Further study will be undertaken to validate the proposition that the PROS project can meet the learner's and supervisor's needs in practice.