

Publications

- A. Lampert and C. Paris (2004). Information assembly for adaptive display. In *the Proceedings of 2004 Australasian Language Technology Workshop* (ALTW2004); Macquarie University. CD ROM. Dec. 2004
- C. Müller-Tomfelde, C. Paris and D. Stevenson (2004). Interactive Landmarks: Linking Virtual Environments with Knowledge-Based Systems. In *the Proceedings of the OZCHI*, Wollongong, Australia, Nov. 2004
- C. Paris, N. Colineau, S. Lu and K. Vander Linden (2005). Automatically Generating Effective Online Help. In *International Journal on E-Learning*, Special Issue on Technologies for electronic documents for supporting E-Learning, (L. Alem and A. McLean Eds.), Vol.4, No.1. pp 83-103.
- C. Paris, D. Estival and N. Colineau (2004). Intelligent multi media presentation of information in a semi-immersive command and control environment. In *the Proceedings of 2004 Australasian Language Technology Workshop* (ALTW2004); Macquarie University. CD ROM. Dec. 2004
- M. Wu, R. Wilkinson and C. Paris (2004). Evaluation of a Query-biased Document Summarisation Approach for the Question Answering Task. In *the Proceedings of 2004 Australasian Language Technology Workshop* (ALTW2004); Macquarie University. CD ROM. Dec. 2004

Contact

Cécile Paris
Group Leader
Tel: +61 2 9325 3160
Fax: +61 2 9325 3200
Cecile.paris@csiro.au

Gary Doherty
Tel: +61 3 9372 4557
Fax: +61 2 9372 4585
Gary.Doherty@csiro.au

CSIRO - ICT Centre
Locked Bag 17, North Ryde NSW 1670
Australia
<http://www.ict.csiro.au/infoengagement>

Research Scientists

Nathalie Colineau
(02) 9325 3151 nathalie.colineau@csiro.au

Shijian Lu
(02) 9325 3149 shijian.lu@csiro.au

Mingfang Wu
(03) 9545 8451 mingfang.wu@csiro.au

Software Engineers

Andrew Lampert
(02) 9325 3129 andrew.lampert@csiro.au

Post-Doctoral

Christian Müller-Tomfelde
(02) 9325 3147
Christian.Mueller-Tomfelde@csiro.au

PhD Students

Bhavna Orgun
borgun@optushome.com.au

Stephen Wan
(02) 9325 3142 stephen.wan@csiro.au

Industrial trainee

Alois Lohéac
(02) 9325 3267 alois.loheac@csiro.au

Information Engagement Newsletter

June 2005

The past few months have been very exciting, with several successful applications of Myriad, our platform for Contextualised Information Retrieval and Delivery, and the completion of several projects: the Task-Driven Delivery project with Boeing is coming to an end, we successfully demonstrated SciFly at CeBit, a major trade show in Sydney, and we obtained a renewal for another project with Boeing on report generation. You can find more information on the Task-Driven Delivery and the SciFly projects in this newsletter.

In the future, we will be looking at integrating our work with other work within the Information Engineering Research Laboratory, in particular with search and web services. We will also be looking at various forms of evaluation for our platform, in particular evaluations from both a user and an engineering perspective. We are also pleased to announce the following events which will take place in Sydney and which we are involved in organising:

- The 2006 International Conference on Intelligent User Interfaces (IUI 2006), Jan 29-Feb 1, 2006; The submission deadline for papers is September 19, 2005. See <http://www.iuiconf.org/index.html>
- Coling/ACL 2006, July 17-21, 2006. See <http://www.acl2006.org/>



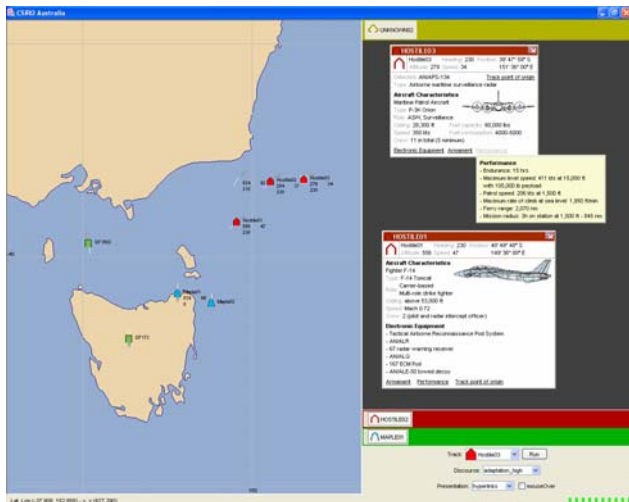
ICT Centre

Task-Driven Information Delivery

Adaptive systems are becoming increasingly important as people are all different with different needs. It is thus necessary to address this variety of needs, and systems must have mechanisms to tailor the delivery of information to a wide range of situations. However, this comes at a cost.

In our final year on task-driven information delivery for air combat operators, we have examined the cost of changing or fine-tuning a system to specific users, their context and information needs, that is the *cost of adapting the system* to fit particular situations. As an initial attempt to assess the flexibility and maintainability of our own system, we defined an incremental scenario and examined the amount of work required to implement this scenario.

We argue that while there is a requirement on a system to be flexible and to have re-usable resources, we also need to get a handle on the affordability of a system, that is its ease of extension, of the generation of new documents and the enablement of new variations and adaptations to contextual factors.



SciFly - Customised flyers on demand

SciFly is a demonstration system for CSIRO's Myriad Platform for information retrieval and delivery. SciFly delivers customised content based on user-selected interests. In SciFly, content is assembled into a dynamically generated document and printed on-the-spot. Simultaneously a PDF document is emailed to the user along with a plain text summary in the body of an email. This means that users receive relevant information presented in contextually relevant formats:

- Paper flyer for immediate perusal;
- PDF version for retention of information and later reference;
- Plain text summary for mobile device access.

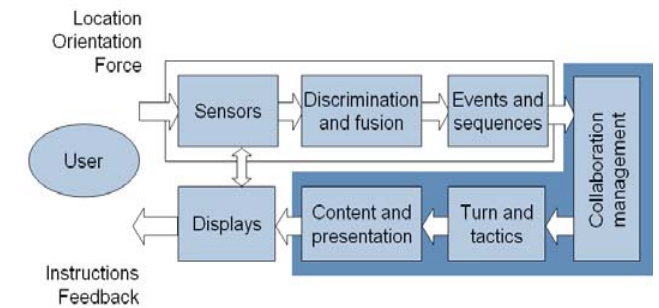


SciFly captures user details such as name, email address and affiliation from a bar coded tag (as supplied to conference delegates). The user then navigates a touch-screen menu system to select topics of interest. The topics in this case are based on the capabilities, projects and application domains of the CSIRO ICT Centre. Once all data is collected, SciFly assembles content tailored to the set of interests expressed by the user, dynamically fits the content to the space constraints of a double-sided A4 page, and adds relevant contact information, web links and higher level context. SciFly was demonstrated at CeBit Australia in May.

skill - Effective Training through Multimodal Instructions and Feedback

In the skill project we are investigating new forms of computer-supported training for applications in the surgical domain. We reached now a level of realization where the explicit training task of the trainee and the task of the trainer become available for processing in form of a hierarchically decomposed task. In a training session, i.e., the collaboration between the trainer and the trainee, these tasks form the basis for the generation of the appropriate feedback and instructions.

Therefore we introduce two layers in the Delivery Platform Myriad for planning the collaboration and the individual turns of the participants, and make extensive use of the explicit representation of the tasks of the participants. Further work has been done to process and detect the user's actions in the haptic virtual environment as input for this collaboration.



In the future a tutorial reflection will be included in the task of the trainer to enable adaptive and appropriate feedback and instructions, as these are a major factor to guarantee effective training and optimal motor skill learning.