

Publications

- John A. Bateman and Cécile L. Paris (2002). "Benutzermodellierung" (User Modelling). In Klabunde, R., Castensen, K.-U., Ebert, C., Endriss, C., Jekat, S., Langer, Hagen and Schielen, M. (eds.) *Einführung in die Computerlinguistik. Heidelberg (Introduction to Computational Linguistics)*, Berlin: Spektrum Akademischer Verlag. pp 316 - 330.
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- Cecile Paris, Jean Claude Tarby and Keith Vander Linden (2001). A Flexible Environment for Building Task Models. In *Proceedings of HCI 2001*, Lille, France, September 2001. Pp 313 – 330.
- Cécile Paris, Stephen Wan, Ross Wilkinson and MingFang Wu (2001). Generating Personal Travel Guides – and who wants them? In *Proceedings of the International Conference on User Modelling (UM2001)*; Sonthofen, Germany, July 13-18, 2001.
- Cécile Paris, Keith Vander Linden, and Shijian Lu (2001). Automatic generation of on-line help: a system based on practical issues. In *Proceedings of the Australian Workshop on Natural Language Processing 2001*. Sydney, Australia.
- Einat Amitay (2001). Trends, Fashions, Patterns, Norms, Conventions and Hypertext Too. In *Journal of the American Society for Information Science (JASIS)*, 52(1). pp 36 - 43.
- Prokopenko, M., Pagnucco, M., Peppas, P., and Nayak, A. C. (2001). Capturing Context in Causal Propagation. In *Proceedings of the IJCAI-01 Workshop on Nonmonotonic Reasoning, Action and Change*, 2001. pp 95 - 102.

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Intelligent Interactive Technology Newsletter

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Welcome to the first bi-annual newsletter of the CSIRO Intelligent Interactive Technology Group.

RESEARCH INTERESTS

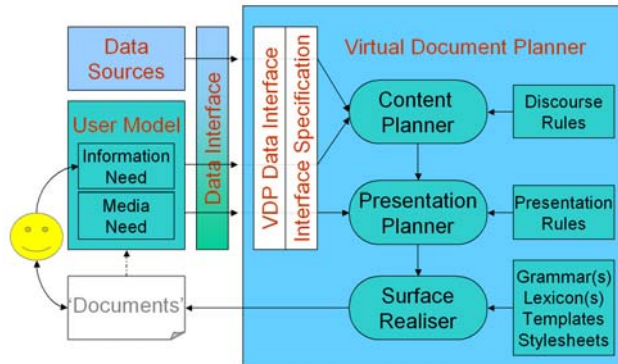
We conduct basic and applied research in Language Technology and Intelligent Agents to design and develop new technology for **customised information delivery**, with a user centred approach.

To this end, we develop tools and techniques for automatically collecting and integrating data from diverse sources, removing redundancy and delivering it in real time in a format appropriate for the user and the delivery platform. We also develop techniques for capturing user needs and observing user's behaviour to generate customised and personalised documents.



Tailored Content Delivery

The *Virtual Document Planner (VDP)* is a prototype system for delivering tailored information to users. It allows structured information from databases and text from existing web pages to be delivered in a coherent form, tailored both to the user and the delivery platform.



KEY BENEFITS

- Production of coherent documents
- Document Reuse possible
- Delivery for different media.

TWO CURRENT APPLICATIONS

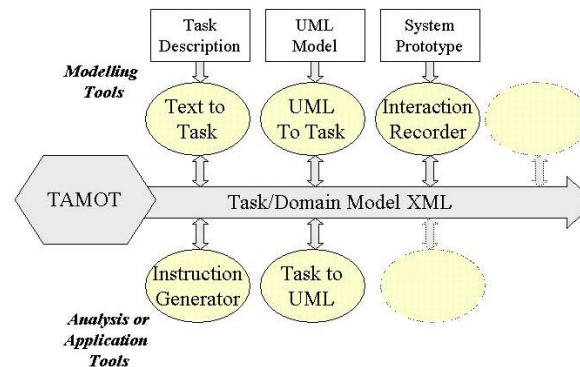
TIDDLER: delivers travel brochures, based on a user's stated interests and itinerary. The information is further customised for delivery to a full-featured web browser or a hand held device like a personal organiser.

PERCY: produces flyers or brochures from diverse web resources, customised for different audiences and stated interests.

Task Models: Acquisition & Uses

Isolde (partially funded by an ONR grant) is an integrated software development and document generation environment, based on several core ideas:

- The input to a generation system must be re-usable.
- The knowledge required must be easily obtainable on the fly.
- The knowledge acquired automatically must be integrated within a common modelling framework and modifiable, as correct automatic acquisition cannot be guaranteed.

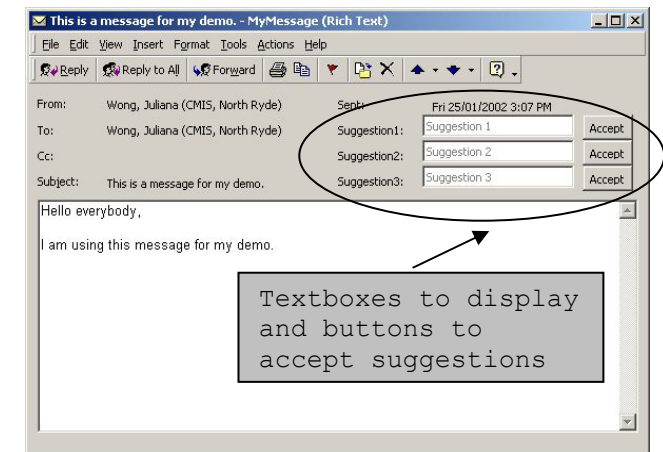


Following these ideas, we have built the environment shown above that includes:

- An interactive tool for technical writers to support the production of on-line documentation from task models; and
- An extensible set of knowledge acquisition tools that mine the knowledge required to build the task model.

Agents and Multi-agent Systems

Many interaction processes occur in groups, and, in order to organise knowledge, collaboration and a proper distribution of functions and tasks, there is need to analyse, model and develop computational systems in which several (semi-) autonomous software agents interact, adapt and work together in a common open environment, combining individual strategies into overall behaviour.



Our Flexible Organiser of Content and Knowledge (*FLOCK*) deals with the e-mail overload problem. It automatically profiles and categorises electronic documents for each user, depending on the user behaviour observed in the past and the present. *FLOCK* employs intelligent agents cooperating in a *Knowledge Factory*. The end result is a flexible categorisation of e-mail content into appropriate folders and a seamless integration with a third-party software (e.g., Microsoft Outlook).