

Dr Robert Colomb

PhD (New South Wales), 1987



Computer Science

Web: www.itee.uq.edu.au

Email: colomb@itee.uq.edu.au

RESEARCH INTERESTS

Information Systems

- Use of ontologies to support interoperation
- Use of category theory to represent complex models
- Application of information science concepts

Artificial Intelligence

- Trustworthiness of propositional expert systems
- Qualitative models as knowledge representation

Philosophy of Information

RESEARCH PROJECTS

Use of ontologies to support interoperation

As part of an international collaboration, we are investigating application-independent upper ontologies, their use in developing application-specific ontologies and their relationship with information systems conceptual modelling.

Qualitative models as knowledge representation

With colleagues overseas, we are investigating the representation of physiological knowledge by qualitative models in order to support an explanation facility for diagnosis of disease and the reasons for particular treatment programs.

Philosophy of Information

Application of philosophical concepts to information systems modelling and interoperation, together with application of concepts from computing and information science to issues in philosophy.

School of Information Technology and Electrical Engineering

The University of Queensland
Brisbane Qld 4072
Australia

Web: www.itee.uq.edu.au
Email: office@itee.uq.edu.au
Telephone: (07) 3365 3869
Facsimile: (07) 3365 4999

SELECTED PUBLICATIONS

R. M Colomb, 2002, *Information Spaces: the architecture of cyberspace*, Springer.

R.M. Colomb, C.N.G. Dampney & M. Johnson, 2001, 'Category-Theoretic Fibration as an Abstraction Mechanism in Information Systems', *Acta Informatica*, **38**, pp 1-44.

R.M. Colomb, 2001, 'Why Do People Pay for Information?', *Prometheus*, **19**, 1, pp45-53.

R.M. Colomb, 1999, 'Representation of Propositional Expert Systems as Partial Functions', *Artificial Intelligence*, **109**, pp. 187-209.

R.M. Colomb, 1997, 'Impact of Semantic Heterogeneity on Federating Databases', *The Computer Journal*, **40**, 5, pp. 235 -244.