

# **SUPPORTING COMMUNITIES OF PRACTICE: A RIPPLE DOWN RULES APPROACH TO CALL CENTRE MANAGEMENT**

MEGAN VAZEY

*Department of Computing, Macquarie University  
North Ryde, NSW, 2109, Australia*

DEBBIE RICHARDS

*Department of Computing, Macquarie University  
North Ryde, NSW, 2109, Australia*

One corporate sphere where the concepts raised by Communities of Practice (CoP) (Community Intelligence Labs, 2003)<sup>1</sup> can truly strengthen workflow efficiencies is the customer Call Centre or Service/Help Desk. In this domain, where the operators' daily grind is to trouble-shoot vast volumes of sometimes simple, but often difficult, technical problems in a dynamic knowledge environment, ideas from CoP involving collaboration between knowledge islands and use of web-based repositories to access proven solutions can achieve huge efficiency gains in the acquisition and reuse of knowledge. In this project we are concerned with knowledge management in a high-technology Customer Call Centre with typically high staff turnover resulting in loss of expertise. To support the acquisition, maintenance and flow of rapidly changing knowledge we propose an extension to the multiple classification ripple down rules (MCRDR) (Kang, Compton and Preston, 1995) knowledge acquisition technique that not only provides a technological solution but an approach that is human-centered and driven. In this endeavor, we will extend two RDR variations: Recursive RDR (R-RDR) (Mulholland et al 1993) and Interactive RDR (I-RDR). In our approach we practically apply the concept of value networks that places knowledge at the centre of the customer service organization's business model.

## **References**

- Kang, B., P. Compton and P. Preston (1995). Multiple Classification Ripple Down Rules: Evaluation and Possibilities. Proc. of the 9th AAAI-Sponsored Banff Knowledge Acquisition for Knowledge-Based Systems Workshop, Banff, Canada, University of Calgary.
- Mulholland, M., Preston, P., Sammut, C., Hilbert, B. and Compton, P. (1993) An Expert System for Ion Chromatography Developed using Machine Learning and Knowledge in Context *Proc. of the 6<sup>th</sup> Int. Conf. On Industrial and Engineering Applications of Artificial Intelligence and Expert Systems* Edinburgh.

---

<sup>1</sup> <http://www.co-i-l.com/coil/knowledge-garden/dkescop/dcop.shtml>