A new research journal involves an element of risk. Will it meet a practical need? Will it play a unique role in an often-crowded area? Has it addressed an audience? And, most importantly, will researchers contribute their work to attract the audience and make it a success?

The fields of web portals and Service Oriented Architecture generally today face two new challenges: First is the impact of the international economic situation on enterprise appetite for new technology investment. This comes alongside a second challenge, a debate on whether SOA will meet its promise or has been oversold by its advocates. Contributions in this and our previous two issues have already begun to address these questions.

The paper by Andreas Prokoph from IBM Research Laboratory in Germany discusses the issues associated with modern web applications and servers such as Portal that require adequate support for integration of search services. The primary reasons being user focused information delivery and user interaction, as well as new technologies used to render such information for the user. An example being the two fundamental problems that web crawlers in the past already had to deal with: dynamic content and Javascript generated content. Even today the solution is simple: ignore such web pages. In order to enable ‘search’ in Portals, a different ‘crawling’ paradigm is required to allow for search engines to gather and consume information. WebSphere Portal provides a framework which propagates content and information through so-called Seedlists comparable to HTML based sitemaps, but richer in terms of features. Of course it mandates that information or content delivering applications need to be ‘search engine aware’—it requires them to enable services and seedlists for fast, efficient and complete delivery of content and information. This would be the main integration point for search engines into the portal for Portal site search services with rich and user focused search experience.

Another research paper by Jaye Fitzgerald and Van Landrum also from the IBM Research Laboratory discusses the problems relevant to the multiple device portals focusing on mobile devices. While Portals are very good at aggregating and integrating applications “at the glass” on desktop PCs and laptop browsers, more and more users expect to access Portals on their mobile devices. The challenge to support multiple devices is a difficult one. Standard HTML web pages cannot be delivered to most mobile devices. These devices have different capabilities such as screen sizes, image formats, input methods, etc. With thousands of devices in the marketplace and the frequent introduction of new devices, how can a Portal support
the many types of mobile devices that want to connect to the Portal’s many applications? In this paper the authors discuss the issues and solutions to this many-to-many relationship. The solution is seen in the IBM Mobile Portal Accelerator which provides multiple device support from a Portal by using a version of XHTML called XDIME as the content markup and a multi-channel component coupled with a device repository to provide the proper device specific view. As a result, the page that is sent to the device is appropriate for that specific device and its capabilities, where no horizontal scrolling is required, all the information fits on the screen, the forms work, and all images are rendered properly creating a positive user experience.

Authors of the paper titled “An integration ontology for components composition” are Sofien Khemakhem, Khalil Drira, and Mohamed Jmaiel. The paper deals with problems associated with software components composition. The authors state that the software components composition can improve the efficiency of knowledge management by composing individual components together for complex distributed application. There are two main research directions in knowledge representation for component composition: the syntactic based approach and the semantic-based approach. In their work, they propose an integrated ontology-supported software component composition, which provides a solution to knowledge management. Their novel search engine (SEC++) provides dual modes to perform component composition. Ontologies are employed to enrich semantics at both the component description and composition. SEC++ is an efficient search engine that helps developers select components by considering two different contexts: single QoS-based component discovery and QoS-based optimization of component composition.

Joe Lamantia, our Portal expert from Netherlands, contributed with another interesting case study which is exploring the use of the Building Blocks portal design framework over a series of enterprise portal projects that span several years. This paper describes the business contexts that shaped each portal as it was designed, showing the use and reuse of design and development elements based on the Building Blocks. Furthermore, the paper also elaborates on the changes and adaptations that shaped the elements of the Building Blocks design framework over time.

Dr. Adamson’s paper titled “Portals, Technology and e-Learning” provides philosophical view of e-learning in the context of portal technologies and personalization as one of the most publicized properties of portlets. E-learning promises to improve the learning process through application of technology including portal technology. Portals can provide personalisation and interactivity functionality that e-learning requires. However, the long held promise that technology will improve learning has often failed to deliver. This paper looks at technology promise, and compares the specific demands of e-learning to the actual capability of portals and the underpinning Internet and World Wide Web. It then identifies four ‘costs’ of using technology for e-learning, and points to existing project management tools that may minimise the effect of these ‘costs’.

Through these and other innovative approaches and discussions we hope to meet our goal of providing a research journal addressing the interests of both academic researchers and industry practitioners. Are we succeeding? We welcome your feedback.

Jana Polgar
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Prior to joining Dialog IT as a senior consultant, Jana Polgar worked as a lecturer at Monash University in Melbourne, Australia where she was teaching subjects focusing on web services, SOA and portal design and implementation in postgraduate courses at the Faculty of Information Technology. She holds a PhD from RMIT (Melbourne, Australia) and a master’s degree from VUT Brno (Czechoslovakia). In addition to her research in software engineering, she has published many articles and book chapters and presented several papers on managing quality of service of streaming multimedia over the internet.

Greg Adamson works in the financial services industry. He has worked with Internet-based services as a consultant and in delivery in Australia, Asia and Europe since 1991. He has experience in the media, banking, health insurance, government, trade and telecommunications sectors among others. Greg has a PhD in the field of e-business from RMIT in Melbourne. This was undertaken from a multidisciplinary approach involving business, technical, regulatory, media and historical perspectives. He has a Bachelor in Technology (Engineering) from the University of Southern Queensland. He is an Honorary Fellow at the Department of Information Systems, University of Melbourne, and co-Editor-in-Chief of the International Journal of Web Portals.