This article investigates various approaches to portals research, beginning by offering three categories that such research might fall into: research into portal technology, research into portal implementation issues, and research into portal applications. The research approach used may well differ depending on which of these categories is being considered. As the largest number of portal research articles deal with portal applications, the remainder of the article then deals with this topic, and introduces the idea that as a portal must be adopted before it can be used. The article distinguishes between inventions and innovations and argues that there is nothing automatic about adoption of an innovation, and that this can best be investigated through the lens of innovation theory. In particular, the article looks at how innovation translation can be used in this regard and offers several examples of how this can be done.

Keywords: actor-network theory; innovation; innovation translation; portals research; research approaches; socio-technical research; Web portal; World Wide Web

INTRODUCTION

Despite appearing to cover quite a narrow area, the topic of Web Portals is an extremely diverse one covering, amongst other things, the technology of portals, the many different types of portals, how portal software is implemented, and the many and varied business uses to which portals can be put. Portals have now become an extremely important aspect of the Web and are now quite ubiquitous.

The Web Portal concept developed from search engine sites such as Yahoo!, Excite and Lycos which offered access to a large amount of general information (Tatnall 2005b). These general portals...
then began offering extra services in addition to search capabilities (Rao 2001) as the first step in their evolution. General portals continue to play an important role in the use of the Web, but in contrast to their position in the beginning of the portals’ evolution, they now have to share this place with many more specific portals, and recently the trend has been towards a growth in the variety and numbers of portals dedicated to more specific functions. Even given the difficulty in classifying portals or attempting to count the numbers of each type, it has become clear that specific, rather than general portals are very much the topic of interest around the world (Tatnall 2005b; Tatnall 2007b).

In this article I will offer three categories for portals research and outline possible directions that this research might take. I will then discuss some different approaches to portals research and suggest that one important research direction in investigating various portal applications is to consider the portal as an innovation and to make use of innovation theory in the analysis.

**CATEGORIES OF PORTALS RESEARCH**

Portals have been around now for a number of years, and a considerable amount of research has been done into portal technology and applications. The *Encyclopedia of Portal Technology and Applications* (Tatnall 2007b) contains two hundred research articles from around the world relating to portals. These articles cover a wide range of topic, ranging from the complex to the very simple. One area of research in the encyclopaedia discusses the nature, characteristics, advantages, limitations, design and evolution of portals, while at the other end of the spectrum several investigations centred round semantic portals and some philosophical portal issues (Tatnall and Davey 2007).

While some of these articles are fairly descriptive, others involve detailed analytical research. In putting together the encyclopaedia it appeared to me that most of the papers outlining research on portals could be classified into three main areas which could, of course, be further subdivided:

- **Portal technology**: research on the technical design of portal software
- **Portal implementation**: research issues involved in the implementation of portals in specific organisations
- **Portal applications**: research into the many uses of portals, and the consequences of this use

(There were a few articles that could not easily be fitted into this categorisation, such as some rather more philosophical articles questioning the nature of portals, but the vast majority did fit.)

Portal technology itself has been researched by many scholars, especially those involved in the design and imple-
Related Content

An Integration Ontology for Components Composition
[www.igi-global.com/article/integration-ontology-components-composition/46163?camid=4v1a](www.igi-global.com/article/integration-ontology-components-composition/46163?camid=4v1a)

Advanced Content Management System in Murdoch Research Institute
[www.igi-global.com/article/advanced-content-management-system-murdoch/55109?camid=4v1a](www.igi-global.com/article/advanced-content-management-system-murdoch/55109?camid=4v1a)

Enabling Technology and Functionalities of Shopping Portals
[www.igi-global.com/chapter/enabling-technology-functionalities-shopping-portals/17892?camid=4v1a](www.igi-global.com/chapter/enabling-technology-functionalities-shopping-portals/17892?camid=4v1a)
An Integration Ontology for Components Composition
Sofien Khemakhem, Khalil Drira and Mohamed Jmaiel (2012). Enhancing Enterprise and Service-Oriented Architectures with Advanced Web Portal Technologies (pp. 142-149).

www.igi-global.com/chapter/integration-ontology-components-composition/63951?camid=4v1a