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Intelligent Support for Resource Quality Evaluation and Description in Health Information Portals

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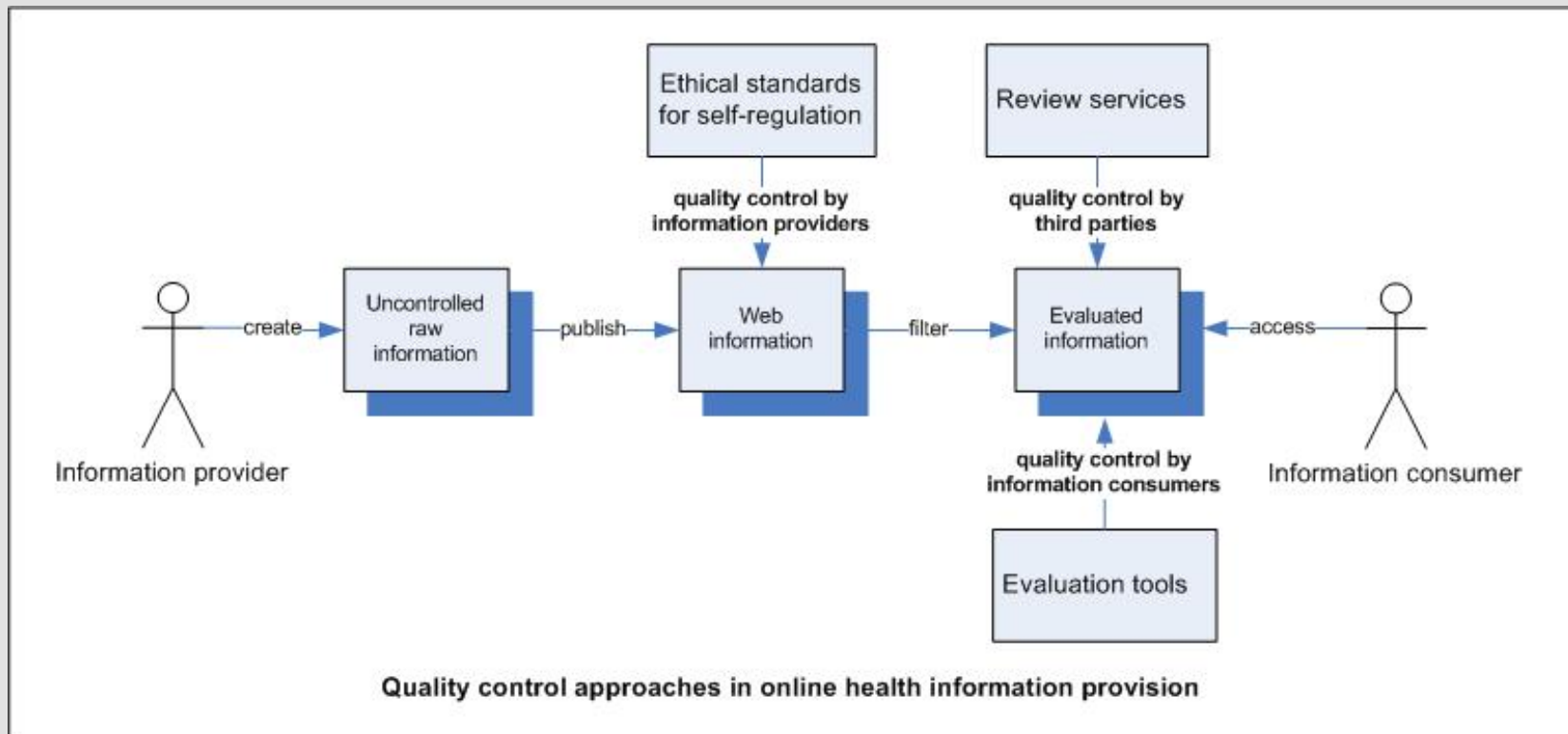
Centre for Organisational and Social Informatics
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Outline

- **Introduction**
 - Quality control approaches
 - Quality control via information portals
- **Motivation**
- **Objectives**
- **Method**
 - The study context
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- The quality control issues and approaches in online health information provision



Introduction (cont.)

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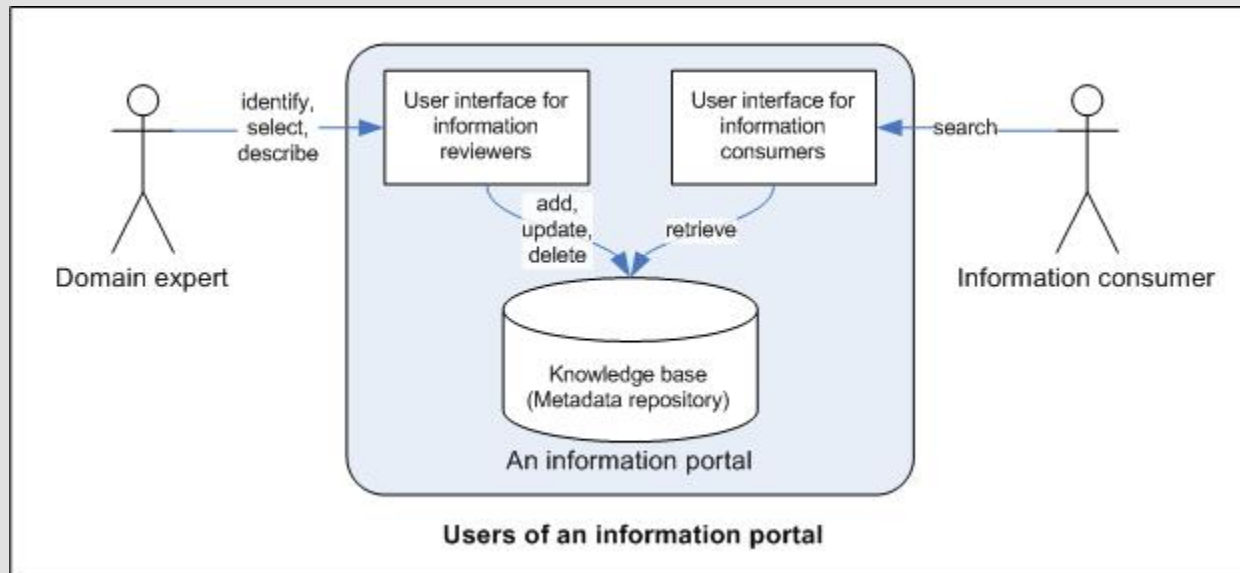
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- Information portals act as intermediaries providing information consumers access to evaluated quality information resources on the Internet
- The quality control procedures undertaken by domain experts in an information portal



In the resource identification, selection and description processes undertaken by domain experts for developing a portal's knowledge repository

- Domain experts' needs and their collaboration with intelligent systems in assessing the quality of online resources have not been sufficiently addressed in the literature
- The emergence of new solutions is imperative to solve the scalability and sustainability issues of manual procedures involved in the quality control processes

Objectives

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- To understand the roles of domain experts and their needs for intelligent supports
- To identify the parts of the procedures that could be automated and/or augmented by intelligent technologies
- To explore the extend to which intelligent techniques can support domain experts in the quality control processes



The Study Context:

Breast Cancer Knowledge Online

www.bckonline.monash.edu.au



A qualitative study of manual procedures involving the domain experts associated with the BCKOnline portal, which includes

- A walkthrough of resource identification, selection and description processes complemented by analysis of relevant project documentation
- A study on domain expertise



Home

Breast Cancer
Topics

Simple Search

Help

Personalised
Search

[Home](#) > [Personalised Search](#) > [Search Result](#) > [Info](#)

Metadata Record 129

[Close this window](#)

Title Autogenous breast reconstruction with the deep inferior epigastric perforator flap

Web Address <http://www.diepflap.com/article-0030.html>

Audience age
Under 40
age
40-49
age
50-69

Quality Report balance
Non Controversial Issue

creator
Clinician

currency
Current

evidenceBased
Personal Opinion

publisher
Education-Informative;Commercial Body/Group

referencesProvided
No

reviewProcess
Editorial Board

Creator Craigie, James E., Allen, Robert J., DellaCroce, Frank J.

Date modified
2003-07-01

Description The abstract of a medical journal article which outlines the differences between DIEP and tram flap breast reconstruction. (American)

A series of semi-structured discussions were drawn on three main issues, namely

- User-centred resource categories and selection criteria
- The BCKOnline metadata schema that include user-centric resource descriptors and innovative elements about resource content quality
- The BCKOnline content management system that capture resource identification, selection and description processes to build and maintain the portal's knowledge repository

Attributes of Domain Expertise

- Intimate domain knowledge and first hand experience
- Connection into information networks
- Awareness of the kinds and styles of information most valued by portal users
- Understanding of health informatics
- Understanding of library and information management principles

Results (cont.)

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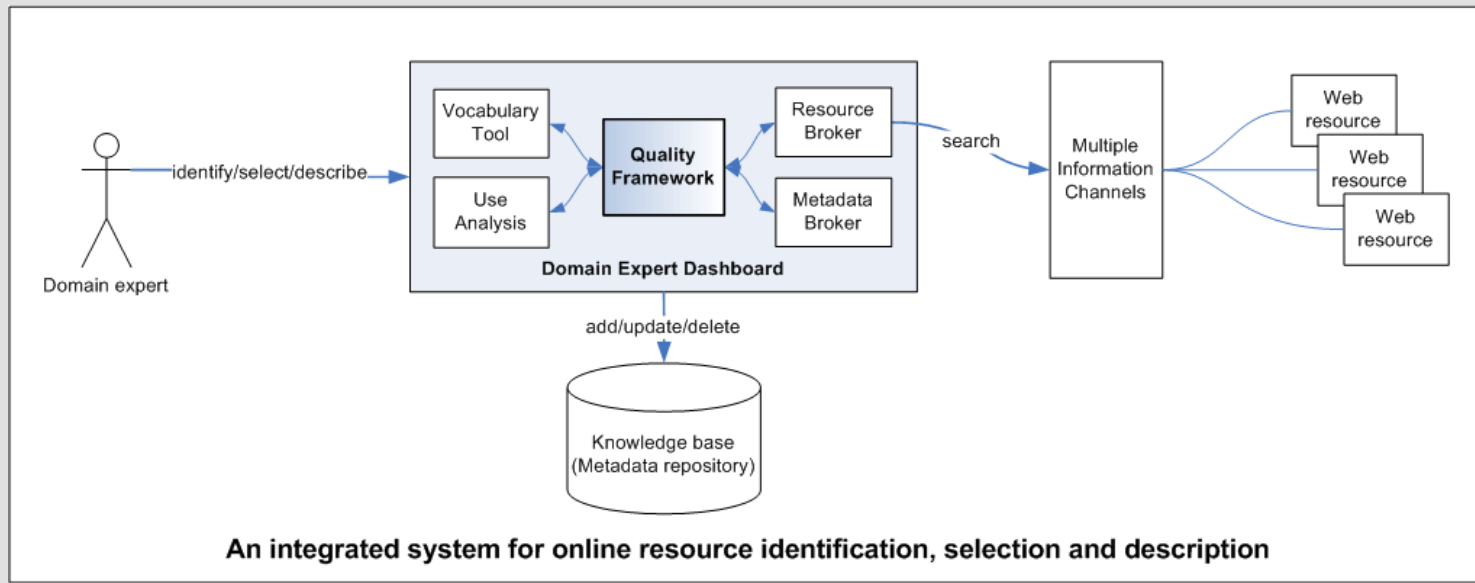
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Domain Expert Dashboard

- Quality framework
- Resource broker
- Metadata broker
- Vocabulary tool
- Use analysis

Our Solution

A semi-automated approach that facilitates collaborations between the domain experts and the intelligent system in resource quality evaluation and description



Next stage

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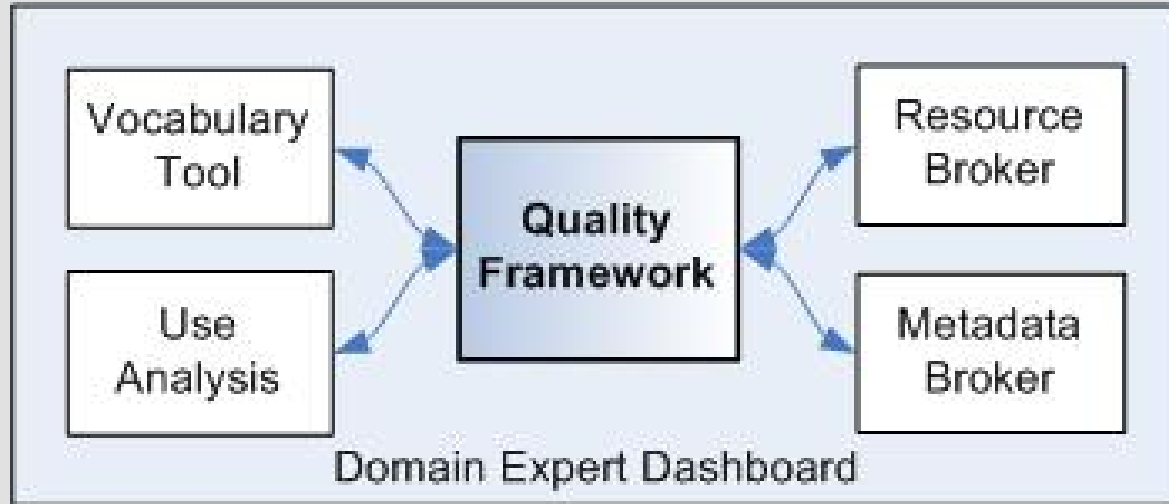
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Further implementation of the proposed architecture is being undertaken to explore the extent to which intelligent technologies can support domain experts in resource quality evaluation and description



The end and the acknowledgement

Question?

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