# Chapter 3
# The Power of EA Taxonomies in Enhancing Portfolio Visibility and Optimising Decision Making

**Don Ashdown**
*Queensland Government, Australia*

**Vanessa Douglas-Savage**
*Queensland Government, Australia*

**Kirsten Harte**
*Queensland Government, Australia*

**Ee-Kuan Low**
*Queensland Government, Australia*

## ABSTRACT

*This chapter describes the power of using Enterprise Architecture (EA) taxonomies in making sense of an organisation and its components to support portfolio visibility and optimise decision-making. It describes the use of taxonomies in a manner that has been successfully applied across a range of medium to large organisations particularly at a whole-of-government level within the Queensland Government, the Gold Coast City Council, and at an agency level within the Queensland Department of Justice and Attorney-General. These taxonomies enable increased visibility of an organisation's investment portfolio to support more structured decision-making and provide a basis for evidence-based policy development. At the whole-of-government level, this supports optimisation of information and IT investments across the entire connected government portfolio.*

## INTRODUCTION

This chapter outlines the theory behind taxonomies, their role in providing context and scope for EAs, and how they can be leveraged to support:

- business management, particularly in service design and strategic planning
- portfolio management, particularly in investment management and investment planning
- policy development and compliance.

This chapter has a primary focus on taxonomies for enhancing portfolio visibility and optimising decision making across an organisation.

Although this chapter includes examples of how EA taxonomies have been applied in Queensland Government, the data is fictitious.

Before the power of taxonomies can be demonstrated, it is pertinent to distinguish taxonomies from other related tools.

## BACKGROUND

Humans use a range of tools to make sense of the world around them, in order to classify and tag concepts so definitions and relationships are drawn to provide context to particular subject domains.

Within the EA and information architecture context, sense-making tools include folksonomies, keywords, ontologies, taxonomies, thesauri, and vocabularies.

Sense-making tools can emerge from social relationships, or can be formally constructed. The focus of this chapter is on formally constructed taxonomies, as distinct from other formally created tools, but we will briefly touch on a selection of sense-making tools. The main types of sense-making tools are briefly described below.

**Folksonomies.** An emergent sense-making tool that are typically non-hierarchical. These user-created category structures are not edited for consistency or full coverage of a subject area (Mathes, 2004; Vander Wal, 2007).

**Keywords.** Short descriptions for artefacts which may or may not be edited or formally controlled, and hence straddle the boundary of emergent and designed tools. In that regard, it is not dissimilar to folksonomies.

**Ontologies.** Formal description of the concepts and relationships within a defined subject area, and includes constraints on logical application of the concepts and relationships. Ontologies are used to reason about concepts within a domain as well as describing the domain itself (Ontology, 2011).

**Thesauri.** Groups of words with similar meanings (synonyms), and often also include related terms and antonyms. Thesauri differ from vocabularies in that they strive to include all terms used within a subject area, not just those that are preferred, as well as relationships between terms (Thesauri, 2011).

**Vocabularies.** Vocabularies are a formal collection of terms within a subject area, often arranged alphabetically and with definitions. Controlled vocabularies are characterised by carefully selected terms that represent the preferred terminology within a subject areas.

## FRAMEWORKS

The growth and evolution of EA has led to various endeavours to formalise and capture the most useful aspects of the EA practice into EA frameworks. These frameworks represent a body of knowledge and structural arrangements for repeatable application of EA techniques.

EA frameworks range from the well known and broadly applied Zachman Framework and The Open Group Architecture Framework (TOGAF) to lesser-known local frameworks such as the Queensland Government Enterprise Architecture

## Related Content

Interoperability Middleware for Federated Business Services in Web-Pilarcos
Lea Kutvonen, Toni Ruokolainenand Janne Metso (2007). *International Journal of Enterprise Information Systems (pp. 1-21).*
www.irma-international.org/article/interoperability-middleware-federated-business-services/2113

A Model for Enterprise Resource Planning Systems in the Higher Education Sector
Abdallah Abu Madi, Rami M. Ayoubiand Mohammad Alzbaidi (2021). *International Journal of Enterprise Information Systems (pp. 66-84).*
www.irma-international.org/article/a-model-for-enterprise-resource-planning-systems-in-the-higher-education-sector/282018

The Role of Change Management in IT Systems Implementation
R. Kenettand S. Lombardo (2007). *Handbook of Enterprise Systems Architecture in Practice (pp. 172-191).*
www.irma-international.org/chapter/role-change-management-systems-implementation/19424

Multisite PLM Platform: A Collaborative Design Environment
George Draghiciand Anca Draghici (2011). *Enterprise Information Systems Design, Implementation and Management: Organizational Applications (pp. 456-475).*
www.irma-international.org/chapter/multisite-plm-platform/43398

Managing the Implementation of Business Intelligence Systems: A Critical Success Factors Framework
William Yeoh, Andy Koroniosand Jing Gao (2008). *International Journal of Enterprise Information Systems (pp. 79-94).*
www.irma-international.org/article/managing-implementation-business-intelligence-systems/2147