

UNFOLD

How do reference models help realising educational systems for multiple learners and flexible pedagogies?

Colin Tattersall

Educational Technology Expertise Centre

The Open University of the Netherlands (OUNL)

IMPORTANT STATEMENT

- THERE IS NO UNFOLD REFERENCE MODEL

Overview

- What is UNFOLD?
- E-learning for multiple learners and flexible pedagogies
- How Reference Models can help us reach our destination

UNFOLD

- An EU 6th Framework project
- Coordination Action
 - The University of Pompeu Fabra
 - The Open University of the Netherlands,
 - Bolton Institute
 - European Continuing Education Network.
 - Working with lots of other people & projects
- Goal: supporting the adoption of open eLearning standards for multiple learners and flexible pedagogies
- 1.1.2004 – 31.12.2005

UNFOLD

- Communities of Practice
 - Teachers and Learning Providers
 - Learning designers
 - Systems implementers

This is only one approach to e-learning

The screenshot shows a web browser window titled "Microsoft Content Viewer - Microsoft Internet Explorer provided by Open Universiteit Nederland". The address bar shows a local file path: "Adres \\\svr-chi-01\Home_OTEC\$\vta\Mijn Documenten\Backups\aaacoln20021220\LT Software\LRN 3\XML Book Example\LRNViewer.htm".

The main content area displays the title "XML in Action - 1st 6 chapters" and "Chapter 1 Understanding Markup Languages". The left sidebar contains a navigation menu with the following items:

- Cover
- LOC Page
- Dedication
- Acknowledgments
- Introduction
- Part 1: Introducing XML
 - Chapter 1 -- Understanding Markup Languages**
 - A Brief History of Markup Languages
 - How Markup Works
 - Specific and Generalized Markup Languages
 - The Big Markup Picture
 - Chapter 2 -- Enter XML
- Part 2: XML Basics
- Part 3: Putting XML To Work
- About the Author
- About This Electronic Book
- About Microsoft Press

The main text area contains the following content:

Chapter 1

Understanding Markup Languages

It's a good guess that you're reading this book because you want to learn how to use XML (Extensible Markup Language). If you are like me, you want to pick up a computer book and start writing code by at least the second or third page. You've probably heard all the hype about how XML will change the Web and bridge gaps among the world's various types of digital information. You're convinced that XML is something you need to learn, and you might be anxious to jump right in and start coding. If you are that type of person, you won't have to wait too long. We'll get into some XML code before the end of the second chapter. But to really understand XML—and after all, that is the goal—you could probably benefit from some background information. These first few chapters provide a framework for the rest of the book—in addition to getting us into a little code. After reading these chapters, you should have a better understanding of and appreciation for XML. Establishing a framework is especially important with XML for a couple of reasons:

- You might not be familiar with some concepts utilized by markup languages. The information in these chapters will help get you up to speed on the basics of these languages and how they work.
- You might have experience using HTML (Hypertext Markup Language) or SGML (Standard Generalized Markup Language). You should understand how XML differs from these two languages and what makes it such a powerful alternative (or complement, depending on how you use it).

In many ways, XML represents a fundamental shift in the way information is delivered on the Web. While XML might not be as "flashy" as some of the other new Web technologies, it has the potential to have as much impact on Web delivery as HTML did several years ago. In this chapter, you'll begin to see why an extensible language like XML is necessary. We'll look at a brief background of text markup and how it works. We'll also examine differences between some of the more common markup languages.

At the bottom of the window, the taskbar shows the Start button, several application icons, and the system tray with the time 9:53 and the text "Lokaal intranet".

Multiple learners, flexible pedagogies

Open all hours

- Individually, learners give their opinion on the new UK licensing laws, entering a few sentences to motivate their thoughts;
- This process is monitored and ended by the tutor for the group as a whole;
- Learners can then see the responses of others and reflect on their opinion;
- Learners then enter personal reflections on all responses;
- The tutor receives all responses and personal reflections once they have been entered and gives feedback on the responses and reflections, finishing the learning activity on a per learner basis.

Grouping, interaction, sharing, ...

- “Students are presented with some information on Italian Wines. The tutor is available to take questions via an online chat session...”
- “The lecturer posts a problem on the bulletin board. Each group of learners elects a spokesperson who summarises the problem and clarifies”
- “Think about your experiences as a school child, creating three statements which should be typed into a document and stored on the shared space. Once this is done,”

Enter IMS Learning Design

- Who does what, when, with which learning resources and services, to achieve particular learning objectives.

Specify away ...

- Great ...
 - I'll just knock up a Unit of Learning in which learners undergo an intake test
 - The results will be used to vary the activities subsequently available.
 - There'll be a chat facility in there so that the learners can request assistance from their mentor.
 - They can then use the shared writing tool to create a report on the activities they've carried out
 - Once the reports have been posted to the forum, I'll get them to each run the simulation and have extra coaching be given to those who take longer than an hour to develop a model
- Now I'll just press go ...

Hitting the Wall



You'll be needing

- An assessment service
 - A learning flow service
 - A simulation engine
 - A chat service
 - A forum service
 - An e-portfolio service
 - etc
-
- And some magic so that all this gets configured, read from, written to, ...

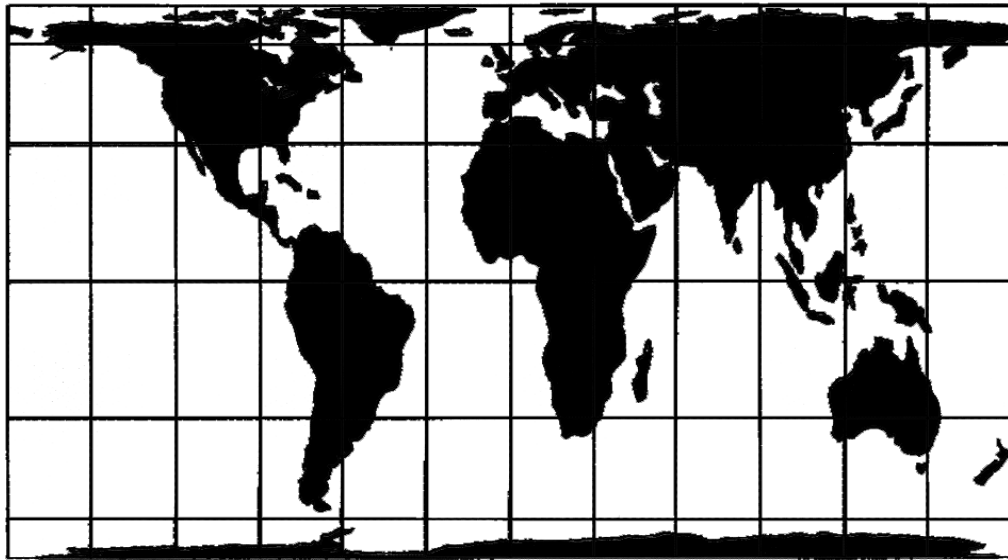
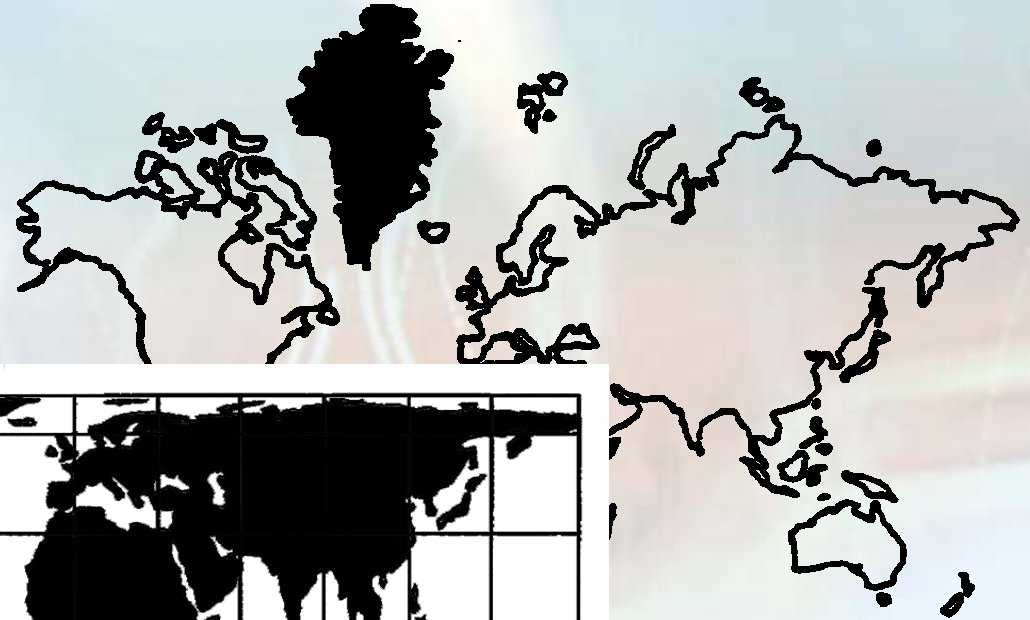
How can Reference Models help?

- “... 'reference models' [help] members of the community to collaborate on the development of service components that meet their needs”
 - The e-Framework for Education and Research: An Overview, Olivier, Roberts, Blinco, 2005
- “A Reference Model Orchestrates &/or Choreographs components”
 - Orchestration: several services working together for a user
 - Choreography: several users working together”
- Bill Olivier, LADiE presentation: “Service Framework Reference Models”

How can Reference Models help?

- What have we got covered today? What not?
- Where does application/component X fit?
- Which data is where and how does it get from A to B?
- Dividing up work
 - You develop that, we'll develop this, and we'll both buy that
- What will my institution need to cope with?
 - What is out of scope
- In which order are we going to address things?
 - Roadmap: in 2007 we'll introduce e-Portfolios
- Interaction with the JISC community (reference models, Personal Learning Environments work,) to reflect on our own world view

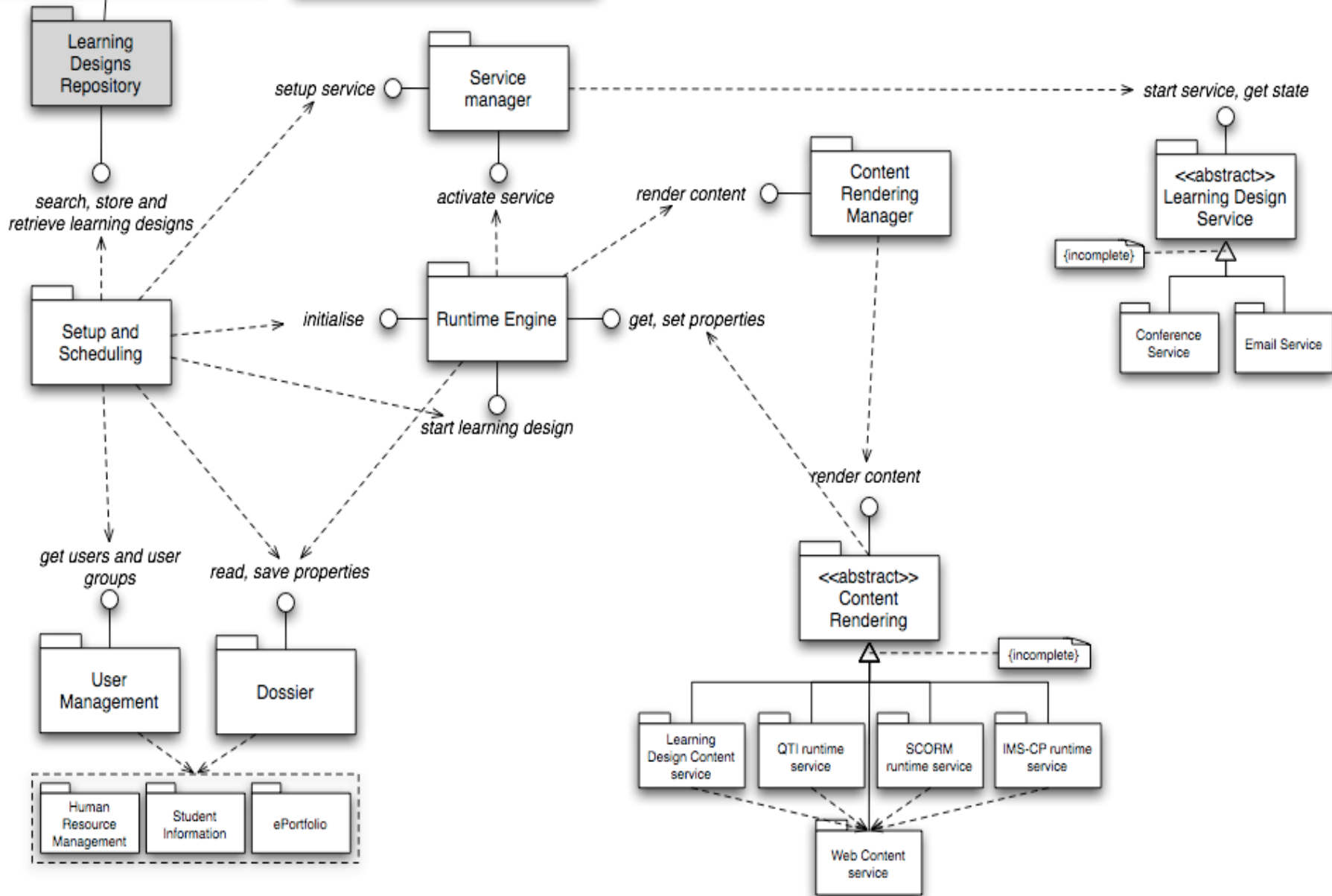
Mapping e-learning world



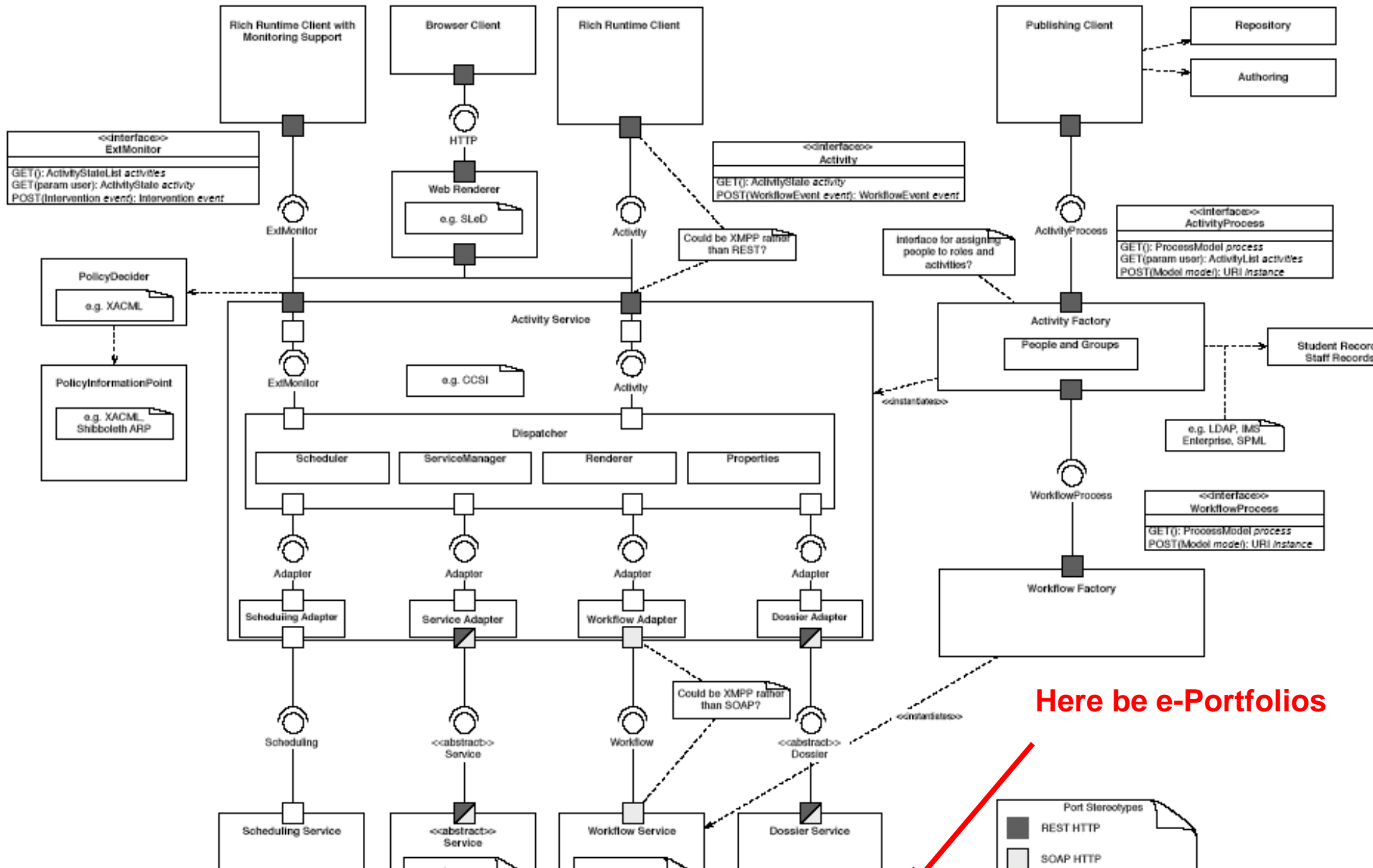
Scott Wilson et al. Dagstuhl diagram, 2004

This is where the runtime architecture overlaps with the authoring and content management architecture

initialise = (LD, users, service handles, property values, defaults)



Scott Wilson et al. Berlin diagram, 2005



Rounding off

- Educational systems for multiple learners and flexible pedagogies requires Reference Models
 - Dealing with lots of different info/services over long periods of time and within and between institutions
- Good links between ELF/e-Framework/Reference Models and UNFOLD communities of practice
 - CETIS, OUUK, others
- Just starting to get up a steam as UNFOLD folds
- But good news ...
- A new Integrated Project, **TENCompetence**, will be drawing on the Reference Model work to help guide the development of an infrastructure for lifelong competence development.

IMPORTANT STATEMENT

- THERE IS NO UNFOLD REFERENCE MODEL
- BUT WE DO HAVE WINE
 - **UNFOLD wine-tasting at the JISC-SURF stand in the Wintergarten exhibition area from 18:00 to 19:30 today**