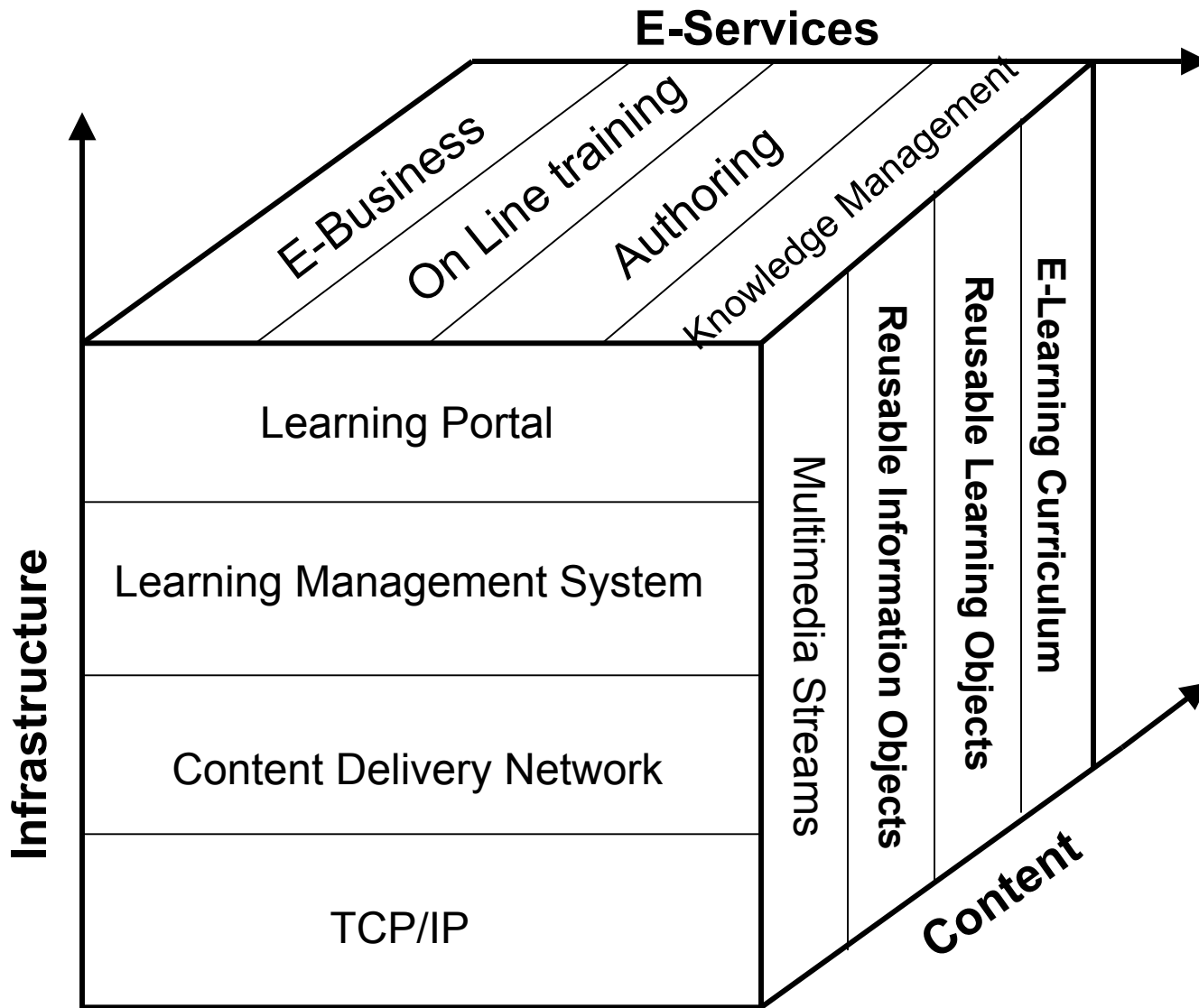


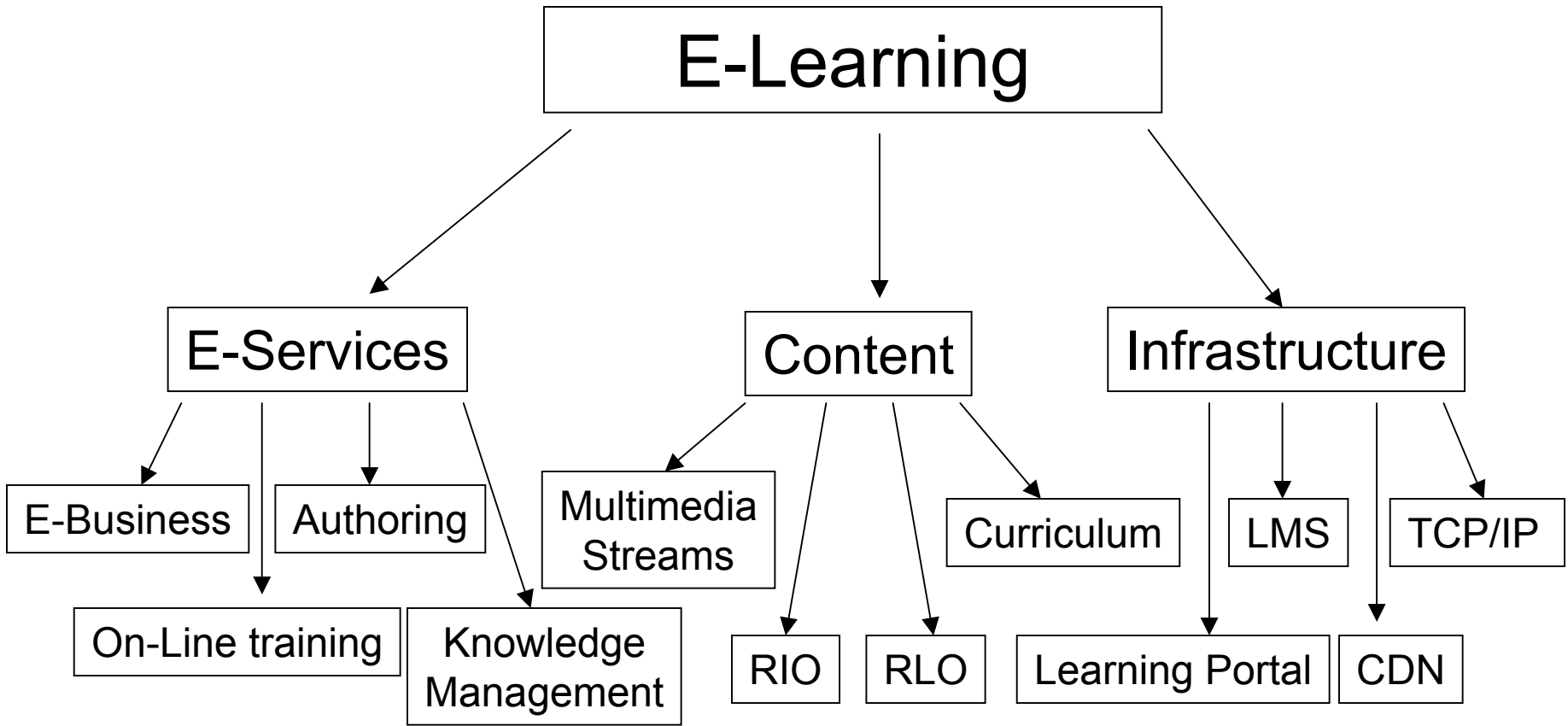
Some Aspects On Implementing E-Learning Systems for Virtual Enterprises

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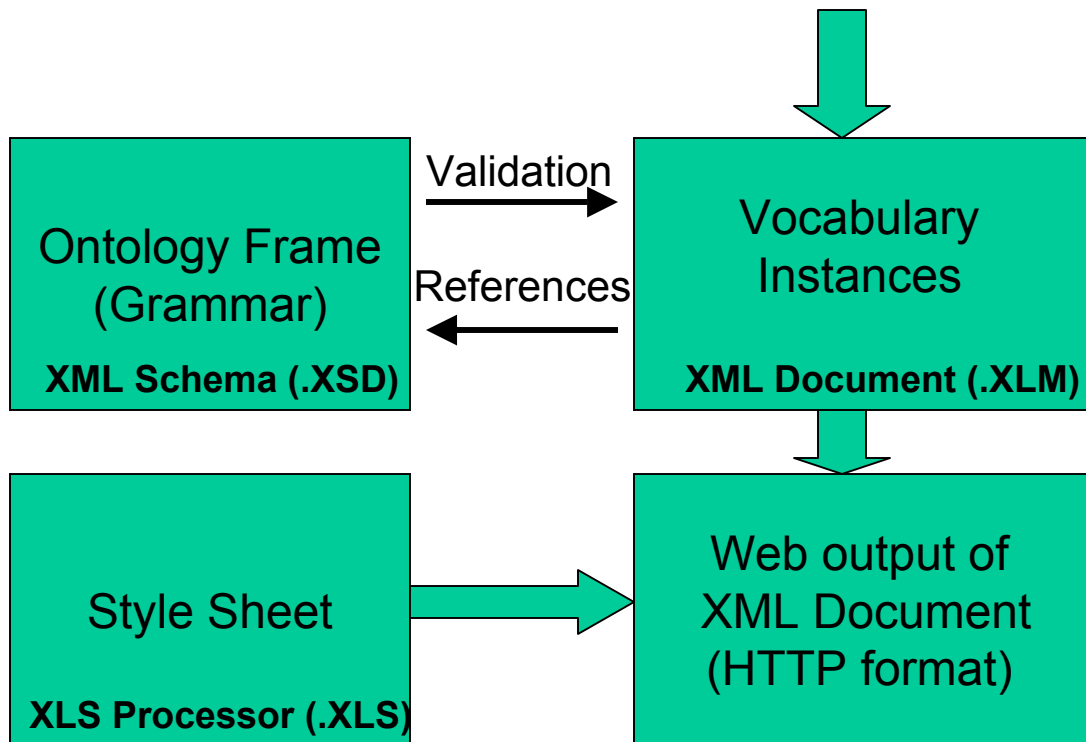


E-Learning Cube Model



Ontology Architecture

Input XML Document
(Vocabulary)



XML Description of the e-Learning Cube

```
<?xml version="1.0" encoding="UTF-8" ?>
<!-- ?xml-stylesheet type="text/xsl" href="eLearning.xsl" ? -->
- <el:elelearning xmlns:el="http://www.cpru.pub.ro" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.cpru.pub.ro elelearning.xsd">
- <el:dimensions>
- <el:dimension>
  <el:dimension_id>Infrastructure</el:dimension_id>
- <el:components>
  <el:component el:id="1">TCP/IP</el:component>
  <el:component el:id="2">Content Delivery Network</el:component>
  <el:component el:id="3">Learning Management System</el:component>
  <el:component el:id="4">Learning Portal</el:component>
</el:components>
</el:dimension>
- <el:dimension>
  <el:dimension_id>Content</el:dimension_id>
- <el:components>
  <el:component el:id="1">Multimedia Streams</el:component>
  <el:component el:id="2">Reusable Information Objects</el:component>
  <el:component el:id="3">Reusable Learning objects</el:component>
  <el:component el:id="4">Curriculum</el:component>
</el:components>
</el:dimension>
- <el:dimension>
  <el:dimension_id>eServices</el:dimension_id>
- <el:components>
  <el:component el:id="1">Knowledge Management</el:component>
  <el:component el:id="2">Authoring</el:component>
  <el:component el:id="3">On Line Training</el:component>
  <el:component el:id="4">eBusiness</el:component>
</el:components>
</el:dimension>
</el:dimensions>
</el:elelearning>
```

Contains commands for working with the selected items.

Start | Oracle JDev... | Microsoft P... | D:\work\ele... | D:\work\el... | 09:17

XML Schema Validation for the E-Learning Cube

The screenshot displays the Oracle JDeveloper 10g IDE interface for XML Schema Validation. The main window shows the 'dimensions.xsd' file in Design view, illustrating a schema diagram. The diagram features a root element '<schema>' containing a 'dimension' element with an attribute 'dimension_id'. This 'dimension' element is connected via a sequence relationship (indicated by a red circle with three dots) to four 'component' elements: 'component1', 'component2', 'component3', and 'component4'. Each component element has an attribute 'component_id'.

The Structure view on the left shows the hierarchical structure of the schema:

- schema
 - targetNamespace="..."
 - element - dimension
 - annotation
 - documentation
 - complexType
 - sequence
 - element - component1
 - element - component2
 - element - component3
 - element - component4
 - attribute - dimension_id

The Component Palette on the right lists 'Preferred Components' including 'Pointer'.

The Property Inspector on the right shows the 'General' properties for the selected 'schema' element:

| Property | Value |
|---------------|-------------|
| attributeF... | unqualified |
| blockDefa... | |
| elementF... | qualified |
| finalDefault | |
| id | |
| lang | |
| version | |

The Messages window at the bottom shows the following message:

```
Messages OracleXML-schema
The input XML file is parsed without errors using Schema validation mode
```

The status bar at the bottom indicates: 'Starting OracleXML-schema. Inserting inside schema Selected: schema Schema Editing'.

Example of BPEL Orchestration

