e-Portfolio modelis kā IS sastāvdaļa

RTU TSC seminārs

Rīga, 19.10.2010.

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Outlines

- Introduction and Competence Issues
- Data Flow in IS of an Educational Organization
- Categories of e-Portfolios Tools
- Proposed Model
- TENCompetence Model
- Conclusions and Further Work

Introduction and Competence Issues

Most of the examples of ePortfolios for lifelong learning are intended only as show-cases/CV tools.

Although there are other ePortfolio examples that share functionalities with the TENC ePortfolio approach, they have been used only in formal learning contexts and for specific knowledge domains (e.g. http://www.eportfolios.ac.uk/ePET).

Examples like Epsilen (http://www.epsilen.com) and My-ecoach (http://my-ecoach.com) are not restricted to formal education and include formal and informal learning actions from different institutions or providers: they enable learners to present themselves, reflect on their own learning, interact with others, and create and share their own communities, courses and resources.

Introduction and Competence Issues

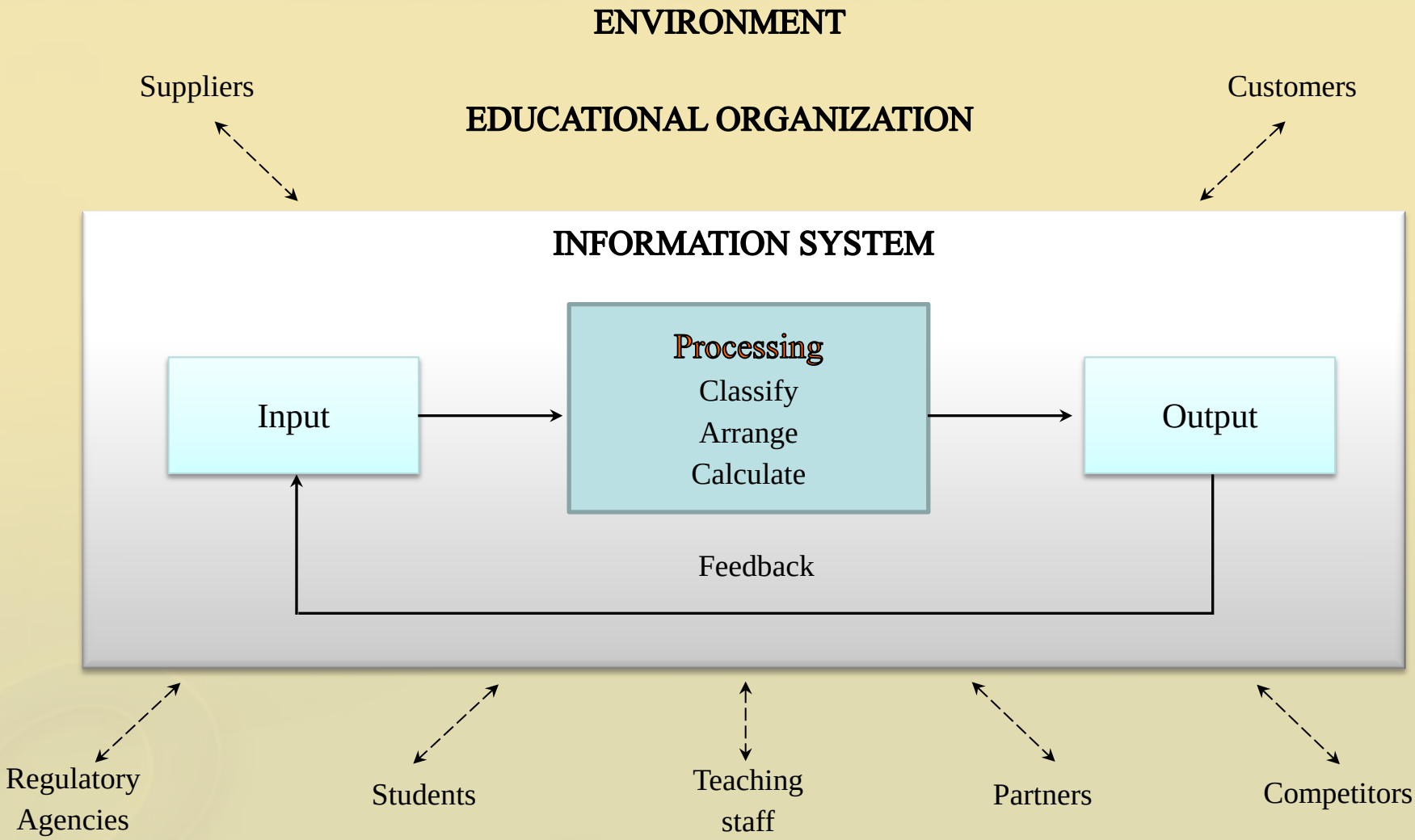
However, these examples are not designed with the idea of supporting learners' competence development.

They do not have an infrastructure that supports learners in this process.

Consequently, these ePortfolio examples cannot automatically provide tracking of learning actions the learner has followed, nor can the learners define their own learning actions to share with others.

In addition, these ePortfolio systems do not have services to support learners in the process of developing their competences as, for instance, calculation of her current position in the Learning Network, providing recommendation on which learning action or CDP to do next, or provide peer support. It is worth to mention that advanced features of these ePortfolio systems are available only if a licence has been purchased. In the case of Epsilen, the service is restricted only to those who have an email address from a university of the USA. In contrast, all services and systems developed in the TENC project are open source products.

Data Flow in IS of an Edu Organization



Categories of e-Portfolios Tools

Individual & institutional tools

1) **Authoring Tools** (such as Mozilla Composer, Dreamweaver, Front Page, Apple's iWeb, MS Office and Open Office Word, PowerPoint, Adobe Acrobat, iMovie, etc.) – they are used for offline portfolios development with further placement onto the Web server or portable memory discs and do not provide interactivity;

2**) Static Web Services** (such as GeoCities, GooglePages, Tripod, etc.) – organizations and individual persons can use these services to create and publish a presentation portfolio; these web services provide little or no interactivity (Web 1.0);

3) **Interactive Web Services** (such as WikiSpaces, GoogleDocs, EduSpaces Elgg), etc.) – as dynamic web services they might be used for creating and publishing of organization's or person's presentation portfolio; they allow interactivity;

/Barrett, H. C., 2008/

Categories of e-Portfolios Tools

Individual & institutional tools

4) **Software – Server Required** (such as Blackboard, MS SharePoint, Open Source Content Management Systems (Drupal, Plone), Open Source tools (Elgg, Mahara, OSPI, ePEARL), Embedded in Moodle (Moofolio, MyStaff), etc.) – organizations can install them on their own servers and provide space for persons' e-portfolios; they allow interactivity but do not provide data management;

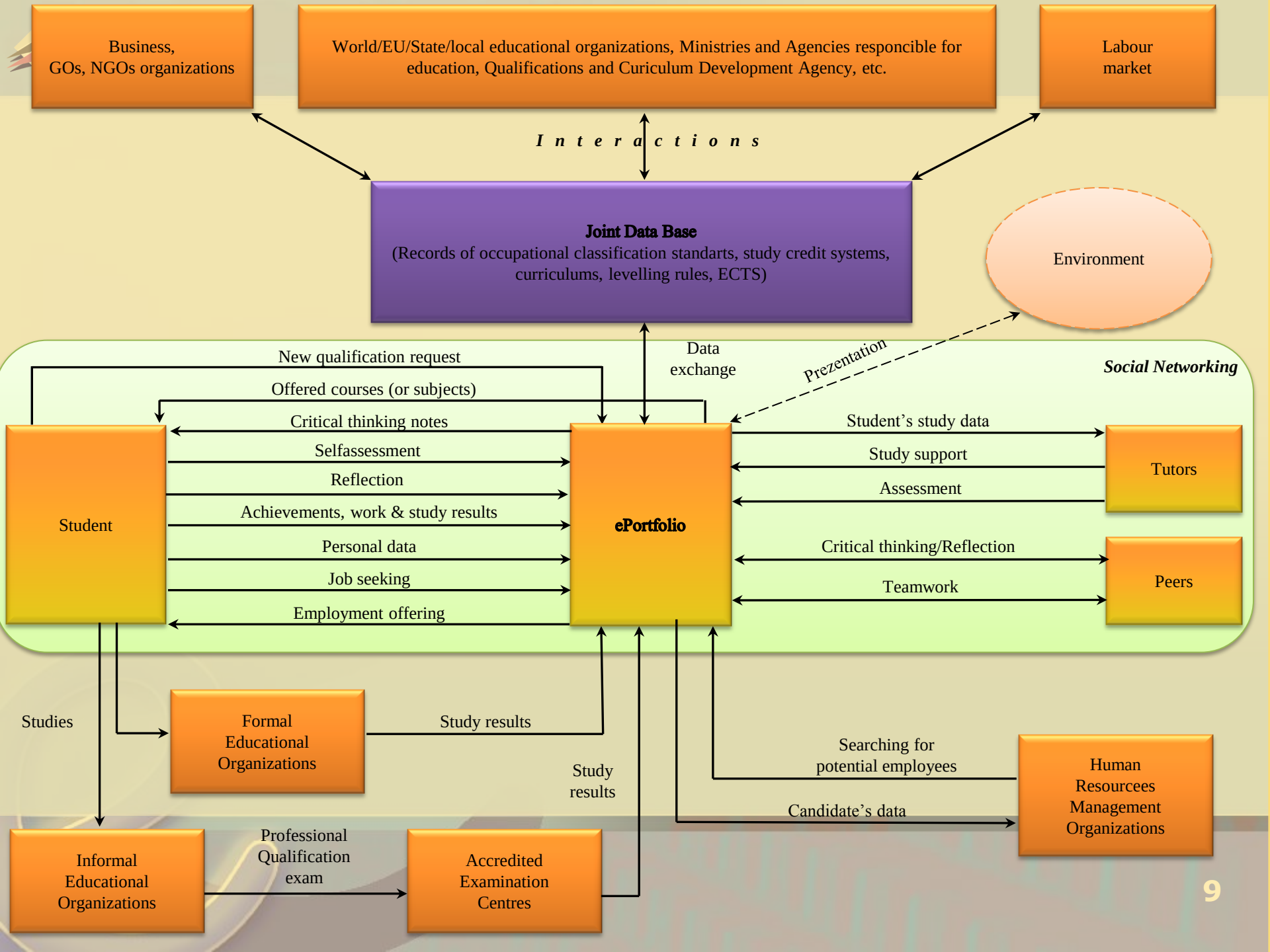
5) **Hosted Services** (such as GoogleAps for Education, Digication, Epsilen, My eCoach, etc.) – they can be adopted by organizations. So, there is no necessity to use organization's server. Services allow interactivity but do not support data management and reporting system;

6) **Assessment Systems** - Hosted Services (such as Chalk & Wire, College LiveText, FolioTek, mVentive's TracDat, Richer Picture, and Task Stream) – these are systems which, similarly like services in previous category, are hosted. Thus, organizations would adopt them that will allow hosting e-portfolios, ensure interactivity, data management and reporting system for assessment.

Proposed Model

- Training needs - a gap between competencies specified and the present level of development by the learner.

- Crucial moment in the assessment of this gap - learners own perception of the discrepancy between where they are now and where they want to be (Griffin, 2001).


Business,
GOs, NGOs organizations
World/EU/State/local educational organizations, Ministries and Agencies responcible for education, Qualifications and Curiculum Development Agency, etc.
Labour market
Interactions
Joint Data Base
(Records of occupational classification standarts, study credit systems, curriculums, levelling rules, ECTS)
Environment
Data exchange
Prezentation
Social Networking
New qualification request
Offered courses (or subjects)
Critical thinking notes
Selfassessment
Reflection
Achievements, work & study results
Personal data
Job seeking
Employment offering
Student
ePortfolio
Student's study data
Study support
Assessment
Tutors
Critical thinking/Reflection
Teamwork
Peers
Studies
Formal Educational Organizations
Study results
Study results
Searching for potential employees
Human Resourcees Management Organizations
Candidate's data
Informal Educational Organizations
Professional Qualification exam
Accredited Examination Centres

TENCompetence Model

TENCompetence - European project aiming at developing an integrated open source infrastructure that enables and fosters lifelong learning [R. Koper and M. Specht , 2008].

The infrastructure, called the Personal Competence Manager (PCM) [H. Vogten, R. Koper, H. Martens, and J. V. Bruggen, 2008], will integrate different services through the notion of Learning Networks [R. Koper, E. Rusman, and P. Sloep, 2005], which has been envisioned to facilitate lifelong learning.

TENCompetence Model

TENCompetence ePortfolio definition should integrate:

- Rhetorical perspective (shows the learner's competences, achievements and history),
- Pedagogical perspective (aims at supporting learner's self-reflection, through the definition of competences mastered, review and creation of (new) competence development plans, and assessment of competences),
- Social perspective (aims at fostering interaction and social help support),
- Technical perspective (aims at supporting the other three perspectives).

/Berlanga, A. J., Sloep, P. B., Brouns, F., Bitter, M., & Koper, R. (2008)/

Personal Competence Manager v 2.0

The key contribution of the TENCompetence Personal Competence Manager (PCM) is to provide an infrastructure for individuals, communities, and the organisations which enable them to manage the development of competences in complex domains of knowledge; formal and informal education, training, learning and knowledge management.

The PCM comprises a server which stores and inter-relates all the data defined by users through a series of applications which will be made accessible via the open source portal LifeRay (www.liferay.com). LifeRay will serve as the point of entry to an array of fully integrated competence development applications and will provide a convenient user-oriented way of accessing the various applications from a single location. Logging into the portal allows users to register as a member of a public network hosted on one of the TENCompetence servers.

Personal Competence Manager v 2.0

Author tools

Learning Path Manager and Editor. These tools are used to set up a learning path that can be used in the PDP tool. A learning path describes a set of actions which lead to the attainment of a competence profile (a set of competences at a particular level of proficiency).

ReCourse Wysiwyg XHTML editor*:* It helps users to organise and coordinate learning environments and activities (i.e. who does what, when, and how).

Test Editor IMS Question and Test Interoperability (QTI) is an open e-learning technical standard, which describes data models for the representation of assessment item/test and their results.

Personal Competence Manager v 2.0

Learner Tools

***My ePortfolio**:* helps lifelong learners to reflect on the competences and competence profiles they have acquired using the TENCompetence services. Learners can also include and edit the competences they have mastered and the evidence that supports those competences, even if they have not been acquired using the TENCompetence services. Furthermore, learners can publish their profile to relevant communities, and export their data to create a CV.

The Graphical Planning Tool: supports learners in planning their personal development plans (PDP) and in revising them on a regular basis. The Planning Tool proposes a first plan, based on the learner's needs and preferences. The plan is visualized as a learning path that the user can refine according to his own needs, simply by dragging and dropping. Detailed information on the learning activities is given in pop-up boxes. The Calendar provides an overview of the planned activities. If a user clicks on a specific day, the activities of that day are displayed.

Personal Competence Manager v 2.0

Learner Tools (cont.)

***User-Profile Editor**:* as the name suggests, this tool allows users to change user attributes.

***Search activites, competences and Learning Paths**:* this tool will enable search of competences and learning actions as well as related search: e.g. “find all learning actions related to this competence”, “find all learning paths that include this activity” etc.

***TENTube**:* TENTube is a video-based connection tool designed to support competence development. It integrates rich profiling and network visualization and navigation with agent-enhanced game-like connection dynamics to bring people closer together to exchange knowledege through shared experiences.

***Hybrid Personaliser**:* This service delivers recommendations of Units of Learning for learners to undertake. Its recommendations are based on what is known about the learner's preference, porfolio, learning goals and current learning

Personal Competence Manager v 2.0

Learner Tools (cont.)

***LearnWeb**:* LearnWeb2.0 is a tool for the management and sharing of knowledge resources. More specifically, it provides users with the convenience of a single environment from which to access Web 2.0 tools best suited to the competence development process. It enables access to a wide array of resources from all over the web which can then be exclusively tagged, rated and commented on by TENCompetence users for TENCompetence users. This is achieved by isolating competence focussed feedback from that of standard Web 2.0 users.

***PDP Web Tool**:* The PDP tool enables learners to the create their own personal development plans by selecting a competence profile, stating their goal and motivation, following a self-assessment, creating their learning plan and performing the activities in the plan (some of them may be links to courses in the SLeD system).

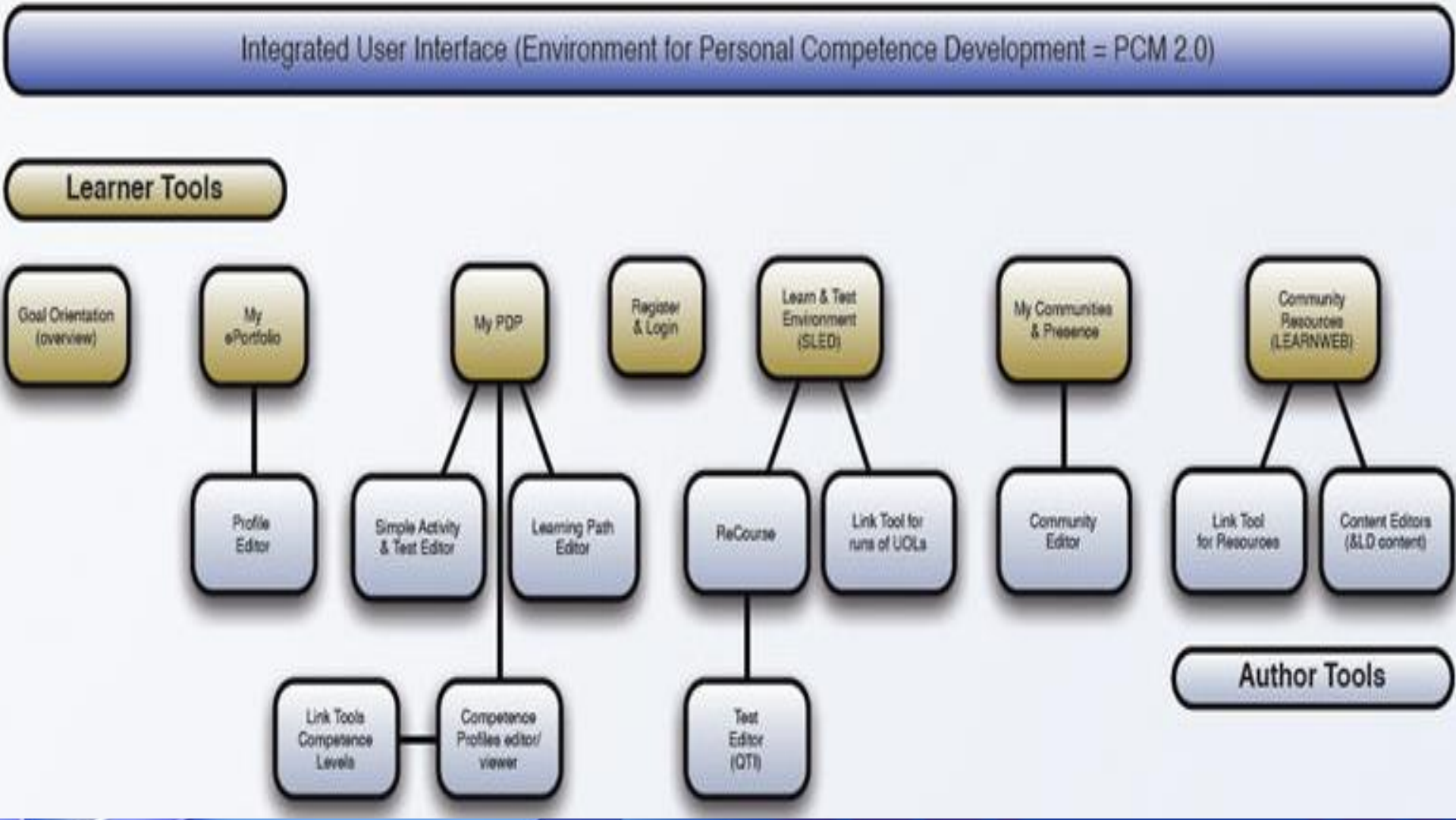
Personal Competence Manager v 2.0

Learner Tools (cont.)

***Overview Tool**:* When a person enters the system and doesn't know what to learn ('no goal specified'), this tool helps to identify a user's goal in terms of specific competence profiles that serve as the input for a PDP. It provides an overview of links between people and their Competence Development Opportunities (CDO). CDO is a broad term which includes not only traditional courses, workshops, and reference material, but also ‘live’ resources, such as communities of practice developed around a given competence, or experts and peer groups.

The Overview/Goal Orientation Tool is a web-based tool, aimed to help two groups of users. First one is populated with those, who do not yet know what to learn (i.e. they do not have a goal specified). This this tool helps to identify a user's goal in terms of a specific competence profiles that is the input for a PDP. Furthermore it for the second user's group the tool may also be used to search for relevant people and for relevant resources as well to navigate and get an overview of the learning network.

Personal Competence Manager v 2.0



Conclusions and Further Work

1) Development of e-Portfolio system with AI traits will promote lifelong learning and competitiveness in a labour market.

2) There is a need to study results of TENC WG more detailed.

3) Considerations of collaborative efforts in development of proposed e-Portfolio model.

4) Do not dub.

5) Development of algorithmic model based on matrix calculation.

Contacts

Questions?

Thank you!

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