

# Developing a Virtual Learning Community for LSP Applications

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**Abstract.** Foreign language teachers are nowadays required to respond to the changes provoked by the advent of web 2.0 and the developments it has introduced in the learning behaviour of users, and to adopt a new teaching approach, integrating users' online social activities in their educational practice. In this new educational approach, users must be able to choose the appropriate content for their needs, interact and collaborate with others and learn in an informal online environment, similar to the environment they use in their everyday life. Towards this direction, the development of Personal Learning Environments (PLEs) seems to promise new possibilities in the field of language teaching and learning, especially concerning LSP applications. In this paper we first present the current research on PLEs, their philosophy, the pedagogical context they are based on as well as the different ways of their formation. Furthermore, we propose a PLE developed specifically for language learning using the Netvibes platform. More specifically, we present the components and the possibilities of this PLE, as well as the way the environment was used in the foreign language classroom. Finally, we draw conclusions deriving from this application and the perspectives that this type of environment creates for language learning.

**Keywords:** personal learning environments, PLE, Ajax Start pages, ICT, technology enhanced language learning, learning communities.

## 1. Introduction

The increasing popularity of web 2.0 applications and their deeper integration into users' everyday lives leads to significant changes in the way users perceive education and affects the strategies they choose to reach their learning objective(s).

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In this context, the current educational approach of Tertiary Education Institutions as well as the e-learning systems on which it is based start to seem outdated, as they are incompatible with the users' new learning behaviour.

The traditional knowledge management through institutional e-learning systems, and especially the strict structure and predefined content of virtual learning environments (VLEs), discourages users, who are required to follow a mandatory and teacher-pre-designed learning scenario, being passive and limited to the functions authorised by the VLE role (Clark, Beer, & Jones, 2010; Sclater, 2008). On the contrary, in new environments created by web 2.0 services, students can choose, manage and reconstruct content according to their needs, enrich it with additional resources, share it with or redistribute it to others interested in the same subject, interact with peers and/or the teacher and form their own learning path. Operating in such an online environment does not restrict them as the institutional VLEs (Brown & Adler, 2008). It is in fact a new educational model, fully compatible with learners' lifestyle, in which the one-way delivery of knowledge is replaced by personal exploration, interaction with others and social production of knowledge, through the use of social networks and web 2.0 tools such as blogs, wikis, podcasts and the pursuit of knowledge in informal and distant outskirts of the web (long tail learning).

It is obvious that this kind of online learning behaviour is neither encouraged nor supported directly by existing e-learning systems, at least to the extent that users may wish. On the one hand, this fact leads e-learning applications designers to the modernisation and development of the existing systems towards a more social approach. On the other hand, the search for new tools is more compatible with the informal and free management of knowledge.

## **2. Method**

The basic concept to achieve the above aims is the development of applications that will approach or simulate the way people act, communicate and learn in their everyday lives and will allow them to form learning spaces suitable for communication, knowledge sharing, interaction, and informal and collaborative learning. Most researchers in the field believe that Personal Learning Environments may be the next step, and complement, or even replace VLEs in e-learning applications (Godwin-Jones, 2009; Martindale & Dowdy, 2010; Sclater, 2008).

The term PLE is open to many different approaches, as it does not represent a specific type of software, but rather a concept that focuses on new user learning

practices. However, PLEs present some common characteristics: they are open, fully customisable systems that are controlled and managed by individuals and function independently of educational institutions. PLEs adopt a user-centered approach and promote informal and lifelong learning, assigning users the basic role of knowledge building, via the formation of communities and the creation, remixing and sharing of resources. In this framework, a PLE must give users access to a number of applications and services, to a network of peer learners, and, mainly, to the control of the learning process (Martindale & Dowdy, 2010).

From a technical point of view, researchers agree that PLEs are personal systems, environments or collections of tools and external web 2.0 services (SAAS) which users select and organise in such a way as to build their Personal Knowledge Networks and serve their learning needs (Chatti, Agustiawan, Jarke, & Specht, 2010; Ingerman & Yang, 2010; Peter, Leroy, & Leprêtre, 2010). In its most complex and demanding form, a PLE may be specially developed software which integrates all the user's necessary features, at the same time providing an interface with institutional computational infrastructures (databases, libraries, administration, etc.).

Consequently, the design of custom PLE systems may be a very demanding task, as it requires high programming skills and financing. This is why ordinary users should focus on the use of web-available tools in order to develop a PLE that will be suitable for their needs. This type of software application is described by the terms “start pages”, “Ajax/web desktops” or “aggregators”, and is a relatively new approach to the design of PLEs. This category includes applications freely available on the net in their majority and specifically designed to allow users to form their personal learning spaces according to their needs. Start pages are based on the core web 2.0 technologies – AJAX, XML, mashups, RSS and Widgets (McLoughlin & Lee, 2007; Rollett, Lux, Strohmaier, Dösinger, & Tochtermann, 2007) – and do not demand high programming skills, beyond the familiarisation with the web 2.0 concepts, technologies and services, from the final users.

### **3. Discussion**

The use of an Ajax start page allows users the detailed configuration of their personal learning space. This option involves not only the tools to be used, but the information/knowledge resources on the subject of interest. In the case of foreign language learning, a key challenge for the foreign language teacher is to design a learning environment that brings learners close to the natural environment and the native speakers of the target language.

To this aim, a variety of tools, components and characteristics in the form of widgets and mashups have been used in the PLE presented here, in order to help the students get in touch with authentic language resources: communications (videoconferencing, POP3 and webmail accounts), social networking (user accounts in social networks and social bookmarking), content creation (users blogs), media (video, images, slides, sounds), repositories, multimedia players (Podcasts, Web radio, WebTV) and media search tools (Web, Video and Image search). A set of language specific tools is also included (collaborative writing tools, translation, vocabulary and dictionary widgets, spell checker, text-to-speech synthesiser, voice recorder and playback), as well as a variety of French resources like bookmarks/web pages (recommended websites, French resources and activities, language learning exercises), RSS feeds (French newspapers/magazines feeds and blog feeds) and Quizzing tools (online exercises tools). Finally, connections to the Institutional VLE and to the Institutional website are also provided.

To increase ergonomics and ease of use, the PLE is organised in tabs, in which the widgets have been arranged according to their functionality and the task they address. In the main tab the user has access to all his/her personal services (such as email accounts, social network accounts, personal blogs and tagging services) as well as to personal bookmark collections. Communication widgets (such as Skype) as well as some common widgets (such as to-do lists, calendars and calculators) and search tools are also available. From this tab, the user can also have access to courses, as well, and work normally in the Institutional VLE (in this case, Moodle). All other tabs are dedicated to language resources, organised by type: multimedia players and resources (videos, podcasts, educational resources, etc), RSS information flow (French newspapers and magazines, TV and radio emissions) activities/exercises (plus collaborative tools), and games/quizzes.

In a PLE, the learners can create connections and collaborate with peers and the teacher, forming a virtual learning community in this way. In this community, users act and learn in a digital substitute of the natural environment they normally learn outside institutional environment. The principal philosophy of virtual learning communities is based on informal learning and on social constructivism or “connectivism” (Siemens, 2005). The informal way of learning people use in their everyday life through study groups, discussions or collaboration with peers, can be simulated in a PLE. In an online community, the PLE acts as a mediating mechanism between geographically distributed learners helping them to communicate, search, acquire and/or create knowledge in the context and as a result of social interaction

(Van Harmelen, 2008). In an online community, learning takes place through knowledge and experience sharing, information exchange, interaction with peers in an informal and unbounded way. Activities, conversations and online exercises may be started by the teacher (who is also a member of this community) or any other member, i.e. a learner. The traditional one-way transmission of knowledge constitutes only a small proportion of online communities' learning activities, whereas interaction among peers leads to knowledge sharing and creation (Aceto, Dondi, & Marzotto, 2010).

#### 4. Conclusions

The PLE described in this paper can be properly configured to the specific user's needs. Furthermore, the content can be specifically selected to suit the needs of any specific language subject. This high level of customisability makes it clear that PLEs present significant advantages for language education. Using PLEs users can form virtual learning communities and approach the language and its native speakers much easier and in a richer context than in any other traditional e-learning platform.

Especially in the case of PLEs for LSP applications, it is possible to reuse the entire set of tools and create a new application for a different subject, simply by changing the resources from which the PLE is fed content.

Regarding the subject of foreign languages, the creation of personalised and adaptable learning environments that extend the traditional approach of a course seems to promise a more holistic response to students' needs. Functioning in the PLE, students could combine learning with their daily practice and communicate and collaborate with others, thus increasing the possibilities of multiple sources, informal communication and practice and eventually acquiring the foreign language.

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