

Collaborative Development of EFL in Vietnam through Open Source Software

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The University of Aizu, in collaboration with the University of Waikato, has been investigating the use of open source, server-based software for the enhancement of English language instruction in Vietnam. In this paper, we describe recent educational, technical, and English language reforms in Vietnam which have facilitated a new approach to the teaching and learning not only of English, but also Computer Science concepts. The paper concludes with a brief discussion of the efficacy of using open source tools and highly structured instructional approaches for English language teaching in developing nations.

1. Introduction

Vietnam is a dynamic, developing country in which educational and technical reforms, coupled with a keen interest in English language teaching have emerged strongly over the past several years. Since 2005 the authors have been collaborating with colleagues in Vietnam to develop web-based approaches to the teaching of English as a Foreign Language (EFL) and more recently to the teaching of Computer Science concepts through the medium of English. This paper describes the Vietnamese context, the current project, and concludes with some overall reflections for integrating language learning and technology in developing nations.

2. Educational Reform in Vietnam

In 2001, the Ministry of Education and Training (MOET) introduced the *Education Development Strategic Plan, 2001-2010* (Thang & Quang, 2007), an ambitious strategy for reforming education throughout the country. One of the main objectives of the *Plan* is to substantially improve English language education (Viet Nam News, 2008) so as to increase the competitiveness of Vietnamese education and industry. MOET is developing and introducing new curricula and teaching methodologies at major teacher training colleges and universities so that English can be used in school to teach subject-area content, for example Mathematics or Science. This change is being supported through substantial increases in government funding for education and the training of large numbers of English language teachers. At the same time as education has been changing,

important technical advances have been occurring.

3. Technical Change in Vietnam

Inexpensive access to computers and high-speed ADSL (broadband) is available now in most urban centers in Vietnam through Internet cafés and increasingly in homes (InfoBytes, 2007). Between 2000 and late 2007, the percentage of the population using the Internet rose from 0.3% to 20.6%, with the government committed to an Internet penetration of 35% by 2010 (Internet World Stats, 2008). In addition, there is increasing use of computers in education and a growing enthusiasm for e-learning throughout Vietnamese education. However, the fact still remains that access to affordable, flexible software tools and appropriate educational content is needed. Open source software and open educational resources (OER) provide promising solutions.

4. Access to Software and Content

Open source software is created by communities of developers who make not only their source code available but who also share bug ‘fixes’. Software costs can be lower in the open source environment, but importantly, people who participate in the development or refinement of open source software become part of a global community of authors and users. One could argue that it is this access to and sharing of knowledge which makes the open source software approach so powerful.

The term “open educational resources” (OER) refers to the international availability and sharing of educational content and expertise (UNESCO,

2002). OER “are digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research” (OECD, 2007, p. 131) and can include courseware and content, software tools, material for e-learning capacity building of staff, repositories of learning objects, and free educational courses. The OER has emerged out of a desire to promote equality of access to resources for teachers and learners in developed and developing economies (Downes, 2007; OECD, 2007). It is the integration of these key themes – educational reform, technical change, and the availability of open source/ open educational resources – that has led to our current work in Vietnam.

5. FLAX (open source software) Project

The FLAX software project is based at the University of Waikato in New Zealand. The overall aim of the project is to produce an open source software tool to automate the production and delivery of practice exercises for English-language learners. FLAX uses the Greenstone digital library software (Witten, Loots, Trujillo, & Bainbridge, 2001) to organize authentic texts and multimedia resources as input for genre-specific language exercises. FLAX consists of individual and collaborative language tools which incorporate dynamic content from digital library and Internet sources. Exercise types include, for example, jumbled sentences, matching words, predicting words, image guessing, and content word guessing. Recently a Moodle plug-in for FLAX has been developed with a simple user interface so that teachers can select from different exercise types and develop language learning tasks tailored to specific classroom needs.

6. The Project at FPT University, Vietnam

The FPT Corporation, Vietnam, provides outsourcing services for the Japanese IT industry, which is currently experiencing an acute shortage of qualified software programmers. FPT University requires four years of language study in Japanese and English for all its students. Moreover, FPT wants students to have on-the-job training in Japan and/or to join exchange programs with Japanese universities in order to prepare for management positions in Vietnam or to work for FPT in Japan.

The Japan Society for the Promotion of Science (JSPS) has recently funded a 3-year project at the University of Aizu in which FLAX and Moodle will be used to support and integrate English language learning with computer science content. The project has three major goals: to implement

new language tools that are based on the Greenstone digital library and FLAX; to integrate the language goals of English courses with fundamental computer science concepts in a course called *Logic Circuit Designs* within a blended learning environment in Moodle; and to implement the system locally in Japan before trialling it in Vietnam. Not only are the content schemata relevant to computer science, but also the computer science genre has formal, specific linguistic features that can be dealt with explicitly in FLAX. Additionally, and consistent with best practice online pedagogy (Brine & Turk, 2006; Clarebout & Elen, 2008), a structured, collaborative approach to student work is being used within the Moodle environment.

7. Discussion

The promise of technology to transform learning and the reality of its limitations have been discussed often in academic literature (Goldberg & Riemer, 2006; Johnson & Walker, 2007). Significantly the most persistent constraints within e-learning appear to be at the personal, not technical level (Kopyc, 2006). These insights have led us to develop strategies for the use of open educational resources within emerging e-learning environments that focus on structured, collaborative ‘learning-by-doing’ approaches to instructional design. Even among teachers and students who do possess technical skills, a coherent approach to the interaction of technical, curricular, and pedagogical levels of expertise needs to be developed explicitly and in identifiable stages. We believe that through such coordinated efforts that language teaching and learning within technology-supported environments will achieve success in developing countries.

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