

Introduction to Vietnam OpenCourseWare

What is OpenCourseWare? The term OpenCourseWare was initiated by the Massachusetts Institute of Technology (MIT) in 2002 when MIT decided to post all of its learning contents on the web, and allowed free access to these contents. With the objective «Knowledge is common good and needs to be shared», many universities and research institutes in the world have participated in the OpenCourseWare movement, and established the OpenCourseWare Consortium with the purpose of sharing learning contents, tools, resources, as well as implementation methods in the most effective way.

Faculty members, students, and self-learners from countries all over the world, especially those from developing countries like Vietnam, have equal opportunities in accessing to new knowledge.

Vietnam OpenCourseWare (VOCW) Mission VOCW's mission is to make the OpenCourseWare features rich, useable, re-useable, and accessible at no cost firstly for academic environment, and later on to all in the society.

Background During the official visit of the former Prime Minister of Vietnam, Phan Van Khai, to the U.S. in June 2005, the MIT OpenCourseWare was introduced to the delegation. The delegation members recognized that MIT OpenCourseWare would be one of the invaluable sources for Vietnamese people that would allow students, faculty members, and researchers to access up-to-date and modern learning materials. MIT supported Vietnam by providing a full copy of its OpenCourseWare's contents to install in the servers in Vietnam. However, direct usage of the MIT OpenCourseWare is very limited due to the following reasons: 1. Background knowledge of Vietnamese students is very different from this of MIT students. 2. English skills of most Vietnamese students are not good enough to read and understand the courses in English. 3. Teaching and learning methodologies of Vietnamese faculty members and students are different from those of MIT ones. 4. MIT students are supported by a rich library system while Vietnamese students are supported by a limited library system of Vietnamese universities. 5. There is a big difference in infrastructure usage and Internet accessibility between MIT's and Vietnamese students. Facing these obstacles, The Ministry of Education and Training (MOET), the VASC Software and Media Company (VASC), and the Vietnam Education Foundation (VEF) have cooperated to build up the Vietnam OpenCourseWare (VOCW) project with the purpose of overcoming all the obstacles in direct using the OpenCourseWare for Vietnamese users.

Implementation Phases To reach the goal, the VOCW project is divided into two phases: Starting phase (2006-2008) and Expansion phase (2009 onward). The focuses of the first phase are: 1. Infrastructure implementation 2. Content development 3. Knowledge usage and sharing as well as community building

Infrastructure Three data centers have been set up in Hanoi, Danang, and Ho Chi Minh City with robust servers and high speed Internet connection. In addition, 14 servers have been installed at 14 university members of the project to make it easier for the faculty members and students to access to the Vietnam OpenCourseWare as well as to save Internet access cost for the universities. VOCW also receives a strong support from Rice University in using the Connexions software tools which are considered a revolution in publishing. In making an interesting comparison between learning materials/knowledge and the Lego game: In Lego, however complicated the final products might be, they are built from the same bases that are the small plastic squares which can be magically put together to form different shapes. Likely, if there is a source of information that is stored in the form of smaller completed topics, people can manipulate those topics in different ways to build up a bigger topic which can help solve some particular problems. With the above conception, the Connexions software tools store information in forms of modules and courses. Module is a complete topic or a complete part of a big topic, just like a plastic square in the Lego game. «Course» is a combination of various modules arranged in a particular order, just like the final product after putting the plastic squares together in the Lego game. Connexions software tools enable everybody to contribute their knowledge even only in the form of a 2-3 page single module written about certain topic. The fact is that it takes time to compose a textbook, or even a chapter of a textbook, but everyone can compose a 2-3 page module on a subject that they are interested in. Therefore, if one of the millions of faculty members across the country composes just one module, a huge content repository with all subject areas will be built up. When there is a need to make a textbook, the faculty members just need to make a frame and then add in the modules that already exist. Composing a textbook may take a couple of years but with Connexions it takes just few days. To protect the rights of content contributors (authors), the Connexions software tools provide the authors with the Creative Commons license. The VOCW team is working with the Creative Commons organization to port the licenses into Vietnamese to make it easier for Vietnamese users.

Content Development VOCW has developed sample contents based on the MIT OCW and other available Open Educational Resources. More than 30 experts who are faculty members, researchers across the country have been financially supported by the project to develop contents for 3 key subject areas: 1. Electrical Engineering 2. Computer Science 3. Biotechnology The experts will develop 8 courses for each subject area. These courses will be first evaluated by the Vietnamese experts and finally will be evaluated by U.S experts before being posted on the VOCW website in the form of modules and courses. This procedure ensures the following requirements: 1. Making use of the existing up-to-date and modern learning contents of leading universities in the U.S. through the OpenCourseWare. 2. Fitting the current context of Vietnam. 3. Being reused by many Vietnamese students as there are Vietnamese notations in addition to the English contents. 4. Ensuring that the contents' quality is the same level as that of the U.S. universities' since these contents are evaluated by the U.S. experts. In addition, the VOCW team has been converting the e-library of the Ministry of Education and Training into modules and courses to make it more flexible and convenient to use and re-use the materials. Once a textbook is divided into several single

modules, modules of one textbook can be combined with modules of other textbooks in order to create new textbooks.

Community Building To get the participation of the whole community in building and sharing knowledge, the VOCW team has carried out many training courses on how to use Connexions software tools to create modules and courses on the VOCW website for faculty members and students at member universities across the country. After two years of operation, on December 12, 2007, the VOCW website at <http://www.vocw.edu.vn> was officially launched. We hope that with the great support and participation of the whole community, Vietnam will soon have an online reference material center which is free and indispensable to faculty members, students, and researchers in Vietnam. (Source: <http://www.vocw.edu.vn>)