

Typo 3 goes e/b-Learning

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Abstract

Since Kasper Skårhøj started developing TYPO3 in 2000 as an open source CMS, it became one of the most flourishing CMS of the world. Commercial and non-commercial use is increasing rapidly.

TYPO3 follows a strict separation of content, structure and design. The “look and feel” can be changed leaving the existing content untouched. This improves the lifecycle of your website for years.

Common LMS and even most of the CMS are not so strict in separating those three parts from each other. Therefore, for example, major design changes will effect also content or structure.

What about the usability of TYPO3 in an e/b-learning or even as an e/b-learning environment? “In a 2003 study, the Austrian Federal Ministry for Education, Science and Culture (bm:bwk) gave a clear recommendation for TYPO3. After analyzing approximately 300 content management systems, TYPO3 was confirmed as having special suitability for educational institutions.”

We will have a closer look to TYPO3 and how it could be used in educational institutions and e/b-learning surroundings.

TYPO3 has been translated into over 40 languages and it is available for everybody free of charge. Thousands of extensions have

been already developed by a global community and they suit nearly all needs.

The product: TYPO3 the CMS

- Introduction

ABC TYPO3 for schools

- Introduction

Focus & Structure

- Institution Management
- Students, Teachers, IT-
Personnel
- Community

TYPO3-ELO-Project

e/b-learning Extensions & usability

- Quizzes and more
- Forum and Boards
- Calendar and News, Blog
- Internal/External Communication
- Connectivity to LMS-Systems

Examples and experiences at IMCT

A short introduction how to set up an own complete TYPO3 testing environment in minutes will round up our paper.

TYPO3 – The Product

Browsing School Pages is not often fun at all. Pages are not updated regularly and pictures seem to be from yesterday.

To solve most of these problems, it would be recommended for schools to use a CMS. TYPO3 is developed as an Open Source Project by Kaspar Skårhøj from Denmark and a large growing community of developers around the globe since 2002. It is more than only a simple content management system. TYPO3 separates Content, Design and Structure very strict and each part can stand and be used for its own. It's possible to split up the TYPO3 ingredients on different servers or even run it on a USB stick like WOS Pocket Typo¹ or upload static pages to the net.

More Information about the features and TYPO3 itself are available from [www.TYPO3.org](http://www TYPO3.org)

TYPO3 – for Schools

“In a 2003 study, the Austrian Federal Ministry for Education, Science and Culture (bm:bwk) gave a clear recommendation for TYPO3. After analyzing approximately 300 content management systems, TYPO3 was confirmed as having special suitability for educational institutions.²” you can read on edu.tyo3.org.

Beside the usual tasks for a CMS, managing and presenting Content online, it offers many features for schools. For example, integrating LMS via SSO, Easy Creation and Sharing Typo3 Learning Content via .t3d, Quizzes, Puzzles, Polls, Maps, Forums, Multimedia Content and a brilliant graphic processing. About 4000 public extensions are available at the moment. The greatest advan-

tage of Typo3 is its user management and the possibility of RTE WYSIWIG front-end editing.

Students will be able to create and administer content by themselves easily. They will be able to publish course-related content at any time and place as soon as they are connected to the Internet.

With Version 4.0 Versioning, Draft mode and Workflow has been introduced to TYPO3. These are very useful authoring tools for a school surrounding.

Teachers can publish their course materials and enrich them with features of Typo3 Extensions to control and manage the learning progress of their students.

Administrators could even use Typo3 as complete school managing system and parents could control the progress of their students online.

ABC TYPO3 Focus & Structure

The idea for an ABC solution for schools came when we started our Tsunami relief partnerschool projects in schools of Khao Lak - Thailand. All schools on the sea-side in this area have now big computer rooms and some are connected to the Internet already, but questions like how to connect them to the world – to other schools, how to learn and to communicate together, and how to share knowledge and content still need to be considered.

We had to focus on many points:

As most Thai schools had no budgets to buy expensive solutions, a no-budget solution had to be found. But our online system should also be easy to use, should support many languages and support utf8. We wanted it to following a Montessori³ Idea “Help to do it by myself” – the basic idea of a prepared self learning environment to achieve normalization even in an eLearning

¹<http://www.chsoftware.net/de/useware/wos>
Webserver incl. TYPO3 on a USB Stick

²<http://www.bildung.at/statisch/bmbwk/lernplattf>
ormen evaluation und ergebnisse1 bis3.pdf

³Maria Montessori (1870-1952 Italian Doctor and Educator)

surrounding - and more. Students and teachers should be able to create, manage and administer design, content and structure by themselves easily.

Knowing about the benefits of Typo3, I also knew about the difficulties until it is working like it should. This changed in December 2005 when WEC⁴ introduced their first Common Config Package. Since then we are developing alongside with WEC to get an even more user friendly Typo3 non-budget solution for churches and schools.

The biggest problem for us at ABC seemed to be the templates and how we could get students creating them for ABC/WEC Typo3. *Templa Voila* 1.0, introduced with Typo3 4.0, is an important part of WEC and made templating much easier. Page designs could be switched easily and Flexible Content Element offers a wide variety of functions too. But we wanted even more. At least some Students should be able to create their own Page Layouts.

The main problem of creating templates was to get them working in all kinds of browsers and to be still flexible enough to change single components without ruining earlier the usability with different browsers.

We were following several discussions on CSS mainly on "A List Apart"⁵. Here we came along "tools.i-use.it"⁶ and the YAML⁷ project. Both are using many methods of html clearings in a multicolumn layout collected from many online CSS resources discussing multilayer CSS layouts. Unfortunately their template structures and layer folder organization and naming wasn't useful for an educational surrounding. But the idea of multi-layering fascinated us and we started to create the ABC-Templates and

made integrated them into Typo3 using the *Templa Voila* and Flexible Content Extension. We had to rewrite variables and change some WEC layout details to make them usable with the already existing WEC standard templates and constants. We also added some ABC constants which are more school and layout relevant.

Fazit: The ABC-Set is based on TYPO3 4.0⁸, the WEC-Common Config.⁹ enriched with school specific TYPO3 Extensions, which have been attached and modified for easy usage fitting into the ABC-Packages:

ABC-TYPO3 Templa Voila Package.
ABC-TYPO3 Extension Packages
ABC-TYPO3 t3d Framework and L-Content
ABC-TYPO3 Common Config (2007)

It is developed by TYPO3 Thailand.com¹⁰ and Kultur und Familienwerkstatt Germany

It will be available for nonprofit schools in a "Lite" version free of charge with a CC License (naming the author) and a commercial full featured package license in autumn 2006.

Students can now start in a step by step – ABC and numbered - order to create their own individual templates. Like playing with a modern toy box they can choose their favorite blocks (CSS-Layers) to build a new house (template). This house will be mapped in *Templa Voila*. Like a real house a Template has Rooms (divs, a-tags, spans) and *Templa Voila* will put them on a plan with their exact positions. Now those templates will be usable inside Typo3 and the Design work is done.

⁴<http://webempoweredchurch.org>
developed by the Web Empowered Church

⁵ <http://alistapart.com/>

⁶ <http://tools.i-use.it/>

⁷<http://www.yaml.de/>
has been developed by Dirk Jesse

⁸<http://TYPO3.org>

TYPO3 4.0 WAMP/LAMP Installers available

⁹<http://webempoweredchurch.org>
developed by the Web Empowered Church

¹⁰<http://typo3-thailand.com> / .org / .net
powered by LisAndi Co. Ltd. Thailand

Students and teachers can start to create content at the same time using one or more available extensions. For example, with a few clicks and some data-input, a Google Map can be created showing places where the class have been on their last fieldtrip or where they are just talking about in history or geography. Student reports written in Word or OpenOffice could be inserted with a few clicks without any further changes. A discussion forum will be open for every student parent and teacher even after school. An ajax chat and a whiteboard will help students to collaborate over bigger distances. An added Mediawiki compatible Wiki¹¹, a blog and calendar could be even more useful features for an educational surrounding beside many administrative options for school management Typo3 offers.

Frontend and Backend RTE editing helps students to use their skills from OpenOffice or Word.

A working example is the Gemeinschafts Grundschule Moitzfeld¹² Germany. In a project Typo3 was installed to be used by 1st – 4th grader elementary students. After 2 hours typo3 training teachers were able to create new pages, to edit page content and link pages and students liked to edit and create page content too. Self-directed online learning is now open to the intra and internet using Typo3.

On <http://edu.typo3.org> more information about schools and educational institutions using Typo3 around the world is available and also case studies.

TYPO3 ELO Project

It has 2 subprojects: LMS and ELearning. Blended Learning and Learning Management Functions will be evaluated here.

¹¹http://typo3.org/extensions/repository/search/dr_wiki/

DR Wiki developed by Dennis Roder

¹² <http://ggsmoitzfeld.de>

The emphasis of this project is to integrate products like moodle, php-collab or claroline as Extensions into Typo3¹³.

Typo3 Accessibility and the Typo3 EDU Lab Project, which's goal it is to integrate SCORM Standards into Typo3, are other school relevant projects.

TYPO3 IMCT Experiences

IMCT¹⁴ stands for International Montessori Charter @ Tutoring. We are an international operating Schooling Service especially for Homeschoolers, Charter schools and People and Families who want to use eLearning and e-Tutoring.

Since 2002 we have been using TYPO3 as our "Backbone" for web communication and presentation on the web. In 2005, after the Tsunami happened, we started to develop the ABC-TYPO3¹⁵ package, which should help mainly institutions with low or even zero programming and TYPO3 knowledge (like Thai schools and schools at all) to use one of the best open source CMS.

Our students learn to use TYPO3 from the scratch. With our ABC-Packages it can be easy, even it is said, that TYPO3 is a very complex and hardly to learn CMS. Our students at IMCT are using USB sticks to run their own web servers. Our WOS¹⁶ includes Typo3 4.0 and the WEC Common Config Package combined with ABC-Typo3-Template Voila Template, -t3d and -Extension Packages.

This setting enables students to work completely on their own Typo3 server all the time. Content created in personal Typo3 in-

¹³<http://edu.typo3.com/Projekte.1761.0.html?&L=2>

Full product list available

¹⁴ <http://imct.org>

¹⁵<http://abc-TYPO3.org>

both powered by Kultur und Familienwerkstatt and LisAndi Co.Ltd. Thailand

¹⁶ Web server on a stick

stalls can easily be transferred to the online Typo3 eLearning surrounding if needed. Students can work wherever they want as long as a windows OS computer is available. They plug in the WOS-USB stick – start their Server and Typo3 Version and begins to work. No additional word processor or other software besides a Windows OS will be needed.

To carry a USB stick is even easier than to carry a Laptop. Our students like to create their own personal “websites” but unfortunately only a few students want their content to be published online until now. We hope this will change in future when more schools are using the typo3 surrounding and complete learning trees will be shared as .t3d’s..

Until now Typo3 is not offering the integration or production of SCORM content but it is already very easy to share content and even complete page content trees among different Typo3 installations via .t3d.

For example, Student A has created a Fieldtrip Report using a Picture Gallery, a Flash Video, several explanatory texts and a feedback formula.

1. He is exporting his whole page tree about the Fieldtrip including all external files into a .t3d file.

2. He shares this t3d with other students and they upload his .t3d into their Typo3 importing all content automatically. As long as the students have all the same needed extensions installed they would be immediately able to view and work with the newly received content without any further layout, design changes.

3. As it is very easy to use the .t3d export and import function, it would be possible to share exams, test, and even whole lessons among different schools, students and teachers. As in Typo3 the design is completely separated from the content teachers could build content databases for tests, lessons, examples, experiments, fieldtrips and more. Without any problems those shared

t3ds will fit into any TYPO3 Design template.

References

www.typo3-thailand.org /.com /.net
www.abc-typo3.org /.com /.net /.de
www.typo3.org /.com