

CourseBuilder: elearning enabler

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INTRODUCTION

The eLearning group at the Centre for Academic Development, The University of Auckland has developed an interactive web-based tool called CourseBuilder <https://coursebuilder.auckland.ac.nz>. It is online software used to create educational websites allowing collaboration with a number of contributors. Currently it has 394 registered users with more than 200 courses across seven faculties at our university. It has always been the intention to 'open source' CourseBuilder and make it freely available. There is growing interest beyond our University but at present its availability, use and support is limited to the University of Auckland. In this paper, we will present CourseBuilder, both as a tool and a capacity development strategy.

COURSEBUILDER-A PURPOSE DRIVEN TOOL

CourseBuilder is a **multipurpose software system** that is easy to use and has a versatility that makes it adaptable across disciplines. The main components of CourseBuilder are called 'elements'. These have been developed using sound web design principles and in response to the needs of online learners. As such, they provide implicit guidance in designing educational websites. They are categorised as presentation (text, images, audio/video, multimedia) and interaction/feedback (decision tree, quiz, surveys and comments). They enable learning designers and academics to add interactivity to web courses and thus enhance functionality available through the Learning Management System.

It is written using PYTHON programming language and is IMS compliant..The courses and resources created using this tool can be published on the web or downloaded as a ZIP file for storage. CourseBuilder also supports integration of multimedia and the ability to import courses into Learning Management Systems such as MOODLE, WebCT and CECIL, which is University of Auckland's learning management system.

Although CourseBuilder is a powerful multipurpose software system, its interface makes it easy for novice web designers to use. The quote below is reflective of the experiences of beginners:

"All I can say is that CourseBuilder is great. It is so user-friendly and accessible that even an ancient technophobe like me can comfortably enter the brave new world of flexible learning. When I started teaching, the OHP was the next 'great leap forward'! CourseBuilder has, literally, transformed the way in which I now develop, teach and assess courses." [1]

Template driven design has proven very successful in promoting quality, consistency and sharing of designs within departments and beyond. Furthermore, the option to clone whole course sites or specific pages makes it convenient for lecturers/course developers to reuse or replicate content or website design. This demonstrates CourseBuilder's ability to disseminate innovation and good practices in web design and development. However, although we encourage and promote good educational/web design principles, the flexibility that users have around 'elements' of CourseBuilder make it difficult to constrain designs in anyway. This is covered in more detail under issues.

CourseBuilder provides a **solution to many problems**, especially those associated with time-consuming, resource-intensive one-off web development processes. It enables a more sustainable approach to course design and delivery. CourseBuilder courses can be easily maintained, frequently updated and replicated (cloned) for future use. It has the "modularity and plasticity" [2] that allows segmented changes without significant time and cost implications. This 'rapid prototyping' ability makes it popular with academics/teachers/learning designers interested in developing a website in a comparatively short period of time, with increasing independence. This promotes sharing of good practice within faculties.

COURSEBUILDER-AN ELEARNING PROFESSIONAL DEVELOPMENT STRATEGY

CourseBuilder arose from the need to **address issues of sustainability and scalability** with team-based projects, especially regarding hand-coding of material for websites and repurposing elements of projects. Rigorous needs analysis, learning design and technical expertise produced pedagogically sound courses and also increased awareness among academics of strategies and tactics of online teaching. However it was hugely dependent on the web development teams for production and updates. Although the design of courses was high quality with rich media integration, such individualised/specialist development made it unscalable. CourseBuilder leverages the outcomes of one-off projects to enable others to benefit from online solutions to requirements and problems. The purpose driven 'elements' encourage course developers to think about and implement good educational web design while being able to develop material independently. The elearning team is available as required for consultation on any aspect of the project process.

Coursebuilder enables elearning professional development to have maximum impact with minimum resources. This is achieved through:

- sharing exemplars across disciplines
- ongoing 'communities of practice' [3]
- a platform for developing expertise in technology integration in education and creating an understanding of pedagogy in technology enhanced teaching
- encouraging re-use/adaptation of materials
- designing, developing and teaching online sustainably.

WHAT WORKS AND WHAT DOESN'T

CourseBuilder enables users to translate plans and needs into web designs independently while still having access to an ongoing community of practice. The visual interface with features such as navigation and pagination should prompt users to think about basic structure and function of the course or resource.

Quality varies across courses because, though CourseBuilder provides a platform for learning design and development for the web, it does not make it a pre-requisite for web delivery. For example, the cloning feature enables easy access to exemplars that can be adopted for new designs but this does not ensure relevance. This feature has been used to contextualize materials for specific purposes. Also, elements have appropriate educational purpose which can inspire good design. While some users can capitalise on the flexibility of CourseBuilder, others lack the requisite expertise. It may also be seen as an opportunity to develop an unscrutinised course combining great features from various CourseBuilder websites without achieving the right blend for their specific course.

CourseBuilder has been successfully integrated with other programmes and software e.g. MOODLE, CECIL, ELGG etc.

EVOLVING CODE

CourseBuilder continues to evolve in response to needs and user feedback. Existing elements are refined and new elements are customised or developed. For example, an interactive web based tool that represents the decision-making process (the Decision Tree) will soon be added. It can link documents, images, web pages and videos to any step in the process. Users are guided along the decision making pathway with relevant feedback to ensure they make the right decision. Other elements such as voice recorder, notes, and user-generated content (webpages) for peer review are currently being trialled and may be available for general use in the future.

CONCLUSION

CourseBuilder has proved helpful in addressing issues of scalability, sustainability and professional development at the University of Auckland. As much as it provides a solution to many problems, it is not the ultimate answer. Its success owes much to the fact that it has been developed dynamically in response to the needs of learners, teachers and learning designers. At The University of Auckland, it has provided an authentic basis for 'communities of practice' [3] and promoted good pedagogical practices. It has provided an avenue for ongoing elearning professional development that has built capacity among users to gradually gain independence in online course development.

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