WIKI FUTURE GAZING

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Abstract

Higher education institutions operate in a "borderless" and complex environment, abundant in potentially useful information. The Creating Academic Learning Futures (CALF) research project, carried out in partnership by the University of Leicester and University College Falmouth in the UK, involves the development of research approaches and tools to inform strategic thinking within the institution about the future of higher education. One of the aims of the CALF project is to design and test means of structuring and filtering information, in order to facilitate institutional strategic decision-making in participative and creative ways. This work has led to the creation of a web-based tool – the CALF project wiki – which provides a means for eliciting and structuring ideas and information from students about possible futures in higher education in innovative and creative ways.

Introduction

This paper is presented in two parts. The first presents the research context of the CALF project and addresses some of the issues, that are emerging in the course of the research process. It is a case study of the use of a web-based tool – wiki - for embedding new pedagogical value for learning in higher education through opening up new collaborative opportunities for creating future scenarios. The second part reports on the results of the implementation of the wiki as a "futures thinking device".

The methodology used for implementing the wiki was scenario development and resource mapping. When integrated into the wiki, they allowed the ordering of individual and group ideas about alternative developments and images of the future. The activities, designed for the project wiki, were aimed at facilitating the creative manipulation of generic information, in order to create person-centred specific scenarios about the future of learning in higher education. In this way rather than just extrapolating current trends, the properties of the wiki encourage exploration of alternative futures and a search for connectivity between events in the developed scenarios. The wiki also provides the structure required for storing information supporting the scenario event statements.

Considering the novelty of Web 2.0 tools and their unexplored potential for applications in education, the case study reported here seeks to stimulate a discussion about the possibilities for effectively using one such tool – wikis - for education and futures studies.

Research context of the CALF project

Higher education institutions in the UK and across the world are aiming to provide students with the highest quality learning experiences through appropriate pedagogical and systemic approaches, in a context of changing trends in demographics, technology and student mobility. Critical success factor in this process will be the constructing of plausible and realistic future scenarios for learning and teaching methods in higher education (HE) and the awareness of higher education institutions about changes in learners' expectations, as well as the educational opportunities in the adoption of new technologies in learners' everyday lives. In order to prepare effectively for a future of complex and dynamic challenges, higher education institutions need to surface authentic student voices and visions about the future and capture 'signals' which may influence the future of student learning. This will help higher education institutions to develop and understand an array of possible, preferred, viable and achievable futures for learning in higher education.

The Creating Academic Learning Futures (CALF) project is led by University College Falmouth and the research is supported by the University of Leicester. CALF includes staff and students from both institutions, creative partnerships with other higher education institutions, international organisations, corporate, research and technology partners. Through the CALF collaborative partnership learners make choices about their preferred learning futures through a series of creative events, including face to face workshops and visits, seminars in Second Life, online forums, pod and video casting. CALF engages student voices and provides them with opportunities to surface and articulate views about the future of learning in higher education institutions.

Futures studies and scenario development

Futures studies and scenarios development as a strategic management framework have developed over many years, originating from the writings on alternative futures of Herman Khan for the RAND organization (Burt, 2007).

Futures studies aim to systematically explore and create possible and desirable visions of the future. As a result long and short-term policies and strategies can be produced which can in turn enable people to create a desired future. Collaboration in any initiative would be impossible without a shared and compelling image of the future. The way that such future visions are generated may have a crucial impact upon the quality of the future.

Educational policy and practice today are consistently dominated by short-term thinking and preoccupation with pressing immediate issues or with maintaining the status quo. Overlooking long term challenges or opportunities is becoming more problematic in an increasingly complex and uncertain world. Education stakeholders must have the capacity to look beyond the constraints of their immediate situations (OECD, 2006). Involving today's learners in futures thinking provides platforms for strategic conversation even between those who may sometimes be considered to be worlds apart. This dialogue may enable the future to be collaboratively created rather than predicted. Students' participation in learning about the future is facilitated by using scenario development methods, recognising that to understand young people's visions of the future requires uncovering the underlying logic and assumptions of present realities and policies and presenting them in a format open for questioning and challenging (Edwards, 2007). It is necessary to provide learners with opportunities to develop a "foresight language" for what is essentially critical discourse analysis for exploration of future states. In selecting the future envisioning methods some key requirements need to be met to ensure that a range of perspectives is captured so that there is potential for different discourses to emerge. In this way truly divergent alternative scenarios can be developed, in line with the definition of the scenario method:

> "Scenarios are consistent and coherent descriptions of alternative hypothetical futures that reflect different perspectives on past, present, and future developments, which can serve as a basis for action." (OECD, Notten, 2006)

In search of participatory, interactive and dynamic ways of creating scenarios for learning in higher education the CALF project explored the possibilities offered by some Web 2.0 tools.

Web 2.0 for education and wikis

Web 2.0 is a term coined by Tim O'Reilly, a prominent blogger and internet analyst, to refer to the change in the way that people use the Internet. Web 2.0 comprises the technologies, frameworks and approaches fostering participation and collaboration on the Internet. While Web 1.0 is predominantly an environment for reading, Web 2.0 offers extensive opportunities for creation and sharing of content – writing and reading. The technologies supporting user-generated content (or as they are known – social software) have become the defining element of Web 2.0. Blogs, videoblogs, wikis, podcasts and social tools such as MySpace and Facebook are the flagships of social software. Their rise comes at a time when educators are ever more challenged to foster the development of collaborative skills in learners. Given the current societal needs for making more with less, it is worth noting that learning theorists have long supported the notion that the sharing of ideas increases the outcomes of new knowledge.

Lave and Wenger (1991) emphasized the contrast between instruction and learning, pointing out that formal instruction benefits from the "exchange value" of learning – learning something in exchange for a grade or a degree as opposed to social learning, where it is the "use value" of learning that matters, or learning something in a context where it is immediately useful. They also describe the distributed nature of knowledge and the social, participatory nature of learning.

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The first wiki, published in 1995, was a linked collection of free and extensible web pages. "Wikis are streams of conversation, revision, amendment, and truncation" according to Alexander (2006). Leuf and Cunnigham (2001, p.15) refer to wikis as ''the simplest online database that could possibly work". Wikis as hypertextual systems for storage and transmission of information are already prominent in knowledge web spaces.

The vision of wikis is an evolution from plain hypertextual systems for learning and information retrieval. Every page on a wiki is created and editable through the web using a web browser. Wikis express a high point in the attention to the connection between community and content.

The word 'wiki' (from the Hawaiian wiki wiki) is translated as 'to hurry', and wikis "enable rapid and easy authoring direct to the Web. Wiki pages can be used by all to publish new content direct to the Web, including text, images and hyperlinks; to edit existing content; and also, because the wiki is fluid and open to all, to 'roll back' if necessary to previous versions through a 'page history' utility. Students can develop their own knowledge content with alacrity using a wiki and seldom need to study alone because of participation in a technologically mediated social space conducive to the formation of communities of practice." (Wheeler et al. 2008)

In addition to these principles the CALF project views learners as not mere "receptacles" of ideas but participants in the dynamic creation and/or discovery of what is to be learned. This framework lead to the choice of a Web 2.0 tool – wiki as an approach to developing future scenarios, in the process making learning outcomes contextualized and relevant.

The development of the CALF wiki and first scenarios produced

The first Creating Academic Learning Futures wiki: http://calf.wetpaint.com/

 was developed through a face-to-face event at the University of Leicester in December 2008. It was aimed at introducing students to a variety of ways of thinking about the future of learning and to help them build a vocabulary which would support discussions about the future. The objective of the CALF project wiki was the production of series of generic scenarios, created by inviting students to form a narrative from a series of statements about how they saw the future of learning in higher education.

The wiki creative event involved 18 students enrolled in full-time on-campus undergraduate and postgraduate courses in a number of disciplines – Sociology, Economics, English, and Business at the University of Leicester.

The event involved a discussion of digital and Web technologies and possible ways in which they could change the future of learning. The participating students were encouraged to think about the likelihood of future scenarios and searched the web for images, videos or applications that they associated with a particular scenario. As a result of the activities the students learnt how to use wikis and created wiki scenarios for future learning in higher education which have since been made available on the CALF project wiki.

The initial scenarios proposed by the students were centred on ideas about increased flexibility in the provision of education, increased accessibility and participation in higher education (HE) in the future which would lead to an increase in the diversity of the available educational content and the student demographic profile.

> *"80% of the population today is enrolled in a programme of study and since all learning content became free, producers receive their income from advertising and donations."*

> *Quote from the student scenarios*

The students envisaged that the stake of non-traditional providers in HE would grow and the competition between higher education institutions (HEIs) would increase, leading to a fall in the cost of education. The participants in the event expected that the use and importance of technologies for education would increase and that the role of user-generated content, social-networking, peer assessment and referencing and the use of interactive and participative approaches to teaching would also grow. An interesting projection was that HEIs of the future would need to be more involved in socially responsible projects and activities as part of their strategies for competition for students.

The initial outlines of possible futures for higher education from the first creative future workshop will be used to generate more specific scenarios for discussion in subsequent CALF events for students.

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Perceived benefits and challenges in the use of a wiki for creative scenario planning

The use of the wiki allowed the replacement of the traditional snapshot and chain portrayals of scenarios by a network, which allowed the seamless integration of multiple views of the present and the past, occurring in multiple systems (e.g. global and local). A fractal "leaf of goals" metaphor best represents the functioning of the wiki as a scenario tool, where a fractal is the whole which when split into parts, each part is (at least approximately) a reduced-size copy of the whole. This property of the CALF future scenario wiki illustrates the continuum where activities, events and objectives lie and incorporates the assumption that any one event is itself a composite of an indefinite number of component events, that would have been very difficult to capture without the use of the wiki.

The wiki can accommodated effectively in one web space multiple views of possible future systems:

1. the "main system" (usually the client for the futures study).

2. subsystems of that main system.

3. enveloping systems, of which the main system is itself a subsystem.

4. linked systems, which in some ways impinge on the main system.

The way that the CALF wiki was structured allowed students to avoid falling into the trap of the "snapshot" scenario, where only an end state is described and helped them to venture into "chain" scenarios, offering explanations about the sequence of events that have lead to a particular end point, capturing the inherent complexity and dynamism of future scenarios. The collaborative scenarios created through the wiki emphasized technological change without overlooking social change, thus escaping a common criticism of conventional ways of scenario development.

The collaborative creative character of the wiki tool addressed another shortcoming of traditional scenarios – the time they usually take to develop. The combination of web-based and face-to-face activities allowed students to collaboratively generate, mix, edit and synthesise scenarios within a shared and openly accessible digital space.

The wiki enabled a different way of composing scenarios through the enactment of an ambitious version of hypertext. It provided a completely user-editable environment with hypertext space, merging the roles of author and reader.

An important advantage of the use of a wiki for developing future scenarios was that it allowed storing of the narratives, comparing them and deriving generic scenarios by combining common elements for possible, probable and desirable futures. It allowed interventions in fluid and informal creative ways.

A challenge that the chosen approach presented was one common for scenarios – that generic scenarios are of little interest and of limited use to organisations because they are too general. Another issue lies with the use of hyperlinks leading to other web pages – students often start following all the links provided on the wiki page thus becoming distracted from the original purpose of the wiki. The use of wikis requires educating the users of the wiki to read its pages completely before following on the links that the pages list.

Also, a relatively small number of the students made a large number of contributions, while the majority of the students made few such edits. The students who participated the most in one activity (editing the pages), were not the same users who participated the most in other activities (the writing of a new sub-page). A possible explanation for that is that the skills and knowledge required (for example to fix spelling and grammar mistakes) are different from the skills and knowledge required for searching for content on the web, which are in turn different from writing up the content and initiating a new sub-page.

Despite these issues, the student experience revealed that wikis can be seen as vehicles for the empowerment of students, opening up new possibilities for thinking about the future. The collaborative technology as platform, and the alteration of roles and power relations brought about by the new method, enabled a new kind of student–facilitator-scenarios content relationship. Whether this novelty is also an improvement remains an open question. In addition, in comparison to other approaches where once a research study is finished the life of the products of the research would be limited, the wiki produces a system in which the data used to build the scenarios could be manipulated and updated continuously.

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Discussion

The use of wikis for developing future scenarios with students for the enhancement of their learning is an innovation and its merits and shortcomings are still in need of careful assessment by academics, practitioners and learners. Insufficient availability of data and lack of a substantive theoretical framework regarding both future studies and the pedagogical use of Web 2.0 tools are major constraints for the wider application of these interesting approaches in educational research and practice. The case study reported in this paper has demonstrated some of the strengths and limitations of using wikis for involving students in creative activities for generating future scenarios for higher education. The use of the wiki enabled collaborative creative thinking across a broader spectrum of possibilities about the relationship between the present and the future of higher education. New ideas could emerge in a way that would not have been possible if conventional scenario planning methods had been used.

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