

User-defined content in a constructivist learning environment

Authors

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Summary

New pedagogies are developing with the digital age which reflect collaboration, internalised thinking, reflection and iteration rather than the concept of the taught lesson, however the internet is still regarded by many as a convenient mechanism for delivering traditional materials online.

Whilst a “content push” model is often the norm, opportunities for participation by the learner are often reduced to multiple choice questions or a small range of community tools which fail to recognise the changing and challenging culture of learning in the twenty-first century. Whilst the amount of information available to individuals continues to increase dramatically, the skills needed to access and process this information are quickly outdated. Skills such as the ability to use new technologies and to shape social communication and interaction using a range of multimedia tools will define success in the future.

This research argues that in the context of online communities, user-generated content has an important part to play in defining new pedagogical approaches to learning. Where the social constructs of community build confidence and self-esteem, individuals are able to take charge of their own learning and to develop a sense of ownership through “community pull”. The learning process is supported by the development of critical and independent thinking skills.

The most effective learning occurs where the learners’ interests are aroused and their pathway meets their needs. Learners benefit from community membership where they are involved in dialogue, exchange and collaboration. Within a learning community, the learners gain more self-confidence and control. The community provides them with the sense of a learning space with its shared experience of goals, cooperation and support.

That sense of community serves to define a range of user-led and peer generated content with common characteristics.

Keywords constructivist; content; user-defined; community

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1 Introduction

The authority of those who teach is very often a hindrance to those who wish to learn—Cicero [106-43BC]—see Meighan (1994).

The “digital revolution” has come of age and computer technology is firmly embedded in society. During the 5 year period from 2000-2005, world internet usage increased by almost 150% and computers are now considered to be an integral part of life.

Although ICT has been a catalyst for change offering a range of tools to support the development of new pedagogies, education has been slower to adapt. Papert (1999) suggests that computers support children in developing self-direction and autonomy in their learning, but faced with a culture where “Schools are products of the factory age with batches of uniform products running on the conveyor belt...” - Smedley (1993), Strommen (2003) recognises the need for changes in philosophy underpinning curriculum and pedagogical practice, asking “How do we educate

the new child, raised in a world of instant information?" He views with concern, the use of modern technologies simply as mechanisms for content delivery in traditional contexts because it relegates technology to a secondary, supplementary role which fails to capitalise on its most powerful attributes.

2 Pedagogical models for web-based learning

Web based educational content proliferates, often providing distance learning which is little more than a delivery model offering a digital version of what can be achieved from the study of traditional texts with little flexibility, less portability and often at greater expense. Assumptions are made that curriculum delivery via online courses means absorption and understanding through passive learning, where the computer somehow becomes a conduit for content-based knowledge which the student readily absorbs with an absence of dialogue and engagement. This linear didactic approach to curriculum pervades computer based assessment, where diagnostic models purport to criterion reference to set standards, mark and feedback on student offerings, whilst requiring good levels textual literacy to access the systems.

Whilst "content push" models are the norm, interaction is often confused with participation and learning opportunities reduced to multiple choice questions or a small range of community tools which fail to recognise the changing culture of learning in the digital age. The challenge for educators is to define emerging pedagogies in terms of 21st century skills where the ability to use new technologies and to shape social communication and interaction using a range of multimedia tools will define success in the future.

As software tools become more accessible and user-friendly, there is an identifiable trend with learning technology away from the central, controlled and provided towards the personal, diverse and individually empowering. There exists a tension between providing and enabling and between teaching and facilitation. Although content provision can provide scaffolding for internet based learning it is community pull, characterised by social discourse and dialogue, which provides opportunities for critical reflection, problem solving and collaboration. Vigotsky (1990) pioneered these ideas at the turn of the last century with his emphasis on internalising thinking, reflection and iteration rather than the concept of the taught lesson. His perspective was that children learn

when they are in charge of their own learning and most importantly, know that they are in charge.

3 User-defined content in online communities

Virtual communities of practice offer a potent medium to empower the learner, providing a shared vision and opportunities for co-operation and support. Within an online learning community, users can become involved in dialogue, social exchange and collaboration, gaining self-confidence and taking control. As the students gain more self-confidence they move into a more autonomous phase of collaborative learning- Brown *et al* (1989). The most effective learning occurs where the learners' interests are aroused and their self-defined pathway meets their needs, hence user-defined content becomes a powerful tool in defining new pedagogical approaches, enhancing information flow, peer support and learner satisfaction. Strong feelings of community increase persistence in courses, the flow of information among learners, the commitment to group goals, co-operation among members, and satisfaction with group efforts- Rovai (2002).

Successful communities of practice have common characteristics. They are flexible, allowing users to define and amend the structure, changing to meet the users needs. They are not text driven, recognising that traditional linguistic methodologies exclude many learners.-Gardner (1983). They are rich in multimedia and offer a range of software tools which allow users to create and amend web pages, transfer files, manage discussion areas and engage in synchronous chat. Social discourse encourages formal and informal learning to blend to create a comfortable virtual learning space which reflects the users needs. Discussion areas, backgrounds, archiving and other features are owned by participants, not defined by programmers, systems managers or teachers. Learning and technology are dealt with simultaneously and with equal regard. ICT is used as a tool to empower rather than an implement to impede. A level of participation is offered which encourages users to benefit from the broader cultural commitments which enrich learners experiences as well as offering the opportunity to "ask difficult questions, test assumptions, and try out new ideas in the company of other learners."-Bauman. This approach not only reinforces the social nature of learning which virtual communities can provide, but empowers learners to work collaboratively, constructing their own curriculum from a range of ideas and possibilities reflecting a breadth of learning styles-Meighan (2002).

Research shows that strong feeling of community not only increases persistence of students in online programmes, but also enhances information flow, learning support, group commitment, collaboration, and learning satisfaction.- Na Ubon (2004). User-defined content is a product of online community as maturity is reached and a sense of shared ownership develops through a sense of empowerment.

4 Summary and Conclusions

Education systems have failed to keep pace with technological developments and the changing culture of a digital age. New pedagogies are needed as society and the culture of learning changes to reflect collaboration, internalising thinking, reflection and iteration rather than the concept of the taught lesson.

Whilst the amount of information available to individuals continues to increase dramatically, the skills needed to access and process this information are quickly outdated. Skills such as the ability to use new technologies and to shape social communication and interaction using a range of multimedia tools will define success in the future.

A constructivist approach to learning encourages young people to use the social constructs of online community to build their self-esteem and confidence. ICT and multimedia tools allow users to access community, define and develop their own curriculum, challenging the rationale of traditional pedagogies.

ICT led models which rely heavily on content delivery and text-based media fail to engage learners.

For virtual communities of practice to flourish, there are further complexities to consider such as accessibility, ownership and participation. They need to thrive alongside open dialogue, debate and conferencing both synchronously and asynchronously in an environment which is flexible with few structural constraints and where a wealth of multimedia is not only accessible but simple to use.

Hence the user defines the content and structure of the community rather than being constrained by the limits of the software and complexity of the tools. This is the most effective route to participation and subsequent learning.

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