

# Wiki-supported Collaborative Narrative Construction in Game Communities

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**Abstract.** The position paper looks at how Wiki technologies can be used to facilitate new literacy practice through collaborative narrative construction in game communities. Based on constructionism, we believe that learning is more effective when learners project their mind through construction of external artefacts. We investigate these construction activities within the game community and how they are associated with new literacy practices. We conceptualise the idea that game communities could support language learning by engaging learners in emerging new media forms. Then we introduce Wikis and claim that this technology can be harnessed to actualise our idea of educational game communities.

## Introduction

With the rapid advancement of computer technologies, it is now not uncommon to read about pre-school children building their own web sites, primary school pupils creating videos and comics based on their favourite films and computer games as well as teenage programmers writing software programs to edit the games they are playing. Being increasingly fluent in technologies, youngsters nowadays are using media in a very different way; they are incorporating media as part of their literacy skills. In this article, we highlight issues that revolve around how media are used for narrative construction in a game culture to support new literacy practice with Wiki technologies. This new mode of literacy challenges literacy and language education in the classroom

where learning is normally centred on writing and reading exercises on generalised subjects which are sometimes not relevant to the students.

## Constructionist Learning Theory

Although some educators are still expounding the behaviourist method of knowledge transfer from experts to novices, psychologists such as Piaget (1929) and Vygotsky (1930) claim that learning is more about constructing reality internally through collaboration. Constructivism as initiated by Piaget maintains that learners interact physically and socially with the environment and constantly construct and update their knowledge internally. Papert's constructionism goes beyond what is constructed inside learners' head. In his own words, Papert defines constructionism:

“We understand ‘constructioNism’ as including, but going beyond, what Piaget would call ‘constructiVism.’ The word with the V expresses the theory that knowledge is built by the learner, not supplied by the teacher. The word with the N expresses the further idea that this happens especially felicitously when the learner is engaged in the construction of something external or at least shareable ... a sandcastle, a machine, a computer program, a book.” (Papert and Harel 1991)

Papert's approach helps us understand how learning is actualised when individual learners construct their own favourite artefact or object-to-think-with. Constructionism suggests that learning involves the effort to create external symbols to move formal symbols constructed internally and locate them in the environment. In other words, constructionists stress that learning is more effective when learners are engaged in designing or constructing something tangible.

## Game community and participatory culture

The advancement of computer games in terms of technologies or game mechanics has witnessed the emergence of games that let players construct virtual objects within the game. More recent games even support the construction of objects such as movies that can be used outside the game world. Even when the game does not support construction explicitly, players still find ways to build something based on the game in a socially connected game community. The enjoyment of game playing is thus not only embedded within the game, but it is in the community practice of those who inhabit it.

Game communities are potentially useful for language education. While teachers are lamenting that students nowadays are more interested in playing games than writing, there is in fact an enormous amount of writing going on in the game community. Being a popular culture, computer games are intended to be

used by active construction, instead of passive reception (Jenkins 2003). This construction happens at two levels: internal mental construction as well as external media construction. Apart from creating the meaning of the game text internally, players are engaged in externalising the meaning by producing tangible artefacts. This kind of meaning making is what is purported by Papert's constructionism in which externalising and expressing inner feelings and ideas through the use of different media is as important as internalising the meanings. In expressing ideas, or giving them external forms, we make them tangible and shareable which, in turn, help shape and sharpen these ideas (Ackermann 2002).

The concept of reading and writing mediated through new technologies has evolved into multiple sign systems. New literacy studies by The New London Group (1996) advocate an expansion of the conventional literacy studies paradigm to include consideration of six design elements in the meaning-making process – linguistic, visual, audio, gestural and spatial meaning, as well as the multimodal patterns – that result from the increasing variety of text forms associated with multimedia technologies. New literacy studies give us an implication of the importance of design in language learning. The focus of language learning relies not on formal learning by treating learners as generalised subjects seeking generalised linguistic rules. Our focus shifts to language-in-use in communities and social cultural aspects that impact the interaction among the learners. We believe that this production activity brings learners closer to language use and motivates them to learn as they are constructing authentic things others might want to see or use.

## New literacy practices in the game community

Some examples of narrative construction in the game community include fan fictions, fan comics and fan videos which are explained further below in the light of language learning.

Fan fictions refer to original works of fiction stemming from popular media such as movies, books and computer games. In fact, Black (2004) has examined the interactions among participants in a virtual community dedicated to Japanese comic fans where there is a good deal of reading and writing throughout the site. She demonstrates how supportive the online community is for writers struggling to express themselves.

Some teachers are already bringing comics into the classroom for literacy learning among children where they are encouraged to create their own comics to express themselves. The parents of the children believe that comics help kids read, write and expand their vocabulary (NewsVOA, 2005). In the game community, it is sometimes known as "Gamics" which refers to original narratives told based on computer games by composing game screenshots in the form of comics. Many media are multimodal and make use of more than one sign system. Videos, for example, offer a context of convergence for many media texts, images and sounds.

Although the use of fan videos in language learning is still underexplored, some teachers have begun to incorporate video productions into their English classes with the hope that students will dwell in the language and create a media object to think with (Hu, 2004). Recently, there is an emerging interest in video production with game technologies, known as Machinima. The players take pre-existing visual elements of a game, change the way they look, control how they move, record the results and edit them into a narrative.

## Wiki-supported collaborative learning

The “Wiki”, named for the Hawaiian word “quick”, is a new technology that supports the notion of new media consumption where everyone is the author. It is a freely expandable collection of hypertexts which can be easily edited by any user with knowledge of a very simple mark-up language. It does not require any specific tools; all you need is a web browser client. The implementation is relatively simple. It can be installed on a web server, enabling browser based access. It also immediately opens up truly global access to anyone with an internet enabled PC, laptop, PDA or smart phone (Davies 2004).

This simplistic method allows everyone reading the page to amend or correct what they are reading. Wikis are a system that explicitly supports collaboration as they decentralise the effort of creating a website from the hands of the few and distribute it to a huge community of internet users. In a Wiki environment, links to existing pages can be made easily, and a new page can be created by making a new link. Thus, the users also co-design the structure of a Wiki site.

Recently there is an increasing interest in using Wikis for computer supported collaborative learning (CSCL). A teacher could start a Wiki site by posting some materials, creating a tentative structure of the subject, and uploading some media files. When students visit, they can expand the contents by modifying or posting materials, thus enriching the learning resources. Students feel closer to the learning system as they contribute to the development instead of being passively presented with information. Perhaps the most famous educational Wiki is Wikipedia ([www.wikipedia.org](http://www.wikipedia.org)) a free-content encyclopaedia in many languages that anyone can edit. The Wikipedia project shows that the model works, and that groups of people can collaboratively create shared knowledge artefacts.

## Wiki-based distributed constructionism

There are already a number of fan sites which allow fandom to post their work. These sites are usually static; updates are done by the creator of the sites who receives submissions by emails. There are also dynamic sites that enable direct uploads. However, the media production activities are mostly not collaborative. In this section, we examine how literacy activities are being mediated through

computers and connectivity by implementing Wiki technologies. We explain this based on three major categories of distributed construction activities: discussing construction, sharing construction and collaborating construction (Resnick, 1996).

Wikis' discussion function enables learners to share ideas with one another while they are engaged in media construction. They can also exchange questions and answers in order to resolve their doubts on certain topics which might include the ideas of the narrative themes, meta-Wiki discussion, media specific issues, language issues and post production criticism.

Wikis could support various ways of collaborative construction asynchronously. The task of construction could be divided into sub-tasks to be completed by different members. For example the task of video construction could be either divided by scenes or technical skills such as audio recording, video capturing and editing. Basically the structure of the collaboration could be categorised as peer-to-peer, mentor-student, interdisciplinary and producer-consumer (Schur, Keating et al. 1998).

Since some Wiki engines support media file upload, sharing constructions can be quite simple. Media files which are created can be uploaded, downloaded again to be viewed or perhaps reused as parts of a new project. Apart from these, Wiki pages can be structured into categories and also provide relevant links for each page. It has also a powerful search function for finding a specific page quickly when the site is growing large. Evaluation and assessment are made easy as Wikis keep log files for all changes made by the users. Users can even undo a particular change by restoring the page to its previous stage.

## Challenges of Wiki-based game communities

Several challenges of implementing Wiki for CSCL around a game community are anticipated. It is generally assumed that vandalism would be a major disadvantage. However, the success of Wikipedia has proven that the community self-regulating mechanism prevents the website from being vandalised. Further, for local implementation, password protected Wikis are possible. Another challenge is that some less able students might be scared off by more experienced users and thus be discouraged from contributing. They might think that their productions are less "professional" than those of more expert users and shy away from posting. Wikis have no clear authority because they obscure authorship. They do not help a writer discover subjectivity and a personal voice since all constructions are negotiated and agreed by the majority of the community.

Like all socially constructed artefacts, Wikis can suffer from chaos. Extra work might be needed to sort and refine contents in order to maintain a tidy structure and the hierarchy of the site. The Wiki interface is not comfortable for some people as it lacks WYSIWYG features as well as other powerful editing options such as spell-checking etc. Finally technology skills among participants need to

be taken into consideration as video productions especially cannot be done without adequate technical knowledge.

## Future directions and conclusions

The main idea is to gather people, particularly youngsters, in an online game community for language learning by immersing to narrative production. Although the idea of a Wiki-based community is not novel, the use of such community for literacy and language learning around computer games has left much to be studied. Empirical studies need to be conducted in order to examine its feasibility. This can be done from several perspectives: the social interaction among the participants, the progress of the use of language and the media construction activities. Problems as discussed should be looked into and possibly solved technically or organisationally.

As a conclusion, we see game communities as a natural environment for construction activities for they involve the practice of new literacy by putting languages to practical use. We have presented an idea for using Wiki technologies to mediate new literacy practices in a computer game culture. We argue that by engaging learners to construct something meaningful and sharable with their peers, learners can learn by putting the knowledge into practice.

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