University of South Australia

Division of
Education, Arts and Social Sciences

Higher Degrees by Research Forum

10 – 11 August, 2012
Magill
South Australia

Solution Management System (SMS): A tool to link coordination and cooperation

Amal Hanna

Keywords: Solution Management System SMS, wikis, collaboration, coordination, e-bubble whiteboard, collective mind map.

This paper focuses on the need for coordination technologies so that a collaborative work can be enhanced. Students of the Net Generation are always seeking for more entertaining and collaborative activities. However, when lecturers and tutors seek engaging students in group activities, students as well as their teachers sometimes lose track of building these activities together within a certain framework - especially in the use of wikis. This collaborative work should be co-configurative (Hemetsbeger & Reinhardt 2009). An example of this co-configurative work is a report produced by a group of actors using wikis. Theoretically, goals of activities and overall objectives of the many actors in any co-configurative work must be anchored in order to link coordination and cooperation in complex activity systems (Hemetsbeger & Reinhardt 2009).

Producing a group report requires managing its contents and actors. While there is some evidence that wikis can be used as alternative to traditional content management systems (Paul 2011), previous studies show that students still prefer traditional face-to-face collaborative activities, which negatively impact upon the effectiveness of online collaborative tools (Judd, Kennedy, Cropper 2010; Witney & Smallbone 2011). While collaboration occurs online, online coordination is not efficient enough. This suggests the lack of co-ordination is a key problem which hinders effective collaboration.

Collaborative technologies tools, such as wikis, alone are not enough to ensure efficient co-configurative work. Contributions are often described as fragmented or isolated. Furthermore, when a collaborative mind map is not seen by collaborators, this implies a problem in coordination. A proposed online technological tool to deal with such problem is to visualise ideas, actors, and activities first. Such visualisation can be through a bubble whiteboard called Solution Management System (SMS). SMS allows visualisation of ideas/objectives which helps anchor actors and their activities in the form of a structural and collective mind map. Furthermore, SMS provides moral rewards for participants to produce more efficient co-configurative work.

References

Hemetsbeger & Reinhardt 2009, 'Collective development in opensource communities: An activity theoretical perspective on successful online collaboration', Organization Studies, vol. 30, no. 9, pp. 987-1008.

Judd, T., Kennedy, G. & Cropper, S. 2010, 'Using wikis for collaborative learning: Assessing collaboration through contribution', Australasian Journal of Educational Technology, vol. 26, no. 3, pp. 341-354.

Paul, L. 2011, 'The use of wikis as alternatives to learning content management systems', The Electronic Library, vol. 29, no. 2, pp. 225-235.

Witney, D. & Smallbone, T. 2011, 'Wiki work: Can using wikis enhance student collaboration for group assignment tasks?', Innovations in Education and Teaching International, vol. 48, no. 1, pp. 101-110.

Solution Management System (SMS) A tool to link coordination and cooperation

Amal Hanna
PhD Candidate & Tutor

EAS Forum
University of South Australia
10-11 August 2012

Collaboration

Collaboration generally refers to individuals or organisations ‘working together’ to address problems and deliver outcomes that are not easily or effectively achieved by working alone.

Collaboration through the internet occurs through the use of different techniques and tools:

1. Social networking (Facebook, Twitter, MySpace).
2. Instant messaging (MSN, Yahoo, ICQ)
3. Audio/video conferences (Adobe Connect, GoToMeeting, Cisco WebEx Meetings)
4. File/Content sharing (Microsoft Sharepoint, MediaWiki, WordPress).

Collaboration in Education (Why & How)

Reasons

Collaboration/team skills
Collective understandings
Oral/written communication skills
Reflexive learning and sharing experience
Reporting skills
Coordination and project management skills

How

Wikis, discussion boards, group reports, blogs, document sharing etc

Students of the Net Generation are always seeking for **more entertaining and collaborative activities**. However, when lecturers and tutors seek engaging students in **group activities**, students as well as their teachers sometimes **lose track of building these activities together within a certain framework** – especially in the use of wikis. This collaborative work should be ***co-configurative*** (Hemetsbeger & Reinhardt 2009).

‘Dissatisfaction with the quality of student group work, in terms of content and process, from both academics and students, is a constant challenge to the development of appropriate teaching, learning and assessment strategies...student preference for traditional face-to-face co-operative working is a key limiting factor to the effective introduction of on-line tools.’

Witney & Smallbone (2011, p. 101)

Problems include:

- students tend to **divide** the task amongst themselves and work **independently**, especially in tasks that require collaborative writing.
- assigning **one or two** students responsible for modifying, editing and/or reviewing the document.
- **lack of equal commitment** from everyone.
- one student working interactively with one or more students and drafting a document based on the ideas of the student or students.
- shaping ideas, and thus contents, is **not shared** by all students.
- **lack of peer interaction**.
- the **drift** away from achieving the goal of assigned tasks.
- **disorganisation.**
- **cannot discuss** – only write statements.
- students use **face-to-face meetings, mobile phones, and emails to coordinate** – and not everyone is involved.
- **lacked confidence** in using the wikis
- students think that they **only need to meet at the end** of the assignment
- **conflicts** in online production individuals.

Cooperation

‘Co-operation usually implies either splitting up the work or solving subtasks individually and combining the results into a final product. In contrast, collaboration can mean a coordinated attempt to solve and monitor a problem together, with perhaps some division of labour on aspects of the problem’

Scanlon (2000, pp. 464-465)

Co-configurative work

Producing group reports, for example, require collaborators to remain active in the shaping and reshaping of content, until they produce their final product.

Hemetsberger & Reinhardt (2009)

Such a work require communication, cooperation, and collaboration.

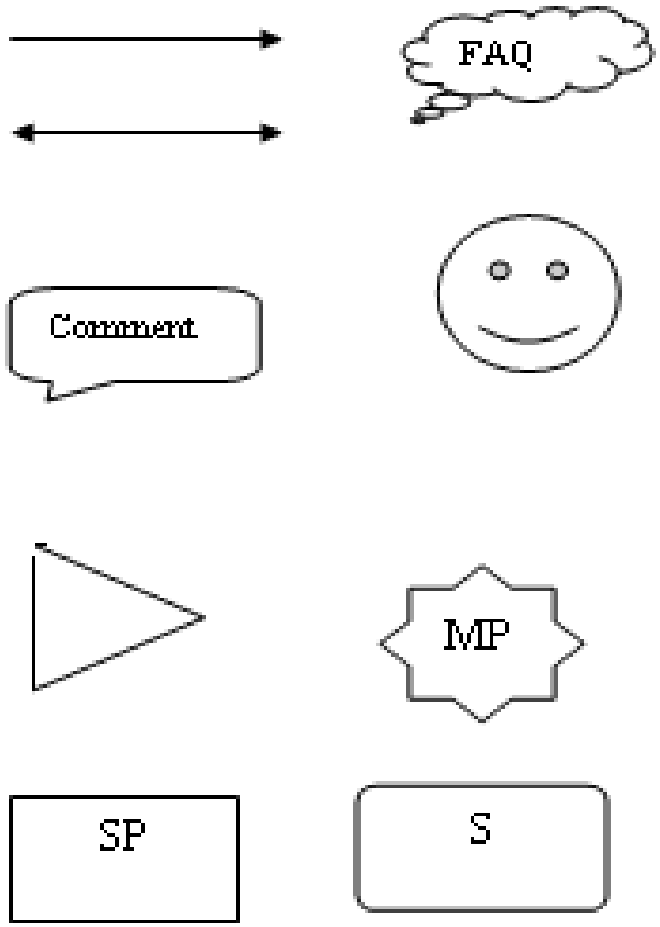
To produce such a work using wikis, human–computer interaction and computer-mediated collaboration should be maintained.

However, **discussion/talk pages are not effective enough**.

TASK

Solution Management System

- Main problem,
- Sub-problems
- Solutions
- Collaborators
- Comments
- FAQs
- Time management
- History
- Flowchart



Main References

Hemetsbeger & Reinhardt 2009, 'Collective development in open-source communities: An activity theoretical perspective on successful online collaboration', Organization Studies, vol. 30, no. 9, pp. 987-1008.

Judd, T., Kennedy, G. & Cropper, S. 2010, 'Using wikis for collaborative learning: Assessing collaboration through contribution', *Australasian Journal of Educational Technology,* vol. 26, no. 3, pp. 341-354.

Paul, L. 2011, 'The use of wikis as alternatives to learning content management systems', *The Electronic Library,* vol. 29, no. 2, pp. 225-235.

Witney, D. & Smallbone, T. 2011, 'Wiki work: Can using wikis enhance student collaboration for group assignment tasks?', *Innovations in Education and Teaching International,* vol. 48, no. 1, pp. 101-110.