

Design Considerations for CMC Tools within a Course Management System Based on Communicative Language Teaching

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Abstract

The Communicative Approach to language teaching and learning puts learners' communicative competence as the primary goal of instruction. Also known as communicative language teaching (CLT), it takes into account, and emphasizes, the social and communicative aspects of language learning. This paper will discuss the design considerations for a Course Management System (CMS) based on the major principle of the Communicative Approach: communication as the goal and process. The discussion will primarily center on the computer-mediated communication (CMC) tools within the CMS and how the principles of CLT could be used to guide the design of such tools.

Introduction

Communicative Language Teaching (CLT) rose to prominence during the 70s and 80s of the previous century and still plays a major influence in today's language classroom. It is more of a broad approach than a set of specific methods; with the focus on the communicative aspects of language as its central principle (Richards & Rogers, 1986; Brown, 1987) The Internet and the Web provide a new, unique medium for communication and offer potentials for education. One of the ways to harness these potentials is through the use of course management systems, a fact underscored by claims of two well-known vendors of CMS that their products are used by thousands of institutions (Blackboard Inc, 2005; WebCT, 2005).

Course Management Systems (CMS) are systems that provide facilities for teachers and students to engage in teaching and learning activities online by helping to manage various functions like course content preparation and delivery, communication, assessment, administrative functions, and collaboration (Ellis, 2001; Nichani, 2001). Other terms have also been used to describe CMS: online learning environment, virtual learning environment, and course-in-a-box (Collis & De Boer, 2004). In the corporate sector, when the emphasis is more on tracking and automating the administration of online learners and courses, the term LMS (learning management systems) are frequently used (Dobbs, 2002; Beans, 2003). Edutools (www.edutools.info) listed several CMS for comparisons, and although enterprise-level systems listed there such as Blackboard and WebCT contains various levels of functionalities (as befits their price and stated aims), the core functions are still about student-teacher interactions. Some, like the famous Moodle, concentrate on student-teacher interactions rather than administrative functions

(fees, school registration, etc.). This paper will use the term CMS to refer to systems that support student-teacher interactions, but whether such systems could handle higher-level administrative functions as well is not relevant.

Communication within a CMS can be through synchronous and asynchronous tools. Asynchronous tools include forums/discussion boards and e-mails, and according to Bennett (2004), they seem to be the preferred method for communication. Synchronous tools include real-time voice/video chat and conferencing facilities. Drawing on CLT's emphasis on communication, a few points can be made on how these tools can be designed to facilitate communication instead of only enabling communication.

This paper draws on the main principle of CLT, communication, and address how it could be reflected in the design of a CMS for language teaching. The discussion deals mainly with the technological tools for communication and their designs within a course management system based on the principles of communicative language teaching.. This paper offers perspectives on enhancing communication design within a CMS from four design considerations: integrated communication design, conversational design, social communication design, and multimedia communication design (see Table 1). There are many aspects and features that could be discussed when it comes to CMS, however, this paper limits itself to the stated focus above. It will not discuss other issues such as content creation and publishing.

Table 1.
 Design Considerations of CMC tools within a CMS based on CLT

	CLT and Communication	Tools\Features Design
Integrated Communication Design	Communication as the goal and the process.Contextualization communication	Distribution of communicative functions into other parts of the system (e.g., of forum functions within online notes & forum functions within language practice exercises.
Conversational Design	Dialogic view of learning and communication.Inhibition might discourage language learners to communicate freely.	Multi-directional and private facility to 'converse' with teacher or fellow students. Could also be made public if agreeable to all parties.
Social Communication Design	Social aspects of human communication.Communicative competence covers the ability to use language in socially appropriate contexts.	Virtual cafes - virtual space for socializing. Controlled and moderated by students. Include content creation tools, polling,

		publishing and chat facilities.
		Communication tools in a CMS should include text, audio and visual capabilities while
Multimedia	Human communication is conveyed via a variety of media.	maintaining the
Communication Design	Communication skills are not limited only to oral proficiency.	organization and permanence aspects normally available in text- only communication.

Integrated Communication Design

CLT views communication as not only the goal of classroom instruction but also as the process towards achieving the goal (Savignon, 2001). In short, students should use language to communicate to achieve communicative competence. A CMS designed on CLT's view of communication as a process of instruction should allow its users to initiate and respond to communication from any part of the system. This means that the division of communicative tools common in most CMS might not be the best way to facilitate communication. For example, most CMS have forums (Robb, 2004) that can be accessed by clicking on a button or link. The user would then begin a discussion or reply to other posts. This works well enough to enable communication. However, to facilitate and encourage communication, the forum or its abilities should exist also in other parts of the system. If, for example, the teacher posted a newspaper article online and asked the students to discuss it, the facilities should be available to the students right where and when they view the material. This would provide the benefit of contextualization to the discussion. The focus should be on facilitating and extending the ability to communicate instead of containerizing it. Bennett (2004) states that discussions within online forums could sometimes be buried too deeply to be acted on. There are two ways this could be alleviated. The first way is to use visual cues to indicate new posts or updated content, something that forum software like phpBB and Snitz have been offering for some time. A CMS could also be designed to offer a summary or 'bird's eye' view of new and updated communication and contents every time a user logs in. The second way is to extend the forum to be able to notify a user when content is updated or added. Normally this is done through email notifications, but technology has made it possible to send notifications to users' mobile communication devices like mobile phones and personal digital assistants (PDAs).

Integrated communication could be applied to other parts of a CMS as well. In most language classrooms, practice on grammar items is sometimes necessary. Typically in a CMS, features like quizzes are offered which could be utilized by a language teacher to provide exercises to students with the emphasis on practice rather than evaluation. Each of these exercises could be accompanied by its communication facilities that would

enable students to discuss, thus extending the value of such exercises in a language learning environment.

To be integrative in a useful manner, the communicative facilities present throughout other components should be able to reflect their contents into a central repository which will make it easier to search and would be useful for students who prefer a centralized location for communication. Some CMS already can associate a discussion to a learning content (Edutools CMS Review, 2005), although none can put the claim to be truly integrative in the implementation of their communication design.

Conversational Design

This part of the discussion draws on the thrust of Laurillard's Conversational Model that views the dialogue between the teacher and student (and student to student) as an important component to learning, especially in higher education (Laurillard, 2002). In a normal classroom, dialogue between teachers and students is extremely common and spontaneous.

To reflect this into the design of a CMS, we propose a facility called Conversations. This facility, which is textual/visual in form, although should be expanded if possible, aims to provide a model of conversations carried out during normal classroom sessions. The facility should be accessible from any part of the CMS. To reflect the spontaneous nature of classroom conversations, this facility must not be restricted and should always be visible and accessible to users.

The conversations facility should be both contextualized and free-flowing. If initiated from a specific part of the CMS, like online notes, it should be contextualized i.e. carry specific references to the origin or topic of the conversation. It could also be initiated outside of any specific item or section within the CMS, in which case it is free-flowing and aims to further encourage communication. When contextualized, it will give the teacher a wealth of feedback on how the specific item or material is perceived and used by the students.

It should also be multidirectional and private, with options to make it public. A user could initiate a conversation with another user, or a group of users, with the option of inviting others into the conversation. With the agreement of all parties, a conversation could be made public and reflected in a central repository for sharing, with the options for editing and hiding portions of the conversation. The facility will help to ease and encourage communication in a way that mimics real classroom conversation and fits with the primary principle of Communicative Language Teaching: the use of language to communicate.

Although it rises out of the rejection of audiolingualism's emphasis on the practice of language forms, CLT does not reject the need for accuracy in the use of the forms (Richards & Rodgers, 1986; Savignon, 2001). One of the dilemmas faced by teachers using the Communicative Approach is how to balance the need for fluency without sacrificing accuracy. The Conversations facility could be of help in this by providing a discrete avenue for the teacher and students to discuss accuracy. For example, if a student produces written works that are published by the system (like a blog), the teacher could use the Conversations facility to personally help and guide the student towards better accuracy. This is better than relying on a less personalized tool like forums or an

unorganized one like e-mail. The discretion provided by the Conversations facility helps to avoid embarrassment and demotivation on the student's part, reducing their inhibitions to use language freely which is an important factor in language learning (Hudson & Bruckman, 2002). As this facility is integrated into the system, conversations about a particular item remain organized and contextualized to the item.

Social Communication Design

The social aspects of learning play a very important role in online learning environments (Pang & Hung, 2001). Communicative Language Teaching recognizes the social aspects of language, the term communicative competence has been extended and views not only fluency as the desirable outcome of learning but also the ability to communicate in a social and contextually appropriate manner (Hendon, 1980, Canale, 1983, Rodgers, 2001).

The availability of communication tools would enable learners to communicate. The challenge is, therefore, to encourage them to actively communicate at the social level as well. The Conversations facility represents one way of achieving this. But to enable learners to be socially involved in the learning community, they must feel that they have a stake in the community. Harasim et al. (1997) suggested the use of "Virtual Cafe", a place they describe as i) a space by students, ii) a space for the students, and iii) space outside the curriculum. The following sections will discuss the design and features of such 'virtual cafes' within a CMS.

A space by the student

This means that there must be facilities or tools for students to create content within this space. The content could be static (such as a simple announcement) or dynamic (such as a movie schedule constantly updated through a web service). This points to the need for a content-creation facility, like HTML editors available in most CMS. And as importantly, there should also be a sophisticated framework to manage the contents created by the students. An example of such a content management framework is the Web Parts and Personalization features offered by the upcoming Microsoft .NET 2.0 framework. Services offered could be web radio, train, and bus schedule, etc., and the most important part is that students will decide what goes in there. Forums and chats could provide avenues for discussions and debates.

A space for the students

It is important to give students a sense of belonging and empowerment over this space. It needs to be moderated, but also by students themselves. It is, therefore, necessary to include facilities such as polling tools for students to elect their moderators and decide on the structure and contents. As it is outside the curriculum, the teachers would have little or no role to play, unless decided otherwise by the students.

A space outside the curriculum

How would this assist in language learning? It is important to bear in mind that socializing is partly an act of using the language for communication and negotiation of meaning (Little, 1991; Auld, 2002; Steels, 2003), a central theme in communicative language teaching. Vygotsky (1986) states that language learning is social. Krashen (1985, 1987) argues that language can be learned not only through formal instruction, but also acquired through informal discourse and interactions. The 'cafe' described above would be a valuable method to ensure that acquisition could happen outside of the curriculum.

Multimedia Communication Design

The power and versatility of the textual mode of online communication (Garrison & Anderson, 2003) make it the preferred mode for communication. However, it is not without limitations (Lipponen, 2002). As with most online communication, it cannot convey the body language and its associated range of human emotions. The use of emoticons does help, but it is still not as effective as face-to-face communication that involves visual and audio cues and messages (Cox, 2004). As CLT is about communication, a CMS based on the principles of CLT must try to address these issues.

The way to provide the widest range of communication medium as possible is as straightforward as it is difficult to implement: build the technology into the system. In the early days of web technology, textual communication represents the only way available. As technology advances, other options become available. This includes the introduction of multimedia capable technologies like Java and vector animation. Computing power on both the client and the server machines that make up the net continues to increase.

A good example of a communication tool in the form of a discussion board that employs both textual and audio channels is incorporated within Voice Tools from Horizon Wimba (www.horizon-wimba.com). Voice Tools' discussion board gives the choice for the user to either type his posts in the normal fashion or record his voice. According to Garrison and Anderson (2003), face-to-face communication suffers from the lack of record-keeping abilities, like the permanence of written communication, but with something like Voice Tools, the audio of a user's voice is kept and organized by the system like a normal post. The obvious step is to add the ability to record video using feeds from widely available webcams. Admittedly, such an ability is not simple to program, but it is not impossible. However, synchronous and rich media communications take up precious bandwidth resources (Driscoll, 1998). This might be a serious issue that needs to be considered for employing such a system.

Conclusion

A CMS designed on the main principle of communicative language teaching should not only include tools for communication, but it should also *facilitate* communication. It should approach communication by taking into account its social and multimedia aspects, and that inhibition could discourage students from using the language to communicate freely. This paper has discussed the issue of communication within a CMS from four design considerations. The first is the integrated communication design, which stresses the need to integrate communicative tools into other parts of a CMS. The second is the

conversational design, which aims to enable discrete 'conversations' between users of a CMS. The third consideration covers the social aspects of communication and suggestions for implementing a social space within the CMS. The last deals with the multimedia nature of human communication and suggest the incorporation of technologies that enable audiovisual as well as textual delivery for communication. Design for communication in a CMS should strive for integration i.e. making communication tools available throughout the CMS, instead of compartmentalizing the tools into their sections.

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