

# **The Affordances of Weblogs and Discussion Forums for Learning: A Comparative Analysis**

## **Abstract**

The rapid growth of technology has made many online tools available for education. The ability to discern these tools and use them appropriately for educational purposes has become increasingly critical. Weblogs and discussion forums are among those up-and-coming tools that have great potential in supporting learning. They have both common features and differences. They are therefore not to be used in the same way for maximum effectiveness. This article compares the affordances of weblogs and discussion forums by following an EST framework composed of three key components - educational, social, and technological. It also discusses the implications that the affordances have on teaching and learning.

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# **The Affordances of Weblogs and Discussion Forums for Learning: A Comparative Analysis**

## **Introduction**

The development of emerging technologies has resulted in a rapid increase in Information and Communication Technology (ICT) tools. Many of these tools have great potential for teaching and learning although they may not be created initially for educational purposes. For instance, the weblog basically offers a free website for people to write and publish their personal thoughts or diaries. Nowadays many educators realize the potential of weblogs. They attempt to use weblogs in education and find out writing online reflections using weblogs can help students improve their writing skills, increase their critical thinking skills, or become subject matter experts (Kajder & Bull, 2004; Wang, 2005).

Many ICT tools look similar in surface but they actually greatly differ in usage and purposes which in turn may result in different impacts on learning. For instance, both weblogs and discussion forums offer a virtual space where people can publish and share information, and they are asynchronous by nature and use the web as a medium. But the weblog intends to air one's opinions and it is owned by the author self. In contrast, a discussion forum aims to share information with others, and also to collect peoples' opinions or feedback. It is owned by a group of people and hence everyone is a participant only. Clearly, weblogs and discussion forums cannot be taken alike when they are used for educational purposes. How to identify differences of various ICT tools and use them more effectively for teaching and learning becomes a challenge for teachers.

In this article, we compare the affordances of weblogs and discussion forums by following an EST framework, which is comprised of three key components: educational, social, and technological. Here, affordances refer to opportunities for actions; the perceived and actual fundamental properties of technologies that determine the usefulness and the way they could possibly be used (Norman, 1988). Certainly this framework can be used to compare affordances of other ICT tools as well.

### **The EST Framework**

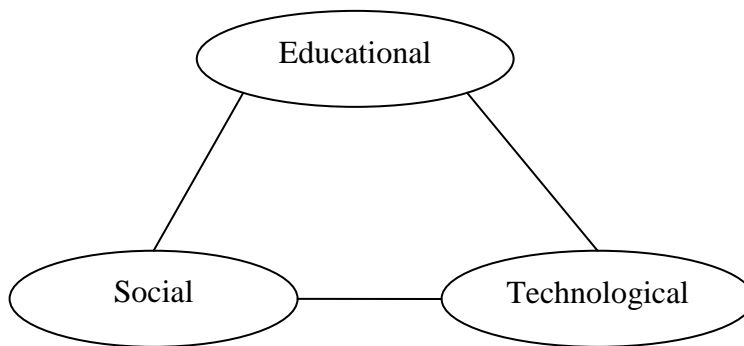


Figure 1. Key components of the EST framework

As shown in Figure 1, the EST framework consists of three key components: educational, social, and technological. Any educational system is a unique combination of these elements and their affordances (Kirschner, Strijbos, Kreijns, & Beers, 2004). The educational component is critical for distinguishing a learning system from other communities, for it primarily reflects the educational purposes of the system. Comparatively, community-based systems (such as an alumni community) are built without any learning purpose in mind. Social activities are crucial in daily life. People naturally live and work in various communities, in which they turn to others for help

when they encounter problems (Jonassen, Peck, & Wilson, 1999). Social activities become more flexible and convenient in online environments with the rapid development of Computer Mediated Communication. Moreover, the technological component becomes more prominent in a technology enhanced learning environment, for increasing learning activities are conducted through the computer.

The EST framework has been used to guide the development of online learning environments. For instance, Kirschner, et al (2004) constructed collaborative learning environments based on these three requirements (educational, social and technical). They identified that the usefulness of a learning environment is very much determined by its utility (which comprises educational affordances and social affordances) and usability (which comprises technological affordances). Chen (2003) provided useful recommendations on how effective networked learning environments could be created to fulfill the educational, social and technological needs for learning.

The EST framework is useful for online discussion facilitation as well. The educational (or intellectual) role of facilitators is to help group members achieve predetermined learning objectives. The social role of facilitators is to create and maintain a friendly, interactive environment in which participants feel safe and comfortable to interact with one another. The technological role of facilitators is to help group members get familiar with the discussion programs so that they are able to participate without technical difficulties. In addition, facilitators may play an extra role - managerial - to ensure the online discussion is going on smoothly.

## **Educational Affordances**

Educational affordances are often defined as those characteristics of an artifact that determine if and how a particular learning behavior could possibly be enacted within a given educational context (Kirschner, et al., 2004). Weblogs and discussion forums have certain educational affordances in common.

Both weblogs and discussion forums provide a platform for students to publish and share information. They are found useful in improving students' critical thinking, as the asynchronous mode of communication allows students more time to think more deeply before submitting their posts. Also, they provide comfortable environments and equal opportunities for students, particularly introverted ones, to express their ideas freely. However, weblogs and discussion forums engage learners in different manners in terms of ownership, developmental processes, and interactivity.

### *Ownership*

A weblog is a private cyberspace in which individual students create their own online diaries. Student bloggers take ownership of their own blogs and demonstrate the following interrelated characteristics in relation to the blogging activities: finding personal values, feeling in control, and taking responsibilities (Cameron & Anderson, 2006).

Student bloggers write not only for themselves but also to a potentially infinite audience. Writing for a wider audience will make students put more effort in their thinking and writing (Kajder & Bull, 2003). They may also find greater self-esteem when their blogs

are viewed and supported by a larger audience. In addition, student bloggers take ownership over the content. They can post, edit, or delete any posting at anytime. Having freedom to control allows students to explore beyond the norm and take more responsibility for their own learning. Comparatively, a discussion forum is a shared space, in which the production is co-owned by all participants instead.

### Developmental Processes

Learning is a highly interactive and dynamic process. There is a need to capture the learning process so that any pitfall leading to failures in the outcome can be addressed accordingly.

Both weblogs and discussion forums provide different degree of process capturing in the learning process. The use of weblogs enables students to externalize their thoughts in an ongoing manner. Posts in a weblog are organized in a reverse chronological order, with the most recent post on the top and the oldest post at the bottom. By tracking the blog postings chronologically helps to facilitate the awareness of how one constructs meanings over time (Fiedler, 2003). As for the discussion forum, all participants' postings are organized in clusters. Obviously identifying individual cognitive development in a discussion forum becomes harder.

### Interactivity

Interactivity is a major construct of a web-based learning environment. Three types of interaction are often involved in a technology enhanced learning environment: interaction

with content, interaction with the instructor, and interaction with peers. Weblogs and discussion forums promote different types of interaction.

Weblogs promote greater learner-content interaction. The process of student's writing blogs is essentially a process of reflection. Reflections have positive effects on students' academic and personal development as they show students' understanding of a subject matter and the meaning associated with it (cf. Liddell, Hubbard, Werner, 2000).

Comparatively, a discussion forum involves more social interaction with other people like peers or the teacher. It can be used for reflection. But it is more helpful for information sharing and meaning negotiation.

### **Social Affordances**

Social affordances refer to the perceived and actual properties of an artifact that can promote users' social interaction (Kirschner, et al., 2004). Constructivists claim that knowledge is constructed by students themselves rather than deriving from the teacher. Social constructivists further argue that knowledge is collaboratively constructed in a social context mediated by discourse; learning is fostered through interactive and social activities such as information sharing, negotiation, and discussion.

Weblogs and discussion forums offer similar social affordances for learning. Both provide an avenue for students to publish information and obtain feedback from the others. But they differ in aspects like extent of publicity, method of communication, role of the teacher and the way comments are published.

### Extent of Publicity

A weblog has a higher chance of being viewed by a larger number of people. It is made to be known to the public at large and it serves like hardcopy media such as a newspaper. It can be accessed by anyone who knows the weblog address. The public nature of a weblog puts the student author on a centre stage where the quality of their blogs is constantly subject to public appraisal or criticism. This has a positive learning effect because the world now acts as a teacher to grade the student's work. In addition, because blogging is subject to public scrutiny, it compels students to put more effort in maintaining the quality of their postings and requiring them to be more critical in thinking and writing (Cameron & Anderson, 2006). Comparatively, a discussion forum is more likely to be a closed environment. It is usually password protected and open to registered members only. As a result, a discussion forum has smaller viewership.

### Method of Communication

A weblog offers students an effective way to publish and reflect on the content in a discursive way. This allows a student to make self-improvement progressively (Wrede, 2003). A weblog has also provisions for readers to provide their feedback, which can act as a means for scaffolding students (Ferdig & Trammell, 2004). Comparatively, the success of a discussion forum depends on the endeavor of all participants, who must post, comment, and reply to others to make the online discussion sustainable and effective. The use of discussion forums enables the students to construct knowledge meaningfully and collaboratively. As Wrede (2003) stated, a weblog promotes discourse (meaningful

connections between ideas and resources) whereas a discussion forum encourages discussions (debates or dialogs on a topic).

### *The Role of a Teacher*

The role of the teacher is quite different in weblogs and discussion forums. The teacher is often a facilitator in a discussion forum, who moderates the discussion process to keep it on the right track. Also, the teacher must invite missing students, provide necessary instructional materials, summarize key discussion points, or link ideas together. However, a weblog usually does not need the teacher to moderate. The role of a teacher is more likely to be a reviewer, who reads the weblog content and gives comments or suggestions if needed.

### *Ways of Commenting*

The way of commenting is slightly different in weblogs and discussion forums as well. A weblog represents the author's thoughts. Usually all comments are given to the bloggers and hence they are more convergent. While a discussion forum interweaves various participants' ideas together. Comments can be given to any individual participant or to a group collectively. Comments are therefore more divergent, particularly at the beginning of a discussion before any consensus has been reached.

## **Technological Affordances**

Technological affordances refer to an artifact's usability (Norman, 1988). They are concerned with whether the artifact allows for the accomplishment of a set of tasks in an

efficient and effective way that satisfies users. Undoubtedly, neglecting technological affordances would put an artifact at risk of being useless. For instance, a hard-to-operate mobile phone would be useless even though it has sufficient functionalities.

Availability and accessibility are initial requirements of an effective web-based tool or environment (Chen, 2003; Salmon, 2000). Obviously, a web-based tool must be available all the time so that users can access it at any time. Also, the network speed must be fast enough for connectivity. Learners who have an easier and faster access tend to participate more frequently in online discussions than those who do not (cf. Harrison & Stephen, 1996). In addition, interface design is also critical as it determines the usability of a tool.

Weblogs and discussion forums have similarities in terms of technological affordances. Most weblogs, such as eBlogger (<http://www.blogger.com>) and discussion forums like “Yahoo! Groups” (<http://groups.yahoo.com/>) are accessible all the time and the access speed is reasonable. Weblogs and discussion forums are also easy to learn and use.

Moreover, the organization of the interface such as control buttons and text-input mechanism are rather similar to that of Microsoft Word. This makes them easy to learn.

Nevertheless, weblogs and discussion forums differ in some minor aspects such as dimensions of display, customization and permanence.

### *Dimensions of Display*

In a weblog, the postings are automatically archived and time-stamped. The content of the blog is usually given in a full view. Also, the author of the blog can decide on the number of postings to be displayed on a page. These features make navigation in a

weblog easy. However, postings in a discussion forum take a slightly different arrangement. They are usually displayed in a hierarchical structure with threaded titles only. Readers have to click on the titles to see their content. As a result, reading postings in a discussion forum becomes more challenging.

### Customization

Many weblog programs allow owners to customize the interface of their blogs. Customization includes modifying the layout, changing the colors of text or hyperlinks, or embedding third-party web components such as a calendar or YouTube videos. But for a discussion forum, such liberties are normally prohibited due to the shared nature of the tool.

### Permanence

A weblog has a more permanent presence than a discussion forum. A discussion forum is often created for a group of students to discuss a particular topic during a course or for a lesson. When the course or the lesson is over, the discussion forum will cease to be active. Comparatively, a weblog has a longer lifespan because it is used primarily for self-expression and it can stay as long as the author wants it to be.

## **Concluding Remarks**

Weblogs and discussion forums have similarities and differences in terms of educational, social and technological affordances. They differ in the ways they can be used for teaching and learning.

A weblog is a useful tool for individual reflections. Individual students can write daily or weekly reflections on what they have learnt. These regular reflections can help students make meaningful connections or remove contradictions in relation to their learning. Also, by blogging educationally, it allows the teacher to monitor and identify individual students' developmental progress. In contrast, a discussion forum is suitable for collaborative learning. It provides a social environment where a group of students share information, negotiate ideas and hence construct knowledge in an interactive way.

Both weblogs and discussion forums have the potential to promote students' critical thinking. Their asynchronous features allow students more time to search for information, reflect on their own perspectives, and make more critical and constructive contributions in their postings (Hara, Bonk, & Angeli, 2000). Weblogs promote more interaction between a student and the content. Discussion forums, on the other hand, involve deliberative interaction with people, which is helpful for constructing knowledge. Both types of interaction are important for teaching and learning. To make learning more effective, perhaps weblogs and discussion forums may be structured in such a way that they complement each other. This will involve careful consideration of the learners' characteristics and how the affordances are to be weighed against the desired learning outcomes.

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