

# Making a Difference – The Appropriate Use of Web Technology

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**Abstract:** Much has been written elsewhere about how, different Information Technology tools, can in principle be used by groups or communities to make their web sites more effective for Continued Professional Development. In practice, complex use is not often the case. In particular, three sites were studied in Scotland, which provided web facilities for the over 60s. The sites, and the communities they served, used only simple Information Technology. Nevertheless, they enabled their communities to participate effectively, on the 'right side', of the European population's 'digital divide'.

## 1. Introduction

Life-long learning has great importance (Mohamed, R. et al. 2002), allowing us to remain competent, to achieve personal satisfaction and job fulfilment, throughout our careers. From an employer's viewpoint, lifelong learning contributes to competitive advantage through excellence of employees. At a national level, it allows us to remain competitive in a world participating in free trade, and experiencing rapid changes in technology.

It is not surprising that many communities have turned to the Internet to support Continuing Professional Development (CPD). Traditional approaches rely on a mixture of activities - including conferences, meetings, scholarly reading, newsletters and short courses. The Web cannot provide all the things that come with 'traditional' approaches, but can provide flexible support, especially where the community members are geographically dispersed, or are subject to time constraints.

Use of new technology does not guarantee success. "Web communities need 'social scaffolding' to grow and thrive. Social scaffolding refers to those aspects of a site - roles, rituals, features, events, and leadership - that facilitate community development. Much like a trellis enables a plant to grow, social scaffolding enables members to become progressively more involved in the community" (Kim 1998).

Simply launching a website with a bulletin board, and chat facilities does not automatically generate a community (Mager & Karlenzig 2001). There are numerous examples of quickly launched message boards with many topics but no responses. Creating gathering places alone is not enough - they need to be organised and integrated into the community.

The central issues surrounding communities are 'people' issues - Web technology merely acts as a facilitator, providing the tools for helping people come together (Cothrel & Williams 1999).

## 1.1. Continuing Professional Development and the Web

Getting people to 'buy into' Continuing Professional Development can prove difficult (Ferguson et al. 2002). Individuals need to be reminded that they have a career - not just a job (Arnold & Smith 1998). The Web enhances this process by allowing individuals to extend their professional interaction, exchanging new ideas and opinions, beyond the boundaries of the organisation in which they work. Web technology can be used to complement traditional learning and development, delivering CPD to a widely dispersed audience. Traditional methods alone, may benefit individuals proportionately less, as the size of conferences increases.

The Web can mitigate these effects, by enabling users to take a more 'personal' approach. "Every learner can, at his or her own choice of time and place, access a world of multimedia material... immediately the learner is unlocked from the shackles of fixed and rigid schedules, from physical limitations... and is released into an information world which reacts to his or her own pace of learning" (Benjamin 1994).

Individuals can work at their own pace, but still need for a forum for feedback on their progress. Not only do some topics require hands-on experience, but also they may be difficult to translate to an online environment (Stuart, 1999). Professional development can be substantially enhanced by opportunities to collaborate within Web communities (Hixson & Tinzmann 1990). The asynchronous nature of much of the communication that takes place online lends itself to CPD, and supports the synthesis of knowledge (Salmon 2000).

Individuals generally have plentiful access to the world computer system, or network. Users are able to reflect on issues raised online. Their own ideas and thoughts can germinate through composing replies. CPD is an ongoing process. Use of Web technology is not a one-shot event. Traditionally, individuals within an organisation would take one or two weeks off, to go on a training course. Web technology enables professional development to be an extension of the workplace.

However, technology is no panacea, but must be linked to the objectives and goals of the professional development programme in question. In particular, it must deliver real value to its community.

## 1.2. Web Communities

The use of the Internet for development, means that training can now have a global outlook. "The Net erases boundaries created by time and distance, and makes it dramatically easier for people to maintain connections, deepen relationships, and meet like-minded souls that they would never have met" (Kim 2000).

To be successful and deliver value, the aim must be clear. The first step to building a loyal community is to understand its purpose (Kim 1998). Web communities grow and thrive, when members are able to fulfil their purpose, and accomplish those goals that require other members to participate. The concept of collaborative purpose is one of the Web's premier strengths as a means of building community (Real Communities Inc. 2000). Features that aid the development of an on-line community (Kim 2000) include:

**Backstory:** The community's backstory provides a powerful tool in shaping members' expectations about the purpose and personality of a web site (Kim 1998). The term 'back-story' comes from filmmaking, and refers to the part of the movie's story that has happened before the first frame of the film. Backstories introduce the community founders, communicate their motivation, and establish the community's core values.

**Site Map:** The site map gives an overall picture of the community space and may include links to each section of the community. Site maps should be updated as sites evolve, and sections of the community are added.

**Feedback:** Through implementation and maintenance of feedback loops. Communities evolve over time, and may react to the requirements of their members. Regular surveys will help gauge the community opinions, and re-enforce a sense of shared purpose.

**Database:** A member database system is crucial for creating and maintaining member profiles that evolve over time. This database can be used to control access to Web pages, mailing lists, chat rooms, conference areas and member profiles. Many communities also allow members to develop their own home pages, thus helping each member develop their sense of belonging to the community (White 2001).

**Frequently Asked Questions:** These address the needs and questions of newcomers, without alienating established members. FAQs serve a key role in breaking down initial barriers for new users, making them feel more at ease with the technology, and with the community itself.

**Communication Technology:** Communication is at the heart of online communities. The technologies employed can be public (interactions between several people) or private (one-to-one interactions); synchronous (messages are exchanged in real time) or asynchronous (messages are accumulated and users need not be online simultaneously). All communities need a mixture of public and private meeting places. It can often prove difficult to identify a single space where the Web community 'lives'. This is a result of the range of tools adopted by members (Cothrel & Williams 1999). The most commonly used tools include: - **Electronic Mail**- The use of e-mail is widespread. Extremely powerful, it may be used to hold a community together. E-mail distribution lists may be used for making announcements and for encouraging communication between users. A community newsletter can serve a key role, keeping members up to date with key events. Where issues arise within the community, e-mail can also be used to encourage feedback or suggestions from community members. (Poling 1994) found that the use of e-mail enhanced the quality of communication within groups and ultimately aided group cohesion: **Mailing Lists and Bulletin Boards** - Community mailing lists can facilitate conference-style interaction between community members. However, mailing lists do not create the same sense of gathering in a location with fellow community members that conference-style interaction can provide (Steuer 1998): **Chat** - Real-time chat is a frequently misused community technology (Steuer, 1998). Nothing discourages users more than an empty chat room, or an interactive event that has very little or zero interaction between users. However when utilised correctly, real-time chat can be a very effective communication medium.

### 1.3. Web Communities and Senior Citizens

But how well does today's online world adapt to the needs of the over-60's? Indeed, to any sector of society, which is generally seen as being on the 'wrong-side' of society's digital divide? Can they learn new tricks and gain 'clout' from online technologies? In the remainder of this paper, we examine how various communities in Scotland have fared recently.

In general, they have not had to learn very advanced technologies to enhance their abilities considerably, and to participate in society effectively, and at a high level. Thus, it is not very difficult to make use of online web techniques, and doing so greatly advances the visibility or effectiveness of a group.

These findings are well-worthwhile propagating to other groups throughout Europe, who might otherwise find themselves on the wrong side of the 'digital divide', and be condemned to an ineffective or ignored section of their country's society.

## 2. Example1: The Health Forum (of South East Glasgow) <http://www.healthforumglasgow.org>

The Health Forum for Glasgow (South East) is a pressure group of concerned consumers of NHS-provided healthcare based predominantly in the South East of the city. It has approximately 400 members, and about 60 members have e-mail addresses, and the Forum makes use of its own web site. This provides a range of information including: Constitution; the year's Minutes; News; Links (to organisations and items of information of interest to members). Members are predominantly aged over 60, and thus tend to be consumers of NHS services. The HealthForum's web site was set up some 5 years ago. Since the website was first set up, a core of members with IT skills has developed. These include the Chairman, Secretary, the Membership Secretary, as well as those people concerned to keep the IT aspects of the Health Forum working smoothly - i.e. e-mail, web site, and database.

The website and e-mail groups keep the administration going. This includes the Constitution, Minutes, Agendas and the e-mail groups necessary.

Also important are *News Items*.  
Reports (Commissioned by the Healthforum).

Concerning Hospital generated Traffic obtained from Alan Drewett AMICE (An independent Traffic Consultant).

Concerning bed numbers required in the Glasgow area were produced by Dr. Matthew Dunnigan.

The maximum distance of a stand-alone ACAD from a major in-patient hospital (as laid down by the Veterans' Administration of USA) was shown to be greatly exceeded - in the case of the Victoria ACAD - from its in-patient hospital (the Southern General Hospital, of Glasgow). Dr Sedaghat, Head of the Veterans' Administration Hospital in San Diego USA, endorsed this .

The Forum's *comments and annotations* on News Items produced elsewhere. For example, by the Scottish Executive of the Scottish Parliament. News Items produced by 10 Downing Street. Another, News Items produced via the GGNHSB, the official lead organisation for healthcare in the Glasgow Area. The Forum also re-publishes and comments upon letters and articles in local newspapers.

The Health Forum carries-out high-level criticism of GGNHSB policies and actions, particularly as they affect the population of South East Glasgow.

### **2.1. Policy and effectiveness of the Health Forum**

It is the policy of the Health Forum to ensure that only valid facts are published on the Forum's website. The aim is for the website to become the factual source for all information pertaining to healthcare in south east Glasgow. The Forum has found other sources of information arising from official bodies are often less than accurate.

With its membership including a number of the Community Councils of South Glasgow, the Forum provides expert criticism of the actions of official NHS bodies. As agencies set up as QUANGOS are beyond democratic scrutiny, and represent a significant 'democratic deficit' in Scottish Society today. Predominantly, the main usage of the NHS is in the first few months and the last few months of life. Without bodies such as the Health Forum, agencies would be able to do exactly as they wish, unhindered by any democratic scrutiny of their actions, however it affects their 'customers'.

### **2.3. Use of Information Technology by the Health Forum**

The Health Forum has now been making use of Information Technology for about 5 years. The first component was a web site. This made the Forum much more powerful as an organisation. It was able to publish its findings to the general public, but also to get its views across to the NHS, MEPs, MPs, MSPs, Ministers in the Scottish Executive etc., and also to act as a source for the Health Council (an official body set up to represent the public) and also local, national and international press.

A Strathclyde University Computer Science Third-year student designed the web site and Information Technology tools for the Forum as her degree project.

Colleagues of the student (whose project this was) tutored the Forum Members in two sessions. One of the computer laboratories in Computer Science was commandeered throughout two evenings. Students whose average age was 20 tutored members of the Forum (mostly over 60)! This worked well, though there was a big age gap between 'tutors' and 'students'. In fact, both groups were slightly amused by the age inversion. It was rather like the relationship between grandchildren and grandparents. After the initial two sessions, the Forum Members followed normal paths. Sometimes they had further experience at their local public library, sometimes they attended a self-paced introductory class at a local college, and sometimes they attended classes at the Senior Studies Institute at the University of Strathclyde. (At this time, the 'Buddies' Methodology - now successfully implemented by the Strathclyde Computer Club - had not yet been established).

Various office holders of the Forum, began to find that e-mail was much quicker than ordinary 'snail mail'. The ability to e-mail a group was crucial, and much quicker than traditional methods. Shortly thereafter, members found that e-mail could be enhanced to hypertext, sending parts of web sites, (either the Forum's own, or references on other peoples'), as part of their message.

The Health Forum has so far stuck to simple Information Technology tools. For example, it has made no use of video conferencing (quite a lot of telephoning though!). Neither has it made use of sophisticated aids such as white boarding. Some members have their own computers, but some make use of machines in public libraries etc. An important stage was reached about two years ago, when Minutes were only made available electronically, or at meetings. Although this could be seen as reinforcing the 'Digital Divide', it took place because the cost of duplicating and posting Minutes was seen as exorbitant, but was too slow to enable any effective discussion to take place.

The advantage to the Health Forum of having a depository of information became clear. It is, however, a non-trivial task keeping the web site current, and a reflection of members' interests. This requires a body of members with the necessary skills in information technology.

The most recent development is of software, to come into play in the next 12 months, to carry out referenda of the members of the Forum. An extension may be used to make petitions to the Scottish Parliament for the area of Glasgow, and voters, for which the Forum is representative. In addition, the Forum's web site is also a repository of facts on healthcare in Glasgow, for local and national press.

### **3. Example 2: The Learning in Later Life Association** <http://learninginlaterlifeassociation.org/>

The Learning in Later Life Association is large (700-800 members who are students over 50). Its web site has been in existence for about 3 years. Each of the 15 clubs specialises in a different area (often based on an academic subject) and has its own pages on the web site. The Computer Club is one of these. Club members and the club committee are responsible for the content of these pages. A number of people now have expertise in information technology, for example e-mailing. Each club has a number of pages giving the current programme for the club this year. There are also a number of pages devoted to social events, and general news concerning the Association. To date, although the actual programmes are the responsibility of the clubs, the web site is maintained by a number of dedicated individuals. We hope that the next stage will be the emergence of a larger body of members, who will take over all aspects of maintaining and developing this web site for the Association. For example, in the latest development, the French Club pages have gained slide shows and videos of the French Club's holiday to Provence in 2003.

### **4. Example 3: The 3L's Computer Club**

<http://groups.msn.com/3LComputerClub/homepage.msnw?pgmarket=en-us>

The Club currently has some 39 members, of whom 10 take part in the 'buddies' scheme in which a 'buddy' and a computer naïve user (over 50) take part in a one-to-one session. The Club supports a web site. It also supports the classes in information technology taught by the University of Strathclyde through its Senior Studies Institute. The Computer Club was established approximately 4 years ago, predating the web site of the Learning in Later Life Association. The Club meets every Friday afternoon, in a computer laboratory to exchange ideas and IT knowledge. Four lectures or visits take place each year.

## **5. Conclusion**

Web technology for CPD is currently being employed by a wide spectrum of professional communities. The resources and features available on-line can range from lists of useful links, to the provision of original content, to full-blown community facilities including online discussion forums.

The examples, however, of real web sites developed and used by the over-60 sector of the population in the U.K., show that frequently these need not be technically very advanced with respect to web technologies employed. They must result, however, in a general empowerment of their members, a sector of the population that would otherwise be disadvantaged by being on the 'wrong side' of the digital divide of society. The examples given here show that adopting modern information technology may result in easier and cheaper administration, better and quicker communication among members, and a much larger 'clout' for the group in its society.

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