BUILDING ONLINE COMMUNITIES:
THE BARRIERS AND THE BRUISES

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ABSTRACT

Interest in Web-based collaboration is growing within many academic institutions. We are seeing a wide range of collaborative tools being used in many different areas, including teaching and learning, research and support. Collaborative tools appear to have tremendous potential. However the diversity of applications and application areas is raising several strategic challenges within institutions. This paper outlines barriers to widespread adoption of collaborative tools and argues for strategic thinking in this area.

KEYWORDS

Online collaboration, institutional policies, barriers

1. THE CONTEXT

UCISA (see <http://www.ucisa.ac.uk/>) is a membership organisation which represents the whole of the UK higher education community in the provision and development of academic, management and administrative information systems, providing a network of contacts and a powerful lobbying voice. UCISA exists to promote excellence in the application of information systems and services in support of teaching, learning, research and administration in higher and further education.

One of UCISA's current aims is to investigate the potential for use of online collaboration tools to support its working groups. In addition the experiences gained and the issues addressed will be of interest to UCISA member organisations, which are likely to be making use of online collaboration tools within their institutions, and, in many cases, be responsible for the procurement, installation, maintenance and general support of such tools.

Prior to an investigation of individual applications we are addressing some generic issues which we feel need to be addressed prior to the evaluation, recommendation and deployment of any individual application. This paper reports on our findings.

2. COLLABORATIVE TOOLS

One of the real strengths of Web-based software tools is their ability to build and support communities, especially communities that would find it difficult, if not impossible to exist otherwise.

There is, currently, a range of available tools and online services with which an online community can be created, managed, supported and sustained. Broad, overlapping categories are tools concerned with:

- idea, information and document sharing

- contact management

- messaging and discussion

- meeting and conferencing.

Many of these tools are still developing and new tools emerge regularly. (How many people could have predicted the rise of the phenomenon that is 'blogging'). Often the most effective support for a particular community is achieved by adopting a number of these tools and services and using them in a co-ordinated, though not necessarily directly-linked, fashion.

However, just because appropriate tools exist does not mean that thriving communities will emerge and prosper.

If one analyses the various e-communities that exist, it becomes clear that:

- There are major sections of the population that are not yet receptive to the concept of online community, or do not have the appropriate skills to engage with and contribute to an e-community

- Even 'successful' communities often 'run out of steam' and move from active participation to slow, terminal decline.

This suggests that there are a number of barriers to the creation and ongoing sustainability of online communities.

3. BARRIERS TO THE CREATION OF ONLINE COMMUNITIES

Some of these barriers are basic **socio-cultural barriers** such as the natural conservatism of human beings. This results in:

- Younger people tending to accept new ideas and technologies more readily than older ones

- An understandable fear that privacy and security will be compromised by engaging in online communities.

A number of other barriers arise from what broadly may be termed '**technical**' issues – issues surrounding the available hardware, and especially software, that is used to support online communities.

Of course the fundamental issue relating to such tools is the level of functionality – the degree to which the provided tools and services do, in fact, support community-building and development.

Many of the available tools are superficially attractive and may perform a useful role in the earlier, less sophisticated phases of a community's development. However, often the lack of 'rich functionality' is not apparent until later as demands and expectations increase. Changing the tools in use at such a time is both difficult and fraught with danger – in terms of alienating the members of the community who have built up the requisite skills to use the agreed tools.

Some of the barriers are at the **basic skills** level, since there is a large proportion of the population that does not have sufficient technical competence to explore and gain confidence in online community tools. Even simple tasks such as registering with e-services seem to be confusing and threatening for many people. This is made worse by the fact that, as we have already observed, e-community tools are relatively new and still developing; the way in which a particular tool or service operates now may not be the same in a few days

time. Similarly, new tools emerge and gain credence fairly frequently. For many people, this rate of development – and change- is unnerving.

Many of the simpler tools and services are 'free'- in that they are supported by advertising. Many of them open up the user to the dreaded 'spam' avalanche. This and the variability in registration and access processes can be very disconcerting to those new to such technologies.

4. BARRIERS TO SUSTAINABILITY

Even when an online community manages to overcome the above barriers and establish itself, there then becomes the problem of sustainability. There appears to be a 'life cycle' pattern for most communities which mirrors the standard product life cycle pattern of:

- Development
- Introduction
- Growth
- Maturity
- Decline

One contributing factor is that those who join an online community at or near its inception often develop and 'grow' together. Their interest and perhaps experience in the issue around which the community is based becomes more sophisticated – but at broadly the same rate as their peers. However, a thriving online community (assuming it is a public or partially open community) tends to attract new members. They come in with perhaps a 'lower' level of expertise and understanding – and naturally want to ask questions and initiate discussions which the longer-serving members probably moved on from long ago. This can result in tension between the two (or more) groups.

Another issue of longevity and growth is that large communities are more likely to have a number of 'recalcitrant' members – who behave 'anti-socially' in terms of the established operating framework and values of the group. Many groups have some form of 'acceptable behaviour' policy but these are often not developed to the point where there is a workable approach to censure and sanction.

5. IMPLICATIONS FOR COMMUNITY FACILITATORS

The processes of development of online communities are not yet well enough understood to be able to set down 'rules' or even firm guidance on how they should be facilitated. However, it is possible to draw some simple lessons from the above discussion.

Most online communities have an individual or a small group who facilitate the continuing development of the community. (This may not necessarily be the original creator of the community.) It is this individual or group who will have the major role in ensuring long-term sustainability, though, of course, it is the interactions between group members that drive 'value' into group membership.

These facilitators should take, or instigate, action to ensure that the barriers identified above are either removed or minimised. This means that, for example:

- The facilitator should plan an 'exit strategy' to create either a simple 'end' for the community, or a further phase of development which is sufficiently different to be regarded as 'a new beginning'. The appropriate timing of this 'exit' will depend on the nature of the life cycle for the particular community.

- Where an 'exit strategy' is not yet to be implemented (or even considered), the facilitator should consider ways of 're-energising' the community. This may involve anything from simple polls and surveys (which create engagement) through the addition of new functionality (through

the adoption of new tools or services) to significant new developments that fall short of the 'new beginning' suggested above.

6. STRATEGIC ISSUES

In many new technical areas we often see innovations taking place within research groups or in academic departments with an interest in innovative approaches to, say, teaching and learning. The World Wide Web, itself, is a good example of an application area which was typically adopted within science departments to support research activities, before being adopted more widely within institutions for more general purposes.

The migration from an application used within a department to institutional deployment raises several issues. We may discover that several departments have made use of a diverse range of applications covering similar or related areas. We may also find there is a need to address areas such as performance, scalability and security which are of great importance to IT service departments but may not be given sufficient considerations by academics.

IT Service departments will have a leading role to play in the development of an institution's IT strategy. Issues such as use of open source software may feature in an institution's IT strategy. In many institutions the need to avoid unnecessary duplication of a diverse range of applications covering the same area, and the implications this has on support costs, will also need to be addressed. From a longer term perspective there is also the need to consider the migration of data from collaborative tools. This could be to ensure that new tools which provide richer functionality, have cost advantages, etc. can be deployed; to allow personal data to be processed to comply with legal requirements (such as the Freedom of Information Act, accessibility legislation, etc) and also to ensure that the data can comply with an institution's preservation and archiving policies.

Rather than a procurement policy based simply on the functionality of the application and experiences gained from its use, we feel that there is a need to develop an institutional strategy for the procurement and deployment of online collaborative tools. Factors which need to be addressed within the policy include:

- **Functionality**: The functionality of the application and how this functionality addresses institutional needs.
- **Integration**: Integration of the application with other collaborative systems and with backend systems, such as databases.
- **Usability**: The usability, accessibility, etc. of the system,
- **Security and performance issues**: Is the application secure, and does it provide acceptable performance levels.
- **Reusability**: Reusability of the data created within the system.
- **Support**: Support levels needed for the system and support provided by vendors.

7. WHERE TO FROM HERE?

We have seen that *embedding* collaborative tools into an institution's normal working practices requires more than an evaluation of the features of a collaborative tool. There is a need to address both potential barriers to use of such tools, ensure that such tools relate to an institution's IT strategy and that support issues are addressed and that such systems are open and will allow data to be exported and reused by other applications and systems.

These are significant challenges which need to be addressed by any organisation which wishes to make extensive use of collaborative tools within mission-critical systems. We do not yet have answers to these questions and it may be that there are no simple answers. However we feel raising such issues will help progress the discussion concerning strategies for large-scale deployment of collaborative tools.