Motivation to use Online Learning Communities:

A methodological outline

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ABSTRACT

This paper details the importance of motivation in driving and developing an online community. Methodological approaches in this area are still in development hence this paper outlines the use of retrospective discourse analysis, and the need for stimulated recall to test the motivational factors used and experienced by both tutors and students for an online learning course at The Robert Gordon University. It outlines the use of a section of Keller's ARCS (Attention, Relevance, Confidence, Satisfaction) model in developing a coding scheme and stable background to the research, allowing relatively unbiased testing of the various hypotheses in studying e-learning. Results will ultimately be illustrated through the creation of a motivational framework to aid in the creation of future e-learning communities.

Keywords

Motivation, e-learning, community, asynchronous discussions, retrospective discourse analysis

INTRODUCTION

The growing popularity of the Internet has spawned a wave of enthusiasm for online communities and educational establishments have not been left out of this trend. Such communities can be found by entering a simple search term on any search engine and cover a vast array of subjects. To illustrate, communities for medical conditions, popular culture, working groups and learning are a tiny percentage of the types. A growing amount of literature is being published on the topic although the actual methodological approaches for studying the area are still in development, or are no longer significant.

"Most research regarding the motivational affects of computer-assisted instruction is outdated. New technologies popularized the last five years -- in particular multimedia programs and computer-mediated communication -- allow new ways of using computers in the classroom, and thus new ways of motivating students." (Warschauer, 1996)

A concern which prompted this particular research is that in order to keep track with how best to motivate students to study online, research needs to be ongoing even if just to keep pace with technological advances as highlighted by Warschauer. The need to motivate people to come to the community and of course keep participating is essential to the continued life cycle of the e-group. This research sets out to study the motivational and de-motivational aspects of learning online. Using an online case study of a Postgraduate Information and Library Studies course at The Robert Gordon University, Aberdeen, part time distance students contributions to the course discussions were monitored as part of a pilot to test proposed methodology. For the purposes of this study a section of Keller's ARCS (Attention, Relevance, Confidence, Satisfaction) model was chosen. This section concentrates on the motivational states of apathy, boredom, anxiety and flow (ABAF).

Online community

The term, online community, is very wide-ranging and can be described in many other ways; virtual community, VC, e-community,

online groups and so on. This research uses the following definition of an online community as a simple yet effective basis:

"At the most basic level, a community is a place "where everybody knows your name", it's also a place where, for better or worse, people learn things about you – your personal history, special talents, social reputation, and peculiar quirks – and incorporate that knowledge into their interactions with you." (Jo Kim, 2000)

Although a very broad definition, it perhaps highlights the fact that online communities are by their nature very general and as such, definitions need the constant redefining and examining that online life also requires. Online learning communities require a different type of effort from their inhabitants, and from the organisers, a different form of moderation and input than other communities, and possibly different sets of rules. Care is needed to ensure similar ideas and preconceptions are not transferred from face to face life, which can quickly result in people feeling isolated in the virtual setting.

Learning online

One of the emergent types of online community is that of the online collaborative classroom. The potential benefits of virtual learning from a distance have long been recognized, including the ability to learn at your own time and pace whilst maintaining full time employment or family life. Although on a more academic note the benefits are as follows:

"The most frequently-cited motivating aspects of computer-assisted instruction include (a) the novelty of working with a new medium (Fox, 1988), (b) the individualized nature of computer-assisted instruction (Relan, 1992), (c) the opportunities for learner control (Hicken, et al., 1992; Kinzie, et al., 1988; Pollock and Sullivan, 1990; Williams, 1993), and (d) the opportunities for rapid, frequent non-judgmental feedback (Armour-Thomas, et al., 1987; Waldrop, 1984; Wu, 1992)." (Warschauer, 1996)

Warschauer has summarized some of the main motivational aspects of learning online, however he by no means covers them all. It is important to note the main aspects but at the same time remain open minded to other reasons that may become apparent as students commence and continue their studies.

There is an abundance of material discussing learning online, whether it is in a co-operative online learning situation or a more collaborative learning experience which has grown naturally from a group of interested parties, as discussed by Jones, 1999. A key feature of any online learning environment, whether formal or not, is the way in which the members are allowed to express their feelings and thoughts in a textual way. This makes the following point all the more important:

"It is always important to remember that in the online environment, we present ourselves in text. Because it is a flat medium, we need to make an extra effort to humanize the environment." (Palloff and Pratt, 2001)

Efforts to 'humanize' an environment become all the more important when one considers the popular notion that learning online or from a distance is a lonely and impersonal experience. Such misconceptions are only proved as such with careful monitoring and the personal support that individuals require to aid their online studies. Palloff and Pratt's discussion of the e-learning experience is of interest as they acknowledge the difficulties in identifying different motivational states students pass through. However they also identify more quantitative signs which indicate such issues. Such quantitative evidence includes a decrease or increase in participation, domination by an individual or small group of discussions, and potentially the problems which can be encountered in starting out in such an environment, becoming motivated to start posting messages and respond to the tasks at hand. Ultimately, however they identify:

"Successful learners in the online environment need to be active, creative and engaged in the learning process." (Palloff and Pratt, 2001)

It is of significance to note here, that for the purposes of this study it is not only the students who are considered active learners in the process, but also the tutors and support team behind the course. With the delivery medium still so new to so many people it is of extreme importance to monitor the motivational aspects for those not actively studying and being taught. Although likely to be different, some of the many challenges facing those in the e-learning sector will be the same whether being taught or teaching. Through the course of data analysis it is hoped that some more of these factors will become apparent and aid in the development of future online experiences.

Keller

Keller's ARCS model has been in existence for some time now and has the advantage, for the purposes of this study, of being created for the learning setting.

"The ARCS model is a system for improving the motivational appeal of instructional materials, of instructor behavior, and of the way in which lessons (or modules) and courses are designed." (Keller, 1983)

Furthermore for the objectives of this particular piece of research the ideal of the ARCS model in desiring to create, for the audience at hand, a motivational strategy is useful in that:

"The process also supports the creation of motivational objectives and measures based on an analysis of the motivational characteristics of the learners, provides guidance for creating and selecting motivational tactics, and follows a process that integrates well with instructional design and development." (Keller, 1998)

The ARCS model creates an ambitious starting point and to tailor it more to the needs of this study, the decision to use a smaller section concentrating on apathy, boredom, anxiety and flow was made. By using the smaller section closer links to motivation as a state can be seen, and it is hoped to create a tighter argument for building motivation into a virtual course by explaining the need to cater for such states. The ARCS model has not been re-worked to any extent recently, however this is not to say that it cannot be turned to the analysis of the online environment or that use in this way cannot feed into future developments of the model.

motivating factors

For the distance students who were used as a pilot, request was made that they introduce themselves in the opening and administrative module, and as part of these introductions some of their motivating factors in following an online course became apparent:

> "I work in a Library (pretty much as the only full-time employee – but I need a master's degree to keep the job if I want it)."
>
> "….I realized that my career prospects were limited."
>
> "Delighted also to be able to do this course via the internet rather than having to commute – especially commuting to Aberdeen, which would be a bit of a trip!"
>
> "The thought of doing a distance course over the Internet has really caught my imagination…and it permits me to study from my island home!"
>
> "….and I'm doing this course to climb higher up the career ladder."

(Taken from the PgDip/MSc Information and Library Studies course, 2001/02. Transcripts not published)

The motivational factors summarized above are mainly those concerning career prospects or possible curiosity with a new style of learning. Are these motivational factors enough to maintain an individual's attention and commitment throughout a course or other specified time period? Progress to date suggests that these motivational reasons are unlikely to sustain a commitment to a course throughout the period, and that other motivational influences shall need to come into play at some point and from another authority. It ought to be noted that the career progression option is in addition to those identified by Warschauer above.

One omission from the statements above is the anxiety mentioned in the introductory messages posted by new students. A large percentage of messages mentioned the 'daunting' and 'intimidating' aspects of the course and its delivery, demonstrating an 'apprehensive' attitude towards commencing work. Tutors were quick to respond to such tentative first comments and it was pleasing to note their caring and sympathetic attitudes:

"Please, none of you, feel overwhelmed by the material or the assignments. We are here every step of the way to take you through it. I know it appears daunting at first but please don't worry!" (Tutor, 2001)

The importance of this language to motivating factors becomes clear when viewing tutor reactions. Students have mentioned their anxieties and as such these are areas that could be very de-motivating if not handled with due care and attention. It is also interesting to note group dynamics operating at such an early stage with students finding empathy amongst each other, and others effectively rallying around to reassure. The language adopted at such an early stage is repetitive illustrating a similarity in individuals chosen words to expand their own thoughts. Another trend demonstrated by students is the so called lurking and waiting to see how and when others publish their views.

The methodology

Retrospective discourse analysis was selected as a relatively unbiased approach to the research. However it is acknowledged that, by the very nature of the study, making assumptions from the start about which terms could signify any motivational state is subjective and therefore open to bias. Certain restrictions were thus put in place and outlined later in this paper. The retrospective nature allows the course and its participants to continue without fear of outside influence and external scrutinization of every word as it appears on the screen, unless as in this case permission has been sought and secured.

The use of stimulated recall (Tolmie, 2001) in allowing authors of the discussions analysed to feed back on assumptions made early in the research is seen as critical.

The need for discourse analysis

With the online setting, discourse provides the doorway into analyzing the life and learning situation. The absence of usual identifying signs in interactions, for example facial expressions or changes in tones create a few problems in analyzing group and individual interactions. Hence the need for discourse analysis:

"Discourse analysis encompasses the respective spectrum of what can be said in its qualitative range and its accumulation and for all utterances which in a certain society at a certain time are said or can be said" (Wodak and Meyer, 2001)

Wodak and Meyer pick up on a useful point to remember here, that any discourse covers a huge range of qualitative data and signify the voice of a community or society at any given time. By linking together and cross examining ‘utterances’ from various strands it is likely that the community voice will be located.

Warschauer (1995) also discusses some of the problems with analysing Internet discourse, acknowledging:

"the type of language one would find from glancing through a few MUDs or MOOs would be quite different than language found through surfing the World Wide Web." (Warschauer, 1995)

Warschauer proceeds to make the distinction between Internet discourse and discourse through other mediums. He discusses the intended tones of public and private messages highlighting the preconceptions people have in creating such discourse and their efforts to tailor comments to the intended audience. Others working in the area including Gunawardena et al have also carried out valuable work and acknowledge:

"We tend to under-emphasize the fact that two kinds of knowledge creation take place in any shared learning experience, the "individual" and the "social". Knowledge is created at the social – … – and the individual also creates his or her own understanding by interacting with the group’s shared construction." (Gunawardena et al, 1997.)

This is particularly important in the online learning setting when one considers the individual and collaborative group learning experiences that each person undertakes, whether tutor or student.

Coding Scheme

The coding scheme prepared, and under review, concentrated on the section of the ARCS model mentioned above. Highlighting the ABAF cycle and initially defining those terms clarified the problem to hand and established a firm base for the research. Definition of the terms was achieved through initial browsing of the textual transcripts and noting the commonalities in language used. Each message within the discussion forums was marked according to which motivational state it best suited and calculations performed using paper based notes and a word processing package.

Further clarification was sought through establishing a list of keywords and phrases linked to these definitions thus enabling the commencement of analyzing actual course discussions.

Initial coding

Initial coding, using the above scheme, encountered a few problems mainly the crossing over of key themes, it was quickly discovered that with the ABAF cycle many of the statements made by individuals could be cross-classified. This ensured that a large volume of analysis was quickly amassed. By linking such themes eventually back to the base of the ARCS model also, it ensures the analysis comes full circle and the significance of various comments ought not to be lost. The solution to these problems centered on this ability to cross-code and consistently check on progress whilst being ever aware of some of the more qualitative issues.

By way of short illustration, some of the keywords and phrases associated with each of the sections are as follows:

Apathy:

Lethargic and indifferent approach

Signs of tutor losing authority and lack of interest in proceedings

> *"I didn't think to come back ..... to check any feedback from you." (tutor, 2001)*
>
> *"Hope this is sufficient although I reckon I could have found out a bit more given more time." (student, 2001)*

Boredom:

Periods of lengthy unexplained absence

Tone of messages becoming flat and uninterested:

"I am now spending an amazing amount of time getting very little" (student, 2001)

Anxiety:

Apprehensive comments about content and context

Expressed misgivings over suitability to course

> *"Panic!" (student, 2001)*
>
> *"I don't want to sound swotty" (student, 2001)*

Flow:

Length of answers

Confident and supportive statements

> *"sorry to keep posting but I keep seeing things I've forgotten to put in." (student, 2001)*
>
> *Tutors picking up on responses relevant to queries – "highly relevant" (tutor, 2001)*

This system of coding is to be fully evaluated upon completion of the pilot study and will incorporate language from further case studies.

Further to checking for instances of the above motivational states, the research was seeking examples of attempts to motivate either from tutors or peers. One extreme example is as follows:

"I won't be posting the answers until we have had more contributions on the threads" (Tutor, 2001)

Opportunities for phone and e-mail tutorials are made frequently by tutoring staff, with an assortment of students accepting the offer. Benefits of such tutorials are not available to be noted as yet. However, if assumptions were to be made then, it would be likely the benefits would include a building of trust in the student-tutor relationship and an acceleration of the learning curves.

Further studies

It is intended to ultimately gain a check on the coding scheme by other individuals testing the outline and reporting any difficulties they encounter. If others can follow the code then it is likely that the subjective bias is reduced and clarified.

Further checks are yet to be implemented to this research including the cross testing of the coding scheme by those working in a similar field. Calculations shall also be performed to gain more quantitative data through the use of a qualitative software package as NUDIST or NVIVO. The relationships between messages ought to be more closely monitored and explained through such analysis. Patterns of activity will also be more easily monitored and the point at which participants locate their online voice and the confidence to express their feelings and challenge the views of others in the online setting can be pinpointed.

Online learning experience

In the earlier section online learning was generally discussed however it was found in the case study that students openly discussed their opinions of their personal e-learning experiences. A sample is as follows:

> "…a great many of the web links have not been accessed by the tutors for a considerable length of time and often they are either no longer there or very difficult to connect to for one reason or another. …..it would be a good idea for the tutors to access all the sites to ensure they are firstly still accessible and also relevant."
>
> "It would be ideal from my point of view if all forms and validation could be done on the internet, but this may not be practical yet."
>
> "Other than that though, the whole idea (and practise) is great. Couldn't have done this as a day release. Really pleased so far."

(Taken from the PgDip/MSc Information and Library Studies course, 2001/02. Transcripts not published)

Of interest here is the omission of some of the expected and much discussed factors of learning online seen above through discussions by Palloff and Pratt (2000), Jo Kim (2000) and their comments focus on more technical and aesthetical aspects of the e-learning environment. Warren (2000) however does acknowledge the significant role technology can play in motivating students:

"One of the easiest ways to demotivate students is to place technical obstacles between them and the learning experience." (Warren, 2000)

Frustration at out of date or missing material are particularly pertinent and a point that can frequently be omitted from studies of e-learning. Considering the speed of advances and upload of new material to the internet, it can prove difficult for tutors to maintain relevant and accurate lists of links when the existence of such links is usually out with their control.

As an option for outlay of frustration or enthusiasm away from staff eyes an extra discussion forum was created by the student class representative. Such a forum was purportedly a success in previous cohorts hence the option was re-created.

Points to be noted

Additional points to be noted included the growth of the community over time and patterns of individual and group interaction. The one remaining significant problem to be countered was that concerning the gaps in knowledge encountered by the researcher. Private correspondence between students and tutors, as well as between peers meant that there was an increased likelihood of community spirited activities occurring that were effectively hidden from others as illustrated through work by Jones 1998.

"The online text is often a public display: the transcribed record is not so much what happened as what is fit for others to see." (Jones, 1998)

This is an area, however, that may be countered through the use of the evaluation in stimulated recall where it is hoped that those interviewed will either explain inconsistencies in findings or clarify situations by explaining the extra communication hidden.

Group interactions and the way they evolve over time are of significant interest as the dynamics and relationships evolving online can explain a number of other agendas, possibly hidden to those passing through:

"People are the pulse of any community. Without them, there is not community. Vibrant discussion, new ideas and continually changing content distinguish online communities from Web pages. Personalities come and go; some are not missed, while others leave large dents in the community's character." (Preece, 2000)

conclusion

Conclusions from this paper are tentative pending the full completion of the pilot and confirmation from the subsequent evaluation of its findings. Findings to date can however contend the following:

Motivation is key in driving and developing an online community and in the case of e-learning in creating a collaborative learning environment.

Initial student feelings and actions encountered in the pilot study reinforce findings from similar research, see for example work by Warschauer, Palloff and Pratt.

Methodological approaches are still in development with discourse analysis essential in highlighting the alternative indications of human interactions and group dynamics that are otherwise unclear.

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