

MATTHEW SIMPSON, JAY BURMEISTER & MICHAEL DOCHERTY

[matts, jay, mjdoc]@itee.uq.edu.au

Information Environments Program

School of Information Technology & Electrical Engineering

University of Queensland

E-NEWS - COMMUNITY INTERACTION THROUGH JOURNALISM.

INTRODUCTION

Online development in the area of media and communication has taken many forms in the last decade. Information technology (IT) has enabled many areas, which were traditionally physically orientated, to emerge and explore a new dimension of interaction. This chapter looks at the impact of community informatics on regional communities through exploration of collaborative issues in an educational context.

The nature of interaction between IT and journalism is examined in the context of the issues that arose during the E-News project, and its implication for regional media and communication. This interaction occurred through collaboration between IT students at the University of Queensland's Ipswich campus and journalism students at the Central Queensland University's Rockhampton campus. The nature of the project enabled a real-life scenario and situation to be explored, developed and implemented for the purposes of online journalism.

The E-News project provided an opportunity to examine how the introduction of new technology into regional media and communication brings into question the traditional roles of the journalist, editor, graphic designer and audience in the production and 'consumption' of written material. The aims of the project were two fold. Firstly, to develop an online environment to aid reliable information delivery for regional community-based journalism. By enabling collaboration across the tyranny of distance while maintaining ease of use and functionality, it is possible for

participants with non-technical levels of computer literacy to interact. Secondly, to provide an opportunity for education to assist in addressing multi-disciplinary issues and development of online collaboration, between all parties involved and the end consumers of the service: the community. Through the analysis of a digital news perspective, the application of educational framework can reveal valuable lessons for community informatics.

It is important at this point to establish meaning behind the following use of the word 'journalist'. The changing role of the journalist through the influence of technological change has been a rapid one. The definition of journalism has not changed, but merely evolved. Journalism still involves the collation and production of news and new articles for public consumption. What has changed is the process and the people able to conduct this preparation and publishing. Through the ability to post stories remotely or work online, community members can share concerns, provide opinions and information, aided by technology. This is what is considered grass-roots journalism. In this chapter, the use of the word 'journalist' implies in a non-professional, 'grass-roots' approach, describing an individual wishing to publish community information on a topic or event. This enables the discussion regarding community involvement in topics of interest to consider professionals in the same sense as those who have a view on the topic in question. Through this style of language, the broader issues of community informatics in regional areas can be discussed, addressing all participants on equal terms.

The background begins by outlining the nature of the project and detailing the participants. The project aims are explored and the mechanism by which the project was conducted is reviewed. Studio pedagogy and its role in providing a structural framework for project development is

explored while viewing the impact of technology through its application in this process. The scope moves to exploring a series of broader issues, which arose during the progression of the project. These provide clear insight into the nature of the E-News system and begin to explore the interaction occurring between users. This lays the framework for discussion regarding the potential of E-News for community informatics.

BACKGROUND – THE E-NEWS PROJECT

The aim of the E-News project was to develop a website for the creation and modification of online news stories. The site was required to be highly usable and easily updateable. The nature of the project was collaborative, involving students from Information Environments (IE) at the Ipswich campus of the University of Queensland (UQ) and E-Journalism students at the Rockhampton campus of the Central Queensland University (CQU) which was conducted in the second half of the year 2000. The IE students were required to function as a team of web designers in order to develop a fully functioning database-driven website for an external client (shown in Figure 1). The E-Journalism students acted as the client for this purpose, providing the requirements and the content for the site.



Figure 1: An example of a completed E-News database website.

Communication between the web designers and the clients occurred through many forms of technology. Initial communication between the two parties occurred through the medium of video conferencing, followed by email.

Another aspect of the project was to explore the impact that interactive technology can have on the presentation of information that has traditionally been displayed in printed form. Throughout the course of the project, the nature of work practice in the creation, modification and utilisation of the system was observed through ethnographical approaches to gauge the comparative success of techniques applied by different groups. This was to be achieved through the re-representation of a real-life design environment in a Studio-teaching model. By teaching in such a manner, students are able to engage the client and gain experience in the nature of the design world. The nature of this pedagogy is effective not only in aiding the instruction and learning of students, but also in creating a realistic environment for the testing of new methods and approaches in industry.

Pedagogy

The pedagogy underlying the Studio approach has its theoretical origins in social constructivism and is influenced by the work of Lebow (1993), Jonassen, Mayes and McAleese (1993) and Jonassen and Reeves (1996). The Studio approach places the learner at the core of the teaching and learning experience, and, like Simon (1960), emphasises the importance of learner activity and interaction as viable mechanisms to support learning. According to the Studio approach, ‘what the student does is actually more important in determining what is learned than what the teacher does’ (Shuell, 1986). In a break from the transmissive mode of delivery, characteristic of many lecturing situations and increasingly evident in the design of many content-driven online courses (Brown, 1997), the Studio approach creates both a learning environment in which students are actively engaged in the learning process, and a more fluid and responsive learning environment.

The project-based approach of the Studio provides an environment for learners to:

- Plan and develop their own learning projects,
- Apply the skills and knowledge learned in concurrent subjects to the specific real-life scenarios provided by the projects,
- Work collaboratively with other learners to develop knowledge and understanding,
- Work with mentors and coaches,
- Work as mentors and coaches.

Studio projects provide realistic and relevant contexts, which encourage ownership and a voice in the learning process. They also provide opportunity for authentic assessment by assessing not the number of facts or concepts that are memorised and reproduced under examination conditions, but the learner's ability to use and apply the knowledge acquired in the learning process in the types of settings and situations where it is ultimately destined to be used. Transfer and application are also important outcomes of learning in the Studio-teaching approach.

The Role of Technology in the Pedagogy

Technology is used in the Studio, not to deliver content, but to move the classroom focus from the teacher to the learner, and to create a more active and engaging climate for the learners.

Oliver (1998) argues that such a shift will encourage learners to develop their understanding and their capacity to think and act critically. Students are encouraged to use hardware and software to create new Information Environments, and the World Wide Web is used to support communicative, collaborative and cooperative activities among students and teachers.

The Studio aims to foster creativity, reflection, articulation and reasoning, all of which are important lifelong learning skills and valuable graduate attributes and the purposeful use of technology and of group work is central to these aims. This approach to Studio-teaching and real-life projects can be applied so that both the students and the client benefit from a rich, industry-orientated format. The nature of these outcomes is explained in the following section.

Final Product

In accordance with the nature of the Studio pedagogy, the IE students were briefed about the nature of the project, technical attributes and the context of the material to be displayed. Over the eight-week duration of the project, the clients informed the development of a design brief for the project, creation of initial concept designs and the selection of several preferred designs, which were short-listed through an online presentation. From this point the IE students formed into web design production teams. The structure of these teams were similar to professional web design production teams, consisting of graphic designers, project managers, interface designers, programmers, and other relevant members of the team, (DiNucci, Giudice & Stiles, 1998).

Communication with the clients utilised a technological approach, with initial communication between the two parties occurring through video conferencing. This enabled initial introductions between students at the separate campuses, formation of conceptual ideas and project understanding between both parties. This level of discussion and the establishment of understanding was comparable to that achieved through a physical meeting. By ‘breaking the ice’ through video feed, a familiarity between the clients and designers began to develop and continued through other less ‘physically constraining’ forms of communication. From this point, most communication and discussion occurred through email and bulletin board discussion.

During the group development process the client reviewed the designs online via websites. The clients provided feedback to the individual website production teams through the medium of email.

As an outcome of evaluation by the clients, prevalent issues about electronic new systems were revealed. Through these issues the further potential of a specific E-News response can be gained.

Application of the Product: One advantage that an online newspaper provides over traditional printed newspapers is the capacity to archive old news articles. The potential exists for further changes to traditional approaches by forward chronological linking through post-hoc modification. In a traditional newspaper, cross referencing between stories occurs but unless the reader has access to the existing story (i.e. having bought that newspaper previously) the link is only of minimal benefit. Through digital linking, the previous story can be read and the context further understood by the reader. This of course can occur as forward chronological links as well, that is, to a relevant article written after the one being currently read. This requires post-hoc editing, an issue that is addressed in further detail later in this chapter.

Multiple Layering: Multiple layering of digital information is a further advantage of E-News systems. Traditional news is subtly framed by story construction conventions deployed by mainstream journalists (Fuller, 1997). International newsagency style, which was developed to send stories by telegraph, can be identified in newspapers, radio and television broadcasts across the world. This style usually demands a lead sentence, which summarises the key points followed by a second sentence, which provides context and a third, which consists of a direct quote (Cappon, 1982). Television reporting adds another dimension by layering on the perceived need for colourful moving pictures.

Newsagency style explicitly shapes story construction while implicitly ordering and informing content selection. This process is recognised by public relations practitioners who create events, which serve these stylistic demands and are therefore advantaged in the news making process.

(e.g. News releases are usually constructed in news style, so that they can be more easily integrated into material offered as news by journalists. According to Knight & Nakano (1998), events can be staged to satisfy news values linked to news style).

The Internet allows stories to be multi-layered. An Internet delivered story can include hyperlinks to other sites providing background information. It can carry colour photographs, audio grabs and short QuickTime movies. Since all of these additional layers can be created, edited and lodged on the web from a laptop in the field, gatekeepers who might misinterpret or even seek to censor the material can be excluded from the process (Stevens, 2002). This enables a trade-off in the level of physical discontinuity through increased digital continuity to not only achieve actions and events, but also to inform on current actions or situations from remote locations.

Another issue resulting from an electronic news system is the ownership of an article. In an IT sense this comes down to those who posted the article. A further ownership issue is who should be able to edit the articles – the contributor only, or other associated parties. This ties back to the issue of overall site management with an editor or contributors as editors. The effects of digital delivery results in not only challenging the roles of journalism, but also its relationship to the larger community.

These general issues begin to expose the potential of E-News for collaboration, discussion and awareness in regional areas. The specific approach taken by this project builds upon these initial issues of usability and informance, expanding them to achieve greater community awareness.

COMMUNITY JOURNALISM IN ACTION

The constructed websites went live at the end of the eight weeks. The end result was an online design presentation to the clients, involving the clients conducting user testing on the sites. For user testing purposes, the journalism students utilised the site as one would work with a real site. The journalists split into groups and uploaded an assortment of news stories over the course of the following weeks, including images, video footage and sound files.

This level of usability analysis enabled further understanding of potential applications for the E-News website to be explored. With the medium maintaining a level of prototyping, inherent in its nature, it was possible to experiment with the constraints of the Internet, in terms of social control, collaboration and technical approaches. This experimentation began to reveal the potential of the E-News system to act as a tool for improving community informatics. The final site structures contributed greatly to the potential as a collaborative community tool.

The final sites consisted of two major sections: the public website displayed the articles, and the administration section enabled the upload of articles and associated files by journalists. The administration section required a login to access (see Figure 2).

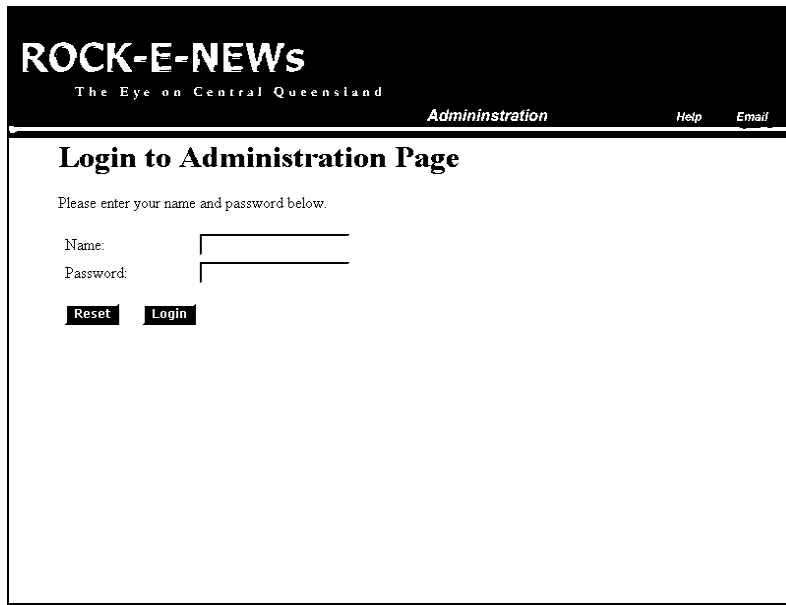


Figure 2: Administration login page.

The nature of the administration section enables the journalists to be able to upload, edit and delete their stories with relative ease, through an easily used web based system (as shown in Figure 3). Journalists only need to enter a title, summary and cut-and-paste the story into the text field. Adding the local file name and location on the computer through a series of simple online operations can upload all associated files. In some sites the ability to choose the location of the image was also provided, i.e. next to the header in the body of the article or at the end, depending on the context of the image.

ROCK-E-NEWS
The Eye on Central Queensland

Administration Help Email

Add News Article Page

Title:

Author:

Date: 28 September 2000

Category: Main News

Text:

Media File:

Summary:

Figure 3: Adding news articles

When a story is uploaded, journalists can view the layout of the article with the ability to remove it, e.g. the layout is unsuitable for public viewing. This enables the journalists to have editorial control over their own work. To assist the journalist with usability of the sites, an extensive help section was created to guide less experienced users through the process of uploading stories.

Online collaborative communities are not a new concept. Sites focused upon particular issues such as Rugby Online (www.rugbyonline.com.au) have been focusing and drawing together like-minded people interested in particular topics. There are also many sites dedicated to allowing individuals to start their own groups for discussion, such as the website, Yahoo groups (groups.yahoo.com) where people moderate and manage their own lists. The connection of individuals who reside in similar circumstances is not quite as common. This style of site connects those people of a physically distinct location to communicate about a range of issues that affect them as members of that region or community. The nature of online newspapers such

as the Sydney Morning Herald (www.smh.com.au) do provide this level of regional information but not the ability for all readers to act as a content provider.

A recent initiative by a local government in Victoria has begun to see online regional community collaboration increase. Moreland Community Council trialed an E-Discussion forum and electronic newsletter for local residents. This worked through a mailing list system, started in August 2002, to share information rather than a website viewable to all the community (www.moreland.vic.gov.au/news/mr190802.htm). The E-News system has the ability to provide not only a supplementary online new service but also a synchronous collaborative medium for regional communities.

Advantages and Potential

The E-News system has a number of advantages. The nature of the digital format not only allows for increased flexibility, but also for greater media utilisation through accessible media. The major attributes, which make the system beneficial, as both a journalistic tool and a collaborative community medium, are described below.

Information Technology

The key underlying aim of producing this system was to enable users who only have basic computer skills and understanding to be able to use the website with competence, by providing usable layout, well structured pages, simple upload mechanisms and clear instructions. With current trends in computer usage in society, the basic skill set is increasing. A user who can run a computer and browse the web has all the skills required to utilise this web-based system.

Linked to minimal computer literacy is the need for basic computer equipment inside the community. This is not to say that every individual is required to have a computer, rather that some of the key players (community figures, such as head of schools, mayors, community leaders and so on) have access, with others in the community being able to access the Internet. Whether this occurs through public or private resources is not relevant, as long as the community can be involved in E-News with limited effort. It is in this sense that the community can and is involved, which ultimately drives the usability of the system.

Synchronous news delivery is made possible by such a system, by enabling users to contribute online and in real-time. A synergy is formed through this level of collaboration with the IT facilitating the community interaction. Future directions for this E-News system are considered later in this chapter in terms of community interaction and involvement while considering the technical attributes and constraints.

The system employs a considerable level of flexibility enabling such attributes as multiple file types and cut-and-paste, reducing the need for a content editor through real-time synchronicity. Further explanation of the role of editors continues in the discussion related to community. There are two types of system management that can occur: moderated and un-moderated. Essentially the role of the editor comes into question depending on which of these options are chosen.

The system described above may be seen to blur the lines between bulletin boards¹ and online newspapers. The expiry date of news articles is short in the traditional sense. Old papers can be discarded over time, after the static material becomes obsolete.

The analogue to letters-to-the-editor may be implemented as a bulletin board. Essentially, readers may post comments related to articles that in turn may be replied to by other readers. Such an interactive discussion is called a 'thread'². Through adding aspects of bulletin boards and online newspapers, a richer environment can be created by merging the two systems. This encourages the news service to not just disseminate news but to also encourage community involvement.

Community

E-News may be considered to contribute to bringing journalism to the community. Through developing an online environment to aid the delivery of journalism, it may be considered to contribute to bringing community to journalism. The system described has added to existing mechanisms of traditional journalism, and in so doing, has expanded the scope of journalism to encompass not only those knowledgeable in writing, but also the relevant, informative members of the community. This has enabled the role of the E-News service to adapt the potential nature of interaction between community members.

Such community involvement challenges the traditional roles of journalist and editor. It is possible to select community members that have trusted status to publish. In such an arrangement, community members would have the ability to write their own articles on local situations, events or even comments. Essentially what this enables is a set of 'grass roots'

journalists bringing the media back to the community level. This is aimed as an extension of public journalism, which works on not just topically displaying the information but also engaging through readers opinions and values. 'The public journalists newspaper is doing what the conscientious citizen would do given the time and resources to do it.' (Rosen & Merritt, 1994) It opens an opportunity to engage in the user's stories through community discourse, which enforces a reader's sense of involvement and worthiness to state an opinion. This adaptation of the mechanism to community interaction provides a potential catalyst for regional areas to regain a holistic feeling of belonging.

Interactivity: Traditional journalism has a distinct hierarchy of structure in its nature, with editorial control being sought across all stories. The traditional role of the journalist is challenged by empowering untrained community members to make contributions. The traditional role of the editor is challenged in as much as the editorial role can be devolved to the individual contributors. This results in the contributors being part of a trusted community who publish to the site. It is worth noting that this approach varies with the ability of all viewers to post discussion and editorial comment adding to stories rather than the posting of articles to which we are referring. Figure 5 reveals this point clearly, showing the overlap in the roles of community, writers and key community members.

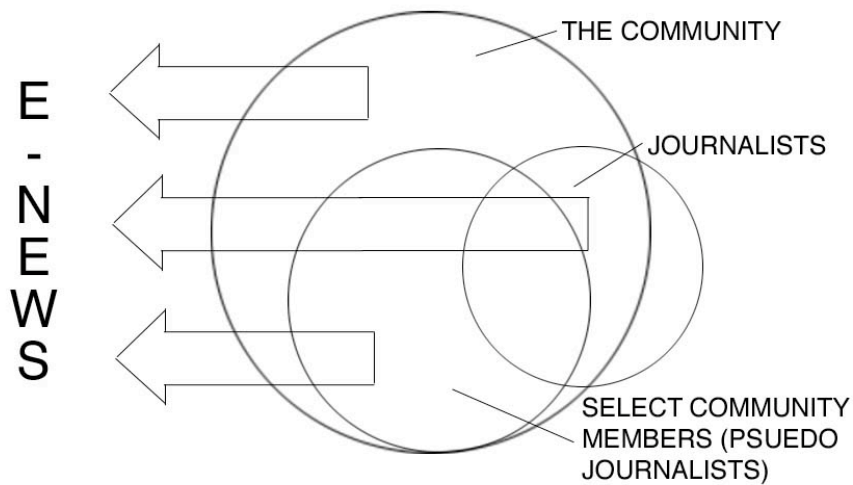


Figure 5: The nature of connections with E-News.

It is possible for a system to be structured in such a way that the approach of traditional journalism is encompassed. From a journalism approach, this requires the editor to moderate stories and from an IT approach, a web master to manage the structure of the site. These roles can be encapsulated in one, essentially combining the editor and the typesetter (i.e. webmaster). For a community this results in the hierarchy of information providers being diminished, allowing open discussion to occur, and encouraging greater community awareness.

Real-time synchronicity: Real-time synchronicity enables the contributors to engage at several levels. This occurs directly, by encouraging interaction through discussion on community issues, but also indirectly by fostering community awareness. This occurs by enabling users to interact (chat) in real-time, encouraging an approach that through its nature, is community orientated. In such a site, with contributor moderation, a greater sense of local ownership can occur, thus enhancing the community as a whole to interact and participate in the 'local' online newspaper.

Ownership: The issues of ownership essentially arise from adding and editing articles post-hoc completion. From an IT perspective, the implications of ownership are almost non-existent. The IT can be structured to enable any ownership situation that is desired. The issue resides with the sense of ownership from a communal viewpoint. If communal control is assumed, as discussed in areas above, it is found that post-hoc altering encourages:

- Forward chronological editing to articles.
- Additional information can be added a story enriching the reader's experience.
- Information can be updated if it is incorrectly posted.

Essentially, this approach adds to the communal body of knowledge.

So if this approach can be so beneficial to community journalism, what can work against its implementation? In this case who owns the article? While this can be a highly beneficial approach which enforces the *laissez-faire* approach, if multiple writers are editing an article, who claims the ownership? Can all contributors claim ownership? The potential to free journalism from the traditional constraints which restrain, is possible through online collaboration, but the issue still arises as to whether this is where the community wants the merge between synchronous discussion and journalism to go.

However, community based e-Journalism should be seen as a compliment rather than a substitute for traditional journalism offered online. Sites such as www.smh.com.au or Washingtonpost.com continue to attract significant hits in part because they offer badged information, which is presented in recognisable and therefore more easily assessable packages. These packages are

framed by the publishers' familiar political cultural and social assumptions (news values) and contain stories created within journalistic conventions including notions of accuracy, fairness and writing styles. In light of this complimentary approach the creators of local newspapers, which in the case of smaller circulations are run by those who have an interest rather than just those who are professionally trained, can benefit. Enabling a resource whereby the sharing of news, views and information is continuous, rather than on a weekly or fortnightly basis enables the community awareness supports the aims of the local newspaper industry in an online format.

While such journalism stories can be seen as subjectively selected and assembled arguments, there is a qualitative difference between journalism, which should contain identifiable reference points (quotes and undoctored photos) and unsubstantiated rumour or intentional misinformation. It follows that consumers might more easily judge a *Washington Post* report of President Bush's latest news conference than a Matt Drudge (Drudge, 1998) essay based on anonymous tip-offs from the web.

While all Internet community members should be considered equal, the information they produce should and could not be considered equally informed. One only has to tune to a chat group such as Yahoo's Washington Politics Arena, to see ignorance, arrogance, national chauvinism and unbridled racism paraded as the free exchange of ideas. In this sense, journalism's hierarchical gate-keepers (editors) can be seen to be responsibly serving communities by excluding vilification, defamation and intentional rumour mongering.

Freedom of speech demands responsible contributors as well as a discerning public, if it is to underpin democratic decision-making³. The Internet provides that public with greater choices but it does not necessarily validate the information it makes available.

The legality surrounding the publication of electronic material is an evolving area of law. As a rule of thumb, the common legislation of publishing printed material tends to apply in the virtual realm as well. This encompasses such issues such as defamation of character, slander, misrepresentation, privacy, and intellectual property. While this is not an area of expertise for the authors of this chapter, there are still several general issues that require addressing. From a legal stand point, all users would be required to register before they can upload information to the website. There are a variety of mechanisms that can help ensure that the details entered by an individual are accurate. This essentially makes each user accountable for the material they upload, and also associating a user's name with an entry results in an informal community moderation process. From an IT perspective, the website administrator (responsible for technical issues) could potentially double as a secondary moderator. It is also possible with the use of smart coding, to have the system scan all articles upon upload. The kind of technology is used on forum (chat) sites to either remove or replace offensive language with emoticons (icons, to imply the desired expression) Ultimately, by making users responsible for their own content and producing automatic safeguards on derogatory language, constructive community discussion can occur online.

The potential of E-News as a tool for collaborative interaction is apparent. Through the ability of any community member to deliver information in a near synchronous format, to a wider

audience, it encourages a level of interactivity and a sense of belonging not limited by physical constraints. With a system, which enables grass-roots journalists to express views on events, E-News works as a stimulant, in community informatics for encouraging proactive nature for the community good.

FUTURE TRENDS

The full potential of the E-News system has not been realised in its entirety. The resulting system clearly shows an approach from an IT specific point of view while concurrently being applicable to issues of remote collaboration inside a community. From an IT approach, E-News is flexible, interactive and adaptable, building upon the secure base of the traditional newspaper. From the community viewpoint, E-News can potentially be of value through bringing journalism to the community and increasing communal awareness.

The future of this approach lies in the ability to not only draw the community together, but for the system to be utilised as a vehicle for providing community standpoints to an external audience. The result is a potentially well-formed discussion catalyst and entity to encourage community cohesion.

Information Technology

From an IT viewpoint the E-News approach has very few constraints. The real benefit of E-News lies in the flexibility of the system, enabling information upon demand by the readers combined

with delivery on demand by the contributors. The two main areas in which the IT can be further explored are threads and moderation.

Utilising threads can be taken one step further. Stories can be linked to other articles that contain relevant information, expanding the body of supporting knowledge that both a contributor can rely upon, and a reader can obtain. Viewing these ‘threads’ and previous discussions provides a further understanding and context of awareness of other articles posted.

By moving to more editorial control, the ability to enable threads between discussion and linking to related articles can be achieved. Through maintenance of editorial control, contributors need only have an average computer skill set - in particular the need for skills in linking articles or discussion through hypertext. This inverse relationship between level of moderation and skill level required can be shown in Figure 4.

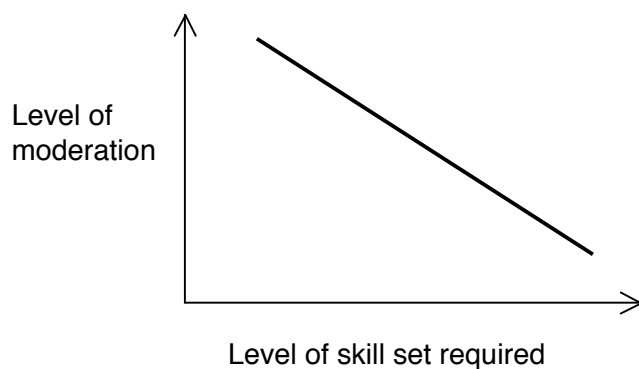


Figure 4: The trade-off of skills to centralised editorial control.

Through the expansion of technological aspects, the usability of E News is in turn increased.

With the up take of Internet technology and access to increasing peoples, the nature of web based systems such as this, results in the technology being available to the community as a whole. E-

News enables the level of expansion to cover the technological needs of virtual community interaction.

Community

From a community viewpoint, the potential of the E-News approach needs to be dynamic and informative. The future trends need to incorporate the formation of virtual communities to support the physically distinct locations, while enabling these groups to interact both as groups and as individuals with the greater virtual world.

The current E-News approach incorporates substantial community involvement through grass-roots journalism and a feeling of belonging as mentioned above. It's a catalyst for extending community interactivity and awareness as an entity, the future potential for E-News approach are numerous. Some of the more easily achievable extensions are outlined below:

Forum: Relatively synchronous, two way interactivity. Enables more direct discussion beyond the scope of merely posting comments to articles, thus encouraging continuous communication.

Interactive Newsletter: The newsletter focuses on a lower level of involvement, through one way asynchronous interactivity, thereby encouraging those who are interested and want to be aware and also enabling passive consumers.

Empowerment: In response to the points above, people can choose their level of involvement. The relatively low threshold, both journalistically and technically, empowers people to become involved at whichever level they desire.

Community Journalists: Community journalists push information into the system, while allowing news consumers to discriminate what they pull or draw from the E-News site. Future trends are towards an increasing percentage of the community having computer access, which enables an increase in push technology. The involvement community journalists is shown in the diagram below (Figure 5)

Intra vs inter community interaction – synergy:

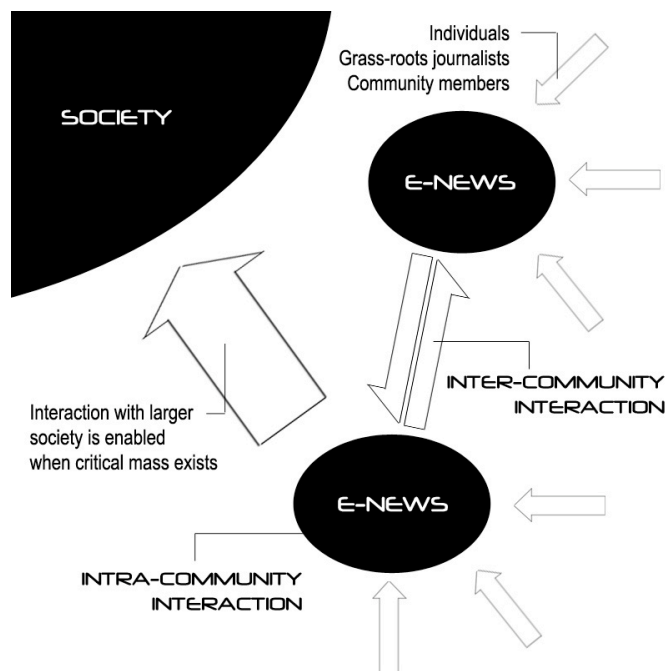


Figure 5: The levels of community interaction surrounding E-News.

The various levels of synergy are shown through Figure 5 above. As mentioned previously the involvement of community journalists is revealed showing the E-News system as a catalyst for intra-community interaction. At a larger level the ability for communities to interact with each other as a whole is enabled, whereby a community's standpoint can be addressed on a coordinated local public approach. The holistic communal standpoint of the virtual communities acts to enable substantial interaction, through a critical mass, with society.

Through these levels of interaction, an individual physically distinct community member can be engaged in discussion of a societal level. This empowerment increases the value of community discourse at a intra, inter and societal level, as mediated through an E-News approach.

CONCLUSIONS

The limiting factor of the E-News system is the bounds of community value and traditional restraint, rather than the IT issues. Through challenging traditional roles of journalism, the potential for community to bridge the digital divide, social context and interaction not only reinforces the intra-communal, but also the inter-communal across the physical divide. In this manner, regional community-based journalism may be reconceptualised.

Another way of overcoming the digital divide is utilising students to pilot the testing of such systems rather than utilising the scarce resources in the professional arena. This is of benefit due to the nature of studio pedagogy incorporating real-life projects and approaches. This proof of concept testing enables journalists and communities alike to implement this without prejudicing future success through adverse experience.

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¹ A system that enables users to send or read electronic messages, files, and other data that is of general interest and addressed to no particular person.

² A thread is a set of posts on a newsgroup, composed of an initial post about a topic and all responses to it.

³ First Amendment, US Bill of Rights.