

CULTURE & MOTIVATION: ESTABLISHING AN INTERNATIONAL STORYTELLING FORUM

ABSTRACT

Storytelling is the basis for learning and memory. An international community of learners has been formed to pilot a new online storytelling forum. This forum has been established on the principle that learning is most successful within the context of a thriving social community of practice and interest. This paper argues the case for storytelling as a vehicle for education and reports on the review that has taken place of the material produced by the students during the initial establishment phase of the forum and the evidence for spontaneous social interaction taking place amongst the students. In the light of the evidence for social interaction, the subsequent developments planned for the forum are outlined.

KEYWORDS

Storytelling, social interaction, collaborative learning, hypermedia

1. INTRODUCTION

Humans are social creatures (Read and Miller 1995). Gossiping and story telling is the means by which social interactions affect the balance of communities and societies (Emler 2001). Social interaction implies interaction with people within society. We learn from others and we share with others what we have learnt. We interact with others in various ways that influence our status and roles in social communities. Humans have more complex patterns of social interactions than any other species.

Read and Miller's work builds on that of Schank (1990) who explored many aspects of story telling, considering it central to not only social interactions, but also as the essential organising mechanism of knowledge in memory. One aspect of this work is the idea that conversations often follow context specific "scripts", with associated "goals" and "plans", demonstrating and leading to "understanding". Whilst some of Schank's work has been criticised as being insufficiently supported by experimental data (Brewer 1995), it has catalysed a strong debate that has led to renewed interest in the role of stories in human social interaction and in learning.

One further aspect of the various possible roles of storytelling as part of social interactions is that people live in societies that have specific cultures that govern the way that they live. Ember and Ember (in Segall et al 1999a) defined culture as "the shared customs of a society, the learned behaviours, beliefs and attitudes that are characteristic of people in a particular society or population". Miller (1995) reports substantial evidence showing that storytelling takes place in many different cultures and between people of all ages, in support of social interaction. The type of narrative may be highly culturally specific. This may not be simply a matter of vocabulary. In some cases it is manifest in culturally specific turn taking behaviours between the communicating parties, with perhaps more than one person relating the story to other members of the conversation. The manner employed to emphasise an aspect of the story may differ from culture to culture. These attributes of story telling identify the teller as someone who can communicate according to the norms of the culture or not. Given that storytelling is a primary method of participating in social interaction, the cultural specific aspects of storytelling may determine the success of a social interaction with people from a specific culture. Knowing the stories of another culture is a bridge into another culture.

1.1 Pictures in Communication and Story Telling

Scott (1995), in reviewing the work of Schank and Abelson (1995), makes the point that storytelling does not automatically imply the use of words. Other forms of representation are possible, for example using pictures or images, symbols, objects or even mathematical equations.

Csikszentmihalyi and Rochberg-Halton (1981) reported that photographs are the third most treasured possessions in the home of a modern western family after furniture and visual arts. When this is broken down by age, they were ranked sixteenth by children and teenagers, and ranked first by grandparents. An important aspect of this work is the significance of the pictures, and of other objects, to the owner, and the way that they interpret the objects owned by others. In general, younger people are seeking to establish an identity, to understand their place in the world, and then to assert their individuality and their individual worth, by using images to capture humorous situations or everyday objects that were important to them. Older people tend to reinforce their comments with evidence of relevant experience. Elderly people tend to share memories, and to seek to pass on wisdom based on their experience. This is reflected in the significance that they place on the objects that they gather, and in particular in the photographs that they hold and display. In all cases, however, the photographs are a means of preserving and recalling memories. Csikszentmihalyi (1998) does make the distinction between this use of photographs to record history, and the use of photographs as an art form and a means of exploring reality. In the case of photography as art, the viewer is challenged to interpret the photograph, to identify with the iconicity or ambiguity in the photograph. It is important, therefore, to realise that there is the potential for ambiguity to be present in all photographs.

The social implications of the ability to take pictures and make movies personally and non-professionally are explored by Chalfen in his book *Snapshot Versions of Life* (1987). He develops the notions of "Home Mode" photography, and explores the culture that they portray, encapsulating it in the term "Kodak Culture". He extends the work of Csikszentmihalyi & Rochberg-Halton (1981) by including home movies as a means of recording significant events and objects from the world within which people exist. His work explores the reasons that people have for recording their life, the parts that they record, and the selection of specific parts of that record that are shown to various audiences. He makes the important point that each individual has a unique perspective on reality, coded in many symbolic forms (e.g. music, words, images, signs and events), and weighted to reflect their knowledge and opinions about the society in which they live. This unique, individual perspective is reflected in the way that they record their world, and in the way they present this recording to others. He argues that the popularity of "home mode communication" reflects the need of an individual to make significant and personal statements about their place in society, and to record the significance of their own involvement in that society. This basic need is finding new forms of expression in the current rise in popularity of blogs, personal online diaries.

Chalfen (1997) also had the opportunity to compare the use of images within the context of "home mode communication" between people living in Philadelphia, USA and Tokyo, Japan. Whilst the sales of cameras are roughly equivalent, the way that the images are used differs substantially. The Americans tended to use them to reinforce their own identity and view of the world, whereas the Japanese tended to use them to reinforce the culture that had been handed down to them, and the view of the world that they had been taught. The focus in Japan was more on keeping alive the memories of important people, and being reminded of great achievers or achievements, rather than exploring the world and the place of the individual in it. Whilst these are necessarily very broad generalisations, they clearly show that different people in different cultures use the media in different ways, and the stories that they tell are different. This is true both for the person collecting and presenting the media, and for the person viewing the media. Chalfen's work is continuing within the domain of visual anthropology, where he is considering the role of media in the lives of children.

The use of images in mobile communication has been studied by Mäkelä et al (2000). A conclusion of their field trial studies was that images are not sufficient for functional communication. Text or speech is required as an additional annotation medium, alongside the picture, to make its meaning or communication intention clear. Neilson and Lee (1994) reiterate the need for pictures to be set in a context with an accompanying natural language statement. Without this, the message of the picture, or the statement that it is intended to convey may be ambiguous.

The personal value of images was further studied by Mäkelä et al (2000) where a fundamental finding was that the message of an image is likely to change over time. Its meaning for the user changes, and the story that it tells changes. In all cases, the images were used to add detail to a description, or to explain when the user is having difficulties describing an object or situation with words.

Another aspect of human interaction, however, that has been explored by Dunbar (1996 and 1997) and Emler (1994) is that the vast majority of our conversation and interpersonal interaction is social, with perhaps

only 7% being directly transactional. This has profound implications for on-line learning systems as they rarely provide social interaction forums alongside the transactional learning spaces. The failure to provide social spaces in online learning environments is presented as the explanation for poor engagement of students in the interactive aspects of on-line learning by Joinson and Buchanan (2001). In the informational age the situation is even more complex as our interaction is not only mediated by technology, and in some cases becomes an interaction with technology. Early work such as the Diffusion of innovation Theory (Rogers 1976) sought to explore the innovative deployment of technology, but did not explicitly consider the technology as an actor to be engaged with. Actor Network Theory (Law 1992) seeks to expose the role of the technology in the process of, in this case, social interaction and learning and the influence of the relationships within the whole network of human and technological actors.

In the context of technology supported education therefore, storytelling is a creative process that enables young people to express themselves (individually and collaboratively) by bringing together information into an engaging and coherent argument (Bruner 1986). Stories are the basis for case based (and therefore reusable) memories (Schank 1995) and are, therefore, essential for healthy cognitive development. Stories are also vehicles for meaningful social interactions and for learning. Learning through stories happens best when accompanied by socializing through stories.

2. AN INTERNATIONAL COLLABORATIVE STORY TELLING FORUM

The value of storytelling in social interaction and learning is being used as the basis for a novel learning environment, a web-based storytelling forum, where students from different countries can collaborate to construct stories in a variety of genres. A variety of hypermedia forums have appeared on the Internet over the years reflecting the now waning interest in Hyperfiction, and there are many storytelling clubs at local and national levels. The emphasis of this forum is the use of hypermedia to construct mixed media stories as an aid to learning. Stories are being constructed as short story elements in the forms of conversational narratives, as more extended linear blogs, or as sequential or multithreaded stories of a variety of topics of cultural or academic interest. The forum has the following fundamental pedagogic objectives:

- **Facilitation of deep reflective thinking:** The multithreaded and networked nature of threaded blogs and hypermedia support essential brain forming functions in young people, where reasoned arguments are practiced and rehearsed and where knowledge is appreciated and memorised through associations between informational elements. This addresses concerns raised by Prensky (2001) and others that students who are constantly handling information in the form of short and easily accessed blocks seem to be losing the ability to think deeply about the meaning of the information, or to construct sequenced or coherent arguments.
- **Media Literacy:** Young people are growing up in an informational age where the principle commercial commodity is information. Information is available in a wide variety of media, including, but not exclusively, text, pictures, photos, drawings, video, animations, speech and audio. These media are delivered via a variety of platforms including books, magazines, newspapers, telephones, personal digital assistants (PDAs), computers, games consoles, TV's, radios, CD's and DVDs etc. Many different people are producing and delivering information for a wide variety of reasons. Not only do the young people need to have skills in making and using media, they need to be able to understand the message being conveyed to them from others. (Meyrowitz, J. 1998, Frechette J.D. 2002). So media literacy curricula should be revisited to ensure that they are comprehensive enough to equip young people with the skills to comprehend the message delivered by all these media alone and in combination, and in having the skills to express themselves with these media, alone and in combination.
- **Cross-cultural interaction:** The peer group within which stories will be created, presented and defended is multicultural, which will involve the students in cross-cultural interchange, an interchange that will inevitably lead to a degree of acculturation. The appreciation and respect for cultures is becoming an essential attribute for citizens of global communities, if they are to maintain their chosen heterogeneous group, and their local, national, and global cultural memberships as well as their individual subjectivities.
- **Online Experience:** The nature of the communication and information access inevitably involves the use of the Internet and other remote communication technologies (mobile telephony, short messages,

community TV, etc.). Turkle (1997) and Joinson (2003) explore at length the new relationships and subjectivities that arise in these modalities of interaction. The collaboration opportunities available in the storytelling forum will enable these issues to be sensitively and comprehensively explored.

The system being deployed consists of a web-based portal providing access to a simple to use hypermedia message posting forum and document server. This supports the creation and presentation of the stories in their different genre forms. The web portal also provides a gateway to a web-based videoconferencing system that is enhanced with a synchronized web presentation function. This system has all the functionality for synchronous and asynchronous collaboration, story creation and document sharing.

The forum was established early in 2005, following a period of pilot deployment involving interested researchers during the last quarter of 2004. By the end of the second quarter 2005, approximately 120 students in Bogotá, Colombia, 100 students in the province of New Brunswick, Canada, and 90 students in Dundee in Scotland have been introduced to the forum. The students are either aged around 11 years or around 15 years (grade 6 or grade 10). In this period, students and teaching staff have been encouraged to freely explore alternative ways of creating stories and of promoting interaction within cohorts of students from the same class, grade level, school, local area, country and across the forum. This freedom was encouraged for two reasons. Firstly, it is widely reported in the literature that many on-line collaborative learning or interaction forums do not succeed in engaging participants (Joinson 2003). The causes are varied and complex, but in this case, the collaborators were keen to ensure that the technology and tools being deployed were usable and were not a hindrance to engagement. For this reason, simple technologies were employed and the participants were encouraged to freely explore the use of the technologies to construct the stories in the manner that they wanted. Secondly, the schooling systems (timetabling, curriculum, culture, demographics) were anticipated to be so different between the three participating countries, that it was considered to be too prescriptive to suggest common activities and tasks at this stage in the lifetime of the project.

In parallel to this freedom, however, a number of key issues that relate to online communities have been reviewed, and evidence associated with these issues exposed. It is central to the principles on which the learning will be facilitated that the forum must first work as a social space, before it can work as a learning environment. The evidence for effective social interaction has been explored in the form of an exploratory ethnographic study, and the results are presented below.

3. DEPLOYMENT AND COMMUNITY BUILDING ISSUES

Various commentators have considered a variety of factors that characterise the formation and sustaining of online communities, particularly those intended to facilitate learning. A number of these threads have been drawn together and the forum stories and posting analysed to elicit evidence for these social phenomena. This exercise will help to ensure that forum is working as a social interaction space so that the peer and educator support, and the technology deployed, will enable the maximum freedom for learning and social growth, and the pedagogic research questions can be identified and addressed.

3.1 Communities of Practice/Communities of Interest:

Wenger's presentation of learning within "communities of practice" and the more broad "communities of interest" builds heavily on a refined model of a social theory of learning (Wenger 1998) and depends on social interaction between learners. As this perspective is fundamental to the thinking upon which the storytelling forum is built, it is important to be able to find evidence in the chat style postings associated with blogs or stories, that the students are engaging in social interaction, doing what Sunwolf and Frey (2001) call "weaving a community", even during this initial phase of the deployment of the system. An interesting example can be found in the case of a student from Dundee below:

Posted at Jul 04/2005 12:05PM:

XX: hi jam your drawind is cool i like avril lavigne aswell im going to see her in glassgow when she comes again i live in scotland . i hope we can chat sometime from XX

Because of this Dundee student only joined the forum late in the semester, he/she searched the forum for students of similar interests and initiated contact, this being one of only 2 postings made by this student to people outside his class.

In another example, the posting of a really excellent drawing of a current Colombian singer (Chayanne) as part of a story about local heroes, drawn by an ex-student from the school in Bogota raised a flurry of postings mainly from the students from Canada and Scotland.

Other examples included posting related to current popular films and singers, and involved students from all three countries, as illustrated by this interchange between Scotland and Canada.

Posted at Jun 21/2005 12:03PM:

XXX: Does anyone like Lord of the rings XXX

Posted at Jun 21/2005 08:29PM:

YY: Hi XXX I am YY. I like Lord of the rings too.

This demonstrated that the students were working through the set of pages of the students in the forum, looking at each other's material, and commenting outside their local group when they found content that interested them. This can be seen as an example of responding to a point of cultural closeness between different groups within the total forum cohort (Segal et al 1999).

Catalytic activities seeded by the adult collaborators, such as competitions and commenting on common sporting events took place and will continue, but the fact that some social interaction between students was also happening in an entirely spontaneous manner and based on common interest is seen as evidence of the initial formation of communities, or perhaps networks of interest within the forum cohort.

Having established that social interaction is taking place in the forum, it is instructive to look more closely at the nature of this interaction. One aspect that was echoed by a number of students was the desire to communicate with students from another country. This is eloquently illustrated in the following extract, where Colombian students introduce a new friend.

Posted at Jun 01/2005 03:00PM:

HOLA AMIGOS CANADIENSES SOMOS LAS AMIGAS QUE TE ESCRIBIMOS LA VEZ PASADA QUEREMOS CONTARLES QUE A LLEGADO UNA NUEVA AMIGA SU NOMBRE ES LAURA Y ELLA QUIERE QUE LE ESCRIBAN IGUAL COMO NOS ESCRIBIERON A NOSOTRAS PERO QUEREMOS QUE NOS REGALEN O NOS MANDEN UNA FOTOGRAFIA DE USTEDES LES AGRADESEREMOS SI NOS ESCRIBEN ATT:

A particularly poignant aspect of this posting is that, in order to protect the anonymity and safety of the students in Scotland and Canada, no photographs are posted to the site that can identify a child, and the student is only ever known by their initials. The Colombian students therefore have to ask the Canadian students to send a photograph, just, for example, to be sure of the gender of the other student. This is a genuine barrier to social interaction, and acceptable and secure methods for more realistic interactions are being explored, including the use of "nick names" and the allocation of "buddies" between students.

It should be expected that if the social interaction is truly spontaneous, both praise and conflict should be evident in the dialogues. This does indeed happen, as the following extract reveals.

Posted at Jun 21/2005 12:04PM:

AA: I support and Man. Utd. F.C. and my favourite bands are Green Day and U2

Posted at Jun 22/2005 09:50PM:

AA: Is anyone out there?

Posted at Jun 24/2005 10:25AM:

BB: YEs someone is out there manu are rubbish and do not send any more junkmail to my name!!!!!!!!!!!!!!!!!!!!!!

Posted at Jun 24/2005 11:31AM:

CC does not like you

This type of interchange is in some ways a mirror of the conventional face-to-face interaction, perhaps accentuated by the anonymity of the on-line experience. It raises the issue about the freedom that the students should have in the social forums to be and to express themselves without adult intervention. At least the issues are exposed and can be explored, again probably anonymously.

3.2 Subjectivities:

The students quickly put down markers of identity and influences. For example, this comment by a Scottish student echoes a popular theme:

Posted at Jun 29/2005 09:54AM:

AA: hey my name isn't AA. I am 10 years old. I am away to be 11 in July. I don't have any brothers or sisters. I live with my mum & dad. I am Scottish and I'm proud to be.

This entry by another Scottish student claims a subjectivity that they recognize and believe to be important to themselves and the information they want others to know about them.

Posted at Jun 21/2005 10:24AM:

ZZ: My name is ZZ. I live in Dundee. I have a big brother and a big sister. I am eleven years old, and my hobby is swimming. My Granddad and Grandmother come from Italy.

The hypermedia capabilities available for constructing stories provide fertile opportunities for stories to branch out into threads to explore these subjectivities. A particularly engaging example by an older student in Dundee, as well as describing her favourite contemporary singer and other typical aspects of her life, included a seemingly innocuous branch called "swimming" from her "home page" that started with the following posting:

Posted at Jun 06/2005 06:09PM by ABC:

My favourite hobby swimming takes up my life. I go swimming once to twice each day. I also swim in the River Tay which runs through Dundee and leads into the North Sea. The temperature is about two degrees which is very cold. My longest outdoor swim was the English Channel, it was 26 miles long (the width) with a lot of jelly-fish. The English Channel separates France from England and many ships pass through it.

Every sentence is loaded with immense background information that contextualizes the life of this student and her achievements. It is not simply that she has achieved feats of some significance for a student of her age, but that she has powerful textual literacy skills to express her subjectivities in this way. The introduction was followed by a variety of visual images that powerfully endorsed her story.

Another aspect of online social interaction that has been explored at length by Turkle (1997) and Joinson (2003) is the persona that are assumed or portrayed by the participants. As noted earlier, for reasons of "child protection", not natural choice by the students, the Scottish and Canadian students are only known by their initials. Because of this, their identity, including appearance and gender are unknown to the other students. This does mean, however, that the students have the opportunity to re-present themselves, accentuate specific aspects of their personalities, identities or appearance, or hide entirely behind a completely different representation of themselves. For example, this introduction by a student in Dundee:



Hiya my name is AAA I have pitch black hair and green eyes I have a couple of best friends called I like to go out at night on the pull because i love boys :D If u want to know anyhin else jus send a comment to my page and i will write back straight away :). I look something along the lines of this girl lol :) hope you all like me !

There are a number of different, and to some degree conflicting statements being made in the one rich paragraph and the accompanying picture. This and other examples posted to the forum seem to illustrate a familiarity with this aspect of the on-line experience, but a degree of immaturity in the practice identity in social context, and the consequent construction an on-line persona. This is to be expected from young people on-line and clearly demonstrates the need to work with the students in exploring and learning consistent and safe techniques for community living and social interaction.

Another aspect that has caused considerable discussion between the collaborators is the portrayal of humour, particularly the more adult humour. This is an inevitable part of the transition from childhood to adulthood. Valentine & Holloway (2004) highlighted the different constraints placed on the access to technology and content in different demographic contexts relative to the moral and ethical standards of the communities or individuals with responsibility for the students, and the different strategies for working through the issues arising from young people learning to handle content appropriately in context. This debate will be particularly complex in this forum as the standards and expectations of appropriateness have already been revealed to be widely different between the different ages, demographics and countries represented.

3.3 Cultural group membership:

Mercer (2000), as part of his commentary on Wenger's communities of practice, shows how cultural groups reinforce their identity and the right of membership by introducing a language and narrative style to the community discourse that only the initiated can engage with. The following is an example extract that shows the same behaviour being displayed by a student in Dundee posting chat comments to a friend.

Posted at May 26/2005 12:10PM by nr:

hiya babes :D meet me 2 moz at 4 at fintry shops okz? :D

Posted at May 26/2005 12:17PM by nr:

gdgd babes :D theres a reason eh want it ti b jst me nd u....ell tell yi at dinner tym y lol.....D:P we cud get in the toon fir boot 4:45 ti 5 nd time we get lost in lochee we will b there.

The text used here is a mixture of mobile text message inspired abbreviations and phonetic representations of the Scottish accents peculiar to Dundee. It is interesting that the students are choosing to broadcast their cultural identity and their legitimate and initiated culture group membership in this way, particularly as it will inevitably exclude other forum users, despite the fact that the students are well aware that this is an international cohort, as most onlookers will not be able to comprehend the meaning of the posts.

3.4 Peer Learning:

Peer learning is an important and powerful learning technique that has been explored by Topping (1998). It is the intention of the collaborators that the students engage with each other in mutual learning and support in the forum, rather than being wholly dependent on direction from the educators. It is evident that this is happening spontaneously, as the example below shows:

"Posted at May 12/2005 09:13 PM:"

[#XXXX]: *El raton Mickey es mi favorito porque tiene muchos amigos. El es de Estados Unidos y siempre he soñado con ir a Disney World para conocerlo personalmente. Yo vi los dibujos hechos por los estudiantes de Canadá y mejore el mio para que este tan bonitos como esos.*



Here the Colombian student explains that she revised the drawing of Mickey Mouse after seeing drawings of a similar style in the pages of the Canadian students. Whilst at one level the changes may not have been necessary, the students are evidently influencing each other as peer learners.

3.5 Cultural Realities

Sunwolf and Frey (2001) present a variety of functions of storytelling, one of which is to explore and present perceived realities and experiences. The posting/stories on the forum have already begun to expose the realities within the cultures represented by the students. An unexpected example that challenged the participants is both the incidence of and the attitude to teenage pregnancy in the schools participating in the forum as found in the different societies. This issue was raised by a blog entry about a party being held for “Mothers Day” for the mothers in one of the schools, and it highlighted the sensitivity that will need to be learnt and practiced by all participants when encountering values and societal norms different to those followed locally. The facility to go on to explore the context of experiences in narratives is providing “the means to order and communicate these experiences, and contribute to wider understanding of the validity of these differences” according to Bruner (1987). Whilst not directly exploring experiences, some students are able to use the stories to expose, and perhaps even make sense of the realities of their lives, as here, where a student from Colombia describes how he helps sorting and selling bananas after school.

... me voy para la casa y mequito el uniforme y llevo el almuerzo a mi hermano Javier que esta trabajando con los bananos y quedo hay para ayudarle a trabajar y yo empaco en bolsas de 14 bananos hasta por la noche y comemos toda la familia y nos decimos hasta mañana y no acostamos hasta el otro dia.

The blogging genre of storytelling has been used to reinforce the learning about the world around the students, as the following interaction by a local photographer and a student in Canada illustrates.

Posted at Mar 03/2005 03:54 PM:

[XYZ]Architecture Of Saint John By Rob Roy Yesterday, on March 2nd, 2005 we saw a photo presentation about Saint John's architecture by the photographer, Rob Roy. The thing I liked best about the presentation was when he showed us the pictures and told some interesting facts about them. A few building materials are: brick, iron, sand stone, glass, stone, stained glass, limestone, steel, copper, marble, wood, granite, concrete, cement, metal and rock. In Saint John,1877 the great fire of Saint John took place. The fire caused the people to rebuild their houses out of stone or brick so that the house wouldn't burn down as easily. I really liked the presentation.

Posted at Mar 14/2005 03:41 PM:

[Rob Roy] : - XYZ,... So glad that you enjoyed my presentation, and above all, that you have learned a few things that will remain in your memory data base for years to come !!

This is a powerful example of situated learning and serves as a model for how aspects of cultural reality can be exposed in stories covering local, regional and global issues for all students.

4. CONCLUSION & FUTURE WORK

This review of the establishment phase of the collaborative storytelling forum has allowed the collaborators to consider if the underlying insistence on the social interaction as a compliment to the academic directed part of the activity was happening, and if so, was it in accordance with the behaviours outlined in the literature. In addition, those aspects of the social interaction that are particularly accentuated because of the wide demographic, cultural and geographical distribution of the participating students have been exposed to ensure that they are not neglected in the subsequent evolution of the forum. The evidence from the stories and postings that have taken place to date is that there is a developing community of interest and of practice forming around the forum, that students are posting outside the formal teaching time, at home and in cybercafes, and that the full spectrum of on-line behaviours and tensions are revealed within the narratives and dialogues. Given that the community is forming and sustaining itself, subsequent evolution will continue as planned to ensure that the pedagogic goals of the forum are appropriately enabled and supported. These include:

- The structuring of the storytelling space to provide students with distinct areas for constructing formal hypermedia stories of topics of interest, for posting blogs to highlight topics of specific interest to themselves, and for engaging in social interaction. This will be accompanied by initiatives to assist in the exploration of appropriate behaviour and forms of expression in different contexts.
- The exploration of moving from social interaction in learning to the practice of the social construction of knowledge.
- To explore the past, current and future/dreams expressed through stories as expressions of influences on the subjectivities of young people.
- The provision of a set of tools to assist in the storyboarding of stories and the production of media
- The blending of synchronous interactions into the collaborative process, particularly the use of videoconferencing tools for rich information exchange.
- The exploration of extensions to curricula in media literacy and hypermedia storytelling, with the eventual goal of developing cross-cultural media literacy curricula for the information age and networked world.
- The exploration of deep and reflective thinking facilitated by the thoughtful construction of hypermedia, both in terms of the learning by the students and the pedagogical practices by the teachers
- The exploration of the more fundamental aspects of the role of technology in the subjectivities of young people in different situations and cultures, and the comparisons of aspects of social closeness and social distance to guide cross cultural programmes of mutual understanding and respect at local, regional and global levels.

ACKNOWLEDGEMENT

The authors would like to acknowledge the support of the University of Dundee and Universidad Central, Bogota, and participating schools and education authorities in Bogota, New Brunswick and Dundee. In particular, the participation of the teachers and pupils in the forum is acknowledged with thanks.

REFERENCES

- Brewer, W.F. (1995) To assert that essentially all human knowledge and memory is represented in terms of stories is certainly wrong, in *Wyer, R.S. (Ed.): Knowledge and Memory: The Real Story*, pp.109-119. Hillsdale, New Jersey, USA: Lawrence Erlbaum Associates, Publishers.
- Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.
- Bruner, J (1987), Life as narrative, *Social Research*, 54, 11-32
- Bruner, J. (1990), *Acts of Meaning*, Harvard University Press
- Chalfen, R. (1987) *Snapshot versions of life*. Bowling Green, Ohio, USA: The Popular Press.
- Chalfen, R. (1997) *Teaching 'Pictorial Lives' in Tokyo and Philadelphia: general approach and comparative results*, at: <http://astro.temple.edu/~rchalfen/AAANOV.html> (presence verified on 23rd July 2005).
- Chalfen, R. (1998) Family photograph appreciation: Dynamics of medium, interpretation and memory", *Communication and Cognition*, Vol.31, Nos.2-3, pp.161-178.
- Csikszentmihalyi, M. and Rochberg-Halton, E. (1981) *The meaning of things: domestic symbols and the self*. Cambridge, England, UK: Cambridge University Press.
- Csikszentmihalyi, M. (1998) Symbols for the self: the symbolic imagery of place, published in *T.A.R.Neff (Ed.): Photography's Multiple Roles: Art, Document, Market, Science*, pp.171-187.
- Dunbar, R.I.M. (1996) *Grooming, Gossip and the Evolution of Language*. Chatham, Kent, England, UK: Mackays of Chatham plc.
- Dunbar, R.I.M., Marriott, A. and Duncan, N.D.C. (1997) Human conversational behaviour, *Human Nature*, Vol.8, No.3, pp.231-246.
- Emler, N. (1994) Gossip, reputation, and social adaptation, in *R.F.Goodman and A. Ben-Ze'ev (Eds.) "Good Gossip"*, pp.117-138. Wichita, Kansas, USA: University Press of Kansas.
- Emler, N. (2001) Gossiping, in *W.P. Robinson and H. Giles (Eds.) The New Handbook of Language and Social Psychology*, pp.317-340. Chichester, England, UK: John Wiley and Sons Ltd.
- Frechette J.D., *Developing Media Literacy in Cyberspace: pedagogy and critical learning for the 21st century classroom*, 2002, Praeger Publishers
- Joinson, A., & Buchanan, T. (2001). Doing educational research on the Internet. In C. R. Wolfe (Ed.). *Learning and Teaching on the World Wide Web* (pp. 221-242). San Diego: Academic Press.
- Joinson, A. (2003). *Understanding the psychology of internet behaviour: Virtual worlds, real lives*. Great Britain: Palgrave Macm
- Law, J. (1992), Notes on the Theory of Actor-Network: Ordering Strategy and Heterogeneity, in *Systems Practice* v. 5. no. 4 pp. 379-393
- Mäkelä, A., Giller, V., Tscheligi, M. and Sefelin, R. (2000) Joking, storytelling, pastsharing, expressing affection: a field trial of how children and their social network communicate with digital images in leisure time, *Proceedings of the CHI 2000 Conference on Human Factors in Computing Systems*, The Hague, Netherlands, 1st-6th. April, pp.548-555.
- Mercer N (2000) *Words and Minds: How we use language to think together* London: Routledge.
- Meyrowitz, J. (1998). Multiple media literacies. *Journal of Communication* 48: 96 – 108
- Miller, P.J. (1995) Personal storytelling in everyday life: Social and cultural perspectives, in *Wyer, R.S. (Ed.) Knowledge and Memory: The Real Story*, pp.177-184. Hillsdale, New Jersey, USA: Lawrence Erlbaum Associates, Publishers.
- Neilson, I. and Lee, J. (1994) Conversations with graphics: implications for the design of natural language/graphics interfaces, *International Journal of Human Computer Studies*, Vol.40, No.3, March, pp.509-541.
- Prensky, M. (2001) Digital Natives, Digital Immigrants, *On the Horizon*, NCB University Press, Vol. 9 No. 5
- Read, S.J. and Miller, L.C. (1995) Stories are fundamental to meaning and memory: for social creatures could it be otherwise?, in *Wyer, R.S. (Ed.) Knowledge and Memory: The Real Story*, pp.139-152. Hillsdale, New Jersey, USA: Lawrence Erlbaum Associates, Publishers.

- Rogers, Everett M. (1976) New Product Adoption and Diffusion. *Journal of Consumer Research*. Volume 2 March, pp. 290 -301
- Schank, R.C. (1990) *Tell me a story: a new look at real and artificial memory*. New York, New York, USA: Scribner's, Macmillan Publishing Company.
- Schank, R.C. and Abelson, R.P. (1995) Knowledge and memory: The real story, in *Wyer, R.S. (Ed.) Knowledge and Memory: The Real Story*, pp.1-85. Hillsdale, New Jersey, USA: Lawrence Erlbaum Associates, Publishers.
- Scott, L.M. (1995) Representation and narrative: A commentary on Schank and Abelson's "Knowledge and Memory, in *Wyer, R.S. (Ed.) Knowledge and Memory: The Real Story*, pp.165-176. Hillsdale, New Jersey, USA: Lawrence Erlbaum Associates, Publishers.
- Segall, M.H., Dasen, P.R., Berry, J.W. and Poortinga, Y.H. (1999) *Human Behaviour in Global Perspective: An Introduction to Cross-Cultural Psychology*. Needham Heights, MA, USA: Allyn & Bacon.
- Sunwolf and Frey, L.R. (2001) Storytelling: The Power of Narrative Communication and Interpretation, in *W.P. Robinson and H. Giles (Eds.) The New Handbook of Language and Social Psychology*, pp.119-136. Chichester, England, UK: John Wiley and Sons Ltd.
- Topping, K.J. & Ehly, S. (eds.) (1998) *Peer Assisted Learning*. Mahwah NJ & London UK : Lawrence Erlbaum More information
- Turkle, S. (1997): *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster
- Wenger, (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, MA: Cambridge University Press
- Valentine, G. and Holloway, S. (2004) The digital generation?: children, ICT and the everyday nature of social exclusion, *Proceedings of the Digital Generations Children - Young People and New Media conference*, London, UK, 26-29 July