

The creative potential of new media technologies:

Youth Internet Radio Network

Tanya Notley, Research Associate for the *Youth Internet Radio Network Project*,
Queensland University of Technology
j.tacchi@qut.edu.au

Jo Tacchi, Senior Research Fellow, *Creative Industries Research and Application Centre*,
Queensland University of Technology
t.notley@qut.edu.au

Abstract

New media technologies are thought to be significant tools for enabling creativity and innovation. We examine this through a project where young people create content for distribution on the internet and consume content created by other young people. How does this challenge the traditionally understood separation of the producer : consumer? How can we encourage creativity through the use of new media technologies?

This paper describes the early development of the Youth Internet Radio Network (YIRN) - a research project funded by an ARC Linkage grant. YIRN is designed as an 'open architecture' platform for experimentation, dissemination and exploration of the potential of streaming technologies to network young people across Queensland - focussing on content creation. Previous research and project development experience in Australia and South Asia has suggested the strong potential for combining old and new technologies,

and clearly indicates the importance of creating a project development approach and project 'ethos' and space that encourages innovative and flexible applications. This paper draws on some of these experiences, which have contributed to the conceptual development of YIRN. YIRN aims to encourage participants to explore the full potential of its online network and encourage interactivity and communication across the network. To achieve this we have designed a network architecture that is essentially 'open' using the idea of the 'end to end network', so that the network and the website are responsive to the 'intelligence' that users add at the 'ends'.

Introduction

In January 2004, the Creative Industries Research and Applications Centre (CIRAC) at Queensland University of Technology (QUT) established a Youth Internet Radio Network Project (YIRN).

Its aims include:

- establishing a network of young content providers across Queensland
- identifying opportunities for youth enterprise development
- providing and facilitating training to young people in new media content development

This is a research project that will integrate theory development with creative practice, enterprise development and community capacity building. It aims to provide a network that offers to connect young people across the state of Queensland, through the use of new media technology, whilst supporting them to learn marketable skills and providing

them with an interactive distribution platform for their own creative content. How will they use this network? What enterprising outcomes will be possible? How will they shape the network – what will it look like? These are just some of the questions which we are beginning to answer through the process of building the network and engaging with young people and their creative content.

A streaming website, to be called www.sticky.net.au, is being developed and will be launched to the public in early 2005. Groups of young people across Queensland are being trained in how to produce original creative content for the site - audio (music, speech), text (stories, reports, journals) and visuals (video, photographs, artworks).

Through the network and the website, young people will be provided with a distribution platform for their locally produced creative content. In addition, the network will allow groups of young people to interact with each other on topics and issues that are relevant to them - through forums, messaging services, message boards, and emails.

Specifically, YIRN provides us with the opportunity to investigate how information and communications technologies (ICTs) can be used for interaction, creativity, and innovation. The YIRN research methodology combines two research approaches - ethnography and action research - and is participatory in that those taking part in the projects are fully engaged in the research approach. This methodology was developed specifically for community media research by members of the YIRN Research team (Tacchi, Slater and Hearn 2003; Slater and Tacchi 2004; Tacchi 2004) and is currently being applied to a network of UNESCO's South Asia ICT projects.

The project has created partnerships with ten different organisations that are distributed across the state of Queensland and include a broad geographical, social and cultural spread. Training in content creation will provide this project with a means of interacting and getting to know young people in their localities. A series of three workshops over two years will be carried out with each group. At the time of writing five workshops have been carried out in a method called, 'Digital Storytelling'. This involves a four day workshop where young people create a two minute personal digital story about their lives. These Digital Stories will be included with other content young people produce on the streaming website. This website is designed to allow the development of a mosaic of local content reflecting the diversity of the lives of young people across the State as well as their shared experiences and interests. Through the workshops, and interactions within the network, young people will explore the possibilities (and restrictions) of new technology and through their experimentation they will shape the content of the website and the development of the network.

One key aspect of the ethnographic research is an exploration of the ways in which YIRN works as a communication space: How will young people in Napranum talk to other young people in nearby Weipa or far-away Mount Isa or Brisbane? How will young people represent their very local lives and their notions of local and national identity? Does YIRN foster, grow or enable creative content production by young people? If so, what are the impacts of this for the young people participating?

What's new about New Media Technologies?

The term 'new media' refers to a wide range of changes in media production, distribution and use. These changes are technological, textual and cultural (Lister et al 2003).

Whereas 'the media' usually refers to the cultural and material products of 'communication media' as well as the institutions and the organisations under which they are produced, 'new media' infers something 'far less settled, known and identified' (ibid:10).

The 'new' in 'new media' suggests a clear break away from the 'old', or what Meikle (2002) refers to as 'top-down technologies'. This separation of 'new media' from 'old' or mass-media can be contested on a number of levels. For example, studies of new media technologies often fail to consider their relationship with other forms of contemporary media culture and ignore the question of whether these new media technologies merely extend rather than break away from older forms of media such as radio and television (Sefton-Green 1998). Tacchi (2000) argues that some configurations of new media should be considered in terms of extensions or elaborations of older media.

The internet has been heralded as emancipatory and democratising - a revolutionary tool for communication and access to information. These claims echo the rhetoric that generally surrounds the introduction of new technologies, such as radio (Spinelli 2000). In his introduction to *Future Active* Meikle (2002) demonstrates the similar paths the two technologies travelled along, with early development funded by military investment, its early take up amongst technological enthusiasts, and so on.

Online community networks and internet radio - and YIRN can be described as both - are still today surrounded by a degree of hyperbole. The technologies themselves are seen to hold the potential to encourage community building, empowerment, unregulated and egalitarian levels of media access allowing everyone to have a voice, to be enabled to communicate with others and form connections not reliant on physical proximity or mobility. There are examples such as ham radio and WELL (Whole Earth 'Lectronic Link) in the early development of radio and the internet respectively, uses which persist but which have paled in significance as other (commercial) uses attract far greater attention. As with radio, notions of empowerment and liberation connected to the internet have been contested and subverted, and the imagined nature and use of the internet has changed. Nevertheless, just as with radio, it would be hard to deny the fundamental and powerful changes that these technologies have accompanied in terms of all of the areas which are generally now considered 'hype'. The internet (like radio before it) may well have begun to predominantly take the 'one to many' transmission model. Yet the possibility of using these media differently remains. Just as radio is used in many contexts across the world (and in Australia in particular) as a community building, participatory and empowering tool for development, there are similar applications of the internet.

Community radio – especially long established forms such as in Australia and Canada – demonstrate this.

There are a range of models of community radio which emphasise community ownership and participation in organisation and programme making. They are long established 'third tiers' of radio, often described as 'alternative media' (see Price-Davies and Tacchi 2001, Atton 2002). A primary driver of alternative or community media is the notion of 'access'. Increasing access to new media technologies can be considered one of the main forces behind an historical shift that has moved the source of production and meaning away from the exclusive domain of mass media and the public sphere towards the reader/audience. This shift has provided the opportunity for the private citizen to become not only the 'reader' or consumer of meaning, but also the 'writer' or producer of knowledge.

In terms of young people and new media technology, much of the current research has been rooted within psychological and education discourses and this type of research serves to examine technology as a solution to traditional problems of teaching and learning in the context of the education system (Sefton-Green 1998). However, in looking at young people and new media, the YIRN project and the research around it, aims to avoid the crisis starting point from which many studies around young people and technology begin. Instead, this research begins with questions regarding the way young people may or may not be appropriating new technology to 'read' and 'write' their own meaning through creative content production and online interaction and communication.

John Hartley maps historical changes in the relationships between producer/audience and the construction of meaning through what he refers to as 'the value chain of meaning'.

Thus, in premodern times meaning was thought to be 'divine' and was typically relayed through books such as the bible. So, 'a text meant what its (divine) producer said it did' (Hartley 2004, p.132). In modern times, that is the time of enlightenment and industrialisation, meaning was attributed to the texts themselves and as a consequence of the author who produced it. In contemporary times, post World War II, meaning has shifted towards the audience or reader in what Hartley calls, 'an egalitarian approach to meaning' (ibid.). That is, a text means what people interpret it to mean. What this historical shift suggests, is a significant change in the relationship between the writer, publisher and reader. The meaning and consequences of this shift have been debated from various perspectives, most of which centre around the possible effects of new kinds of participation and interaction.

One of the often cited defining features of 'new media' is its apparently inherent 'interactivity'. This feature suggests 'a more powerful sense of user engagement with media texts, a more independent relation to sources of knowledge, individualised media use, and greater user choice' (Lister et al 2003:20). For the internet, Meikle (2002) believes that the term 'interactivity' may imply 'greater autonomy and agency' but is often 'loosely defined' and 'loosely deployed' (ibid:28). Meikle distinguishes between two 'types' of internet use – interactive and tactical. He makes the important distinction between interactive use, which he defines as choosing between options already prescribed for us (like a jukebox) and alternative use, which not only offers choice, but 'intercreativity' that allows opportunities not only to interact but to collaboratively 'create'.

The concept of 'intercreativity' was first articulated by Tim Berners-Lee and it relates to the early design of the world wide web where sharing was a key principle (and indeed main incentive/objective) and the ideas of 'stupid networks' and 'intelligent ends/applications' became established along with the notions of 'open' and 'closed' systems.

The increasing advent of user Interactivity with various forms of media has implications for the way we need to view media literacy. If we consider, for example, that with a standard book the reader cannot influence the course of the narrative as she or he may with a computer game, we can begin to see how interactivity may be changing the relationship between the producer and audience. In terms of young people's interactivity with hardware and software technologies, very little research has investigated how this relationship may be affecting ideas regarding literacy.

If we consider 'old' literacy to be signalled by a fixed relationship between the writer and reader, then we may consider interactivity and a blurring between the lines that separate writer and reader the very mark of 'new' literacies (Hartley 2004; Fiske 1989; Sefton-Green 1998). However, if we are to consider new forms of literacy a consequence of new media, we need to consider the relationships between 'new' and 'old' or traditional forms of literacy, and we need to look beyond *notions* of interactivity and access (which may simply relate to different presentations of limited choice and access), to its practice.

The 'old' and the 'new'

Sonia Livingstone (2002) identifies four themes that suggest the different ways new media are contributing to the changing social environment and are distinguishable from 'older' media forms. Firstly, personal ownership of media is increasing. Media familiar to us are being used in multiple spaces in the household. So while Mum and Dad might be watching something in one room, their children might be in another watching their choice of program. These changes in media ownership are largely facilitated by growth in mobile media and reduction in costs. Secondly, media are diversifying in form and content. So, for example, there are local, national, global and specialised TV channels on offer all at the same time. Thirdly, convergence of media raises possibility for convergence across other boundaries. So educational computer games and internet shopping become possible as boundaries are blurred between home/work, entertainment/information, education/leisure etc. Finally, new media has introduced a shift from one way, mass communication towards more interactive communication between producer and users. ICTs support further blurring of boundaries in the context of media use, thus changing boundaries between the construction of texts producing edutainment, infotainment, glocalisation etc where genres are mixed, and high and low cultural forms blend - it might be argued new forms of media content are being established.

So what do these changes mean for young people and how does this affect their relationship with different media forms? According to Livingstone, 'new media rarely replace or even, *displace*, older media. Rather, new media add to the available options, to

some extent promoting new, more specialised, uses for books, television, radio etc' (ibid, p.89). How this occurs, Livingstone states, is dependent upon how readily new media is incorporated into young people's everyday practice.

We have seen from research conducted around new media technologies in community centres in South Asia, that the most promising applications are those that combine new technologies with older, more established ones (Slater and Tacchi 2004). In part this is because those particular projects are set up in poor communities, where access to even basic facilities like water and power are often problematic, so it is not surprising that new technologies like computers and the internet are of limited application *on their own*. Nevertheless, there is more to it than this, so that we have seen how involvement in creative practices with these technologies significantly increases individual and group benefits. These people become empowered, begin to act in spheres previously alien or considered off limits to them, generally are able to become far more active as citizens. It is more than skills acquisition, it is the ability to have a voice and use it. Mixing media in these cases is important because there is not as yet a format for community based content creation equivalent to those widely adopted with community or development radio and TV/video – in these contexts, computers and the internet are often regarded more as functional information related technologies rather than entertainment or creative ones. In the Australian context, things are different, but we can see that on the one hand we are still pretty short of digital/internet creative content and on the other hand that the mixing of notions of radio and the internet present a largely unregulated space for some

‘radiogenic’ activities (Tacchi 2000). This, at least, is one of the starting points for the YIRN project.

Exploring online/offline experiences: Creating identity through creativity?

For Rheingold (1994) cyberspace can provide us with places where we can be exactly who we want to be whilst building our own communities and cultures. However, this utopian ideal presumes that, given the opportunity, people will choose to segregate their online identities from their off-line worlds. Much of the recent research into experiences of the internet, argues against the construction of ‘online’/‘offline’ dichotomies (Ward 2000; Livingstone 2002; Slater 2001). All interaction, including computer-mediated communication, takes places within multiple contexts (Baym 1998). Whilst computer mediated communication offers the potential to ‘disembed’ people from their physical locale and from their physical self, it does not necessarily follow that they will choose to represent themselves differently online from the way they are represented offline, and even where they do, it does not mean that they are taking on a new and separate identity so much as that they are extending their self (Slater 2001).

Research concerning the interplay between online and offline social spaces and relationships require an examination of new media technology use *within* particular social contexts (Slater 2001; Woolgar 2002; Wyatt et al 2002; Harrison et al 2002). In this context, YIRN seeks to understand how new media technologies impact upon the lives of young people living in various social settings by contextualising their use of new media in relation to local social contexts and wider media environments – what we term

‘communicative ecologies’ (Slater and Tacchi 2002; Tacchi, Slater and Lewis 2003; Slater and Tacchi 2004). This research will look at how young people choose to represent themselves online in relation to their offline worlds and will examine whether YIRN inhibits, restricts, encourages or enables that process. Miller and Slater’s (2000) study of internet use in Trinidad, for example, begins with an examination of people’s practice rather than presumptions about media characteristics and in doing so, shows that online/offline distinctions played little significance in people’s actual experience with the internet. Their study concluded that the internet was used by people in Trinidad to ‘become what they already wanted to be’ rather than to construct identities that were removed from their offline worlds. They found that ‘being Trini was crucial to people’s encounter with the internet’ (ibid:85).

In carrying out research into different experiences of the internet, Miller and Slater point out the importance of recognising the difference between categorising groups of people into homogenised ‘cultures’ rather than allowing the people being studied the integrity of self-classification and identification. At the same time, through their study they were able to identify a replicated ‘Trini’ experience of the internet. The authors claim that, contrary to their early expectations that people’s engagement with the internet would lead to a reduced sense of national identity, their study found that Trinidadians displayed a ‘hyperawareness’ that they were ‘representing’ Trinidad when online and it was the internet’s global nature that was able to give back “their sense of themselves as special and particular” (ibid, p.115).

The YIRN project will provide young people with the tools, training and technical assistance to participate in an online network. This research will examine what factors influence their involvement with the network and what influences the way they represent themselves online. For example, this may include looking at the type of locations from which young people are participating (youth centre, library, school etc), their geographical location (urban, rural, remote) and their cultural and social contexts.

New media, Creativity and Innovation

A key feature of the YIRN project is that it stipulates that it will build a basic network that is 'open' and responsive to its users. A key research interest of this study will be to examine the relationship between participants in the network, what they produce and how this is affected by, and in turn affects, the development of the network.

The design methodology for the YIRN website takes an *open architecture* approach. This approach is informed by the notion of the 'internet commons' or the 'innovation commons' as articulated by Lessig (2001). Lessig believes that innovation on the net prospered because of the very nature of the internet: it's basic and open-ended architecture ensured that creativity and ideas could emerge and flow freely. Lessig fears that the current structural shift in this architecture, intricately linked to commercial forces, will destroy the very creativity and innovation that it originally set out to enable. In resisting this trend, Lessig believes 'our aim should be a system of sufficient control to give artists enough incentive to produce, while leaving free as much as we can for others to build upon and create'. Earlier research around a QUT streaming audio website, EMIT,

and a study of a Sri Lankan radio and internet project identifies the clear need to provide 'spaces of freedom' for creativity and innovation to prosper. Creativity and innovation happen when these spaces are protected (Tacchi 2003; Slater and Tacchi 2002, 2003). Mainstreaming is generally antithetical to innovation which is more likely to happen 'in the margins'.

This can be seen as an exercise in *alternative media*. Atton (2002) believes that the study of alternative media, its production, consumption, and organization, 'opens up politically liberating approaches to these "media on the margins"' (2002:6). Atton and Couldry (2003) state that the salience of alternative media research to the broad agenda of media and communications research is growing. The reasons are structural. Among them are the way in which the internet can be used to create new power relationships between producers and consumers, allowing new kinds of access, and, 'the near bankruptcy of 'Western' models of democratic practice in the face of declining voter turn-out, apathy and neo liberal appropriations of politics as a sector of the consumer market. (ibid, p.580). In almost every western country there is a collapse of confidence in traditional models of democratic governance (Coleman and Gotze 2001: p4). In this international climate of civic concern, the internet's potential to connect citizens with their representatives and governments is proposed as a promise of hope for contemporary democracies. As Douglas Alexander MP puts it, 'The Internet has the potential to produce an information-rich world in which all citizens are able to communicate, educate and legislate in a way previously considered impossible' (Rushkoff 2003, p.14). We deal with questions of power and democratic engagement elsewhere (Tacchi, Lewis and

Hartley 2004; Tacchi forthcoming). Here we can focus on the idea that alternative media spaces promote innovative and creative practices, and how the actual construction of media spaces influence the activities and levels of creativity that occur (Tacchi 2003). The way the YIRN network is designed will influence this.

Networks, architecture, content and creativity

In terms of internet architecture, Lessig describes it as three layers, and these layers all have an affect on creativity and innovation – the physical, code and content layers. The physical layer relates to access to physical components that are required to produce creative content. In the case of YIRN, this refers to the software and hardware required to enable creative production. The code layer refers to what gets published, and where. In the case of YIRN, this refers to a website with the necessary server space and capabilities as well as appropriate copyright licenses. The content layer, in the YIRN context, refers to the ability of young people to upload and manage content and the provision of necessary training that will respond to, and enable them to fulfil creative aspirations.

The concept behind the design of the YIRN website rests on these premises. The first stage of the YIRN website will begin with a very basic website. Basic in its appearance and useability and open in that it has not defined/restricted itself. Behind this simple architecture however, lies a complex backend that includes the necessary hardware and configuration including a streaming server and a content management system. These features will be ready to respond to the network as it grows.

The website will initially grow, with a team of around 250 young people participating through ten project partners, from a broad social, geographical and cultural spread. These project partners are already working with groups of young people and they will coordinate YIRN at a local level to enable interested young people to join and participate in the network. Thus, the network will begin with a diverse pool of young people who will be contributing to the network's growth and its design. In effect, through their participation they will decide on the network's capabilities as well as who can access it, when and how. Decisions regarding *the ways in which the network should grow* will be achieved through online and face-to-face interaction between the network of young people and YIRN researchers and designers.

Although restricting access to the website in its initial phase will limit the potential for growth of the network, this allows YIRN to grow in a way that is relevant to its defined primary target producers/ audience: young people in Queensland. This 'controlled' level of interaction will also enable researchers/designers to adequately respond to the young people- their needs and demands- whilst learning about appropriate ways to ensure the network is both relevant to young people in Queensland whilst being active and vibrant (and thus sustainable).

Exploring new understandings of 'creativity'

Content creation training will provide YIRN with an important way of interacting with young people and getting to know the content providers and their localities. Through the workshops, young people will learn about the possibilities (and restrictions) of new

technology and through their experimentation they will be shaping the content of the website and the development of the network.

The YIRN project will include three content creation training workshops for participants over a two year period. The first training session is using the 'Digital Storytelling' training method. Daniel Meadows who trained the YIRN researchers who will conduct the training, considers digital stories to be 'scrapbook television made on the kitchen table, with feeling' (www.photobus.co.uk). This method has been selected because it combines a number of different types of creative content training: storytelling, still image production and manipulation, video and sound production. In this way, it is expected that the training will open up the network, and young people, to the possibilities for various types of online creative content.

The four day training we provide to some members of the initial 'closed' youth network involves each participant producing a two minute digital story using Adobe PhotoShop and Premiere software. Training will also be provided in storytelling, sound recording and editing as well as the use of video and still digital cameras. The following two workshops will be coordinated in response to young people's expressed interests and YIRN will work by linking partner sites with appropriate funding, training and support.

In early 2005, following six weeks of the 'closed' network informing the websites design and development, the second phase public YIRN website will be launched. This website will include content that has been produced as part of the Digital Storytelling workshops,

as well as content young people in the network have uploaded on the website or posted to the YIRN design team. With the launch of this public YIRN site, young people will have defined many aspects of the site- how it is categorised, what features and capabilities it includes, who, how and when others can participate, the 'rules', if any, of the site, whether there are 'gatekeepers' who organise and edit creative content (or not), age restrictions etc. All of these questions will have been raised and decided by young people, in communication with researchers/designers during the first phase.

Like Lessig, we are wary of assumptions that online spaces necessarily need to share any of the structures and rules of offline social spaces. Lessig's argument is not that all constraints are restrictive. Here he uses the example of the sonnet and similarly, we would argue the two minute or 250 word constraint of the Digital Story enables rather than constrains creativity. Lessig's point, is not that *all* constraints should be avoided, merely constraints that might inhibit creativity and innovation.

With YIRN, we will view all types of content on the website as a form of creativity. We broadly categorise three types of content young people may produce as part of the network: 1) *Found content* is content they have completely sourced elsewhere but may use/represent in a new way/context, 2) *self forming* content is that which is formed through online communication such as blogs, chat and email and 3) *creative content* refers to original content that young people produce that may also utilise found and self forming content. We aim to ensure that young people will have the ability, both technically and legally, to collaborate in producing content. Complex copyright laws play

an uncomfortable and often unclear role in restricting access to and use of content on the internet. The YIRN project seeks to fully explore licensing options, working with licensing bodies, in order to investigate an agreement that legalises the network, without constraining its possibilities. In addition, YIRN is investigating the use of Creative Commons licensing for the original content young people produce through the network. Creative commons licensing utilises private rights to create public goods. Like the free software and open-source movements, creative commons licensing offers creative producers ‘a best-of-both-worlds way to protect their works while encouraging certain uses of them — to declare ‘some rights reserved’” (www.creativecommons.org).

In Conclusion

Ultimately, YIRN is experimenting with the creative potential of new media technologies. In order to do so – to create a space where innovation and creativity is encouraged – we are having to work through a whole range of issues and ideas about the role of media, content, producers and consumers (or readers and writers), and develop applications that allow, encourage and promote creativity. This paper presents just some of the issues and ideas that we are grappling with and which the project and research will address over the coming months.

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