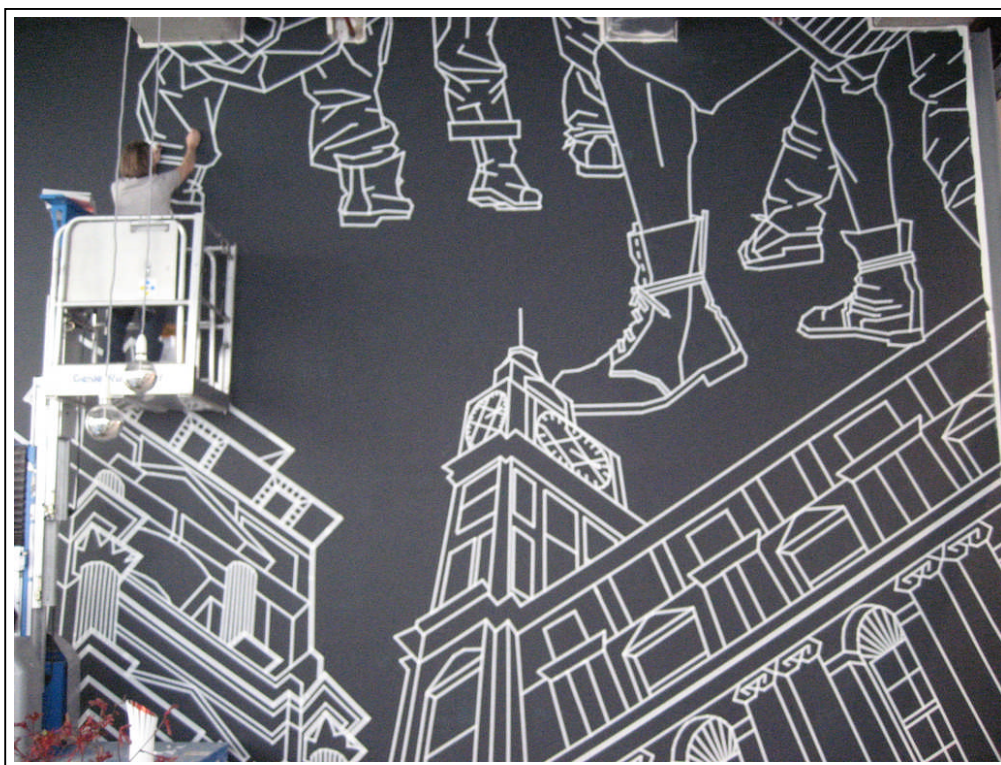


Mental Health and Wellbeing Unit
Victorian Health Promotion Foundation



Young people, wellbeing and communication technologies



BUFFdiss 'WOW exhibition in progress'

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Executive Summary

Background

Information and communication technologies (ICTs) play an increasingly significant role in the key social and economic determinants of young people's mental health that have been identified by the Victorian Health Promotion Foundation in its Mental Health Promotion Framework, 2005 – 2007. ICTs create new processes of social inclusion, can contribute to ensuring freedom from discrimination and violence and facilitate access to economic resources. 'Cyberspace' represents a new sphere for action. This report was commissioned to provide an overview of the role of ICTs on young people's social relations, to provide a framework for understanding the ways in which ICTs impact on their health and wellbeing and to recommend possible initiatives within the Mental Health Promotion Framework.

Conceptual approaches

The report identifies two key (related) conceptual approaches which frame the way in which ICTs are understood to impact on young people's social relations: identities and citizenship.

Identities

ICTs have become an important medium through which children and young people learn about themselves and their relationship to others and the world and through which meaning is constructed. ICTs provide powerful 'identity resources' for children and young people through two main mechanisms. They facilitate communication between people and they facilitate communication between people and websites. Through these processes, children and young people have access to new and complex expressions of identity (including 'consumption' identities, which are constructed through commercial web sites). Young people also have access to new ways of expressing and communicating, which extend our understandings of text and literacy well beyond the traditional ones.

Citizenship

ICTs also shape the possibilities of whom we connect with and how we belong. They have expanded and enriched existing links between popular culture, citizenship and belonging. As young people actively and creatively take up the objects and symbols provided through media, and use them for their own purposes – creating new symbolic meanings, and new spaces for communication and meaning-making, the lines between citizen, consumer and producer are blurred. Virtual communities, political engagement through the web and blogs are examples of young people's active engagement in civic society through ICTs.

There is disagreement about whether ICTs are a positive or negative force in young people's lives. However, it is widely argued that given the widespread and pervasive impact of ICTs on young people's lives, it is important to understand these new forms of communication and to employ them for positive purposes.

Young people and ICTs

Young people and ICTs is a rapidly developing field, and it is therefore difficult for systematic research to keep pace with shifts in practice. For example, much of the available literature focuses on the Internet and on mobile phones, which represented the first wave of engagement of young people with ICTs. Research has yet to systematically address significant new moves by young people, as subsequent waves of engagement, which move beyond the 'one-way' traffic of 'traditional' ICTs. Personal publishing and blogging are now commonplace, gradually shifting the balance from using the Internet as a source of information, to using it primarily to communicate.

The research tends to be fragmented. Most research explores only one form of communication and only one dimension of social interaction. Due in part to the relatively limited frameworks within which the research is conducted, findings can appear to be contradictory.

The report summarises available evidence on the impact of ICTs on young people's social relationships under three headings: engagement, dis-engagement and isolation; on-line communities and the digital divide.

Engagement, dis-engagement and isolation

There is a substantial body of research that highlights the role of the Internet in facilitating engagement and social connectedness. Some focuses on the negative psychological impact of connecting with others on the internet, and the potential for 'loners' to prefer technologically

mediated relationships. Other research emphasises the benefits to individuals of being able to use ICTs to express themselves when face to face interactions can be difficult. While systematic research has yet to address the newer phenomenon of blogging and personal publishing on the web, there is evidence that this is an important area of communication, particularly amongst young people. New research is highlighting the role of ICTs in creating a zone where young people can 'disengage' from the pressures of everyday life. There is also emerging research that highlights the impact of ICTs on the imagery that young people use (e.g. when using drugs) and the testing of new forms of social relationship through the phenomenon of 'flashmobs'.

On-line communities

One of the most significant, but contested areas is the definition and impact of online communities. While the conceptual literature emphasises the revolutionary potential of ICTs to fundamentally change the meaning of community, freeing it from the constraints of physical proximity, there is debate about the extent and nature of online communities and their relationship with 'real' communities. The extent to which online communities represent a new form of political participation and social activism is unclear. The growing interest in the impact of globalisation and new forms of technological communication have resulted in young people becoming some of the key protagonists of new and alternative forms of collective online political activism that have been by their very nature creative and innovative. In the main however, levels of political engagement on the Internet reflect those of the real world. ICTs have also fostered the emergence of new forms of 'community', illustrated through the phenomenon of 'webcam' girls. Finally, ICTs are an important source of information for some groups, and in particular, young people seeking specific information on health issues.

The digital divide

The lack of access to ICTs reproduces and widens the digital gap, generating further health, educational and employment disadvantages for young poor people. It can also constrain them from opportunities to find social support through new online and offline communities, effectively reproducing social stratification. While information technologies have the potential to enhance the levels of connectedness and access to vital information for Indigenous Australians, the reality is that existing material and economic inequalities tend to determine who has access to information technologies and who does not. In 2002, 56% of Indigenous people reported that they had used a computer in the

last 12 months and 41% reported that they had accessed the Internet in the last 12 months. Use of information technology (IT) was much higher in non-remote areas with computer usage and Internet access rates roughly double those for remote areas.

Gaps in the literature

The report identified gaps in four areas:

Wellbeing

Comprehensive and systematic research on the nature and meaning of relationships and social connections occurring through the use of information technologies has the potential to generate important knowledge about the role that information technologies now play in enhancing (or harming) young people's health and wellbeing.

Meaning and Social context

There is an urgent need for a more holistic approach to the complex use of the Internet and the mobile phone by young people. Greater attention needs to be given to the use of mixed method research designs that involve both quantification and qualitative methods with a longitudinal element to address this gap.

Diversity

The most striking gap is research on the experiences of Aboriginal youth, but there is also too little known about young people in rural communities, young people who do not attend school, of young people from different socio-economic and cultural backgrounds and across rural and urban settings.

Participant research.

As the field of participant research with young people has become more widely recognised, the opportunity exists to involve young people in the design and implementation of research.

Models of practice

The report identifies six examples of the breadth and depth of web-based and digital communication initiatives that address young people. The sites are: Speakout; 10 MMM; the Global Classroom Project; Global Youth Voices; Headroom; and Government-led initiatives. The report also identifies areas of research activity.

Four examples of innovative practice are identified. These initiatives are innovative because they actively engage young people in many (or all) elements of the design, implementation and delivery of the sites. These are: Inspire Foundation (including Reach Out!); Vibewire Youth Services (including election tracker and Sanctuary); TeenNet; and Digital Film making.

Potential areas for development

The report recommends consideration of the following potential areas for future development and activity.

1. Clarifying wellbeing and communication: exploratory research and creating conceptual frameworks.

The review reveals the need for a clearer, more sophisticated conceptual basis for understanding the relationship between health and wellbeing and the use of information technologies by young people. The concept of wellbeing as a measure of the quality of relationships between individuals and within a community needs to be clarified. This background work would mean that further research on the role of communication technologies in enhancing wellbeing would have a stronger basis. The use of the conceptual piece would be enhanced through the generation of preliminary data about young people's perceptions and experiences of the use of information technologies in relation to various dimensions of their wellbeing.

The commissioning of a conceptual piece on wellbeing and communication would furthermore provide a conceptual framework within which the links between wellbeing and information technologies could be researched. This framework could inform a series of small, participatory projects in which researchers work with young people to conduct focus groups around Victoria to gain preliminary data on 'being well, communicating, connecting and learning through technology'.

2. Comparative longitudinal research in different locations

The conceptual work would in turn provide the basis for a series of more expansive and comprehensive research projects:

2.1 Community studies project. Research designed to generate knowledge about the diversity that exists across Victorian youth across a wide range of information technology use, according to: age (13 – 15 year olds / 16 – 18 year

olds), gender, socio-economic status, race, geographic location. The significance of this research is that it would enable a comparison across these dimensions based on a more holistic understanding of information technology use and overcome the problem of the lack of comparability of individual, small research projects. There are many opportunities for this research to be designed around principles of participatory research, with young people involved in the design, implementation and analysis of the data.

2.2 Research project designed to identify which groups make the most use of web based communication and for what purpose

The literature reveals that many young people are attracted to the capacity for accessing information and 'spaces' on the Internet that they cannot access in geographic space. More research is needed to understand which groups of young people use the internet in this way and what this means for their development, health and wellbeing. The literature also shows that a limited cross-section of young people are using the Internet as a site for civic engagement. More needs to be known about the conditions and factors that would facilitate active engagement with ICTs by a wider cross-section of young Australians.

:

3. Promoting diversity through cyberspace

3.1 Research designed to explore the experiences and needs of particular groups of young people in greater depth.

A priority could be on working with Indigenous groups to develop an appropriate research design to research the issues and opportunities of information technology for the enhancement of young Indigenous people's health and wellbeing. Other groups about which little is known are migrant and refugee youth and young people in rural settings.

3.2 Creation of new interactive, web-based sites for the promotion of cultural diversity amongst young people.

Drawing on the experience of sites such as Reach Out! Act Now and Vibewire, partnerships with experienced organisations (such as the Inspire Foundation) and community groups (for example, Aboriginal, refugee and migrant youth, young people in non-metropolitan areas) would enable the creation and implementation of web sites that would extend engagement (both on-line and face to face) from the currently relatively limited participants to wider groups to promote their civic engagement, health and wellbeing.

4. New identities – new voices in film

Digital film has extended the possibilities for cultural creation and expression and engagement. This initiative could involve the establishment of partnerships between young people, professional film-makers and community groups to generate a series of films addressing contemporary experiences and issues from young people's point of view.

5. Education in a digital age

It is suggested that new models of literacy, acknowledging the blurring of formal and informal learning settings could be modelled. This could involve the establishment of a partnership between teams of students, teachers and other educationalists and ICT-focused organisations to design and showcase interactive, digital, sites which bring new forms of literacy and learning practice that young people engage with more centrally into mainstream educational practice.

Background to this Report

The Victorian Health Promotion Foundation, VicHealth, is an independent statutory body established in 1987. VicHealth works towards the development of innovative responses to the complex social, economic and environmental forces that influence the health of all Victorians. VicHealth has a particular focus on a flexible, responsive and evidence-informed approach to working with partners from across different sectors in the community to create environments which improve population health.

In 1999, in recognition internationally of the growing human, economic and community costs associated with mental ill health, VicHealth identified mental health as a priority and established a program for the development of activity relevant to the promotion of mental health and wellbeing.

Mental health is defined as:

'the embodiment of social, emotional and spiritual wellbeing. Mental Health provides individuals with the vitality necessary for active living, to achieve goals and to interact with one another in ways that are respectful and just' (VicHealth 1999).

The VicHealth Mental Health and Wellbeing Unit is responsible for managing activity relevant to mental health promotion including:

- ⦿ Research, monitoring & evaluation
- ⦿ Direct participation programs
- ⦿ Organisational development (including workforce development)

- ⊙ Community strengthening
- ⊙ Communication & social marketing
- ⊙ Advocacy
- ⊙ Legislative & policy reform.

Activity is directed towards strengthening three key areas for promoting mental health and wellbeing:

- ⊙ **Social inclusion** (having supportive relationships, opportunity for involvement in community and group activity, civic engagement).
- ⊙ **Valuing diversity and working against discrimination and violence** (having physical security and opportunity for self determination and control of one's life).
- ⊙ **Access to economic resources** (access to work, education, housing, money).

VicHealth's interests lie across a range of population groups who are vulnerable to disadvantage and ill health as the result of these determinants. The settings and sectors with which these population groups engage, can influence or exacerbate this vulnerability. Technology/cyberspace is regarded by VicHealth as a setting. In the context of this paper, of major interest to VicHealth therefore are the multiple influences and effects that technologies can have on young people's experiences of social inclusion/ exclusion.

“The role of technologies in young people's lives is becoming increasingly significant and pervasive. The information society has changed the learning, working and social conditions for young people.” (Takingitglobal)

Introduction

We sit in front of our computers at work, surf the net, send e-mails, play games on consoles, watch television that is both produced and, increasingly, distributed digitally, read magazines and books all of which have been produced on computers, travel with our laptops, enter information into palmtops, talk on our digital mobile phones, listen to CDs or MP3s, watch films that have been post-processed digitally, drive cars embedded with micro-chips, wash our clothes in digitally programmable machines, pay for our shopping by debit cards connected to digital networks, and allow the supermarkets to know our shopping habits through loyalty cards using the same networks, withdraw cash from automatic telling machines, and so on. Digital technology's ubiquity and its increasing invisibility have the effect of making it appear almost natural.

(Gere 2002: 198, quoted in Carrington & Marsh 2005: 284).

Over the last ten years, digital technologies have transformed our lives in ways that we now take for granted. In particular, information and communication technologies (ICTs) are seen to have had a profound effect on social relations, and many social theorists see them as a defining feature of modernity (Bauman 2004). Traditional communication boundaries of time and space, of producer and consumer have been crossed or blurred, as digital communication technologies, released from limits of physical space, demand a new way of visualizing communities, offer new possibilities for shaping identities and new ways of constructing community.

While information technologies may have had a transformational effect on older people's lives, their impact on young people is even more profound, because the young have no previous experience to 'transform' – the world of communication technologies is the only world they know.

In Australia, the use of the Internet and mobile phones has been growing swiftly over the last few years.

- In 1998, only 16% of Australian households had access to the Internet, while in 2002, 46% of households had access (Australian Bureau of Statistics 2003b).
- households' possession of a mobile phone increased dramatically from 44% in 1998 to 72% in 2002 (Australian Bureau of Statistics 2003c).
- People under the age of 25 years are by far the greatest users of Internet with over 40% of them using it (Lloyd & Bill 2004).
- Those aged from 10 to 19 years have the highest rate of Internet use (60%). Of these, young people in the 15 to 19 group are slightly more

likely to use the Internet, with use declining from the age of 20 (Lloyd & Bill 2004, Australian Bureau of Statistics 2003a).

Young people drive the booming market of mobile phones in Australia.

- Eighty per cent of 15 to 17 year olds own or have access to a mobile phone (Tjong et al. 2003), while the age for first ownership of a mobile phone is estimated at 14 years old (The Australian Psychological Society 2004).

This discussion explores the influence of communication technologies on young people's social relationships, including the construction and expression of identities, belonging, inclusion and exclusion. Communication technologies are increasingly significant to the key social and economic determinants of mental health; in creating new processes of social inclusion, in ensuring freedom from discrimination and violence and in facilitating access to economic resources, and 'cyberspace' represents a new sphere for action. Firstly, we explore the main conceptual approaches to understanding the complex relationship between ICTs and young people's social relations. This section sets out the reasons for taking the relationship between young people's lives and ICTs seriously. Next, the review focuses in more detail on the evidence base on the relationship between ICTs and young people's social relations and wellbeing. Following this, the report provides a brief description of state, national and international youth-oriented websites that address young people's interests and provide participatory Internet sites to enhance young people's political and social engagement. **The report concludes with recommendations for future activity by the Victorian Health Promotion Foundation within the Mental Health Promotion Framework 2005 – 2007.**

Conceptual approaches to young people, ICTs and social relations

While there is widespread agreement that new ICTs have had a profound impact on young people's lives and have the potential to create even further, far-reaching changes to social relations, there is a divergence of opinion on the nature and impact of these changes. For example, do ICTs affect fundamental aspects of social relations, such as identity formation? Do ICTs influence the nature of young people's social relations? If so, how far-reaching are these changes and what drives the direction of change? Does ICT offer new liberating, emancipating opportunities for the creation of new communities and spaces where young people can belong, or is it inherently constraining and oppressive?

In part the divergence of opinion on these questions is related to the fact that this is a very broad conceptual field, encompassing all areas of social life, and most of these areas are already theorised (or understood) from within established disciplinary areas. For example, ICTs have had a powerful impact on shaping: youth culture and subcultures; reading, writing and literacy; citizenship and participation; media production and formation; marketing and commerce. Thus, in seeking to review what is known about the impact of new technologies on young people's social relations, it is necessary to access knowledge generated from a bewildering range of fields. Examples include: cultural studies; youth studies; literacy and semiotics; educational sociology; political science; media studies; and business studies - and this is just a start.

Our starting point has been to explore the common conceptual themes that occur within and across some of these literatures. At the broadest level, each of these fields is dedicated to understanding the ways in which communication technologies affect social relations. Despite the breadth of their scope, there are recurring themes. For example, social relations are generally interpreted through the related lenses of identity and citizenship.

Interpreting social relations through identity tends to place the emphasis on the ways in which ICT influences individuals and the ways in which individuals make meaning. A focus on citizenship shifts the focus from the individual level to explore the related ways in which ICTs contribute to and shape community, belonging and engagement with society. Both are important, and both argue that ICTs have blurred the distinction between producers and consumers (of culture, of text and of meaning). The way in which these concepts and positions are taken up through different perspectives is discussed in more detail below.

Identities

The concept of identity is central to understanding the relationship between ICTs and social relations. This is because ICTs have become an important medium through which children and young people learn about themselves and their relationship to others and the world and through which meaning is constructed. Perhaps because of the power of ICTs in this learning process, much of the literature on ICTs and identities has been produced by educationalists. Within this literature, which is a diverse field in its own right, educationalists have focused on identity in two, related ways. These are summarised by Chappell et al. (2003). While their purpose was to focus on the way in which education itself is primarily 'identity work', their description of the conceptual basis for understanding identity fits well with the literature on ICTs.

Firstly, identity is seen as a product of 'discourse'. That is, identity is not fixed or immutable, but is produced through the available positions which individuals can take up and through individuals' experiences. Identities are storied, or narrated into being through everyday practices. These stories are part of the fabric of life. They construct places from which we can position ourselves, and from which we can speak. They include the sometimes invisible exercise of power within our lives, especially effects of inequality, poverty, gender, race and disability. The second way in which identity is defined is 'relational'. This approach builds on 'discourse' by emphasizing the way in which identities are realised within the shifting patterns of our connections with others.

In other words, identity is seen as a dynamic process, and is told, performed and re-told in a variety of settings, through various forms of storying or narrative. The telling and performance draws on available cultural, symbolic and material resources. This has been well documented within youth studies, focusing on the material and cultural resources used by young people to 'story' their lives (for example, Wierenga 1999), but the role of storying and narrative also has significant implications when applied to ICTs.

Other researchers have expanded on these basic elements. For example, Merchant (2005) argues that identity is not about identification but about 'action and performance', for 'wearing and showing, not storing and keeping' (Merchant 2005: 304). He echoes the approach taken by Beck and Beck-Gernsheim (2002), who argue that one of the hallmarks of social change over the last 30 years is that identity must be constantly performed and enacted

anew and that individuals are required to 'stage manage' their own biographies. As part of the process through which we do this, digital technologies are intimately implicated in 'who we are' and 'how we relate' (Merchant 2005).

In other words, various forms of ICT have significance in the construction of identities because they profoundly affect the forms and processes through which social relationships are conducted, and they provide powerful 'identity resources' for children and young people (Carrington & Marsh 2005). This occurs in two ways, both of which involve a significant repositioning of time and space and new opportunities for making meaning (Atkinson & Nixon 2005).

Firstly, ICTs involve interactivity between people. Mobile phones and the internet allow people to connect with people who are not physically present. This includes interaction that may remain 'virtual', allowing for the possibility of transcending the limits imposed by face to face interaction on how we construct the place from which we speak. These ICTs also facilitate new forms of communication, from 'texting' language, to the increased use of images, creating endless possibilities for 'speaking', storying and narrative communications between people. The creation of on-line communities also generates new possibilities for individuals to access and perform narratives and to create meaning. In their different ways, these elements inevitably provide resources for the construction and performance of identity.

Secondly, ICTs involve communication between people and websites. This is never entirely 'interactive', but nonetheless provides a powerful medium for communication, as people access sites such as ninemsn or MySpace.com. Here they can connect with sites that construct children and young people in particular ways, and can access and practice new narratives. Here, they also connect with sites that offer access to pleasures associated with consumption and games. These features also offer opportunities for identity performances, within the confines of being an audience to commercially produced content.

There are divergences within this literature, which revolve around the question of whether ICTs are liberating or oppressive. For example, some educationalists argue that the use of computer aided writing and computer games are a resource for children and young people, enabling them to play with different identities, and to challenge expectations. Evidence for this is provided through a study by Beavis and Charles (2005) who show how children use a computer game to challenge traditional gender assumptions. Merchant (2005) also shows how children use digital writing to perform their

identity, drawing from their own lives and from popular culture to create their personal narratives that they expressed in their writing.

Others argue that the liberating potential of ICTs can be overrated. This is taken up more extensively below in the section on citizenship, but it is important to consider the ways in which ICTs are used by commercial interests to construct particular identities for children and youth. This point is made by Atkinson and Nixon (2005), through their study of the positioning of youth identities within the Australia-based ninemsm web site. They draw attention to the extent to which the web is a 'commercially saturated' context for 'communication practices, meaning-making, identity and community formation' (Atkinson & Nixon 2005: 389).

Through extensive market research involving both large-scale surveys and ethnographic research, media organisations aim to understand the identities, affinities and aspirations of young people as consumers, to be delivered to advertisers. Atkinson and Nixon describe how ninemsm do this through the construction of 'personas'. These are imagined individuals whose identities are constructed from extensive research on young people. Personas provide both a form of identification for users of the site and a means for selling advertising. The persona created by ninemsm is the persona of 'consumption' – the individual who is driven by the imperative to consume. While academics and policy makers are just beginning to understand the role of ICTs in constructing young people's identities, it is clear that commercial interests have already learned this and put their learning to use.

In exploring the role of ICTs in young people's identity formation, it is important not to fall into sentimentalizing young people as 'innocent and vulnerable' and 'requiring protection from the predations of the media and the markets that drive it' (Atkinson & Nixon 2005: 400). Neither is it appropriate to take up simplistic positions which 'romanticise' young people as savvy, media-wise, and entrepreneurial. There are two compelling reasons for this caution. Firstly, while the term 'young people' has a pragmatic use for the purposes of discussion, it is important to remember that this covers as diverse a grouping of people as is possible. While age does offer what seems to be a tangible common force binding all young people together, attempts to generalize do a grave injustice to the things (such as race, geographic location, class, and gender) that separate young people from each other (Wyn & White 1997). Hence, generalising about the impact of ICTs across all young people is flawed. Secondly, there is an extensive literature that documents the ways in which children and young people 'receive' and respond to media, in different and unpredictable ways (Atkinson & Nixon 2005: 391). This point is also made by Dolby, who reviews studies that show there is no proven direct line

between the encoded messages of popular culture and the messages that individuals receive or decode (Dolby 2003: 265). Others point out that communication technologies do not 'determine' social relations, in the uniform and direct way that is implied in technologically determinist arguments (for example, Boase & Wellman 2004).

In summary, various forms of ICT are an integral part of the lives of many young people today, and in the future are likely to be even more so. Theorists argue that ICTs are implicated in fundamental ways in the formation of young people's identities, because ICTs are both a medium through which social relations are conducted and a force that shapes the nature of these social relations. In the following section we discuss this in more detail through a consideration of the role of ICTs and citizenship.

Citizenship

The concept of citizenship allows us to extend the understandings about the role of ICTs in young people's lives to encompass community, participation in society and belonging. In other words, ICTs do more than shape the construction of individual identities; they shape the possibilities of who we connect with, and how we belong.

The term citizenship has many meanings. It can usefully be described as a continuum, from minimalist forms of citizenship to maximal forms (Evans 1995). Minimal interpretations of citizenship emphasise young people's civil, legal status, rights and responsibilities as members of our community. The main focus of this approach to citizenship is in the production of the 'good citizen' who is public-spirited, law-abiding and who exercises political involvement through voting for representatives. This approach to citizenship tends to identify citizens as consumers who, at most, exercise their 'rights' through the marketplace of the vote or poll. It focuses on young people's knowledge of institutional rules, rights and obligations (Mellor et al. 2002). At the other end of the continuum, is maximal citizenship. This approach focuses on the extent to which young people have a consciousness of their involvement in a shared democratic culture. It emphasises participatory approaches to political involvement, and highlights the ways in which social disadvantage undermines citizenship by denying people full participation in society.

The youth studies and cultural studies literatures contain the most significant insights into the relationship between ICTs and citizenship, largely through a longstanding interest in the links between popular culture, citizenship and

belonging (Willis 1977, Giroux 1994). Popular culture (including the cultural forms produced through ICTs) is seen as a powerful 'pedagogy' through which young people learn about their social world, and through which they express their understandings of their world. Youth studies has tended to focus on the ways in which young people actively and creatively take up the objects and symbols provided through media, and use them for their own purposes – creating new symbolic meanings, and new spaces for communication and meaning-making.

This literature highlights the blurring of lines between production and consumption. For example, Willis suggests that 'active consumption' by young people is a kind of production (Willis 2003: 402). He argues that, through ICTs, there is a seemingly endless stream of cultural symbols and forms that young people appropriate, and that it is important to separate the 'predatory' from the 'creative' elements (within consumer culture) in order to understand the ways in which young people 'acculturate commodities into their everyday lives' in order to transform their lives' (Willis 2003: 413).

Echoing the work of a number of the educationalists cited above (e.g. Atkinson & Nixon 2005, Merchant 2005), Willis points out that, far from being passive consumers, young people creatively respond to electronically produced cultural products in ways that surprise their makers, 'finding meanings and identities never meant to be there' (Willis 2003: 392). He is interested in the ways in which these cultural forms are used in everyday life in the places where young people meet in shared physical space – in schools, malls and nightclubs.

Harris (2001) provides an example of this. She argues that young women have used 'zine culture within cyberspace to create discourses about girlhood that disrupt and challenge conventional media stereotypes of femininity, drawing on and transforming commercially available popular culture. In other words, ICTs enable young people to use popular culture as a site for political struggle.

A further example is the way in which on-line communities that were formed to support particular groups, such as same sex attracted youth, have made it possible for these groups to have social and political visibility and hence to actively assert their rights, not just as individuals, but as a group (Yang 2000).

Dolby also sees the positive possibilities in the blurring of citizen and consumer through the use of ICT. She sees possibilities for the mobilization of citizenship within a framework of consumption. Like Willis, she believes that popular culture can become a 'prominent political space for the

negotiation and enactment of a new dimension of citizenship: cultural citizenship' (Dolby 2003: 270).

The idea of 'cultural citizenship' brings together the conceptual fields of 'identity' and of 'citizenship'. It focuses on the more political aspects of identity, as suggested by Willis, Dolby and Harris above. ICTs provide a medium through which dispossessed or marginalised young people, who are not necessarily connected in physical space, can create a sense of belonging and identity, drawing on and appropriating cultural representations (e.g. texts, images, music). This use of ICTs is an extension of the use that marginalised groups of young people have traditionally made of popular culture to construct political identities and a sense of belonging. A classic work by Dimitriadis (2001) examines how African American youth at a community centre used rap texts in their daily lives, opening up possibilities for understanding their world and to shape identities and politics that were effective in their world. In a more recent example, Hollands (2005) suggests that Mohawk youth in Southern Ontario use a variety of cultural symbols available in the conventional media (movies, rap music) to overcome the dichotomy between 'authentic' Aboriginal and 'White Canadian' culture, and construct what Hollands calls a 'hybrid' identity that enables them to 'reinvent themselves as modern indigenous people' (2005: 6.9). A similar point is made by Dolby (2003) with regard to the use of popular culture by black students in a South African school, and the use of 'rave' culture to differentiate racial groups and resist White culture.

It would be fair to say however, that there is a sense of 'cyber-optimism' (Norris 2001) within this approach, and the evidence on the actual use of ICTs to foster maximal citizenship is less optimistic. Despite the hype about 'new ways' of participating in society through ICTs, Vromen (2005) points out that there exists a significant digital divide amongst 18-34 year old Australians. While young people under the age of 25 are the most frequent users of the Internet, the strongest correlations are between socio-economic status and internet use. The main characteristics of regular Internet users are: high weekly family income, high level of education, employed, especially in professional occupations and living in cities rather than regional or rural Australia (Vromen 2005: 3). She argues that this means that Australian young people, especially when they are no longer studying, cannot all be categorised as active Internet users. Based on an in-depth study of 287 18-34 year old Australians, Vromen concludes that people who are politically active and engaged use the Internet to supplement this. She found no evidence that the Internet or the use of other ICTs was the primary focus of political engagement. Her conclusions are supported by Atkinson and Nixon (2005) who claim that even for those who are interacting through ICTs, this does not

live up to the 'democratizing, emancipatory potential that is sometimes claimed for it'.

Despite this caution, there is a substantial body of conceptual work that provides a framework for understanding the impact of ICTs on young people's citizenship and engagement in society. The overwhelming weight of this literature points to the need for the institutions that have responsibility for young people's learning, health and wellbeing to recognise how much of young people's lives are shaped, influenced and constructed through communication technologies. There is a sense of urgency about this literature. While the metaphor of the 'blurring' of boundaries between formal learning (through school and through public health campaigns for example) and informal learning through popular culture is an effective one, it gives the impression that the blurring is a two-way process. Yet, this is not the case. While young people are learning through an increasingly wide range of media and in very diverse formal and informal settings, formal education is criticised for being locked into 19th Century, anachronistic notions of learning. Carrington and Marsh (2005) point out that learning within schools bears increasingly little resemblance to the increasingly multimodal and multi-media out-of-school practices.

This point seems to have been taken by at least one education department in Australia. A recent report by 'Education au' for the ACT Department of Education and Training argues that emerging ICT such as mobile phones and I-Pods can play an important role in fostering critical thinking, new ways of learning, and great engagement within schools. Hence these new ICTs should not be banned but embraced within schools as effective educational tools. The paper can be found at the following link:

<http://www.det.act.gov.au/publicat/pdf/emergingtechnologies.pdf>

The Ministerial Advisory Council for Educational Renewal (MACER) in Queensland has also published a discussion of ITC in the social world of young people means for education, which can be found at:

<http://education.qld.gov.au/publication/production/reports/pdfs/creativewfor ce.pdf>

Similarly, Holland's discussion of the role of popular culture and ICTs in the re-invention of contemporary Indigenous cultures emphasises the importance of working (selectively and critically) with the communication media that young people relate to, because the alternative is to condemn them to a world in which the only 'authentic' Indigenous culture is rooted in the past.

While the approaches taken to hybrid identities and consumer citizens may seem a little optimistic, their explorations set out a possible framework for

harnessing the potential of ICTs to enable young people to participate in a more maximal way in their communities. There is also pragmatism at work here. The conceptual work by Hollands (2005), Dolby (2003) and Willis (2003), for example, provides basis for understanding how to move beyond the merely commercial, limiting elements of ICTs, to work constructively and positively with media that young people know, to enhance their wellbeing.

Young people and ICTs

In this section, we focus more directly on the evidence base on the relationship between young people's wellbeing, inclusion and exclusion and ICTs. At the outset, it needs to be stated that developing a systematic evidence base on this topic is a huge challenge. This is because the field is developing rapidly, and it is difficult to keep pace with shifts in practice. For example, much of the available literature focuses on the Internet and on mobile phones, which represented the first wave of engagement of young people with ICTs. Research has yet to systematically address significant new moves by young people, as subsequent waves of engagement move beyond the 'one-way' traffic of 'traditional' ICTs. Personal publishing and blogging are now commonplace, gradually shifting the balance from using the Internet as a source of information, to using it primarily to communicate. A recent poll conducted in the U.K. shows that a third of 14 to 21 year olds have their own online content (Gibson 2005).

Much of the available research discussed here is informed by implicit rather than explicit conceptual frameworks, focusing on the extent to which ICTs foster social inclusion or exclusion. Both 'identity' and 'citizenship' feature as key underlying concepts, although these tend to remain at an undeveloped level. As a consequence, the research described in this section tends to take the social for granted, and ironically in doing so, often fails to register the extent to which ICTs do not just 'affect' young people, but have transformed the very nature of young people's social relations themselves. Where the conceptually oriented literature often tends to take all ICTs within one sweep, the research is far more fragmented. Most research explores only one form of communication and only one dimension of social interaction, with the overwhelming weight of research focusing on the Internet and mobile phones. Due in part to the relatively limited frameworks within which the research is conducted, findings can appear to be contradictory.

In this section we summarise the available evidence on key aspects of the impact of ICTs on young people's social relationships. Firstly, we explore the evidence on ICTs and engagement. Next, we look at the research on on-line communities, the issue of social inclusion and exclusion and finally, include a section specifically on mobile phones.

Engagement, dis-engagement and isolation

The evidence base on the extent to which new technologies promote or hinder social connectedness, inclusion, self-determination, safety, and freedom from discrimination amongst young people, tends to reinforce the division between cyber-optimists, who argue that the use of the Internet and mobile phones to help young people forming social networks and cyber-sceptics, who find that ICTs do not promote social connectedness, but tend instead to contribute to the process of individualization in society. There is also emerging research on the role of ICTs in offering spaces where young people can go to 'disengage' from the pressures of everyday life (e.g. through gaming) and to 're-engage' through simply enjoying being in the present.

Engagement

There is a substantial body of research that highlights the role of the Internet in facilitating social connectedness. Advocates for this view argue that new technologies have enormous potential to revolutionize society for the better, bringing people together and increasing the possibility of creating an environment of equality, respect and better social connectedness. Interestingly, when Kraut and colleagues expanded their first study about the Internet and wellbeing with a three year follow up of the 1998 respondents, they found that many of the negative effects had dissipated over the years (Kraut et al. 2002). They also found that increases in community involvement and self-esteem, and a decline in loneliness were more likely to be experienced by extroverted Internet users, and those with a broader social support base.

With regard to social connection through the Internet, McKenna et al. (2002) suggest that the anonymity provided by new technologies will encourage people that have difficulties in establishing face-to-face relationships to express themselves more easily and gain enough confidence to increase their social connections. They found that the relationships established through the use of the Internet were strong and long lasting. In addition, other researchers assert that the relationships established on the Internet continue on many occasions in face-to-face relationships (Katz & Rice 2002) providing different ways for people to connect with each other, and therefore, supplementing rather than substituting activities and relationships (Woolgar 2002).

However, the nature of the connections that young people make on the Internet is disputed territory. Some researchers suggest that youth online relationships are similar to and intersect with their face-to-face relationships

(Wolak et al. 2002, Vromen 2005). Wolak et al.'s national survey of adolescent Internet users in the United States found that young people use the Internet to interact with people that they have never met face-to-face and that these online relationships were mostly formed with people of the same age, with anonymity being a key attraction. They acknowledged that some online interaction took place between adolescents and adults but argued that they were mostly safe ones.

According to Suler (2004) people experience the Internet as a containing place where they can meet other people. He argues that cyberspace is a psychological and social space which people and not computers control. Others argue that both cyberspace and in-person relationships are important and complementary, and can lead to better social connection and understanding that will translate into a richer life. In addition, communication in one medium can stimulate other types of communication and interaction (Shklovski et al. 2004).

There is also some evidence that introverts gain more socially from Internet use than do extroverts, due to the way in which the anonymity and privacy of text-based communications can bypass physical barriers (Shklovski et al. 2004, McKenna & Green 2002). Young people who feel lonely or socially anxious on a daily basis are more likely to connect through chat rooms and spend more time on the Internet looking to meet other people, even people that they did not know (Gross et al. 2002). Ybarra et al. (2005) examine the types of activities youth with symptoms of depression compared with other youth engaged: the self-disclosure activities – posting a profile, sending or posting a picture and the possible gender differences in online experiences. Their findings confirm that youth with major depressive symptomatology are more likely to connect with strangers online compared with their asymptomatic peers.

Drawing on discourses of intimacy and participation, power and gender to understand mobile phone use amongst young people, Drotner (2003) perceived significant differences. She argues that boys and young men found easier to talk about sexual issues with the opposite sex through the mobile phone rather than in person, while girls and young women used it to keep in contact with their best girlfriends. Interestingly, females stressed that the being in contact was more significant than what was being communicated.

With regard to the use of Instant Messaging through the Internet, a study of young people supported the view that young people's peer relationships through the new technologies favour mixed-sex interactions while face-to-face relationships tend to be predominantly same-sex (Boneva et al. in press). They

also found that some males would turn to their female peers to share personal emotions or for social support through the Internet rather than their male friends, as they believe females were more supportive and receptive to their personal issues. This study also suggests that Instant Messaging use decreased with age because older adolescents had less free time and fewer friends than younger adolescents. Females were also keener than males to share personal information with their friends and family through telephone and email communications, making it easier for women to expand their social networks (Boneva et al. 2001). For males, telephone and email is seen more as an instrumental tool, while females believe that is another way of sharing feelings, but overall, this research did not find significant differences in the amount of time spent on the Internet between men and women (Boneva et al. 2001).

A study of Taiwanese adolescents' perceptions and attitudes to the Internet however, found that there was no significant difference between males and females on the affection and behaviour aspects of using the Internet (Tsai and Lin 2004). Tsai and Lin refute the idea that females' adolescents are disadvantaged in using technology-related equipment, as they have fewer opportunities to use it. In addition, they found that women approached the Internet as a tool to accomplish a task, while males saw the Internet as a toy for entertainment, due to many online games that are focused and designed for men. This study underlines the importance of taking cultural practices into account.

Goby's (2000) study of Singaporean youth found out that it was easier for adolescents to interact with peers online as opposed to face-to-face interaction, the main difference being the absence of physical proximity and the possibility of remaining anonymous. The Internet gave them the chance to freely express feelings that in person they were too shy to express. In addition, forums, chat rooms, newsgroups and other forms of communication and connection provide young people with opportunities to express and share emotions and thoughts without being held accountable.

While systematic research has yet to address the newer phenomenon of blogging and personal publishing on the web, there is evidence that this is an important area of communication, particularly amongst young people. Recently, a Guardian/ICM poll of 580 young people aged between 14 and 21 in the UK has found that young people, who have grown up with the Internet, on-line communities and text messaging, are able to launch their own blog sites without any specialist technical knowledge (Gibson 2005). The poll found that, rather than using the internet as their parents do, as an information source, to shop or to access news, they are using it to

communicate with one another. Interestingly, the poll found that while the Internet may provide a window on their lives, young people do not primarily use the Internet as a window on the world. Only 10% said that they used the Internet to access news or current affairs. Instead, they tend to use the internet to communicate, to download music. Young people aged between 14 and 21 spent the most time (an average of 3 and $\frac{3}{4}$ hours a week) chatting in online communities, compared with 3 $\frac{1}{2}$ hours a week on homework and 1 hour sending emails.

In Australia and internationally, media interests have moved swiftly to develop web sites that will deliver this very significant youth market to advertisers. For example, in Australia, ninemsm provides a portal dedicated to young people. The Murdoch press has recently purchased the MySpace.com site in order to access the youth media market. These are areas that would warrant further exploration.

Mobile phone technology has advanced to the point where it connects with other digital technologies, through texting (SMS), and this technology is also the subject of serious marketing to young people. Mobiles allow young people to communicate to take photos and send photos and images, participate in polls, organise social events and receive emails and to connect constantly. Its use by young people is related to critical moments of their life, such as looking for the first house, purchasing a car and starting a new job (Funston & MacNeill 1999). A study of text messaging by young people found that they use it because it is quicker than a telephone call, cheaper than making phone calls from their mobiles and more convenient than other communication methods (Eldridge & Grinter 2001). They found that text messages are used primarily to arrange social events or a time to call but, interestingly, they also discovered that it was common for young people to send a goodnight message to their closest friend almost every night.

As Drotner (2003) points out, young people's use of the mobile phone is now an integral part of youth culture (for some groups of young people). For those who have them, mobile phone use establishes a sense of belonging, either individual or group identity, and even the selection of the carrier can be influenced by one's social group (Carroll et al. 2002, Ling 2002a). For example one provider offers free calls between its own users. This encourages young people in friendship groups to purchase from the same provider. An Australian study of young people use of mobile phones in Melbourne and Sydney schools found out that 60% of the surveyed were keen to upgrade their mobile phone to a better model and some reported that having it was important to be included in peer groups (The Australian Psychological Society 2004). Furthermore, other research shows that 'monitoring' other

teenagers' possession of mobile phones, the brand of phone and service and the phone's aesthetics, and thus creating a culture of the mobile phone, are important ways that teenagers negotiate their status positions with complex teenage community relations (Green 2002, Ling 2002b).

While it is a communication tool which young people use to connect with people who are not physically present, they often use their mobile phones while surrounded by other people, creating new forms of social relationship. Drotner makes the important point that mobile technology as an important aspect of youth culture focuses more on collective use than individual use. Indeed, the spread of mobile phones has blurred the frontier between public and private spaces. Public spaces are now invaded by private conversations, text messages interrupting conversations and even cultural events (Brown 2002) and fragmenting social interaction. The person that receives the call tends to escape from the immediate situation she is involved in fragmenting the public space with a new conversation and also colonizing a public space in which those present have no option but to listen to her conversation (Ling 2002b). The individual gains an advantage and diminishes the public space, introducing two sets of social interactions by imposing the mobile phone virtual interaction into an existing 'real' social setting (Ling 2002b). Importantly, Ling (2002b) asks if mobile phones expose (and accustom) people to semi-completed banal interactions or if they really allow us to connect (meaningfully) at any time and any place.

In addition, ICTs, and especially mobile phones represent new forms of surveillance over young people. Green (2002) asks, 'Who is watching whom?' and through what technologies, and emphasises that these technologies are as much about individuals monitoring each other, as they are about organisations or the possibly the state monitoring us. She looks at 'why people say where they are during phone calls', suggesting that it serves to establish relationships of 'mutual accountability' and trust through gathering information about physical, social and psychological conditions of those with whom one is relating; cementing personal or intimate relationships and making an individual's activities transparent, visible and accountable. She claims that young people are subject to both institutional surveillance - schools, government agencies or bodies - and parental and peer monitoring.

ICTs are also implicated in new social forms, such as 'flashmobs'. Through mass communication over the Internet and SMS, crowds can be rapidly mobilised. There are many records of flashmobs appearing and then disappearing suddenly. For example, in New York in 2003 a hundred people grouped at Macy's to inquire about buying a giant "love rug" for their "suburban commune," and subsequent mobs amassed in a Hyatt lobby (where

they broke into applause) and infested a SoHo shoe store. In the same year, in New Zealand some two hundred assembled at a Burger King and mooed for a minute before quickly dispersing (Vanderbilt 2004). The phenomenon of flashmobs illustrates the way in which ICTs can open up new ways of relating, and their apparently bizarre and playful nature highlights the extent to which young people are prepared to test the boundaries of relating through ICTs.

Individualization

There is also a body of research literature that concludes that, despite the possibilities for connecting in virtual space, ICTs foster individualism amongst young people, (rather than connection), because people withdraw from face-to-face social activities. A classic study by Kraut et al. (1998) found that heavy computer users tend to be lonely people who lack of self-esteem and whose computer use substitutes for other social and physical activities, leading to a collapse of social life and a promotion of individualism. Their research suggests that email and the Internet lack the media richness to support the development of strong social ties. Therefore, they argue that people who use computers primarily for social connection tend to replace strong ties formed by face-to-face interaction with weak ties established on the Internet (Ho & Lee 2001).

There are other studies to support this argument. In a study of American high school seniors, Sanders et al. (2000) found that high Internet use was related to weaker social ties. More specifically, it was associated with poorer relationships with mothers and friends. However, Sanders et al. (2000) did not find a relationship between level of Internet use and depression. In addition, there are claims that people who are feeling lonely tend to spend more time in the Internet (Amichai-Hamburger & Ben-Artzi 2003). A study of students of a public school found out that young people who felt lonely or socially anxious in school on a daily basis were more likely to have online communications with people they did not know well (Gross et al. 2002).

A growing body of literature is focusing on Internet addiction and with loneliness (Engelberg & Sjöberg 2004, Young 2004, Ferris 2001, Young et al. 2000). As the Internet can now be accessed in homes, schools, libraries, at work and in cybercafes, it gives young people the opportunity to be online at any moment and any place, with the risk of developing an 'addiction'. Internet addiction is manifested through a range of behaviours, including: compulsive gambling, excessive video game playing, frequent access to pornographic web pages, and mail and chat room obsession (Young 2004). In addition, Young (2004) suggests that Internet addicts disrupt their sleep

patterns causing fatigue and a poor academic and social performance that may decrease the immune system.

More research needs to be conducted on the nature and quality of relationships on and off the net. One such study, conducted by Boase and Wellman's (2004) found that when individual's use of the internet was placed in the broader context of their lives, it was possible to see how in a majority of cases Internet relationships enhanced every-day connections.

Re-engagement

Young people also use ICTs to create a space that is separate from every-day connections. The role of ICTs in creating new, separate spaces and their meanings for young people is especially under-developed in the literature. Recent research indicates that ICTs are used as a tool to create a time-zone that is bracketed from social time that is present-centred and embodied. Evidence for this has been provided by Woodman (2004), in his study of young Victorians and their efforts to balance the future – oriented world of work and study which operates in social time with 'inner time' – a space and time. Woodman found that young Victorians often used leisure (including playing computer games) to create a space where they could simply enjoy the present.

The use of ICTs goes beyond the traditional sense of 'use'. Sarah Maclean's (2005) research on chroming in Victoria identifies a different dimension of re-engagement through ICTs. A 15 year old participant in this research, living in a poor suburb on Melbourne's perimeter, spoke of how the imagery of the internet (meaning particular games) formed the content of his drug use. While chroming, this young man is able to *imagine* that he accesses the internet directly, without the use of a computer. 'You can look at the internet while you're chroming. You just close your eyes when you're chroming. You can play games'. Other young people described playing electronic games while chroming or inserting themselves as characters in favourite films or television, thus bridging the gulf between their own localized existences and the stories and motifs of global popular culture. Their drug use allowed them to engage with the (global) digital world even though they did not have a computer. The role of ICTs in creating imagery which is significant to young people is a very little understood field.

Online communities

One of the most significant, but contested areas is the definition and impact of online communities. While the conceptual literature emphasises the revolutionary potential of ICTs to fundamentally change the meaning of community, freeing it from the constraints of physical proximity, there is debate about the extent and nature of online communities and their relationship with 'real' communities. Taking the broadest approach, Preece (2001) defines online community as any virtual social space where individuals go to acquire and offer information, support, to find company, or to learn and discover. This view sees online communities as simply another form of library, meeting place or arena of learning. Others see online communities as taking the place of 'real' communities as they disappear (Suler 2005, Rheingold 1993).

Shumar and Renninger (2002) suggest that there is a need to redefine the concept of community, mostly based on the growth of virtual communities and the new dynamics that they have brought about. They identify the characteristics of virtual communities as: the possibility of involvement in physical and virtual interaction, extension of the social imagination and of identity; the potential for individuals to tailor their personal identity and with it their communities; the distinctive feature of the lack of spatial and temporal boundaries; the critical issue that relationships are defined by the contents of individual interests rather than proximity; and that they are more reflective and durable than face-to-face interactions.

Social action and political engagement

The extent to which online communities represent a new form of political participation and social activism is unclear. There is evidence that young people have found other peers that share their same concerns through the Internet, and have created political online communities that often translate into face-to-face interactions. Some evidence shows that Internet connection allows young people to find a starting point for political engagement, where they feel a sense of belonging, sustaining their actions endeavours by overcoming powerlessness, supporting one on each other, transforming individual action into collective action and enhancing social capital (Lombardo et al. 2002, Isuma 2001).

In terms of community and social action, the Internet is attractive because it is immediate, interactive and international. It offers scope to create broad International alliances within a new infrastructure for political activism that

ignores geographical boundaries (Rodgers 2003, McGaughey & Ayers 2003). Casual surfing of the Internet can lead to chance encounters with a wide assortment of linked sites across the world providing information not readily accessible offline. The transcendence of boundaries stretches the possibilities for challenging the rhetorical discourse of Governments, institutions, corporate business and mass media with the provision of counter intelligence channelled through alternative data, critical knowledge and digital images (Dahlgreen 2003). The Internet provides a platform for local issues to be propelled to an International sphere – the essence of the local to global nexus, a goal for many activist-led campaigns. The Internet is by its nature autonomous from intervention by Nation States and corporations offering up independent terrain for the political activities and actions of more citizen-based groups and organisations as well as many social movements and NGOs. Political action is arguably made easier, faster and more universal through the effective use of developing technologies (van de Donk et al. 2004).

The fluid, non-hierarchical structure which characterises the Internet is an attractive match for many local campaigns and international protest alliances alike. The growing interest in the impact of globalisation and new forms of technological communication have resulted in young people becoming some of the key protagonists of new and alternative forms of collective online political activism that have been by their very nature creative and innovative (Koffel 2003). Young people are already at the forefront of utilising new forms of media. Web-based discussion groups and peer-run web sites (such as www.vibewire.net) have given young people both access to alternative forms of information and new knowledge through electronic interaction and debate in emerging ‘cyber’ communities.

In the final days of the 2004 Australian Federal Election campaign Vibewire.net hosted Election Tracker (<http://electiontracker.net/et/>). The initiative featured 4 young journalists aged between 18 and 25, who reported to the site direct from the campaign trail. Travelling alongside John Howard and Mark Latham, the Trackers wrote daily news articles and web logs and broadcast reports via community radio stations across the country. As well as providing relatively objective commentary from the perspective of the young people the election tracker website also contained educational material about voting procedures and provided links to relevant sites of interest.

As an alternative media form the Internet appears to provide an arena for the development of the knowledge, skills and values that enhance young people’s levels of political literacy as well as offering a potential platform for online organisation for action. However, Fyfe and Wyn (forthcoming) conclude that, despite its promise, the Internet does not necessarily mean that a wider group

of young people will become politically engaged. They argue that there is 'limited' support for any suggestion that the Internet is becoming a substitute for 'traditional' forms of political activism. Rather, the knowledge, skills and values that contribute towards political literacy are being further enhanced and redefined by the experiences of online activism. In the main the models of political engagement on the Internet reflect those of the real world, which positively signifies the scope to generate complementary models of political engagement and enhanced media coverage of young people's role as agents of social change.

Communities of interest

Online communities and alliances are created and sustained by a common interest that different people share. The Internet has allowed same sex attracted people to connect and find support without having to reveal their identity. It is a medium where same sex attracted people can form virtual communities to seek emotional support without fearing the disclosure of their sexual preferences (Hillier et. al. 2001, Yang 2000). A study of same sex attracted women in Hong Kong offers an example of the revolution Internet has developed, especially when anonymity, lack of financial resources and limited membership is a critical issue to form a community (Nip 2004). The Hong Kong group, 'The Queer Sisters', established a bulletin board that offered same sex attracted women a place where to share their experience, develop a sense of belonging and share a culture of opposition to the dominant order in their society (Nip 2004). The Internet helps communities or organizations to communicate their information and needs faster, cheaper, and demolishing many geographic barriers. However, the formation of an online community does not mean that these relationships will immediately happen offline (Nip 2004).

Young people have been at the forefront of the creation of new forms of 'communities' of interest through ICTs. An example is the phenomenon of 'webcam girls'. These are young women who broadcast their lives online (sometimes for many hours a day), through linking a camera recorder to their computer. These recordings sometimes have an explicit sexual aspect, but some are simply recording everyday life (meals, homework, musing about life). Harris (2004) has linked this phenomenon to the culture of celebrity that many television shows have promoted, and to the taken-for-grantedness of surveillance in their lives. While they are not numerous, the phenomenon of 'webcam girls' highlights the complex relationship between technology and identity. These young women (and very occasionally young men) have turned the trend for increased electronic surveillance in schools, streets, malls

and shops into a tool for their own use and gratification. The following quote from an online journalist highlights this point:

The cam girls phenomenon could not have happened before this moment in history. It's the result of a combination of specific ingredients: inexpensive yet powerful technology to send and receive video images over the Net; a culture that places a higher value on fame than on the skills and talent that make people famous; teen celebrities who happily flaunt their bodies on the covers of national magazines; and the timeless rite of passage that is a teenage girl's search for identity and blossoming awareness of her own sexual power (Frauenfelder 2002).

Many of the online line communities blur both the distinctions between online and face-to-face interaction. An example is provided by Couch Surfing, a global online community with member profiles and message service designed to facilitate physical meetings and cross cultural/ cross national understanding and friendships. It is aimed at travelers and people who are happy to host travelers. There are a number of these groups, which can be found at the following web addresses: <http://www.couchsurfing.com/> and <http://www.hospitalityclub.org/>.

Seeking health information and social support through the Internet

Together with informal online communities that are created through chat rooms, bulletin boards and forums on the Internet, there is the proliferation of the virtual community care. Burrows et al. (2000) look at online self-help and social support in the U.K. They define virtual community care as the combination between technological, social and cultural imperatives, where a complex amalgam of the anonymous, the public, the supportive and the individualized happen. Davison et al. (2000) studied the social psychology of illness support groups which were created by health institutions and non-government organizations or by government agencies, in order to understand how mutual support groups involving a low or no cost to participants have a positive effect on mental and physical health. They found that 'embarrassment' was a deterrent for people to participate in face-to-face groups and argued that virtual support or virtual community care could be very useful for people that suffer disability impair mobility, race, ethnic and religion discrimination.

Preece and Ghozati (2001) conducted important research on empathy in online communities to observe if empathy is as widespread as in face-to-face communication and if it is more common in some online communities than others. In addition, they explored hostility, as the antithesis of positive forms of empathy. Their research supports the view that people are open about their

emotions online. In their search they found online communities on many issues, including: social support, cultural issues, religious, sport, politics, and professional scientists. Preece and Ghazati (2001) found that online communities have some empathic communication, and were especially strong in patient and emotional support communities. Hostility was mostly found in online communities such as the sport ones. They also found that high participation of women in an online community is associated with higher numbers of empathic messages and that the presence of a moderator helps to deter hostility.

In relation to the connection between the new technologies, wellbeing and social capital, research evidence shows that social support, care and trust between people and community participation is associated with lower levels of psychological distress (Berry & Rickwood 2000). Quan-Haase and Wellman (2004) look at the rise of the Internet and its effects on social capital. They identify three different approaches. Firstly, the Internet transforms social capital: the Internet's low costs and often-asynchronous nature, leads to a major transformation in social contact and civic involvement away from local and group-based solidarities and towards more spatially-dispersed and sparsely-knit interest-based social networks. Second, the Internet diminishes social capital: through its entertainment and information resources the Internet draws people away from family and friends and by facilitating global communication and involvement, it reduces interest in the local community and its politics. Third, the Internet supplements social capital: it provides another means of communication to make existing social relationships and patterns of civic engagement and socialization easier. As many researchers, (for example, Quan-Haase & Wellman 2004) claim, the Internet adds to rather than transforms or diminishes social capital, and online participation may intensify reciprocity and trust.

Dunham et al. (1998) look at computer-mediated social support of single adolescents mothers with young infants. The mothers were given access to a computer-mediated social support network concerned with parenting issues. They argue that research shows that the young mothers tended to be reluctant to receive any help, mostly due to a strong fear of public embarrassment. Dunham et al. (1998) define 'virtual social support communities' as self-help oriented and sustained without the assistance of psychologists or social workers. In addition, these virtual support groups have the ability to minimise the negative influence of the differences in social class, age and gender that often inhibit communication in face-to-face social exchanges. The disadvantages faced by young people in isolated rural families are also potentially minimised through virtual communities. Dunham et al. claim that one important benefit of these virtual groups is the fact that the collective

knowledge of the social support group is continuously available to meet the diverse needs of young mothers, where the network shares, amplifies, and stores relevant information obtained from each individual.

The evidence on the use of ICTs by young people to access information is contradictory. The research shows that adults and older people are the most likely to seek health information through the Internet, while young people are portrayed as searching for entertainment (Kaiser Family Foundation 2001). However, a national American survey of adolescents using the Internet found that specific groups of young people do seek health information online (Kaiser Family Foundation 2001). Among all the respondents aged 15 to 24 years-old, this study found that 90% had gone online and 68% had accessed health information online, higher than the percentage of young people that have used the Internet to check sport scores or to buy something.

The survey suggests that young people use the Internet because they feel they can find information about sensitive issues that they do not want parents or family doctors to know they are interested in. The authors of the report also argue that, as a consequence of the health information found, many young people have changed their personal behaviour and one in seven said they have visited a doctor or a health provider. Even though, young people are turning to the Internet for health information, they still also rely on doctors, family and school health classes to for information and support (Kaiser Family Foundation 2001).

The digital divide

The issue of social inclusion is a significant issue in research on the use of new technologies. This issue is especially important in relation to access to computers and the Internet. The term used to define unequal access is the 'digital divide', referring to the gap separating those individuals who have access to, and use of, new forms of technology from those who do not (Gunkel 2003). The digital divide remains substantial between developed and developing countries, but it is even wider and deeper in the developing countries, where only a small percentage of the population has access to the Internet (Chen & Wellman 2004). This small portion of the population that uses the Internet tends to live in the major urban areas, leaving the rural areas lacking of access to technological information. In developing countries, young people are higher Internet users than older people, mostly due to the fact that they can access it via school connections (Chen & Wellman 2004). In some rural areas of developed countries, Internet cafes have become 'technospaces' for youth culture (Lægran 2002). There, young rural people can explore the

world beyond the physical barriers of their town, and find information related to education, health, arts and sport issues; or just as a way of being connected to people outside their 'own rural world' (Lægran 2002).

The lack of access to new technologies exposes a much deeper issue, that of poverty and inequality (Hassan 2004). The lack of access to a computer and the Internet reproduces and widens the digital gap, but it also can generate further health, educational and employment disadvantages for young poor people. Poor mental health has been linked with limited access to important resources such as employment, income and education (Wilkinson & Marmot 1998). A recent study of young people and their work (Stokes, Wierenga & Wyn 2004) found that young people without access to mobile phones were not able to access and respond to casual employment opportunities in a way that was expected by the employer. It can also constrain them from opportunities to find social support through new online and offline communities, effectively reproducing social stratification.

The pattern of use of information technologies by Aboriginal people in Australia provides a graphic illustration of this point. While information technologies have the potential to enhance the levels of connectedness and access to vital information for Indigenous Australians, the reality is that existing material and economic inequalities tend to determine who has access to information technologies and who does not. In 2002, 56% of Indigenous people reported that they had used a computer in the last 12 months and 41% reported that they had accessed the Internet in the last 12 months. Use of information technology (IT) was much higher in non-remote areas with computer usage and Internet access rates roughly double those for remote areas. Those living in non-remote areas were also much more likely to have a working telephone in the home (82% compared with 43%). When the effects of age differences between the Indigenous and non-Indigenous populations have been removed, Indigenous people had lower levels of IT use than the non-Indigenous population. Indigenous people aged 18 years or over were two-thirds less likely to have used a computer and around half as likely to have accessed the Internet in the last 12 months as non-Indigenous people (Australian Bureau of Statistics 2002).

Communication technologies are a significant element in the process of social exclusion in the United States as well. An American survey of young people aged 15 to 24 shows that social exclusion from the use of new technologies is a reflected in both ethnicity and class (Kaiser Family Foundation 2001). Twenty-five per cent of young Hispanic, followed by 13% of African-American, have never gone online, compared to 6% of white youth. The survey also shows that Internet access from home is lower within young African-Americans and

Hispanics, and that the disparities persist when comparing young people from self-defined working class backgrounds with those from middle and upper-classes.

Social exclusion and harm

The on-line communities, and the nature of 'support' fostered through the Internet can be seriously over-romanticised. There is an available blog or online community on any imaginable topic, and even a quick tour through some of the millions of available websites and blogs reveals that some are designed to foster harm or social exclusion. Our research has revealed sites aimed at people who have eating disorders, that offer hints on how to hide their condition and how to lose more weight. An online community at <http://www.recoveryourlife.com/> has in the past sanctioned posts on the site that encourage and give instructions for self harm. The site now only allows postings that are supporting recovery.

The Internet is also being used by hate groups that promote racism, discrimination and violence to divulgate their views and recruit new members (Lee & Leets 2002). While in the past hate groups would recruit members, especially young people, through fliers, newsletters and small rallies; now the Internet provides an accessible and direct way to gain recruits (Lee & Leets 2002). Lee and Leets (2002) studied the initial and longer-term effectiveness of persuasive storytelling by white supremacist web pages with adolescents. Their research found that exposure to a high narrative and implicit message were more persuasive in the immediate aftermath, but over time, especially when young people had time to analyse and process the narratives of these hate stories, the power of the messages diminished. The adolescents that spent more effort analysing and processing the messages were able to resist the narratives and found them racist and distasteful, while those who put less effort in analysing the messages received them more favourably. The research concluded that controlling the development of web pages by hate groups attracting young people to discrimination and violence is a major difficulty faced by the government, parents and school authorities.

ICTs have also opened up new opportunities for bullying and harassment. Ybarra and Mitchell (2004) agree that Internet harassment is a significant public health issue and a health issue for both the harasser and the harassed. They stress that aggressors tend to be associated with poor parent-child relationships, substance use and delinquency. The traditional offline bully tends to be male, while online bullies are just likely to be female as male, and are more likely to be high school aged than middle school aged (Ybarra & Mitchell 2004). In addition, the study argues that young people who suffer

bullying in offline environments are more likely to harass other in an online setting. The anonymity provided by the Internet is a key to developing harassment behaviour that otherwise would be unlikely appear in an offline environment (Ybarra & Mitchell 2004).

There is also ample evidence that mobile phones can have a harmful effect on young people. For example, Funston and MacNeill (1999) found that the peer monitoring element of mobile phones lead to pressure on Australian young people to own a mobile phone in order to belong to a certain group, and some incurred both financial debt and psychological stress as a result. They found that while some purchases were a snap response to a sales initiative, others were based on consideration of the features of the handsets and the available choice of plans. This study also found that a quarter of the total surveyed had problems managing the payment of the bill, while 17% felt some anxiety or depression arising from their difficulty in paying their bills. In addition, the survey showed that people from homes in which English was not the main language were by far more likely to get higher bills than they anticipated according to the plan they had purchased.

Mobile phones are also used to marginalise children and young people. An Australian study found that at least 30% of the early adolescents - those in Years 7 to 9 - of schools surveyed have experienced some kind of bullying or threats through their mobile phone (The Australian Psychological Society 2004).

One of the most disputed areas of research on mobile phones is the issue of whether mobile phones have any adverse health effects. A summary of recent research on the health implications of mobile phone use found that exposure to radiofrequency fields cause a variety of subtle biological effects on brain activity, particularly during sleep, but that overall, the possibility of adverse health effects remains unproven (Sienkiewicz & Lowalczuk 2004). Given that the jury is still out, Sienkiewicz and Lowalczuk highlight a recent 'well-conducted, case-control' study from Sweden that identified an increased risk of acoustic neuroma among people using a mobile phone for ten or more years (Sienkiewicz & Lowalczuk 2004: 3). These authors recommend that further research on the long term effects of mobile phone use needs to be done, and point out that little research has been done of the effects of radiofrequency fields on children and young people.

Gaps in the literature

While a lot of research has been conducted on young people's use of ICTs, this research has tended to be conducted on a narrow range of possible areas and we have identified a number of gaps in the literature.

Wellbeing

There has as yet been very little research that has directly addressed the relationship between the use of information technologies such as mobile phones and the Internet and young people's health and wellbeing. The emerging literature on wellbeing shifts the focus from the absence of morbidity to the quality of relationships as a key determinant of wellbeing. In one sense, wellbeing is about the quality of relationships within which an individual (or groups) live. For this reason alone, comprehensive and systematic research on the nature and meaning of relationships and social connections occurring through the use of information technologies has the potential to generate important knowledge about the role that information technologies now play in enhancing (or harming) young people's health and wellbeing.

Meaning and Social context

The nature of the research that has been undertaken tends to be overwhelmingly focused on a single issue and single technology and is often quantitatively based. This type of research provides a 'snapshot' at a single point in time. It is useful for gathering data on frequency of use and by whom, but this kind of research does not readily lend itself to developing an understanding of the meaning of information technology use within different social contexts. While many researchers acknowledge that information technologies have the power to 'compress time and space', very little is known about the use of these technologies across time and space (especially during critical life events that may occur over weeks or months), how users 'mix' technologies and the meaning of use of these technologies by different groups in different social contexts, drawing on young people's narratives. There is an urgent need for a more holistic approach to the complex use of the Internet and the mobile phone by young people. Greater attention needs to be given to the use of mixed method research designs that involve both quantification and qualitative methods with a longitudinal element to address this gap.

Diversity

Research has tended to focus on a very limited cross-section of young people. The bulk of the research has been conducted on young people in urban areas

who attend school. The reality is that research based on a limited cross-section of young people tends to be extrapolated across the wider youth population. There is some research suggesting that there are differences in the use of information technologies across different age groups, but the use of aggregate statistical data across a wide age span (for example, 14 to 24 year olds) creates a false impression of homogeneity. Furthermore, despite the widespread acknowledgement of the existence of the 'digital divide' surprisingly little research has undertaken a comparative analysis of the uses and experiences of information technology use across key population groups. The most striking gap is research on the experiences of Aboriginal youth, but there is also too little known about young people in rural communities, young people who do not attend school, of young people from different socio-economic and cultural backgrounds and across rural and urban settings. A further dimension that has been neglected is age. Future research should differentiate junior high school students from senior high school and first year university students, or early, middle and late adolescence. Other categories such as race, religion and class are also important and should be taken into account in future research, and programs, to avoid a white, Christian middle class and Anglo perspective.

Participant research

As the field of participant research with young people has become more widely recognised, the opportunity exists to involve young people in the design and implementation of research. Many researchers acknowledge that young people take information technology for granted. For many, it is just part of their lives. Few have asked whether this means that the questions that older people use to guide their research are framed by their own experiences in another era, and not those of young people. Research on young people's health and wellbeing and uses of information technology provides an opportunity for research partnerships between young people and expert researchers.

Models of practice

In this section we provide a brief summary of the kinds of web-based and digital communication initiatives that address young people. It is important to recognise the breadth and spread of these sites. Most of the initiatives aim to do one of two things. Firstly, many online sites are designed to offer support or resources for the many groups deemed to be 'at risk'. These websites vary from a list of links or contact numbers where young people can get help, to full online interactive counselling support and mediated support communities. Secondly, there are programs that aim to develop young people's skills and to work collaboratively in multimedia including web design. These projects (sometimes based around the buzz idea of mentoring) have tended to have the standard aims of developing skills and experience with ICT while engaging young people in social networks and fields of meaning. The following six initiatives provide an example of the spread of digital initiatives.

Speakout

Queensland based social enterprise, not for profit that appears to heavily involve young people at most levels (apart from the board). This enterprise provides training and also work opportunities in graphic-design, multimedia and uses the internet as part of a broader approach to training and social enterprise using multimedia.

Web address:

<http://www.speakout.com.au/about/about.htm>

10 MMM

MMM (Multi Media Mayhem) uses multi media (print, radio, voice, writing, web page, newsletters) to help young people's voices be heard. Projects are driven by a mix of older and younger people bringing their skills and interests to the project. The mix of both on-line and face to face interaction makes the engagement element of this initiative stronger than some because it is moving beyond a purely cyberspace based community. An evaluation of this initiative found that it had a positive approach to fostering ownership by the people involved and developing the project as a team with different skills and abilities coming together to contribute where they feel passionate and to learn from each other. It should be pointed out that mentorship programs often have an inbuilt assumption that the young people are learning from their 'mentors' and not the other way around.

Web address:

<http://www.10mmm.com/news.php>

The Global Classroom project

This initiative provides an example of how ITC is used in Victorian Schools. The Global Classroom project looks to link Victorian schools with other schools internationally to facilitate a range of learning projects. It is basically an international message board for schools to advertise for other schools to join them in projects. This project has been in existence for eight years, and while it may have represented cutting edge practice at that time, it may benefit from updating in the current context.

Web address:

<http://www.sofweb.vic.edu.au/gc/index.htm>

Global Youth Voices

This Canadian based project aims to involve young people in their geographic communities as change makers using multimedia (and to share stories of successes internationally using the web). It is driven to a large extent by young people.

Web address:

<http://www.globalyouthvoices.org/>

Headroom

Headroom is an Australian statewide mental health promotion project auspiced by the Division of Mental Health at the Women's and Children Hospital and funded by Health Promotion South Australia at the Department of Human Services. The project started in 1997 and has evolved into the promotion of positive mental health and engaging young people in thinking about and developing an understanding of their own mental health. They have three work areas: health education, community awareness strategy and work force development. In their work they found the Internet to be a very powerful tool of communication. Evaluators have emphasised that the strength of the project has been its 'ability to engage and actively work with young people to raise awareness of and connect them to the concept of mental health' (Lock et al. 2002: 35).

Government-led initiatives

In general, government-led initiatives are aimed at informing young people about policy. They have almost no interactive or participatory capacity. Examples from the Queensland and Federal Governments can be found at:

<http://www.generate.qld.gov.au/>

<http://www.thesource.gov.au/>

There are several sites of research activity in the area of new technologies and social change:

Victoria University of Technology

A range of research related to young people and ICTs is undertaken at VUT. The following is indicative of interest areas:

- New technologies and social change, particularly internet and virtual communities with an interest in working with migrant and refugee communities (Associate Professor Helen Borland).
- Globalisation and community capacity building (Professor John Wiseman)
- Performance in virtual settings and indigenous communities (Professor Mark Minchinton).
- Innovations in computer game technology, working with Australian centre for the Moving image (Natasha Dwyer).
- New media, new technology, mobile phones and young people (Megan Chudleigh, Sue Macauley, Andrew Funston).
- Economic and social implications of new technologies - including synergies between IT and bio technologies (Professor Peter Sheehan)
- New approaches to mobile phone technologies and uses and streaming radio broadcasts and podcasting (Stefan Schutt and Stewart Favilla).

Youth Research Centre, The University of Melbourne

- ICTs, young people and wellbeing (Prof. Johanna Wyn, Helen Stokes, Dan Woodman and Hernan Cuervo).
- ICTs and citizenship: an ARC funded project conducted in collaboration with Monash University (Dr. Anita Harris, Prof. Johanna Wyn).

Innovative practice

A number of initiatives are taking the lead in using digital technologies to enhance young people's health and wellbeing. These initiatives are different because they actively include young people in the conception, design and implementation of the programs, and are used explicitly to foster young people's active engagement in civic life.

Inspire Foundation

Inspire Foundation was formed in 1996 in direct response to Australia's worsening suicide rate. It pioneered the use of the Internet to create and deliver social services to young people. This was largely achieved through the '**Reach Out!**' service, which provides advice and information of general issues relating to young people's mental health. Reach Out! may not be considered 'cutting edge' any longer, but it remains one of the most significant web sites that facilitates a high level of interactivity with young people. Part of its success is that it creates opportunities for young people to help themselves and to help others, 24/7. It can be reached at: <http://www.reachout.com.au/home.asp> Currently, Inspire Foundation is funded mainly through donations (68%), and corporate sponsors (20%). It receives only 9% of its funding through government grants.

The Inspire Foundation is also working on a new project, called **Act Now**, that aims to link young people into their place based local communities as change makers by utilising the web. This initiative draws on the links between online and physical communities, demonstrating how the blurring of these dimensions can be used to enhance young people's wellbeing. Act Now aims to create closer links between the Internet and political activism.

Some details of the Act Now project can be found on the Inspire site at the following address:

http://www.inspire.org.au/projects_actnow.html

The Inspire Foundation can be reached on: <http://www.inspire.org.au/> It maintains its legitimacy with young people through an organisational structure in which young people form advisory boards (Reach Out! Youth Advisory Board and Youth Ambassador's Program). It also has a young staff (nine out of its 19 staff are under the age of 30), (Vromen 2005).

Vibewire Youth Services

Established in 2001, Vibewire Youth Services has the goal of providing an Internet space for young people in Australia. **Vibewire.net** was launched in 2002, providing a space for youth culture and for young people's political expression. Vibewire provides a site for the exploration of political and public issues, and promotes cultural commentary in the areas of film, theatre, art and music. During the 2004 Federal election, Vibewire ran '**electionTracker**', a political commentary by four young on-line journalists who wrote daily entries from John Howard and Mark Latham's campaign trails. Vromen (2005) notes that pieces by the young on-line journalists were regularly picked up by the mainstream media. Vibewire has recently extended this inclusive

agenda through **Sanctuary**, an initiative which was run in partnership with the Auburn Migrant Resource Centre. This initiative aimed to give non-English speaking background youth an opportunity to post ideas and essays that explored political issues from the point of migrants and refugees. Vibewire has a commitment to working with young people through its organisational structure. Vromen (2005) found that all the volunteer young people running the site must be under the age of 30. Inspire Foundation is almost exclusively funded through successive government grants and departments (for example, the Department of Immigration, Indigenous and Multicultural Affairs and the Australian Electoral Office). It has also received support from the Foundation for Young Australians.

While in general there has been little evaluation of youth Internet sites, Vromen (2005) has pointed out that both Vibewire and Reach Out! have been evaluated. The evaluation of Reach Out! found that 80% of their users were women with an average age of 18, overwhelmingly metropolitan based (mainly from Sydney). An evaluation of Vibewire found that 70% of their users were women aged between 20 and 25 years, and the vast majority was also urban-based (81%). Two thirds of the Vibewire users who were surveyed had participated in an online forum and 40% had written an article for the website.

These evaluations provide rather intriguing evidence of the segmented nature of the youthful population, and suggest that despite the remarkable success of these initiatives, more attention needs to be paid to inclusion.

TeenNet

Established in 1995, TeenNet is a pioneering youth, health and technology website, based in the Department of Public Health Sciences at the University of Toronto, Canada. TeenNet involves young people from diverse backgrounds in all stages of program design, development and dissemination. The network has a strong research focus, and has developed a "youth in action" approach which underscores individual choice by youth and the exploration of options regarding health behaviour. TeenNet collaborates with a network of organizations directly involved in education and health promotion with youth. TeenNet also researches models for youth engagement through our [Global Youth Voices](#) (GYV) project (identified above). Global Youth Voices uses low-end technologies (*art, video, photography*) and high-end Internet-based technologies to engage youth in issue identification and community action. Resulting artwork and action projects are featured on the Global Youth Voices website, www.globalyouthvoices.org. The GYV site also serves as a showcase for all of

TeenNet's youth participants, from youth advisors to co-op students. The Global Youth Voices approach has been used in fifteen TeenNet/Community projects both in urban and rural Ontario and internationally. It was found to be a powerful process for promoting dialogue, critical reflection, and community connection, thereby creating a strong foundation for capacity building and collective action. TeenNet represents a unique program which blends youth engagement in health promotion with research.

TeenNet can be found at www.TeenNetProject.org

Digital filmmaking

Digital filmmaking is an obvious but often overlooked site through which young people engage with ICTs. Better technology and falling prices have made the equipment needed to make reasonable quality films more accessible (opening up the medium to more young people). This site offers a powerful medium for young people's inclusion, communication and engagement, combining digital and face to face interactions. The 2003 movie *The Finished People* is an outstanding example of how the increasing availability of this technology is allowing new voices to be heard. The director, producer and co-writer (with the actors) is a young person named Khoa Do. In 2002 Khoa started teaching filmmaking skills to a group of young people in Cabramatta who had been deemed 'at risk' (most of them were homeless). The film was made on a micro budget and using the young people in his course as actors, writers and in other production roles. The film blurs the line between fiction and reality, telling a fictional story of three young people in Cabramatta who are homeless and explores from the protagonists point of view how they came to be where they are. The script draws heavily on the life experience of the young people involved. The film received a nationwide cinema release and won awards and Khoa Do won the 2005 Young Australian of the Year Award for NSW (primarily for this work).

Details on the Finished People can be found at the following addresses:

<http://www.smh.com.au/articles/2003/10/22/1066631502996.html?from=storyr>
[hs](#)

http://www.afc.gov.au/filmsandawards/recentfilms/cannes04/feature_104.asp
[x](#)

Conclusion

The VicHealth Mental Health Promotion Framework identifies social inclusion, freedom from discrimination and access to economic resources as the three key social and economic determinants of mental health. Focusing on the population group of young people, and the issue of cultural diversity, this review has described how and why ICTs are crucially and fundamentally implicated in each of the three determinants of mental health. It is impossible to conceive of young people's identity formation and social relations, including citizenship and civic engagement without taking into account the increasingly pivotal role played by ICTs. Digital communication technologies play an integral role in the social inclusion of young people in our society. Many studies show how young people create a sense of control over their lives, and overcome the debilitating effects of discrimination through accessing information, communicating with others and gaining a sense of belonging through web-based and on-line communities. Importantly, the emergence of a 'digital divide' in Australia underlines the importance of access to economic resources. Where young people do not have access to digital communications technology (largely due to a lack of economic resources), they also lose out in terms of the *cultural* resources that their peers use and shape through this medium.

The Framework identifies a range of action areas that are related to the determinants of mental health. In terms of the role of ICTs in young people's social relations, the following are especially relevant: monitoring, evaluation; direct participation programs; organizational development; community strengthening; communication and social marketing; and advocacy. These action areas are identified with settings, including (community education, education, arts, and local government. As the significance of digital communications to the health and wellbeing of all members of our society becomes more recognised, 'cyberspace' may become an additional setting.

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