

## 3 Setting the scene

As stated earlier, the main theoretical areas considered in this paper are community development and social capital and the overlap between the two.

Criticisms most often levelled at studies of social capital emphasise the fact that definitions are vague and difficult to conceptualise and measure. The use of imprecise and non-theoretical terms has contributed to the problem. Work in the area of community development suffers from similar criticisms.

The following discussion sets out the theoretical framework, the meanings of terms and marks out the boundaries for this paper.

### 3.1 Community development

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The concept of social capital implies that its development takes place within a community of some description. This raises several issues. Firstly, what is 'community' and how do we define it? Secondly, the notion of building social capital implies a gradual or developmental process.

#### 3.1.1 The nature of community

Traditionally, community has been thought of as place-based—that is, defined by geography. However, with changes to society the nature of community is also changing. Gurstein (2003, p. 4) states that 'communities are in a continuous state of responding and adapting to changes in their external environment and to new elements in their internal activities and methods of operation.' One particular influence is the increasing shift to the use of ICT and the restructuring of social networks.

Quan-Haase and Wellman state that 'useful approaches define community not in terms of locality, but as social networks of interpersonal ties that provide sociability, support, information, a sense of belonging, and social identity' (2002, p. 2).

This expands the definition of community to cover the range of social networks connected by common interests in geographic and non geographic terms. Those bounded by locality are easy to identify and define, while non geographic ones are more problematic. Literature on developmental theory (Cummings, Heeks & Huysman 2003, pp 4–5) uses the terms 'online networks' or 'virtual communities' to identify four types of ICT enabled communities.

1. *Communities of practice* form to share knowledge. In this context, communities are generally constituted as single disciplinary professional networks. This may include doctors, lawyers, nurses, social workers, academics, teachers, etc.
2. *Communities of purpose* relate to communities of practice but form over a particular issue or common cause. Typically, this is an interdisciplinary group with a specific goal for interaction. For example, a

network of researchers in a specialised but professionally diverse field who collaborate and share their findings or formal learning experience.

3. *Communities of circumstance* are online communities in which members share a position, circumstance or life experience rather than profession. This could include people who share a common geographic location, a particular illness or condition or an experience that binds them together (for example loss of a loved one, military service in a particular war, shared illness or disability, gender, age, etc).
4. *Communities of interest* are online communities centred on a common personal interest or hobby. While people may share their experiences around an interest there is no particular common goal to the interaction. Experience and knowledge may contribute to individual rather than collective goals. These networks are more informal in nature than a community of purpose. Many of the chat rooms that have proliferated tend to fall into this category, although some may also constitute communities of circumstance.

The arguments of Quan-Haase, Wellman and others are compelling given our changing society and increasing online social and professional interactions. Therefore, the term 'community' for the purpose of this paper accepts the idea of social networks as its basis and includes both geographically based and online communities. However, it is important to distinguish between those communities that are geographically bounded and those that are not (i.e. the virtual) as very different issues may arise in each. This paper is primarily concerned with the role of ICT as the means to establish, supplement and transform such communities.

Individuals cross from one type of community to another and may operate in several simultaneously. Virtual communities operate on a continuum and many types can overlap. For the sake of clarity of analysis, the paper draws some boundaries around community types and treats them separately.

There is a narrow distinction between communities of practice and purpose. In addition, transparency networks—described as 'inter-networked communities that share information about and scrutinise the policies and practices of firms, industries and government' (Dwyer 2004, p. 114)—could also fall into this section. Investigation reveals variations so similar that to differentiate between them is not particularly useful for the purpose of this paper. They are therefore treated together and identified as communities of practice/purpose.

Individuals who operate in many communities and networks simultaneously may add value to each type. They may use community access centres to link to or provide a platform for virtual communities of practice, circumstance or interest.

To explore and highlight the role of ICT in social capital the paper will confine discussion to the following types of communities:

1. geographic communities at the local, regional, state and national level
2. online communities of practice/purpose organised around a common specified goal and professional networks

3. online communities of circumstance in which members share a common life experience or circumstance except for geographic location
4. online communities of interest, where members share an informal hobby or shared interest.

An additional difficulty in discussing community is that people with common interests and a sense of belonging may form small or large groups and consider themselves as having formed 'communities'. Depending on their focus, these may exist in both the informal and formal realms at a local, state or territory, national or even international level. There are links between the levels and across sectors. Yet the generally accepted idea of community implies boundary and a sense of belonging (Onyx & Bullen 1997; iSociety 2003). This issue of boundaries defining communities has been a primary drawback in exploring the use of ICT in building communities and is an issue the paper will return to later.

What is immediately clear, however, is that 'community' is a dynamic concept—changeable and in flux. A sense of community grows over time and occurs within the context of the broader society, which is itself increasingly complex and affected by technological change. Much of the work carried out in the name of community development aims for a greater sense of community and/or to build on existing strengths for a positive result. The process of learning, use, changing technology and connectivity is common to both ICT and building social capital.

The impetus for change relates to community growth. This may be a top down or bottom up process or a combination of both. A sub-group or committee formed by an organisation to serve its members or itself may subsequently be defined as a community within the parent body. However, this may affect members' sense of belonging if it appears elitist or exclusive to the wider organisation—a point taken up in the related paper *A case for information and communications technology transformation of the nonprofit sector* which examines the economic and social benefits of ICT for nonprofit organisations.

### 3.1.2 Sustainability

The concept of sustainability, while not explicitly mentioned in the literature on social capital, figures prominently in the area of community development. One-off funding, particularly in relation to infrastructure development, can benefit a community but longer term programs require sustainable models to ensure lasting change. Funding from agencies and government programs is generally time-limited and designed to build resources that support enduring change. Sustainability derives directly from the nature of community and so needs will vary over time.

To be sustainable, programs and changes must fit with the needs of individual communities with appropriate support throughout development. One of the great benefits of ICT is that, given adequate infrastructure, various platforms, software and applications can be moulded to individual purposes. Therefore it is necessary to explore how sustainability applies to a variety of community settings—to ensure that particular groups are not marginalised by change, sustainability must be considered as context dependent and dynamic.

Collaboration between business, industry, government and community is an important factor in creating greater sustainability. However collaboration is both dependent on and a subsequent facilitator of trust, one of the foundations of social capital.

### 3.2 Social capital

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The Productivity Commission (2003b) and ABS (2002) have provided comprehensive literature reviews of the concept and measurement of social capital and the reader is directed to them for further detail. To look at how ICT relates to social capital, it is important at this stage to provide a general background on social capital that highlights the key elements and provides a frame of reference and rationale for the investigation undertaken.

The concept of social capital is complex and multi-dimensional and therefore difficult to define and measure. However, the varying theoretical frameworks provide a basis for legitimately linking the term to a range of concepts and interests. The Productivity Commission (2003b, p. 7) considered four separate discourses on social capital, summarised as follows.

1. Economics—which ‘focuses on individuals’ incentives to interact with others and, out of self interest, to invest in social capital resources’ while some studies ‘explore the design and effects of formal and informal institutions.’
2. Political science—an emphasis on the role of institutions and political and social norms in shaping human behaviour.
3. Sociological—‘features of social organisation such as trust, reciprocity and networks in civic engagement.’
4. Anthropological—‘the notion that humans have natural instincts for association, providing a biological basis for social order.’

The concepts of human capital, cultural capital and social capital have their theoretical underpinnings in Marxist theory. (For a comprehensive discussion of these links see Lin 2002). Extension of these concepts to various disciplines explains the similarities and disparities between the discourses.

Several important points arise from consideration of social capital as an extension of economic capital.

One of these is the underlying notion of value and exchange. Economic theory embeds social capital in an economic framework and clearly acknowledges the economic value of its development. Temple (2001, p. 22) states that social capital ‘provides a useful umbrella term for those aspects of societies which, though difficult to measure and incorporate into formal models, are widely thought to be an important determinant of long-run economic success.’

In exploring its foundations, Lin (2001) emphasises the fact that capital is both a process and a result—a point often highlighted by social capital literature as contributing to problems of clarity and measurement. As a process it involves the investment of effort, social activity and exchange that adds value to the initial capital (Lin 2001, p. 7).

Some commentators have argued that social capital is a recent construct—artificial in nature and highly problematic when divorced from more fundamental notions of community and broad factors such as class, gender, ethnicity and race that impact on social relations (Scanlon 2004). This paper does not seek to explore such criticisms but it has found that the communities that arise around the use of ICT are in fact heavily influenced by issues such as gender, ethnicity, race and socio-economic status. As Scanlon (2004) suggests, social capital is highly contextual and social connectedness is embedded in these broader factors.

Elsewhere, Scanlon (2004b) has suggested the need to differentiate between various kinds of trust, making a useful distinction between social trust (i.e. that which is personal and emotional) and transactional trust (i.e. that which underlies a business or government transaction). The paper will explore both forms when discussing social capital.

### 3.2.1 Definition of social capital

Given that social capital is explored in several disciplines, definitions and emphases will vary. Some of the predominant definitions, drawn from the Productivity Commission's report, are as follows.

... the aggregate of the actual or potential resources which are linked to the possession of a durable network of more or less institutionalised relationships of mutual acquaintance or recognition

(Bourdieu 1985, in Productivity Commission 2003b, p. 7)

...social capital is defined by its function. It is not a single entity but a variety of entities with two elements in common: they all consist of some aspects of social structures, and they facilitate certain actions of actors—whether persons or corporate actions—within the structure

(Coleman 1988, *ibid.*)

... features of social organisation such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions

(Putnam 1993, *ibid.*)

Social capital is networks together with shared norms, values and understandings that facilitate cooperation within or among groups.

(OECD 2001, *ibid.*)

Rather than debate the merits of these definitions, this paper accepts the substantial work in this area by other agencies and prefers to identify some of the key concepts. For practical purposes, this paper adopts the OECD definition of social capital as endorsed in the discussion papers from the Productivity Commission and the ABS:

... networks together with shared norms, values and understandings that facilitate cooperation within or among groups.

(OECD 2001, p. 41)

The rationale for acceptance of the definition is that:

1. it was supported by stakeholders in the case of the ABS paper
2. it highlights key elements identified by a range of the literature on social capital
3. it allows consideration of social capital at a variety of levels
4. the OECD has a prestigious record of research in the field
5. there is benefit in consistency of measurement and discussion with other major government agencies (particularly the ABS) and at an international level.

In addition, acceptance of and work based on the OECD definition of social capital is supported by *Australia's Strategic Framework for the Information Economy 2004–2006*. Of particular importance is the emphasis that the OECD places on facilitation and cooperation within and among groups. By working with a definition developed by the OECD and accepted by the ABS and their stakeholders, it becomes possible to work across, between and with organisations, industry and government to provide national and international coherence. This paper helps to make more explicit the role of ICT in the pursuit of wider international priorities as recognised by the OECD and the UN.

### **3.2.2 The elements of social capital**

Generally the elements of social norms, social networks and trust are vital to considering and measuring social capital. In this framework trust is a shared value and norm along with the idea of reciprocity. Social networks, while related, are treated separately.

#### **3.2.2.1 Shared values and norms**

The Productivity Commission defines social norms as 'shared understandings, informal rules and conventions that prescribe, proscribe or modulate certain behaviours in various circumstances' (Productivity Commission 2003b, p. 9). Norms vary, but there is the implication that they will be observed.

Stone and Hughes (2002, p. 2) further noted that norms vary between the informal, the organisational and the general realm. Therefore the informal rules that govern interactions with family are likely to be different to those that govern interactions within the workplace, with government agencies or in the broader community. Additionally, the cultural background in which an individual operates will impact on the rules that govern behaviour.

As norms are informal rules that involve shared assumptions about how people should behave in a particular circumstance, this raises the question of compliance. Essentially compliance with social norms is encouraged through internal psychological sanctions or external sanctions (Productivity Commission 2003b, p. 9). In various settings, sanctions may be less easily identified and more easily avoided at both the internal and external levels. For example, external sanctions are more easily ignored in an exclusively online community than in a community that is ICT enabled but geographically based.

The online world holds less likelihood of repercussion for those who venture outside acceptable normative behaviour. This is not to say that the online world does not possess its own body of sanctions for unacceptable behaviour or breaches of protocols, whether specific to an online community or generally across the Internet domain (so-called 'netiquette'). Moreover, there is an extent (perhaps quite large) to which the online world mirrors the values and norms of the offline world. Generally, however, sanctions in the online environment are less immediate and less severe and often those who transgress (e.g. hackers, spammers) are difficult to locate and prosecute.

On the positive side, however, extended social networks between groups build shared understanding by providing access to a range of views beyond one's immediate surroundings. This may promote understanding of differences, facilitate a broader sense of community and promote tolerance and respect. A later section of this paper considers the role of ICT in supporting such extended networks.

Two of the norms pivotal to social capital are trust and reciprocity. The two terms are inherently linked, with reciprocity implicit in trust. Reciprocal trust in a relationship leads to the ongoing development of it while a break in trust can undermine relationships.

#### ***Trust and reciprocity***

Whatever its precise relationship to social capital, trust and trustworthiness proffer many benefits. They are the bedrock of most personal relationships, facilitate various day-to-day interactions, and play an important role in commerce.

(Productivity Commission 2003b, p. 11).

If social capital is embedded in social networks that build personal relationships then trust is as essential to online relationships as elsewhere.

The literature on social capital discusses several types and levels of trust. The Productivity Commission defines trust as '...the level of confidence that people have that others will act as they say or are expected to act, or that what they say is reliable' while social or generalised trust 'refers to the general level of trust in a society—for example, how much one can trust strangers and previously encountered institutions' (Productivity Commission 2003b, p. x).

Sullivan (2002, p. 4) states that 'social trust can thus be viewed as the individual-level internalisation of norms of reciprocity, which facilitates collective action by allowing people to take risks and to trust that fellow citizens will not take advantage of them.'

Trust can operate at a number of levels in relation to an individual, a group or an organisation. There is also a distinction between trust based on personal experience and that based on a general community norm (Productivity Commission 2003b). Adding to this complexity is the fact that trust is a developmental process.

Individual trust is embedded in the personal experience and relations formed over time and through interaction:

... norms of trust and reciprocity, level of generalised trust and reciprocity is predicted by age, relationship status, the extent to which networks are locally based, ethnicity, health, voluntary activity, tolerance of ethnic diversity, whether live in an urban or rural area, satisfaction with the safety of one's neighbourhood and level of knowledge of local affairs.

(Stone & Hughes 2002, p. 32)

This idea is particularly important when considering the initial level of trust. The process required to build trust will vary according to an organisation's needs. In terms of community development generalised and individual trust will require greater attention for communities and individuals whose experiences make them wary of other individuals, organisations or government. This may include those from low socioeconomic groups, people from a variety of ethnic backgrounds, Indigenous Australians, older people and people with a disability.

For some communities, particularly those in remote areas, the characteristics of ICT delivery and service can impact on levels of trust in the technology and service providers and government agencies. Factors likely to undermine trust include lack of access, lack of reliable or adequate bandwidth, insufficient technical support services, privacy and security concerns, low levels of computer literacy and training and the lack of online services that meet the needs of the communities. Additionally, the sustainability of services and support affects the ongoing development of trust.

While online interaction raises particular challenges in relation to trust, it does not negate the presence or building of social trust. As the case studies illustrate, personal and emotional exchanges online are very real.

### ***Transactional trust***

Transactional trust is far more purpose driven, essentially removed from any one-to-one personal or social interactions. It is generally characterised by dealings between the individual and an organisation, whether government or business, to complete a particular task or transaction. Transactional trust in this respect will vary according to the transaction because an organisation may be trusted to deliver a particular service but not others. This theme is highlighted in The Smith Family case study (DCITA 2004b) incorporated in the paper on ICT in the nonprofit sector.

Transactional trust constitutes a relationship with some of the defining features of social capital (i.e. a set of social norms surrounding the intervention, the role of trust and reciprocity and a network of users). However, the purpose and nature of this relationship is likely to differ fundamentally from online relationships with a more social purpose.

The US business consultancy Accenture (Fano, Mathur & Shah 2003, p. 39) proposes that trust in the context of business development:

1. is earned over time
2. can be monitored by governments but not established by them
3. is an aggregation of many people's experiences
4. can take years to establish but can be lost in an instant
5. extends throughout the value chain.

In addition, once lost trust it is difficult to regain. In this discussion it is evident that trust exists in several planes, it is both a process and outcome and requires sustainable development.

Accenture notes the tensions between the need for business to access consumer data and information and the individual's right to privacy and control over personal information. To balance this tension Accenture advocates a proactive effort to comply with current laws while also earning trust. The latter becomes more important as technological change challenges the ability of most current laws and regulations to protect privacy.

Accenture defines business trust as 'the confidence consumers or organisations have that a company will respect their privacy concerns and handle their information responsibly' (Fano, Mathur & Shah 2003, p. 38). In this context, the dimensions of trust include:

1. **security** where personal information is protected against theft
2. **data control** where the individual controls who gains legal access to personal information and when they get that access
3. **personal access** where the individual controls over who contacts them and how
4. **accountability** so that if access to information is granted it will be used responsibly and in the best interests of the individual
5. **benefit that is reciprocal** so that the individual gets a return for use of data.

These issues apply equally to other organisations and government and will affect the developmental cycle for trust.

Accenture (2003, p. 7) sees e-government maturing through five plateaus of development.

1. **Online presence**—in this early stage of development there is a passive-passive relationship between the government and the customer. Information is provided by agencies and read by customers with no interaction in electronic form.

2. **Basic capability**—the second stage involves a central plan for e-government with a broader online presence across government. ‘Quick win’ transactions are enabled particularly in revenue generating sectors.
3. **Service availability**—in this stage there is a push for as many services as possible to be available online with limited sophisticated transactions available. There is an initial customer focus and some cross-agency cooperation.
4. **Mature delivery**—at this more advanced stage, service clusters are developed and intra-agency cooperation and collaboration across levels of government are present. A value-added approach is taken with customer service objectives in place.
5. **Service transformation**—improved customer service delivery is a key objective with service take-up a key measure. Integration between services is achieved with organisational, process and technology changes taking place throughout agencies.

There is a sense, supported by the earlier work of Accenture (2001, p. 5), that these stages progress from a passive-passive relationship between government and citizen to a transaction stage where both parties are actively involved with each other online. Accenture (2003, p. 8) later notes that as governments move through this cycle they reach critical plateaus at each stage. Each plateau takes some time to overcome.

Trust in government and trust in the online environment are essential for the later transformation stage of reciprocal transaction. These two separate but related issues need clear identification and articulation. Trust in government needs further clarification as it applies broadly to specific agencies and the services they provide. These factors combine to create the more complex issue of trust in e-government.

A study by the Pew Internet & American Life Project, *How Americans Get in Touch with Government*, showed that US citizens require and will use different methods for contact and interaction with government depending on the nature of the problem, issue or service required (Pew 2004a). However, it found Internet users contact government more often than non-users. Despite the fact that it has no independent effect on the success of their engagement, users also believe that the Internet improves their relationships with government. Pew (2004a, p. 25) notes Internet user find ‘online interactions with government seem to improve their perceptions about how they relate to government, particularly for the federal and state governments.’

The central question of gaining trust (both transactional and social) for increased citizen e-participation is also the focus of some recent Australian research. Stanton (2004, p. 22) notes ‘It is evident that development of trust between both internal collaborative and external participative e-government stakeholders must be a condition for effective interaction in this vital environment.’ Stanton makes reference to the work of Pavlou (2001), where trust is one of four important variables (the others being perceived risk, perceived usefulness and perceived care of use) for predicting the intention to use online transactions.

Dwyer (2004) proposes a model for greater transparency in government networks, which has at its centre the building of trust and the creation of an iterative process that reinforce values through appropriate behaviours and transparent processes.

The Australian Government has carried out a range of projects in the areas of trust, security, authentication and related issues (see [www.agimo.gov.au](http://www.agimo.gov.au) and [www.dcita.gov.au](http://www.dcita.gov.au)). Trust and security continue to be one of the priorities in *Australia's Strategic Framework for the Information Economy 2004–2006* which notes the ongoing need to address 'online authentication, privacy and consumer protection issues to promote confidence in online transactions' (DCITA 2004a, p. 23).

### ***Threats to building trust and relationships online***

#### ***Spam***

Spam exploits the openness of the Internet—and the presence of trust—to send unwelcome messages and transmit computer viruses and other online threats.

Spammers cull email addresses and send out commercial messages to thousands or even millions of addresses, with the expectation that even a few positive responses will make their efforts profitable. They are uninterested in the negative repercussions of their actions—such as the expense to users of downloading endless unwanted advertisements, the exposure of children to pornographic material or fraudulent transactions and offers. The consequences of spam for the recipients can include diminished trust in the Internet or even the decision to close their email accounts.

Spammers are increasingly exploiting poorly protected home computers. Users visit websites and are unknowingly infected by viruses programmed to set up proxies on home computers that relay spam not only to that user but also to others they contact.

The Australian Government has taken action to address this rising threat by introducing the Spam Act (Commonwealth of Australia 2003) to protect Australians from spammers and their techniques while protecting the right to free speech. The legislation plays an important role in the Government's multi-layered approach to fighting the global nuisance of spam.

Home users should take their own precautions including the use of anti-virus and firewall programs to safeguard their home PCs. They should use caution in opening unsolicited emails (especially if they contain attachments) and download software only from trusted sites or trusted organisations (NOIE 2002b, p. 18).

#### ***Other online threats***

Variations on traditional spam, but which have the same intent and also threaten to undermine online user trust and confidence, are:

- phishing—emails purporting to be from a bank or other financial institution to lure users to a website that will harvest logon details for financial deception
- Trojans—viruses or other pieces of hidden code that automatically download onto the user's PC from emails or certain websites to record user details (e.g. online banking passwords) for financial deception or identity theft.

Many viruses are directly malicious in nature, designed to infect and damage the operating systems and files of individuals and organisations. These and other threats, such as the Melissa and Love Bug worms, can be transmitted as email attachments, from software downloads or through use of an infected floppy disk or CD.

Large corporations and government agencies are particular targets for hackers or their networks. Activities carried out by hackers include:

- denial of service attacks, where hackers bombard a website with requests for information, making it difficult for other users to gain access
- dumping, where control is taken of a user's modem to place calls to high-cost premium or international numbers.

These issues challenge agencies and their customers alike to establish and maintain confidence in the identity of parties to online transactions. Further information on spam and government initiatives to combat it is available online at [www.dcita.gov.au/ie/spam\\_home](http://www.dcita.gov.au/ie/spam_home).

#### *Authentication*

The Australian Government considers that authentication policies and technologies are essential for a trusted online environment (NOIE 2002b, p. i). This is also a major priority for the Australian business sector, which relies on trust in relationships between customers and businesses. In the physical world, people's identities can be confirmed (or authenticated) using physical information. These checks are not possible on the Internet and so require other means (NOIE 2002b, p. 4).

A familiar form of electronic authentication is the use of passwords to restrict access to PCs or computer networks. Enhanced options for authenticating identities and communications include encryption systems, public key infrastructure (PKI), virtual private networks and secure managed systems. These are explained in further detail in the publication *Trusting the Internet* (2002b). Australian Government agencies plan to use PKI to support secure online exchanges with individual clients.

Advice to home users to download only from trusted sites leads to the question 'what is a trusted or secure site?' Many businesses have established secure payment gateways on their websites for customers. Some businesses also display on their websites 'web seals' (or 'trustmarks') of approval—for example, the Verisign tick logo. Online traders use these web seals or trustmarks to show their credentials have been assessed by an appropriate independent organisation or that they subscribe to an industry code of conduct. Web seals can reassure consumers that they are dealing with businesses that care about providing reliable services.

The Australian Competition and Consumer Commission (ACCC) has, however, warned consumers not to rely on the mere presence of a web seal when deciding whether or not to buy from a web trader. The ACCC recommends that consumers always go to the website of the organisation originating the seal or code of conduct to verify that the trader is a member.

Many businesses and agencies have moved to install encrypted digital certificates on their servers that ensure secure communications with customers. Digital certificates issued by trusted third parties, called Certificate Authorities (CAs), authenticate the identity of an organisation before a certificate is issued (NOIE 2002b, p. 40).

*Gatekeeper*® is the Australian Government's PKI strategy. It provides a mechanism for government agencies to implement PKI technology and enables them to choose from accredited service providers. The *Gatekeeper*®

evaluation and interoperability (recognition) processes ensure that the products of and methods of delivery used by CAs and Registration Authorities comply with appropriate Australian Government policies and meet prescribed standards for integrity and trust (NOIE 1998).

Agencies and business can use digital signatures to satisfy their authentication needs. A digital signature is a cryptographic technique that applies a mathematical algorithm to a document based on a certificate holder's private key. This creates a unique identifier that cannot be forged and can be checked by the receiver to verify authenticity and integrity. It provides non-repudiation (i.e. neither party can deny that a transmission was sent or received) and confirms that the document or file has not been altered or interfered with. (NOIE 2002a, p. 8)

Australian Government agencies are required to comply with a range of online security mandates and guidelines (NOIE 2000) to ensure their websites and online networks are secure and so ensure public confidence in government online services.

#### *Privacy*

Another major issue for government and business is ensuring privacy in the online environment for citizen and consumer confidence and trust. Businesses recognise the value of posting privacy policies on their websites to describe the manner in which personal information may be collected and used and to whom it may be disclosed. Associated with this is the effort by government and business to keep personal information secure. Standards and principles in this area are described in a set of National Privacy Principles contained in the *Privacy Act 1988*.<sup>1</sup>

#### *Offensive content*

The proliferation of illegal and restricted (offensive) content on the Internet has created concerns among many users, especially parents, about Internet access for children and young people. The Australian Government enacted the *Broadcasting Services Amendment (Online Services) Act 1999* to address some of these concerns. Mechanisms that complement the legislation include:

- enabling community members to make complaints to the Australian Broadcasting Authority about online material they think may be prohibited by law
- a community advisory body called NetAlert ([www.netalert.net.au](http://www.netalert.net.au)) to provide education and awareness-raising activities
- the launch of a new website ([www.nettysworld.com.au](http://www.nettysworld.com.au)) to help educate children about safer Internet practices.

Industry has also sought to address concerns by introducing codes of practice for the treatment of online content by Internet service providers. Those that register with the code receive the 'Family Friendly' Ladybird seal of endorsement from the peak industry body, the Australian Internet Industry Association ([www.ii.net.au/guideuser.html](http://www.ii.net.au/guideuser.html)). Home Internet users with children are encouraged to use content filtering software on their PCs.

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1 [www.privacy.gov.au/act/privacyact/index.html](http://www.privacy.gov.au/act/privacyact/index.html)

### *Consumer rights*

The Australian Government recognises that for consumers to understand the benefits and risks of shopping online they require facts that enable informed decisions regarding online purchases. It provides consumer information through the Treasury website *ConsumersOnline* ([www.consumersonline.gov.au](http://www.consumersonline.gov.au)). Information is also provided through the ACCC website ([www.accc.gov.au](http://www.accc.gov.au)) on such issues as Internet auctions, Internet scams, Internet dumping, consumer rights and web seals.

### *Building trust in communities*

Threats to online trust and relationships are clearly significant in relation to the use of ICT to build social capital. Threats that undermine trust in the online realm reduce the willingness of individuals to engage with others in a meaningful way and subsequently increase their networks.

Relating online trust to what is known about communities makes it evident that boundaries play a key role. Trust in an online community depends on the things that create a sense of belonging to a group and so build confidence in interactions. This includes boundaries on the size of the group as well as boundaries in terms of behavioural norms.

Open, unmoderated chat rooms do not build community, trust or subsequent social capital. Without the boundaries, people can come and go too easily without any sense of responsibility (known colloquially as Internet 'trawling').

A UK study found that 'reducing the size of online networks is done primarily to make reputations and trust possible' although 'different sized social networks achieve different outcomes' (iSociety 2003, pp. 30–34). The lesson here is that specific online communities must have clear objectives and set boundaries accordingly. Additionally, a trusted organisation that supports or hosts the online community is likely to engender greater trust than an unknown group.

Despite these issues, there is evidence that the Internet can contribute to the development of trust. Pierce and Lovrich (2003, p. 49) found, overall, that 'Internet technology use at both the aggregate and the individual level is associated with higher levels of trust, even when controlling for the demographics of the city and the personal characteristics of individuals.' Further, they observed a 'significant association between higher levels of Internet penetration and higher levels of social trust' (*ibid.*, p. 49).

### **Discussion points**

We know that trust is an essential element of and is required to build social capital. It is also something that develops over time and operates at a number of levels.

- How can different forms of trust (i.e. transactional trust, social trust) be developed and maintained:
  - in relation to business, organisational and government online engagement and access to online services?
  - in the various types of online communities?
- What undermines trust in each of these contexts?

- What role (if any) should business and government play in developing and sustaining different forms of trust in each of these contexts?
- What other (if any) values and norms have a significant impact in the online world?
- Are citizens and consumers sufficiently aware of the online threats that they need to consider and safeguard against? If not, what practical measures might address this?
- Are there effective sanctions for those who transgress online against shared values and norms?

### 3.2.2.2 Social networks

Social networks are the foundation of personal and business interactions. They define who people communicate with and how. Wellman *et al.* (2002) argue that social networks are changing in current society. This transformation follows revolutions in technology that have resulted in a move from densely knit and tightly bound networks (with strong geographic ties) to sparsely knit and loosely bound networks. Underlying this shift is the nature of the World Wide Web itself as a network of networks. These changes have vast implications for how people relate to each other and to institutions.

To highlight the importance of social networks in the social capital debate Lin (2001, p. 41) asserts that 'social capital is rooted in social networks and social relations and is conceived of as resources embedded in a social structure that are accessed and/or mobilised in purposive actions'. In addition, the Productivity Commission (2003b, p. 10) noted 'Networks can also play an important role in the provision of other aspects of social capital. Social norms are more likely to be spread and observed in a more connected society.' It is therefore important to understand the basics of social networks.

The Productivity Commission (2003b, p. 10) defines a network as 'an interconnected group of people who usually have an attribute in common.' Social network theory (Mitchell 1969) discusses networks in terms of:

- density (the proportion of people in the network who know each other)
- reachability (the reach of any individual in the network by virtue of the links within the network)
- range (the number and diversity of contacts)
- content (the meaning ascribed to the relationships)
- directness of the relationship and interaction
- durability (endurance of links)
- intensity (the degree to which individuals feel bound to honour obligations or rights in relation to the contact)
- frequency of contact.

Researchers use these factors to assess the many dynamics and interactions of social networks. For example, the ABS (2004) in its work on the measurement of social capital considers questions related to network size, frequency, duration, range and density while combining these with the mode of communication.

Social capital literature tends to synthesise (and simplify) key elements from social networks theory and discusses a higher level typology of bonding, bridging and linking capital. These three primary types of social capital can be described as follows:

1. 'Bonding social capital refers to relations among relatively homogenous groups (such as an ethnic, religious or socioeconomic group) and it strengthens the social ties within the particular group' (Productivity Commission 2003b, p. 18). It builds a sense of close knit community that provides the individual with a sense of belonging and identity and social support and conforms most closely with the more traditional idea of community.
2. 'Bridging capital refers to relations between heterogenous groups, and it strengthens ties across such groups. Examples of bridging social capital include the civil rights movement and ecumenical religious organisations' (*ibid.*). It develops ties between diverse groups under a common network. This allows the individual to access different resources, promotes shared understanding between groups, increases the flow of information and develops a broader sense of community
3. 'Linking social capital refers to relations between individuals and groups in different social strata in a hierarchy where power, social status and wealth are accessed by different groups' (*ibid.*). This is differentiated from bridging capital because it allows people to draw on the different levels of power and status that operate across society rather than simply those across different networks. It can be the foundation of cooperative development where power and status play a key role in accessing the necessary resources.

Lin (2001) argues, in line with Wellman's work, that social networks increasingly rely on and develop through electronic mediums. Without diminishing the importance of face-to-face contact, ICT transforms social networks through 'cybernetworks [that] are defined as the social networks in cyberspace and specifically the Internet' (Lin 2001, p. 212). The Internet provides increased opportunity for connections across different types of networks and to reinforce existing networks and therefore can build all three types of social capital.

Individuals and groups construct cybernetworks through the use of what is sometimes termed 'social software' (iSociety 2003). Social software 'refers to any software which enables groups of people to communicate and to collaborate' (iSociety 2003, p. 11). It includes email, chat rooms, listservs, weblogs, etc. These tools allow the individual to keep in contact and nurture existing social networks and to form others that may not have been possible under traditional geographically based social networks.

This paper regards ICT as integral to the wider infrastructure of society with a role to play in building social capital, consistent with the view of iSociety in the United Kingdom (UK):

What is misunderstood about the possibilities for building social capital through social software is that the latter cannot and will not replicate or replace face-to-face relationships. To say that social software can be integrated into our everyday social lives is entirely different from saying that social software can recreate our everyday social lives, or replace them.

(iSociety 2003, p. 45)

### Discussion points

- How is the Internet (and ICT generally) impacting on the building and development of social networks?
- What is the role of government (if any) in the ways that the Internet is used to build and develop social networks?

### 3.3 Building social capital

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As with communities, social capital operates at several levels. It can be considered at the individual (micro), the community or organisational (meso) or the national (macro) level. These interact with and build on one another. Just as a community's social capital is often measured by the social capital of individuals within it, an organisation with many members or staff with good social capital is more likely to become an organisation with good social capital.

Onyx and Leonard (2000, p. 7) observe that 'collective action that uses and creates social capital is at a local level. It is the operation of networks and norms at the local level that makes an empirically demonstrable difference to economic and social outcomes.' The State is the context in which social capital develops—it provides agreed national norms, values and formal institutions within which local practice is placed.

Fukuyama (2002, p. 30), in discussing some of the problems of the social capital concept, notes 'it is a private good that produces extensive positive and negative externalities.' In this sense the individual is the basic level at which measurement should be done. Yet to sustain this as the basis for building wider social capital many individuals must have many links and a high level of shared trust.

A process for measuring social capital combined with dialogues on its benefits can contribute to the promotion of it. Yet Fukuyama (2002) states that it is not clear how to generate social capital in societies where it is lacking. Speculating on the need for underlying social structures, Fukuyama emphasises pre-existing requirements such as the rule of law and trusted institutions. The adequate provision of infrastructure (for the supply of food, water, sewerage, power, education, health care and more recently telecommunications) that meets the needs of individuals and communities invariably adds to the trust levels of a community.

Fukuyama believes networks may impact on social capital generation:

What is needed in these cases (where social capital is low) is to increase the radius of trust among individuals in the various small, inward looking groups that comprise these societies, and to facilitate the building of cooperative relationships, in both economic and political spheres, between groups that typically have had little to do with one another.

(Fukuyama 2002, p. 32)

Therefore, in many instances of perceived low social capital in communities, the bridging capital needs strengthening. Woolcott and Narayan (2000, cited in Onyx & Leonard 2000, p. 6) agree that 'while localised, bonding social capital operates as effective defensive strategies against poverty, the necessary condition for real development entails a shift to other, looser networks, thus a shift from "getting by" to "getting ahead" entails a shift from bonding to bridging networks.' ICT has a key role to play in building and maintaining

bridging capital as it provides greater opportunity for extending social networks, particularly for communities and disadvantaged groups isolated by geography or circumstance.

Linking social capital, while less often discussed, provides access not only to information and contacts in different social networks but to the power and status, both informal and formal, that they represent. Dialogues on e-democracy and e-governance highlight the role of ICT in developing linking capital. This does not mean simply voting online—the key is in the interaction and the process of achieving beneficial outcomes for both citizens and government, rather than a one-way provision of information or services.

The complicating factor is that not all social capital is inherently good for a community or the wider society. The negatives of social capital occur mainly in relation to bonding capital where very strong ties within a group can lead to the exclusion of others, negative norms, a lack of concern for building other kinds of ties and social liabilities. These problems may arise when strong bonding is combined with a lack of bridging capital.

By way of illustration, Granovetter (1973) discusses the differences between two suburbs in Boston in response to urban renewal by the city council. In one, bonding capital was very strong among sub-groups but bridging capital between them was almost non-existent. As a result the community was unable to work together to fight the council's plans. In the other, bridging capital between groups was quite good and the community was able to work together and affect the development plans.

Terrorist networks provide evidence of the power of bonding, bridging and linking capital to generate negative social capital. Strong social capital in such a community of purpose does not work for the benefit of the larger community or contribute to good social capital at a broader level.

Where the primary barriers to social networks once were distance and capability, improved transport and communication (largely in the form of the telephone) have helped to overcome them. However, social networks and relationships continued to rely traditionally on place-based synchronous (same time) communication for improvement. ICT has significant potential to change the nature of communication. Wellman *et al.* (2002) argue that ICT has created individual networks, unrestricted by time, that can communicate in an asynchronous manner.

These structural and technological changes enable flexible responses by social networks to the needs of individuals—providing they have equal access to technology and the ability, knowledge and skill to use it. Those excluded by deficiencies in these attributes need particular attention.

Other structural factors that play a role in such exclusion include the predominance of the English language in use and design of technology, a lack of understanding and support around cultural differences in communication patterns and the inherent bias in software development that generally limits the use of technology to those with mainstream physical abilities. The World Summit on the Information Society (2003) acknowledged these issues and highlighted the need to acknowledge differences in culture, language and physical ability in the design and use of ICT.

**Discussion points**

- What is the potential (and limit) of the Internet (and ICT generally) to build and maintain bridging social capital?
- Are there potential (and actual) negative aspects of the building of social capital online? If so, what are they?
- What is the role of government (if any) in addressing the potentially negative aspects of building social capital online?