This paper begins by teasing out the nature of social capital and its particular and current relevance to adult learning policy and practice in Australia. The paper identifies a number of benefits and significant problems with social capital as an organising construct for adult learning research and policy in Australia. Some connections are made between social capital and lifelong learning, and important distinctions are drawn between ‘bonding’ and ‘bridging’ social capital. I draw on my experiences and insights over the past seven years using network diagrams as a research tool.

Network diagrams are identified as a useful tool for charting relationships between learning organisations and individuals. The paper suggests ways of using the network relationships in these diagrams as a proxy for social capital in a range of formal and informal settings in which adult learning occurs in Australia.

Network diagrams are seen to have particular utility in situations where communities and organisations become too small for surveys, where relationships become complex and ambiguous as well as in rural and remote communities where distance and spatial relationships affect access to learning.

I came to the idea of social capital fortuitously and reluctantly. I first discovered its utility through our use of network diagrams in a national research project (CRLRA 2000a, 2000b) designed to explore the role of vocational education and training in rural and regional Australia. The diagrams were instigated in that project by Ian Falk and used by our research team to summarise quickly the way vocational education and training organisations were related to the communities they served. It was our subsequent research into social capital in adult and community education (Falk, Golding & Balatti 2000) that alerted me to the wider utility of social capital as a construct for theorising the relationships, that I now recognise to be an important part, and a product, of all learning.

Before defining social capital, it is important to admit that I retain some of my early scepticism and concerns about use of the term: because it is not widely understood beyond researchers, because it is not always or consistently defined when used and mainly because, being situated, it is difficult to measure out of context. Part of my caution about using the term has shades of the parable about ‘The Emperor and his new clothes’. Because I think I can see social capital does not mean it exists, or that other people can see it; or if they can, that they see the same thing as I see. While I tend to avoid liberal use of the term in research reports designed for wider distribution, on balance I believe it is a term worth theorising about and persisting with. Like other situated social constructs such as love and friendship, social capital while ‘difficult to bottle’ does exist and is important to
recognise and value. Perhaps it is wiser to talk about some of its more widely and intuitively understood component parts (trust, give and take, shared values, networks, collaboration) than to use the term itself, or to use less understood sociological terms such as reciprocity, shared norms and a civil society.

So what is social capital and what are its parts? As I understand it, the term social capital accepts that what lies between people in society, communities, organisations and families (trust, give and take, shared norms, networks, collaboration) is qualitatively different from and more valuable than what individuals and organisations ‘own’. Unlike economic capital (money) and human capital (skills and qualifications: see Choy, Haukka & Keyes 2006), social capital ‘... asks us to view a whole range of connections and networks as a resource, which help people advance their interests by co-operating with others’ (Field 2005:1). The Australian Productivity Commission (2003) review of social capital identified social networks and/or social norms as a key element. Trust was regarded in that study as an additional element or proxy for levels of social capital in a community. It was seen as a resource that people could use to achieve certain objectives but that cannot be owned by individuals: it is always situated and shared. According to Cohen and Prusak (2001:4), social capital is ‘the stock of active connections among people ... that bind members of human networks and communities and make cooperative action possible’.

Bjornskov and Svendsen (2005) observe that the literature on social capital sees it as operating in three broad spheres at three corresponding levels. It is mainly concerned about functioning of countries and the economy at the macro level, institutions and organisations at the meso level, and individuals, households and communities at the micro level. Social capital is seen by most theorists as critical for efficient functioning, equity and sustainability of learning (knowledge, skills, and attitudes) in all contexts at all three levels.

Lifelong learning and social capital, while separate conceptually, tend to be positively associated and mutually reinforcing. Lifelong learning tends in modern, capitalist societies to be positively associated with both human capital, produced by formal education, as well as by economic capital. Without government intervention, prevailing inequities in economic and human capital therefore tend to lead to inter-generational inequity in education. While social capital and lifelong learning at all three levels and spheres identified by Bjornskov and Svendsen (2005) are subject to the influence of public policy, both are complex challenges for governments (Field 2005).

This is for a number of reasons. First, because most enterprises, workers and civil society lie outside the direct control of governments. Second, because governments avoid funding lifelong learning that is not vocational. They rely heavily on informal learning through volunteers and increasingly try to shift the cost to learners and industry. Third, because social capital and its component parts are relational and situated – they cannot be traded. It is therefore difficult to assess or measure social capital quantitatively or to attribute it as a direct outcome of learning.

Given these conceptual difficulties, why then is a focus on social and network relations timely and worth persisting with in Australia in 2007? First, there has been a move away from formal, directive and government-funded education and training organisations. Second, networks have increasingly been used by governments to describe learning transactions that occur beyond government or public expense. While networks are widely seen as positive and part of ‘community capacity building’, they tend not to be funded. Third, while there is encouragement in education policies for lifelong and lifewide learning, most governments expect such learning to be self-funding or acquired informally and individually through paid or voluntary work. Finally, there are perceptions that ‘building social capital’ might be part of the answer to considerable education market
failure and loss of community capacity associated with widespread marketisation of education.

My thinking about social capital has been informed by a suite of research I have been involved in with other researchers into participation and equity in lifelong learning over the past decade (summarised in Golding 2006). That research has included, in approximate order, research into vocational education and training, adult and community education, rural and remote communities, Indigenous businesses, football and senior citizens clubs, land care, fire and emergency service organisations, community-based men’s sheds and refugee support organisations. The drift in my research has been towards less formal, volunteer and community-based organisations. Many of these ‘surrogate’ learning organisations are not conventionally regarded as having a formal learning function with courses, qualifications, curriculum and enrolment.

The research evidence nevertheless points in each case to the crucial importance of ongoing informal learning through such organisations. My research identifies the particular role of volunteers in community-based organisations at the micro level, connecting otherwise disengaged or disconnected individuals and households in local communities and neighbourhoods. Community-based organisations also play a significant role creating the prerequisite trust and networks to connect individuals at the meso level with institutions and organisations that provide essential services including further, formal and accredited learning. Reverting to the academic discourse, voluntary organisations are widely seen as creating community capacity by building social capital and facilitating lifelong learning.

Falk, Golding and Balatti’s (2000) study of ACE lifelong learning & social capital provided new Australian evidence in a range of settings of the particular importance of social capital in adult and community education (ACE). Social capital was found to underpin ACE practice and pedagogy. ACE was identified as an important site for networking and community engagement, including volunteerism. ACE was also found to connect communities, bridge cultural groups and promote lifelong learning. As with all research, it is one thing to ‘discover’ something. It is another thing to convince governments that it is rational (including economically rational) to properly fund adult and lifelong learning and the creation of social capital, particularly if the research shows that it can be created by communities for next to nothing.

The double-edged sword in recent research findings is that small, community-based and poorly funded, voluntary organisations including ACE are often in a better position to reach, engage with and support people who are most in need than are large, formal, commercial and fully funded organisations. In effect, while government support and intervention can enhance social capital, it can also be created within and by communities and families as a positive response to loss, adversity, disconnection and disengagement.

The other difficulty for adult and community education, despite its value, is that social capital, like clean air and water, is taken as being ‘free’ and is therefore unvalued, devalued or run down. Social capital is not as easy to measure, count or report as a function of effort and expense as are enrolment, contact hours or completion. If recognised at all, social capital tends to be seen as something ‘ACE can do free’ to address market failures in other education and training sectors. As the ‘Cinderella sector’ in Australia, adult learning tends to be perceived by governments to be at the far end of the vocational and educational food chains. Governments generally won’t fund it unless it is vocational in content and intent, and ACE tends to be absent, unrecognised or unfunded in parts of Australia where it is most needed. Other education sectors devalue it by defining, funding and privileging ‘higher’ education, ‘formal’ learning and industry competencies over informal learning. To further compound
the problems, it is diverse and difficult to define ACE as a ‘sector’ (Golding, Davies & Volkoff 2001) and therefore to measure ACE participation or outcomes. While it is very limiting to narrowly define it as what government funds, it is also too broad and unhelpful to define ACE as everything that adults learn.

Despite all of these problems, social capital is a valuable conceptual alternative to narrow education models that presuppose utility for subsequent employment. Balatti, Black and Falk (2006) recently studied outcomes of students from adult literacy and numeracy courses through a social capital ‘lens’. They concluded:

The social capital model of adult literacy and numeracy provides an alternative conceptual framework to one based primarily on employment outcomes. By focussing on connections between people within networks [the model] includes all social contexts including employment [but] avoids the binary distinction between employment and non-employment-related outcomes and is more reflective of the complexities and the importance of people’s ‘whole’ lives. [The model] demonstrates how literacy and numeracy courses contribute to the capacity of individuals to engage in communities and thus add to community capacity and social cohesion (Balatti, Black & Falk 2006:6).

Looking at lifelong learning from a broader perspective than education, it is important to recognise that knowledge and literacy, like social capital, exist more in networks of individuals and organizations than in individuals themselves (Cohen & Prusak 2001). Knowledge, like literacy, also tends to be local, ‘sticky’ and contextual (Davenport & Prusak 1998), and difficult to codify since much of it is tacit. All of this makes standardised, formal, common curriculum based on a common body of knowledge problematic. While literacy and social capital are important to acquire, they are impossible to own free of context and are difficult to ‘teach’.

It is also important to recognise the distinction between bonding and bridging social capital (Putnam 2000), which in turn has important implications for learning. Cohen and Prusak (2001:14–15) note that in the case of bonding social capital between homogeneous groups, the ‘ties that bind can also blind’, illustrating the ‘dark side of social capital’. Bonding social capital is useful but can be insular. Cohen and Prusak (2001) suggest that closed networks can involve ‘clannishness, mutual delusion and normalisation of deviance’. Burt (2000) makes a case for encouraging ‘bridging’ alongside ‘bonding’. Bridging social capital connects dissimilar groups, is harder to create but is more valuable in enhancing learning. Burt (2000) suggests that since information circulates more within than between groups, networks with closure may not be a good source of social capital or for diffusion of ideas. Individuals able to build bridges that span ‘holes’ in networks may therefore be more important in learning organisations than people who forge strong bureaucratic links. There is therefore an association between network holes and learning. People with more diverse bridges, rather than people with more similar links, do better in learning organisations.

This emphasis on networks becomes increasingly important for learning and other organisations in an age of interdependence, change and virtuality (Cohen & Prusak 2001:15–21). In the postmodern, interdependent world no one knows it all. Networks can enhance the knowledge of organisations. Social capital becomes critical to a new and less mechanistic world of learning and work. However, volatility and rapid change can erode social capital that depends on stable connections and agreements about what is necessary learning. In a virtual, ICT world, social capital also defines the natural limits of virtual learning and work. It is important therefore to distinguish between electronic and face-to-face networks. Cohen and Prusak (2001:172–181) observe that electronic networks alone do not create either community or collaboration and that absence of norms and trust are the greatest barrier to organisations
using the internet to build social capital. Many important ‘vibrations’ are missing in an on-line environment. The social capital costs of virtuality: balancing the traditional (human) with the virtual are important.

Networks, in summary, ‘are at once the source and shape of social capital in organisations [and] between people’ (Cohen & Prusak 2001:55). Analysing them reveals information about existing social capital. Supporting them encourages social capital growth. Networks are a prime source of membership and commitment in organisations. They connect people to the places where people feel most at home and responsible for one another. They identify sites for organisational learning and the main places where knowledge develops.

Since there is no commonly agreed or simple measure of aggregate social capital, it is important to try to find a proxy amongst its component parts. If we accept that mutuality within organisations and communities (bonding social capital) on its own is a poor measure of a community’s ability to adjust to change or of the ability to learn, it is important that any measure we adopt should be able to distinguish and chart bridging social capital as well as identify missing links. I have experimented in the past six years across a wide range of contexts with the use of network diagrams. I have found through research that network diagrams provide a useful proxy measure of both network relationships and social capital.

The network diagrams I use are drawn by individual informants, usually by learners, community members or organisation representatives. They can be drawn in a range of ways: from one organisation looking outwards, within and between parts of an organisation or from an individual perspective, such as from a learner, volunteer, family member or worker perspective. Network diagrams are useful because they delineate sites for learning in geographic localities and regions, organisations and communities as well as in ethnic and cultural groups. They allow for a teasing out of complex inter-relationships: within and between places, organisations and groups. Importantly, they are able to distinguish between bonding (to homogenous groups) and bridging (to other, different groups). Importantly, they illustrate the nature, strength, blockages and competition as well as a lack of linkages. Rather than being objective or universal measures, network diagrams anticipate that different individuals may (and do) have different perceptions of the same links. Network diagrams are particularly powerful precisely because they are illustrative and respectful of individual perceptions, vantage points, places, time and context. Cumulatively, the links on a network diagram act as a proxy to document the presence and nature of social capital.

For illustration, I will briefly identify some examples where network diagrams have been useful in the research with which I have been involved. In the Centre for Research and Learning in Regional Australia research (CRLRA 2000a), the diagrams were able to chart the strong, non-Indigenous networks operating in a range of the communities in the Katherine (Northern Territory) region parallel to a similarly strong set of Aboriginal networks based around shared languages and culture. While both sets of networks were strong, they were analogous to being on separate acetate sheets that rarely touched, leading to an overall lack of trust in a community, at that time, divided essentially on racial lines.

In Golding and Rogers (2001), network diagrams were able to document and map the lack of contact (at that time) between Victorian neighbourhood houses and community learning centres in small rural towns. In one instance, a neighbourhood house and a learning centre sharing a common dividing wall in a former public courthouse were ignorant of each other’s role and not on each other’s network diagrams. In the same study, Victorian adult and community learning centres with poor ‘bonds’ but good ‘bridges’ (or vice versa) were found to be relatively ineffective compared with centres with
strong bridging outside of the community combined with strong bonds inside the community. Centre coordinators, who commuted into communities to work or who were recently appointed, struggled to establish or ripen effective local networks.

Network diagrams created within Bendigo Regional Institute of TAFE’s four prison education centres in 2000 as part of quality assurance exercises confirmed the inherent isolation of prison learning centres by virtue of their very limited bonding networks. The diagrams were also able to identify the debilitating lack of bridging social capital amongst learners and centre staff as well as between education centre staff and prison warders. In the Hayes, Golding and Harvey (2004) study of fire and emergency service organisations in small and remote towns, the network diagrams illustrated a necessarily hierarchical and directive communication network structure, strong collaborative links into the communities but weak links to adult education providers. In the study of community-based men’s sheds in Australia (Golding, Brown, Foley, Harvey & Gleeson 2007, in press), network diagrams were able to demonstrate how bonding and bridging with a wide range of partners within and beyond men’s geographic communities had enabled these new and poorly funded organisations to set themselves and survive, essentially on the social capital generated by volunteers and participants and sustained by their host communities. In the study of the role of Australian multicultural organisations for refugees (Miralles-Lombardo, Miralles & Golding 2007, forthcoming), network diagrams were used to demonstrate the critical importance of creating links to services for groups whose social capital had run down a number of times before coming to Australia.

Based on an extensive use of network diagrams in each of these research projects, it is possible to make some general findings about what they map and what they mean. While different diagrams result from different organisational types, individuals and starting points, they are excellent for mapping and conceptualising structural, sectoral and geographic discontinuity between learners and learning organisations. They identify both bridging and bonding and allow for the possibility that links can have more than one component which are sometimes different and ambiguous. The nature of the links (or lack of them) in the diagrams is indicative of trust and social capital from one perspective point, place, time and context. They are therefore also a function of age, position, experience and gender of the person drawing them. Network diagrams also powerfully illustrate that experience and time create extensive networks, and that high staff turnover in modern organisations can limit the ‘ripening’ of networks and trust. They show that artificially constructed and funded networks are very difficult to establish and sustain.

The potential usefulness of network diagrams goes well beyond research. They have a large practical potential in adult learning contexts. While they are difficult to compare qualitatively or qualitatively without full knowledge of the informant roles and of network contexts, their power lies in their capacity to reveal the absence or weakness of bonding and bridging links. They have the capacity to inform and empower stakeholders that draw them and create dialogue about desirable network changes. They are quick, efficient, replicable and ethically defensible if used sensitively. They are excellent at quickly and accurately establishing organisational and learner context. They are effective at suburb and neighbourhood level in the smallest and remotest towns and organisations. They are invaluable in situations where organisational and functional informality, complexity and ambiguity increases. They work better in the smallest, most loosely coupled and least directive volunteer and community-based organisations where surveys are less meaningful or not feasible.

In conclusion, based on the evidence, network diagrams and the network relationships they embody provide the best and simplest
proxy we have for social capital in adult and community education as well as a device for empowering organisations to improve their networks. Their most important theoretical contribution is that they demonstrate that learning and trust are developed collaboratively over sufficient time. They suggest that while funding face-to-face meetings and network activity is desirable, money can distort networks and destroy trust. The broadest message is that we all need encouragement to strengthen and legitimise our informal and formal networks with family and community outside of paid work.

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**About this author**

**Associate Professor Barry Golding** has undertaken a large number of collaborative national research projects in the past decade, several of which have been published by the National Centre for Vocational Education Research. His ‘research journey’ has largely been in equity-related fields, spanning a very wide range...
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The ideologies underpinning public/private partnerships (PPPs) have been much contested in theory, but what does promulgating a social partnership mean in practice? This qualitative research study has been ‘critiquing’ a construct of ‘ecologies of learning’ or ‘capacities of capital’ for social partnerships between industry, vocational education and training (VET) and a regional community.

This paper critiques one of these ecologies by exploring the discourses of social capital which present challenges for small business/community partnerships in practice. It argues that there is a need to question the impact of neoliberalism on social partnerships with VET and how the entities of industry: ‘fortress enterprise’, the