

# Building Bridges!

A Plan for Australia

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In the report, 'Bridging the Digital Divide', the plight of the Digital Poor was discussed, and the conditions for addressing it were identified. There are four such conditions -

- People have to be sure that it is worth the effort trying to access the Internet;
- People have to have the money and the ability to gain access to the Internet;
- People have to have the money and the ability to stay connected to the Internet;
- People have to be able to stay technologically focused and up-to-date.

In this supplementary report, a more detailed plan is proposed, in which governments - Federal, State, Territory and Local – partner with academia, industry and a variety of grassroots organizations, especially including computer clubs to meet the needs of the coming century.

Specific recommendations include:

- Key players in the partnership are to be:
  - Governments at all levels;
  - Industry that supplies and services home computers, including manufacturers, retailers and technical support;
  - Schools, technical colleges and universities;
  - Non-profit sector, especially including:
    - The computer refurbishing sector, which provides low-cost computers;

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- The computer club sector, which provides effective training, support, grassroots contact, and the means of helping home users to enthusiastic and technologically up-to-date.
- The partnership to be formalized through national and State/Territory advisory bodies, at which all partners would be represented;
- A telephone hotline to be established to provide detailed, localized information for beginners;
- Accurate information be prepared to help prepare people for learning computers and connecting to the Internet;
- Research be undertaken into home computer issues, especially including Internet security and training issues;
- The computer club sector to be restructured, with a national body (existing), regional (or State/Territory) bodies, and local bodies.
- Government and industry to provide funding for the computer refurbishing sectors;
- Government and industry to fund the computer refurbishing and computer club sectors, providing on-going financial support for:
  - Key personnel at the national and regional/State/Territory levels;
  - Dedicated premises at the national and regional levels;
  - Non-dedicated (i.e. shared use) premises at the local level;
  - Equipment at all levels;
- Technical colleges to provide training relevant to home users.

## **1 Planning Actions**

For well over 2000 years, the test of a community's level of civilization has been how well it takes responsibility for providing its citizens with basic literacy skills. In recent centuries in Australia, this has come to involve a partnership between national and local organizations at every level, both large and small. The result has been a national network of schools and other institutions, mostly funded by governments, that provides educational opportunities to every person within the nation.

To meet the challenge of the new literacy (that is, Computer Literacy), a similar partnership will be required, in which Governments - Federal, State, Territory and Local – partner with academia, industry and a variety of grassroots organizations, especially including computer refurbishers and computer clubs.

## **2 Coordinating/Advisory Bodies**

The first thing to do in setting up such a partnership is to make it formal. I suggest that Governments (National and State/Territory) sponsor a national advisory body and that State/Territory Governments sponsor equivalent regional bodies, with representatives from government, industry, educational institutions, and computer clubs. These bodies would advise

governments, gather grassroots information, and coordinate the exchange of information between their constituents.

### 3 Beginners Hotline

Next, it is suggested that Government set up the recommended hotline to supply information to potential and novice home users. Ideally, this number would be a national number. There are many reasons for this, including that some members (especially seniors) of the target group are highly mobile, travelling from place to place around the country, and they need a single phone number they can ring to get information about the place they happen to have just arrived in. The Federal Department of Health and Ageing advertises an ‘Aged and Community Care InfoLine’ (1800 500 853) on its Seniors.gov.au website; perhaps this could provide the basis for the recommended service. Alternatively, consideration could be given to organizing the hotline service through the computer clubs, who could, presumably organize volunteers to man the phones.

A useful adjunct to the hotline service, which might reasonably be offered in conjunction with the non-profit sector, would be a consultative service. For most people, ‘normal’ training is sufficient; for others, however, something different may be needed. But what? The aim of a consultative service would be to put learners in touch with experienced trainers, so that they can discuss the different options available to them. This service would be particularly valuable to people in remote areas and to people with learning difficulties or other special needs.

### 4 Information for Potential Beginners

When deciding whether or not to get a computer, people need a lot of information. They will have heard lots of good things that computers, but also lots of ‘scare stories’ about the dangers of viruses and scams. So what they want is information that is comprehensive, accurate, balanced (neither hype or scare-stories), localized and practical. In short, they want the full story. A multimedia DVD could be one way to deliver this information.

To give potential computer users the information they need, the Club prepared a two-hour talk entitled “The Perils and Joys of Computers”, which was presented at various venues around Darwin and Palmerston during August 2007. This proved to be highly successful, helping many people make up their minds about computers. Perhaps it might be the basis for a suitable multimedia presentation, with a booklet version for people without access to a DVD player or with hearing difficulties. Potentially, the DVD and/or booklet could be translated into different language for the benefit of non-English speakers.

(Maybe the ABC or SBS could consider producing a series of TV programs that target potential- and novice- adult learners. Presumably there would be a worldwide market for such a program.)

### 5 Research

As the Report makes plain, there is a major shortage of rigorous research into home computing issues. For instance, it seems to be little or no reliable research into training methods for beginners and for Internet security, and into the risks of malware infections and damage. Without such research, proper decision-making is impossible. The Report regards the commissioning of this research as a high priority.

In commissioning such research, however, the Report identifies three major problems. The first is to make sure that the research is actually directed to issues of concern to home users; the second is to make sure that the research results are *meaningful* to them; and the third is to make sure that the results are *accessible* by them.

The first issue is to undertake research that deals with home users as distinct from, for example, hobbyists, small business users, university students or computer users in big organizations. Research into these other groups may be very useful and interesting, but it is potentially misleading if used to guide home user policies.

The second issue is to make sure that research results are meaningful. For example, antivirus programs are usually evaluated under laboratory conditions, with results expressed in terms that are complex, and riddled with qualifications and footnotes. There is nothing intrinsically wrong with this kind of research, and it can be very useful to people with a sophisticated understanding of the issues being studied. For home users, however, it can be hard to understand, and potentially misleading. Accordingly, it needs to be supplemented by 'real-life' type research of a clinical or epidemiological nature (for example, "If I use *this* or *that* group of security software, and I *do* or *don't* run regular updates and scans, what are my chances of getting malware infections within specified timeframes?"). In short, home users need practical information to be able to make informed choices.

The third issue is to make sure that research results are made accessible to home users. That means, of necessity, making them available to them at some central place such as the telephone hotline, or on a central (presumably Government-maintained or Government-endorsed) website, where they can be *very quickly* accessed and absorbed – within just a few minutes of study by a completely unsophisticated viewer. In this, the Federal Government's NetAlert website may be taken as a model. Whereas Google, for instance, offers 38 million websites on 'parental online control' and Download.com offers 256 different software programs, NetAlert.gov.au offers just four major choices, with an easy-to-follow system for choosing between them. Whether or not these four software programs are perfect in every way is irrelevant; the simplicity of the choice and of the choosing system ensures that unsophisticated visitors to the site have an excellent chance of making a reasonably good decision. The same cannot possibly be said of Google or Download.com.

If quality research were available on matters relevant to home user training and home user security, and if that research could be expressed in an equally elegant fashion, then life would be very much easier for home users.

There is one further issue. If the NetAlert site had any original sin, it was the fact that it was, so far as this author is aware, created in relative isolation from community involvement. Thus when it was launched and came under immediate sensationalist attack from the media, there was nobody from the community to come to its defence. If research is to be undertaken into home user issues, the research results should not only be made available to home users in abbreviated form (as just discussed), but also in 'raw' form so that computer clubs and other interested parties may see it, and judge whether the abbreviated form is fair and reasonable.

## 6 Reducing the Cost of Access

As the Report emphasises, the cost of access are high to the point of being prohibitively expensive for many people. The question is: how should the community respond to this fact?

There seems to be a generally agreed principle in society that some things that people might do in their private lives deserve no social support, while others need to be supported for the public good. On the one hand, for example, many people choose to go to the cinema, but the State does not offer to buy their tickets. On the other hand, the State pays for the ABC so that people may watch on TV the movies they couldn't afford to see at the cinema; builds roads for people so that they can enjoy a Sunday drive; and pays for schools so their children may receive an education. So is computer access an entertainment or a social necessity?

It seems that society, as represented by government, industry and indeed the general public, expects people to have email access and to be able to access websites. Accordingly, it seems that a case can be made that society should begin to pay to support people's ability to do at least these two things. The question is: how best to do this?

One way that society could help pay for people's Internet access is by way of a subsidy on the purchase of computers and/or ISP connections. Such a measure would most probably be appreciated by recipients of the subsidy, but may not represent best use of public monies. Given the volunteer element within the non-profit sector, a better return on investment may be achieved by subsidizing suitable non-profit organizations – especially computer clubs and computer refurbishers.

Computer refurbishers (which include GreenPC and WorkVentures, both associated with Infoexchange Australia<sup>2</sup>), make computers available to low-income people at prices substantially below normal retail prices. Obviously, a suitable subsidy might help such organizations to reduce their prices even further. Of perhaps even greater benefit, however, innovatively applied subsidies could perhaps help them improve their computers' Internet security, which at present is merely token<sup>3</sup>. Perhaps subsidies could be applied to help public domain software producers create better products, or to develop suitable training material in Internet security to supply with the computers<sup>4</sup>.

Subsidies to computer clubs<sup>5</sup> could also provide social benefits. By and large, computer clubs represent home users at the grassroots level, and are thus able to economically supply practical experience, volunteers, and research subjects. How best can these resources be used? It may be noted that human ingenuity knows no bounds, and the people who run computer clubs around Australia have demonstrated great talent in providing useful services to home users with often very inadequate resources. The author has noted one club (in Wollongong) whose permanent premises consisted of a single small cupboard<sup>6</sup>. Other clubs use borrowed halls or rooms in a library, or work entirely from their members' homes. What does this prove? It demonstrates that, faced with a bad enough problem, people can indeed become desperate enough to make bricks with no more than a hint of straw. But are a few crumbling bricks good enough for the emerging Digital Age? To help us find an answer to this question, let us see how society dealt with a similar problem over recent centuries.

Over the past couple of centuries, our society came to believe that universal literacy was required. Accordingly, it passed laws to make schooling compulsory for children, and set up (and paid for) a mix of schools for children and colleges for adults to make sure that nobody went without a chance to become literate.

Now, it is important to note that schools had been around for thousands of years before society invented Departments of Education. Since the days of the Pharaohs, if not indeed even earlier, teachers have been teaching people to read – doing this el cheapo under trees, in barns, and in

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<sup>2</sup> infoexchange.net.au

<sup>3</sup> WorkVentures (WorkVentures.com.au/connectit), for example, provides no more protection than the Windows built-in firewall and an antivirus program. Given the lack of supporting training in how to deal with the consequences of marginal security, this may be regarded as notional safety.

<sup>4</sup> The author does not have sufficient experience with refurbishment organizations to do more than guess as to how well they might be able to use subsidies. That consumers would benefit from lower prices, however, cannot be doubted.

<sup>5</sup> For example, the author's own club, Darwin Seniors Computer Club, or (presumably) any other club associated with the Australian Seniors Computer Clubs Association Inc (ascca.org.au).

<sup>6</sup> This was noted several years ago; things might have changed since.

any other nook or cranny that nobody wanted for any other purpose. So why does society now pay for fancy buildings with air conditioning, comfortable seating, lots of office space, and hot and cold running administrators? There are two simple reasons: teachers get best results with adequate resources, and students learn more, more quickly in a good environment. And if that works with the Three R's, it also works when helping people master the Three E's<sup>7</sup>.

So what do computer clubs need in order to do what they do best?

With appropriate support and leadership, computer clubs offer three strengths critical to helping people cross the Digital Divide:

- With a membership of home users, they offer effective peer support;
- They can function anywhere – in even the smallest, most remote community. With the aid of a telephone hotline, they can provide services even to totally isolated people – for instance, people on farms and remote stations<sup>8</sup>;
- Being volunteer-based, they are highly economical.

To achieve their potential, however, the clubs need support, particularly with regard to leadership, space (as in office and training room space), equipment, and some specialized support services. To provide such support, however, requires some innovative thinking, and a few small changes in the way things are done at present.

Computer clubs operate on two different levels. At the one level, which we may call for convenience the 'grassroots' level, it is a simple business. At a different level, which we may call the administrative or support level, it is very complicated. To illustrate the difference, perhaps the author may indulge in some autobiography. Many years ago, I taught at a TAFE college in NSW. I did so at the 'grassroots' level: that is, I turned up at a time and place set by somebody else; walked through a door conveniently left unlocked by somebody else; delivered my lessons based on a teaching plan prepared by somebody else; and then went home, leaving somebody else to lock up behind me. It was a very easy job.

Meanwhile, out of sight, a whole team of other people were running around preparing course structures, booking in students, keeping premises clean and tidy, and even locking up behind me. It is this invisible 'support' stuff that is the hard part of running a computer club.

At the grassroots level, computer clubs can potentially provide three major services:

- Teaching computer classes (especially for beginners);
- Providing social/Internet café services (thus providing social support and peer pressure);
- Holding monthly meetings (providing social support, peer pressure and helping people stay up-to-date).

On the face of it, none of these jobs is hard. Indeed, most are very simple. It is the background support that is difficult, in some cases requiring advanced professional skills. For instance, the teaching is done best if it follows a well-prepared course structure, with well-prepared handouts. The Internet café services depend on having a suitable structure, and appropriate Internet security for the computers; while the monthly meeting benefits from having well-prepared Powerpoint presentation and handouts. Also, all three need some supervision to keep standards high. Few local organizations can handle all of this, especially in very small

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<sup>7</sup> E-mailing, E-Surfing and E-Security.

<sup>8</sup> Darwin Seniors Computer Club provides phone services in this way within the Northern Territory;

communities. So if it is to be done, then it must be done by larger organizations – presumably at a regional, State/Territory or national level.

In practice, fortunately, many of these support services really only have to be done once, and then can be shared amongst all local units within the region or nation.

Accordingly, it is suggested that computer clubs within Australia be structured as follows:

- (1) A national body, to represent all clubs, and to undertake or coordinate certain support tasks that might logically be undertaken centrally. For instance, when it comes to preparing course notes for beginners, such notes will be useable anywhere in the world. Computers in Broome are the same as in Bateman's Bay. So the national body might reasonably provide a range of courses, handouts and other training aids for use by all clubs, everywhere. (Such an organization already exists: Australian Seniors Computer Clubs Association (ASCCA).)
- (2) Next, regional (or State/Territory) bodies, each providing support to local organizations within their areas. (There may be no advantage for regions to be necessarily defined by political boundaries, nor to be necessarily exclusive. Conceivably, there could be two different bodies in a given State, one for, say, seniors, and another one for, say, unemployed people. The rule should be, try it and see if it works.) Regional bodies would work with the national body to provide support services, including possibly creating resources for distribution by the national body, or modifying services provided by the national body to suit their local constituents. (At present, the author knows of only one such body: Brisbane Seniors Online, which services computer club operations within the Brisbane City Council. Darwin Seniors Computer Club is presently gearing up to do a similar job within the Northern Territory.)
- (3) Finally, at the local level, local bodies would provide the three basic services of lessons, Internet café, and monthly meetings<sup>9</sup>. The legal relationship between local and regional bodies could vary according to local preferences or circumstances. For example, the local body could be unincorporated, or incorporated as an independent body, or legally part of the regional body. Whichever way that might be, however, it would function in a fairly autonomous way.

To encourage the proliferation of computer clubs throughout Australia, into all small locations, considerable resources will be needed. This is now discussed under four headings: leadership, premises, equipment and special support.

#### 1. Leadership:

At the national level, people will be needed to create quality training resources, materials for monthly meetings, and guides for security systems. Such tasks involve considerable professional skills and time commitments, and accordingly will probably need to be done by paid staff. A paid director with appropriate skills will presumably be needed to supervise them.

Also needed will be somebody to help set up the regional bodies, including explaining the role of regional and local computer clubs, assisting in the establishment of local organizations, providing initial and on-going training and support, and helping supervise progress to encourage high standards.

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<sup>9</sup> The local clubs can of course provide many other services if they wish to. Most of these other services, however, are very time consuming, and can usually be done more cost-effectively by a regional or national body, as support services. In practice, most local organizations currently struggle just to provide the three basic services, without attempting to add any more.

Within each region, people will be needed to visit local communities to help set up and supervise local organizations. Once again, this would be a role for paid professionals, supervised within each organization by a paid director. Because of the administrative workload involved in preparing and dispatching support material to the local organizations, paid administrative staff would be needed.

At the local level, all work would be undertaken by volunteers.

(It may be noted that the above system looks extremely like an Education Department, with the major difference being that at the grassroots level, teachers are volunteers. So why not hand the whole thing over to current Education Departments? The author's contention is that there is actual educational merit (as well as economic merit) in staying with a volunteer system, that the management system should, so far as is practicable, be volunteer-based, and, where it is not, the paid staff should operate within an organizational culture in which volunteers are given very high status.)

## 2. Premises:

Having acquired some staff (paid or otherwise), computer clubs need space in which to work. Given the nature of their membership and clientele, they need space that is

- Free or near-free (otherwise the cost has to be passed on, which largely defeats the purpose of the exercise in providing support for computer literacy);
- Readily accessible by public transport;
- Wheelchair friendly; and
- Clean and air conditioned (for the computers as well as for the occupants).

Two types of premises are needed:

- (1) Administrative and workshop areas for the national and regional bodies –
  - o Offices for administrative purposes. All computer clubs need office facilities, be it a corner in somebody's home, or a suite in an office building. The larger the region being serviced, and the more services being offered within that region, the more administrators – and hence office space - will be required. To a certain extent, the more space is available, the more volunteers a club can take on, and hence the more services it can offer<sup>10</sup>;
  - o Workshops and storage space. Computer clubs generally have computers to maintain and computer components to store. With a large enough workspace, clubs can consider offering workshop services to particularly disadvantaged social groups. Presumably, these workshops would be located as part of or close by the administrative areas;
- (2) Client service facilities in every suburb, town and village –
  - o Surfing facilities: club-run Internet cafés. These can be run in anywhere – in public halls or libraries – provided that there are lots of Internet-connected computers present. Existing public halls and libraries, however, were never designed for this, but in many cases they can be very economically retro-fitted. New halls can and should, of course, be designed with this purpose in mind.

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<sup>10</sup> Given the essentially volunteer nature of computer clubs, this almost certainly leads to an argument in favour of centralizing many club services within regional or national organizations located in cities with big populations. This argument is explored below.



- o Teaching rooms: All computer clubs need teaching facilities. In densely populated areas and regional centres, dedicated facilities (used full-time by a computer club) may be justifiable; in other areas, teaching rooms may be shared with other organizations (e.g. high schools, public libraries, shopping centres). In extremely small communities, it may be necessary to use private homes;
- o Meeting rooms (places where clubs can hold regular meetings): these are generally needed for only a few hours at a time, once or a few times a month. Accordingly, these can be shared with other organizations. A useful idea would be to add an Internet connection to rooms when used for this purpose.

### 3. Equipment:

Having found premises, the next task is to install suitable equipment – tables, chairs, computers, printers, etc. These need to be repaired and replaced regularly, so on-going funding is needed.

### 4. Specialized Support Services:

In addition to directly supporting computer clubs, some indirect support will be needed. For example, support for universities to undertake research into home computer issues (e.g. into home computer security, and into the effectiveness of different training regimes), and for technical colleges to offer courses relevant to home computers (especially into home computer maintenance and security – for the benefit of both technicians and club volunteers).

Other indirect support might include the commissioning or purchase of video and interactive training material for use by clubs or their members.

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