

Connecting Communities
A Strategy for Government Support
of Community Access to Information
and Communications Technology

2002



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ICT and Innovative Communities

Efforts to create a more innovative New Zealand could isolate pockets of our society unless proper effort is put into ensuring all New Zealanders can learn about and access new technology.

As the government's Growth and Innovation Strategy explicitly recognised, a modern cohesive society is an essential building block for a growing and innovative economy and society. People who feel socially connected also contribute towards building communities and society.

As a nation, New Zealand scores well amongst OECD countries in some measures of social connectedness like access to telephones and to the internet. However experience suggests that some New Zealanders are more likely than others to be left behind in the information revolution. These groups include Maori and Pacific peoples, those on low incomes, sole parents, older people, people with no or low qualifications or poor literacy, the unemployed, people with disabilities and those in locations lacking a sound telecommunications structure (such as those in rural areas).

The government is committed to closing this 'digital divide'. We need to ensure that all New Zealanders - regardless of wealth or social status - have the opportunity to access and learn about new technology.

Connecting Communities is the first government strategy to support community access to information and communications technology (ICT). It describes the digital divide that we are seeking to close, identifies the steps we have already taken in this regard and outlines an action plan to achieve the strategy's goal of 'increasing communities ability to access, participate in and efficiently use ICT'.

The government recognises that it alone does not have all the answers. A key principle of this strategy is our commitment to work in partnership to close the digital divide with local government, the philanthropic, voluntary and private sectors, and directly with communities. The strategy also identifies the need to ensure much better coordination of the government's many ICT initiatives, to support community-led innovation and a focus on developing sustainable projects which will have an on-going life.

Connecting Communities is an ambitious strategy to ensure that all our communities can participate in the knowledge economy.



Steve Maharey
Minister of Social Services and Employment



Minister Steve Maharey, from the Flaxroots Conference in Auckland, talking via a video link to a satellite group in Dunedin (April 2002)

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Introduction

1. Improving community access to and use of information and communications technology (ICT) is a key element in achieving the government's vision for bridging the digital divide, namely:

"All New Zealanders, either as individuals or as members of communities, have the opportunity to access and effectively use current and emerging information and communication technologies."

"This will enable individuals and communities to participate fully in the economic, social, educational, cultural and democratic opportunities available in an information society."

2. That vision is consistent with the following government goals.

- **Strengthening national identity and upholding the principles of the Treaty of Waitangi:** the internet is a powerful medium for protecting and celebrating our national identity and cultural heritage.
- **Growing an inclusive, innovative economy for the benefit of all:** by increasing people's awareness of the opportunities that ICT offers, and by improving their access and skills, there will be increased opportunities for economic participation. A larger pool of e-literate working age people will enable New Zealand's economy to make the transition to e-commerce and high technology industries.
- **Restoring trust in government and providing strong social services:** this will give greater access to government and government services, and will strengthen participation in democracy. ICT has the potential to facilitate "building safe communities and promoting community development".
- **Improving New Zealanders' skills:** improving ICT skills is an integral part of becoming a "knowledge economy". There is also potential to use ICT as an alternative way of teaching other skills, such as literacy.
- **Reducing inequalities in education and employment:** Maori, Pacific peoples and other disadvantaged groups such as women, disabled persons, and those with low incomes are over-represented on the wrong side of the digital divide. Addressing inequalities or barriers for these groups has the potential to reduce other barriers, such as low levels of education and employment.

3. The strategy is consistent with the Growing an Innovative New Zealand strategy - building an effective innovation culture that permeates the whole economy. It is also consistent with the Statement of Government Intentions for an Improved Community-Government Relationship - building strong and respectful relationships between government and community, voluntary and iwi/Maori organisations.

ICT Barriers that Individuals and Communities Face

4. The "digital divide" has been described as the gap between those who have optimal access to ICT and the skills to make best use of them, and those who do not. Individuals and communities commonly face the same barriers to effective access and use of ICT. These include the lack of ICT infrastructure, socio-economic barriers, technical and mentoring support (Appendix 1). Some individuals and groups experience multiple disadvantage with more than one barrier. For example, people with disabilities frequently face additional costs to obtain adaptive technologies (e.g Braille keyboards and touch screens, speech interfaces) and the greater processing capacity required for specially designed software; as well as being less likely to have access to community ICT facilities. They can also find it difficult to use website content that is not presented in an appropriate format.
5. New Zealand studies provide local evidence about the barriers to effective ICT access and use (Appendix 2). The recent Statistics New Zealand information release of 2001 Census data provides a snapshot of who has access to the internet. This shows that the lower the level of income, the lower the level of ICT access. In 2001, 47 percent of New Zealand households had a home computer, and 37 percent of households had access to the internet.

The Proposed Strategic Response

6. The government's goal is to overcome these barriers by helping communities to improve their access to ICT and their use of it. To do this, the government proposes a strategy whose principal purpose is

Increasing communities ability to access, participate in and efficiently use ICT.

Current Actions to Address Community ICT Needs

7. There is much evidence, as examples in the appendices demonstrate, of serious attempts in both the public and private sectors to address these barriers and improve communities' access to and use of ICT.

8. A number of current government initiatives are designed to facilitate the understanding and uptake of ICT. The community ICT strategy proposed here is a further contribution to an array of strategies and policies that aim to turn the digital divide into a "digital opportunity". These include:
- government-led efforts to ensure that broadband services (such as the ability to video-conference) are available nationwide, including the current plan by the Ministries of Economic Development and Education to deliver broadband to schools and provincial communities
 - telecommunications regulatory reform
 - the e-commerce strategy
 - the e-government strategy, under which central government puts more of its information on line and enables on-line transactions
 - the introduction of digital broadcasting
 - the adult literacy strategy
 - the ICT strategy for schools, together with the literacy and numeracy strategy
 - the draft tertiary education strategy, which includes e-learning initiatives
 - setting up of a Library and Information Advisory Commission as proposed in the National Library Bill now before Parliament. The purpose of the Commission will be to advise the Minister responsible for the National Library on library and information issues and on the role of library and information services in the cultural and economic life of New Zealand.
9. There are specific initiatives provided by central government¹ that range from nationwide strategic initiatives to supporting individual local projects.
(Appendix 3)
10. A range of community-oriented initiatives to overcome the barriers to effective ICT use is described in Appendix 4. Such projects typically combine the resources of philanthropic and voluntary groups, iwi, the private sector, community organisations, educational institutions, and/or central or local government. They include:
- bringing computers into homes, and/or making computer connections affordable for those on low incomes
 - expanding web-based services to the public as part of public libraries' standard range of services
 - developing community access centres ("telecentres") to assist those without computer access at home, such as senior citizens, rural communities, Maori and Pacific peoples
 - resolving ICT training issues.

¹ Ministry of Education, Department of Internal Affairs, Te Puni Kokiri, Ministry of Economic Development, Ministry of Agriculture and Forestry, National Library, Department of Labour (Community Employment Group) and Ministry of Social Development

Principles to Guide Government Action

11. Improving community access to ICT is a responsibility shared by central and local government, the philanthropic, voluntary and private sectors, and communities themselves. In determining how government can best contribute to achieving the purpose of the strategy and its vision, it will be guided by the following principles:

- **Co-ordination:** Better co-ordination of government activities and concentrating on providing facilitation, information and other resources where appropriate. As a leader of one private-sector ICT initiative has put it:

*"The bewildering number of new ICT-related responses, projects and initiatives being launched (almost on a daily basis) are competing for finite resources and one fears that whilst the majority may be well intentioned, there will be many that are unsustainable in the long term... It is crucial that we deploy our collective resources in the most cost efficient manner to achieve the best outcome for New Zealand."*²

- **Partnership:** What this means is: the government working with and strengthening its relationship with the community, philanthropic and private sectors; ensuring that local strategies and programmes are driven, "owned" and delivered within and by each community; using available support from business partnerships, philanthropic and voluntary agencies, and central and local government; and recognising that each community has a different starting point and will take a different path to achieve its particular goals.
- **Innovation:** Communities are encouraged to create their own ideas and be innovative in promoting a knowledge-driven society; supporting community and private sector initiatives without replacing or stifling them; retaining flexibility and diversity.
- **Sustainability:** Focusing limited government resources on kick-starting projects that communities can "own", and that in the long term are funded by non-government sources.

² Tindall, Stephen, Digital Opportunities Newsletter #1, Tindall Foundation, December 2001

Strategy Action Plan

12. The strategy action plan aims to co-ordinate the following efforts that already exist.

Action A: Develop or adapt best-practice planning tools

13. Community groups, their funders and their partners currently employ a range of approaches to identify a community's particular ICT needs and to assess potential solutions. The current lack of synergy between the various approaches reduces the opportunities for co-ordination and integration, and increases the likelihood of inefficiencies.
14. An intended solution is to develop or adapt best-practice planning tools or "how to" guides that communities can apply. The planning tools will be flexible enough to apply in a number of situations, and assist in encouraging innovation and the development of creative ideas by communities to meet their own needs.
15. Examples of such tools already exist in New Zealand and overseas, and with some adaptation would enable communities to:
- clarify and document their ICT needs and goals
 - identify the existing barriers to achieving the goals
 - identify potential resources to overcome those barriers (including resources available to particular communities, e.g. Maori and Pacific peoples)
 - develop and pursue an implementation plan that is achievable in that community.
16. Actions for the government include:
- a. providing resources for researching and documenting best practice examples that communities can use to develop and deliver their ICT visions
 - b. providing the resources to create or adapt a planning tool (a "community readiness guide") as outlined above, through a partnership process that includes community users and the organisations (private, voluntary, local government and philanthropic) that support them
 - c. developing (with community groups and other organisations involved in community ICT) processes for on-going review and evaluation of the best-practice examples, and considering how innovative practices can be encouraged to develop within these models
 - d. providing the resources to make this information available to communities in a way that ensures they can use it.

Action B: Co-ordinate central government assistance

17. Several government agencies provide assistance for community ICT initiatives, but lack common processes and guidelines. Consequently there are unintended gaps, inconsistencies and duplication in public resource expenditure. Current funding does not always support best practice approaches in communities.

18. Actions for the government include:

- a. aligning current government project funding and other support (e.g. the work of community advisers, donations of used government computers to community projects) with the best practice approaches developed in "Action A" above, and ensuring each agency is aware of the work the others undertake
- b. identifying the roles of each government agency and the areas in which it operates, identifying gaps, duplication and inconsistencies, and making adjustments and changes as necessary
- c. ensuring that where government funds community ICT initiatives, outcomes sought are agreed jointly between the community and government, and that government project funding is co-ordinated across the agencies involved (with joint management and reporting).

Action C: Strengthen organisational infrastructures to support community ICT access

19. The capabilities and capacity of non-government organisations provide crucial support for meeting communities' ICT needs. The government should not directly provide resources or services itself where other organisations can provide more innovative, flexible and effective solutions.

20. The government may, however, have a role in supporting the sustainability of an organisation where:

- the organisation's outputs are significant locally in meeting community ICT access needs, or have a significant role in improving community ICT access at the regional or national level; and
- government support is cost-effective; and
- support is based on an agreed strategy that leads to an increase in the organisation's capacity and sustainability.

21. Actions for the government include:

- a. working with funders and community organisations to support the capacity of organisations that help to deliver community ICT needs
- b. identifying gaps in infrastructure, e.g. help-desk support for community groups, and opportunities to close them.

Action D: Develop communications and networking

22. Information is important for supporting community ICT development needs and improving efficiency. Communities that have received support may be asked to make information available about their experience in implementing projects.

23. Actions for the government include working in partnership with community organisations and providers to:

- a. identify information gaps
- b. support the establishment of a website (or enhancement of an existing website) as a central point for active exchange of information on community ICT access
- c. use the website to publish an on-line database of resource providers, information on government and private-sector schemes, best practice information, etc.
- d. provide other media resources (non-electronic means of dissemination, and material published in other languages, for example) where required
- e. provide access to information that is appropriate for different cultures.

Action E: Develop an ICT research and evaluation programme

24. A research and evaluation programme will:

- measure progress toward achieving the goal of lifting communities' understanding of ICT and their ability to access and use it
- help communities to identify the type of programmes that will be most effective in meeting their needs
- identify the different needs and solutions that may apply to Maori and Pacific peoples
- improve understanding of best practice, including the potential for applying overseas developments in New Zealand.

25. Actions for the government include working with community organisations and others to:
- a. establish a research and evaluation programme
 - b. promote feedback to and from communities on the research, to ensure constant learning
 - c. investigate whether a research or educational institution may wish to provide an independent research capacity in the area of community ICT, and if so how it can be funded.

Action F: Training programmes for workers supporting community ICT projects

26. Advisers from community organisations and government agencies will be key agents in implementing this strategy. Some will require specific training to enable them to help their communities develop effective ICT projects. There is a role for the government to ensure that the appropriate training is available.

27. Actions for the government include:

- a. identifying any changes required to ensure that an effective training framework and programmes are in place to up-skill community advisers from organisations, government agencies and others supporting community ICT projects
- b. identifying resources needed for implementing any changes required.

Action G: Relationship development and partnership leveraging

28. Partnerships and initiatives between communities, the government and key corporate and philanthropic sponsors are occurring, but the potential for building partnerships with a wider scope and vision is underdeveloped. This is partly due to the absence of a dedicated central resource with a clear mandate in this area. Relationship management holds the potential for significant new partnerships and developments.

29. Actions for the government include:

- a. establishing contacts and information exchanges with key corporate sponsors (e.g. Telecom, Microsoft), philanthropic organisations (e.g. community trusts, the Tindall Foundation) and other project funders (e.g. local government)
- b. developing strategies for leveraging existing initiatives and brokering new initiatives (e.g. a software company providing free help desk time to community initiatives).

Delivering the Action Plan

30. Currently there is no dedicated unit to co-ordinate the strategy. For example, there is no central capacity to manage and develop "big ticket" corporate and philanthropic relationships on behalf of everyone involved (community groups, central and local government, donors and business partners) around the country.

31. A small unit has been established in the Community Employment Group of the Department of Labour. It will co-ordinate central government activities, collaborate with other organisations, and devolve work to others, ensuring such work is appropriately resourced.

Appendix 1: ICT Barriers that Individuals and Communities Face

Improving and increasing community ICT access and usage requires an understanding of the common barriers that individuals and communities face. These barriers include:

- **Lack of ICT infrastructure:** This affects communities where there is inadequate or no telecommunications infrastructure. The principal barriers to ICT access in rural communities are both infrastructural and financial³: high-speed internet access is often unavailable, and dial-up access can be subject to toll charges and to electrical interference, for instance from electric fences. Similar access problems affect some urban areas.
- **Socio-economic barriers:** The cost of buying and updating hardware and software, and of maintaining internet and e-mail connections, is a problem for individuals who are unemployed and/or on low incomes, and for smaller voluntary organisations.⁴ There is evidence (see Appendix 2) that groups such as Maori, Pacific peoples, older people, sole parent families, refugees and people with low qualifications may experience additional barriers.
- **Cultural issues:** Many ethnic groups face barriers through the lack of relevant cultural and non-English content on the internet, and because of cultural norms that prefer face-to-face contact as a means of communication. Maori have specific issues about the protection of intellectual property in the use of forms, motifs, pictures, words and phrases that are viewed as belonging to an iwi.
- **Lack of literacy and numeracy:** Around 20 percent of adults in New Zealand between 15 and 65 years have considerable difficulty in using printed materials (such as reading a newspaper or bus timetable⁵) and are likely to have difficulty using a computer.
- **Lack of technical and mentoring support:** Technical support is often needed on the spot to solve computer and network errors, to maintain the system, to provide assistance and training for users, and to build user confidence.
- **Poor information literacy and/or knowledge management:** Support is often needed to help people to access relevant information from a variety of sources, to evaluate, interpret and manipulate the information they find (especially when messages conflict) and to use information in critical thinking and problem solving.
- **Lack of relevant on-line content and motivation:** ICT has significant potential to build collaborative relationships between groups and to inform and empower individuals. But the absence of content relevant to people on low incomes, who live in rural communities, or who are members of racial or ethnic minorities, means that many people are not able to benefit fully from ICT access. A US study⁶ has found that "content" issues include a lack of local information, reading levels that are too high, language barriers and a lack of cultural diversity on the internet.

3 Botha N, Small B, Crutchley P & Wilson J (2001) Addressing the Rural Digital Divide in New Zealand, Ministry of Agriculture and Forestry (Policy), Wellington

4 For example, smaller community and voluntary organisations may not have sufficiently advanced technology to access key information on government sites.

5 OECD (1996) The International Adult Literacy Survey, Mare D & Chapple S (2000) Literacy formation and its influence on earnings and jobs

6 The Children's Partnership, Online Content for Low-income and Underserved Americans: The Digital Divide's New Frontier, 1999.

Appendix 2: New Zealand's Digital Divide

The following evidence illustrates digital divide issues in New Zealand.

1. Telecommunications and broadband services are not consistent nationally. There are significant problems outside major centres. A survey⁷ of rural residents found that 58 percent of respondents reported problems with their telephone lines, and 52 percent of rural non-farm businesses felt disadvantaged due to poor telecommunications services or infrastructure, compared with urban-based businesses.
2. There is a strong relationship between income and internet usage. In the year 2000, 11 percent of households earning less than \$20,000 per year were found to have internet access at home, compared with 69 percent for households with income between \$100,000 and \$120,000 per year.⁸ The same survey revealed that the lowest income households were barely half as likely as high income households (47 percent as against 82 percent) to have access to the internet at any location (e.g. at work or through the library).
3. The Ministry of Social Policy's 2000 Living Standards Survey found that while 41 percent of New Zealanders have internet access within the home, this fell to 28 percent for Maori families, and 16 percent for Pacific peoples.
4. The Living Standards survey also found that 44 percent of adults under 65 years had internet access, but only 12 percent of adults over 65 years had access. Similarly, 50 percent of families with two parents and dependent children had internet access, but this fell to 25 percent for families with one parent and dependent children.
5. Maori are also under-represented in information technology industries. The 2001 Census found that 5.2 percent of people employed in the New Zealand computer services industry were Maori (compared with 14.7 percent of the population who stated they were Maori) and that while the number of Maori people learning ICT skills was increasing, they were disproportionately concentrated in lower-level training. However, current and future populations of Maori school students are expected to graduate with greater ICT experience.
6. Ministry of Education data show that women are significantly less likely than men to study computing at tertiary level. About 2.6 percent of female tertiary students have chosen computing as their field of study, compared with about 4.6 percent of men. This means that one-third more men than women are studying computing at tertiary level, despite women significantly outnumbering men in tertiary studies overall.⁹
7. A shortage of resources means that community and voluntary groups often struggle to achieve quality ICT. This can reinforce negative perceptions of community and voluntary groups as unprofessional. These are serious issues, given that the community and the voluntary sector are key contributors to increasing community access to ICT.
8. A survey by the National Library reported that public libraries consider the ICT skills of users to be more of a barrier to information access than connectivity or content¹⁰

7 Ministry of Agriculture and Forestry, Telecommunications: Use, Constraints and Potential in Rural Areas, 2000 (available at <http://www.maf.govt.nz/mafnet/publications/telecommunications-use-and-constraints/htoc.htm>).

8 ACNielsen. Netwatch 2000, quoted in Brett Parker, Maori Access to Information Technology, Te Puni Kokiri, July 2001.

9 Source: Ministry of Education, 2001.

10 Slyfield, Helen, Developments in Public Library Services, National Library, Wellington, 2002.

Appendix 3: Government Agencies' Contributions to Community ICT Access

Ministry of Education (MOE)

- Implementing the Digital Opportunities pilot projects Farnet, Notebook Valley, Technology Training (GenXP), and the WickED study support centres.¹¹ These seek solutions to barriers of access and participation.
- Collaborating with communities (including iwi) and other government agencies in projects such as Kaupapa Ara Whakawhiti Matauranga (providing video-conferencing facility for some Maori-medium schools) and Project Rorohiko (providing infrastructure and recycled computers to remote communities in Gisborne and Wairoa).
- Actively working with telecommunications providers to pursue solutions to bandwidth issues.
- Implementing strategies to lift community capability for effectively engaging with ICT. These include the Community Education Review, the Tertiary Education Strategy and Whakaro Matauranga, which is a strategy for developing face- to-face linkages between educators and Maori communities and for raising expectations for participation in education by Maori, including the use of ICT.

Department of Internal Affairs (DIA)

DIA works to simultaneously address ICT content, training, skills and access. Its activities include:

- Delivering training and advice to the community and voluntary sector through its network of regional community development advisers.
- Project funding, including support for SeniorNet by the Lottery Grants Board, and for other projects through the Community Organisation Grants Scheme (COGS).
- Providing information that promotes good practice and uptake of ICT in the community and voluntary sector, e.g. "Communities Online: Information and Communications Technology Case Studies".
- Supporting networking opportunities, including hosting the Flaxroots Technology Conference 2002. Objectives are to strengthen networks, enhance ICT skills within the community and voluntary sector and develop community based-policy responses to the digital divide.
- Providing internet-based information and interaction, including hosting and maintaining the CommunityNet Aotearoa website (www.community.net.nz). The website is a "one stop shop" for community information. It includes: a community noticeboard with news, events, job advertisements, new publications and other resources; guides to help people set up and run community groups; links to other community-focused information; and a guide to getting online and creating a website.

¹¹ More details of these pilots are on page 30 of the Growing an Innovative New Zealand strategy.

- On-line delivery of funding services. The Community Development Government Online initiative (www.cdgo.govt.nz) allows grant applicants to apply electronically for funding to the COGS. This service is being extended to Lottery Grants Board applicants.

Te Puni Kokiri (TPK)

- Allocating funding for capacity building, by Maori community & iwi groups, throughout New Zealand.
- Research on Maori access to ICT.
- Support for Maori ICT initiatives.

Ministry of Economic Development (MED)

- Establishing community computer hubs in Tairāwhiti (through the Tairāwhiti Development Taskforce). This includes sourcing recycled ex-government computers and providing advice and funding towards set-up.
- Investigating the potential for broadband pilots in Northland, Tairāwhiti, Wairarapa, Taranaki and Otago-Southland.
- MED joint broadband project with the Ministry of Education (see above under Ministry of Education).
- A range of other projects aimed at business but with positive flow-on community impacts: the E-commerce Action Team, the Regional E-commerce Events, research into e-commerce use and uptake, legislation such as the Electronic Transactions Bill and review of intellectual property laws, the Growth and Innovation Framework and support for the 2020 Communications Trust.

Ministry of Agriculture and Forestry (MAF)

- Conducting operational research on telecommunications, e-commerce, bridging the digital divide and e-government, concentrating on how these relate to the rural sector.
- Making information available on developments in telecommunications and ICT of interest to rural residents, rural businesses, and rural communities via the MAF website, its Rural Bulletin publication and rural community liaison meetings.

National Library

- Operating its School Services division from Wellington and through its regional centres. It provides a network of school advisers (field workers) and makes resources available to teachers in all schools.
- The web-based information service Te Puna (www.natlib.govt.nz) provides current information and national heritage information to libraries and direct to the public.
- Providing policy and operational advice to government on information-sector issues.

Department of Labour : Community Employment Group (CEG)

The Community Employment Group (CEG) of the Department of Labour works alongside communities and organisations to help them plan and create ways to increase their employment opportunities. This includes guidance and project planning advice from field workers and the funding of community-based projects.

CEG has recently been involved in a number of ICT-related projects, including:

- Providing fieldworker support and funding to communities to set up and develop websites. Examples are the Kawerau Enterprise Agency, Coromandel Information Centre, Rotorua Women's Support Network, Urban Digital Trust Board and Buller Website Promotions.
- Helping organisations that provide internet services to disadvantaged Maori communities, for example, Te Tawharau Charitable Trust in Te Teko and Te Whanau o Apanui in Te Kaha.
- Assisting Pacific communities and organisations in Auckland to develop websites and on-line resources. Examples include the Tangata Pasifika Resources Development Trust and Matagi E Fa's participation in the Pacific Cisco Cyberwaka Development Training Programme and Academy.
- Funding for groups such as the Gore Adult Learning Programme to provide community courses on basic computer training, e-mail and internet use to enhance employment prospects, and for the Dunedin City Council to create a database of arts practitioners, galleries and institutions on-line for the wider Otago region.

Ministry of Social Development (MSD)

- Developing on-line data retrieval facilities for use by job-seekers and beneficiaries.
- Funding computer skills training programmes for job-seekers.

Appendix 4: Examples of Current Community ICT Initiatives¹²

1. Most public libraries offer web-based services to the public as part of on-going service development, and many act as de facto community ICT centres. For example:
 - Some public libraries have created computer-based study facilities such as the Tupu Youth Library in Otago and the "learning centres" in the Auckland and North Shore Libraries. In some cases library staff develop programmes in partnership with local schools to improve reading and writing, and provide curriculum support. Tuition on computer literacy and information literacy is also typically available.
 - Other libraries offer internet access and training. For example, LearnIT Centre in Dunedin provides "InfoStations" with access to all the electronic resources offered by the library, including selected internet sites and a variety of databases. Free tutorials on information skills are available.
2. SeniorNet is a non-profit organisation that provides education and access to ICT for seniors (nominally those over 55). There are more than 75 clubs around New Zealand, some with large memberships, e.g. Tauranga has about 1000 members. SeniorNet clubs are independent and only loosely networked. Local clubs are typically established with the help of grants from e.g. Telecom, the Lottery Grants Board, and other organisations.
3. The 2020 Communications Trust provides a number of community ICT access programmes, mainly in the Wellington region. They include computer recycling, a computers-in-homes scheme, installing and supporting computers and networks in schools and marae, training and supporting community groups, and training families to use the internet safely.
 - The trust's Computers In Homes initiative offers families a computer, six months' free internet access and technical support. The family contributes \$50, agrees to undertake training (usually from a local high school student) and to share their learning within the family and with another adult, e.g. a neighbour.
 - The 2020 Trust's partners and sponsors include Telecom, Ericsson, Nortel, Unisys, Sun Microsystems, EDS, WestpacTrust and three universities.
4. Wairoadotcom (WDC) is a community ICT facility in Wairoa established as a partnership among government, business and community leaders with \$80,000 of seed funding. It provides a wide range of training and connectivity services from a shopfront community centre with 24 PCs, and is widely used by education providers and community groups. It is operated as a revenue-generating business, with the goal of being financially sustainable in the medium term.

¹² The projects in this appendix illustrate the range of community ICT projects in New Zealand. The list is by no means exhaustive.

5. Young people from the Eastern Bay of Plenty are able to take part in the Cisco Networking Academy Programme, under a scheme established by Cyberwaka Enterprises. Led by the Te Runanga O Te Whanau o Apanui iwi authority, the programme is a joint venture between Bay of Plenty iwi and the Pacific Islands Matagi E Fa Trust, based in Auckland. The programme offers an interactive web-based curriculum allowing students to gain industry-recognised qualifications in computer networking.

6. The Addington Community Internet Centre offers free internet and e-mail access, and is to begin hosting Christchurch Polytechnic Institute of Technology computer courses. The centre has also been assisted by the Christchurch City Council, a local voluntary group, and private sector sponsors.

7. The Otago Community Trust has underwritten the provision of broadband services by Telecom to all rural Otago High Schools, and to residents and businesses in a seven-kilometre radius from nine local telephone exchanges. The area covered is being extended to enable more rural customers to receive high-speed internet access for the same price as urban customers. The internet, videoconferencing and other applications at the schools are available to other users.

8. E Learning Porirua is an initiative of the Porirua City Community IT Educational Trust. It intends to install new computers in schools and low-income homes, provide training for teachers, parents and children, and make low-cost internet access available to every household in the city. The project is supported by the 2020 Communications Trust, Whitireia Community Polytechnic, local businesses, the Ministry of Education, Porirua City Council, Porirua Licensing Trust, Sun Microsystems, BP, Pub Charity, Community Trust of Wellington, and local service clubs.

9. The Warehouse Stationery chain has announced it will provide free supervised computer training in conjunction with local polytechnics at most of its 33 stores across the country. Dedicated computer facilities will be set up in-store to provide up to 950 free one-on-one lessons each week.