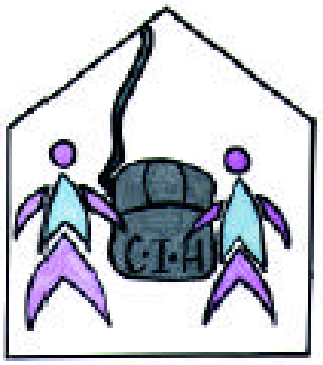

Computers In Homes

Progress Report 1
7 November 2000

2020

Communications Trust

Computers In Homes Progress Report 1

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- Tu pou High School Tonga
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- Rt Hon Graham Kelly
- Rt Hon Mark Gosche MP
- Jenny Brash Porirua Mayor

1. Project Summary

This report highlights the progress of the Computers in Homes project launched at Cannons Creek School on 30th July 2000 and at Panmure Bridge in Auckland on Saturday 26th August by the 2020 Communications Trust. The project aims to empower the communities of decile 1 schools with the tools and skills to become active participants in our online world.

The scheme has given 50 families in New Zealand a computer, a phone line where necessary, Internet access, training and technician support.

The families sign an agreement (attached) and pay $50 dollars to take part in the programme. This report includes a perspective on the current status of the project and some early findings.

> "Everything about the computer is new and interesting to me especially because I have never in my whole life ever learnt to use one. I have never ever used a typewriter. Now you wouldn't believe how good I can type. I can also touch type. My kids are learning to touch type as well. The interesting thing about the computer is my kids love doing their homework"
>
> *Computer in Homes - Maori mother of three.*

Government E-Commerce Strategy

Already this project is attracting the attention of the New Zealand policy makers. The Computers in Homes project was referred to in the recent E-Commerce.

Strategy release on Tuesday 1st November2000,

> "The Government will build broader ICT literacy and capability in the Community:
>
> Exploit the potential embodied in the infrastructure and skills in schools and tertiary institutions throughout the country to build community capability, by investigating the benefits of computers in homes for teaching and learning under two pilot projects with Decile 1 schools and a pilot project to provide computers to Tai Rawhiti schools"

2. Definition of Digital Divide

The quote below outlines the concerns that the digital revolution can cause between the haves and have-nots in our society.

> "The electronically enabled shift of activities back to the home, and the formation of twenty-four-hour, pedestrian-scale neighbourhoods.... potentially produce the conditions for vigorous local community life... But as localities adapt, with varying degrees of success, to the new conditions and demands, there will be losers as well as winners. Much existing housing stock will turn out to be ill suited to the integration of workspace. Low-income communities may attract less

> investment in new telecommunications infrastructure, and in any case may lack populations with the education and motivation to take advantage of it... These places will experience the downside of the digital revolution…In particular; there is an obvious and serious danger that this reconfiguration of urban patterns will further cluster the affluent while leaving the poor in places with few good jobs and services. Today, for example, high-flying Silicon Valley professionals can commute in their air-conditioned cars from gated residential communities to campus workplaces with guards at the entries, scarcely noticing that they are passing through marginalised, crime-ridden areas like East Palo Alto. Urban areas could well continue to congeal into introverted affluent, gated communities intermixed with "black holes" of disinvestment, neglect, and poverty - particularly if, as the unrestrained logic of the market seems to suggest, low-income communities turn out to be the last to get digital telecommunications infrastructure and the skills to use it effectively."
>
> William J. Mitchell, Dean of Architecture, MIT, in his book, *e-topia, or urban life, Jim - but not as we know it.*

3. Recent Research on Digital divide

Recent research indicates that access to Internet connection in the home is key to bridging the digital divide. The Gartner Group's report, *Digital Divide and American Society,* presented to the House Subcommittee on Government Management, Information and Technology in October 2000, examined the gap between the technologically destitute and wired citizens across the United States.

> "1. Access to the Internet in the home - While half of U.S. households have Internet access, the penetration rate differs drastically based on socio-economic status, which is a combination of household income and education level. Currently, Gartner research shows that 35 percent of lowest socio-economic status Americans have Internet access, compared to 53 percent in the lower-middle socio-economic bracket, 79 percent in the upper-middle bracket and 83 percent in the highest socio-economic bracket."

4. Other Models of Computers in Home Schemes

The United Kingdom

Free computers for the poor

The government wants to tackle the digital divide Chancellor Gordon Brown has called on UK businesses and consumers to embrace the Internet, saying that future success depends on embracing the knowledge economy.

And he has pledged that the government will bridge the digital divide, and launched a pilot scheme to make free computers available to poor households.

Mr Brown argued that the internet revolution is here to stay, and could lead to a significant improvement in the performance of the UK economy - but it needs the support of government.

"If we're to succeed in Britain, we must equip not just some but all of our companies and we must put the new technologies that are increasingly available within reach not just of a few people but all," he said.

The chancellor was giving the keynote speech at the Net Summit 2000, which brings together business leaders and net visionaries, including Sir Martin Sorrell of advertising agency WPP, Jim Rose of internet auction site QXL, Martha Lane Fox of Lastminute.com, and Esther Dyson of EDVentures.

Digital divide initiatives

Mr Brown said that the government was planning to provide 100,000 recycled older computers to low income families through the "Computers Within Reach" scheme, with 35,000 available now.

And, with Education Minister Michael Wills, he announced a £10m initiative to wire up poor local communities, with 10 pilot schemes.

The first scheme, in Kensington in Liverpool, will provide 2000 computers available free on loan to local residents, along with cheap Internet access and a special local web portal and extra training opportunities.

> "This will help overcome the barriers people may face in access to employment, education and local services and it will give many the opportunity for the first time to use the Internet," Mr Brown said.
>
> "We want to see not just some but everyone equipped for the challenges of the future. No one should be excluded from the benefits of the IT revolution," he added.

Mr Brown said it was unacceptable that one in twenty low-income families had access to the Internet, compared to one in two of the better off.

And he announced that there would be 1000 learn direct centres and 1000 ICT learning centres by 2001, with free on-line training for the unemployed.

U.S.A.

The City of Boston, United States, has embraced a citywide model to encourage greater community involvement. Programmes select and train low-income families in a manner that encourages enhanced employment opportunities for adults, improved academic performance for children, community collaboration and co-operation, and creation of Internet communities within and between neighbourhoods. http://www.techboston.org/daley/mtgh.htm

In the Edison schools project supported access to technology is a key part of the model:

"Edison schools are technologically rich environments that prepare students for the workplaces of tomorrow. We believe that information technology can make students, teachers, and schools more effective—but only when used as a tool and not as a teaching machine. In Edison schools, technology is fully integrated with the education program and used to facilitate communication, research, writing, and analysis just as it is used in the real world. To support this integration, every student, teacher, principal, and administrator has easy access to classroom computers and other technologies, including video cameras, cassette tape recorders, VCR's, televisions, and laser discs. In addition, every family with a student in the third grade or higher receives technology for use in the home and every teacher receives his or her own laptop computer."
http://www.edisonschools.com/design/technology/d_te0.html

The MIT Community Connections Project in Roxbury aims to close the digital divide:

Richard O'Bryant and Randal Pinkett are conducting joint research at MIT's Centre for Reflective Coimmunity Practice into the use of technology in low-income and urban communities for the purpose of community building, the impact of culture on the use of computers and the Internet, and the participation of underrepresented minority groups with technology. Their current work involves a low-income housing development in Roxbury, where they will study the use of computer information technology to enhance and improves residents' lives.
http://web.mit.edu/crcp/ccp.html

5. Progress Report on New Zealand Pilot Computer in Homes Scheme

The project to date has now put 50 recycled Pentiums into 50 homes in New Zealand with funding for 50 more homes to be completed later this year. Each family agrees to sign an agreement which binds them to attend five training session, call the technician if the computer is not working, to make some family rules about use of the computer and the Internet, to supervise use of the computer and to teach a family member or neighbour the IT skills they have learnt. The computers are provided with Internet Explorer and Word as well as a family share educational games package (the standard package from CANZ).

5.1. Description of the Wellington Pilot

The project was launched on 30th July by Mana MP Graham Kelly and Porirua Mayor Jenny Brash at Cannons Creek School. Twenty-five homes in Cannons Creek, Wellington have received computers and Internet access. The PCRC recycling channel at Grenada North provided the computers for the scheme. Volunteers from Whitereia Polytechnic, Massey University and Wellington Community Net groups helped to install the computers on the launch day and afterwards to connect the families with Internet connections.

The Wellington pilot's major objectives are to provide parents with computer skills and to encourage children to use these new technologies as a learning tool. The school has upgraded its school website (http://sites.tki.org.nz/cannonscreek) to include online resources for pupils to use for homework, targeting literacy and numeracy skills. Cannons Creek School will shortly have a Cyber Study Center with funding provided by the Ministry of Education under the School Study Centre initiative. The school will employ a part time Cyber Teacher to set assignments via the Web site and mark homework via email. The evaluation of this project will focus both on parents' skills and children's learning outcomes.

We have a Samoan technician in Cannons Creek who the families can contact if they have problems with their computer. The families can contact Xtra if they have any Internet difficulties.

The parents attend weekly training at the school of one and a half hours. The trainer has been teaching basic techniques with Word, e-mailing and how to use the Internet. Difficulties with childcare and illness have been the main reasons behind parents missing sessions. We have very recently negotiated extended free training for parents provided on site at Cannons Creek School by staff from Whitireia Polytechnic.

Two of the families in the scheme are Laotian and this initially made the training quite difficult for the trainer, we have recently employed a Laotian translator and this has made a huge difference to the families. Through contacts with the multilingual department of VICNET in Melbourne, Australia we are pursuing Laotian sites to facilitate the learning of these families.

The Wellington scheme now includes 26 families as a grandparent of one of the original families has bought a new computer for his daughter's use. We agreed that this family should remain part of the training and part of the research. Their project computer has been passed on to the next family on the waiting list at the school. The waiting list to be part of the scheme is growing and the Principal has had tearful parents in the office wanting to be part of the scheme.

Families not in the scheme have been talking to the Computer in Homes families and hearing about these parents' aspirations for both their futures and their children's. Some of the unsolicited comments from the families that have been e-mailed to the 2020 Trust and Cannons Creek School:

"First of all I like to say a special thanks to your office about this great opportunity that you have giving to my family, especially my children, we never thought of this to come into my family in this early but not only that I am very happy to see my kids have another stage of their life, different from the way they have been brought up in the island. It is also give my family a big opportunity to get a good job in the future(employer needs people can use computer).I like also to thank you for your time and corporation in any time we need you or when we have problems or difficulties with the computer.Clare god bless you and your department"
E-mail received from a *Cannons Creek Parent*
"You already know how glad am I, so I do not have to explain. Thank you for your help with this project. I only studied computer in one year and I owed $3,000 and more on a student loan, but I still need more practices. So when this project was first introduced I thought to myself this will be the opportunity to update what I learned. Not only that I like to know what is going on out there on the Internet. It is also an interesting way for the children to learn to read and write their stories. I hope we will keep in touch if we need more help. Please send me those photos. Thank you very much and have a good night."

E-mail received from a *Cannons Creek parent*

"Thank you Mr Blair for the computer we are really happy of using it and having it in our home. We really enjoy going on the computer and going on the Internet and helps us with our homework. THANKS YOU VERY MUCH FOR WHAT YOU HAVE DONE THANKS."

E-mail from a *Cannons Creek Student*

"Dear Sir,

Even though last has gone but we still have to say malo lava to you and your staff for taking important concern about the Samoa community. It was a lovely day that was clearly reported on the Samoan Radio Station. We talked happily with the Minister Fiame Naomi about Computer in homes and the importance to Samoa families in particular. They were impressed about sending computers to families that let the parents also have a chance to learn. All they wish is for the Samoan people to have good use of the project.

It was funny that she read my daughter's Samoan story and she asked whether Isabel was a New Zealand born and Isabel said no, I was only here for two years now. Isabel answered all the questions in Samoan that was another happy thing because she could find out that our language is still using at homes.

Anyway, thank you very for that day and have a nice day."

E-mail from a *Cannons Creek Family*

"The computer is very useful to our family in many things especially it is very helpful to my husband's assignments that he is not going to school to type his work as usual. I had my interview last Friday for the Early Childhood Teaching Program for next year, so if I am accepted, it will be a great help for me as well. We are going well on the Internet and email".

E-mail from a *Cannons Creek Family*

" Hello Mr Blair. First of all I Want to say sorry for not telling the people who were in the meeting last night about what I know from the Computer at home. It's hard to say but inside me I'm very happy of having the computer"

E-mail from a *Cannons Creek Family*

Ashley has also received research projects and stories from children in the scheme via e-mails. Families also see the fortnightly school newsletter via the school Internet site

This week Ashley received e-mail from a family to let him know the child was sick and would not be attending school.

5.2. Description of the Auckland Pilot

Mark Gosche MP launched the project on Saturday 26th August. The implementation of this project was completed in a day as the ISP was prearranged for the Panmure project. The families had also received a training session at the school, which was of definite benefit when it came to implementation of the project. The volunteers who came from the local Technology College assisted the families to complete part of their coursework. They took the families through Word and also they showed the families how to send e-mail and connect to the Internet. The Ark provided technical support for the afternoon of the launch and ongoing support for the families.

In Panmure there are six family coordinators who act as mentors to four/five families and provide assistance to them. The Auckland project also includes eight Tongan families and some of these families through a link we have formed with the Tongan Tu Pou high school are contacting their families in Tonga. The school is offering training and Internet access to the relatives of our families in Tonga and this will hopefully promote more contact with the families and we hope to extend this dimension in the future.

Michelle Teh from Panmure designed the logo that was chosen for the Computer In Homes project (used on this report). We ran a competition encouraging children in the schools to design a logo for us. The Panmure families receive training every three weeks at the school.

There has been a lot of positive feedback from each school, their Principals and Boards of Trustees.

Speaking recently to a parent who has a daughter in the class of one of the Computers In Homes families she commented on what a positive effect it has made to this child. The pupil is now really buzzing about the things she is achieving on the computer at home and the work the family has been doing on the computer.

> "Amazing to know how to play the computer. And thanks again for giving my children and me the opportunity. Because I don't know anything about the computer. This time I will try my best. I've got a lot to learn though. Thanks again."
>
> *A Panmure Bridge Family*

> "I really hope you get my message. This is so much fun, my kids love it, no one can get through to me because I'm always on the Internet. must go because I have another email to reply to. Thankyou so much"
>
> *A Panmure Bridge Family*

6. Initial Research Findings

Wellington

Within a month of the computers going into the homes we interviewed parents in their homes. This gave the parents the opportunity to reflect on the possible uses of the computer in their particular family situation and to set some beginning goals for its use for both the parents and the children. The researcher collected information about members of the (extended) family who would have access to the computer, any prior knowledge the family had of computers and information about what the family hoped to gain from the scheme and any hesitations they had about the scheme. Both parents and children were present for this interview.

We have since held two meetings at the school with the children involved in the project and got them to share stories about what they have been doing. We have held two parent meetings in the evenings and collected information from them as a group. We have also evaluated each of the training sessions to ascertain the technical needs of the parents.

Both parents and children regularly communicate by e-mail with the school principal, the trainer, the researcher and the 2020 Trust director. These e-mails are another source of information about the project is going.

Three months after the official launch of the project parents have responded to a short questionnaire about computer use in their home.

We plan to interview parents, children and classroom teachers at the end of the first six months. Panmure research is proceeding according to the same plan a month later as it was launched in August.

Findings from the parent questionnaires.

This is the picture we have gained of family use of the computer. These questionnaires were administered to participants as a group on the evening of October 31 in the school staff-room. Project members and interpreters were available to help fill out the forms.

Time spent on the computer

The parents are spending more time on the computer than the children. Our assumption is that these are the parents who are at home during the day with more free time than other family members. We realise children are limited to after school slots and the weekends. Children in some of these families must share the computer with a number of siblings and often cousins as well between the hours of 3.15 and 8.30PM.
Half the parents spend more than an hour a day on the computer without their children and using the computer to accomplish things for themselves. These activities range from learning to touch type, writing letters, playing games, looking for information on the internet, checking bank balances, writing minutes for community group committees and sending e-mails.

There are only three parents out of the twenty-five who are using the computer for less than thirty minutes a day.

Half the children spend between thirty and sixty minutes a day on the computer on their own and 75% of them spend between 30 and 60 minutes a day doing things with their parents on the

computer. These activities include e-mail, story writing, playing games and using the Internet. The children were using e-mail mostly to write to their friends at Cannons Creek School. Many also sent a lot of e-mails to local family, just a few were writing to family in the islands and a few were writing to friends at other schools, friends they had met on kids' websites, writing to their parents at work, entering competitions from cereal boxes and writing to the school principal and classroom teacher. Some families are concerned about the children's use of the Internet and restrict Internet use until the parents are present.

When parents and children spend time together at the computer there are two distinct views from parents on how this time should be used. About half the parents use this time to teach skills that they the parents have learnt at training. The other half of the parents use this time to get their children to teach them how to use various computer applications.

"Stories and drawings"

"First thing we do is play games and have fun on it. Then we do schoolwork and we look up something that we didn't know before."

"Stories and songs but most of the time my children teach me to use a computer and their little sister"

"We look at other school websites and look at other cultures and countries National Geographic is excellent for projects"

"We do games and typing tutorial and Internet Explorer together Oldest helps teach us to use it"

"Together we put everything into folders and label the folders and I show the children how to drag messages into different family members folders without opening them"

"Most of the time we spend on the school website and doing some homework"

"They show me usually"

Parents Use of the Computer

Parents are using e-mail, Internet, word processor, spreadsheet (1 parent only), games provided by the project as well as games and some software downloaded from the Internet.

" I have learnt to download typing tutor. My son always looks for games and tries to download them"

E-Mail

Almost all of the parents are using e-mail as a regular way of communicating with their family in New Zealand and with the other parents involved in the computer in homes project. Most are also writing regular emails to various friends in New Zealand. A few are starting to make regular

e-mail contact with family overseas (mostly the Pacific but one family has found relatives in Canada).

All but one parent had sent one e-mail to the school principal but this was in response to an e-mail he sent out to them. Two families had sent enormous numbers of e-mails to family, friends, community and Government organizations and were using it as their regular way of communicating rather than the telephone. All families had sent e-mails to resources they had found on the Internet to request information that children needed for school projects. Other uses of e-mail were:

Office staff at the school
School nurse
School social worker
Children's teachers
Project personnel
Other local schools
Work or polytechnic friends
Government agencies such as WINZ
Entering competitions that gave e-mail addresses in the newspapers

Parents' comments on e-mail

"It is a fast way of letting other people know what you want"

"Love it! Especially the information that can be saved and we can refer back to it at another time. Very easy and fun"

"I like email because it's usually inconvenient to talk to other mums so it's good to write my news and then get their news when they are ready"
" I think it is the cheapest way and simplest way and an easy way of communication"

"Emailing is great. The kids e-mail family overseas and it helps their spelling and they get photos that would otherwise take so long to get"

"Quicker and cheaper. Enjoy sending quick messages or sending attachments to people. Find it easier to email information from hoe to work on for my work"

"Communication overseas is a good thing"

"Internet and email is quite faster and it is surely like having evidence that the person I email to can reply back to me about my message. Telephone is not so good because if I don't find you don't get my message".

' I find it a lot easier to say what I want to say without having to talk to people face to face. It is also cheaper if you have friends who live overseas and in other parts of NZ than making a phonecall"

" It doesn't cost me any money"

" Convenient way of communication in the way of cost and means"

"I think the telephone is the best way to communicate with people anywhere, the computer is just cheaper"

"Its fun to exercise your brain and hands"

Parents' use of the Internet

More than half of the parents used the Internet as their major source of information for news, current events, sports and the weather. Many of them have signed up to receive newspaper top stories and they log into this service least once a day. Other uses of the Internet were for banking ,for shopping (both clothes and books were mentioned), for finding information about jobs and courses at polytechnics, finding phone numbers and addresses, organising travel and accommodation for holidays, visiting music sites and downloading music, looking for graphics and photos to put into stories, searching family history and family names, looking for cartoon and jokes to send on, going to online church services in Samoan and some parents have joined chat rooms and discussion groups on a range of topics.

Each family has found a way of pursuing its own family interests through the Internet.

Family use of the Computer as a writing tool

All the parents had written a letter on the computer and all the children had written at least one story. Four parents had used the computer to put together a job application and two parents were writing assignments for their polytechnic courses rather than go back to the college to write their assignments at night. Other uses parents found for the computer were writing buy and sell ads to put in the local supermarket, learning to do a CV, for job applications, designing covers for their CD's (one family has access to both a scanner and a CD burner through relatives), putting the family budget on a spreadsheet, writing up family biographies, composing songs and prayers, typing and distributing minutes of meetings and just using the computer to practice their touch typing and getting up their speed.

" The kids have added a greeting card site to their favourites folder. They send cards to members of our family who are on email for different occasions. My daughter has joined a joke club site for kids and recently had some of her jokes published on it."

Mother from Cannon's Creek

Family use of the school website

Half the families were using the Cannons Creek website for a variety of purposes. All these parents liked to look for their own children's stories, artwork and photos. More than half of these families also read the BOT minutes, school newsletters and notices from the Principal. More than half also used this site for links to notices about happenings in the community. Other uses were to find out about homework and to look at the library.

Concerns about the impact of the computer on family life

About 2/3rds of the parents voiced some concerns at this stage. One concern voiced by several parents was the problem of neighbours or members of the extended family visiting and using the computer without regard to the family rules. These families have resolved this problem by

putting a password on their computer so that non-family members can only use it when there is someone at home. The other side of this is a more humorous story where the child keeps changing the password on the computer and the parents cannot get into any of the software!

Other worries voiced by several parents are that their children spend too much time playing games when they should be doing their homework. Some parents have resolved this by putting strict time limits on time spent on the computer. Parents are worried about children accessing pornography accidentally on the Internet. Many of them have restricted Internet use to times when the parents are in the room. There was also concern about the language some of the older children were sending out to some of their friends. One parents was concerned that their child was trying to use the Internet for shopping and trying to use their Visa card number without them knowing.

Some parents did not like all the junk mail that came through with the e-mail. Some parents found that they had got on to some listings so they were getting continuous junk e-mail.

One interesting comment from a parent showed us that some of the families maybe worried about the cost of the electricity to run a computer for several hours a day.

The following are comments from parents in the open-ended question at the end of the questionnaire. The final question asked parents to share a story about their computer of interest to the other participating families.

- Mums who cannot afford babysitters are joining chat rooms to talk to their friends from home
- Families have commented how little the TV is now being used
- Pre-schoolers making good use of the computers
- The sister of one of the mothers in the project got a job, as she was able to show that she had computer skills. She is thirty-four and not previously worked. This job involves using the computer. She had been living with the family and using the computer during the day.
- One parent has a promotion at work as she can use a computer
- Husband is a student he now works at home which has changed family life. “Pleasure to have computer at home and husband at home.” The mother has been accepted into a diploma in teaching programme and it was the reference from the Computers In Homes project that she thinks help her be accepted.
- The mother has got over her fears to use a computer. Now when she gets stressed she goes to the computer and plays the games.
- One family have been more confident in their reading because they like to find stories that their cousins have published on the web. They like to find stories that other children their own age have written.
- One parent says he is not stupid anymore and he knows now how he can information to help his daughter. The computer has given him a lot of self-confidence.
- Families have noticed an improvement in behaviour as the time these children have on the computer is limited and they have learnt to value that time and use it carefully.
- The family was able to look up where they lived in Samoa and show their children.
- The family can access the church websites and make contributions.
- One parent has found “a 90% improvement in her daughter’s spelling.”
- One family is helping to organise a sports trip overseas with the local High school and has been able to source funding agencies via the web.
- The grandmother was getting the kids to write emails to all their uncles and aunties to send money to the grandmother, but the grandmother will not use the computer herself.

- Some families have questions about when it is appropriate to use a computer. One father could not see the point of playing solitaire on the screen when there was pack of playing cards on the table next to the computer.

After a meeting with the Computers In Homes children at Cannons Creek school the children were asked the kinds of things that they had used the computer for. Some of the findings are listed below:

- Making folders
- Writing stories and poems
- Making screen savers
- Using the Internet to find out information
- E-mailing relatives in Canada, Australia and the Islands
- Looking at Cannons Creek Website
- Using the Cannons Creek website for spelling resources
- E-mailing each other and emailing attachments to friends
- Teaching parents how to e-mail and use search engines
- Teaching grandparents how to e-mail
- Showing grandparents how to enlarge text so they can read documents.
- Some of the Computer in Homes children are helping Ashley to load software in the classrooms and computer suite.

Barbara Craig also had a session with the pupils to explain who she was and why she would be visiting their homes to help them with the research for the project.
Some of her findings were:

- Students did not know what a University was and what it can provide
- Only six of the thirty students from Cannons Creek have been to Wellington
- Some of the facilities in Porirua are not accessible to Cannons Creek families because of cost e.g, Porirua Aquatic centre

From this session we have proposed that additional funding should be sought to bring parents and families in the project to a tertiary campus and introduce them to opportunities available and what is expected of students at that level. It is hard to promote the ides of bettering yourself through higher education of the families are not familiar with that system.

Training Report and Technical Report

The trainers send reports to the 2020 Communications Trust on the subjects they are covering and the content of the training sessions. The families have been learning basic computer use, file and folder management, formatting disks, how to e-mail, attaching files to e-mails, use of the Internet, search engines, spreadsheets and there use with family budgeting.

The trainers have reported a wide variation in the parents' skill levels, some have taught themselves to touch type.

The technical difficulties that families are having are mainly Internet connection difficulties, hard drive failure, problems with operating systems. The hard drive difficulties appear to stem from too much information being downloaded from the Internet. The problems with the operating

systems are linked to deletion of key files and visitors altering programme settings on the computers. One keyboard failed due to a spillage but this has led to the family adding food and drink regulations to their family rules.

7. The Future

The Trust has put a proposal to the Ministry of Foreign affairs to create an extension of the Computers in homes scheme in the Pacific Islands. The proposal suggests a visit to New Zealand by the staff of the school selected for training and experience of the Computers In Homes scheme. The staff would then return to their area and implement the scheme with the project management of a Trust similar to 2020 Communications Trust.
The honourable Fiame Mata'afa, Minister of Education, Samoa, recently visited Cannons Creek School. During the visit she was able to see the Computers In Homes project in practice and talk to the families about their experiences of being involved in the scheme. We have been discussing the project with educators in Samoa and Tonga. We are preparing a full proposal to consider how computers could be introduced into school buildings and some homes. In particular we now realise climate conditions, buildings and technical infrastructure mean the scheme will need to be adapted to fit these different conditions.

Next Steps and Aspirations

National rollout of Computer In Homes to all decile 1 students in New Zealand
Extension of the training for the families in the scheme
Solutions to some of the issues raised by the research

The principal of Cannons Creek School now sees the next step for the school is to have **all families** at the school able to join the programme if they want to.

"The possibilities for the school, the families and the community are quite simply revolutionary. There are undreamed of possibilities such as parents' teleworking and undertaking on-line study from home, pupils who see technology as part of their future and who have their literacy and higher learning skill enhanced. All this in a community seen as one of the most deprived in New Zealand!"

We have many requests from other groups wishing to be involved; an example of one e-mail is below:

I have been referred to your organisation by Telecom, in regards to obtaining used computer resources and software for our youth, our community, and as a resource for a local Kohanga Reo (not part of the TKR National body - this is an independent Marae based Kohanga).

In terms of computers, any used computer would be most welcome – our resources are limited - I'm sure companies have used ones that are sent back when you purchase new ones, and while they may not be too "flash" for the current upscale market - to a child that can only access a

computer at school, (and in the one school, only one is available for all students), having a computer at home or at a young person's facility would be a dream come true.

Minginui is in a remote region of the Urewera Forest. Unemployment is at about 90%, and there are few computers in homes that have children (in fact I know of only one home that has a computer available for their Mokopuna). Many parents are 'solo moms' - who themselves would benefit greatly from having access to a computer to learn typing, word processing, and to be able to work with their children and learn together.

We have managed to purchase a computer for Whanau Support - the local trust (totally volunteer operated) that coordinates children's holiday programmes, provides community support, and offers introductory lessons on it's computer. This is the only resource available.

The initiatives locally are threefold:
1. Develop a local after school centre and youth programme, and to equip the facility with at least one computer (preferably more) - with adequate tools (spreadsheet, word processing and internet access) to enable students to do homework, to learn the maths of a spreadsheet, and to develop research skills using the Internet as a source of information. There is no library here, the nearest is 36 km away.
2. Where homes would like a computer, provide one either as a temporary or permanent resource, This would benefit not only the children but the parents too, as they could learn marketable skills, in addition to bringing their skills in writing and maths up to a higher level.
3. Obtain a computer with a suitable office package (Office Small Business with Money) - for a local Kohanga Reo group to use to develop programmes and material, to use for after-school programmes for more senior children, to undertake upskilling through correspondence courses and to manage their day to day operations of the Kohanga (including minutes, correspondence, and accounting for their income and expenses)

We have a person locally who can assist in instruction, and who in fact has offered courses to several people at home and at the Whanau Support Services office. This person is to put into place, and manage, the youth programme. We would welcome outside assistance in setting up a programme locally similar to those you have started at the two schools in your pilot study mentioned on your website.
I would appreciate any assistance you can offer this community.
Thank you!
Kia Ora!

7.1. Budget

The cost per family which includes the computer, training, technician support, software, Internet access, telephone connection and project management costs is $3000

8. Other useful references

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