

Access to home PCs is impacting on the next generation's success. AMY KELLEY looks at the consequences of the 'digital divide'.

When the bell signals the end of the school day, 12-year-old Epiphany Poluleuligaga slings her satchel over her shoulder and heads for the gate. Some of her young school-mates are gathered in the yard, chatting about X-Box games and huddling over mobile phones. Epiphany tries to forget her parents words — she won't have a mobile until she is old enough to purchase her own.

She greets her mother Maria and three younger siblings before climbing into the family van. Together they make the daily journey to their local library to do the kids' homework.

It's not compulsory at Epiphany's school to type homework on a computer, but she's been around long enough to know the teachers are more impressed when the students do. She assesses the queue of people waiting to use computers. It may take an hour before she can even set her hands down on a keyboard.

While library computer resources in more affluent parts of town might only be used sporadically, the machines at Clevedon Library are in constant demand from people who cannot afford one of their own.

The Poluleuligagas are one of at least 100,000 Kiwi families in this situation. After meeting bill payments, grocery shopping, ever-increasing petrol costs and other family necessities, there just isn't enough left over at the end of the week to invest in computers.

Epiphany's father Sanele preaches the value of technology. As a social worker for South Auckland's Family Start, he is constantly advising the young families he works with to make owning a computer one of their personal goals. But at the end of the school day his own children are still in the library, waiting in line.

Sanele is worried Epiphany, 12, Maria, 9, Joseph, 5, and Joan, 2, have computer skills far behind those of other children their age. He fears they are missing out.

"You hear about some kids spending all day in front of a computer, and not using it for homework but for games and things. We don't want it to be like that," he says.

"We value our quality time together. But it would be useful to have one just to be able to do the basic things."

Meanwhile, children in leafier suburbs returning home from school with i-Pods in their ears head straight for the computer. At the same time as dexterously manoeuvring their way through a 3D cyber world, they begin texting friends with their social plans for the weekend. They speak in byte-sized SMS language and their fingers, nimble from years of flicking joysticks, are adept at jabbing in the letters while their eyes are still glued to the PC screen.

According to experts, these are the kids poised to be the most successful of their generation. A recent study conducted by the British Educational Communications and Technology Agency (BECTA) confirms what we already suspect to be true: that students with a PC at home do better at school.

BECTA found they not only achieve better marks, particularly in maths and English, but their teachers report higher levels of confidence and motivation. A

computer saves time with homework, boosts the "fun factor" of research and allows for neater presentation of work; giving these kids an edge over the rest.

And the child who does well at school has a high chance of continuing to do well at high school, at university, and in the workforce, where the early years of screen-gazing begin to pay off.

"Jobs with a salary of \$50,000 or more absolutely have an expectation of computer-savviness in candidates," says Fleur Board, chief executive of New Zealand recruitment company Adecco.

"They want a high level of keyboard skills. The traditional 'learn to touch-type at school' days are well gone and no one types at only 30 to 40 words per minute now.

"They want data entry skills, familiarity with the Microsoft suite and Explorer, and general computer navigational skills, at the very least."

It's a terrifying thought for the technology-starved, but not having computer skills is the modern equivalent of not being able to read. And according to University of Victoria researcher Dr Ann Weatherall, this excludes those on the margins of society even more.

"These days it's automatically considered that you'll have an email address, you'll be able to process a document, you'll be able to access and store information digitally, and so on. If you don't, you become marginalised. It's as simple as that."

Weatherall has just released a report titled New Communications Technologies and Family Life, featuring perspectives from a panel of technology experts. The academics, consultants, government advisers and researchers together confirm the worst fear of the technologically-poor: That we're living in an increasingly digital, mediated society, and those who can't afford to keep up will suffer.

There's a clear correlation between the digital divide and New Zealand's socio-economic divide. Household income is the single greatest factor in determining how many computers a household owns and whether it will be one of the 65 per cent that are connected to the internet.

"But it seems that factors like age, location, level of education, employment situation and number of children in a family also determine how much technology they own," says Weatherall.

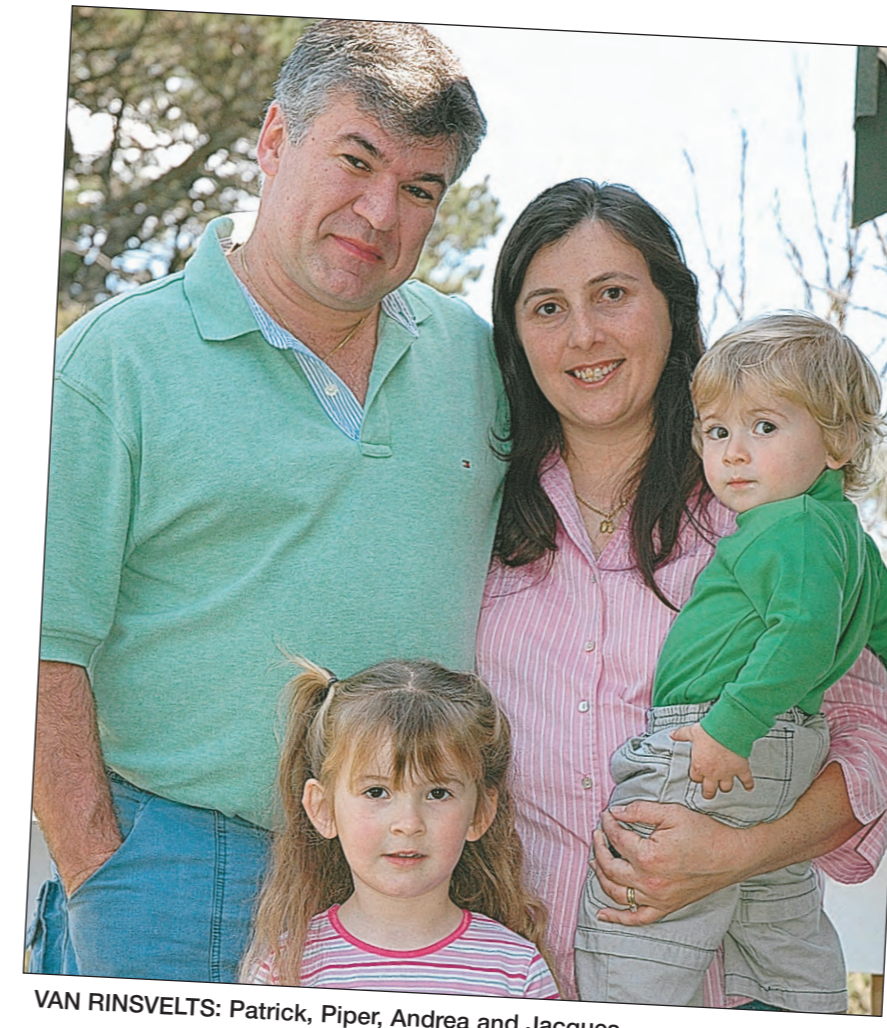
Along with low-income families, sole parents, elderly couples and the uneducated, unemployed, or disabled are the least likely to own a computer. Those living in rural areas are close behind, particularly in the West Coast and Gisborne regions. Just one quarter of homes in these areas are connected to the internet, which is well behind the connection rate of 44 per cent shared by net-friendly Auckland and Wellington.

Ethnicity is also a determining factor: Asian families are more likely to have



POLULEULIGAGAS: Maria, Joseph, Joan Anne, Epiphany, Elizabeth, Maria Telesia and Sanele.

PHOTO: GRAEME TWOSE



VAN RINSVELTS: Patrick, Piper, Andrea and Jacques.

PHOTO: HELEN TWOSE

Worlds apart: the digital divide

computer and internet access than families of any other ethnicity, while Maori and Pacific Islanders lie at the other end of the scale.

Never before has technology had so much power in distinguishing the haves from the have-nots. It's the social divide of the new millennium, and it's downright digital. The more information communications technology (ICT) we have, the better. Any electronic or digital equipment allowing us to gather information or communicate with each other is a means of self-empowerment — from computers, the internet, mobile phones and PDAs to digital cameras, video conferencing networks and even mp3 players. The machines once feared as workforce takeovers and the attention-consuming

devices blamed for the demise of social interaction have become integral to maintaining our roles in the workplace and community.

While parents who grew up with little more than a television struggle with the concept of a computer-led society, others are embracing it. Patrick van Rinsvelt, a technical director at APN Digital, and wife Andrea, a web developer, are aware ICT is the way of the future. They want their two children to be prepared.

"When these kids grow up, regardless of what trade they go into, they're going to need to use a computer," says Patrick. "And the sooner we get them onto it, the better."

Four-year-old Piper has a desktop computer of her own and is an expert user of the machine. She was just two when her parents began teaching her to use the internet, and picked it up "amazingly fast."

"Without being able to read, she recognised what the buttons and pop-up boxes meant. Within about two weeks she was capably navigating her way around," says Andrea.

It's a thought many parents would find downright scary. But the van Rinsvelts are no strangers to technology. "We don't have to go out in the car to do things, we can just jump on the internet," says Patrick.

They'll read daily news headlines on their screens rather than in the paper,

handle financial transactions over the net instead of queuing at the bank, and store all of their music, home videos and 10,000 photos of the kids growing up on one very swollen hard drive.

When they want to chat to Patrick's family in the United States, they'll connect their phone to one of four home computers and use a downloadable programme called Skype to make the call for free. Andrea, who hates shopping, manages to order everything from groceries to birthday gifts online.

The gadgets allowing them to do all of this haven't come cheap. But the van Rinsvelts aren't an exceptionally wealthy family. They have simply decided to make technology one of their top priorities.

"We won't go out and buy the fanciest car or anything," says Patrick. "It's just not something we require. Whereas these devices actually help us manage our day more easily."

But they are more than just mod cons. They are tickets of entry into a burgeoning communications era.

"Where these kids are going to go is amazing," says Patrick. "They're going to have a voice and they'll be listened to. With the blogosphere and citizen journalism on the net, it's going to revolutionise how we talk to each other. And we want to be ready for that."

Like every season's designer clothing, technology is outdated almost immediately after it is purchased. Every six months better models hit the shelves.

"Advertising instills that desire to keep getting the newer, cooler stuff so you're never satisfied with what you've got," says Matthewman.

"You can try to resist it, just opt out. But that's hard to do, especially for younger people."

But not all families will be ready, and a lot of people are worried. In May last year, the Government launched its post-election Digital Strategy, which aims to bring New Zealand up to leading international standards of information and technology use.

A total of \$7 million was recently allocated to 57 ICT initiatives around the country. And just over \$1.2 million of that money is going straight into homes, via the Computers in Homes programme installing second-hand technology in low-income households.

This will be money well spent says Laurence Zwipfer, a trustee of the 2020 Communications Trust which initiated Computers in Homes.

"What we are addressing is a critical issue. It's all about that fundamental of wanting to give all kids decent opportunities. Technology is just part of that group of core necessities like food, shelter and education.

"We don't debate whether every kid needs those things. It's an essential, not an optional thing anymore."

Computers in Homes provides families with children in decile one to three schools with a home PC, Internet connection and 20 hours of computer training.

According to CIH national coordinator Di Das, it was inspired by the success of the Books in Homes project initiated by author Alan Duff.

Das is sceptical of overseas schemes where machines have been provided en masse to the poor without any explanation of why they are important or how to use them. Computer and internet kiosks installed in India's public centres, for example, have mainly been used for playing games because people don't know how to use the more complex programs.

A 1997 \$37 million purchase of internet-ready PCs for every family in the Irish town of Ennis was also money badly spent: people didn't know how to work the machines and a large number ended up being sold on the black market.

"It's important people actually know what to do with the computer once they receive it," says Das.

"Otherwise it's like not being able to mend a puncture on your pushbike; it just tends to sit there and never get used. It's taking more time to do things this way, but at least it's more sustainable."

Since its launch in 2000, Computers in Homes has given computer and internet access to 1000 families across the country. But at least 100,000 families still need help.

Zwipfer says Computers in Homes could reach all of them within the next five years, but a goal of 10 years is more achievable.

"It all comes down to funding, really."

In the meantime, the PC-lacking children falling behind in skills and education may also be suffering a blow to their self-esteem. These gadgets are more than just educational tools and

means of being contactable. They're status symbols.

Dr Steve Matthewman, a sociology lecturer at the University of Auckland, relates it to the early must-have Ford automobiles and pressures to "keep up with the Joneses".

"In a way technology is fashion. We call it a practical necessity but it's also about making statements about yourself and having the very latest."

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* Since speaking to *Te Waha Nui*, the Poluleuligagas have secured a home computer from Auckland-based The Ark, one of two second-hand computer providers that supply machines to Computers in Homes.

Its low-cost rental scheme offers families a computer, email and unlimited internet access for \$11 per week, with the most worthy applicants, those with school-aged children and currently without any computer, served first.

the Poluleuligagas eagerly left the machine's delivery.

THE COST OF A LOW TECHNOLOGY LIFESTYLE...

Recycled internet-ready computer:	\$300
Recycled printer:	\$100
Corded telephone:	\$20
Two basic second-hand cellphones:	\$100
Total cost:	\$500

PLUS monthly costs of \$10 for 10 hours prepaid internet use and \$40 for two limited cellphone plans.

...AND A TECHNOLOGY-RICH LIFESTYLE:

Three desktop PCs, linked via wireless network: minimum	\$5000
Software:	\$3000
Portable laptop computer:	\$1200
PDA:	\$1200
3G mobile phone:	\$600
Digital still camera:	\$700
Digital video camera:	\$1200
30GB MP3 player:	\$570
Cordless phone twin set:	\$160
Fax machine:	\$130
Colour printer:	\$100
Scanner:	\$200
Total cost:	\$14,060

PLUS monthly costs of \$39.95 for broadband internet, \$80 for two standard cellphone plans and \$39 for a GPS data plan.