# PART II

## Chapter 3: Ownership and Values

In 2002, a report commissioned to inform a plan for telecommunications in remote communities stated that ‘the best solution to provide Internet and higher bandwidth services, such as videoconferencing, will be via **public online access centers**. Public access is more affordable and is well suited to the generally-communal lifestyle of these remote communities. It also provides a central point for community support and training’ (emphasis in original).[[1]](#footnote-2) The notion that Aboriginal culture requires shared facilities was carried through in a number of subsequent studies. Anne Daly, at the Centre for Aboriginal Economic Policy Research, examined 2001 census data, in which she found that while in 2001 30 per cent of the Non-Indigenous population had home internet access, only 10 per cent of the Indigenous population did. This supported the Telecommunications Action Plan for Remote and Indigenous Communities (TAPRIC) findings that computer centers could help overcome the digital divide.[[2]](#footnote-3)

A study of information and communications technology (ICT) centers by McCallum and Papandrea found that ‘home use is neither an attainable, nor necessarily desirable, outcome for most remote Indigenous communities. In the remote Indigenous communities that this study visited, the internet was considered to be a community rather than an individual facility, to be managed and used by the whole community’.[[3]](#footnote-4) In its marketing plan setting out the equipment, goods or services that Telstra will supply in fulfilment of the Universal Service Obligation (USO) throughout Australia, Telstra stated that ‘the notion of “shared resources” plays a stronger role in many remote Indigenous communities than in other areas.[[4]](#footnote-5) This means that the provision of “shared phones” such as payphones can be a more appropriate solution’.

We found no evidence that the ‘generally communal lifestyle’ of remote-living Aboriginal people negates home internet. In this chapter, we discuss how traditional and Western systems of ownership played out during the home internet trial, and draw on anthropological literature to contend that different values are placed on different kinds of objects. Computer ownership was more likely to occur at the household level, while difficulties arose in relation to shared computers (see Chapter 9 for a case study of a shared computer facility in Papunya). The related issue of how training is best provided is examined in detail in Chapter 6.

The system of demand sharing, a mechanism for the distribution of goods and services, plays an important role in maintaining socio-economic relationships amongst remote Aboriginal people. This form of exchange is said to have foundations in traditional lifestyle, when sharing was a matter of survival in a situation of scarcity and unpredictable food supply. Today, demand sharing fulfils social obligations, and acts as a levelling mechanism, whereby those with more resources give, when asked, to those with less. The considered way in which this occurs can be described as a ‘calculus of reciprocity’.[[5]](#footnote-6) Anthropologist L.R. Hiatt writes: ‘Probably everywhere in Aboriginal Australia the highest secular value is generosity. Readiness to share with others is the main measure of a man's goodness, and hospitality an essential source of his self-esteem’.[[6]](#footnote-7)

Such a worldview may result in ICTs being valued differently from the mainstream, which in turn may influence adoption and usage. Nicholls’ research, for example, found that the Yolngu town of Ramingining ‘definitely’ did not ‘revolve around a computer on a desk’, but more recent observations in Ngaanyatjarra communities suggest that personal computers are becoming increasingly important in remote communities, second only to cars, as the most valued commodity.[[7]](#footnote-8)

Understanding the relative importance placed on the maintenance of social relationships and concern for others, in contrast to that placed on objects as objects *per se*, is the key to understanding how demand sharing functions.In attempting to establish a critical mass of household computer users in the three communities, we sought to understand what implications the demand sharing system might have for ICT provision in remote Aboriginal Australia. We were aware, for example, that the computers would be subject to types of ownership within the demand sharing system that would be more influential than the Western form of legal ownership we invited participants to take up. We hoped to gain some insights into the interplay between both systems of ownership, and what lessons these might have for ICT policy development and provision in remote Aboriginal contexts.

Previous ethnographic research has documented different types of ownership and associated rights and obligations in relation to different objects, including public and private forms, which operate within demand sharing processes in Aboriginal society. The literature makes a significant distinction between ownership and usage: while an item might be ‘owned’ by an individual, this does not necessarily equate to exclusive or any usage by that same individual. However, the onus is on a person to ask for use of an object, and giving in response to a legitimate demand fulfils a social obligation. Not only does the practice of demand sharing redistribute resources, but various social alliances and networks are created and maintained in the process, while the autonomy of the giver is acknowledged. In this way, demand sharing is integral to the tension between relatedness and individual autonomy that underpins all Aboriginal social practices.[[8]](#footnote-9)

### Aboriginal Ownership and Demand Sharing: Relatedness and Autonomy

In recent times, a popular mainstream view has emerged that all demand sharing equates to ‘humbugging’: begging relatives to give or share resources.[[9]](#footnote-10) This view provides a limited and erroneous understanding of the true nature and role that demand sharing plays in maintaining Aboriginal socio-economic systems. Drawing on his work amongst the Pintupi people in the Western desert region, anthropologist Fred Myers describes demand sharing as a form of equivalent exchange:

Those who live together must, according to Pintupi notions, ‘help each other’. This means that, upon demand at least, co-residents should be willing to give food, clothing, and other material items or, as the case may be now, provide transportation or labor. In Pintupi understanding, the distribution of valued objects and services reflects and creates relatedness. Thus, they insist, those who live – or have regularly lived – together are *walytja[[10]](#footnote-11)*, what we can translate as ‘relatives’ or ‘kin’. They must help each other, and such help, once given, should be reciprocated.[[11]](#footnote-12)

Myers also notes that a wide range of relationships were conceptualized by Pintupi in terms of their own concept or metaphor of *kanyininpa*, a word used to designate the ‘having’ (as in possession) or ‘holding’ of an object.[[12]](#footnote-13) Similarly, the term *walytja* refers to a sense of belonging or shared identity, and could be used in relation to possessions, kin, ‘one’s own (my own) and oneself, as well as to refer to a wider sense of belonging.[[13]](#footnote-14) Here the notion of ownership translates into ‘identification’, and provides a sense that rights to objects are (and should be) more widely distributed to include others as co-owners.[[14]](#footnote-15)

At the broader level, Myers’ work highlights a general attitude towards personal possessions amongst the Pintupi: ‘property’, regardless of what it cost, was considered replaceable, and if faced with a choice of caring for property or caring for people, they preferred to invest in the latter.[[15]](#footnote-16) Indeed, the Pintupi saw non-Aboriginal people as more concerned with the accumulation of individual wealth, money and objects than with their relationships to kin, family and friends.[[16]](#footnote-17) Amongst the Pintupi, relationships with relatives were more highly valued than ordinary possessions.[[17]](#footnote-18) For them, ownership of objects provided a mechanism by which social relationships were maintained; the object itself was of less importance than the opportunity to ‘give’ or participate in the relationship.

Gaynor Macdonald’s research amongst the Wiradjuri in New South Wales found that demand sharing did not indicate a system of communal property or an absence of personal ownership. Rather, obligations existed because highly-differentiated notions of personal ownership were recognized, and because it was how an individual shared what she or he had rights over that defined that person.[[18]](#footnote-19) The autonomy of the individual was maintained in this way within social networks. Many researchers have noted the tension that exists between relatedness and autonomy, and that strategies exist that one may employ to look after one’s own interests so items are not parted with indiscriminately. Tonkinson, for example, observed that some individuals carried two tobacco tins, one of which was always kept empty as proof that they had no tobacco to give when asked.[[19]](#footnote-20) Myers also made similar observations during his research with the Pintupi. He noted that people sometimes hid possessions in order to avoid having to relinquish anything when asked; thus one could express compassion without physically giving.[[20]](#footnote-21) However, it was important to maintain a fairly balanced account in one’s transactions with others.[[21]](#footnote-22) Sansom recorded that people would sometimes declare items to be ‘private’: that is, off-limits to normal demands from kin.[[22]](#footnote-23)

### Ownership and the Role of Passwords and Padlocks

At the start of the project, the few individuals who had laptops told us that they would hide them from others to keep them safe. When the desktop computers arrived, some community members managed the dynamic between autonomy and relatedness through their use of padlocks and passwords to regulate others’ access to the household computers. Virtually all residents with desktop computers said that visitors to their community had used their computers at one time or another, often without permission while they were away. Often this involved people cutting off the padlocks on the computer covers or prising off the hasp. Some found this highly annoying, and took steps to limit access to their computer when they were out of the community, either through passwording, and/or by locking the desk cover, and/or by having an individual room or house where the computer was kept. One woman took the computer cords with her when she travelled. Mostly houses were not locked, even when people went away.

Once some participants had obtained individual internet accounts and were paying for the internet themselves, we gained the impression that asking permission to use the computers became more common, and that usage became more restricted to the individual household/family (almost two-thirds at this point told us that people had asked to use their computers). One woman at Imangara said she only allowed non-household/family members to use her computer in exceptional circumstances: for example, when people needed to contact relatives about arranging funerals, and had run out of money for a phone card, she would allow them to contact relatives via Facebook on her computer. A woman from Mungalawurru told us that some residents from other households had asked her if she could leave the computer cabinet open while she was in Tennant Creek so they could use it, but that she’d started closing the cabinet because ‘they were using it too much’, and we observed that it was closed and padlocked. There seemed to be greater awareness that the owner was paying for internet access, and this impacted on the social dynamics and decision-making surrounding requests and permission to use the computers.

Likewise, the use of passwords became a way of managing others’ – especially visitors’, and to a lesser extent, kids’ – access to the computers. Initially, few residents set passwords on their computers, probably because of the inconvenience of having to remember and enter a password, coupled with a limited understanding of computer and internet safety and security generally. But, as the project progressed, more people began asking us for assistance to set a password, usually in the context of managing others’ usage, as well as preventing unauthorized access when they were away from the community. One woman, for example, requested we set a password on her computer to ‘stop visitors using it and using up all the power’, while another asked for a password for her computer so she could ‘stop people using it’ while she had visitors staying in her house; she started changing the password when too many people had access. A resident reported that someone had cut the padlock off her computer. and consequently she wanted a new and better password. By the end of April 2014, passwords had been established on 65 per cent of computers.

However, others felt that setting passwords for managing kids’ usage in particular was not a straightforward solution. One man, who did not have an internet connection at the time, said he’d been thinking of putting a password on the computer, but had decided against it to avoid being humbugged by his grandkids to use the PC, although he also thought that having a password might ‘steady them down from using [it too much]’. He added that he would put a password on the computer if he got an internet service.

Rather than being an expression of ownership and attachment, it seems that the setting of passwords on computers by participants during the project was primarily a means of managing others’ usage. In this way, individual participants could negotiate their autonomy and relatedness: autonomy through establishing (or changing) a password, and relatedness through sharing that password with select individuals but not others.

### Aboriginal Ownership of ‘Things’

Existing ethnographic literature explores the different types of ownership that operate within Aboriginal society, demonstrating that these concepts extend beyond simple Western legal notions. Aboriginal ownership of land is conceptualized according to connections to totemic ancestors who created the landscape, kin relations to these ancestors, and among owners, and such relationships are framed in terms of inalienable connections to places, rights and obligations.[[23]](#footnote-24) By contrast, the ownership of consumable and moveable items – such as computers and television sets – is subject to demand sharing, and is not thought of as an inalienable right, although personal ownership of equipment is recognized. As well as the purpose for which they were designed or manufactured, objects may play a role within the processes through which social relationships are structured, mediated, tested and re-shaped. Often it is how an object can be used, rather than what it is, that influences and determines the nature of various social interactions and outcomes. Accordingly, some objects may be subject to different kinds of ownership in the course of their use-lives.

Nuances of different kinds of Aboriginal ownership became evident in the ways that certain individuals tested others’ ownership of some computers in the project communities. The computers became objects through which relationships were negotiated within the system of demand sharing in each community. These relationships were not necessarily limited to those within the individual household. They also affected the dynamics surrounding computers within shared spaces, such as the Women’s Centre at Imangara and the Community Development Employment Projects (CDEP) Shed at Mungalawarru. Although most of the computers were installed within individual households, the dynamics surrounding the computers in shared spaces were illuminating, suggesting different forms of Aboriginal ownership at work in these communities, with implications for how to provide equitable access to ICT access.

When we installed computers at Imangara, we placed two in the Women’s Centre, mainly for use by residents who did not have a desktop computer in their own households, but also for the couple supervising the Centre. In time it became apparent that the couple considered the computers to be ‘theirs’, restricting access mainly to themselves and some of their family members. They even put a password on their user account on one of the PCs.

In this instance, the couple appeared to be enacting a form of Aboriginal ownership perhaps closest to Western notions: that is, ownership confers exclusive rights to possess and/or use a particular item. The owner also has the prerogative to determine who else may use that item, and under what circumstances. A distinction is invoked between private and public ownership: that is, the object is ‘private’ or off-limits to others, including the right to ask, or ‘public’ – others have a right to ask to use that particular object. Although this example relates to contemporary Western material culture, anthropologists have also documented personal ownership of non-Western or traditional objects such as the *wanari* (short stout digging sticks) used by Pintupi women, which suggests that personal ownership is not necessarily a post-contact phenomenon.[[24]](#footnote-25)

Other residents expressed their irritation about this situation to us, initially in veiled, oblique terms, then more openly. In one instance, a senior woman, whose household did not receive a computer, approached us eight months later, asking if she could get a computer at her house: not for herself, but for ‘her grandchildren’. At the time, we didn’t have enough funding to buy more desktop computers, so we suggested that her grandchildren use the computers at the Women’s Centre. She responded that it ‘was too far [away] to walk [to]’, which seemed rather unlikely, given that her house was only 200 metres from the Centre. Instead, it seemed that limited access to the computers in the Women’s Centre was the real reason.

This couple also dominated usage of other facilities at the Women’s Centre, such as the telephone, a practice observed by the Regional Council workers, as well as the local school principal. The disquiet their monopolization of these items caused amongst other community members reflects findings within the anthropological literature that although items non-Aboriginal people own or control within a community are not usually subject to the same level of demand sharing, they may nevertheless still be used to test social relationships.[[25]](#footnote-26) This observation is particularly relevant here, given that Western legal ownership of the computers initially remained with an organization – the Centre for Appropriate Technology (CAT) – prior to being transferred to individual participants. Similarly, Fogarty found, while based at Maningrida, that the school vehicle (a 4WD troop carrier) was not usually the focus of the sort of conflict embedded in ownership of private or community vehicle use, because it was seen as being owned by ‘government’, an entity not part of the local social organization. This did not mean there weren’t any conflicts about the school 4WD, or that local Aboriginal people did not exert some form of claim over the vehicle, but the conflict related to usage constraints, such as the number of passengers, rather than ownership.[[26]](#footnote-27)

Interestingly, the mother of the woman who worked at the Women’s Centre, who was also one of the senior woman’s daughters, sometimes used the computer in the Centre, although she had her own computer and internet connection at home. It seems that her close kin association with her daughter facilitated her use of the Centre’s computers. Although most of the computers were installed within individual households, the circumstances surrounding the usage of the computers at the Women’s Centre – ostensibly a communal space – was indicative of a trend we noticed across the project communities: that residents did not share the computers as much as we had expected, especially beyond family groups.

When we commenced the trial, we developed a system whereby the residents would sign an agreement that transferred ownership of the computers from us to them. The agreement was developed partly for legal reasons, and partly as a means to reinforce to the residents that they could manage the computers however they wished if they chose to take possession of them. Interestingly, despite their possessiveness, neither the couple nor anyone else signed ownership agreements for the two computers while they were at the Centre (which also appeared to be linked to the couple’s moderate degree of mobility, as we’ll discuss further in Chapter 4). Later, when the couple had left the community, another couple signed a formal ownership agreement for a Women’s Centre computer at Imangara within three months of it being relocated from the Centre into their house. This appears to support the understanding that an individual(s) who has non-exclusive usage rights to an item does not gain any additional powers, rights or personal standing, even if he or she is the person(s) primarily associated with it. Musharbash, for example, observed that specific bedrooms in a house were not ‘owned’ in the exclusive Western sense; rather, each room would be primarily associated with a particular person, who would nevertheless share access and use of it with others, usually those of the *jilimi* (women’s camp) or close relatives.[[27]](#footnote-28) When that individual moved to another camp, the room then became associated with someone else. An association with a particular room did not confer any additional rights or power over other spaces in the house or *jilimi*; nor did it add any personal standing to that individual.[[28]](#footnote-29) In the same way, although the couple was primarily associated with the computer and other facilities in the Women’s Centre, they did not have any exclusive rights to them once they had left the community.

Initially, we installed two PCs in the CDEP shed at Mungalawarru for residents’ general use, but soon afterwards, one of these was relocated within the community. A woman signed a formal ownership agreement for the one that remained in the shed, and although it was still available for use by other residents, they consistently referred to it as the woman’s computer. While her ownership of this computer appeared to approximate Western notions, the events that ensued when the woman left the community suggest that although her individual ownership was recognized, it did not confer exclusive use.

Several weeks after the woman relocated more or less permanently to Tennant Creek, a couple moved the computer into their house, placing their own computer on a table to one side because it had technical problems. A month later, prior to visiting Mungalawarru, we ran into the woman in Tennant Creek, and she made a point of telling us that she wanted ‘her’ computer back.

Several interpretations of these events are possible. Other residents may have considered this computer to be communal or shared property, available for use when required, given its public location in the CDEP shed, despite the fact that the woman owned it in a Western legal sense, and was primarily associated with it. While the woman’s individual ownership of the computer was recognized (i.e. in how it was named), this did not confer exclusive rights of usage on her: only the right to determine who could use the computer, for as long as she was perceived to be a permanent resident at Mungalawarru. Once she had moved to Tennant Creek, others may have felt that she had relinquished her ownership of the computer and abandoned it, and that it was now available for others to take up.

In his work amongst Darwin’s town campers, anthropologist Basil Sansom (1980) observed a distinction between private and public ownership of items, including cash. Specifically, he used the term ‘routine’ ownership to refer to things, persons and words that were potentially available to other individuals through the mechanism of demand sharing. In contrast, when something was declared ‘private’, it was removed from the realm of social relationships and associated obligations, and was essentially ‘off limits’ to others. However, ownership of such items may move back and forth between the private and public domains over a period of time, according to the location (whether it is a private or public space) and other circumstances.[[29]](#footnote-30)

The fact that the computer was in a public space may have signalled the potential for a change in ownership once the woman had left the community. The anthropological literature also distinguishes between the dynamics surrounding ownership of ‘high end’ items, such as vehicles, as well as scarce or ‘luxury’ goods, with those considered for ‘everyday’ use. Myers observed that Pintupi people distinguished between private and community property in relation to vehicle ownership.[[30]](#footnote-31) ‘Private’ vehicles were those purchased with an individual’s own money, with the result that he or she was recognized as the proprietor of that vehicle with the right to make decisions regarding its use. In contrast, ‘community’ or company vehicles, usually purchased through government or foundation grants, were often the subject of conflict arising from the problem of who could be said to ‘own’ something that was owned by ‘the community*’.*

The couple’s decision to move the computer into their house may have been based on a pragmatic rationale that the computers had been ‘abandoned’ and were available for re-use: that since the woman was absent from Mungalawarru, she wouldn’t need the computer and that it was more convenient to move the computer into their house rather than waiting for theirs to be fixed, or using it in the CDEP Shed. O’Connell’s observations about Alyawarr ownership of physical objects, such as everyday items found in houses, suggests that in addition to an item’s function, its cost and/or relative availability may be a factor in determining whether or not ownership remains with the individual purchaser, or whether the item becomes part of the assemblage owned by the household.[[31]](#footnote-32) Amongst the Alyawarr, ownership and control of structural materials was usually vested in the household unit as long as the materials were being used.[[32]](#footnote-33) Once community members perceived such items to be abandoned, they were available for reclamation by anyone. Items that were costly but relatively portable, such as tents, tended to remain the property of an individual or a household for as long as they were useful, unless they were specifically sold, traded or given away.

These stories about desktop computers in shared spaces at Imangara and Mungalawarru highlight the strength of Aboriginal forms of ownership in remote communities. They also strongly suggest that the location of individual computers influences notions of, and the strength of, this ownership: i.e. that people with a desktop computer in their own house had a stronger claim/right to ownership of that computer (and by extension, demonstrate a particular type of ownership). By contrast, people who were notionally responsible for computers located in public spaces appeared to have weaker claims to some form of ‘ownership’, and/or demonstrated a different type of ownership, even though they were strongly associated with use and access to these computers. Ownership of computers in individual houses appeared to possess an exclusivity similar to Western legal notions, compared to computers in public spaces where ownership constituted a primary or shared/collective association.

Contrary to our original expectations that Aboriginal social structures and practices might automatically foster greater sharing of ICT resources and skills amongst participants, with positive implications for diminishing the digital divide, the sharing of resources was concentrated on kinship networks between families and across households, and amongst individual families within houses. Even when computers were situated in public spaces, and not formally owned by a particular individual(s), this did not necessarily result in equitable access to ICT devices and the internet. In Chapter 9 we discuss how this has proven difficult in relation to shared internet facilities in a larger community.

Another factor that came into play here was the implications that relationships between families and households had, not only for individuals’ access to computers and the internet, but also for installation of ICT equipment and networks. These became more apparent through the affiliations along household and family lines that emerged towards the project’s end, when we began discussing with community members whether their household wanted to pay for an internet plan or to share a connection with others. The following story highlights how these family affiliations, as well as the influence of elders on decision-making, shaped the distribution of ICT resources.

### Family Distinctions and the Influence of Elders on ICT Arrangements

While discussing with us potential options for sharing internet connections after the project, one of the senior women at Imangara said she wanted her own ‘dish’, and that she only wanted to pay for her household’s usage. We asked if she would consider sharing a connection with the house next door, which was occupied by her daughter, her children and grandchildren. Her sister (by kinship), Mary, then interjected, pointing out that the arrangement might work, referring to her sister’s house as ‘you mob’ and her niece’s house as ‘that mob’.

Mary was the senior person most often involved in liaising with us, and in working out ICT arrangements in the community. She had significant responsibilities representing the community in external organizations, and was thus a key liaison for various visitors (including a linguist working in the community at the time). Mary, as we will see, was one of the few residents who came to rely on email for correspondence with outside agencies, although she did so with assistance from others. On this occasion, Mary pointed at a map of Imangara showing the location of the two existing satellite dishes and all the houses connected to the internet, indicating that she would share a dish with her mob. This included not only her immediate household, but her grandson and granddaughter-in-law in the house next door, another grandson and granddaughter-in-law in a house a bit further away, and another granddaughter and grandson-in-law, whose house was still further away, with other households in between.

But on one of our previous visits, Mary’s granddaughter-in-law, Emily, had strongly asserted that everyone should have their own internet connection, and only pay for what each individual household used. Emily, who worked at the school and had a young family, had become one of the more confident users in the community. Emily was also quite financially literate, and likely to understand the difficulties that a shared arrangement would involve in terms of payment. Basically, payment for an internet plan can only be made from one individual’s account, which means that he or she would then have to extract a share of that payment from all the others who shared that connection. This would place an extra burden and responsibility on that individual.

Mary seemed willing to take on this responsibility for her ‘mob’ when we next visited, even though she had been at pains to point out to us during an earlier trip that the extra electricity required to run the satellite dish on her roof, which provides connectivity for her own house plus three others, was too much for her and her partner to pay. Although Emily had previously expressed the view that everyone should have their own dish, she deferred to Mary on this occasion, appearing to accept her decision regarding a new arrangement in which only her household would share with Mary’s. Notably, by this time, Mary’s two grandsons and their partners were not to share with Mary, but to have their own internet connections. It seemed that Mary had not pressed them to review this decision, perhaps because it was her grandsons rather than her granddaughters who were involved, although it was two of her grand-daughters-in-law, including Emily, who told us about this decision.

Emily may also have agreed to share with Mary out of a concern for Mary’s ability to pay for the internet connection on her own. The other reason for Emily’s change of mind might have been that her personal situation had altered between our two visits: her household income had halved after her partner lost his job. However, Emily later chose to have her own internet connection, while Mary and another granddaughter, who was looking after the house next door while its residents were interstate, decided they would share Mary’s connection. It seems that Emily had wanted to have her own connection all along.

These developments were in keeping with the trend that emerged during the project on sharing ICT resources amongst kinship networks between families across households and amongst individual families within houses. Both Western legal ownership and Aboriginal ownership of the majority of the computers appears to have been vested in particular individuals, rather than to have taken the form of collective ownership by households or families. Eventually, all participants who decided to retain internet access chose to establish an individual household connection and account, with one exception (see Chapter 9). Another factor in the trend towards individual ownership was probably residents’ increasing awareness that a computer’s formal owner would have to bear the brunt of power and internet bill costs.

### Valuing Hardware and the Internet

During the project, we were interested in seeing whether participants would value computers differently from mainstream users, and how this might influence adoption and usage. Attitudes towards property in Aboriginal society operate on two levels: as a broad ‘world view’ perspective, and on a more personal level that allows for changes in individual attitudes according to various circumstances. As an example of the latter, Taylor observed a change in attitudes towards material possessions, from relatively frugal and generally confined to simple items (i.e. clothing, bedding, tools, weapons, utensils) to a desire for new furniture, furnishings and household appliances once people occupied permanent dwellings.[[33]](#footnote-34)

According to the anthropological literature, objects may be valued for various reasons, not all necessarily related solely to usage. Tanner suggests that ‘defining modes of value for digital culture that are not solely economically driven but which do contain indicators of value that can be measured and can demonstrate change’, are important when considering the impact of digital resources.[[34]](#footnote-35) He identifies four values in addition to utility: existence and/or prestige, education, community (being part of a community that is afforded by the digital resource) and inheritance/bequest value. Additionally, values are not fixed, nor static. For example, Renfrew’s work highlights how the value of certain objects may alter over time,reflecting new uses and forms of political control. Davenport has observed that particular objects can possess multiple values depending on circumstances, and that these values are not limited to those held by the owner or end user, but may be held collectively by a community.[[35]](#footnote-36) Myers notes that the value possessed by objects is characterized by what he called ‘slippage’, in which the relative value of the object (whether quantitative or qualitative) declines.[[36]](#footnote-37) Regarding computers, Brown et al. suggest that they change from being considered luxury items to being thought of as necessities, which in turn may also influence adoption and usage.[[37]](#footnote-38)

In the case of the three communities, we considered the nature and extent to which participants valued the computers and internet access, and whether any changes in how they valued the ICTs emerged across the project. We took into account factors such as participants’ readiness to maintain internet access, what they were prepared to pay, and how community members personalized their computers, as indicators of what value they placed on home computers and internet access. We also attempted to assess the comparative value of the computers in relation to other material objects used by participants, such as cars, mobile phones, X-boxes, fridges and TVs, as well as the community payphone, as a means of gauging their significance in remote community life.

By the end of September 2013, there were relatively high rates of formal ownership (signed agreements) of the computers and payment for internet plans at Imangara and Mungalawarru, suggesting that most participants valued the PCs and internet access. In the initial phases of the project, community members’ interest in having internet access grew considerably. Between February and November 2012, when we asked individuals regularly present in both these communities whether they’d be prepared to pay for their own internet service, the proportion of participants willing to pay increased from 40 to 77 per cent. Eventually, two-thirds of participants actually retained internet access; the remaining third did not because of mobility issues (i.e. they had moved or were anticipating moving from the community), or because they found the payment methods too difficult to manage. Given that project funding supported payment for internet use until September 2013, these results suggest that participants attached real value to maintaining connectivity at a tangible cost to themselves.

We also periodically asked participants how much they’d be prepared to pay for internet access at the end of the project, as a gross measure of how much they valued the ICTs in monetary terms. When we first asked them in February 2012, only two individuals (a couple) out of fifteen nominated an actual amount. By contrast, in November 2012, twelve out of thirteen individuals nominated a sum of money, varying from $20/month up to $200-300/month, with three people saying they’d be prepared to pay at least $100/month. However, by March 2013, the amounts they named had moderated, coalescing around $40-$60/month, most likely as residents became better informed of the various plans available. Overall, it seems that a more pragmatic attitude emerged as the project progressed and once funding support ended.

Psychologists Pierce and colleagues suggest that feelings of ownership are created first by controlling an object through possession, then by becoming familiar with it through actual or imagined use, and/or investing the self into it (e.g. through identification).[[38]](#footnote-39) As an indication of the potential value people placed on their desktop computers, we examined how the residents personalized them, for example by posting photographs, usually of family members, as wallpaper and/or screensavers. When we visited the communities in 2014, almost half those we interviewed said they had personalized their computer. Of two people who stated that they hadn’t personalized their computers, we’d observed that one of these had changed her computer’s wallpaper before. Three said they couldn’t remember, although we’d previously noticed they had personally configured or chosen their computers’ wallpaper, and one individual had replaced the particular photograph she’d used earlier as wallpaper on her computer.

Those who personalized the computers in this way were not necessarily their formal owners, and we do not know whether they had asked the owner’s permission in each instance. However, one example suggests that such personalization by users was not always with the owner’s approval. In September 2013, Mary asked one of the researchers to change the wallpaper on her computer, from the rather violent gaming image, which one of the younger male residents in her house had probably installed, to feature a gospel image. Personalization also occurred on computers in shared spaces: those managing the Women’s Centre put wallpaper featuring sports cars on the computers, although this may have been part of their attempt at possession of these computers.

At the end of the project, we asked people how important the computer was to them, compared to other household items such as TVs, mobile phones and refrigerators, commonly using the television as an item for comparison. Most of those who responded to this question said that the computer was more important than the TV, regardless of whether they were adept users.

These perceptions of the computers’ comparative value did not appear to reflect the phenomenon known as ‘source dependence’, either, whereby people become attached to objects because of how they were obtained, such as whether they’d paid for them or received them by chance.[[39]](#footnote-40) Specifically, source dependence is where objects are more highly valued when people believe that they have obtained them as a result of their own efforts.[[40]](#footnote-41) According to this logic, we would expect most community members to value TVs more highly than the computers, because they’d bought the televisions themselves, but this was not always the case. This preference for the computers may reflect individual personal interests and awareness of the computers’ potential uses, the presence of some sort of existence/status and community value, that the TVs were considered to be more of an ‘everyday’ item, or a combination of all these factors.

### Conclusion

In opening this chapter, we suggested that Aboriginal people living in remote communities might value computers and the internet differently from the mainstream, with implications for their adoption and usage. The outstation residents clearly valued the computers and internet access, although, as we will see in later chapters, their relative value – as expressed in how they personalized the computers and valued them in relation to other household items – changed over the project. As we will see in later chapters, the amounts of money people were prepared to pay for internet access also changed as participants became increasingly aware of the real costs of retaining internet access, ownership and maintenance of the computer, especially electricity bills. The relative value of ICTs is also likely to fluctuate depending on an individual’s life circumstances; for example, when money is short, basics such as food, power and transport may take priority rather than fixing a computer or paying for an internet plan.

Contrary to the idea that the ‘caring and sharing’ ethic (that non-Indigenous people often associate with Aboriginal culture) might result in more collective possession and use of the computers, ownership of most of the computers in the project became invested in particular individuals. Access, and by extension usage, was largely restricted to the household/immediate family members, with the owner determining who could use the computer. The use of passwords emerged as a key mechanism in managing demands, particularly from visitors and kids, and as a way of preventing unauthorized or excessive use of the computers when the owners were absent.

Ownership is embedded within the system of demand sharing, in which objects may function as a mechanism through which social relationships are continually tested, mediated and re-negotiated. This understanding has implications for the design of future ICT arrangements, including payment method for internet access (discussed in Chapters 8 and 9)., In particular, flexibility to allow for changes in ownership and residential mobility needs to be incorporated into ICT provision to these communities, a subject that will be taken up in the next chapter.

## Chapter 4: Mobility

Six months after computers and internet access were installed at Kwale Kwale, Rhonda, a middle-aged woman who had been using computers at work, expressed concern to us that some of her older relatives drove forty kilometres to Alice Springs almost every day to shop, estimating that they spent about $30 per trip on fuel. She was hoping to teach them and other community members how to shop online for groceries and other supplies to reduce their transport costs. Her older relatives had already told us that they wished to avoid having to live in town to access medical services, and seemed stressed at the prospect of being away from country and family for any length of time. The same couple had moved into a caravan when another daughter and her family moved in, due to maintenance issues in their house. The family’s concerns are indicative of three types of mobility typical of outstations: the costs and inconveniences associated with living on an outstation, relocation to towns to access services, and individuals moving from house to house within a community, all of which we discuss in this chapter in relation to ICT.

These seemingly ordinary concerns – relocation and travel – have a social dimension, in that living at a distance from essential services can contribute to hardship. The resulting fluctuating occupancy of remote settlements, and the expense that their remoteness confers on individuals and services, have been ever-present themes in the debate on government resourcing of outstations. The Commonwealth’s decision to direct resources to larger towns only (see Chapter 1), and its divestment of funding to the states, has resulted in a significant and (at the time of writing) ongoing social movement against the so-called ‘closure’ of remote communities. Underlying these developments has been what some consider a new policy trend of ‘mainstreaming’, whereby those living in outstations are expected to move to larger towns to reduce public expense. As discussed in previous chapters, researchers have been divided over the benefits of staying on country versus relocation, and the cultural and wellbeing advantages associated with each scenario.[[41]](#footnote-42)

Our particular interest was whether broadband delivery of services and the conveniences of online transactions might alleviate some of the day-to-day difficulties associated with remote living. For instance, could it minimize the expense of travelling into town, or overcome difficulties in carrying out personal or household administration? Rather than treat the issue of remote living as one of citizenry rights and entitlements, we focused instead on the more mundane dimensions of remote community life.[[42]](#footnote-43) Understanding the tangible benefits of internet use required knowing the extent to which residents moved between town and community, why they did so, and whether internet access and use altered patterns of movement in and out of each locality.

The frequency with which people travel and move also influences infrastructure and hardware choices. If travel was a common feature of everyone’s life, then this might explain why fixed satellite connections and desktop computers were scarce in remote communities when we commenced (as these cannot easily be moved). As we were to discover, mobility did affect internet access and use, not only for those who moved in and out of their community, but also for individuals and whole families moving to different houses within the community. The latter turned out to be a more significant issue for understanding the digital divide, adding further to our doubts about the appropriateness of the extant satellite internet offerings as a solution for remote consumers.

### Cost-saving and Geographic Disadvantage

It was often the case that, however many messages we sent by email or through calling public phones, and however much we checked potential competing activities, some, or even all, of the community members wouldn’t be there on our visits. They had other priorities and many reasons to travel. Native title and royalty meetings invariably had more clout than our visits; sorry business (funeral rites) would lay heavy and unexpected claims on people’s time. On one trip, the Imangara people had gone to Lake Nash for a funeral and a sing-along, and then travelled on to a rodeo at Mt Isa.

At the project’s outset, we anticipated, like Rhonda, that participants would save on transport costs as they would have less need to travel to regional centers and hub communities because they could access banking and services and shop online. We asked the residents whether having a computer reduced the frequency with which they travelled into town.

At Imangara some commented that there wasn’t ‘much need’ for community members to go to Tennant Creek or Alice Springs because of the proximity of the station store (1 kilometer away) and Ali Curung (35 kilometers away), where they could shop. However, they observed that now that they could check their balances online, they didn’t have to go into town to bank. One man said he transferred money into his wife’s bank account over the internet, whereas previously he would have travelled to Alice Springs to withdraw money. Two of the community’s more adept computer users (Emily and another young mother), said that they did not visit town as often now that they had computers.

For Imangara residents, goods purchased at the station store and at nearby Ali Curung were expensive. A 2009 Commonwealth inquiry into remote community stores reported that a basket of food cost around 30 per cent more in very remote communities than in the cities.[[43]](#footnote-44) Although freight refrigeration might explain the margin on food, even non-perishable goods tend to be more expensive. On one trip, Mary, a grandmother, complained to us about the cost of a child’s mattress, pointing out that she paid over $100 for a piece of foam. As a result of this purchase, she said she had no money left for necessities that week.

The younger women in the community had meanwhile been buying children’s toys and clothes online. Emily and the other young mother had taught themselves online shopping, having only had some introductory computer skills sessions with us. Emily said that she had ‘worked out how to shop for clothes, runners, toys and other small purchases for the kids online, at eBay, etc.,’ which were delivered to the neighbouring cattle station 1 kilometer away. They both commented that they’d started shopping online to make ‘less trips to shops in Tennant Creek’, and because it was ‘easier than going into town; [there was] more choice.’ A man at Imangara even bought a car from Adelaide on the website Gumtree fairly early in the project. Other community members followed suit; they were able to shop around for vehicles online, avoiding high mark-ups on cars at ‘shark’ dealers in town known to exploit Aboriginal people.[[44]](#footnote-45)

Some participants wanted to learn how to shop online, but ran into difficulties because they didn’t have a debit or credit card, or they found having several passwords for different accounts confusing (a situation not uncommon amongst mainstream ICT users). In Mungalwurru a woman remarked: ‘I’ve got Facebook; I’ve got eBay. I get mixed up with all these passwords. So I just gave up’. Two-stage verification, which is becoming the norm for accessing accounts when the user has forgotten his/her password, is not possible in communities where there is no mobile reception.

Overall, community members at Mungalawarru were less successful in learning to shop online, although there was probably less incentive for them to learn because Tennant Creek was only 80 kilometers away, and people frequented town for social reasons. People at Imangara, however, had much greater distances to travel to shop in either Alice Springs or Tennant Creek. For them, if they could not access a car or get a lift, then the next best option would be to get the bus from Ali Curung to Alice Springs, which costs around $80 for a one-way trip.

While being able to purchase some items—even vehicles—over the internet contributed to the ease and convenience of community members’ lives, and most participants began regularly checking bank and Centrelink accounts online, these facilities did not, as we had speculated, lead to substantial changes in the frequency of their trips to regional centers for all residents. In 2012, when we asked the residents how often they visited town now that they had a home computer, almost half said they made the trip about as often as before, and the other half said that they travelled less or never to town. The frequency of visits varied from daily (only residents of Mungalawarru and Kwale Kwale, both of which are relatively close to town) to every six weeks (an Imangara resident). The reasons most often given for visiting town were catching up with family and friends, followed by shopping; they particularly mentioned accessing health services, but went also to visit the Central Land Council (CLC), banks and Centrelink, and to attend parties and sporting events.

### Death and Relocation

In late November 2011, the CLC informed us that there had been a road accident near the Ali Curung turnoff, which resulted in a triple fatality and multiple critical injuries, and that the accident involved Imangara residents. One young woman who had been closely involved with the computer trial, including working as a research assistant for us, was killed. We postponed our visits to Imangara, but the tragedy had a profound and extended impact on the community. The family, which occupied five houses in the community, initially moved out of Imangara—some to stay with relatives at 6 Mile at Ti Tree, and others to Utopia locations. The family’s relocation was part of the Alyawarr practice of memory and name suppression, a deliberate process of ‘forgetting’ in order to cope with grief.[[45]](#footnote-46) Less than two months later, the mother of the daughter also passed away. Around this time, the family returned to Imangara because the children were not happy at the Ti Tree school, where the other kids spoke a different language. However, they did not return to the house where the deceased had lived. Instead it was boarded up and scheduled for redevelopment, after which a different family from the community would move in. The father approached us and asked that we take the computer from the family’s original house and remove the images, as they needed to avoid viewing images or reading the name of the deceased.

The deaths in Imangara were a particularly tragic event that caused major changes to house occupancy.[[46]](#footnote-47) Other instances were practical and social rather than cultural. For instance, Mungalawurru residents were forced to stay in Tennant Creek for a stretch of time as the roads had flooded, and told us of being forced to walk the long distance into town on past occasions. Some left for medical reasons (their own or others’), or to spend time with family in other communities. A couple of community members with young families became temporary migrants, moving to town so their children or grandchildren could attend school. An older man, who’d initially been fairly active in discussions about having computers and internet access at Imangara, moved to Tennant Creek for this purpose not long after the ICTs had been installed, as did a young family from Mungalawurru towards the end of the project. Such temporary relocation, of varying duration, was a recurring feature in our interaction with the residents. As Taylor writes, ‘Much temporary movement is generated by a spatial dichotomy between the concentration of services and dispersion of population, with the result that regional centers, especially in remote Australia, are net recipients of temporary migrants’.[[47]](#footnote-48) We observed that the house in a Tennant Creek town camp, where a close relative of the Mungalawurru residents lived, was sometimes bursting at the seams with visitors from more remote areas, including the Mungalawurru family members.

Some individuals were not particularly mobile, such as younger women with families, and also older women, for whom the young women often played a support role. Generally we found that these residents were more likely to identify themselves as the owner of a computer, and sooner than their more mobile counterparts. John Taylor has observed that young Aboriginal people in very remote areas appear to be less mobile than their counterparts in the non-Aboriginal and urban Aboriginal populations (in terms of moving for work etc.). He attributes the relatively low rates of out-migration by young people from remote and very remote Aboriginal settlements to ‘a cultural setting that places emphasis on maintaining extended kinship ties’ in which the establishment of independent living arrangements is ‘likely to be less of a stimulus for migration among young Aboriginal adults’.[[48]](#footnote-49) Housing shortages, as well as high dependence on rental housing, are further constraints.[[49]](#footnote-50)

We discovered a clear association between residents’ degree of mobility and the likelihood that they would take up ownership of, and make use of, the computers. As a measure, we used the number of post-installation field visits where each individual was present in the community up to and including the time when the formal agreement was signed. Participants designated as exhibiting a relatively high degree of mobility were those present for less than a third of the field visits; those present for between one-third and two-thirds of visits, a moderate degree of mobility; and those present for more than two-thirds of visits, a low degree of mobility.

Overall, highly-mobile individuals tended not to take up formal ownership of the computers (by signing an agreement stating it was their possession) as quickly or to the same extent as those who were less mobile. Of those who signed ownership agreements, the two-thirds who signed agreements in the first year (nine) were all less mobile, while the highly-mobile individuals signed the remaining third (six) towards the end of the project. Fourteen people whom we approached to sign did not, and these were all highly mobile. For example, one man moved to another community by mid-November 2012 and did not return, while another spent some months living in a different community. One individual spent some time in gaol, and by the time he was released, someone else had taken possession of his desktop computer. It is likely that highly-mobile people perceived ownership of a desktop computer as something of a tie or a constraint, indicating that internet services that are fixed to a particular residence are not viable for a significant proportion of people.

Almost all participants chose desktops, which do not readily lend themselves to relocation. Mary, the senior woman at Imangara, hinted at this when we asked her how often the young men in her community used the computers. Gesturing at herself, her daughter, Emily, and another senior woman, she replied, ‘we don’t move around ‘cos we got the [satellite] dish on the house’, but the young men ‘move around a lot’. Mary’s house had one of two satellite dishes at Imangara, and her dish facilitated internet access for five other houses. Although Emily and the other senior woman did not have satellite dishes on their houses, they also became identified during the project as ‘the providers’ of the computers in their respective households. All three women were also amongst the least mobile of community members at Imangara. As Mary implied, this was in contrast to the young men, who were highly mobile (see discussion of gender in Chapter 7).

### Intra-community Mobility

While participants often moved out of the community, even for short periods, they were also comparatively mobile between houses within the communities, which sometimes resulted in them moving computers. As mentioned above, aside from death, the habitability of houses and buildings often played a role in families’ relocations within a community. At Mungalawurru, for example, a family moved back into a dwelling that had been vacant for a while after repairs to damage (caused by wasps) were made. Participants also moved out of houses, sometimes on a temporary basis, sometimes more permanently to another dwelling, when housing renovations and rebuilding occurred at Imangara.

Several computers were moved within and from the communities during the project. In some instances, we removed computers because of technical problems, returning them to Alice Springs for repair or replacement. In other cases, participants moved computers themselves. For instance, after the tragedy in Imangara, we did as requested and removed the images off the computer, taking it back to Alice Springs to do so. We later returned the computer to the original house, as the family seemed unsure about what to do with it. However, another family, who were not closely related to the deceased, had since occupied the house. That family later moved to another community, taking the computer with them. Later, when we visited Imangara in April 2014, we found that they had returned with the computer, and were living in another house.

In another incident at Imangara, a young woman left to live in a community 100 kilometers away, taking her household’s computer with her. Other community members contacted the Centre for Appropriate Technology (CAT) expressing their concern. When we next visited Imangara, the senior male elder made a point of saying that she should not have taken the computer with her without consulting us. Clearly the young woman felt she had the right to take the computer with her, and considered that it was ‘hers’, whereas others saw it as a resource provided for all, but also that we had some power over the situation, having given it to the family in the first instance. Of the computers remaining at Mungalawarru, the only computer to ‘stay put’ in one house throughout the project was owned by the resident we most often found at home in the community (see Appendix 2).

### Location and the Need for Greater Flexibility

Participants’ degree of mobility, both within and outside the communities, has clear implications for ICT provision, including ownership of and access to computers and the internet. As to be expected, we found that less mobile participants – those more likely to stay put – took up computer ownership and internet plans sooner and more often than highly-mobile community members. Observing the degree and types of mobility, and the diverse reasons for moving within and out of the community, was revealing in other ways, providing a framework for understanding aspects of remote community living. For instance, cultural practices, including those associated with death, can impact significantly on housing and infrastructure needs. In terms of shopping, we observed how geographic isolation could lead to economic hardship (at worst caused by exploitative practices of businesses), and that internet access could provide people with a degree of agency over such transactions, a topic we explore further in the next chapter.

Although we were initially interested in discovering the extent to which internet access might reduce community members’ amount of travel and the accompanying costs, the most significant findings related to infrastructure and hardware. As discussed in Chapter 2, most of the community members had opted for desktops, which they perceived as easier to manage, both in terms of the replacement of parts and ensuring that the computers were not taken out of the community. A family that is moving house and wants to retain the use of the computer for internet access must thus relocate the computer and associated accessories to a house with an existing broadband connection.

The consequences for infrastructure arrangements are significant. For instance, the National Broadband Network (NBN) satellite scheme entails a fixed satellite dish and an account that is tied to a particular dwelling. Such arrangements mean that the somewhat informal movements within the community (such as moving in with relatives when there is no power in one house) will require going without internet access. Those who move a lot are not likely to enter into a contract with a retail service provider, and will therefore go without internet, at least when outside mobile broadband coverage. Indeed, devices such as smartphones, tablets and laptops may have encouraged greater use of the internet for those who travelled frequently, or had responsibilities that took them away from home for extended durations. As the project progressed, we noticed a significant rise in smartphones and tablets, both in the communities and elsewhere. The evolving ecology of internet-enabled hardware in remote communities may ultimately involve a high proportion of mobile devices. However, the desirability of home computers should not be underestimated, especially for those permanently living in outstations, and who wish to manage and restrict access, or to maintain and replace parts easily.

In terms of internet infrastructure arrangements, we concluded that the most viable means of overcoming mobility-related barriers to internet access is to establish community WiFi systems that would reach all dwellings and public spaces. We discuss this issue further in Chapter 9.

## Chapter 5: Uses

On one visit, two years after the computers had arrived, a few women were at home in Mungalawarru while the men were off mustering cattle. Karen, a woman in her mid-20s, and one of the community’s keenest participants, greeted us, saying that she and her three kids were about to have health check-ups with Anyinginyi, the visiting regional Aboriginal health service. After that, she’d have time to talk to us.

While we were waiting for Karen, we decamped to a shed, where one of the computers had been placed for shared usage, to talk to another young woman, who was next in line with her son and her brother-law to see the health workers. The young woman’s skills and use of the home computer had plateaued, like many of the participants, since the project started. She’d worked out how to download movies from the internet, and she’d learnt some new things, like how to import photos from a mobile phone to the computer, and pictures and movies from the computer to a USB stick. But otherwise, she was only using the computer for about half an hour a week, ‘sometimes to check Centrelink BasicCards, sometimes Facebook [...] I used to play games – now I [use the computer] for Centrelink’. Other relatives – her partner, and her mother-in-law, who lives in the house next door – used the computer ‘the same’ amount in her household.

The young woman was proudest of having used the computer to download and print out an article about her father-in-law and his participation as a young man in a fruit-picking program in Victoria during the 1960s. Now white-whiskered but still wearing a cowboy hat, he sat in his wheelchair on the back veranda of a nearby house, looking out towards the road along which the young men would later return from their day’s cattle work.

'But I'm not really like her,' the young woman said, stabbing a finger towards the health clinic, where Karen waited outside in the shade. ‘She knows everything about computers.’

Karen was one of a core of residents who’d quickly become adept with the computers, and often provided ad hoc ICT assistance for other community members. She was also a research assistant during early interviews when we needed someone to explain to others what we were doing (sometimes in language). She’d maintained an enthusiasm for digital technology, making comments less than a year after receiving a home computer such as: ‘The only thing that stops [me] using it is when the power is turned off.’ By the end of 2012, she said that she would be willing to pay $100 per month for an internet plan for her household once the project had finished.

When Karen joined us after her family’s check-up, she estimated that she used the computer for two to three hours each day for games, music and pictures, including to put these on USB sticks for others, as well as videos for her and her children to watch. She ranked educational and child-rearing activities as the most important uses of the computer: ‘Print ABCs for kids or 123 is number one’; download ‘kid’s music video’, ‘kid learning to sing with action music’ featured in the top six, along with administrative uses such as accessing bank and Centrelink accounts.

Karen’s story, but also the other young woman’s, relates to the uses of computers, and the ways in which the computers became ordinary features of daily life – tools that assisted them to undertake everyday activities. In this chapter, we discuss what residents used the internet and computer *for*, and how this can be understood in relation to tangible change within the residents’ daily lives, including individual agency and enterprise. We also discuss the perceived, if not real, threats of internet use, including concerns around cyberbullying that emerged within the region during this time.

### Tangible Outcomes

As discussed in Chapter 2, statistical analysis of internet uses, such as that conducted in the Netherlands by van Duersen and van Dijk, have set out to determine whether there are correlations in what people use the internet for and factors such as age, gender and income.[[50]](#footnote-51) They found that those higher up the ladder are likely to undertake self-development online activities, and thus may profit more from internet use.

However, evidence of unequal participation across large data sets cannot tell us about the relationship of online use to resulting changes in an individual’s life. As Helsper writes, highlighting the complexity of the area: ‘Only when digital experiences are relevant to everyday situations, if they are positive in nature and only if the person feels that online actions lead to the reactions/actions of others, will digital inclusion influence social inclusion.’[[51]](#footnote-52)

When we asked community members in our initial discussions how they would find out simple information such as weather forecasts, road conditions or football scores, they commonly said they would access such information on the television (where available and not necessarily their own) and by word of mouth. Some people said they would use the telephone, but this was far from straightforward (see telephone situation in Chapter 2). The only person amongst the three communities who was using computers at work told us that she printed out information ‘like a leaflet’ to give to others. A man commented that you had to be careful not to ‘shoot the messenger’ if you wanted to know what was going on.

To gain some insights into what they most valued using the computers and internet access for by the project’s end, on our final trips to the communities in April 2014, we asked participants what was the *first thing* they did when they logged onto their computers. Most responses fell evenly within the categories of either functional (Centrelink; Gumtree) or entertainment activities (movies, games, listening to songs, YouTube). These categories were similar to those that emerged when the residents were asked almost eighteen months earlier in November 2012 what activities they used the computers and internet for (see Appendix 3, Figure 1a). This suggests that their main areas of use hadn’t changed significantly in that time. The community members’ reported in November 2012 that usage for banking, downloading music, and viewing videos and photos were also amongst the types of activities they thought the computers and internet would be useful for at the project’s start. As discussed further below, use of the internet for email communication and educational purposes was fairly modest.

In order to confirm uses, we took data off the filter for a sub-set of the computers (with the permission of the owner of that computer) and analyzed what websites people were visiting the most. Around half of the websites visited we categorized as ‘miscellaneous’ sites, and search was regularly used to find information. The second-largest group of websites visited were videos, followed by religious sites and shopping. These uses indicate that the internet was a continuation of everyday activities for the residents, occurring within the same spread of priorities and concerns they had before the computers arrived, rather than seeking out new opportunities. For instance, although online education was theoretically accessible to residents, none took it up (although computers were used for existing educational activities, including supplementing kids’ school work in the form of educational games).

When seen in the context of life in remote communities, these uses are providing a level of autonomy over personal affairs that was difficult for them to achieve before. The young woman from Mungalawurru, while waiting in the queue for her health check, said that having internet in the community had been ‘all right’, but that it hasn’t made ‘much difference’. She also told us, however, that she was relying on Facebook to keep up with family and friends outside Mungalawarru, ‘now the phone isn’t working’ (the community’s public telephone was on the blink). She looked up the *Tennant Times* online on Fridays to see what was happening in town on the weekend. She could also transfer ‘kid’s money’ (parenting payments) over the internet on the weekend, whereas she could only do it by phone before Friday at 5pm. Although she said the internet hadn’t made much difference to life in the community, her comments suggested that the convenience, agency and autonomy it provided in accessing services and information, and in keeping up with friends and family, had become a matter-of-course by then for active participants like her, impacting in subtle, yet important, ways on her lifestyle.

The high interest in religious websites also reflected community activities and priorities at the time. Residents used the computers for personal and community-based religious activities such as downloading and playing gospel songs, printing out posters, and producing songbooks to use in the local church. It was not uncommon to find a picture of Jesus, printed on a home computer and captioned with, ‘He is coming’, taped to a community member’s front door, or to see Christian iconography used as a screensaver. One woman reported doing a Bible study online with someone in Mexico. On some of our visits, we were told that various people were absent because they were attending a sing-along or a gospel meeting at another community. On our last trip to Mungalawarru, a man who’d experienced a conversion during a stint in prison was reading the Bible on his house’s verandah while listening to Warlpiri, Pitjantjatjara and Waramunga gospel music he’d downloaded onto a USB stick. He told us that it had changed his life for the better, including leading him to sobriety.

Although we were not clear on the extent of it, we knew that missionaries had been using ICTs to reach out to these communities, particularly through music sharing. In previous chapters, we have discussed how various programs have resulted in a patchwork of infrastructures in remote communities, resulting in different types of access and levels of adoption. The same can be observed at the level of uses, with short-term or ongoing programs encouraging or enabling certain uses in particular localities. For instance, the cultural archive Ara Irititja appears popular amongst the Ngaanyatjarra, Pitjantjatjara and Yankunytjatjara people for whom it was created, but no such online archive exists for the language groups we were working with.[[52]](#footnote-53) As discussed further in the next chapter, Inge Kral observed the popularity of GarageBand (sound mixing) software in Wingelina, where a media center was active in music development at the time.[[53]](#footnote-54) Other programs have focused on the use of computers as part of diversionary youth programs. In Chapter 9, we discuss how internet use at the Papunya computer room differed from what we observed in the outstations, possibly due to a history of creative enterprise in that community, as well as greater access to face-to-face services and the circumstances surrounding its establishment. Keeping these differences in mind, the idea that use can be linked to cultural characteristics separate from the contemporary cultural landscape of remote communities is flawed. Internet use reflects daily life, but also the various activities and programs of outsiders that work in communities – including religious organizations.

### Online Banking and Money Management

A year after the computers were installed, Mary asked us how to check her BasicsCard balance online: ‘I don’t want to have to ask the woman at the store to check it for me anymore’, she told us. After a lengthy wait on the Centrelink helpline – in the freezing wind on the community’s only telephone – we managed to set her up with an online account and showed her how to log on using her home computer. The satellite internet speed was so slow that the site’s security system kept locking us out (the communities had not yet moved to the National Broadband Network (NBN) Interim Satellite Scheme, which provides faster internet); and once we did get in, the website was unnecessarily complex. Regardless, Mary was willing to try to navigate the site in order to have some level of financial control, even if it was simply to know how much money was available that day.

In the previous chapter, we discussed how online banking reduced travel for some. Banking also provided a level of control over finances that is significant, given that Aboriginal people living in remote areas are the most ‘underbanked’ in the country. A study by Vinita Godinho has looked at the reasons for underbanking, and found that money is regularly shared amongst a wide network of kin, and that many people see money as a problem, lacking the financial knowledge to control it.[[54]](#footnote-55) In addition, ‘Lower levels of access and usage of information and communications technology (ICT) combined with lower digital literacy further restrict Indigenous financial inclusion, by limiting their ability to access electronic banking delivery channels’.[[55]](#footnote-56)

In our first meetings with the communities, residents identified banking as one of the main services they’d like to access online. At the time, less than 20 per cent of participants had used internet banking, and around half expressed an interest in doing so.[[56]](#footnote-57) A woman who was involved in a financial literacy organization did not know how to use internet banking, but wanted to learn. By the end of the project, all regular adult internet users were using online banking. Even an old man, who had shown no interest in computers and declined the offer of having one in his house, was asking for assistance from others for money-related purposes.[[57]](#footnote-58)

When we commenced the project, those living in remote communities were known to be paying more for banking than other Australians.[[58]](#footnote-59) A 2011 Department of Treasury Taskforce on ATMs in remote communities found that there was a tendency amongst this population to check balances and make withdrawals frequently, and that this resulted in significant costs, as consumers in remote communities did not have a choice of ATMs as do those in larger towns. Independent ATM providers owned nearly 80 per cent of to the 600 ATMs in remote communities across the country at the time we commenced our study, and were depending on revenue from these ATMs (usually $2 per transaction). The taskforce report found that people were often checking balances and making withdrawals for various reasons, including the inability to store food and therefore a need to shop on a daily basis, the obligation to give money to relatives acting as a disincentive to hold large amounts of money at a time, and low withdrawal limits on ATMs if cash was in short supply.[[59]](#footnote-60) The taskforce also found ‘many more balance enquiries relative to withdrawals than the Australian average’, which was likely caused by not knowing when Centrelink payments or direct debits would be made.[[60]](#footnote-61) The report noted that those living in remote communities were either unable or unwilling to use internet banking. As a result of the Taskforce, the Australian Bankers Association put forward a proposal to eliminate fees on withdrawals and balance enquiries at selected ATMs in remote communities, and this was accepted by the competition regulator in late 2012.

A significant and controversial change in how welfare was administered in remote Northern Territory communities also had consequences for personal finance control. As part of the Northern Territory Emergency Response (the Intervention, 2007-2012), welfare recipients in prescribed communities were subject to new measures from 2007 that meant that part of their payments (50-70 per cent) were quarantined and could only be spent on ‘basics’. To spend that money, individuals would use a BasicsCard to buy groceries and approved items (not alcohol or cigarettes, for instance) through an EFTPOS-style system. People were automatically enrolled in the scheme, although they could apply to be made exempt from it, assessed on whether their children were attending school regularly, and whether they were shown by Centrelink to have reasonable financial stability.

We did not ask the residents about their spending and withdrawal practices. However, it was clear that the ability to check online banking and BasicsCard balances offered significant convenience to community members, as they could avoid the time-consuming processes involved in contacting services by phone. It was not uncommon to see people sitting around the sole community phone on old chairs, sometimes in harsh sunlight or in strong winds, or in the mud if the weather had been wet, for lengthy periods. Accessing social security services via satellite broadband at home was also cheaper than doing so by mobile phone, as 1800 numbers were metered at that time (Telstra, the sole provider in most remote areas, has since made 1800 numbers free for mobiles).

As early as February 2012, residents began mentioning using the internet to access these services, with comments like those from two young women at Imangara that they went online ‘definitely once a week on “payday” to check their keycard’, or ‘I access Centrelink every day’, becoming increasingly common. Women tended to make greater use of the computers and internet access for household administrative activities than men (discussed further in Chapter 7). Karen observed the relative accessibility of the home computers to us, saying that while a couple of people kept wanting to come into town to check their Centrelink account, ‘I tell them to get registered, just phone them [Centrelink] then get back on the computer.’

This use of the home computers and the internet to access services online might suggest increasing the ease of access by government for the control and surveillance of remote Aboriginal people’s daily lives. Lattas and Morris (2010) have described how the State’s implementation of measures such as the BasicsCard through the Northern Territory Intervention increased the ‘forms of sociocultural surveillance and policing that seek to instil new cultural habits’ within Indigenous lives in an ‘urgent need to normalise Indigenous familial relations of reciprocity’.[[61]](#footnote-62) At a more general level, governments have historically led the digital divide agenda. It aligns with efficiency measures, as well as an internal bureaucratic push for data-driven policy.[[62]](#footnote-63) These motivations spur a wide-reaching range of technological changes that do not always serve the citizens whom they are purportedly supposed to be helping.

Nonetheless, the greater reach and accessibility of online government services available through home ICTs can also be seen within the broader canvas of increasing online participation for Aboriginal people, and potentially removing barriers to social inclusion. Discussing the impact of the introduction of cheap mobile phones to India, Robin Jeffrey and Assa Doron observe how ‘the mobile phone offered greater potential to connect people regularly to state institutions’, and that it ‘drew India’s people into relations with the record-keeping capitalist state more comprehensively than any previous mechanism or technology’.[[63]](#footnote-64) This is offset, however, by the democratic nature of mobile phones in enabling vast numbers of people, from across different classes and hierarchies, and different genders, to become part of a network society. Jeffrey and Doron stress the democratization of information-sharing that has become possible through this cheap and simple form of ICT access, as well as other capabilities such as increased capacity to connect, mobilize and broadcast, improving citizens’ ability to advocate for improved governance.[[64]](#footnote-65) While ‘none of this [has] overturned power structures or ironed out inequality yet,’ Jeffrey and Doron comment that ‘it did make conditions “faster, more efficient and” – a matter of hope and promise – “more democratic”’.[[65]](#footnote-66)

### Enterprise Development

Altman describes the ‘hybrid’ set of economic and administrative variables underpinning the fabric of outstation settlements as a combination of state sector, private sector and customary economic activities (for instance, land management and visual art).[[66]](#footnote-67)

The hybrid economy was visible within all three communities insofar as residents supported themselves on a mixture of social security payments and local employment. The cattle project at Mungalawarru, aspirations to develop cultural tourism at Kwale Kwale, and bush foods at Imanagara were instances of the customary activities that represented the possibility of enterprise. One question we had was whether improved telecommunications could assist these ‘off-the-grid’ communities in developing a base for economic sustainability, assisting Aboriginal people to live on their traditional lands.

Initially, several residents within the communities expressed interest in using the computers for local cultural, social and/or economic enterprises. At Kwale Kwale, Rhonda said she wished to use the computer and printer to self-publish cultural resources, and to keep the books for a cultural tourism enterprise. Another man who ran a youth respite service suggested he might use a computer to keep a database tracking outcomes across five projects. Mungalawarru residents were interested in keeping a database of stock for their cattle business on their computers, and a local artist wanted to use the internet to liaise with Barkly Arts to display her work.

However, the enterprises that were occurring had administrative assistance from outsiders, and these were the individuals who generally made use of the computers and internet for business-related purposes. A church worker who assisted the man running the youth respite center used his computer, and when the live-in visitor moved on, the man did not use the computer at all. While individuals mentioned using the computer and printer for individual and family-oriented purposes such as printing out ‘kids’ stories, put[ting] them in folders’, and or historical documents they found on the net,[[67]](#footnote-68) very few reported using the computer equipment in a work-related context, such as for printing out spread-sheets.

Given the lack of infrastructure and skills base that small settlements such as outstations possess, it would have been unrealistic to expect economic and/or creative ventures to emerge during the timespan of the project simply through access to ICTs. Kwale Kwale was one community where this seemed possible, but again outsiders had significant influence in determining how and when that occurred.

During the years that we visited Kwale Kwale, we witnessed various efforts towards enterprise development, and even community self-sustainability. At times community members were enthusiastic at the prospect of using the internet for enterprise purposes, while at other times the computers and internet were cast aside.

In October 2011, we were told that the Apostolic (Baptist) church was providing resources to partly refurbish some houses, and to build a small backpacker camping ground, a vegie garden and a shop. The computers were initially seen as an asset in this overall plan. By early 2012, considerable work had been done, and we were told that the community was aiming for self-sufficiency over 10 years. The church members were living onsite, and appeared to have a significant influence in guiding the direction of the community, although it was difficult to ascertain whether the ideas were coming from the church or from the community. A few months later, one of the visiting pastors advised us that the computers had been declared off-limits in order to stop kids from playing games, and to prevent any other inappropriate use. At the pastor’s request, we took the computers away to ‘clean’ them, but found no evidence of inappropriate material, and both machines still had their filters set to ‘child’ (the highest level of filtering).

By September 2012, there was a sign by the turn-off to Kwale Kwale that read, ‘Art for sale’, and the vegetable patch was producing crops that were consumed by the residents during an evening meal organized by the pastor. The elder woman in the community, while painting gumnuts, told us that she wanted the children to be able to play games, and that it wasn’t up to the pastor to determine what the children did. One of the derelict houses was undergoing repairs for an intended arts center. The work had been carried out by the church members, with some assistance from the residents, and we were informed that Rhonda was the driving force behind the project. The next stage of the project would be to build a walking trail for tours, and to establish a restaurant and small caravan park. While relaying this, the pastor asked that two computers originally placed in the community shed be returned – one of the computers into the building being refurbished for the arts center for use by the business, and the other to a house for one of the residents to use. These moves required some significant reconfiguring of the technical arrangements, which CAT set about organizing. While one computer was eventually moved into the resident’s house, months later it seemed that progress on the art gallery had stalled due to lack of money, and the community’s artists had begun making their art work and selling it through Tangentyere Art Centre. Over time, our visits to Kwale Kwale slowed compared to the other two communities. Rhonda, who had access to computers at work, requested assistance from us from time to time, but we received mixed messages as to the value and use of the computers in Kwale Kwale. No-one chose to continue a subscription to internet services at the completion of the funded period.

The church’s involvement in the community was an instance of the non-government sector stepping in to assist in the absence of other programs. The moral influence of the church may have been a factor in the community’s oscillating attitudes towards ICTs and how they should best be provided. Although it was not possible to fully know how these events were impacting on the community, Kwale Kwale does illustrate the ways in which some communities are actively pursuing enterprise and sustainability, in this case with assistance from willing workers and missionaries. As mentioned previously, downloading Aboriginal gospel music was popular in both Imangara and Mungalawurru, and the influence of various Christian churches was apparent throughout the region.[[68]](#footnote-69)

Meanwhile, the man living on the far side of the community – the only resident who had his own computer and internet when we commenced – had developed a substantial tomato garden, and was selling to Alice Springs caterers. The other enterprise, a youth respite center, continued to operate intermittently over this time.

### Email and Social Networking

In July 2012, Karen at Mungalawurru announced to us: ‘I don’t run up to answer the phone because I get email’. Like her comments about the convenience of having a home computer to check online banking and Centrelink accounts, she’d realised it was easier to rely on email for communications than on the community payphone. Karen described emailing more people, maybe five a week, and receiving emails from the cattle project, the CLC and friends. But she was also one of a handful of residents on whom organizations like the CLC and CAT relied to communicate with the community about matters such as scheduling visits.

Although people identified contacting friends and family outside the community as one of the main advantages of having ICT access, extensive social use of email did not develop during the project. It soon became apparent that apart from having the basic applications, both parties needed ready access to the internet to have the regular habit of checking their email, and to leave their Skype application turned on. Initially, we tried to speed up the process by passing on to the residents the email addresses of regular contacts (a local accountant, CLC, Barkly Arts), with their permission. We also tried to increase community members’ familiarity with e-communication by activating programs such as Outlook and Skype at start-up, and by regularly sending email messages to all the computers to maximize their chance of being read. Co-author Andrew Crouch at CAT received some emails from Imangara in the next few months, with queries like: ‘How can I do such-and-such […]’ or, ‘How can I obtain a Hotmail account?’, which he was able to resolve online. In total, between when the computers were installed in 2011 and the end of 2012, Andrew had only a total of only 109 emails from residents, either initiated by them or in response to an email he sent. Nonetheless, when asked whom they emailed, those using email mostly responded that Andrew was the main person they liaised with. It seemed the main reason why e-communication did not emerge as one of the major uses of ICT was because people didn’t have friends and family outside the communities with functional email accounts.

Given that the use of email is somewhat waning as a form of online communication, it is more likely that social media will be the dominant means of connecting with outside networks and finding information, particularly amongst younger people.[[69]](#footnote-70) Use of social media in the project was fairly modest. While social media users reported spending significant amounts of time on Facebook, only ten community members said they regularly accessed Facebook and other social networking sites such as Divas Chat[[70]](#footnote-71), and several more said they wished to learn, or had forgotten how to use, social media. Unsurprisingly, social media users were also youthful: most were women aged 18-29 years, plus a man in the same age group, a teenage girl and two women in their 30s.

Facebook appeared to become increasingly popular as a form of communication amongst remote central Australian Aboriginal populations during 2013 and 2014. For example, when we visited the Papunya Computer Room in May 2012, almost no-one was using Facebook. However, two years later, the computer room staff claimed that: ‘Everyone has a Facebook account. It's the easiest way to communicate with outside’; and: ‘They talk to friends in other parts of Australia. Facebook Hermannsburg, South Australia, Santa Teresa’. In the Remote Indigenous Public Internet Access’ (RIPIA’s) *Cyber Safety Program Report*, which interviewed people in six central Australian remote communities, including Ali Curung and Papunya, 37 per cent of participants ‘claimed they/and or their family members enjoy using social media for keeping in touch with friends and family, while 40 per cent claim they do not know why people like it or find it useful’.[[71]](#footnote-72) When we discussed ICT use with Ali Curung community members in October 2013, roughly half of those we interviewed who were using the internet at the time said they used a social media site such as Facebook or Divas Chat.[[72]](#footnote-73) A woman told us that she would often ask neighbours via Facebook whether they had any sugar or tea rather than walk over to their house.

In late 2013, workers in Tennant Creek local agencies and organizations told us that they were now ‘Facebooking’ clients from in town and remote communities because it was the quickest way of contacting them: ‘It’s much easier to use social networking to find people.’ One interviewee said that 90 per cent of her communication with board and staff in the community organization where she worked ‘is text-based [i.e. via mobile phone] or is messaged via Facebook’.

A survey by a commercial research agency, McNair Ingenuity Research (2014), also observed the prevalence and popularity of Facebook usage amongst Indigenous Australians, particularly in remote areas, noting that: ‘First Australians are significantly more likely to join and participate in Facebook than the overall population’, with ‘six-in-ten adult Indigenous Australians us[ing] facebook, compared to 42 per cent of adult Australians nationally’. At 44 per cent, Facebook usage amongst remote Indigenous people was ‘slightly above the overall national average’, even though home computer usage was low, and ADSL was often unavailable: people generally accessed the internet on mobile phones.[[73]](#footnote-74) Urban Indigenous scholar Bronwyn Carlson has also documented an increasing trend amongst Indigenous Australians to use Facebook ‘to build, display, and perform Aboriginal identities’, as a ‘key self-representational tool’.[[74]](#footnote-75)

### Kids and ICT Usage

When we asked community members in our early discussions whether they thought having computers would be good for children, most were positive about their educational value for young people. They did not express much ‘worry about kids’ regarding what they might access online; instead, they were concerned about addiction to games and time-wasting behavior. Adults thought kids were pests when it came to media devices, especially as they ‘get upset when they don’t get to use it’. They also spoke of kids bugging them to play games on mobile phones, and of locking their games console away, saying they would do the same with a computer when they had one and, as discussed in Chapter 3, they began to set passwords to restrict access to computers later in the project.

Once the computers were installed, adults had mixed responses to children’s use of them, some expressing surprise at their aptitude on the computers; others complaining about time-wasting. Adults described the children using the computers for both educational and entertainment purposes, including playing games, internet browsing, Indigitube,[[75]](#footnote-76) downloading photos and drawing pictures. Playing games was by far the most popular use (50 per cent) of the computers for children, with frequent mentions of educational games, particularly a maths game. Young women often described activities on the computers involving kids, such as ‘play music video for kids’, ‘kids write stories’, ‘kids do paintings’ and ‘kids play educational games’. Emily showed us books with photos and stories that she had created with her children on the home computer. Several people also thought kids’ activities on the household computers supplemented schoolwork: ‘Yes!—counting, alphabet’, and ‘Kids use at school, then come home and use. Has been helping for maths and reading’.

When we asked community members whether they thought computers had been a source of time-wasting, some disagreed, saying they ‘just sit there for a little while and then run around’, ‘spend most time outside, only on computer a bit’, ‘probably about half an hour, then go out and play’. Just under a third, all young adults, who were also most often the parents of young children, gave an unqualified ‘yes’ in response. Children using up the internet quota or power was, however, a continuing source of irritation, with one man remarking that his household needed to ‘manage power use’ as a result of kids’ frequent computer use. As part of its Codey cybersmart project, arts provider Barkly Arts produced an educational poster captioned: ‘Plugging in your phone at home to get on the Internet uses power and costs money. Power at home is for everyone to share and must be respected.’[[76]](#footnote-77) As discussed in Chapter 3, towards the end of the project, people commented that they’d put passwords on their computers to regulate kids’, as well as visitors’ and other residents’ use of them, so that they would not use up all the power when they were away from the community. They also mentioned locking the desktop lid, so that kids did not ‘always use it’, and providing adult supervision to kids: I ‘encourage them to behave properly/set some rules—e.g. switch on and off properly’, and they can use the computer ‘when I’m around, yes, but not when I’m not around’.

### Cyber-safety

In our initial conversations with the communities, their concern about potential cyber-safety issues was low, and difficult to gauge compared to their quite strong opinions about time-wasting activities. By contrast, a 2010 report commissioned by the Australian Media and Communications Authority (ACMA) found that 71 per cent of Australian parents ‘were concerned about cyber-safety, with 32% of this group reporting that they were “very concerned”’.[[77]](#footnote-78) Notably, most Australian parents were regularly using the internet (88 per cent) and accessing the internet from home at least several times a week (81 per cent) in comparison with the outstation residents at that time. It was possible that adult community members’ limited exposure to ICTs was the main reason for their lack of concern about cyber-safety.

The term ‘cyber-safety’ encompasses the protection of internet users from online risks and security breaches such as ‘exposure to illegal or inappropriate material, stranger danger, identity theft, invasion of privacy, harassment and cyber-bullying’.[[78]](#footnote-79) Cyber-bullying refers more specifically to incidents of harassment, usually involving sending messages (text and images) via the internet or mobile phones to other parties. [[79]](#footnote-80) While the more dramatic and disturbing aspects of cyber-safety are often quick to capture public attention, these are symptomatic of a range of issues relating to online literacy.

Currently, little research is available on the nature and extent of cyber-safety issues in remote Aboriginal communities, although there is a growing body of national and international academic and policy literature, such as *EU Kids Online* and its Australian counterpart, *AU Kids Online*, and reports by the Australian government’s Joint Select Committee on Cyber-Safety.[[80]](#footnote-81) Some limited reporting on cyber-safety in remote northern Australia appears in the Commonwealth Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA)’s *Community Safety and Wellbeing Research Study*, which surveyed seventeen Aboriginal communities across the Northern Territory between December 2010 and June 2011, with 76 per cent of respondents classifying nasty phone texts as a ‘very big’ or ‘big’ problem.[[81]](#footnote-82) Similarly, RIPIA’s *Cyber Safety Program Report* identified ‘swearing and arguments’ online as the most common cyber-safety-related problem.[[82]](#footnote-83)

We did hear concern expressed about potential and actual outbreaks of cyber-bullying in central Australia. When we visited Papunya in May 2012, some elders were worried about cyber-bullying occurring if mobile phone towers were installed in the community (which did not happen until 2014). They said being at Papunya gave young people a break from the ‘trash talk’ on mobile phones that went on when they were in Alice Springs and Tennant Creek, and they didn’t want conflict emerging from cyber-bullying and sexting in their community.

They were particularly aware of how cyber-bullying had fed conflict between two camps aligned with different families in Yuendumu, a majorAboriginal community 262 kilometers drive away, which were exacerbated when people from Hermannsburg (420 kilometers from Yuendumu) began to send inflammatory phone messages. Some of these were sent anonymously through false identities created on the social media platform Divas Chat (airG) using the names of deceased relatives fromthe other camp, a highly provocative gesture, given the restrictions in local Aboriginal culture on naming or viewing images of the dead. Ultimately, the situation was managed with the assistance of the Australian Federal Police and ISP providers to identify and close the social networking accounts of people sending offensive messages, and to appoint monitors (e.g. ‘Diva Cops’) in chat rooms to identify and report potential concerns.[[83]](#footnote-84)

At Ali Curung, the women who assisted us with our survey also expressed concern about cyber-bullying, commenting that it was a problem amongst young people, but also that social networking sites like Facebook were causing domestic problems for couples, presumably due to jealousy (an observation confirmed by the local Policeman). Although the women asked us to include questions related to cyber-safety in our survey of eighty-five Ali Curung residents, we found that any direct line of questioning on the topic closed down discussion almost immediately, and we all agreed to cease raising it in our interviews.

Tennant Creek provides a hub for many residents from Aboriginal settlements in the surrounding Barkly region, which has a population of 7,500, approximately 70 per cent of whom are Indigenous. We began to hear from local organizations that some Aboriginal elders and parents were disturbed by reports that kids had been involved in cyber-bullying, something they knew little about. Children had been texting each other during school hours, with physical fights erupting from arguments online. Sometimes, older relatives weighed into kids’ spats on Facebook; on other occasions, the conflict spread beyond families to communities outside Tennant Creek, to people they might have met once or twice, and even to total strangers. As at Yuendumu, people set up false profiles on social media using names and images of the deceased to taunt others.

Most of the activity was associated with mobile phones, and some kids from nearby communities without mobile coverage were going to great lengths to access social media. In some cases, kids stole their parents’ cars and drove to get service to be able to text their girlfriends or find out the footy scores, so keen were they to keep up with what was happening. There were also stories of inter-racial cyber-bullying erupting around tension at football matches, and of racist comments being posted on Facebook walls, especially under photos of different racial groups in Tennant Creek.[[84]](#footnote-85)

To follow up on these concerns, we spoke to a number of professionals, including lawyers, police, teachers, youth workers and other community workers at Aboriginal and non-Aboriginal social service, arts and educational agencies at Tennant Creek, and at three other remote communities in the Barkly region. Because of the high degree of sensitivity surrounding research using Indigenous subjects, and because of our experience in Ali Curung, we thought it was better to proceed by canvassing a group of professionals first to gauge how serious an issue cyber-bullying was in the area.[[85]](#footnote-86) We were interested in what forms it took (whether it was confined to bullying or took other forms like security threats), what responses had been developed, and what implications there might be for Aboriginal people’s access to the ICTs. Tennant Creek was an appropriate location for this research, not only because of the local reports of cyber-bullying, but also because of its centrality to Aboriginal people in the region, and because the town had long possessed mobile coverage.

Most interviewees did not think the incidence of cyber-bullying in Tennant Creek ‘was different to anywhere else’, and emphasized that cyber-safety was a problem worldwide, and not limited to particular race or community groups. Texting and messaging provided the main avenues for cyber-bullying in the Tennant Creek survey, particularly on social networking platforms Divas Chat and Facebook.

On our last visit to Mungalawarru, which does not have mobile access, a middle-aged woman told us she wasn’t interested in using social media, because it caused too much fighting, and told us how when she’d stayed with family in a mid-sized town, her nieces had been arguing on Facebook even though they were in the same house. In Tennant Creek, young women, from 10 years old through to high-school age, were described as tending ‘to be more bitchy and more often on social media’ and ‘to be a bit more technically functional’ than young men, who were described as ‘more reserved’ in commenting, but more sexually forthright in their content. Similarly, FaHCSIA’s *Community Safety and Wellbeing Research Study* reported that cyber-bullying was ‘particularly problematic for young girls’, and that it emerged in contexts such as same-sex fights (including ‘jealousing’ fights between girls over boyfriends and boys teasing each other), between couples and amongst groups of young men and women in communities’.[[86]](#footnote-87) The RIPIA Report also identified ‘[f]emale dominated social networking service use’ as ‘the group most commonly experiencing problems’, with ‘jealousing’ as ‘an issue voiced overwhelmingly by females (78%)’.[[87]](#footnote-88) Sexting, by contrast, was negligible, being ‘recognised and voiced as a problem only by males, at just 2% of the response’.[[88]](#footnote-89)

Although older people were reportedly mystified by local outbursts of cyber-bullying, they could also beimplicated in online fights via their children. A school representative explained: ‘Often what happens as well is that parents will get on their kids’ accounts and write things back. I’ve had that before actually where on Facebook they said, “But such-and-such’s mum was there giving me a serve”, and all sorts of things.’

Older, remote communities were said to be particularly vulnerable to online frauds and scams, tending to take offers of financial remuneration over the internet at face value. A project officer for a royalties organization said: ‘We have those all the time. The number of scams that are going on at any given time […] We have old ladies saying, “I’m going to win a million dollars. Look at this […] I’ve got this on my phone”, and I’m like “No. Don’t reply. Don’t engage”. They just don’t understand that it’s not – it’s coming on a phone, it’s [not] coming on an official [basis].’

Despite the emergence of cyber-safety and related issues in Tennant Creek, no-one suggested that social media and digital technology should be banned: instead they thought internet connectivity had too many benefits for remote populations for its use to be restricted. Elders and older generations decided they needed to become ‘digi-smart’ to engage with the emerging local cyber-culture: ‘We need to understand more about the digital world, or otherwise, get rid of it. And obviously, we can’t get rid of it because it’s here and it’s important. It will just mean people are becoming further and further away from what the rest of the world is sort of doing.’

The key issues identified in our Tennant Creek research and in the RIPIA report indicate that digital literacy and proficiency are the crux of the matter for remote Aboriginal people in responding to cyber-safety. In particular, the privacy problems posed by social media are not well understood: people in remote communities are often unaware that ‘anybody in the world can see them’ online. A youth worker in a Barkly community said that ‘nobody has privacy settings and nobody wants them’, even though she’d tried to persuade people of the value of using them on Facebook. She described how: ‘Someone might post on Facebook at three in the morning saying: “I’m going to have a sniff now” or a drink, and everyone in the community will read it.’ A woman at Ali Curung told us that she changed her sim card in her phone regularly so she would not have to receive and read text messages intended for others. This was because of the high prevalence of phone sharing.

Another privacy concern was young people’s lack of awareness of the potential impact of having a digital footprint on their employment prospects: **‘**Young people don’t realize how being on Facebook will impact on them’, a senior Aboriginal woman said. ‘They have no understanding of the “digital footprint” they’re leaving – the fact they’ll never lose it and it may even affect their employability. There are enough barriers to Aboriginal employment already.’ These privacy-based issues relate in turn to remote Aboriginal people’s lower levels of digital and English literacy in contrast with the Australian mainstream, along with the experience of being accelerated into ICT use within a relatively short period.

Middle-aged and older people often expressed concern about the unguarded online activities of Aboriginal children and youth, and a fear that young people might be ‘tricking them’ with social media.[[89]](#footnote-90) Faced with extensive disadvantage and a large youth population – 25 per cent of people in the Barkly are under 17 – it’s understandable that elders, along with schools and the community sector, fear that cyber-bullying may exacerbate existing social problems in Tennant Creek. But many of the anxieties about cyber-safety issues relate to the cultural and digital disconnects between older and younger generations, and to uncertainty about how to navigate the dynamics between these worlds. One community worker said: ‘People split it up between their cultural responsibilities and then their Facebook/Divas personality. But when it suits them, they’ll be in the other world.’ This dichotomy between digital and cultural worlds is often framed in terms of a cyber culture identified with youth, and outside the controls and protocols of traditional culture. This attitude is typically associated with older Aboriginal people.

Similarly, linguistic anthropologist Inge Kral observes from her research into remote Aboriginal youth and digital media in the Ngaanyatjarra lands in Western Australia that the use of digital technologies and new media ‘is defining a generational identity distinct from that of their elders, with new media representing a site where youths are exhibiting agency and a technological expertise that exceeds that of the older generation’.[[90]](#footnote-91) Moreover, this notion of a generational digital divide reflects familiar anxieties expressed by mainstream culture within industrialized nations about younger generations’ ready embrace of technology. Sonia Livingstone, for example, describes these sentiments as follows: ‘It is commonly held that at best, social networking is time-wasting and socially isolating, and at worst it allows paedophiles to groom children in their bedroom or sees teenagers lured into suicide pacts while parents think they are doing their homework’.[[91]](#footnote-92) Cultural anthropologist Mizuko Ito suggests that underlying these anxieties is the implicit intergenerational challenge that the greater ICT facility generally associated with youth cultures presents: ‘The discourse of digital generations and digital youth posits that the new media empower youth to challenge the social norms and educational agendas of their elders in unique ways.’[[92]](#footnote-93)

Organizations such as the Tennant Creek Council of Elders and Respected Persons[[93]](#footnote-94) and Barkly Arts devised and implemented cyber-safety strategies targeting the needs of different generational groups in the Barkly, such as the lower levels of digital literacy among older generations, and a lack of understanding of Aboriginal cultural protocols amongst youth. These strategies included ‘Divas Cops’ chatroom monitors, mediation of cyber-bullying incidents by the Tennant Creek Council of Elders and Respected Persons, and the creation of Techno Codey/Culture Codey, an online avatar that explains digital and cultural issues surrounding cyber-safety.[[94]](#footnote-95)

The RIPIA *Cyber Safety Program Report*, which also produced three short film projects and inter-generational artistic activities in response to cyber-safety issues, observes that: ‘The importance of a family and community managed response to cyber safety issues, with the assistance of police, schools and youth workers […] depending on the situation, indicates further consultation, study and the creation of appropriate and effective resources.’[[95]](#footnote-96) This includes improving digital literacy and training ‘digitally literate mediators [for] when cyber safety concerns arise within remote communities’, because: ‘Developing digital literacy empowers not only individual users, but extends the capacity of resolve among members within families and the community who may not be social networking services users themselves, but who fulfill important roles as leader and mediators.’[[96]](#footnote-97)

### Conclusion

Cyber-safety became an issue in the region during the years we visited the outstations. Developing proficiency in using social media and ICTs across different age groups is key to empowering remote community members to manage these issues. At a deeper level, the issue of cyber-safety demonstrates that platforms such as Facebook and Divas Chat are significant elements of the media ecology in remote communities, and are as important as infrastructure. Although corporate platforms can behave in the public interest, whether and how they are able respond to the particular dynamics of remote communities when problems arise is a more complex question, and one that requires further research.[[97]](#footnote-98)

Overall, the emphasis on personal and family uses of the computers appears to have developed from the location of the ICTs in the home, in conjunction with the smallness and remoteness of the communities, the degree of mobility of some participants, and the relative newness of ICTs to community members as users. Different community members also displayed different levels of enthusiasm for the ICTs, and used them to varying degrees. In a study of older internet users, Selwyn, Gorard and Furlong found that internet use was generally a means of pursing existing interests rather than creating new interests: ‘People who were using the internet on a broad and frequent basis were generally building upon and extending previously developed interests or using the internet as part of a repertoire of IT and non IT-based means.’[[98]](#footnote-99) We observed a similar trend on the outstations.

More complex and more elaborate uses of the computers would possibly require significant training and assistance – issues that will be taken up in Chapter 6. Simple, everyday changes represented by the use of the home computers for administrative activities indicate, however, the potential value that internet access represents for smaller settlements, for example, in connecting to mainstream agencies, in contrast to larger communities with existing access to on-site services (i.e. at the community store and Regional Council office). In this way, ICT access for highly-remote people is particularly significant as governments shift as much service delivery as possible from ‘over-the-counter’ and/or postal methods to an online-only environment. Without this, there is a real risk that many remote Aboriginal people will simply ‘drop offline’ and be further disadvantaged.

## Chapter 6: Skills and Training

As early as February 2012, Karen described how she’d helped others in the community use the computers, especially to access Centrelink accounts, including her husband and a couple of female relatives, commenting that it was ‘more me showing them’ than anyone telling her what to do. She may have been saying this to impress on us how ICT proficient she’d become; several months later, she was adamant she hadn’t shown anyone else how to do things on the computer, nor had anyone else shown her how to do anything. Other community members, however, reported Karen assisting them in such tasks as using email, setting a computer password and negotiating Centrelink’s website. On a later field trip, Karen commented that while ‘everyone has different bank accounts’, they ‘might use [her] computer to check money in their account’. Another young woman at Mungalawarru also observed that other people, both men and women, often asked Karen to help them use the computer, though she herself didn’t ask Karen for help.

But towards the end of the project, Karen seemed to have wearied of this ad hoc role as the ICT help person for the community. When we asked her in August 2013 whether she’d been assisting anyone else with Centrelink, she replied, ‘I don’t really like doing other people’s stuff’. By this point, as we’ll discuss in Chapter 7, Karen had become more autonomous in her use of the computer, because she’d moved it into a separate room mainly for her own use.

Mary, the senior women at Imangara from Chapter 5, played a prominent role in liaising with us, and in discussions about distribution of ICT resources within the community. But like most older and some middle-aged people in the three communities, and also those at Papunya and Ali Curung, she had no previous ICT skills or experience of computers. On our first research trip to Imangara, Mary commented that ‘only Andrew’ from the Centre for Appropriate Technology (CAT) had shown her how to do things on the computer. On subsequent visits, she told us that her granddaughter, who was in her early 20s, had assisted her. When the young woman left the community to live in Alice Springs for a while, Mary said that her grandson was now helping her use Centrelink and online banking sites. The granddaughter later returned and resumed living with her grandmother. Her cousin, another young woman living in a neighbouring house, also named Mary’s granddaughter as the person who’d taught her how to access YouTube, play games online and print photos. This granddaughter had a high pre-existing level of ICT proficiency: for example, she had a Hotmail email address, as well as Twitter and Facebook accounts, which she accessed on her mobile phone outside the community before it had internet connectivity. While living in the community, she sent emails to CAT, asking them to bring replacement inks and other items on their next visit.

However, we also gained the impression that the granddaughter was monopolizing use of the computers in two houses, without giving as much assistance to her grandmother as she could have done, such as showing her how to use email: Mary continued to request that we help her with basic administrative activities well into 2013. As with the account of Karen’s cooling towards her ‘ICT help’ role, this story suggests that Aboriginal people, even more digitally-proficient community members, will not necessarily assist each other to use ICTs by sharing skills, or that younger people will help older ones negotiate online services, for reasons that we’ll discuss below.

These stories are indicative of digital literacy and skills transfer trends that emerged during the project. Generally, younger residents (18-29 years), like Karen at Mungalawarru, and Emily and Mary’s other granddaughters at Imangara, who had computing experience from school or elsewhere, were more self-sufficient with using ICTs. They usually only asked us for specific assistance with problems or complex tasks, which fell more within the category of technical or application support than training. When we asked participants whether they thought they were getting better at using computers, 18-29-year-olds most often (approximately one-third of self-assessments), said they’d improved during the project.

In our initial meetings with the three communities, we found that rates of computer non-adoption were proportionately highest amongst those aged 45-60 years (88 per cent non-adopters), and 60+ years (83 per cent non-adopters). Physical disability, such as poor eyesight or conditions such as back or leg problems, compounded their reluctance to use computers. One woman, for example, complained that a leg injury prevented her from sitting for any length of time at the computer.

Although elders like Mary often played pivotal roles in discussions about the project, and in decision-making about distributing ICT resources, their level of ICT usage tended to be relatively basic, and they often struggled with learning new skills. Senior women and men maintained roles in managing ICT resource distribution, which younger community members respected during meetings (as in the story about Mary and Emily at Imangara), even when they had plans to make different arrangements about their computer and internet access. Importantly, we would not describe Mary as a non-user, as she regularly asked others to conduct online transactions on her behalf. What has been described as ‘use-by-proxy’ is important, as it demonstrates that even those who do not have the skills or inclination to use the internet might still be experiencing its benefits.[[99]](#footnote-100)

### Schools

Schools are key providers of computers and internet access in remote Australia; they act as conduits for various ICT programs, and have been teaching digital literacy skills to children, and sometimes to parents and teachers’ assistants. Although a full study of ICTs in remote schools was beyond our means, we called in at schools on a number of occasions to talk informally with the teachers, and made contact with the one program that promoted at-home use of devices, One Education (a spin-off of the international NGO, One Laptop per Child). These encounters provided us with some insights into schools as sites of internet access. For example, the Murray Downs school near Imangara was connected to the internet via satellite.[[100]](#footnote-101) The school was using both tablets and desktop computers in the classroom, primarily for drill-and-practice education applications for mathematics and English. One teacher mentioned to us that the children were possessive of the tablets, hiding them in the classroom so they did not have to share with their peers. All teachers we spoke to considered the children to be fast learners when it came to the devices, and saw educational value in their use. Some adults in the community had accessed the internet at the school prior to our arrival through training organized by a teacher who had since left the school, and another teacher assisted parents by purchasing iPads for them when he went to Alice Springs, to save them from paying higher prices nearby.

Our general impression was that school-based internet and computer use could vary significantly depending on the teacher. Only 40 per cent of teachers in very remote schools in the Northern Territory stay teaching at the same school for more than a year. Such high teacher turnover (see Brasche and Harrington, 2012, for reasons why this is the case) means that there is no consistent approach to ICTs. Some teachers had narrow ideas of what is appropriate use in the classroom environment, and even teachers who are optimistic about the use of technology for learning, do not necessarily wish to support activities beyond those which fit within lesson plans.

Does such a limited experience of ICTs at school impact on attitudes and use of ICTs later in life? Small remote Indigenous communities have the (now rare) feature whereby many children are able to access ICTs at school but not at home. Although we were not able to pursue this question fully, we did observe that at the start of our project in 2010, none of those under 30 who had used computers at school had gone on to purchase a computer for use at home. However, these participants were certainly more confident users than those without any prior experience of computers.

In 2012, One Education received $11.7 million in 2012 to deploy 50,000 bespoke laptops in disadvantaged primary schools across Australia.[[101]](#footnote-102) Australian schools that met certain socio-economic criteria – including serving low-income and remote areas, and the percentage of students that identified as Indigenous – were eligible for a subsidy (government derived) that allowed them to access the program and acquire the hardware for $100 per laptop. The laptops were also being used by the Northern Territory Libraries within their Remote Indigenous Public Internet Access (RIPIA) program.

Our primary interest in the One Education program was that it was founded on a custodial philosophy, whereby the students own the devices and use them at home and at school. If students were taking the devices home, then this would be potentially significant for those communities, not just the children. The general strategy of putting the devices directly in the hands of children is thought to ‘compensate for unequal access to technologies in the home environment and thus help bridge educational and social gaps’.[[102]](#footnote-103) A US analysis found that, when controlling for income, race and parent’s education, those with a home computer were 6–8 per cent more likely to graduate from high school than teens who did not have home computer.[[103]](#footnote-104) However, even within the One Education program, we found that, in Australia at least, teacher practices varied widely. Teachers in Indigenous schools were not likely to allow children to take the One Education devices home, with some believing the devices would be damaged in over-crowded housing environments. Some permitted free time on a daily basis, others used them only for classroom lessons, and a minority of teachers used them as a reward for good behavior.[[104]](#footnote-105) Over half the schools reported issues with connectivity in 2012, finding it difficult to connect the devices to the education department’s IT system (One Education has since been working to rectify this). The program’s biggest issue was teacher turnover: as teachers voluntarily participate in the program, if a replacement teacher does not wish to participate, the laptops can go unused. Nonetheless, the program was providing a level of training and a community of practice for teachers, who overwhelmingly believed that the devices were good for learning. Schools and one-to-one laptop programs will remain an important means of ICT skills development in remote communities.

### Skills Transfer and the Digital Divide

At the project’s outset, we were uncertain how much people would share the computers or teach each other how to use them. So-called ‘avoidance relationships’ between the genders and within kinship networks exist within Aboriginal society, such as it being considered taboo for a son-in-law to speak with his mother-in-law. There are also continuing protocols concerning the transfer of knowledge between older and younger people. Karen’s increasingly personal use of the computer and her disinclination to help others underlines Chapter 3’s insight that households, and even individuals, in these remote central Australian Aboriginal communities can be autonomous. This emphasis on personal and household ICT use, together with the limited skills-sharing that took place, have implications for providing training and support, and for facilitating socially-inclusive ICT arrangements in remote Aboriginal communities. They also put notions about an ‘Aboriginal preference’ for group or communal learning to the test.

While several people said during early meetings that children should be allowed on computers because they can teach others how to use them, there wasn’t much evidence of inter-generational sharing of ICT skills on the outstations. The relatively-limited amount of skills transfer that occurred runs counter to what a popular understanding of the ethos of Aboriginal culture might suggest: for example, that sharing practices might automatically foster sharing of ICT resources and skills amongst participants. It also challenges early assertions by telecommunications academics and policymakers in mainstream debates that the digital divide will fix itself as network and equipment costs fall and the internet becomes more and more a part of daily life.

While we did not seek to provide any accredited form of training, or to undertake formal assessments, we decided that, when asked, we would help those who wanted to learn. Training in the use of computer and internet applications often occurred on an ad hoc basis on house visits while providing technical support during the CAT team’s regular maintenance visits, and sometimes on research trips to the communities. Virtually all of these interactions were face-to-face; very few could have been carried out using remote communication, given that none of the households had a fixed landline telephone or mobile phone access. Residents rarely used email or Skype to ask how to do something or to solve a problem. On the couple of occasions when this happened, the issue almost always required personal follow-up during a community visit.

Community members who maintained an interest in the computers were often those who already had a degree of digital literacy and were more likely to seek help. Some improvements in participants’ skill levels were evident during the project. For example, when we asked them six months into the trial whether they had gotten better at using the computer, two-thirds replied positively, listing new or improved skills related to using email; on-line banking; typing; word processing; folder and desktop management; writing letters, stories and songs; use of spreadsheets; downloading material (movies, music and games); Facebook; and viewing photographs and other pictures.

But a year into the project, it became apparent that without further digital education and skills development of some kind, other remote community members, especially older ones, were likely to find dealing with services, such as banks and government agencies that increasingly rely on internet interfaces, particularly challenging. Consequently, we devoted more attention in the second half of 2012 to investigating what training approaches might provide the most benefits for remote Aboriginal residents, especially given their range of ICT skills and the particular social practices and protocols operating within these communities.

### Developing an ICT Training Approach for Remote Aboriginal People

Research during the 1980s and 1990s into Aboriginal adult education and training suggested that Aboriginal people were more comfortable learning in groups than individually.[[105]](#footnote-106) But when we asked residents how they liked to receive training about computers and internet use, most (88 per cent) said they preferred to learn individually or as a couple/pair. Without exception, all of them wanted to learn on their own computers, preferably in their own homes (or Community Development Employment Projects [CDEP] shed or Women’s Centre for those who were using shared desktop computers), rather than group training in a shared space in the community or the nearest town.

This response is consistent with Battiste’s model, which proposes that Indigenous people prefer independent learning and individual instruction, along with some common characteristics referred to within other research, such as direct learning by seeing and doing, observation, experiential learning, and applying knowledge to real circumstances.[[106]](#footnote-107) More recent research has sought to construct a framework that accommodates both independent learning orientations in Aboriginal students and the importance of community links emphasizing the group.[[107]](#footnote-108) Furthermore, a large body of research indicates that active involvement by adult learners in the design of a learning program is more likely to result in their engagement with, and support for, the program; this is particularly true of Aboriginal learners, where a two-way or multiple-way system that allows for Aboriginal ownership and cross-cultural understanding is crucial to success.[[108]](#footnote-109)

To investigate this further, we discussed with community members, either individually or with their partner or a close relative, matters such as where they preferred to receive training, at what times, whether in groups or one-on-one, what encouraged them to learn, what they were interested in learning to do, and what they already felt confident doing on the computers and internet. We also asked whether they had any specific physical needs, such as glasses or hearing aids, and tried to assess how avoidance relationships might affect training situations. At the time, almost 60 per cent of the residents were available, a situation that was not unusual given that numbers of community members present on field trips varied throughout the project. Those who took part in discussing these training issues were broadly representative of participants, possessing a range of literacy and numeracy skills, and including young men and women aged in their 20s and 30s, as well as older women in their 40s, 50s and 60s.

Aside from requesting training individually or in a pair, and in their own homes, they also unanimously opted for training during each monthly visit, mostly for ‘a little bit’ or ‘a bit’ of time, although some suggested times from thirty minutes up to half a day. Familiarity with the surroundings, equipment and people appeared to be important, combined with the ease of not having to travel to town, which involves additional costs, as well as organizing transport and accommodation. Research conducted elsewhere in central Australia also indicates a preference for in-community learning rather than at an external location.[[109]](#footnote-110) Learning individually affords privacy, allows learners to focus on their own interests, and provides an atmosphere where they’re likely to feel more at ease, more comfortable in asking questions, and away from situations in which they might potentially feel embarrassment (shame) at not understanding instructions or knowing how to do something.[[110]](#footnote-111)

Residents identified various tasks they wanted to learn, ranging from using email; on-line banking; downloading movies and music; uploading photographs; touch typing; customizing the Windows display; writing stories; using Facebook and Skype; shopping on-line; taking an on-line language course; using Excel; on-line training in literacy and numeracy for both adults and children; making signs, posters and notices; checking weather reports; and internet browsing. Several people named the same tasks as activities that they already felt confident doing, perhaps indicating that they wished to become more proficient at that task, or that they wished to learn additional or more complex tasks within an application. Community members did not always say explicitly why they wanted to learn different activities, although some said they wanted to ‘get better’ at a certain task, to enhance their existing employment skills, or to contact Centrelink more easily.

Using desktop computers as the focus and the tool for ICT training may also have been more suited to individual rather than group learning. Other researchers have observed that computers themselves fit readily with Aboriginal educational styles because they are interactive, involve learning by doing, and permit trial and error. They also allow people to progress at their own pace, and are real-time oriented as well as being ‘endlessly patient, repetitive’.[[111]](#footnote-112)

We also asked about their preferred group composition (age and gender) for training, and whether there were any cultural relationships that might preclude anyone from being in the same room as someone else. No-one expressed any particular preferences about age or gender, apart from one elderly woman who said she’d rather learn with women only. Similarly, only one person, again an older woman, identified cultural avoidance of individuals either from within their community or from another community as a potential issue. Her response, that she could not be in the same room as anyone from another community, concurred with anecdotal evidence suggesting that, in remote central Australian communities, the older generations (elders) continue to uphold traditional cultural practices in relation to interpersonal relationships. None of the younger community members identified avoidance relationships as an issue, which is in keeping with observations that younger generations sometimes place less emphasis on maintaining these traditions.

No-one requested an interpreter to explain things in language, which was not surprising given that all the computer applications are in English. Eady and Woodcock have also noted that many Indigenous learners prefer to receive instruction in English in order to improve their language, literacy and numeracy skills to be able to interact more effectively with Western society or ‘whitefellas’.[[112]](#footnote-113)

### An Individual, Opportunistic Approach to Learning

The findings from the discussions we had with community members about learning preferences suggested that it might be appropriate to reconsider some of the commonly-held notions about adult Aboriginal people preferring to learn in groups, particularly in regard to ICT training. This confirmed the ad hoc approach to learning that had already emerged in the project, in which we often spent time with individuals and one or two other family members in their homes, responding to their requests for training and technical support on the computer. During the remainder of the project, we tried to fine-tune this approach, which could best be described as opportunistic and flexible, by providing training tailored to individual adult community members’ needs, aspirations and preferences.

Given that the timing, content and location are all largely determined by the learner, the main challenge for the trainer in this approach lies in attempting to predict how much time, individually and collectively, the learning will take.[[113]](#footnote-114) Consequently, the CAT team set aside additional time for training during their technical support trips. In practice, about 70 per cent of their time was spent on providing technical support, and 30 per cent on training during each visit. An average of four learning opportunities per visit to each community occurred, varying from none – for example when participants were absent or researchers’ time was taken up entirely with managing technical incidents – to sixteen. The CAT team also occasionally received and responded to support requests from community members by email or phone between visits.

Learners largely determined the session’s length, although it was impacted to a lesser extent by competing demands on our time. Sessions ranged from short-task specific learning opportunities of ten to twenty minutes to intensive three-hourly sessions in which community members participated in a range of activities. Almost three-quarters of the learning opportunities occurred as one-on-one sessions between the learner and the researcher, 20 per cent in pairs and 9 per cent in groups, reflecting participants’ preferred learning modes.

In most (71 per cent) of these sessions, participants determined what they wished to learn, usually by asking us a question such as: ‘Could you show me how to [undertake a certain activity]?’ We demonstrated how to do that particular task several times, and then asked the participant to repeat it until they felt confident. Overall, most of the learning opportunities and participants’ training revolved around using the internet, despite us urging them to learn maintenance (see Appendix 3, Figure 6). However, on occasions, learning also occurred when researchers were occupied with providing technical support rather than training: community members learned computer maintenance tasks mainly by watching us change ink cartridges, clear ink nozzles, and other trouble-shooting activities associated with printers and, to a lesser extent, the computers themselves. Occasionally, we suggested certain tasks we felt participants might be interested in learning, or that they would need to know before the move to self-funded internet plans (see Appendix 3, Figure 5).

Early in the project, usage of the computers and the internet focused mainly on online banking, downloading music and printing photographs. Later, some community members began to ask more complex queries such as how to access internet on ICT devices: for example, there were several requests at Imangara during 2013 for WiFi in order to allow their children to access the internet via iPads.

Other household members and friends were often present, watching and listening, if not otherwise actively participating in one-on-one sessions. Some group discussions took place within community meetings where we discussed administrative matters such as how quotas work, the shift to individual satellite services and billing accounts, and so on. These provided a forum in which common issues could be raised, and information, including hand-outs, was passed on to all residents at the same time.

### Experiences with Group Training Approaches

Towards the end of the trial, we attempted to organize group training for some community members at Imangara who wanted to try this style of learning, and for researchers to compare the individual and group experiences. The proposed activity was a one-day Digital Stories workshop to be delivered by a multi-media trainer from Barkly Arts in a meeting room at Ali Curung, 30 kilometers away. But when a couple of our researchers arrived in Imangara the day before the workshop to remind community members that it was happening (they had sent email messages beforehand), the place was a ghost town. Only one older woman appeared to be there, sitting on her verandah. She told us that the others were ‘all gone’: some to Tennant Creek for a royalty meeting; the others, including Mary, for a funeral and a sing-a-long at Lake Nash. She had wanted to go with them, but they left without her. She told us they might be back ‘tonight [Tuesday] or tomorrow’.

Driving towards Imangara the next morning, we met a car of people from Ali Curung, who told us that everyone was going on to Mount Isa now for a rodeo, and that no-one would be back until Monday at the earliest. A little later, we saw a couple of people on the road who turned out to be Mary’s relatives. We offered them a ride and they asked us to go back up the road to get another couple. The four of them had been at the roadhouse bar at Wauchope the night before, but their car had broken down and they’d slept inside with no blankets, which was apparently very cold. When we found them, the couple asked to be dropped in Ali Curung so they could arrange to get the car.

The couple arrived back at Imangara after lunch and retreated into their house, as did Mary’s other relatives. We didn’t see them for the rest of the day; they’d probably all gone to sleep, although someone told us the granddaughter was on the computer. By this time, we’d cancelled the workshop that was scheduled for the afternoon. A couple of other middle-aged women were in the community, and we later ran into them at the Murray Downs shop. The senior man and the young people arrived back in Imangara the following day.

Two middle-aged women said they’d like to do the Digital Stories training sometime, whereas none of the young people showed any interest. This confirmed our existing impression that there was more interest in ICT learning amongst the middle-aged members of the community than for the young ones, who were already somewhat proficient from having used computers at school.

Overall, this experience indicated that structured training was impractical and not at all efficient in a community of this size. Structured group training is probably more suited to larger communities with a youth or media center and ongoing engagement from youth workers and cultural workers, and as part of a continuing experience of training/activity.

The experience taught us that training needs to be flexible to cater for high levels of mobility and uncertainty. The unpredictable rhythms of people’s lives, as well as the more ‘everyday’, household focus on computer use, made it feel artificial to impose structured training on community members at Imangara. By the time we offered group training, the novelty value of computers and trying to do new things on them had also worn off, although the computers had by then become a valued as part of household infrastructure that people seemed to want to maintain.

### Conclusion

In remote Indigenous communities, age and gender differentials impact on learning opportunities, as do relationships between family groups. We found that individual learning within private households in a way that was responsive to the participant’s needs and requests for training was the most equitable and inclusive approach. People were also more likely to be interested in uses of the internet that brought small but noticeable benefits to their everyday lives.

Our experience was thus contrary to the commonly-held notion that Aboriginal people like to learn in groups, at least when it comes to computers and associated software. That the subject matter (computers) was the same as the learning mechanism, and that it was delivered in an informal home environment, goes only partway towards explaining the preference for individual learning. The emphasis on everyday uses of the computers and internet within a domestic setting, combined with the trend towards discrete family and household ownership and use of the computers, probably strongly influenced the desire for individual learning within these small communities.

There are clear implications for the delivery of ICT-related training in remote Aboriginal communities, particularly as take-up of individually-owned devices such as laptops and iPads is likely to continue.[[114]](#footnote-115) Although logistically challenging and resource intensive, a flexible, opportunistic approach that tailors learning opportunities to the individual’s needs and takes place within private, safe spaces rather than as formal, structured training can be effective (although we discuss in Chapter 8 how a different approach can work where there is a long-term shared computer facility). Without more exposure to the capabilities of information and communication technology, including digital education and skills development, remote community members, especially older ones, may fail to grasp its benefits.

## Chapter 7: Gender

The overall trend in survey-based studies of internet adoption and use is that men, especially younger ones, tend to be early adopters of internet technology and are more strongly represented in ICT usage: boys are ‘generally quicker than girls to lay claim to cyberspace and digital media’.[[115]](#footnote-116) The World Internet Project found in 2007 that in ‘all twelve WIP countries assessed for this study, men use the Internet somewhat more than women’, although over time, ‘a slow diminishing of the gender divides’ occurs as women’s participation generally slightly increases while men’s slightly decreases.[[116]](#footnote-117) Some feminist researchers have described a ‘gender digital divide’, and the male-coding of the information and communications sector.[[117]](#footnote-118) For the three outstations, having desktop computers in the home thus seemed a scenario that might stereotypically appeal to young men.[[118]](#footnote-119) However, we found that this was not necessarily the case. Women appeared to be the dominant users of the computers and internet at home, while men were frequent users of shared computer facilities.

There is considerable discussion within the anthropological literature about the gendering of activities and domains within traditional Aboriginal societies in terms of separate spheres with complementary functional roles.[[119]](#footnote-120) In her landmark review, ‘Gender and Aboriginal society’, anthropologist Francesca Merlan observes how remote northern Australian Indigenous social contexts are characterized by ‘the frequently found Aboriginal tendency toward dualism—insistence ideologically and practically upon some degree of male-female separatism’.[[120]](#footnote-121) Anthropologists and others have described the gendering of activities and domains within traditional Aboriginal societies in terms of separate spheres with complementary functional roles, with perspectives differing as to whether gender inequalities are inherent within this schema or whether they result from, or are exacerbated by, the imposition of European culture.[[121]](#footnote-122) Some (such as Cowlishaw and Hamilton) claim that women occupy a subordinate role within this schema, while others (such as Bell and Kaberry) argue that Aboriginal women exercise and enjoy a degree of autonomy in traditional society.[[122]](#footnote-123)

Merlan urges caution, however, in invoking the notion of autonomy in relation to the gendering of activities and domains, because of its different conceptualization within Aboriginal and European frameworks. She states that Aboriginal selfhood ‘is importantly constituted through social relatedness, and thus is not to be confused with western notions of individualism’.[[123]](#footnote-124) She also draws on Annette Hamilton’s discussion of how gender autonomy might be confused with labor and cultural division within Aboriginal social life because men’s and women’s lives appear to be self-contained.[[124]](#footnote-125)

As feminist scholar McClintock has said, ‘domesticity is both a *space* and a *relationship of power*’.[[125]](#footnote-126) The impact of the gender division of labor within domestic space in central Australian remote Aboriginal communities is thus worth considering in relation to ICT infrastructures and programs.

### Women’s Internet Use

When we commenced, Karen’s husband had a laptop, which he had borrowed from a relative. The laptop had been purchased in another state, and he believed the WiFi only connected to the internet there. Karen did not use the laptop. Not long after the communities received computers and internet access, some women began to play a key role in using the computers for household purposes. As discussed in Chapter 5 (Uses), Karen described managing her family’s administration by accessing Centrelink every day, paying bills and trying to teach her husband how to pay his Austar account online. Her husband, on the other hand, reported using the computer for work purposes to check emails from his employer on the cattle project. In 2012, Karen said they were equally responsible for the computer, but by 2013, she reported that keeping it safe was, ‘a bit of [him], most of me; if I’m not around, he makes sure it’s closed. Yeah, and kids aren’t on it. If something happens—maybe [the kids] throwing the mouse around—he tells me’. She now used the computer the most, whereas he was ‘always busy on his playstation’. They swapped if they got bored, and, ‘If there’s something on my computer he wants, he grabs it, puts it on a USB stick, then onto his playstation’.

Later when Karen took us to see the computer on the same visit, her husband was sleeping face down on a foam mattress in their living room, exhausted from the day’s mustering. Karen led us into the spare bedroom where the computer was kept: there was almost nothing inside apart from the computer in its box on a desk. Karen and her husband were like a couple with their own toys, with him on the playstation in the main room and her on the computer in its separate room. Although she said the kids used the computer as well, the pride with which Karen maintained the room suggested that it was her personal space.

In the same community, another woman soon assumed responsibility for her household’s computing activities, commenting that while her husband only used the computer for playing card games, he often requested that she perform administrative tasks for him, such as sending emails on his behalf to staff at the Central Land Council (CLC) and the cattle project. When we asked him why he wasn’t using the computer so much, he claimed that he didn’t know how, and that he was too busy to learn, although he wouldn’t mind being able to manage information about the cattle project, such as mustering details, prices and sales, on the computer. Several months later, he had still not made any progress in learning how to use the computer, and was instructing his wife to write reports for the cattle project. Cynthia said: ‘He tells me what to write, and I write and print it out. I check incoming email every morning.’ She also printed out emails for another male relative.

At Kwale Kwale in February 2012, Rhonda, the tertiary-educated middle-aged woman who worked part-time in Alice Springs, told us that she wanted to teach her husband to use the computer, but he was ‘too frightened to go near it’. She was also hoping to set up Skype so he could talk to his daughters, who lived away from the community. Rhonda said she wanted to learn how to access internet banking, shopping and Centrelink so she could teach others in the community how to use them, along with Skype and making Microsoft word documents. In Chapter 5, we discussed how she had planned to use word processing programs on the computer to make multi-lingual books about bush tucker with another community member. She had also thought she might order groceries online from supermarkets in Alice Springs, which she could sell, along with home-grown vegetables, at a stall in the community. She reported using the computer mostly to contact friends by email as well as doing contract work; another community member described Rhonda using her home computer as her ‘office’.

As these stories suggest, certain young and middle-aged women came to play a key role in taking responsibility for the computers within individual households, often using them for administrative purposes, sometimes on behalf of other family members. The computers became a domestic hub of sorts, an extension of everyday practices associated with a more female-oriented sphere, including banking, online shopping and child-related educational activities. While community members all mentioned using the computers for personal entertainment and administration, women more often listed accessing Centrelink and internet banking than men in their top five activities on the computer (see Appendix 3, Figure 3A). They also described shopping online for items such as car parts, cars, garden stuff, music CDs, plates, forks, iPads, kids’ games, bibles, bible tapes, Christian books and a laptop. Men mainly reported using the computers to play games or to watch movies (see Appendix 3, Figure 3B), and often seemed happy to allow women to manage household finances online as well as contacting local organizations on their behalf.

Community members identified women, followed by children, as the computer’s most frequent users, with women making up two-thirds of those aged 18-29 years (see Appendix 3, Figure 2). When we asked participants to assess their level of computer skills, women (roughly one-third) and 18-29 year olds (again, approximately one-third) gave the most positive self-assessments of their computer skills, which supports the observation that women, especially the younger ones, had developed greater digital literacy skills during the project. These trends correlate with those from our original survey of community members’ computer experience of skills prior to installation, which found a greater proportion of women (52 per cent) had some ICT proficiency in contrast to men (29 per cent).

We observed that women were more likely to tell us about their social media use. A report by Remote Indigenous Public Internet Access (RIPIA) found that women made up most of the social media users on the three platforms used by remote community members: 59 per cent of Facebook users and 65 per cent of Divas Chat and airG users.[[126]](#footnote-127) When the RIPIA researcher asked community members at Papunya whether they thought people understood how to manage their privacy settings on social media accounts, they responded informally ‘that females understood, but males did not’, a response that was supported by survey data indicating ‘that females comprised 89 per cent of the “yes” response’ in this community.[[127]](#footnote-128) The RIPIA researcher suggested that being able to manage privacy settings indicated ‘that individuals who spend more time engaging with digital devices and social networking services, in this case being females […] are able to develop higher levels of digital literacy’. [[128]](#footnote-129)

Participants at Imangara often mentioned children as computer users (45 per cent of responses). This was probably because of the greater numbers of children there than in Mungalawarru who were able to stay in the community while attending the nearby local infants and primary school.[[129]](#footnote-130) The high rates of young women and children reported using the computers tends to support the ‘domestic hub’ emphasis of use of the computers. As discussed in the previous chapter, although senior women over 60 years of age at Imangara and Mungalawarru often acted in a ‘figurehead’ capacity, liaising with researchers and in resource distribution at community meetings, their actual ICT usage was fairly limited (see ‘Digital literacy in Chapter 6).

When we asked who in the household looked after the computer during the project, individual women were most often mentioned as being chiefly responsible (around 60 per cent at both Imangara and Mungalawarru); that is, rather than individual men, couples (‘we both do’) or households (‘all of us’). Once again, youth was a significant factor, again suggesting a correlation between this role and higher levels of digital literacy: mainly women (86 per cent) aged 18-29 years at Imangara and only women and men in their 20s and 30s at Mungalawarru were named as responsible for the computers.

Overall, these results reflect a higher rate of engagement with the ICTs amongst young women, in using and taking responsibility for the computers, as well as being willing informants (see Appendix 3, Figures 7 and 8).

### Men’s Internet Use

One young man in his early 20s stayed at Mungalawarru for about 12-18 months, sharing a computer with four other young adults and a child in a mutual living space at a house transitory community members tended to occupy. When we first met him in July 2012, he reported using the computer for fairly basic purposes – to check emails, to browse the internet and to download music – but said that he ‘wouldn’t pay to keep it; I don’t use it enough’. He also mentioned the role that young women played in assisting him to use the computer, saying that he’d been watching others print out letters and photos, and access Centrelink online, which he wanted to learn how to do himself. However, he identified the main obstacle to him in using the computer as being that ‘sometimes others using it stops me from using it’.

Four months later, he said that two young women used the computer most in his house, one of whom he identified as being the person who looked after the computer. While he thought he was using the computer the ‘same amount’ as before, he said that he had improved ‘by looking at other people using it’, citing checking BasicsCard balances as something he had learned in this way. He named Karen first as someone who had shown him new activities, then Andrew, who ‘showed him little bit email’. Karen, who was listening in on the conversation, remarked that the young man ‘tells me if I have an important one’. The young man was more positive about the value of ICT access since we’d last spoken to him, saying he thought the computers had been ‘great – awesome, eh’ for the community, because people could ‘download music, videos; look at entertainment’. As a result, he ‘stay[ed] in Mungalawarru more. At town, [you] do nothing’. He also said he would be happy to pay $30 per month for an internet plan.

This man’s story, as someone who was initially disinterested in ICTs until he saw their benefits, demonstrates how community members with lower degrees of digital literacy may engage more with ICTs if they’re exposed to their use. A year or so after we first met him, however, he had left Mungalawarru, which, as we discussed in Chapter 4, was not an uncommon pattern amongst young men in remote communities, who are more likely than young women to need to travel to find work. There are also cultural precedents for young men to live a transitory lifestyle; Myers describes how until they have married (often in middle age amongst the Pintupi) and have passed through further stages of instruction conducted by older men, ‘young men cannot settle down, cannot stay in one place’.[[130]](#footnote-131) Traditionally, young unmarried men post-initiation were: ‘free and unfettered […] not yet channeled into reproduction but under the guidance of larger society as embodied by older men’. [[131]](#footnote-132)

The man’s story indicates how transitory some remote community members’ lifestyles can be, particularly young males, with the result that their exposure to ICTs may be limited and their level of digital proficiency lower than that of less-mobile community members. By contrast, the young women he knew, who frequently displayed high levels of computer skills, were often less mobile, and more likely to be found in the community when we visited.

Four men were in prison for periods ranging from six to twelve months during the first two years after the computers were installed, and thus had fewer opportunities to ask questions and learn basic skills from us. At Mungalawarru, men were often involved in a local cattle project and hunting, which meant they weren’t always present when we were visiting, or that they returned in the late afternoon just as we were leaving the community. In households where participants reported men using the computers for entertainment and administrative purposes, they often came to rely on, or to expect that women, especially female partners, would perform administrative tasks for them on the computers, even within a few months after installation.

Research by the Desert Knowledge CRC corroborates the notion of dual systems in relation to technical functions undertaken within remote community life, which tend to be divided along gender lines, but with some tasks shared by both sexes. In their 2008 paper, ‘Housing for livelihoods: The lifecycle of housing and infrastructure through a whole-of-system approach in remote Aboriginal settlements’, researchers Seeman, Parnell, McFallan and Tucker identify a series of activities (see Figure 4 in Appendix 3) as being predominantly women’s technical functions, some – such as washing and repairing clothes – of which relate directly to the domestic sphere, while others—teaching and education, health, administration, arts and crafts—are less strongly linked, possibly because they have been introduced through Western contact.[[132]](#footnote-133) Tasks relating to an external domain of outdoor activities were coded as predominantly men’s technical functions, with a ‘middle ground’ of tasks perceived as gender neutral or equally shared by the sexes.

Seemann and his fellow researchers also observed the impact of government and private technical support funding cycles on gender employment issues in remote communities: ‘men’s work, seen mostly in the technical fields, was sporadic or opportunist; women’s work, seen mostly in the educational and health fields, was steady, institutional, developmental and programmed’.[[133]](#footnote-134) They noted that there was an increased emphasis on providing training for ‘[s]emi-technical and non-industrial occupational skills, such as settlement health and primary school teacher assistant skills’ which tends to emphasize organizational and cross-communicational competencies, and attracted more Aboriginal women than men as participants.[[134]](#footnote-135) There was less funding available for training and skills development for ‘specialist trade or industrial technology occupations’ associated with men, and ‘this had more of a social effect on the skills development and educational participation rate for Aboriginal men than for Aboriginal women, particularly for small settlement populations’.[[135]](#footnote-136) As well as the cultural precedent for higher levels of mobility amongst young men, the lack of employment and training opportunities connected with male-associated technical functions may partly explain their infrequent presence at the computers. In addition to the domestic location of the desktop computers, participants may also have perceived the ICT skills and training opportunities (discussed in Chapter 3) we offered during the project to be more aligned with women’s technical functions and typical occupations. For example, one husband’s comments (above) about wanting his wife to write administrative reports for him about the cattle project suggests that he may have seen this ‘home office’ use of the computer as more part of her domain of technical activity, but complementary to his cattle work within a male domain of external activity. Merlan observes that: ‘Women’s productive and especially redistributive role was important in defining Aboriginal domesticity, and the current membership of particular domestic groups.’[[136]](#footnote-137) Women’s greater participation in the project – looking after the computers, doing tasks online for family and liaising with researchers – may reflect the correlation of the computers with the more female-oriented domain of the household as an extension of the women’s technical and reproductive role in Aboriginal society.

### Difficulties in Observing Gender Dynamics

There was a gradual attrition of male community members from interview sessions and training. Even in the initial stages, men made up slightly less than half (45 per cent) of the participants in community meetings about the computers. At the time, we observed that young men in particular were often out at work or in town, and therefore more difficult to interview.[[137]](#footnote-138) A couple of years after we installed the computers in the communities, men’s rate of participation in surveys and discussions on our research trips had declined to just under one-third (29 per cent). With only a few exceptions, when men interacted with us, it was often as a member of a couple or a family group, and they were generally less forthcoming than the women present. The women occasionally mentioned some young men – brothers, nephews, grandsons – using the computers, with a couple of women in their 20s once reporting that their 16-year-old nephew had shown them how to do things on the computer. When we asked Mary on one occasion whether the ‘young fellas use the computers’, she replied, ‘Yeah, they use them. They help me use the computers’, which may suggest that young men used the ICTs and helped others with them more than was evident when we were in the communities.

Women’s greater rate of participation (71 per cent) was likely to have been influenced by the fact that we were a majority of women, and interacting with us was therefore possibly considered the responsibility of the women. The greater numbers of women mentioned as frequent computer users may also reflect gender peer group dynamics: that is, not only did more women participate in the field research, but they tended to cite themselves and their female contemporaries more often as users (as in the responses to the question in the previous section about who looked after the computer, where each gender tended to report use by its members more often). Therefore, although our interactions with the outstation residents suggested a gender-coding of spaces, roles and activities associated with computer use, we do not consider these to be conclusive results.

### Gender Access at a Shared Facility

As discussed in the next chapter, we visited Papunya in May 2012 to examine the Papunya Internet and Community Room (PCR) as an example of ICT usage at a shared facility in a large remote community. During this trip, we spoke to a sample of community members about their use of computers and the internet, not all of whom were regular computer room users. We found that young men rather than young women were the dominant users.

Most of the women we spoke to in the community considered the PCR to be specifically associated with young men, and said they did not feel comfortable there because of the cultural protocols about the need for men and women to maintain separate spaces. Middle-aged and older people of both sexes at Papunya also expressed the view that the computer room was for young people, or they could not use computers because they had not received computer training at school.

There were often only a handful of women using the facility when we visited, whereas the main computer room was usually full of young men and sometimes kids. Young men’s greater use of the PCR relates in part to its original purpose as a diversionary outlet: it was established in early 2009 after the second visit to the community by the Senate Inquiry into Petrol Sniffing, to provide an alternative source of educational and creative industry activities for young people, especially males aged 14-25 years, who had missed out on primary education because of substance misuse. It also has overlaps with creative industry activities at the Warumpi studio, catering particularly to young men’s interests in making and listening to music (see Chapter 8).

The higher rate of male users we observed in May 2012 was also at odds with results from a survey of the Papunya Computer room that the Central Australian Youth Link Up Service (CAYLUS) conducted in 2010, when usage according to gender was in the order of 44 per cent females and 56 per cent males.[[138]](#footnote-139) Within the following years, the computer room appears to have become identified as a distinctly young male space. Similarly, when we conducted research into internet use at Ali Curung, we were told that young males tended to dominate the computer room when it was open; young women only used it when a youth worker provided specific programs and activities for them.

### The Kungkas’ Room and Equity of Gender Access at the PCR

In early 2012, CAYLUS, in conjunction with the Papunya community, set up a Kungkas’ (or women’s) room alongside the main computer room in response to the perception that the PCR was largely a young male space. The Kungkas’ room, a ‘lounge’-style space with books and toys, where mothers could bring children while they used the computers, was intended to provide a location where women would feel comfortable about accessing the computers, as well as addressing the overflow of users from the main room. A female community development worker was engaged to undertake self-directed learning with young women in the Kungkas’ room.

At the time of our visit to Papunya in May 2012, the Kunkgas’ room had only been open for several months, and there weren’t any significant increases in female computer users. It did not appear to have gained sufficient momentum yet to change perceptions about who felt comfortable using the computer facility. Some female non-users in the community, most of whom were middle-aged or older, told us they were unaware of the Kungkas’ room’s existence, which suggests the computing facility continued to be associated more with youth activities.

When we spoke to CAYLUS a year later, they reported that while there were approximately seventy users per day at the Papunya Computer Room, use of the Kungkas' room tended to wax and wane, often according to whether female support workers were present. They also said that some boys had been entering the Kungkas' room and ‘getting flirty’ with the girls, but that local Papunya female staff members were unable to get the boys to leave, because of inter-family relationships. PCR and CAYLUS staff also observed that certain family relationships, as well as age and gender groups, could influence who felt comfortable using the computer room, similar to how access to the Women’s Centre computers at Imangara became largely restricted to one family. CAYLUS suggested that some white support staff would probably always be involved in managing the computer room, because of the need to take into account cultural constraints relating to gender and family affiliations.[[139]](#footnote-140)

In September 2013, the PCR underwent a further evolution when it was re-located in the Maku Shed (further discussed in Chapter 9, ‘Alternative Regimes’). Originally, a small room in the Maku Shed was set aside for Kungkas only, but it proved difficult for the coordinator to supervise along with the main room, and was closed after two of its computer screens were damaged. The coordinator did not think, however, that gender was as significant an issue in the Maku Shed as in the original PCR building, because it was a larger space and harder for the men to dominate, although she thought that avoidance relationships still needed to be managed.

The Papunya experience indicates that one drawback of a shared facility arrangement such as a computer center or kiosk is its capacity to be patronized by a particular group to the exclusion of other sections of the local community. In the case of the original PCR, the greater presence of young men in the main room discouraged other groups, such as women and older people, from using the computers. Consequently, cultural constraints relating to gender and family affiliations, whereby members of the opposite sex and certain family groupings cannot occupy the same space, shaped the planning of successive versions of the computer room, particularly in regard to space and staffing arrangements.

### Conclusion

Contrary to the expectations of international literature, and the experience of shared facilities at Papunya and Ali Curung, women engaged more substantially in ICT use in the outstations. This outcome suggests household-based ICT arrangements might preference women as users, given their associations with domestic space and administrative tasks (although this evidence was perhaps distorted by the majority female composition of our research team). It raises the possibility, however, that locating computers and internet access within household space might lead to stronger association of digital technology with a female-coded domain and technical activities, with positive flow-on effects in facilitating greater ICT usage by women and children. This is a significant benefit of providing ICT access on a household basis, extending women’s educational and creative opportunities, as well as assisting with the practical aspects of their lives. Overall, the unintentional age and gender biases associated with the location of computers and internet access in both the outstation trial and the PCR indicate the need to consider Aboriginal cultural norms and behavior in regard to gender, age and avoidance relationships in providing ICT infrastructure and arrangements, as well as training and technical support, to facilitate equality of access in remote Aboriginal communities.

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