Making Connections

Young people, Homelessness and Digital Access in the City



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With contributions from Denise Belling Evan Smith

June 2016

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ISBN: 978-0-9945688-9-2

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Acknowledgements

On behalf of the Young and Well CRC, this project has been led by the Institute for Culture and Society at Western Sydney University. The research team is grateful to Amanda Third and Peter Hutchings for their initial encouragement to undertake the project.

Participants and partner organisations

A huge thank you to all of the young people and other stakeholders who participated in the workshops.

- Evolve Housing for Youth
- Youth Off The Streets
- Homelessness NSW
- Smith Family
- Yfoundations
- City of Sydney Council
- Parramatta City Council

- City of Sydney Libraries
- Newcastle City Library
- State Library of NSW
- Waverley Library
- Telstra
- Infoxchange

Steering Committee

An equally huge thank you to all steering committee members for their time and support for the project.

- Neil Hide, Salvation Army
- Chris Stone, Yfoundations
- Trina Geasley, City of Sydney
- Digby Hughes, Homelessness NSW
- Diana Brown, Infoxchange
- Gary Moore, Parramatta City Council
- Assoc. Prof Amanda Third, Western Sydney University

Project and Research Assistance

- Kari Pihl
- Dr Girish Lala
- Delphine Bellerose

Young and Well Cooperative Research Centre

The Young and Well Cooperative Research Centre is an Australian-based, international research centre that unites young people with researchers, practitioners, innovators and policymakers from over 70 partner organisations. Together, we explore the role of technology in young people's lives, and how it can be used to improve the mental health and wellbeing of young people aged 12 to 25. The Young and Well CRC is established under the Australian Government's Cooperative Research Centres Program.

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Table of contents

MAKING CONNECTIONS	2
ACKNOWLEDGEMENTS	3
TABLE OF CONTENTS	4
EXECUTIVE SUMMARY	6
RECOMMENDATIONS	8
INTRODUCTION	9
PROGRAM AND LITERATURE REVIEW	10
YOUTH HOMELESSNESS	
THE IMPORTANCE OF DIGITAL ACCESS	
EXTENDING ACCESS	11
HOMELESSNESS AND CONNECTIVITY	11
METHODOLOGY	14
PARTICIPATORY DESIGN	14
INNOVATION WORKSHOPS	14
VISUAL ETHNOGRAPHY AND DESKTOP REVIEW OF DIGITAL ACCESS SERVICES	16
PROJECT FINDINGS	17
REVIEW OF DIGITAL ACCESS SERVICES	
Parramatta	17
City of Sydney	20
Summary	21
YOUNG PEOPLE'S WORKSHOP	
Participant Demographics	
Stories of Homelessness	
YOUNG PEOPLE'S SOLUTIONS	
WiFi and Mobile Access for All	
Secure Charging Lockers	
Peer-to-Peer Help	
Library 'Home' Pod	
Micro-Loans Scheme	
Summary	
STAKEHOLDER WORKSHOP	
Connect, Charge & Go	
Peer Hero	
Keep Safe	
Library as Catalyst	
Summary	45
DEVELOPMENT OF CONNECTIVITY SOLUTIONS	46
SELECTION AND RATIONALE	
CONCEPT GUIDELINES	46
DEVELOPMENT GROUPS	
REFLECTIONS ON PROJECT METHODOLOGY	47
Participatory designer's afterthoughts	
Co-designing for policy	48
RECOMMENDATIONS & FUTURE DIRECTIONS	49
SUMMARY OF RECOMMENDATIONS	
REFERENCES	51



APPENDICES	. 53
APPENDIX 1: EVALUATION RESULTS	
YOUNG PEOPLE'S WORKSHOP EVALUATION RESULTS	. 53
STAKEHOLDER WORKSHOP EVALUATION RESULTS	
APPENDIX 2	
DIGITAL ACCESS SERVICES IN CITY OF SYDNEY	56
DIGITAL ACCESS SERVICES IN PARRAMATTA CITY	57
List of Figures	
Figure 1 Signs advertising free WiFi in the food court of Westfields, Parramatta	. 17
Figure 2 A charging cabinet for phones and other devices inside Parramatta Library	. 18
Figure 3 Telstra Air WiFi hotspot in Parramatta CBD	. 18
Figure 4 Telephones available inside the Parramatta Centrelink/Medicare office	. 19
Figure 5 Free WiFi at the Strand Arcade	. 20
Figure 6 Free WiFi at Sydney Central train station	
Figure 7 Workshop participants getting to know each other	
Figure 8 Assessing positives, challenges and opportunities in one of the workshop activitie	
Figure 9 Using a round robin exercise as part of the ideation process	
Figure 10 One of the ideas – the ideal mobile plan	
Figure 11 A secure place to store items and charge phones and other devices is needed	. 27
Figure 12 Coming up with ideas for how young people can work together to help solve	
problems	
Figure 13 Coming up with ideas for how to enhance access to support	
Figure 14 What does the ideal library look like for a young homeless person?	
Figure 15 A concept poster for the idea WiFi and mobile access for all	
Figure 17 Building a prototype	
Figure 18 Prototyping the Peer-to-Peer service directory	
Figure 19 Thinking through the role that libraries could play for the homeless	
Figure 20 Prototyping the micro-loans scheme	
Figure 21 Stakeholders watch pitch videos showcasing the ideas from the first workshop	
Figure 22 Connect, Charge & Go prototype	
Figure 23 A WiFi and mobile access solution for all means updating policies like the USOs	
Figure 24 Peer Hero prototype	
Figure 25 Developing the Peer Hero idea	
Figure 26 Keep Safe prototype	
Figure 27 Developing the Keep Safe idea	
Figure 28 Library As Catalyst prototype	



Executive summary

The importance of digital access for homeless young Australians is well recognised: for staying healthy and safe, to move beyond homelessness and to socially connect and participate. A mobile phone and access to the internet provides a way to access emergency services, service information and support, employment, education and training, and housing opportunities.

Although there is a high level of mobile phone use among people experiencing homelessness in Australia there are also a number of known access barriers that are a product of their homelessness such as obtaining power for charging, affording mobile voice and data plans and keeping safe and their belongings secure. We know that for those in homeless circumstances there is an increased risk of exacerbating disadvantage and creating new service barriers without full and regular digital access (Humphry 2014, Goodwin-Smith and Myatt 2014).

City centres are important places for homeless young people because of the availability of help and support services and because of their affordances of connectivity over suburban, regional and rural areas. Yet, even in cities, options for connecting via WiFi and other means are inadequate, and highly uneven.

The aim of the project Making Connections was to work with homeless young people to find out more about their connectivity issues and develop solutions for making it easier and safer to access digital technology and the support needed to move out of homelessness.

We involved young people who have recently been homeless in the innovation process, recognising that the knowledge and insights gained through their experiences are vital for creating meaningful and relevant solutions.

The project involved two co-design workshops held in Sydney run by a participatory designer. Young people who had experienced homelessness were recruited from inner Sydney and western Sydney homelessness services to attend the first of these workshops in December 2015. The second workshop in February 2016 brought together stakeholder representatives from local councils, libraries, charities, mobile service providers and youth services, to work on the ideas generated at the first workshop and develop these towards their implementation.

Video played an important role in this project and was used to document the connectivity solutions of the young participants and 'pitch' these to stakeholders who further reiterated the young people's ideas at the second workshop. A video documentary of the project was produced to showcase and reflect on participatory design methods for user-driven innovation to inform future strategic interventions and research. In addition to the co-design workshops, a review was carried out on digital access sites and services in Parramatta and the City of Sydney which provided local specific information on the connectivity options currently available in the locales where the young participants had visited when homeless.

FINDINGS

Through the review of digital access sites and services, we found many WiFi services available throughout the Sydney CBD and Parramatta but also observed that there are few other internet access options and many services required part payment for use. We also found a heavy concentration of WiFi services in and around commercial precincts and local libraries with limited availability in parks and train stations/bus stops. There were few places



for accessing telephones without payment or for charging devices in public areas and no easy way to find information about these services other than through physical signboards and discovery.

Building on this, young people's stories of homelessness confirmed that travel to city centres is needed in large part because of the concentration of free WiFi hotspots and the options to connect to get help and support. Yet even in city centres, young people find themselves moving around in search of a free connection. 'WiFi and Mobile Access for All' was a connectivity solution proposed by the young people at the workshop to address the need for more extensive free internet and telephone access, especially for those on low incomes and homeless. This idea inspired the development of the 'Connect, Charge & Go' idea by the stakeholder representatives.

Access to power for charging devices and safety were other key considerations identified by young people and were the basis of another connectivity solution - 'Secure Charging Lockers', This idea was taken up and developed by the stakeholders into the 'Keep Safe interactive charging lockers'.

The workshop participants talked highly of public libraries and identified these as key places that young people go to access the internet in safety. They also suggested a number of areas where libraries could be doing more for people who are homeless by extending the reach of WiFi, providing showers, help with documentation, places to rest and even food. This led to the development of the 'Library Home Pod' by the young people, later developed into the 'Library As Catalyst' solution by the stakeholders.

Being able to share information such as where to find free WiFi, food and 'places to go where you can get help', was a core consideration of the young people and led to the creation of a widely accessible youth-driven information sharing platform: 'Peer to Peer Help', which after further development by stakeholders was given the name 'Peer Hero'.

The 'Micro-Loans Scheme' solution proposed by the young people highlighted a broader understanding of connectivity than just access to technology and was aimed at providing the kinds of opportunities and connections that other young people typically have access to such as small loans, start up schemes and business mentorship programs.

The project has led to the design of a number of feasible digital access solutions aligned to the uses and interests of the user groups concerned. This would not have been possible without the participation of young people who drew on their knowledge of the challenges of homelessness to better understand and respond to a range of connectivity barriers and the collaboration of a diverse group of stakeholders. Concept guidelines and development groups set up after the workshops with stakeholders and young people are helping to guide these connectivity solutions to the point of implementation.

The project has confirmed that although digital connectivity is not a substitute for solving priority housing and health needs, it is key for combatting youth homelessness. For all service providers who have a stake in providing services to young people who are experiencing or at risk of homelessness there is a need recognise its central role in the design of services, programs and city spaces.

Five key principles of connectivity have been identified based on the understandings and practices of the young people in this project:

- Free and widespread access to power
- Availability of free WiFi/mobile & fixed internet
- Robust devices and affordable mobile plans



- Security of belongings and self
- Enhanced access to support services

RECOMMENDATIONS

Based on the findings a number of recommendations are proposed to address the unmet connectivity needs of young people who are homeless:

- 1. Digital access services and programs that address these key connectivity principles:
 - Free and widespread access to power
 - Availability of free WiFi/mobile & fixed internet
 - Robust devices and affordable mobile plans
 - · Security of belongings and self
 - Enhanced access to support services
- 2. Develop, prototype and evaluate the 'Connect, Charge & Go' and 'Library As Catalyst' projects in consultation with stakeholders and young people.
- 3. Create a comprehensive and accessible directory of digital access sites and services, such as locations of free WiFi, and publicise widely to youth centres, homelessness services and the general public.
- 4. Promote the adoption of secure charging lockers by relevant organisations that are well placed to serve the homeless population and publicise widely.
- 5. Develop Universal Service Obligations and a public WiFi program that meets the requirements for affordable and mobile access for all and which is suitable for low income and disadvantaged Australians.



Introduction

There were 26,238 young people aged 12-24 living homeless in the most recent national census count (ABS 2011) but we know that this is an under-estimate of youth homelessness. More recent research suggests that 1 in 7 young Australians are at risk of becoming homeless (Mission Australia 2016).

Homelessness affects people differently. Although there are a number of common features of homelessness, the specific impacts of and opportunities for escaping homelessness vary according to several influences including age, education, income and level of family support.

Being able to connect and stay connected is critical to full participation in the digital age, and for homeless and other marginalised populations this is even more essential. Indeed, we know that lack of connectivity can lead to further disadvantage.

For young people experiencing, or at risk of, homelessness, access to and use of digital technology is especially important. It is required for wellbeing: to stay healthy and safe when homeless, to move beyond homelessness and to socially connect and participate as do other young Australians.

Although there are high rates of connectivity among young people, there are a number of known barriers and issues that young people who are homeless face. Finding access to power for charging, covering the cost of mobile voice and data plans and keeping safe and belongings secure; these are some of the challenges facing homeless young people in suburban and urban centres (Goodwin-Smith and Myatt 2013; Humphry 2014; Le Dantec, 2010).

In this project we set out to find out more about the connectivity issues of young people experiencing or at risk of homelessness, and create solutions that would be relevant and useful for others in similar situations.

We involved young people in this innovation process, recognising that the knowledge and insights they have gained through their experiences of being homeless are vital for developing meaningful and relevant solutions.

The project involved two co-design workshops held in Sydney in December 2015 and February 2016, run by a participatory designer. The choice and design of the project's methodology played a critical role for providing a means to involve young people in the innovation process and build on their knowledge and experiences.

Young people who had recently been homeless were recruited from inner city and western Sydney homelessness youth services to participate in the workshops. Stakeholders were brought together from libraries, councils, mobile service providers and peak homelessness agencies. The participatory co-design methodology was also important as a test bed for future interventions of this kind and for this reason we reflect on its strengths and weaknesses in the report.

Digital inclusion at the level of access is not an automatic process that comes about simply through the availability of *more* and *cheaper* products and services. To be effective, inclusion policies and programs are needed that are responsive to changing connectivity contexts and the diversity of needs, that enable cooperation and innovation across multiple stakeholders and that are inclusive of marginalised voices.



Program and literature review

YOUTH HOMELESSNESS

In Australia today, one in seven young people are at risk of becoming homeless (Mission Australia 2016) and 60 percent of the total homeless population are under 35 (ABS 2011). Youth homelessness is also on the rise in Australia, with 22 percent of the increase in homelessness in the 25-35 years age group (ABS 2011). We know that the official figure for youth homelessness is an under-estimate (26,238 of 12-24 year olds were homeless at the time of the last Census count) since young people who couch surf are often not recorded as homeless even though they are unable to return to their homes (Mission Australia 2016). The number of young people approaching agencies for homelessness assistance suggests a higher number of young people affected by homelessness. In 2014-2015, 41,780 young people aged between 15-24 approached homelessness agencies on their own, "over half of them were homeless (52%)", according to the latest Specialist homelessness services web report (Australian Institute of Health and Welfare [n.d.]).

THE IMPORTANCE OF DIGITAL ACCESS.

There is increasing recognition of the importance of digital access in the lives of young Australians who are homeless as well as in the broader homeless population, and evidence of a high level of digital connectivity (Humphry 2014, Goodwin-Smith and Myatt 2014).

For young people who are in a situation of homelessness, a mobile phone and access to the internet provides a way to access emergency services and facilitates moving on from homelessness through easier access to information, services, employment and housing opportunities. In her study of mobile-based learning among a group of homeless young people in the UK, Savill-Smith (2005) found that internet access was the most important feature that a digital device allowed them.

Access to the internet can also afford opportunities for training and education in a context better suited to their needs than traditional learning environments. An Australian Communications Consumer Action Network (ACCAN) study on the mobile phone and internet use of homeless young people, adults and families found that YouTube was a key resource for informal and on-the-job learning (Humphry 2014). The aforementioned study by Savill-Smith (2005) also indicates that young people are more engaged by mobile-based initiatives to improve literacy and numeracy skills.

The internet plays an important role for enabling access to entertainment, and this can have specific purposes for young people as a source of comfort when homeless. Savill-Smith (2005) found that homeless participants were more likely than non-homeless participants to use their device to listen to music. This mirrors more recent findings by Lemos and Frankenburg (2015) who found that 80 per cent of respondents considered digital devices to be "important or very important" sources of entertainment and leisure, without which they might feel "a bit isolated" (p. 38). On playing online games participants have said, "I use it to help myself not think about my situation" (p. 4) and, "I love music. You don't think about the shit in your life when you have music. It helps you stay calm" (Lemos & Frankenburg 2015: 40).

Connectivity programs targeting the homeless show there is high demand for assistance to help young people to stay connected. The inclusion of USB charging stations in 'Sleep Buses' and access to WiFi and computers, such as in Melbourne's Chatterbox Bus, operated by Open Family Australia, are examples of programs targeting young people that combine specialist homelessness support with connectivity assistance. While these initiatives are



welcome additions to the landscape of solutions to sleeping rough, connectivity remains secondary to the other forms of support provided. With changing patterns of connectivity, and the important role connectivity plays, there is an urgent need to make digital access a priority for addressing youth homelessness, and homelessness more broadly.

EXTENDING ACCESS

We know that access to devices may not be the most important access issue for young people and others in situations of homelessness. In Australia, research by ACCAN has found that 95 per cent of homeless people own a mobile phone, and 77 per cent of these are smartphones (Humphry 2014). Despite this high level of connectivity, there are serious affordability and availability issues. The same study found that 57 percent of people who are homeless reported difficulty with their mobile phone payments (Humphry 2014).

The issue of owning an internet-enabled device yet not being able to use it was highlighted in the recent launch of Ask Izzy, a location-based mobile information service aimed at the homeless. On the day of the launch, Australian Prime Minister Malcolm Turnbull, who was on his way to the launch at Melbourne's Salvation Army headquarters, was photographed talking to a homeless man sitting on the footpath outside the building. The man showed interest in the new service and had a mobile phone but no SIM card to access the internet (Wright 2016). The story highlights the daily struggle of many homeless people to have full and regular digital access and the risk of potentially exacerbating or creating new service barriers by assuming availability of internet access.

A focus on digital access conceptualised in terms of solving gaps in device access, commonly expressed in terms of a "digital divide", fell out of favour among researchers and policymakers in the early to mid 2000s. With the dramatic lowering in price of computers and mobile phones as a result of more efficient manufacturing processes and offshore manufacturing, and the expansion of internet-enabled mobile platforms, many pointed out that access was no longer the primary issue of digital inequality. Moreover, other issues such as the skills needed to use digital technology and engagement with services came to the fore.

Nevertheless, lack of affordability among low-income groups in industrialised countries and the new phenomenon of 'smartphone dependence', where people rely exclusively on their mobiles for access, demands that we reconsider issues of access in broader terms. Some identify the emergence of a new digital 'underclass' as a result of persistent and new inequalities of access and use particularly in relation to mobile internet (Napoli and Obar 2014). Levels of inequality vary and access barriers are experienced differentially depending on many variables - social position, income, gender, ethnicity and so on. *Homelessness* is one key barrier that has not been well understood or researched and yet it shapes how digital barriers and difficulties are experienced in quite specific ways.

HOMELESSNESS AND CONNECTIVITY

To understand how homelessness acts as a barrier to connectivity, we need to understand that homelessness is more than 'not having a roof over your head'. It's also about lack of control over the social and material environment. Not being able to access power, have a safe and dry place to connect and to control the conditions of connectivity such as when and how a connection is made; these infrastructural prerequisites make up the broader set of capacities necessary for effective and meaningful engagement with digital technology.

Connectivity barriers are magnified by homelessness. In these circumstances, places such as city centres become really important sites *because of their affordances of connectivity* over other areas like suburban fringes, coastal areas, and regional and rural areas. Out of



516 rough sleepers surveyed in the 2015 Street Count conducted by the City of Sydney, 100% were living below the poverty line. Research has shown that use of free WiFi and other free internet sources are key services used by people when homeless to connect digitally and stay connected. In the aforementioned ACCAN study, 50 percent of smart phone users and 43 percent of all mobile phone users relied on free WiFi hotspots (Humphry 2014).

In many cities, there is growth in WiFi options with the marketing and programming of urban spaces around the idea of the 'smart city' and integration of internet-based sales and added value services in retail and other businesses. Yet options for connecting via WiFi and other means in cities are still inadequate, and highly uneven. Options for free public WiFi vary considerably and are often modelled on a pay-as-you-go model, with the expectation that other services will be purchased in return for free WiFi. Moreover, internet access is regarded as largely an individual and private concern: with the expectation that citizens have a 'home' to return to where devices can be charged and the internet accessed through other privately owned means.

Although there are promising signs in the provision of publicly available WiFi, such as Brisbane City Council offering free public WiFi across 22 city parks and public spaces, in Australia, public WiFi has not been universally adopted as a goal of city planning. Yet, there are good reasons why Australian cities should be designed with the provision of free internet in mind. McShane, Wilson and Meredyth (2014) argue that in an Australian context publicly available broadband should be thought of as 'civic infrastructure', as for some people public WiFi "may be the only connectivity option available" (p. 132).

In the absence of widespread free WiFi or other alternatives, many people who struggle to cover the high cost of digital technology turn to public libraries for their digital access. Public libraries have traditionally played a key role in providing public access to sources of information, reading material and opportunities for civic engagement. Increasingly, libraries help to counter digital exclusion of disadvantaged populations (Kinney 2010). Libraries may provide the only option for freely accessible digital resources and digital literacy training needed to use them (Wyatt, McQuire & Butt 2015). As public institutions guided by the principle to "uphold civic values of access, diversity, equity and a culture of inclusion" (State Library of Queensland, 2013: 2), new responsibilities have arisen with the shift to a digitally dependent society (Wyatt, McQuire & Butt 2015). In this context, providing access to the internet becomes a "core public library service" (ALIA 2013).

Research into the role of Australian public libraries in the lives of homeless people in Australia has, however, pointed out that libraries could be doing more for this subsection of the population (Davis 2013). Davis points out that homeless people have a strong need for different kinds of information and access to different services – yet a lack of a fixed address, and staff uncertainty about how to approach and interact with a homeless person can result in new barriers (Davis 2013).

Making Connections was initiated with the understanding that *connectivity is a core need* and that *existing solutions are not sufficient*. We feel there is an opportunity for a wide range of organisations to take a lead role in supporting the development of creative targeted solutions that improve digital connectivity to young people who are homeless or at risk of homelessness. These solutions will benefit other groups as well, such as those who are highly mobile and those living on a low income, a recommendation echoed by several independent reports (Humphry 2014; Anglicare Tasmania 2014).

These solutions need to take into consideration the design of places where young people who experiencing homelessness come to seek shelter and support, and the physical and social environments in which connections are made. Most importantly, connectivity solutions need to be designed with and by young homeless people. Young people who have



experienced homelessness have direct experience of the challenges of connecting, and unique insights into how these challenges can be addressed. Decision-makers may believe that they have full understanding of the issues, but involving young people who have experienced homelessness in the process of creating new solutions ensures that solutions will not only be meaningful but will also best meet their needs.



Methodology

PARTICIPATORY DESIGN

Participatory Design is a design method and approach that emphasises user involvement and expertise in the production of new technologies and systems. In the words of the project's participatory designer, Denise Belling, "it is a human-centred design process using problem framing and rapid prototyping to solve complex problems. It views each challenge through the eyes of the actual users before designing a solution. It has five "elements" — empathise, define, ideate, prototype and test."

Participatory co-design was adopted as the research and design method for this project recognising that homeless young people have knowledge and insights gained from their experience and are, therefore able to come up with more meaningful and relevant solutions to address barriers sketched out above and others identified through the design process. Similarly, it was recognised that service providers and city planners have a stake in the development of connectivity solutions and need to be involved in the design of connectivity solutions to ensure their support and implementation.

Participatory design methods, of which co-design is one model, is a popular (one might say fashionable) choice at present. It is being increasingly adopted by corporations and government with the idea of maximising 'buy in' and engagement of users in commercial product development and in a range of digital reform strategies.

In this project the participatory methodology was central to the innovation process rather than just a means for testing prescribed designs, products and intentions. The ideas and the "stories" shared in the early co-design activities constitute "the data" and "the findings" in the form of the ideas generated, artefacts created and the videos produced to capture these ideas. These findings constitute a broad set of discoveries about the connectivity problems of homeless young people which in turn support a set of problem statements to be developed and responded to iteratively, thus:

Defining, or redefining, a problem consolidates insights and patterns based on the needs of the users into a specific actionable problem statement. This statement is the first iteration of the problem or challenge. (Belling 2016 p6)

Young people who have been homeless bring to the participatory design experience a distinct set of experiences and knowledges, and indeed, this is one of the main reasons for involving these users in the design process. At the same time, this requires that the participatory design process reflect on and attend to the particular needs, perspectives and expectations of this group. There is increasing recognition that for participatory design to be effective, consideration must be given to the specific socio-cultural context, where there may be different sets of values and even underlying knowledge systems among user groups and between users and participatory design teams (Tacchi and Watkins 2007; Winschiers-Theophilus et al. 2010). For this reason, Making Connections involved placing the distinctive needs and experiences of homeless young people at the forefront of the conceptualising, planning and design process.

INNOVATION WORKSHOPS

Making Connections revolved around a series of participatory co-design workshops, which we described as innovation workshops to emphasise the role of these workshops in the creation of new connectivity solutions. The first workshop involved young people recruited from youth-focused homelessness services in inner and western Sydney. The second



workshop involved stakeholder representatives from local councils, libraries, businesses, charities, telecommunication companies and youth support services and agencies to further develop the ideas generated in the first workshop and to initiate planning to support their implementation.

The workshops were facilitated by a participatory designer who was hired to run the workshops. Because appreciation of and sensitivity to the needs of this particular cohort were important considerations, we sought the involvement of a participatory designer with experience working with vulnerable young people, and this was included as one of the essential criteria in the expression of interest call out. Denise Belling from Empathika designed and facilitated the participatory workshops. Denise has 15 years experience in assisting organisations to apply human-centred design led approaches, including participatory co-design, to the development of technology, services, strategy, organisational culture and policies. Prior to Making Connections, Denise had been working on a community project, co-designing services and products with and for young people in out-of-home care.

Young people who have been homeless are more likely to have left school early and be disengaged from formal learning processes and environments and have an expectation of not being listened to and having ones ideas taken seriously. This concern was expressed in the young people's workshop and was starkly highlighted by one young man who attended the first workshop who questioned the chances that their ideas would lead anywhere, a concern that was echoed by the other young people at different stages of the co-design.

The need to communicate what to expect from the workshop outcomes was addressed in the research design, with information given to the participants about the prospects of solutions being implemented both in the recruitment documents and at the workshop. One of the reasons for building in a program completion and graduation component into the workshop which included handing out printed certificates was to try to establish the standalone value of participation. In addition, following the workshops, participants were sent an email thanking them for their contributions and communicating the next steps to be taken towards the advancement of their ideas. Participants were invited to attend the second stakeholder workshop, and were sent an email via their caseworkers detailing the results of the Stakeholder workshop. While none of the young people who participated in the workshop attended the Stakeholder workshop, one later attended a Young and Well CRC symposium as a representative on the symposium's youth panel.

Another important consideration was a potential gap in digital literacy and/or expertise needed to fully participate in the design process. For this reason the co-design process and program was planned with educational elements to upskill (if necessary) those participants as part of the co-design activities. As Merkel et al. (2004) have observed, participatory design is about facilitating the process of learning about ICT. It's also about instilling an understanding of the possibilities for ICT to solve particular issues and problems, and having a shared set of understandings and conceptual tools/vocabularies among users and designers for arriving at these (Merkel cited in Winschiers-Theophilus et al. 2010).

To address this need, the young people's innovation workshop was planned as a two-day event and included a series of skill-based educational activities on the first day. The workshop program was developed, working closely with the participatory designer and the chief investigator with feedback from the steering committee and homelessness youth services. It included experiential skills training so that participants developed skills enabling them to participate and contribute to the co-design group process.

The use of video in participatory design methods is well established, and played an important role in the Making Connections project. Video was used to document the workshop accounts and insights of participants around connectivity issues, to record the designs and artefacts



generated at the workshops to inform further iterations of these ideas and to document the research process in order to reflect on and inform future strategic interventions. There are two video products of the Making Connections project: a 'pitch video' which showcases the five ideas that the young people came up with in the first workshop, and which was screened at the outset of the stakeholder workshop. The second video product is a video documentary which documents the project as a whole, the co-design process and the outcomes. Jax Wechsler of Sticky Design Studio produced the videos for Making Connections. A human-centred designer and videographer, Jax relies extensively on video in her practice, using video and visual artefacts to support person-centred innovation and organisational change.

In addition to being the main research methodology, the participatory design component of Making Connections had the added purpose of being a test or a prototype of its utility as a model for future connectivity initiatives in other locations and contexts. In this sense, the "data" of the research also consisted of the process itself, thus the importance of having a video record.

VISUAL ETHNOGRAPHY AND DESKTOP REVIEW OF DIGITAL ACCESS SERVICES

In addition to the co-design component, an ethnography and desktop review of digital access sites and services was carried out in Parramatta and the City of Sydney by Dr Evan Smith. The aim of this research was to provide local specific information on the connectivity options available in the locales where the participants had visited or spent time in when homeless (though it was not expected that these were restricted to these areas). The observations took place in Parramatta on the 8th and 28th of October 2015 and in the Sydney CBD on the 9th and 28th of October 2015 and focused on services made available to the general public. predominantly as free services. Photos were taken of the digital access services discovered through a series of street walks and directory and web searches and information about the name of the service, cost, location, access type, conditions of use and additional details were compiled into a database and written up as an observation report. This information informed the workshop activities and allowed participants to develop solutions that leveraged known services and to come up with entirely new digital connectivity solutions that better matched their communicative practices and access needs. This list of digital access services is included in the Appendix 2 of this report and has been shared with Infoxchange to include in Ask Izzy, a mobile website directory of homeless and related services.



Project findings

REVIEW OF DIGITAL ACCESS SERVICES

PARRAMATTA

Parramatta CBD has numerous open access WiFi services, most of which are concentrated around shopping centres, restaurants and cafes, and Parramatta City Library. The most notable of these services is located at Westfields Shopping Centre at 159-175 Church St.

This centre is quite large, with the WiFi network extending throughout the entire building. Before entering the shopping centre, customers are faced with large signs on the entry doors and throughout most of the centre advertising this 'free WiFi' service. The service is made available by Westfields through a partnership with 'Optus Yes'. To register, users are asked to sign in with their Facebook profile or email address to receive 3 hours free (or 1 GB). Based on the observations made on the 8th and 28th of October, 2016, Westfields is a place where a lot of young people come to socialise, eat and shop, particularly in and around the food court/cinema areas.



Figure 1 Signs advertising free WiFi in the food court of Westfields, Parramatta





Parramatta City Library provides free digital access services in the form of free WiFi and networked computer terminals. Users are able to connect to WiFi with no information/sign-in details required and the WiFi is unlimited. A 'charging cabinet' is available within the library for charging personal devices. At the time of the observation, a number of young people, including school children, appeared to be utilising this service. There is also a dedicated 'youth section' within the library. Other facilities of the library include computer terminals. These terminals can only be used by library members for a maximum of 30 minutes per day. Like Westfield's Parramatta, the library's WiFi network can also be accessed from outside the building (up to a few metres away).

Figure 2 A charging cabinet for phones and other devices inside Parramatta Library

Besides cafés and multiple restaurants offering free WiFi, there were other more limited digital access services available in Parramatta. These were not completely 'free' or were restricted in some way. One of these services was Telstra Air hotspots. These hotspots can only be used by existing Telstra customers who are asked to log in on their devices using their home internet allowance as a hotspot connection.



Figure 3 Telstra Air WiFi hotspot in Parramatta CBD



There were other limited digital access services available at the Parramatta Centrelink/Medicare office. Here, free standing computer terminals can be used by the general public for 'Centrelink related purposes only'. However, a basic google search proved successful, along with some limited email access.



Figure 4 Telephones available inside the Parramatta Centrelink/Medicare office

Other services within the Centrelink office included some telephone access. These telephones allowed users to access Centrelink related services such as employment, housing, tax advice, childcare and so on. Numbers were provided next to each phone for specific services. Similar services could also be accessed on the free standing computers via digital/online links from the Department of Human Services webpage (already opened on each terminal as a 'home page').

CITY OF SYDNEY

The Sydney CBD has quite extensive 'free WiFi' services. Most of these free services are available in shopping centres like Westfields, the QVB and the Strand. Other free WiFi services available in government buildings are in the Sydney Opera House, train stations (Central and Circular Quay) and libraries such as the State Library of NSW and Customs House.

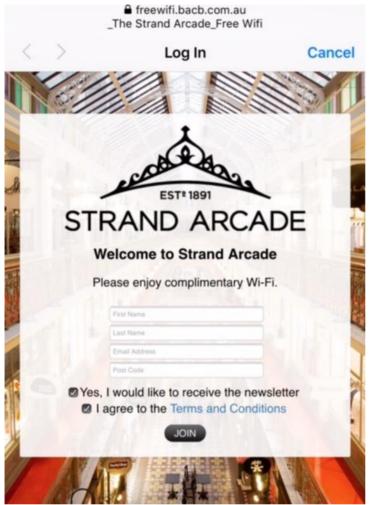


Figure 5 Free WiFi at the Strand Arcade

The State Library of NSW offers free public digital access. The free WiFi seemed quite slow at the time of observation, and there were few computers available for public use (five in total). These computers can be used for a maximum of 30 minutes at a time. There is, however, a separate room available for 'library members', which contained more computer terminals that could be used for 1 hour at a time.

Customs House Library provides a generous range of digital access services in a modern and inviting environment. There are free-standing terminals, and seated options available on all three levels. The library also offers free WiFi throughout the building. This WiFi service allows for 500MB per day. There are computer terminals available for internet access, but users must be a member of the library and purchase a user card for \$1. Non-members pay \$3.50 per 30 minutes to access these terminals. These computers can only be used for up to two hours at a time. During a walk through the library some people who may have been homeless were witnessed using these computers/internet facilities. The library felt welcoming, relaxed, technologically 'current' and also offered food and drink services for purchase.





Figure 6 Free WiFi at Sydney Central train station

Unlike Parramatta Station, there is free WiFi at both Circular Quay and Central train stations. Users have to agree to the terms and conditions and are provided with 400MB of free data per day. Unfortunately, these were the only stations that appeared to have this service. There are other free WiFi hotpots around the city including McDonalds and many other restaurants and cafés. Like Parramatta, there are no free telephone services available; only Telstra's paid phone and 'air' facilities. Both of these services require uses to pay money or to be a current Telstra home broadband customer. Hyde Park and other open air spaces in the city did not appear to offer free WiFi, and again, had only Telstra air services available. The Centrelink/Medicare set up in Darlinghurst was very similar to the set up in Parramatta. This office however also offered free printing services and had signs indicating 'self-service' style computers and telephones.

SUMMARY

There are numerous WiFi services available throughout the Sydney CBD and Parramatta but variations in the conditions and availability of these services with several of them involving payment for membership and use after an initial free period. These services also tend to be highly concentrated in and around shopping centres, restaurants and cafes and local libraries. There is a distinct lack of free public telephone access and places to charge devices at both sites. WiFi is available in some public areas but does not extend universally to all parks and train stations/bus stops. Overall the digital access features of Sydney and Parramatta are sufficient but do not compare well with other Australian cities such as Brisbane, which offers free WiFi in most city parks and open air spaces, and Adelaide, which has rolled out a city-wide WiFi network with free wireless coverage in outdoor areas across the CBD and North Adelaide.

A secondary, though significant, finding of this aspect of the research was the lack of information available about public and free digital access and related services. For young people who find themselves in places without access, this information is an important resource and form of assistance in itself, which can save a lot of time and energy searching for a connection. The need for information about free digital access services was further highlighted in the innovation workshops, and incorporated into one of the solutions proposed. The information gathered for this report has been compiled and shared with other services



and information providers (like Infoxchange). However, there is still an unmet need when it comes to this issue and consequently, the following recommendation is made:

Recommendation:

Create a comprehensive and accessible directory of digital access sites and services, such as locations of free WiFi, and publicise widely to youth centres, homelessness services and the general public.



YOUNG PEOPLE'S WORKSHOP



Figure 7 Workshop participants getting to know each other

The first of the two participatory co-design workshops was held on 3-4 December 2015 in Parramatta. Fifteen young people recruited from youth homelessness services were confirmed for the two days. On the day, there were eight attendees. The "no shows" were mainly related to crisis situations that prevented the confirmed participants from attending. This underlines one of the considerations when working with this cohort and young people in general - substantial attention needs to be given to recruitment- achieving the numbers (and the desired representation) means being mindful that for those in a situation of homelessness or dealing with the fall out of homelessness, participation is not easy.

The eight young people who attended the workshop, however, were very enthusiastic and engaged. They came armed with ideas to contribute (indeed we had to make some changes to the program on the day recognising their readiness to move into the making) and all but one of these, who had work commitments, came along for the second day of the workshop.

PARTICIPANT DEMOGRAPHICS

The participants were aged between 16 and 24. Seven were male and one female. One participant indicated a disability (mental health issue). The housing arrangements of participants was as follows at the time of the study: one was living in emergency housing, three in supported housing, two in public housing, one in a boarding house and one declined to indicate. Two were at TAFE, one attending university and the remaining 5 were not enrolled in any form of higher education. None of the participants identified as Aboriginal or Torres Strait Islander.



STORIES OF HOMELESSNESS

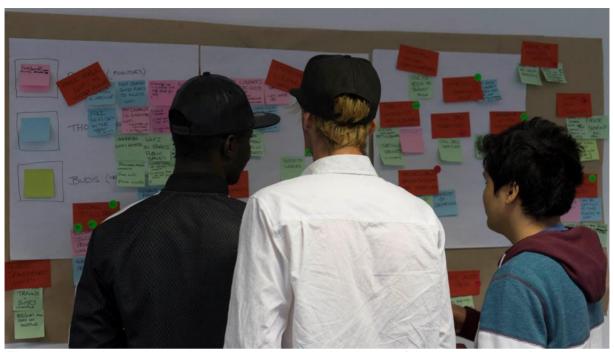


Figure 8 Assessing positives, challenges and opportunities in one of the workshop activities

When the young people shared their stories of being homeless, the kinds of connectivity barriers and difficulties identified resonated with findings from the ethnographic and desktop review of digital access services detailed above as well as previous studies. These congregated around a number of key themes and problems:

1. Access to free WiFi and a 'good' mobile plan

For young people experiencing homelessness, free WiFi accessed through their mobile phones are the main means for connecting. Like previous studies, which have found that free WiFi subsidises the high cost of mobile services, young people at the workshop talked of using WiFi to manage and extend their internet access and replace voice calls using messaging services like Facebook and Snapchat. Indeed, young people travel to city centres in part because of the concentration of free WiFi hotspots in these places. Yet even in city centres, free WiFi is highly concentrated in particular areas, and young people find themselves moving around in search of a free connection. George, one of the workshop participants explains:

Pretty much like everyone else, just walking around endlessly just trying to find a simple connection...I'm walking around and I just have my WiFi open checking trying what crops up on the page, trying to find something that works, usually you can't even find anything anywhere it's pretty hard. I've found that in the city it's a lot more common but if you go further west especially near Penrith or anywhere between Blacktown and Penrith there's not much free WiFi, it's more something you have to pay for.

Another young man, who had travelled to Sydney after a period of being homeless in Queensland explained how lack of access to working telephones was a particular problem in his home town and that this was experienced as part and parcel of the struggle of being homeless. Peter:



Where I grew up a lot of the phones don't actually work, they are already fried. People wouldn't come and fix them because they'd get broken again. So basically we never had public phones. So if you wanted to use them, you'd go to the library, even those ones were broken. Yeah it was rough. Like I remember when I was 16 I was homeless and was kicked out of the foster home I was in, I had nowhere to go I'd walked about 4 hours just to see if I could stay at a friend's house and he didn't end up being home so I ended up sleeping in a dog's kennel with his dog.

Many of the difficulties associated with access to the internet and the telephone came down to the suitability of the place as a site for access and use. Workshop participants suggested that WiFi on public transport like buses and trains was a good idea because while on them young people felt relatively safe. One of the participants, Gary, was very knowledgeable about WiFi availability on public transport. He explained how he would catch a Tourist Shuttle Bus and use the free WiFi which was available for the first two or three stops, and then he'd hop off. There was general agreement that McDonalds was another key access source because of its prevalence and reliability, and that young people have a variety of strategies for stretching out their visits to use the free WiFi by buying a juice or packet of fries.

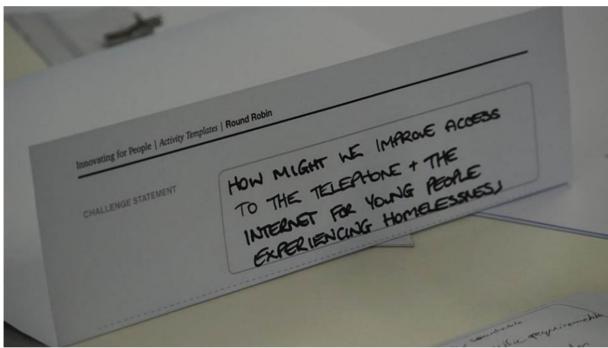


Figure 9 Using a round robin exercise as part of the ideation process

Closely related to the issue of free WiFi is the availability of affordable and flexible mobile plans since the need for free WiFi arises as a direct consequence of credit shortages and insufficient data allowances encountered by young people on low or no incomes. From the input by the young people at the workshop there was a clear desire from all to be able to 'pay their way' and not rely on free services and handouts. There was discussion about the kinds of mobile products and plans that worked well for young people when homeless. Particular mention was made of the Optus prepaid \$2 a day plan, which the participants understood was no longer available:

Yeah it used to be the best... I used to be on it. You could do anything you want for \$2 a day. I used it for my laptop, my mobile, everything. You didn't need a contract. You could charge it for \$10, everyone can afford a bit of money every day, so if you have \$30 you can use it for 15 days



Also recognised to be important when you're living rough is a robust mobile handset, and again there was general agreement that one product in particular lived up to the test though it was limited in its functionality - the Nokia 360:

E63, they're one of the best phones ever... You can throw it off like the tallest building [laughter]. All you can do with this phone (Nokia 360) is pick up calls, make calls and text message.



Figure 10 One of the ideas – the ideal mobile plan

Because the workshop participants regarded the issue of free WiFi and the ability to make voice calls of key importance and concern, these formed the basis for one of the connectivity solutions – 'WiFi and Mobile Access for All'. This solution is detailed in the section below.

2. Power access, physical safety and security of belongings

Another key barrier identified by the workshop participants was access to power for charging mobile devices and related safety considerations. Like the search for free WiFi, young people described the time spent looking for places to charge their devices and the considerations around safety and legality of accessing power from private sources. For example, workshop participants explained how power points in commercial places can be a problem and expressed concern about the risk of being charged for power theft. Some had heard of stories of other young people being charged by police for such an activity. Charging stations were identified as helpful including solar powered charging options but the key issue was whether these were located in suitable places.

Both power and WiFi services are not necessarily available in safe places and their use can expose young people to increased physical harm. There was some concern voiced about the Telstra Air hotspots on this point, and there was general consensus that even if these were free (at present they are a service to Telstra customers) these would not necessarily be a safe internet access option since they are often located in open public places with little shelter or protection.

While essential for being contactable and making contact when you're homeless, mobile devices can themselves increase the risk that young people will be exposed to some form of



physical harm, particularly when sleeping rough. One young man at the workshop described how his mobile phone and laptop, which were in his bag, were stolen right from under him.

Gary: 'Anything valuable anyone is willing to snatch and run. Some people are willing to stab you for it... I had literally nothing...I was sleeping under a tree, I had literally nothing. I was sleeping with one bag on the back of my head, my other bag was over my shoulder. And it was pretty much grab and run and put a knife through my belly just to make sure they get away. I literally had a knife in my belly.'

The safety issue is magnified by the shortage of alternate ways to contact emergency services, and the unfortunate reality that many members of the public shy away from helping people in critical situations such as this.

Gary: 'I pretty much woke up because my bag was being taken off my arm and woke up and there's a knife...no one helped me for about 5 hours later.'

Denise: 'You didn't have a phone to call emergency?'

Gary: 'It was in my bag. I had literally nothing. I was holding my hand over the wound, crying for help, going past a school, teachers did nothing, five drive bys they just zoomed off...I was bleeding like crazy man, people should have least stopped.'

Physical safety and indeed homelessness more broadly is a gendered experience. This point was highlighted when one young person attending the workshop privately shared her story with the researchers of the considerations she made when finding a place to stay for a length of time. Rather than sleep on the street or in a park, she would seek out spaces like the foyers of public institutions which offered a degree of security like libraries and universities – these are safer places to rest than the street, and typically offered some connectivity such as free WiFi.



Figure 11 A secure place to store items and charge phones and other devices is needed

Safety was a key consideration of a number of the connectivity solutions and at the core of one particular idea inspired by this story - 'lockable charging cabinets'. This solution is detailed below. As this latter mentioned example suggests, the way in which city spaces



afford different experiences of safety according to gender and other intersectionalities like sexuality and race/racism needs to form a part of how we design and plan for digital access and related connectivity services.

3. Information about services by young people for young people

Connectivity is more than being able to access and use digital technology. It's also about the kinds of social and support connections afforded by these platforms, such as access to a shower, food, clothing and health services, which when homeless, are essential. While there are many directory services available, and even homeless specific directories with the development of Ask Izzy, what workshop participants identified as missing was information specifically targeted at young people by young people; that is, knowledge that young people have gained from their life experiences and that they want to share with others like them.

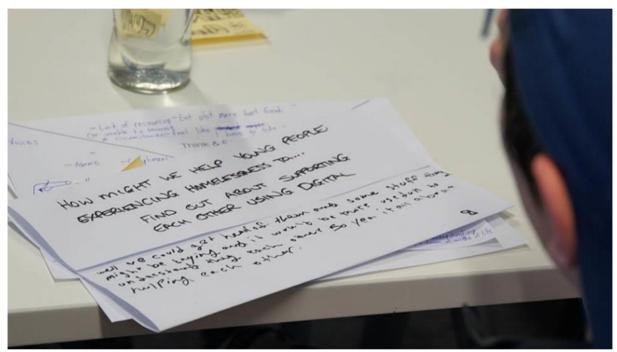


Figure 12 Coming up with ideas for how young people can work together to help solve problems

This empathy and desire to share knowledge and insights gained from their experiences of homelessness featured strongly in workshop discussions, confirming previous findings in research which have found that peer-learning among young people is an important source of digital and consumer literacy (Humphry 2014) and identity formation (Bettis and Adams 2015).

Being able to share information like where to find free WiFi and food and 'places to go where you can get help', was a core consideration of the workshop participants and led to the creation of the 'Peer to Peer Help' connectivity solution. It was thought that in addition to getting access to help, this solution might also be able to shorten the delay in obtaining assistance, an issue that also features in the next section. This solution is detailed in the following section.



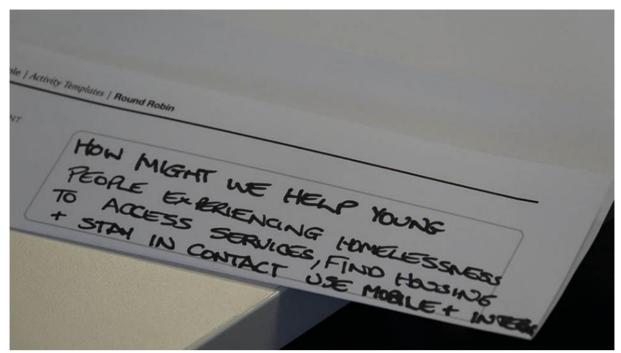


Figure 13 Coming up with ideas for how to enhance access to support

4. Public libraries: a safe place to connect

Public libraries are a key place to go if young people have no access to the internet: 'If I really need the internet I'd just go to the library.' Libraries are well known, they are in most places and they are places where you can get information about where to get help: 'it's a place to go to feel safe and secure and get connected to services'.

Libraries are also places that offer a higher level of safety and anonymity, important for countering the social stigma and labelling that applies to homelessness, which young people resist. Libraries also provide access to the internet through desktop computers, which has proven to be very important for carrying out a range of information and communication activities that are not well supported on smart phones because of their smaller size, screen and keyboard options.

The heavy reliance on public libraries for digital access is amplified by the reform currently underway of a wide range of public and private services which is steering many services into an online-only environment. This deepens dependence on smart phones: "It's getting harder and harder to find out about (let alone access) services without a smart phone", and makes the availability of alternate sources more vital.

While the young people at the workshop were well aware of the benefits of public libraries and were regular library users, there were a number of areas where it was felt libraries could be improved. One of these was reach of free WiFi both in terms of availability into surrounding areas outside the library and keeping the service working after the library closed.

It was also thought that libraries could be doing more specifically for people who were homeless in the form of providing showers, places to sleep and even food. Related to this was the need for more homeless specific referral services, which would help to reduce delays in getting connected to support and assistance. These delays 'in the system' were a common theme and linked to related issues of not being believed or trusted when fronting up to government agencies and being expected to produce documentation such as identity papers despite being homeless and not in contact with their parents.



It took me about 2 weeks to find out (about services). I had to go through Centrelink. They didn't believe me that I was homeless and my dad kicked me out. I was 13 and my dad was getting my Centrelink money.

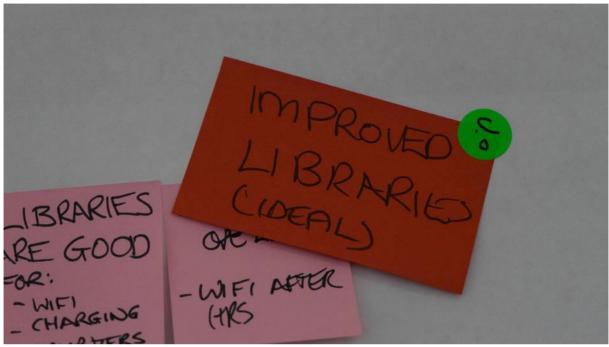


Figure 14 What does the ideal library look like for a young homeless person?

Public libraries already play a key role as a resource for young people experiencing or at risk of homelessness but the idea that they could cater more for the specific needs of homeless young people informed another connectivity solution – the 'library 'home' pod'.

5. Access to other kinds of access capital like small loans

While digital connectivity was the focus of this project, a key finding that came out of the workshop is the broad way that connectivity was understood and practiced by young people. Connectivity is more than just access to technology, it is also about the capacity to afford and use technology and to keep it working. It's about access to the kinds of social and material connections that digital platforms support through services like web-based directories, messaging and voice calls. It's also about access to the kinds of opportunities that other young people typically have access to such as small financial loans and start up schemes. This idea that young people who are homeless miss out on the opportunity to get a starting loan and help for their own business ideas was the subject of another one of the connectivity solutions generated on the day of the workshop – the 'micro-loans scheme'. This solution is detailed below.



YOUNG PEOPLE'S SOLUTIONS

All of these stories and the underlying themes or problems that they revealed formed the basis of the solutions generated by the young people through a series of ideation activities and then presented in the final part of the workshop. The five solutions developed and presented by the young people at the workshop were:

WIFI AND MOBILE ACCESS FOR ALL

A 'bare access' universal WiFi and mobile policy and service which provides a basic level of communication access to all Australians.

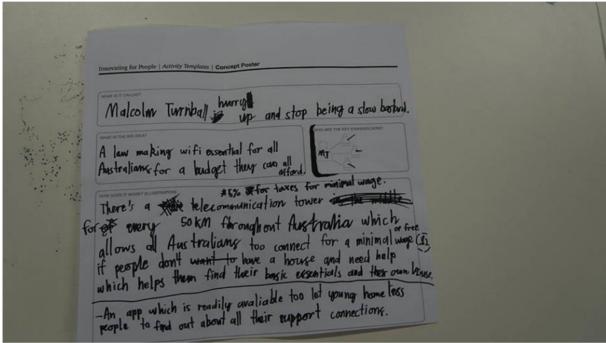


Figure 15 A concept poster for the idea WiFi and mobile access for all

This solution responds to the need for widespread free public WiFi and flexible mobile plans that are affordable for young people and others on low incomes. The idea is that all Australians have access to universal 'bare access' mobile service which would include free WiFi and a basic level of mobile voice and data.

It was imagined that the cost of the service would be charged as a proportion of a person's income and that this would be bracketed much like the taxation system. The service would include a way for homeless young people to find out about relevant support services, a solution which was integrated into or the focus of the other project ideas by the young people.



SECURE CHARGING LOCKERS

A secure charging locker to charge mobile devices and store valuables near or in train stations and shopping centres.

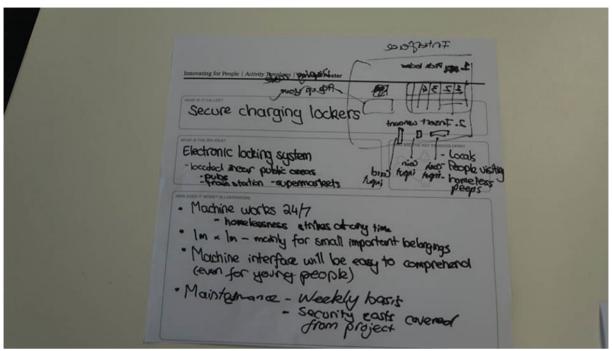


Figure 16 A concept poster for the idea of secure charging lockers

This idea responds to the problem of the need for a safe place to charge and access mobile technology and secure belongings. It was conceptualised as a standalone set of lockers with an electronic computer locking system which was to be located in highly visible and well frequented places like train stations and outside shopping centre.

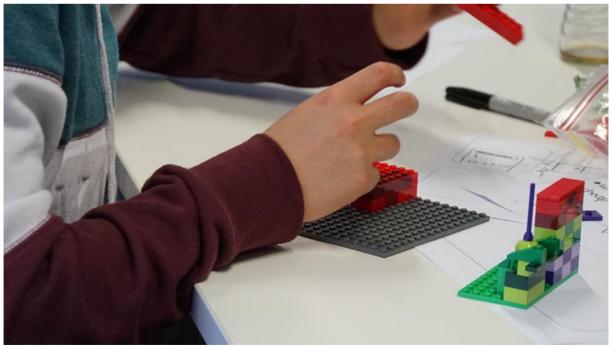


Figure 17 Building a prototype



The Secure Charging Lockers would allow people to securely store their valuable belongings like wallet for short and medium length intervals (on the hour, or for a day) and charge mobile devices. Each locker would offer a set of compatible chargers for a range of mobile handsets and devices. The serviced would be charged (one suggestion was 60c a day) but would be affordable for people who were homeless and on very low incomes.

PEER-TO-PEER HELP

A peer-to-peer service directory curated by and for young people who have been or are homeless with a moderated wiki style content system.



Figure 18 Prototyping the Peer-to-Peer service directory

The service would be delivered on a range of platforms: as a web site, mobile web, app and include the option of sending the information in a variety of modes, as a text message, as a voice message and as a map with geo-located service.

A key feature of the directory is that it would be searchable according to situation, and this way able to handle the needs of young people in different life stages and circumstances, including homelessness. Another key feature is that young people could rate and review a service and that this information would be visible alongside the service information providing a form of peer assessment of the services.

The directory content would be prepared and curated by young people and it was imagined that there would be a role for youth homelessness services in overseeing and/or driving the project to ensure representation and opportunities for participation from clients and exclients. Services could also offer training in digital content curation and writing.

The service would be delivered across as many access points and platforms as possible including on computers in high schools, school libraries, food outlets, community kiosks and youth support services and centres.



LIBRARY 'HOME' POD

A private sleeping pod in the library with free access to the internet, shower, locker and service referral.

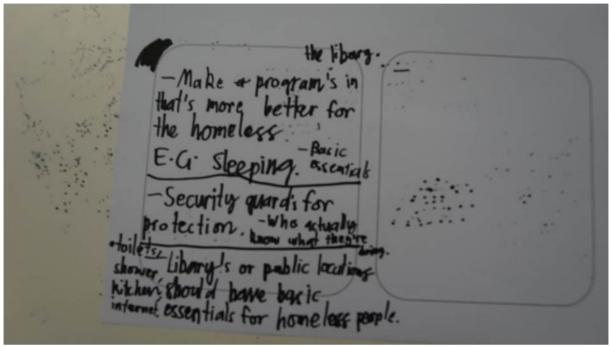


Figure 19 Thinking through the role that libraries could play for the homeless

The Library 'Home' Pod responded to the idea that there were a number of areas where it was felt libraries could be improved, catering their services more for people experiencing homelessness. The core of the idea was that libraries could provide a private place for people who are homeless to rest and sleep as well as basic services such as a shower, locker and referral services.

It was mentioned that there are already some libraries offering some or all of these services and that these could be a model for existing and new libraries. There was general agreement that there would need to be time limits on staying at the library and that the real strength of the idea was as a gateway to obtaining more specialised assistance.

There was also discussion about whether libraries are best placed to offer an accommodation service when there are other models such as refuges and emergency housing that are designed specifically to meet that need. It was floated that libraries might not be resourced for this adequately but that they have the advantage of being widely known and used already by people experiencing homelessness.



MICRO-LOANS SCHEME

A micro-loans scheme for young people who have been or are homeless to support a business start up with a package of social media/advertising and mentoring assistance.



Figure 20 Prototyping the micro-loans scheme

This solution arose from the problem identified that young people who are homeless miss out on the opportunities other young people have access to such as getting a small loan and help starting up their own business. The core idea was that a homeless young person could apply to a public institution for a loan of up to \$10,000 with no interest made available over 20 weeks and to be paid back over a period of time. The loan would be strictly for business purposes with a suggestion that the loan application require a statement about what it would be used for.

There was discussion of building in a mentor program so that the young person would also have access to mentorship and support in developing the business idea and for harnessing the power of social media to build the business. A key consideration of this idea is that the loan would be available from an independent non-financial institution. It was identified that Centrelink would not be an appropriate agency to offer the loan as there is often a degree of acrimony and feeling of distrust by young people because of difficult dealings and transactions with this agency.

SUMMARY

Each one of these ideas prioritised one core problem or issue of connectivity but many of these also addressed related issues and had overlaps, for example, it made sense that lockable charging cabinets might be hosted in libraries and that a peer-to-peer help directory service might be offered as an inclusion in a basic universal WiFi and mobile plan.

The young people's presentations of these ideas were filmed and made into a 'pitch video', which was screened at the second Stakeholder workshop. The aim of the 'pitch video' was to communicate the young people's ideas and visions to the stakeholders and inform their codesign process.



STAKEHOLDER WORKSHOP

At a second workshop held in February, representatives were invited from the City of Sydney Council, State Library of NSW and other libraries, Parramatta Council, Western Sydney University and homelessness peak agencies *YFoundations* and *Homelessness Australia*, and Mission Australia.

The purpose of this one-day workshop was to provide a way for the young people's project ideas to be further developed, recognising that these require collaboration and support across multiple stakeholders and services.

There's varying degrees of commitment and recognition of this need for organisations to take a lead role in supporting targeted solutions that improve digital connectivity to marginalised young people. Thus, another important reason for this workshop was to raise awareness and understanding of the specific needs of marginalised young people, and assert the importance of engaging with homeless young people in urban planning and in telecommunication/digital product design.

The pitch video that documented the ideas and presentations of the young people was screened at the Stakeholder workshop, functioning as a tool for communicating the young people's ideas and forming the basis for further co-design iterations.

Besides kick starting the stakeholders' co-design, the video was an effective way to build a better understanding of the digital connectivity needs of homeless young people and the link to other integrated services such as support, housing and education.



Figure 21 Stakeholders watch pitch videos showcasing the ideas from the first workshop

The stakeholder groups went through a similar co-design process compressed into a single day. The initial activities were designed to familiarise the participants with the young people's stories, the problems they experienced and their ideas for solutions. They then split into group-based workstations and further workshopped these ideas and co-created prototypes and pitches to present their high level planning ideas for implementation. The four solutions developed and presented by the stakeholders were:



CONNECT, CHARGE & GO

A mobile and/or fixed kiosk providing a range of connectivity solutions located in places alongside existing support facilities and services.



Figure 22 Connect, Charge & Go prototype

The key purpose of the 'Connect, Charge & Go' program is to enable young people and others experiencing homelessness to charge mobile handsets, swap used portable phone recharge cards for charged cards and access a range of other connectivity services. These include:

- 1. Cheap or free SIMS and a facility to recharge mobile phone handsets and devices while you wait.
- 2. WiFi hotspot providing free internet access.
- 3. Advice and information about digital technology and telecommunication matters delivered by volunteers and/or staff.

The project is conceptualised primarily as a mobile service that works alongside existing homelessness services and sites like food vans, pop up libraries and outreach services. The service could be offered as a more fixed solution, in which case it would need to be hosted within an appropriate site such as a public library or government agency foyer.

The project responds to the need for 'WiFi and mobile access for all' but when considering this bigger issue, there was an acknowledgement that this wouldn't be solved in the short term due to the complexity of provision of WiFi at a national level so the stakeholders chose to develop a solution that could be delivered now, at low cost and targeting the homeless population.

The strength of Connect, Charge and Go' is that it is a self-contained solution that doesn't require significant new infrastructural commitment yet delivers a wide set of connectivity services. It is well targeted, reaching out to the intended audience by leveraging off an existing service base. Its weakness is that there is still an unmet need for universal mobile access for all Australians, which none of the co-designed stakeholder solutions were able to



fully address. This could be viewed as a limitation of the co-design process, a taken up in reflecting on the participatory methodology below but also underlines the need for further action in the larger context of a review of Australia's Universal Service Obligations (USOs), which at the time of this report was the subject of an inquiry by the Productivity Commission.

Arising from this, therefore, is a recommendation to work with telecommunication providers, government policymakers and consumer advocates to develop an up-to-date set of USOs that takes into account access to WiFi and mobile services for all Australians, which is centred on the pillars of 'available, accessible, affordable and empowering' communications (de Ridder 2015) and responds to the barriers of low income and disadvantaged groups.

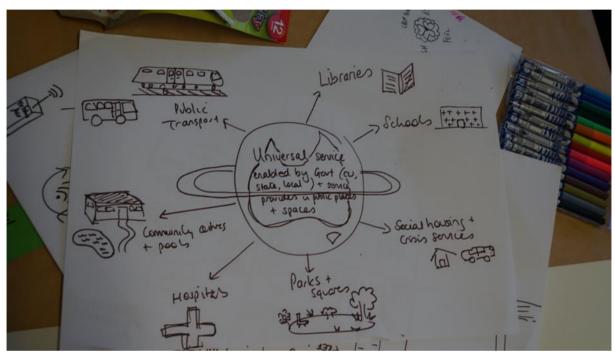


Figure 23 A WiFi and mobile access solution for all means updating policies like the USOs

Recommendation:

Develop Universal Service Obligations and a public WiFi program that meets the requirements for affordable and mobile access for all and which is suitable for low income and disadvantaged Australians.

An important consideration of this USO reform process is that it does not displace or delay the equally important task of implementing a comprehensive public WiFi program in Australia. The findings of this and previous research on homeless populations demonstrates a strong case for rolling out city-wide WiFi as part of a response to tackle digital exclusion of low income and disadvantaged Australians. In this, we are in agreement with McShane, Wilson and Meredyth (2014) who have argued that in an Australian context publicly available broadband should be thought of as 'civic infrastructure', as for some people public Wi-Fi "may be the only connectivity option available" (p. 132).

In planning for public Wi-Fi, we underline the importance of taking placement and the safety and well-being of users into account. Not all spaces are appropriate for free WiFi; access to shelter and shade, seating, food, amenities and the presence of other people are all aspects



that need to be considered, along with terms of use, connection quality and internet speeds (Lambert, McQuire & Papastergiadis, 2014).

Detailed concept guidelines have been developed for 'Connect, Charge & Go' that includes mock ups of key aspects of the design, a breakdown of the characteristics and how it could operate, including set up, locations for the service, funding and branding opportunities. The 'Connect, Charge & Go' concept guidelines are available as a separate document and can be requested from <u>i.humphry@westernsydney.edu.au</u>.

PEER HERO

A peer-to-peer information sharing platform and network that provides helpful information to young people in vulnerable situations.



Figure 24 Peer Hero prototype

'Peer Hero' draws on the idea that many young people who have experienced homelessness come out of this with valuable knowledge of how to survive and a desire to help others in similar situations. This project idea is an acknowledgment of this good will and knowledge and a way for young people to make a contribution to a shared peer resource which is widely accessible.

The idea is an online service information-sharing site accessible from a wide range of platforms including from a private kiosk or booth. The service information made available through the site adopts a broad definition of 'service' encompassing accommodation services, food vans and digital access services as well as useful and relevant information about, for example, cafes that offer free coffees to the homeless, friendly places to eat, museums, interesting graffiti and other places and objects that entertain and uplift. The site search capability needs to be intelligent recognising users may not necessarily know the key words to enter to return the desired or most useful service information. It would also have the capability of providing 'quirky' results, with some randomised elements built in, such as an 'I feel lucky' option.



Peer Hero would source information from existing service directories and might partner up with content producers to ensure that service information is comprehensive, up to date and accurate. A clear distinction might also be made between 'official' information and the 'unofficial' conversation, or 'buzz', around services to address concerns that user comments might be seen as an official endorsement or criticism. The service would have a Wiki-like back end supporting user moderation and contribution. In much the same way as Wikipedia, the critical factor for Peer Hero's success would be the involvement of young people in content generation and in taking ownership over the content to make sure it remains relevant and current.

The key stakeholders of this service would be the content providers, users, youth homelessness services and platform developers that would provide information and/or resources to support the project and its delivery. It was imagined that this service would be provided in the form of a kiosk or booth as well as through an 'app' and mobile web site. The booth would be a private and comfortable space where the user can access the directory and would also provide free WiFi as an additional offering. Information that users wished to 'take away' could be supplied in a variety of forms taking into account the different types of access disadvantage: texted to a mobile, sent as a voice message or printed out, including a map which locates the service.

The key risk factors for the successful development and delivery of this project are getting the resources required for its support and maintenance. Overuse of the service by people who aren't in need, especially the WiFi component, might be an issue. Curation and moderation of the site would need a thoughtful approach and set of strategies particularly given that young people would be sharing personal experiences of being in vulnerable situations and this raises issues of privacy and confidentiality. Finally, because the site requires the engagement of and ownership by young people, the design would be critical.

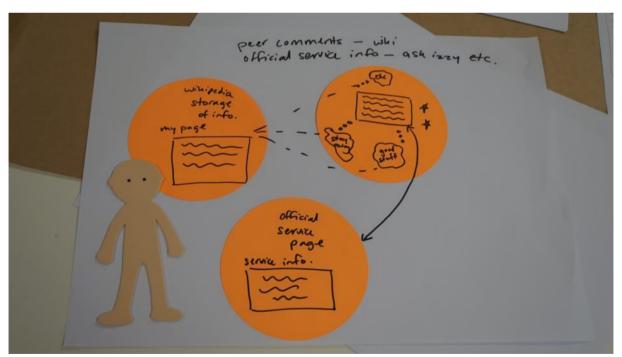


Figure 25 Developing the Peer Hero idea

Although detailed concept guidelines have not been drawn up for this project, we see significant benefit in this solution being further developed and believe it could work well as a complimentary or parallel resource offered alongside existing service directories with more formal service information. Prototyping the solution might be achievable through a



partnership with an existing content provider, and tested with clients of youth homelessness services with a limited roll out of the physical hardware.

The service has some overlaps with other connectivity solutions proposed, for example, it could be hosted in a library or through the 'Connect, Charge & Go' kiosk and 'KeepSafe' interactive secure lockers. The service is envisaged as a free service but there are options for corporate sponsorship and branding to cover some of the initial establishment and ongoing costs. Communities might have the option to purchase a modular version that could be constructed and installed locally.



KEEP SAFE

An interactive secure charging locker that connects people who are homeless to help and services and keeps their belongings safe.

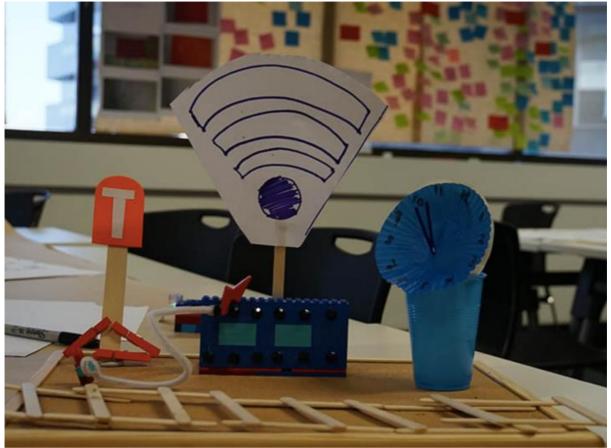


Figure 26 Keep Safe prototype

This project builds on the 'Secure Charging Lockers' idea and responds to the issue identified by the young people that the things they felt were important to them, their belongings, were vulnerable in situations of homelessness. Theft is a common issue when sleeping rough and added to this is the risk of document loss through theft such as key identification papers and cards, and the difficulty this poses for accessing services until these have been re-issued. One of the youth case workers who attended the stakeholder workshop described this burden in terms of "swimming against the tide".

The idea for this project is that it is not just a secure charging locker that keeps their belongings safe but that it is also interactive - connecting homeless people to help and services. Access points would most logically be in train stations because there is a police and security presence, they are powered sites, they are open 24/7 and they are usually at central hubs. The lockers would be intended for short term crisis use by people who are homeless and until their current housing crisis is solved. In this sense, the service would be limited to those most in need and would probably be referred for use through agencies such as Centrelink and homelessness outreach services who would be able to identify eligible customers such as a young person who is waiting for emergency housing or is not quite ready to take the step to move into stable accommodation.

Inside the locker there is a power charge option to make sure that people who are not in secure housing or who do not necessarily have a regular place to charge their devices can always keep their mobile phone and devices charged. There would be multiple charging



options available and storage would be for small valuable items such as wallets rather than luggage or bags.

For authenticating or opening the lockers, there would be a passcode, thumbprint or voice recognition option. It would have free WiFi connectivity and there would be interactive screens that would give young people access to service directory information like Peer Hero and other services. There would be an intercom or telephone link direct to Link2Home, Beyond Blue and Red Cross, key phone numbers that young people can call to access emergency services 24/7.

Partnerships would be needed with a range of organisations including City Rail, youth homelessness services, local government and telecommunications providers. Prototyping the solution should feasible at a local government level and it was suggested that a trial would be important for measuring use and impact. Some of the identified risks were that a customer of the service might forget to come back to the locker to clear their belongings, and there was a suggestion that a small nominal fee might be attached as a disincentive for neglecting to clear lockers and that there would be conditions of use that the user must agree to.

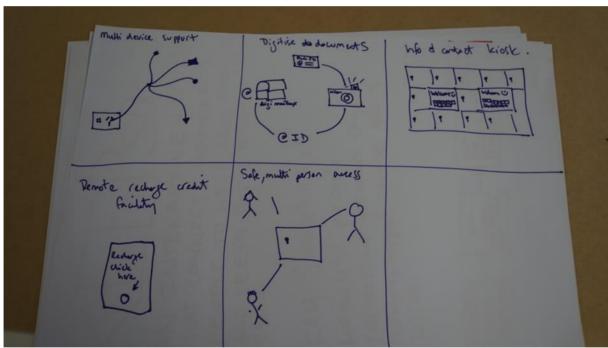


Figure 27 Developing the Keep Safe idea

Another issue identified is that not all areas have train stations so consideration needs to be given to the other kinds of hubs and places for hosting this service such as public libraries, shopping centres, local government and support services. It was noted that young people in these situations are typically quite mobile so the advantage of train stations is that they are usually accessible from a range of different points and are on central arteries or city links.

Although this project was not further detailed and written up into concept guidelines, we believe there is scope for promoting the wider adoption of secure charging lockers and developing the partnerships necessary to support their rollout. In addition, publicity is necessary to maximise their effectiveness and so, an additional recommendation is that information about these and their location be made available in new and existing service information directories.



Recommendation:

Promote the adoption of the interactive secure charging lockers by relevant organisations that are well placed to serve the homeless population and publicise widely.

LIBRARY AS CATALYST



Figure 28 Library As Catalyst prototype

'Library As Catalyst' builds on the 'Library Home Pod' idea from the first workshop. The key aims of the Library As Catalyst project are to:

- 1. Develop and leverage existing community and support connections to bring in specialist support into libraries for people experiencing homelessness and reach out to services/communities that service homeless populations with library services.
- 2. Document information about homelessness services, needs and enhanced awareness into library guidelines (e.g. 'People Places').
- 3. Reduce access barriers by developing ways to improve digital access and access to power, library membership and use of library services, offer services to assist with proof of identity, resume and document management (e.g. digital portfolio)

The program Library As Catalyst responds to the need identified by the young people for public libraries to better serve the homeless population. Similar calls have been made from within the library sector. Heather Davis from Waverley Library has pointed out that people experiencing homelessness have different kinds of information and social needs and that libraries could do more to lower membership and access barriers. She puts forward a number of suggestions for advancing how libraries can deliver a more socially inclusive service that considers the needs of homeless customers including a toolkit for programming, training and best practice (Davis 2013).



Library As Catalyst is compatible with this 'toolkit' idea and also has broad relevance for libraries for understanding how specific client groups find out about and use library services and the role of outreach services. There are a number of overlaps with other ideas that came out of the Making Connections workshop, with the possibility that such a service might house a 'Connect, Recharge & Go' station in a library setting.

Detailed concept guidelines have been developed for 'Library As Catalyst that includes mock ups of key aspects of the design, a breakdown of the characteristics and how it could operate within a library setting. The 'Library As Catalyst' concept guidelines are available as a separate document and can be requested from j.humphry@westernsydney.edu.au.

SUMMARY

Each one of these ideas responded to the visions of the young people at the first innovation workshop, addressing core issues of connectivity. There were a number of overlaps and intersections between the problems and solutions and in the following section we discuss these intersectionalities in more depth as well as how we might go about advancing these solutions.



Development of Connectivity Solutions

One of the challenges of conducting research with the aim of generating concrete practical results is to find ways to ensure the voices, ideas and solutions generated are progressed beyond the life of the project. In this section we go over the post-workshop activities to explain how these will assist in the development of these connectivity solutions and reflect on the participatory methodology as a model for designing user-driven connectivity initiatives in other locations and contexts.

SELECTION AND RATIONALE

After the workshops, a process of selecting and documenting the project concepts was undertaken in consultation with the participatory designer and stakeholders. While all of the project ideas had value and demonstrated clear benefit to the intended user groups, the 'Charge, Connect & Go' and 'Library As Catalyst' ideas were selected to be written up as detailed concept guidelines.

These two projects were chosen on the basis of their greater benefit to young people and the potential to gather support around them to be further developed, implemented and funded. They also responded to connectivity issues and barriers not currently being met by market or other mechanisms. The 'KeepSafe' interactive secure charging lockers, for instance, were found to have already been tested and taken to market with a number of examples of these observed at Parramatta Library and Westfields Shopping Centre. These currently offer a similar set of functions and were also offered as a free service. So, while this project idea was not selected to be further developed, we recommend wider adoption and promotion of secure charging lockers in city centres in sites that are well placed to serve the homeless population as well as further research on their use and impact.

Similarly, we see significant benefit in the Peer Hero solution being further developed and believe it could work well as a resource developed and offered in partnership with existing service directories such as Ask Izzy or youth-specific service information resources and sites. There are also a number of overlaps between Peer Hero and the other connectivity solutions and we could see this service working well alongside or as a major component of the 'Library As Catalyst' program or the 'Connect, Charge & Go' kiosks.

CONCEPT GUIDELINES

Concept Guidelines have been developed for 'Charge, Connect & Go' and 'Library As Catalyst', which sum up the project concepts and provide detailed information about them in a highly visual form. The aim of these documents is to aid understanding and promotion of these projects and provide instructions for guiding their development. These guidelines are available as separate documents and can be requested from i.humphrv@westernsvdnev.edu.au.

DEVELOPMENT GROUPS

We are setting up development groups for the two project ideas 'Connect, Charge & Go' and 'Library As Catalyst' with the aim of guiding the development and implementation of these projects beyond the end point of Making Connections. We have produced a video documentary of the project as a whole.



REFLECTIONS ON PROJECT METHODOLOGY

The project methodology of participatory design was an important component of this research, not only as a method for coming up with digital access solutions but also for testing its utility as a method for addressing the connectivity issues of homeless young people in other locations such as rural and regional centres.

The methodology was found to be very effective for innovating relevant and feasible user-driven connectivity solutions. Indeed, there were more worthy ideas that the young people came up with than could be fully developed within the scope of the project and so a consideration for future applications of participatory design to this issue would be to allow for more time and resources in the design and development process. The participatory design approach, which promotes users' engagement and provides a means for their voices and ideas not just to be heard but to drive design decisions, was well-supported by youth homelessness services and there was recognition of the method's alignment with their own aims and methods.

One consideration for future projects is around recruitment and how to ensure sufficient levels of participation from homeless young people. In this project, recruitment was not made directly with young people but through an intermediary, typically a youthworker or caseworker at a youth homelessness service. Despite the support of these homelessness services and the enthusiasm of caseworkers, who saw the benefit to their clients, recruiting was still challenging and time consuming. The feedback from services was that young people who were in a situation of homelessness had other more urgent priorities such as finding suitable housing. Added to this challenge, a number of youth services were very cautious about the suitability of participants for the workshop and this further limited the overall pool of potential participants. Targeting young people who have recently been homeless for participation, rather than those in an immediate crisis, was a successful strategy and fortunately, this cohort was reachable through the same organisations approached because of the common practice of providing extended support to young people in the transition out of homelessness. In future, it is recommended that in addition to recruiting via caseworkers. recruitment is also made directly with young people advertising the project widely with posters and on social media.

Feedback from participants in the evaluations, which have been compiled in the Appendices, confirmed that the participatory co-design was experienced as a valuable process in itself – for learning, sharing knowledges and experiences and working together towards the design of practical solutions. The certificate provided for completing the two-day workshop and graduation worked well for articulating formally their contributions and was well received by the young people. The stakeholders were also very positive about the participatory co-design and a number of the representatives noted that it gave them a fresh perspective and better understanding of the issues homeless young people faced as well as a way to develop practical and original solutions.

One observation by the researchers and participatory designer was the high level of empathy and preparedness of the young people who participated as well as their digital expertise. This was expected to some degree, but was of a higher level even than expected. For future projects, it is suggested that perhaps less educational activities be incorporated into the workshop program, which would allow for more time to be dedicated to the storytelling, contextual activities and making. While there was some concern expressed about the two day length of the workshop, and whether this might have been too demanding for the young people, we found two days to be the right amount of time to give to be able to come up with substantive connectivity solutions. The fact that 7 of the 8 participants from the first day attended the second day and positive feedback from participants suggested the length of the workshop was not problematic.



We also sought the thoughts of the participatory designer, Denise Belling, after the first workshop with the young people and this is what she shared with us:

PARTICIPATORY DESIGNER'S AFTERTHOUGHTS

What went well

- Creating a safe space and getting to know one another, us and the process.
- Empathy and Active Listening educational activities gave a great framework for guiding later activities
- This group was highly empathetic (compared to many more mainstream groups).
- Providing morning tea upfront worked well, participants came without having had breakfast
- Physical activity on Day 2 went pretty well was fun and got everyone out of sleepy mode
- Great ideas came out of the workshop
- Round robin ideation worked well and provided opportunity for stories to be shared

Not so well

- Too much theory about people-centred design and co-design early in the workshop participants interest wandered
- More time was needed for context activities and iteration on 'making', and for preparing presentations of ideas to make these even better

New ideas and new opportunities

- Would be better with two facilitators. One to lead, and one to do set-ups, bounce ideas off, assist participants, take notes
- · Reduce the amount of educational and more time for doing.
- Get the Discovery activities in early on Day 1, and maybe start ideation on the first afternoon

Other observations

- High levels of creativity and creative talent in the group would be great to harness even more
- Great levels of empathy in the group

CO-DESIGNING FOR POLICY

An interesting outcome of the co-design process, which requires further consideration and possibly research, is whether or not this methodology is best suited for developing and initiating policy and infrastructure responses at a national scale such as a universal mobile access solution. Co-design activities, at least as they were conceptualised and activated in this project, well support the making and creating real world objects aligned to uses and interests of the groups involved in their production.

Development of a comprehensive and larger scale infrastructure and policy solution that addresses the need for universal WiFi and mobile access is still required and it a recommendation of this report to develop an up-to-date set of USOs working with telecommunication providers, government policymakers and consumer advocates. As previously mentioned, a public policy and investment in extending WiFi and implementing free city-wide networks throughout Australia should be advanced alongside the reform of the USOs but does not necessitate being delayed in the absence of USOs. It may be that participatory design working with low income and disadvantaged groups with the express purpose of informing this process may be the best way to ensure that any new USOs do indeed address the needs of these groups and not just the interests of the most vocal and powerful in the debate.



Recommendations & Future Directions

Making Connections has responded to the need to create new solutions and partnerships to address the connectivity difficulties and challenges facing this group. The research has been very generative of feasible and highly relevant project designs – this would not have been possible without direct involvement of young people and stakeholders in the innovation process.

The project has highlighted the central role of digital connectivity in the lives of young people. Connectivity is more than just an isolated technical operation of access and the way it is understood and practiced by young people proves it's also about access to the kinds of social and material connections that digital platforms support and to new opportunities.

Digital connectivity also exists alongside and overlaps with a number of other dimensions or processes including the physical and social environments of use and the design and regulation of city spaces.

We dub these the three 'C's (Connectivity, Contexts of Use and City Design) to highlight how a host of social, technical and infrastructural elements, capacities and practices must come together across multiple domains to sustain meaningful, affordable and safe access to digital technology.

Connectivity has so far largely been seen as supplementary to the delivery of other homeless services and as a standalone issue, one that can be addressed in isolation of other needs and issues such as education, housing, safety and health.

We advocate for its status as central for all service providers who have a stake in providing services to young people who are experiencing or at risk of homelessness and the need to recognise this central role in the design of services and programs.

Connectivity is not a substitute for solving priority housing and health needs to combat youth homelessness. We presently face a worsening situation of rental affordability and shortage of social housing with 206,000 households on the waiting list for social housing at the time of this report (Adamson and Horne 2016).

Youth advocacy peaks like Youth Action NSW argue that housing in combination with integrated support is the key to tackling youth homelessness: "Young people need access to well-supported independent longer-term accommodation and integrated services that are tied to education, community, training or employment (Chalouhi, Amelia Haigh and Melanie Wilson 2014, p1).

We contend that digital connectivity should be viewed as one of the key integrated services of a comprehensive homelessness strategy.

There are a number of key principles of connectivity that have come out of this project, which revolve around the expanded definition of connectivity illustrated in the three C's and reflected in the understandings and practices of young people. We recommend that these be used to focus the development of digital access services and related programs for young people who are homeless, or at risk of homelessness. These five principles are:

- Free and widespread access to power
- Availability of free WiFi/mobile internet
- Robust devices and affordable mobile plans
- · Security of belongings and self



Enhanced access to support services.

The research has also identified a new need for information on available access sites and services for young people – this has led to agreement to exchange this information with Infoxchange who will incorporate it into the Ask Izzy app, but this needs new further research and development to create a comprehensive and useful information set.

SUMMARY OF RECOMMENDATIONS

- 1. Digital access services and programs that address these key connectivity principles:
 - Free and widespread access to power
 - Availability of free WiFi/mobile & fixed internet
 - Robust devices and affordable mobile plans
 - · Security of belongings and self
 - Enhanced access to support services
- 2. Develop, prototype and evaluate the 'Connect, Charge & Go' and 'Library As Catalyst' projects in consultation with stakeholders and young people.
- 3. Create a comprehensive and accessible directory of digital access sites and services, such as locations of free WiFi, and publicise widely to youth centres, homelessness services and the general public.
- 4. Promote the adoption of secure charging lockers by relevant organisations that are well placed to serve the homeless population and publicise widely.
- 5. Develop Universal Service Obligations and a public WiFi program that meets the requirements for affordable and mobile access for all and which is suitable for low income and disadvantaged Australians.



References

Adamson, D & Horne, R 2016, 'Our cities will stop working without a decent national housing policy', *The Conversation*, 15 June 2016, viewed 16 June 2016, https://theconversation.com/our-cities-will-stop-working-without-a-decent-national-housing-policy-60537.

Anglicare Tasmania, Social Action and Research Centre 2014, *Digital inclusion: taking up the challenge*, viewed May 2016, <a href="https://www.anglicare-tas.org.au/sites/anglicare-ta

Australian Bureau of Statistics (ABS) 2012, Census of population and housing: estimating homelessness 2011 ABS cat. no. 2049.0, viewed 8 June 2016, http://www.ausstats.abs.gov.au/Ausstats/subscriber.nsf/0/EB59F237159F7102CA257AB100170B61/\$File/20490_2011.pdf.

Australian Institute of Health and Welfare n.d., *Young people presenting alone*, viewed 14 June 2016,

http://www.aihw.gov.au/homelessness/specialist-homelessness-services-2014-15/presenting-alone/.

Australian Library and Information Association (ALIA) 2013, *Internet access in public libraries survey 2013*, viewed May 2016,

https://www.alia.org.au/sites/default/files/publishing/ALIA%20Internet%20Access%20in%20Public%20Libraries%20Survey%202013%20FINALweb.pdf.

Belling, D 2016 Making Connections Project Concept Guidelines - 'Connect, Charge & Go', June 2016, Young and Well CRC.

Bettis, P. and Adams, N. 2005 Geographies of Girlhood: Identities In-between, Third Avenue, New York; Milton Park, Abingdon, Oxon: Routledge.

Chalouhi, K, Haigh, A & Wilson M, 2015, Social housing in NSW February 2015, Youth Action NSW, viewed June 2016, http://www.facs.nsw.gov.au/__data/assets/pdf_file/0003/317118/Youth-Action.pdf.

City of Sydney n.d., *Homelessness*, viewed 9 June 2016, http://www.cityofsydney.nsw.gov.au/community/community-support/homelessness.

Davis, H 2013, Make yourself at home... an investigation of the role of public libraries in outreach to the homeless.

de Ridder, J 2015, Who are you going to call?: The future of the Universal Service obligation [online]. Australian Journal of Telecommunications and the Digital Economy, Vol. 3, No. 4, Dec 2015: 108-128. http://search.informit.com.au/documentSummary;dn=780315700300969;res=IELBUS

Goodwin-Smith, I & Myatt, S 2014, Homelessness and the Role of Information Technology in Staying Connected, Anglicare-SA.

Humphry, J 2014, *Homeless and Connected: Mobile phones and the Internet in the lives of homeless Australians*, Australian Communications Consumer Action Network, Sydney, <a href="https://accan.org.au/files/Grants/homelessandconnected/Homel

Kinney, B 2010, 'The internet, public libraries, and the digital divide', *Public Library Quarterly*, vol. 29, no. 2, pp. 104-161, DOI: 10.1080/01616841003779718.



Lambert, A., McQuire, S. and Papastergiadis, N., 2014, Public WiFi: Space, sociality and the social good. *Australian Journal of Telecommunications and the Digital Economy*, vol. *2, no.* 3, pp. 1-7, DOI10.7790/ajtde.v2n3.45.

Le Dantec, C A 2010 'Exploring mobile technologies for the urban homeless', CHI'10 Extended Abstracts on Human Factors in Computing Systems, ACM, April, pp. 2883-2886.

Lemos, G & Frankenburg, S 2015, *Trends and Friends: access, use and benefits of digital technology for homeless and ex-homeless people*, Lemos&Crane, viewed May 2016, https://www.lemosandcrane.co.uk/lemos&crane/index.php?id=235023.

McShane, I, Wilson, C & Meredyth, D 2014, 'Broadband as civic infrastructure: the Australian case'. *Media International Australia*, vol. 151, no. 1, pp.127-136.

Mission Australia 2016, *Home & away child and youth homelessness report February 2016*, viewed 8 June 2016.

https://www.missionaustralia.com.au/publications/research/homelessness/doc_download/460-home-and-away-child-and-youth-homelessness-report-2016

Napoli, P M, and Obar, J A 2014. "The Emerging Mobile Internet Underclass: A Critique of Mobile Internet Access." *The Information Society* 30 (5). Routledge: 323–34. doi:10.1080/01972243.2014.944726.

Savill-Smith, C 2005, 'The use of mobile learning by homeless learners in the UK', in C. Borg and P. Bonanno (eds), *Proceedings of the IADIS International Conference on Mobile Learning*, pp. 28-30.

Sleepbus n.d., viewed May 5 2016, http://www.sleepbus.org.

State Library of Queensland 2013, *The Next Horizon: Vision 2017 For Queensland Public Libraries*, Brisbane, viewed May 2016,

http://plconnect.slg.qld.gov.au/ data/assets/pdf file/0018/231408/Next-Horizon-Feb-2013.pdf.

Tacchi, JA & Watkins, JJ 2007, Participatory Research and Creative Engagement with ICTs'. In Proceedings ACM Sensys 2007 workshop "Sensing on Everyday Mobile Phones in Support of Participatory Research", the Sensys Conference Hotel, the Swissotel Sydney, viewed June 2016, http://eprints.gut.edu.au/10616/1/10616.pdf.

Winschiers-Theophilus, H, Chivuno-Kuria, S, Kapuire, GK, Bidwell, NJ & Blake, E, 2010, 'Being participated: a community approach', in proceedings of the 11th biennial participatory design conference, pp. 1-10, ACM.

Wright, T 2016, 'Prime Minister Turnbull meets Kent and spruiks new website for homeless', *Sydney Morning Herald*, 29 January 2016, viewed 10 May 2016, http://www.smh.com.au/federal-politics/political-news/prime-minister-turnbull-meets-kent-and-spruiks-new-website-for-homeless-20160129-gmh25m.html.

Wyatt, D, McQuire, S, & Butt, D 2015, *Public Libraries in a Digital Culture*, The University of Melbourne, https://public-cultures.unimelb.edu.au/sites/public-culture.pdf.

cultures.unimelb.edu.au/files/PublicLibrariesinaDigitalCulture.pdf.



Appendices

APPENDIX 1: EVALUATION RESULTS

YOUNG PEOPLE'S WORKSHOP EVALUATION RESULTS

Five (5) responses received

Overall how would you rate your	Outstanding (2)		
experience of this workshop?	Really worthwhile (1)		
experience of this workshop?	Worthwhile (2)		
	It was OK, but could have been better		
	• Poor		
Which were the most useful aspects	 Learning about other participants' experiences. (3) 		
of the workshop? Select as many or	 Learning about co-design (2) 		
as few as you like.	Working with others (2)		
	 Designing practical solutions (2) 		
	 Presenting and sharing ideas and solutions (2) 		
	Applying co-design skills (1)		
	Length		
	Just right (5)		
	Too short		
	Too long		
	Facilitator		
	Excellent (4)		
	• Good		
	Average (1)		
	Average (1) Poor		
	Relevance		
	Somewhat relevant to me (3)		
	Very relevant to me (2)		
	Activities		
	They were excellent. (3)		
	 They were excellent. (3) I found them interesting and worthwhile 		
	Thought them interesting and worthwrite They were 'ok', but could have been improved (2)		
	I didn't understand the purpose of the activities Organization		
	Organisation		
	I understood what was required of me (4)		
	I was uncertain of what was required of me (1)		
	Group work		
	Very interactive (3) Very interactive (3) Very interactive (3) Very interactive (3) Very interactive (3)		
MILES AND	Interactive (2)		
What were the best aspects of this	Learning about problem solving		
workshop?	Nice people		
What were the most challenging	Nothing		
aspects of this workshop?	Coming up with ideas		
Do you have any final thoughts or	Nothing		
comments you would like to share?			



STAKEHOLDER WORKSHOP EVALUATION RESULTS

Twelve (12) responses received

	1					
Overall how would	Outstanding (2)					
you rate your	Really worthwhile (8)					
experience of this	Worthwhile (2)					
workshop?	 It was OK, but could have been better 					
	Poor					
Could you rate each	Length					
of the following	Just right (9)					
aspects of the	Too short (1)					
workshop?	Too long (2)					
	Facilitator					
	Excellent (6)					
	• Good (6)					
	Average					
	• Poor					
	Activities					
	They were excellent. (2)					
	I found them interesting and worthwhile (8)					
	They were 'ok', but could have been improved (2)					
	I didn't understand the purpose of the activities					
	Organisation					
	Excellent (6)					
	• Good (6)					
	Average					
	Poor					
	Relevance (please explain why/why not)					
	Yes the workshop was relevant to myself/my organisation (10)					
	 Being a library we are closely connected to homeless individuals and do provide services to meet some of their needs. The workshop highlighted many aspects that we haven't thought of and which we hope to investigate in the near future. In my role as a librarian I am aware of the number of hidden homeless people and how much they rely on the library for computer 					
	access, digital literacy skills, wifi and charging. I am pleased the message is going beyond our walls to others who can assist to enhance the services we deliver. It was valuable for me to work with like minded public librarians and staff from the State Library as well as the other stakeholders.					
	 Representing Telstra I believe all Telcos have a role to play in working to solve the challenge of connection for the homeless - whether that is the youth, aged or people still in homes but living in poverty/on the edge 					
	 There are some different things we can do in this service space and it was very good to be prompted to do that thinking. I had various ideas occur to me during the day that I would not have had sitting in my workplace. 					
	 We are always looking to see how we can provide an inclusive service. Very interesting to see that our ideas actually aligned with those of the youth who attended the earlier workshop 					
	 The workshop was somewhat relevant to myself/my organisation (2) I found good linkages on the day 					
	I couldn't see the relevance to myself/my organisation					



Was the workshop valuable in developing collaborations and digital access solutions? (please explain why/why not)

• Yes (10)

- Most of the ideas developed during the workshop were relevant to somewhat relevant to our services.
- I became aware of relevant other organisations that I hadn't known about prior and also gained more knowledge about ones I knew something about.
- I think the workshop helped staff from the State Library see more
 potential in developing services in public libraries. Although we have
 the Libraries are For Everyone Toolkit I think the session has
 inspired a State Wide project proposal facilitating Digital Portfolios.
 I also believe some of the other stakeholders may have seen
 libraries in a new light and may consider us when consultating on
 digital projects.

Somewhat (2)

- Yes. Great to keep the conversation going. Still alot of hurdles to jump along the way...
- It developed some great concepts. There are no solutions yet as there will need to be policy, legal, practical and budgetary challenges solved for prior to these coming to life as solutions

No

Overall, what were your thoughts on the workshop?

Excellent workshop, and interesting ideas.

I liked the mix of activities and planning. It needed quite a set up time in terms of information, but that worked really well.

It was methodical and well thought out. I love that we were encouraged to draw and craft in order to bring out the ideas. Thank you Justine and Denise.

The workshop was a great initiative that really encouraged out of the box thinking for real issues. More time could have been created for really analysing and categorising the likes / challenges and new ideas into buckets based on ease of execution etc.

This is a great initiative by the university and Justine. However, I do think with these workshops there is a risk of lots of talk and no follow through if no one organisation has responsibility for next steps. I really hope that isn't the case, because I think there are a lot of valuable and do-able ideas here. Also must say I highly commend Justine and her team on the approach taken to this project, including running the young people's forum. We need to be doing more co-creation so it was great to see this in practice.

Very good. Although I consider myself to be a creative thinker - the workshop forced me outside my comfort zone with the drawing and modelling components. I am usually one to debate and solve problems using written and oral communication skills.

I found it quite inspiring and an important challenge to meet.

Was great co-design workshop enabling collaboration across organisations to problem solve real issues within the community. Good to understand how youth engage with and use digital.

The workshop was great and my only critique would be that I felt I could not contribute across more than one initiative (other than the initial brain storming), however I do understand a full day was already a significant contribution and if that was the limitation then the event was very successful with that constraint. Well done.



APPENDIX 2

DIGITAL ACCESS SERVICES IN CITY OF SYDNEY

Name of Service	Cost	Location	Access Types	Conditions of use	Additional Details
State Library of NSW	Free	Macquarie St Sydney	*WiFi *Computers (Five or so public access) *Reading room computers for library members.	*No log on page for WiFi (Instant access). *Public computers restricted to 30 minutes at a time. *Reading room computers - Library membership required. These computers allow for 1 hr usage (can also be book computers online). Membership is free (ID required).	*WiFi appears slow. *WiFi can be accessed outside building. http://www.sl.nsw.gov _au/
Customs House Library	Free WiFi for membe rs \$3.50 p/h non- membe rs	31 Alfred St, Circular Quay.	* WiFi *14 computers ground level. 4 on level Two. *Stand-alone computers (basic internet access only). Three on ground level, four on level one and five on level 2.	* Free WiFi – limited to 500MB per day. *Members receive free WiFi. Must purchase a usage card (\$1). * Non-members must pay \$3.50 per hr. Two hours maximum per computer (form of ID required). * Temporary membership (cost \$15.50 for 3 months).	http://www.sydneycu stomshouse.com.au/t helibrary/
Sydney Opera House	Free	Bennelong Point, Sydney 2000	*WiFi	Free WiFi. User only has to accept terms and conditions of use.	WiFi can reach outside the building. Fast connection.
Circular Quay train station	Free	Alfred St, Sydney	*WiFi	WiFi limited to 400MB per day. Users must agree to the terms and conditions.	http://www.transportn sw.info/en/travelling- with-us/location- facilities/wifi.page
Central Station	Free	Eddy Ave, Sydney	*WiFi	WiFi limited to 400MB per day. Users must agree to the terms and conditions.	http://www.transportn sw.info/en/travelling- with-us/location- facilities/wifi.page
Queen Victoria Building	Free	455 George St, Sydney	*WiFi	Free WiFi. User has to agree to terms and conditions. Available throughout entire shopping centre and surrounds.	http://www.qvb.com.a u/news-events/free- wifi-at-the-qvb



The Strand Arcade	Free	412-414 George St, Sydney	*WiFi	Free WiFi. User has to agree to terms and conditions. Available throughout the whole Arcade.	https://www.strandarc ade.com.au/news- events/104-free-wifi
Centre- link/ Medi- care	Free	137-153 Crown St, Darlinghur st	*Self-service computer terminals *Phone Booths	Anyone is able to use these computers/phones. No conditions of use. Printing facilities are also free. *Phones and computers connect users to 'Medicare related' services (Employment, housing etc.).	https://www.humanse rvices.gov.au

DIGITAL ACCESS SERVICES IN PARRAMATTA CITY

Name					
of	Cost	Location	Access Types	Conditions of use	Additional Details
Service					
West- fields Parra- matta	Free	159-175 Church St, Parramatta NSW 2150	WiFi	3 hours or 1GB free per. Option to connect via Facebook profile or via Name and Email. Can be used throughout entire centre. Not isolated to one area.	http://www.westfield.c om.au/parramatta/an nouncements/278 *In partnership with Optus Yes. Implemented 31/5/15
Parra- Connect	Free	Begins Church St (Riverside Theatres) to Westfields Shopping Centre. Also covers some of Macquarie St and Parramatta River area.	WiFi	User only has to log on using their device. No conditions of use.	Website allows people to 'Submit Ideas' in regards to new digital initiatives. http://parraconnect.ne t.au/ ParraConnect aims to bring people together via new digital initiatives. Encourages community members to contribute their ideas about new connective technologies. Partnership between CivicTEC /Parramatta City Council. Implemented 2009.



Parra- matta City Library	Free	1-3 Fitzwilliam St Parramatta	*Computers in centre of 1st floor. *WiFi *Charging Cabinets	* WiFi is unlimited. No password/information required. Times out after 10 minutes inactivity. *Desktop computers available for use (only for library members). 90 minutes maximum per day. Identification required to become a member. Children	Opening hours are: Monday to Friday 9.30am to 8pm. Saturday 9.30am to 4pm and Sunday 2pm to 5pm. Library also has a youth hangout section. No
				under 12 must be accompanied by adult.	computers in this section though. http://libcat.parracity.nsw.gov.au/client/en_AU/default
Centre- link/ Medi- care	Free	Ground Floor, Commonw ealth Offices, 2- 12 Macquarie St, Parramatta NSW 2150	*Telephone booths (roughly 7 in total) * Stand up and some sit-down computer available (roughly 10 in total)	Terminals and telephones are only to be used for Centrelink/Medicare related matters. Connects users to various services such as housing, employment etc. Basic internet search can be done on these computers. Some email accounts can also be opened.	Telephones enable users to connect to services relating to the following things: ABSSTUDY, Assistance for Isolated Children, disability sickness and carers, employment services, income management, youth and students, child support, Medicare, tax office etc. https://www.humanservices.gov.au

