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Hub Central: Utilising co-created 'space design' to produce peer interaction across diverse student groups

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Abstract

Planning interaction between students needs to start as part of the space design. The University of Adelaide opened 'Hub Central' in September 2011. A 42 million dollar project co-created with students has seen an area of 10,500 square metres that has built its own unique community that embraces diverse interaction.

Staff working with international students have been socially engineering opportunities or creating 'programs' that aim to foster interaction between diverse groups for years. Experience shows that these programs often support interaction between a diverse range of international students but are not so successful in promoting interaction between international and domestic students. A new approach has been used at Hub Central. Students were used in the co-creation of a space that has been designed to promote academic achievement by enhancing the student experience. By reflecting on their own needs, roles and contributions, a space has been delivered that is multifunctional, allows repurposing and fosters students developing their own approaches to interaction. A space largely with a philosophy of self management by students and filled with staff that are student centric has resulted in a community with an overall heightened sense of awareness and empathy towards the goals of their peers.

Hub Central is the complete package as a student space. The Hub includes 11 bookable student project rooms, 13 student projects booths, 290 fixed student computers, training rooms, Wi-Fi, a student kitchen, 3 commercial food outlets, a general store, the Maths and Writing Centres and Student and IT Support Services operating extended hours (8am to 10pm weekdays, 10am to 5pm weekends). The collocation of all this has provided a greater feeling of belonging and encouraged the students to interact in diverse groups beyond the classroom.

The paper aims to provide real world examples of how 'space' can be designed and utilised for enhancing student support services and interaction between all students, staff and community.

Keywords Interaction, Learning Commons, Learning Space.

Introduction: Hub Central – Why this Space!

"A sign of a great place is triangulation. This is the process by which some external stimulus provides a linkage between people and prompts strangers to talk to each other as if they were not." (Whyte 1999)

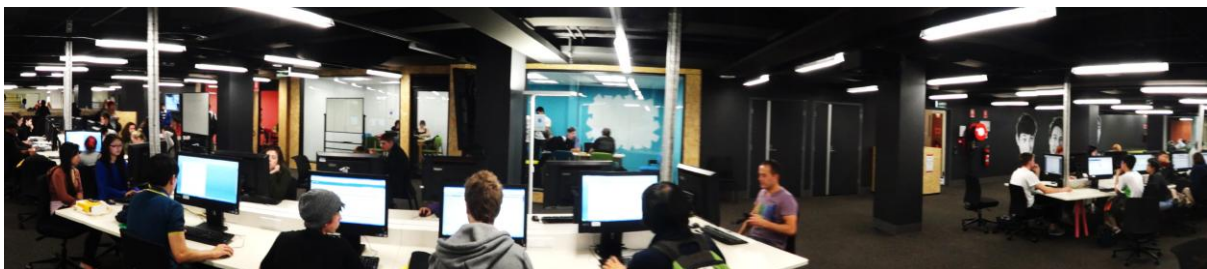


Figure 1. Level 3 Hub Central – Student Computers, Project rooms and installation Art (left on wall 'Learning Hub heads', featuring student heads by artist Peter Drew. http://www.adelaide.edu.au/hub-central/faces/AH_Hub_Heads_catalogue.pdf)

Hub Central is a great place! Located in the 'heart' of The University of Adelaide's main campus on North Terrace, the hub is a dedicated learning space that supports up to 25,000 undergraduate and postgraduate

students and many staff. It brings together informal learning and social spaces with information services, food and service retail outlets. It integrates with the Barr Smith Library and provides new connections through to existing lecture theatres and across campus.

There have been ongoing significant changes made within the Australian higher education sector over the past 20 years. Considerable growth in student numbers, including international students, has placed increased pressure on aging facilities. There has also been a generational change in terms of attitudes, expectations and learning behaviours. Hub Central is the result of a co-creation project between the University and students aimed to accommodate these 'new' student needs and provide a space to showcase service excellence to the University's diverse student cohort. It has also modernised the campus environment with a facility dedicated to support student learning activities in a changing environment.

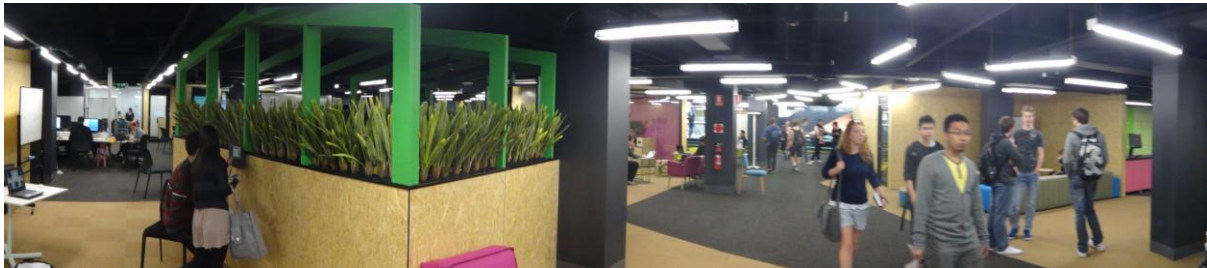


Figure 2. Level 3 Hub Central – Project rooms were themed by students in the co-creation process, the greenhouse featured, other rooms include 'the garage', 'the jenga room', 'the music room' the map room'

One of the many changes in higher education saw the end of Voluntary Student Unionism (VSU). Quester, Backstrom & Kovacevic (2011), assert that, "this can be argued to have had a significant impact on campus life, with many social activities disappearing for lack of funding and students retreating off campus as soon as their formal classes were finished. Consequently, this resulted in a perceived loss of community within the student population".

With a perceived loss of community comes a change to culture. One aspect that most definitions of culture seem to have in common is the view that it is learnt and not innate, and that it is a response to peoples' environments. Hall (1977) suggests that anthropologists agree on three characteristics of culture, that "it is not innate, but learned; the various facets of culture are interrelated - you touch a culture in one place and everything else is affected; it is shared and in effect defines the boundaries of different groups." (p.16). He further argues that it is those aspects of culture that are least recognised that "have the greatest influence on behaviour." (Hall, 1977, p.20).



Figure 3. Level 4 Hub Central Western forecourt entrance and performance space

Hub Central – Your Space (Co-Creation)!

Brown & Katz (2009) encourage designers and executives to broaden their design process, by using them to make strategic decisions and consider relationships between people and the experience behind products and services. They argue that design thinking processes need to be human centred, iterative processes that operate in the spaces of ideation, inspiration, and implementation, only constrained by desirability, feasibility, and viability. They assert designers need to apply their skills to social problems and for educational systems to preserve creativity.

Hub Central has provided a space to rebuild community and influence culture. Completed in September 2011, the building of the Hub involved more than 9,000 individual student hours of consultation and over 3,000 hours of staff participation and discussion, and acted as a catalyst for a profound change in the relationship between

the university and its students. So what's different? Focus groups in early 2012 with student users have suggested the hub is:

- a comfortable environment for exploring and sharing
- a link between the physical boundaries of the classroom and the new virtual boundaries of technology
- a space that encourages knowledge generation by students or the active construction of knowledge by the learner
- a space that enhances, motivates and promotes authentic learning interactions
- and, a threat to 'traditional' teaching approaches and methods (like the book was to the slate)

Through all the discussions and consultations and with the co-creation process being a new framework in decision making for the University, the outcomes of the Hub project bring you back to a familiar piece of research (particularly for those like me who have worked in student services for a while). Chickering & Gamson, (1987) classic work on principles for good practice in undergraduate education informed readers that the qualities a good educational environment must have are:

- a strong sense of shared purposes.
- concrete support from administrators and faculty leaders for those purposes.
- adequate funding appropriate for the purposes.
- policies and procedures consistent with the purposes.
- continuing examination of how well the purposes are being achieved.

Hub Central is evidence that such an environment has been created. The results have produced a student centric environment that has many benefits for both student and staff. The space has created opportunities for students, academic and professional staff to celebrate and reflect on their shared purposes.

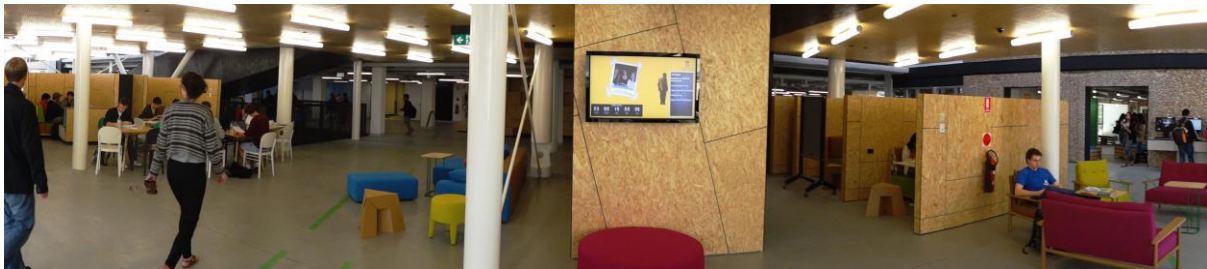


Figure 4. Level 4 Hub Central, student project booths and digital media (11 screen) show computer availability and promote services and activities.

Measuring the Use of Space and how it Effects Student Interaction

One of the benefits of staffing a facility like Hub central is that it provides the opportunity to view how students from diverse groups use the space. This simply lets you to get to know students and how students behave by being there, alongside them, during ordinary days, observing and capturing their experiences at first hand. This really is ethnography in action. Corbett (1998) describes ethnography as an immersion within the deep culture of a social group that attempts to find hidden treasures and submerged dangers.

The Hub provides all the staff the opportunity to meet our KPI of utilising continuous improvement methodology to meet needs and enhance the student experience. Ethnographic research has been embraced as a methodology that aims to *look again at the cultures we may feel we already know so well*. In this sense we use ethnography to review or turn a critical eye onto practices, dynamics, and policies within the familiar culture we call the student experience. This provides a new reference point to view traditional support services and past practices in delivering these services. At a base level it is about understanding what types of activities students will engage in at Hub Central and what services will be needed to support those activities.

Making Space Work for Encouraging Student Interactions

When looking at how we have developed the space we can use the theoretical framework provided by Souter, Riddle, Keppell, & Sellers(2010). They have developed a model that proposes seven principals of learning space design which support a constructivist approach to learning and support a learning environment that is student

centred, collaborative and experiential. Milne (2006) has applied this framework to model the student experience and how it relates to space.

It is important to acknowledge that as a starting point of the co-creation project, the University went to the table knowing the following three crucial factors. Firstly students do not study as we did, secondly recognition that it is *their* experience not ours and finally a agreement that we all share a common purpose learning!

When we explore how these seven principals are applied at Hub Central we reveal some interesting comments. Both the permanent and the casual staff (who are all current students) utilised ethnographic methodologies to provide valuable insight into the application of the framework, specifically highlighting the relationship between the space, use and student interaction (Cook et.al. 2012):

1. Comfort: Hub Central is a space which creates a physical and mental sense of ease and well-being. The Hub has well-designed learning spaces and enabling technologies that encourage students to spend more time on campus, increasing engagement and improving retention. Students indicate there is a learning value from bumping into someone at the Hub and having a casual conversation. Interaction happens between many diverse people by providing space where students feel comfortable and safe. Some comments from staff on comfort include (Cook et.al. 2012):

I have often seen students get comfortable in the hub, which I assume is their attempt at bringing them a level of comfort much like home. Replicating an environment they feel relaxed body and mind provides an engaging state ready for learning. This is often demonstrated by home cooked food, and grocery bags of supplies to keep them fed on their late night stays.

Comfortable space works, a good example is students (both domestic and International) spend time in projects room for various reasons and activities related to their studies such as group assignment discussions, club activities, community engagement such as volunteer meetings as well as career path building such as interviews.

Having the similar background and experience as a student, the hub is a place very easy to break the ice and jump into the conversation in a relaxed environment. In the hub central, the Microsoft Tech Lounge has been a great place for student to play around with the new laptops and games. Hub flexible study space integrate different student of the same goal (Getting the assignment done!) to be able to work in a collaborative manner as a group to tackle problems.

We regularly see students bumping into a casual acquaintance, and several hours later they can still be seen around the Hub working together, even if they are studying different courses. This also helps to bring in further students who are known to only of them previously, therefore extending their collaborative study options.

Often I will see groups of students come in and grab a table to work together. More friends will turn up and they'll drag another table over to join the first one.

Another example is the booths. As there aren't many available, sometimes someone, or a small group of people, may be using a booth and due to the lack of chairs and tables available elsewhere during busy times, students will ask to sit at the booth with others that they do not know.

Figure 5 provides an example of how many people are in the space at varying time. Data is show for 11am, 3pm midnight and 4am. Mornings peak at around 1090, afternoons just over 1100, midnight up to 200 and 4am peak at around 60 users.

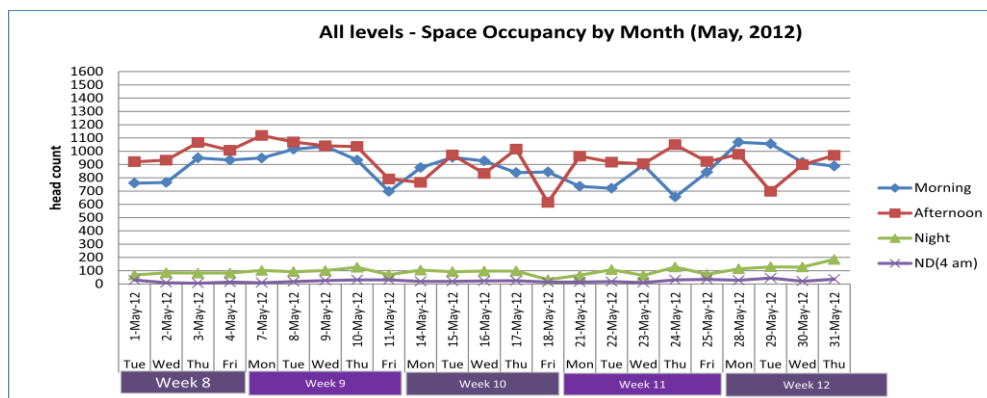


Figure 5. Hub Central headcounts may 2012

2. Aesthetics: Students suggest Hub Central is pleasurable as it has recognition of symmetry, harmony, simplicity and fitness for purpose. It is a space that enhances, motivates and promotes authentic learning interactions and student users are exhibiting a freedom to be creative and actively engaged to continue the learning process outside the formal teaching settings. Observations around aesthetics from staff on comfort include (Cook *et.al.* 2012):

The Hub creates a sense of freedom with regards to a flexible learning environment. Furniture and equipment can be moved around; project rooms and study booths provide a group learning option; computers, wifi and Skype provide internal and external connections, all in an environment which they can create themselves.

Design plays a part, but only a small part, any modern design that allows for open learning and incorporating a range of facilities valuable to students is what makes this place work. The staff drive the student centric culture and this allows users the ability to do nearly everything a student needs, in a relatively small footprint. This plays the biggest part in creating an authentic learning space. It's the lack of boundaries, which allow student creativity to flow and make their own study space, adjust their environment to suit their needs at that moment.

The colour and facilities in the Hub was chosen by the students for the students. It has a much younger feel about it and this helps the students relax and encouraged them to interact with others, while also helping the student feel that this is their space.

Hub Central's interior design is colourful, textural and conceptual, inspiring creativity and freedom of thought. There are multiple spaces that are purposely built to cater for those with varying study needs including individually themed project rooms that try to promote thinking out of the square. The Project Rooms are one example. During semester periods, the rooms are heavily booked during the day and evenings, proving the demand for this type of learning space works. Students who can't book a Project Room will grab the number of chairs and tables they require, grab a MOCOW (mobile computer on wheels), pull over a comfortable sofa, perhaps add a whiteboard and create their own flexible learning space in an area they feel comfortable.

Project rooms are used for group study, meetings and presentation rehearsal. Up to date technology equipped students with the most advanced software, hardware to assist their study and relaxation. Follow you printing system offers students a safe, secure and quick way of printing for their reports and assignments. Kitchen and lockers enhanced their on campus experience; Microsoft Lounge can extend their social network when they hang out the hub central along with playing with Xbox and game table.

There are several outdoor areas that can be utilised by students. Inside, students have the option of the wide open space of the main hall of level 4, the smaller computer suite rooms, or the more intimate project rooms on Levels 3 and 4. For a larger gathering there is also the Mezzanine level available.

There is a bench near the level 3 staff area that was originally going to be the news bench, where current newspapers from around the world would go for students to use and read. Instead, due to the lack of demand and the adaptability of Hub Central learning spaces, this area hasn't been used as a news bench but instead as a different area students can use to work at. In particular I have seen a number of groups of engineering students who use the bench to build and test remote controlled robots that they have built for their course.

3. Flow: Hub Central provides a space to experience the 'flow', a state of mind felt by the learner when totally involved in the learning experience. A sense of shared experience around learning is a powerful aspect of the Hub community. Barker (1979) said "A sense of place must be all things for all people, and yet it must be a unique quantity of 'stuff' that only exists in one spot". The hub provides the space where students "gather" from all sorts of backgrounds and cultures, whilst the space allows flexibility, the flow and involvement in the learning activities' is what creates community through shared encounters that deepen the meaning of the learning experience. When you walk through the space with all its difference and observe the activities you instinctively 'get it' and can identify with "flow" at Hub Central.

As social constructivists point out (Glaserfeld 1989), the social setting greatly influences learning, the student is required to act upon the environment to both acquire and test new knowledge. To put this in perspective we can think about the counter question. Do traditional teaching spaces support transmission theory? (This pedagogy infers that one person will "transfer" information to others who will "take it in" at the same rate by focusing on the person at the front of the room) (Cook *et.al.* 2012):

If the key to working in a state of flow is concentration, then the Hub certainly provides the students with the environment in which this can be achieved. The Hub creates an environment in which students are immersed, energised, involved and can enjoy their study. Particularly while working in groups, it's evident that students engage with their surroundings and use the facilities to create a state of flow. One person's energy and flow

can be bounced on to others and the feeling can be contagious. The students know that help is available to them via Information Services therefore this would also create peace of mind so that they are able to concentrate on their learning.

Learning and studying is no longer limited in the traditional models of constrained thinking, it no longer has to be formal, and it now has to be reactive. With the easy access and casual style, students can pick up information they are interested in just by listen to others conversations. You observe lots of ideas and inspirations occur, and witness peers become friends during the learning process.

With technology progressing at such a rapid rate the traditional teaching methods are becoming less viable. Information is available at people's fingertips be it on Smart phones, computers and tablets. No longer are we constricted by being "talked at" by a single person stood at the front of the room. Students are able to use several learning apparatus simultaneously and can become engrossed in what they are doing that they lose track of time.

When the Hub first opened, the mother of a student contacted The University because it was unusually late for her son to not be home from Uni. She was worried about his whereabouts and welfare and asked us to try and find him. He was found in Hub Central fully immersed in study with his project group. He was so engaged in that he lost track of time

The Hub provides a mix of social and learning opportunities and the students love it. You only need to walk through the Hub to feel its vibe and energy created by students enjoying and participating in this learning environment.

4. Equity: Hub Central provides for the needs of cultural and physical differences. The Hub demonstrates the value from providing an assessable space for all students to have discussions, reflections, conversations and interactions using many different approaches or media. An aims is to breakdown organisational silos which build a lack of awareness. The Hub has enabled an understanding and acceptance of the interconnectedness of students and services on campus. The below statements highlight equity and space (Cook *et.al.* 2012):

This doesn't only just apply to higher education students – high school students and staff, as well as students from other universities love using this space too.

Hub central plays a role like a magic chef, who has been trained, well designed, skills and specialisation assessed and approved. This magic chef can put all the ingredients like other service in the campus, uniqueness of design and service from our hub central together to form the essence of a delicious meal. Plus, he has a right place that has the ability to perform all these cookery.

As a social aspect, students use the Student kitchen for cooking all sorts of international culinary delights which in turn promotes a sense of community. Students often gather to cook and socialise, and the facilities and space provide this opportunity.



Figure 6: Casual staff at Hub Central

The concept of integration for variety of diversity is displayed well in the Hub Central. I have often seen study groups of people from different countries working together in Hub Central. Whereas before Hub Central opened study/project groups would have had trouble finding a place to meet up together and people may have been more likely to work separately on a group assignment. Now the Hub has opened and provides a space that students can use to work together. Through the use of the Hub by all students other areas around the University can begin to see and understand that there are other, less traditional ways that encourage students to mix with each other and learn together.

I often see a variety of mixed groups working in harmony putting aside their differences to study and develop working and casual friendships. Universities are a place of learning, however due to the exclusivity of differing departments and schools, students aren't often exposed to those studying other programs or levels. Hub Central helps to break down those barriers, enabling students to work amongst each other for the common purpose of learning.

Equity often is a hard area in how broad aspects can be, we receive many request to expand the range of facilities in the space. Such requests include; Provide prayer washing facilities and a prayer room/area, provide

a private breast feeding lounge (not in a toilet), more indigenous things (art etc), acknowledgement of and observe cultural and religious days and festivals, provide signage in community languages (Chinese?), Improve wheelchair access. Braille on Project Room numbers/doors.

5. Blending: Hub Central Maths and Writing Centres Services are an example of a mixture of technological and face-to-face pedagogical resources in a learning space design that seeks to provide freedom of access and interaction with peers. The Hub is a space that facilitates the acquisition of knowledge between the tradition and virtual learning spaces. Hub Central has computer and networking technologies that once might have appeared exotic (pervasive wireless networking, iPods, smart phones) or transformative are now considered mainstream by our students. Comments below explore ‘blending’ at Hub Central (Cook *et.al.* 2012):

More and more students are using laptops, iphones and ipads (which have led to the demand for power-outlets and wifi). Interestingly though, the demand for computers has not declined and students still come to the Hub as a central place to work and learn. Whiteboards are also commonly used in conjunction with laptops etc in study groups so there’s definitely a mix of traditional and virtual learning tools evident throughout the Hub. It’s a student expectation that technological resources are readily available and the Hub provides this. In saying this, Information Services plays a vital role in providing the support that comes with the space, equipment, furniture and facilities, the extended hours and weekend services make this work.

Hub Central has accommodated alternative methods of learning that not only just extend to providing wireless internet, but utilizing the tool as a means of innovative learning such as cross institutional discussion over skype; and private project rooms with interactive technology and writing surfaces for group discussion rather than tutorial rooms. Hub Central Information Services is another example of how traditional face-to-face service delivery can be incorporated with a mixture of innovative technologies such as the usage of iPads and MoCows as part communicative tools. Staff are all trained to assist in IT troubleshooting, while also being able to answer traditional face-to-face enquiries in a method that not only gets students answers, but teaches them how to help themselves in the future.

The extensive use of personal devices is an example of how the space is used. Over 5000 unique devices connect to the hub wifi daily. The frequent request by students asking direction to the nearest power point to charge their “device” is another example that demonstrates how much the learning space has changed over the years, compared to the days when paper, pens & erasers were the common requests by students.

Figure 7, shows daily total number of unique users accessing the Wi-Fi. The patterns show the beginning of the week be the busiest peaking at over 5,000 unique users. The weekends drop down to around 900 users. If we look at logins on the Wi-Fi network in the same period they peak at over 12,000 per day.

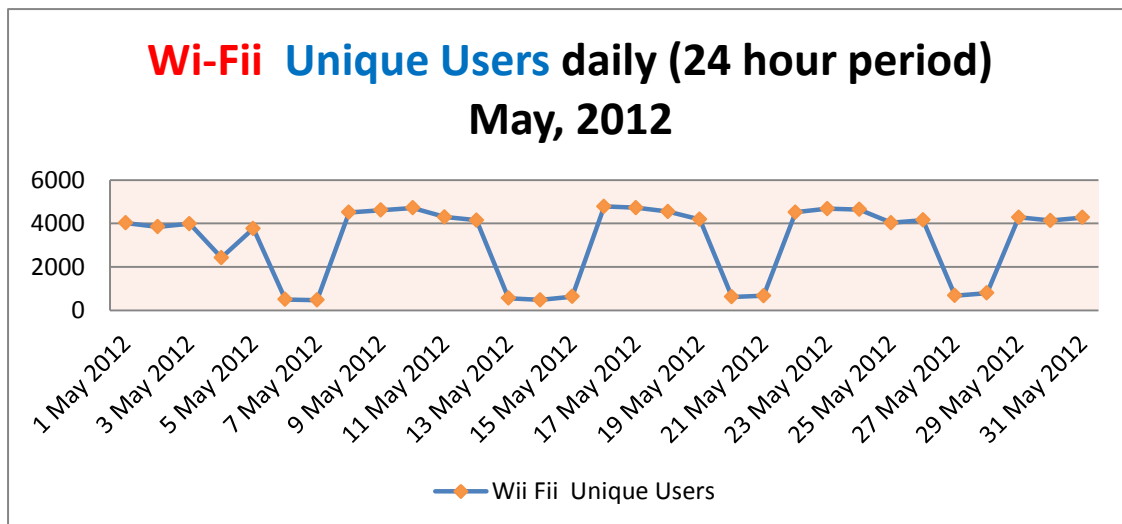


Figure 7. Wi-Fi Unique users per 24 hour period= May 2012

Blending has also seen changes in our nearest neighbour the Barr Smith Library. The Hub owes its conception to the work done by the library as it was seeking to reinvent their physical spaces, transforming them into social, cultural, and technological centres where students, faculty, and other users can gather and work collaboratively with digital and print media under one roof. The success of Hub Central challenges how to redefine, retrain, and recruit library personnel to work in similar student centric models and to realign precious resources to address

today's and tomorrow's student users with the wide range of services they expect and need from us and our facilities. Certainly the days of libraries as storehouses of printed texts remain uncertain.

6. Affordances: Hub Central delivers the 'action possibilities' in the learning environment. It provides the students kitchens, dining areas, shops, natural light, Wi-Fi, private spaces, project rooms, relaxation spots, writing surfaces, sofas, and so on. Despite multiple design possibilities and uses of the space at Hub Central, there is an overarching desired outcome to enrich learning. The below statements demonstrate this concept in the space (Cook et.al. 2012):

The aim that students come to University is learning. However, simply by undertaking lectures, tutorials and seminars cannot support learning well. Student needs restaurant to feed themselves physically not just psychologically. They need PC and multimedia devices to build models and structures as well as plans so as to visualize the theory or understand the textbook, they need space for open discussion and argument so as to verify the points given by lectures. All those are offered by the Hub to enrich their learning experience.

The hub does an excellent job at fostering learning and providing a valuable university experience. Study is just one aspect of university life, by incorporating the other necessities for learning; the hub has created a space that actually fosters learning and enriches the learning process for students

Hub Central was designed in collaboration with students to enrich their learning experience at the University. The facilities of the space are designed to cater for all types of study requirements, including those that further assist the learning experience, such as food and relaxation areas. As part of being a space that promotes creativity and initiative, Hub Central accommodates student's study needs for 24 hours on weekdays, with afterhours access and extended hour support. Student feedback has shown that despite the facilities provided, readily available and more substantial food sources are needed for those that study at late or early hours, as it may be a security, financial or inconvenience issue having to source food outside the Hub Central grounds.

The advantages of having different study methods available to them in one place, where there is also the facility to take time out in the Microsoft Lounge or at the catering outlets without having to leave the location, speak for themselves. You can have a quick 15 minute break without the need to pack up all your belongings.

Hub Central was designed and built for one purpose: to help students learn. The Hub was designed as an area for students to have a place they would feel comfortable in, somewhere that provided them with facilities that enrich their learning experience and helped them get the best out of the University career, so that in the end Hub Central is a place that in the end benefits both the University and it's students.

I have seen students come at 8am with packed bags of food and books. Begin their study, utilise the kitchen to prepare their lunch and have a break in recreational area and continue studying until the evening. These examples demonstrate the success of how the Hub and how it has incorporated a number a design possibilities to provide the best environment to foster learning.

7. Repurposing: Hub Central has the potential for multiple uses of most space. Different weeks require different space to suit the learning needs at that time – Hub Central is a space that is adaptable. The Hub demonstrates that there is an acknowledgement at the University that flexibility no longer is filling rooms with as many chairs as will fit. Repurposing is discussed below (Cook et.al. 2012):

That's one of the most interesting aspects of the Hub; seeing the space evolve and change to meet the students needs. There is still obviously a need for tables and chairs, but it's the environment in which they are provided that makes the Hub successful.

The university calendar is filled with varying events throughout the year. All kinds of events from academic, informational and recreational are held. The hub can cater for these events and does this well.

Most of the facilities in the Hub are moveable where students could still create space for themselves on various propose not limited in the traditional study format where room are piled with study table and chairs. For events and functions, training rooms and level 5 will offer a lot offer a diverse and multifunction space for various occasions.

Excellent flexibility and use of the space, particularly on Levels 4 & 5. The Mezzanine (Level 5) can be set up for one large function or group just as easily as it can be arranged for several small areas to run concurrently.

Level 4 has the pop-up shop which can be used as a separate entity as well as being integrated into a wider event or function such as Uni Games or Graduation week.

Repurposing of space is important because once one idea or place becomes obsolete or out-of-date, and that area is then repurposed into something else, students would feel maybe a bit more excited to come to the Hub to see what the changes are and if they're better then more people will come and use the space.

One of the reasons that make Hub Central so popular is its ability to be utilized as a customizable space for study, events and casual catch ups. Due to the innovative methodology of using mixed learning styles and technology, Hub Central is able to cater for a wide range of student events, conferences and public lectures.

The Student Kitchen is not only used as a cooking and eating area, but we've seen examples of groups using the area to display and discuss their projects. Engineering students in particular take advantage of the long, extended tables to test their machines/experiments.

Even though the mezzanine is also used by staff, this is often to the benefit of the student by way of promoting what the Hub and University has to offer and an opportunity to meet fellow students. We see all sorts of different ways the mezzanine is used as student space; individual or group study, exhibiting student projects to provoke thought and discussion; and even just to chill out and have a study break by watching a movie or playing games (both electronic and board, card games).

The pop-up shops are used to promote and offer a variety of student support services.

Students seamlessly use the space and adapt to the events being held. Enrolment support is an example of how students use the space for other purposes than its ordinary use. Computer suites normally designated for general pc use, is used for enrolment support. This is a successful model that is used in the hub.

The fact that students feel at ease in re-arranging the furniture to accommodate their immediate study needs backs up the fact that they feel that they belong to the space as much as the space belongs to them.

The Serenity Zone that was turned into the Microsoft Lounge. While some students miss and still comment about the bean bags, the chairs and tables that were supplied by Microsoft for the lounge looks much better and has a much higher use rate than the serenity zone.

I would argue for and add an eighth principal which is ownership.

8. Ownership: Students have taken ownership; it is their space so when delivering service it has a very different feel. Barriers are broken, not an office or counter, students more comfortable so they tend to ask whatever they think. They are suggesting there is value in being able to receive immediate support when needed. Student ownership also allows for self regulation of the space. Self regulation is an important concept when looking at operation costs for a 24 hour centre that also provides extended face to face (8am to 10pm Monday to Friday and 10am to 5pm on the weekends).

Student ownership is crucial to the success of Hub Central. Student pride and ownership of the space ensures that it is self-regulated with integrity and respected for others to use, shutting out exclusivity to specific student groups and creating equal opportunity for all.

Space and Interaction not that Simple, or is it!

Whilst to really explore the design of space deserves an interdisciplinary focus, this paper has used staff to explore or participate in an ethnographic examination of the use of space and the student interactions that are occurring at Hub Central. Part of the reason we can explore on the ethnographic level is that adequate synthesis of the scientific information from the fields of architecture and interior design, psychology, sociology, anthropology, and geography occurred at the project team level in the design and co creation stages.

Research suggests that people actually use a different set of skills when they try to relate with people they perceive as different from themselves (Gudykunst, 1998). Universities are addressing this in the curriculum and also in specialist programs for new international students on arrival. However, one of the unintended effects of organising local and international students so stringently into different categories and queues from the moment of their arrival (and then through many of their subsequent administrative interactions) is we label and identify international students in a certain way, as well as demonstrate to them that that is how their university sees them. A common and shared space with no difference in user requirements or service provision goes a long way to reducing this perceived difference.

Bergan & Restoueix (2009) would argue it simply isn't enough to put students of different cultures together in a space and expect they will find a way to get on. I would argue it depends on how you have designed that space; it really could be that simple if you get it right as is demonstrated at Hub Central. What many suggest as a hard to disrupt 'natural' gravitation toward people of similar cultural background or mono-cultural social networking

seems to be constantly disrupted when you provide the opportunity for students to experiment with different groups.

Given we are highlighting one unique design and build process that utilised co-creation and resulted in a very different type of learning space (realistically a 'Greenfield' venture by the University of Adelaide), we should from a scientific standpoint argue no generalisations can be made. Realistically a comparison and both data and observations from other similar sites would hopefully replicate what has been observed at Hub Central. Once results start coming in, work can be carried out on similar type sites with the view to generalising at least a part of the success highlighted at Hub Central.

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