

Aging gracefully? Reviewing and enhancing Information Commons services at the University of Auckland

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Abstract:

The University Library's Information Commons Group services and facilities have continued to thrive and improve student life and learning since the opening of the Kate Edger Information Commons in April 2003. The IC Group has a strong strategic focus on continuous improvement in areas of management, staff development, operations, space design, technology, resource development and client services. The IC Group collaborates with ITS in offering and improving electronic campus services for students. This paper outlines the "how" and "why" behind changes and improvements in the IC Group. The benefits to staff and students will also be demonstrated. This paper also briefly discusses the reengineering of the original service model to accommodate changes in learning, technology and student needs.

Introduction

The Kate Edger Information Commons (KEIC) opened in April 2003 and soon became the preferred learning and social space for students on the University of Auckland's City Campus. The five-storey building accommodates a range of services and facilities catering to the learning, social, retail, health and wellbeing needs of a diverse student body. The success of the purpose-built KEIC prompted the Library to establish the Grafton Information Commons (GIC) on the Medical and Health Sciences Campus in 2004 and to redevelop a facility on the Education Campus as the Epsom Information Commons (EIC) in 2006.

The KEIC offers over 1,300 study spaces, including 500+ computers, in flexible configurations to match various learning styles. The smaller facilities, GIC and EIC, have 106 and 59 computers respectively. Students are able to work in groups or individually in all three Information Commons. The KEIC offers an enterprise software environment that meets the general technology needs of all students regardless of faculty-affiliation. The GIC and EIC, located within specific faculties, offers additional discipline-specific software.

All three facilities (IC Group) operate within the same IT and service infrastructure underpinned by a commitment to service innovation, excellence and collaboration. The IC Group offers a student-centred learning environment through strategic partnerships and collaboration between the Library, Information Technology Services (ITS) and various learning support providers. Developing student IT and information literacy skills is the key focus of the learning support provided by the Library teams in the Information Commons. The IC team provides a walk-in service as well as roaming support on all levels. Services are wide-ranging from focusing on the diverse IT needs of all students to managing equipment loans and directional assistance. There is also close collaboration with and participation in the Library's Learning Services team's information literacy programme. Services, support and programmes are developed in collaboration with other learning support providers to meet student needs and requirements. The IC facilities and services are consistently given very high satisfaction ratings in undergraduate and postgraduate student surveys.

Responsive and agile service model

Institutions are continuously faced with new challenges in the provision of key student services and in meeting changing student expectations, particularly those developing from the pervasive nature of technology. Ensuring the IC Group environment addresses these challenges and continues to evolve is a key driver in the regular evaluation of the service and staffing model.

The inaugural model started showing inefficiencies and a disconnect with changing client needs and technological advances after approximately three years. The staffing model had a very small core of permanent staff and relied predominantly on large numbers of casual student employees - up to 40 at times. The student employees worked various shifts ranging from two to eight hours during the long opening hours over seven days and in three locations. Continuity in the delivery of

service, decline in service levels and staff skill levels as well as team communication became major issues. The administration, recruitment, training and scheduling associated with the model had proven to be unsustainable.

Advances in enterprise systems in areas of identity management (single sign-on) and self-managed financial services also contributed to the decision to review the service model in 2006. The introduction of self-service in several areas impacted directly on the role of the Information Commons staff. Clerical Helpdesk transactions decreased by more than 50%, as students started using the self-service options. Staff found they had more time to provide increasingly complex learning support. It soon became evident to the IC Management that the staffing mix and skill set were not suited to the emerging role (Mountifield 2008: 398-399).

The service was reviewed in late 2006 and a new service model implemented at the start of 2007. The new model was predicated on a service focus of providing enhanced and tailored learning support in closer collaboration with ITS, Learning Services, Student Learning Centre and the English Language Centre. The staffing mix changed from casual student employees to permanent full-time (37.5 hours) and permanent part-time (20 hours) staff. The permanent staff (IC Client Service Consultants) were a mix of recent graduates and experienced post-graduate students. A small group of casual staff (IC Assistants) were still employed to work evening and weekend shifts under the direction of permanent staff. The team is managed by the IC Group Manager who has a library background. The majority of staff work shifts in all three facilities thereby ensuring consistency in service levels. Implementing a new model resulted in improved customer services and better relationships with clients due to continuity in staffing. Staff experienced greater job satisfaction and developed much stronger ownership of their roles, services and work environment.

The model continues to be refined. The focus of the IC Group Manager's role evolved from mostly operational to participating in strategic and enterprise projects and decision making. The IC Client Services Coordinator, appointed in March 2009, took over a significant component of the operational and day-to-day responsibilities of the IC Group Manager. The strong partnership with the ITS EC Services in developing, supporting and promoting the virtual environment and associated services, products and tools requires the service model to be agile and open to change.

Improving the IT environment

Student electronic services are managed through the proprietary NetAccount authentication and authorisation system. All students receive a Net login and password when they enrol. NetAccount provides access to the Internet, printing and photocopying on campus and access to enterprise systems such as the Cecil learning management system, the nDeva student enrolment system, Library electronic resources, and student email and file storage on and off campus. User charges for internet, photocopying and printing are levied by direct debit to students' NetAccount. All students receive an annual allocation for Internet access and some departments allocate print credits to their students for printing course-related work and additional credits for Internet access. The Library subsidises staff and student

access to electronic resources, including web-based licensed databases, electronic course readings, e-journals and e-books and some selected Internet resources. Students deposit funds in their NetAccounts in the Information Commons and other points of sale on the different campuses (Mountifield 2008: 374).

Collaboration between ITS Electronic Campus (EC) Services and the IC Group is essential for changes and new initiatives to be successful. IC staff thoroughly test new software and enhancements prior to release and provide feedback to EC Services staff. IC staff take responsibility for preparing and executing all communication plans.

The IC Group prides itself on its responsiveness to student requests and feedback. Since its opening in 2003, the IC Group and facilities have seen many changes and new initiatives. The next section outlines some of these changes and initiatives.

A better student email service

In 2007, the University's student email service (EC Mail) was in need of an upgrade. EC Mail was locally developed and not as advanced as other email services that were preferred by students, such as Gmail, Hotmail or Yahoo Mail.

There was also a need to have a robust student email service in place before the University implemented the Student Communications using Electronic Mail (email) Policy at the start of Semester One, 2009. This policy states that "All official email to a student will be sent to a student's current University email address and the student is responsible for ensuring that any desired forwarding to other addresses is in place and operating correctly. Failure to read an email does not free the student from understanding or complying with the message." ⁱ

Upgrading EC Mail was not cost effective in terms of time, software development and hardware costs, so an alternative solution was needed. EC Mail was migrated to the enhanced Google Applications for Education service that offers University of Auckland branded Google Mail, Google Documents, Google Chat and Calendar applications on 9th July 2008.

Migration of the EC Mail service was a project that EC Services and the IC Group worked on together. IC staff identified several target groups in the communication plan and various channels were used to get information to these groups. IC staff designed posters and pamphlets that were distributed to all Libraries and student support areas on all campuses. Information about the change was posted on the IC Blog and IC Plasma Screen (electronic notice board), on the main University Website and in the Cecil learning management system. IC staff helped prepare the online FAQs about the migration and EC Mail service. IC staff dealt with all enquiries and provided ongoing support and training to students.

Two major projects were under way at the same time in 2007: EC Mail migration and an upgrade to the student internet service model. Student feedback for both projects was gathered at the same time through focus groups and blog posts, during October and November 2007.

Students were presented with two email options from external providers; Google and MS Live. Overall students preferred Google and this was taken into consideration when making the final decision on which email provider to use. The focus groups also discussed desired features of an email system, such as preferred size of the inbox, changes to the EC Mail domain and the ability to change one's email alias.

The upgrade of EC Mail to the Google Mail platform has been a positive one for students. Students now enjoy a richer student email interface that is similar to Google's Gmail service, offering all the same features (large inbox, spam and virus filters, larger upload size, better searching, etc.) but without the advertising. There has been a significant decrease in the number of email enquiries regarding EC Mail (from 13.4% in 2007 to 6.1% in 2009), which suggests that the new EC Mail service has been an improvement on the previous system and that students find it easy to use.

EC Mail will now remain active and available for students to use indefinitely, even after they have graduated – “email for life”.

Student internet service model

A new flat-rate internet service model was introduced in Semester One, 2008. The new model is more flexible than the previous cost recovery model, and was developed after extensive consultation with students.

The previous model was based on a per megabyte cost for internet traffic to all unsubsidised websites. The model included a \$7 annual allocation for internet traffic charges.

Browsing internal sites (including all Library electronic resources) was free and always at high speed (broadband equivalent). Browsing external sites not subsidised by the University incurred a cost and all traffic was at high speed. If students exceeded their internet balance, they had no external internet access until they topped up their NetAccount balance from personal funds.

Students disliked the cost recovery model because of cost and intermittent speed issues. Students felt they had already paid fees so should not be expected to pay more for internet access. As all external sites were browsed at high speeds there were some speed and bandwidth issues during peak times, and students were often unable to access external web sites at all.

Student feedback, gathered through focus groups and blog posts during October and November 2007, was analysed. As IC and ITS staff were already well aware of the short-comings of the cost recovery model, students were not asked about the model during the focus groups and on the blog. Instead, students were asked for their opinions on the proposed new flat-rate model, after it was explained to them in detail.

The new flat-rate model is made up of three different plans and a user's status determines which plan they are placed on:

- Standard Plan

Browsing internal sites (including all Library electronic resources) is free and always at high speed. Browsing external sites not subsidised by the University is free and unlimited but at slow speed (dial-up equivalent). Undergraduate students are on the Standard Plan

- **Premium Plan**
Browsing internal and external sites is free and at high speed. There is a data allowance of 200MB per month for external sites. When the data allowance is exceeded, users will either have to use the Standard Plan or purchase additional data allowance (100 MB for \$7) from personal funds. Postgraduate students are on the Premium Plan free of charge. Undergraduate students on the Standard Plan have the option to upgrade to the Premium Plan. The cost of upgrading is \$12 for half a year or \$20 for the entire year.
- **Staff Unlimited Plan**
Browsing internal and external sites is free and at high speed, there is no monthly data allowance. PhD students are on the Staff Unlimited Plan.

IC staff prepared and executed the communication plan for the flat-rate internet service model using the same methods used in the migration of the EC Mail service project. Similar target groups were identified and the same communication channels were used to get information to these groups. IC staff helped prepare the online information about the internet service model, provided ongoing student support and training and dealt with all enquiries.

Students have welcomed the flat-rate model and now have free internet access at consistent guaranteed speeds, during all periods with very few complaints being received.

Managing student expectations through technology

KEIC continues to be one of the most popular study locations on the City Campus and demand for computers is consistently very high.

Based on the Library's quarterly occupancy surveys KEIC occupancy rates are consistently higher than all other University of Auckland Libraries, at a rate of 80% occupancy or above. During 2008, the daily average of computers in use at KEIC continued to be over 80% throughout the course of the 13 hour day, with almost 100% use of computers between 9am and 5pm.

Two different pieces of software were trialled during 2008 and 2009, in an attempt to manage student access to, and expectations regarding, the immediate walk-in availability of computers.

Multiple simultaneous user login problems

Anecdotal evidence and student complaints suggested that some students were sharing their Net login and password details with non-University of Auckland students, friends and family members. Students from secondary schools and other

tertiary institutions were unfairly gaining access to computers, disadvantaging University of Auckland students.

Computer login data verified that more than one computer was being logged on simultaneously using the same user login details. After an evaluation of potential software solutions, User Lock was selected for a trial on all student computers in KEIC in 2008.

User Lockⁱⁱ software prevents a single user from logging on multiple computers simultaneously. User Lock is able to rigidly enforce the University's ICT Acceptable Use Policy, which forbids people from sharing their login details with others.ⁱⁱⁱ

The User Lock trial quantified how significant and wide spread the problem of multiple user logins was. The successful trial of User Lock justified the purchase and installation of the software across the IC Group during September and October 2008.

User Lock continues to work well. Attempts at multiple logins still occur, but have declined over time as students have realised this behaviour is not acceptable. In addition, no negative feedback has been received from students about the inability to logon on multiple computers simultaneously.

User Lock has solved the issue of multiple simultaneous logins by the same user. However, another software solution was needed to manage student expectations around walk-in availability of computers.

PC booking system

Early in 2008, a booking system was proposed for computers in KEIC, to try to cope with demand and control recreational use of computers. A PC booking system would ensure that each student has equitable access to computing resources during peak times in a way that is not labour-intensive for IC staff to manage.

Students had two opportunities to provide feedback about a booking system, in early 2008 when it was a proposal, and then again after software trials in late 2009. On both occasions, focus groups and blog posts were used to gather a large amount of valuable student feedback.

The first set of focus groups and blog posts aimed to get feedback about the booking system proposal. The proposal was put to students verbally in the focus groups and in detail on the IC blog. Focus group feedback was largely positive. Blog responses tended to be more negative largely due to misunderstandings about how the system was going to be implemented.

Student feedback helped to crystallize what features students would like to see in a booking system. Features requested by students included; easy to use browser-based interface available off campus and on campus at booking kiosks, a limited and a pre-determined number of booked slots per day and week, only the student who made the booking be able to log a booked computer on, and some type of consequence for repeat 'no-shows'.

Two different pieces of software were selected to trial: MyPC Computer Booking & Access Management^{iv} and the Pharos SignUp Computer Reservation System^v. Both booking systems work in much the same way, by providing an online booking interface and a local computer client. The local computer client manages and enforces advance bookings according to rules developed by IC staff (number and duration of bookable slots). MyPC was trialled first on 100 computers in KEIC. As at January 2010 the Pharos trial had not yet started.

Follow-up focus groups and blog posts were held in the last week of the MyPC trial (September 2009), to gauge student opinion. Almost all focus group participants viewed the concept of a booking system in a favourable light. Blog comments on a booking system were almost entirely negative initially, but more positive comments began to appear towards the end of the trial. The appearance of positive comments would suggest that an increased awareness and knowledge of the booking system led to greater acceptance of it. Amongst the positive responses, many students indicated that they liked being guaranteed a computer when they booked one, and found this very convenient, particularly between lectures during the middle of the day.

It is clear from student feedback that a booking system would be welcomed. No final decision has been made yet as to which software will be purchased or when it will be implemented. As at January 2010, a booking system has still not been implemented.

New technologies

Level 0 of KEIC is a group study area. Students are able to rearrange furniture to encourage collaboration. Couches are provided along with large round tables and chairs for group work. Most group work tables have power, so that laptops can be used.

Students regularly requested facilities for enhanced group work and in which to practice presentations. To meet this demand, four 40-inch plasma screens were installed in strategic places in Level 0. Students are now able to attach a laptop to the plasma screen and use it as an additional monitor, enabling students to work together on projects and presentations.

The University of Auckland Graduate Profile states that:

A student who has completed an undergraduate degree at The University of Auckland will have acquired an education at an advanced level, including both specialist knowledge and general intellectual and life skills that equip them for employment and citizenship and lay the foundations for a lifetime of continuous learning and personal development.^{vi}

Developing student IT literacy skills to a high standard is essential to achieving the aims of the Graduate Profile. IC staff facilitate the development of student IT literacy skills through a variety of channels including instructional sessions, on-demand training and support and by providing access to Microsoft Office online training on IC computers.

Microsoft Office online training utilises the "Microsoft e-learning library" (MELL). MELL is a series of e-learning lessons in Microsoft software. MELL gives access to software training that caters to all skill levels and learning styles. MELL provides core training for Microsoft Office Word, Excel, PowerPoint and Outlook 2007 for all current University of Auckland Staff and Students.

Technologies being considered for the future include software that enables remote user support. Information Commons staff would be able to control remote computers over the internet (off-campus users) or network (on-campus users) to solve problems.

Updating the software environment

Faculty and students are invited and encouraged to recommend new software as part of the twice yearly (July and December) software reimage process. Software requests are evaluated against a set of predefined criteria. The Information Commons creates a learning environment by providing general productivity software while faculty/departmental labs provide the specialist software or development environment that students need.

Staff regularly make recommendations and suggestions during the software reimage process; however, student suggestions were rarely received. As students predominantly use the IC image, it was important that this image reflect their core computing requirements.

In September 2008, a blog item was posted asking students to make suggestions for software to be considered as part of the December 2008 reimage process. There was an overwhelming response from students, with 54 comments received. Some of the software requested was either already available or something very similar was available. At the conclusion of the reimage process students were advised of the outcomes via a blog post. Students were told which of their suggestions were implemented, and which were not, and why.

When the new image was rolled out to all IC Group PCs and laptops in December 2008 it included a large number of applications suggested by students, including; Notepad++, Gimp (free graphics editor, alternative to Photoshop), Microsoft Visio (viewer only), Dia (open source general-purpose diagramming software, similar to Visio), Freemind (open source mindmap software), VLC media player, Dvorak Keyboard Layout for Left-Handers and an FTP client – WinSCP.

A full list of software available on IC computers is available from:
<http://www.information-commons.auckland.ac.nz/?page=software>

Usage statistics inform decision making and planning processes

Monthly statistics on the usage of IC computers are gathered using KeyServer (Sassafras Software)^{vii}. Prior to the implementation of KeyServer in May 2008, statistics were paper based and therefore prone to human error and not always scientifically robust. It was often difficult to be confident about the accuracy of statistics, especially when they were being used to justify changes and

improvements. Since the implementation of KeyServer, detailed and accurate statistics are available, often down to a very granular level.

Statistics are now available for software application usage. These statistics are used to match IC staff training requirements to high usage software. IC staff receive in-depth training for the most popular student applications, which are currently MS Word and Excel. Statistics also show which software applications are least used, and these are regularly considered for removal during the twice-yearly software reimage process.

Keyserver reduces software-licensing costs and increases the availability of computing resources. For example, financial decisions can be made around individual versus con-current licenses for some software packages because exact usage patterns and levels are known.

Usage statistics show the volume of computer logins and the times and days of the week that are most popular. Staff rosters are planned around peak times and days to ensure maximum numbers of staff are available during the busiest periods. Recent and readily available usage statistics may have an impact on future staffing requirements. It is likely that extra staff will be rostered on during the extremely busy periods. The extremely busy periods for the Information Commons are the first three weeks of Semester One and Two, from approximately 10am to 4pm. Evenings during examination periods are also extremely busy. Normally three staff are rostered on in the evenings, during the examination periods an additional staff member is added to week day evenings.

The average duration of computer sessions can also be ascertained from the usage statistics. A comparison of session duration from different times during a semester shows clear patterns and student preferences for working in various spaces within the building.

At the start of a semester students clearly prefer to work in short bursts on Level 0 computers, where group study and collaboration is encouraged. As the semester progresses the average session length on Level 3 computers increases, Level 3 is a silent level. Students clearly prefer to work in silence during core periods when assignments are due, exams are approaching, and concentration is required. Staff are aware of student study patterns and preferences and regularly monitor noise on Level 3 during core periods, addressing disruptive behaviour as required.

Staff job enrichment and career development

As previously mentioned the IC Group staffing profile is made up of permanent and casual staff. All staff are responsible for the standard daily house-keeping duties.

Permanent IC staff share a generic job description but all have unique additional portfolio responsibilities. Portfolio responsibilities are allocated on a best-fit basis to the skill set of the staff member. Portfolio responsibilities supplement the standard duties and provide job enrichment and career development for employees.

Portfolio responsibilities include a wide variety of duties from stock and consumable management and ordering, banking and account data entry, compiling statistics, evaluation and testing the software image, managing email enquiries, managing the wiki, blog, suggestion box and website, managing equipment, through to managing building and equipment faults and much more.

IC staff play an active role in designing and/or presenting information literacy courses as part of their portfolio responsibilities. IC staff present IT courses to a wide range of students including a compulsory course for Doctoral Students and orientation presentations. IC staff develop knowledge of core Library resources (catalogue, etc) which is used to provide student support for those resources. Staff also benefit from being involved in course planning and presentation, as these are highly transferable skills.

Several IC staff were involved in the redesign of the old IT literacy courses, which needed to be redesigned to improve attendance and relevance to students. IC staff possessed a good working knowledge of IT resources used by students and of common student questions, so were ideal to be involved in the project and take ownership.

The result of the course redesign project was two new courses aimed at introducing students to the IT environment at University: "Uni IT Essentials" and "Uni IT Workshop". Uni IT Essentials covers the basics of the IT environment for new students. The Uni IT Workshop provides more specific advanced information on complex systems and functions as a question and answer session.

IC staff played an active role in both designing and teaching these new courses. Feedback and attendance at these new courses in 2008 and 2009 was positive and much improved on previous years.

Conclusion

A great deal of emphasis is placed on student feedback; students are often consulted before any changes or new initiatives are planned and/or implemented. The IC Group has a very active suggestion box and blog^{viii}. Student focus groups are always run before any significant changes are made to services or resources.

In addition to ongoing informal service evaluations, the IC Group also participates in more formal evaluation processes. The University of Auckland Library carries out customer satisfaction surveys every two years, including 2009. As with previous Library and University surveys, the Information Commons was given the highest satisfaction rating of any University of Auckland service or facility evaluated in undergraduate and postgraduate student surveys. Students commented less positively on the availability of computers, as they expect computers to be available when they need them. In order to attempt to improve the availability of computers a booking system will be implemented in 2010, more laptops will be available from Semester One 2010 and productivity software is now available on computers in other University of Auckland Libraries.

The IG Group' student-centred service philosophy is to constantly identify opportunities to improve the learning and social environment. The paper has outlined the various methods used and the outcomes achieved through collaboration with stakeholders. The ongoing development of this service is based on its purpose and role, not organisational structure, with end user needs and feedback informing the service levels and enhancements

Mountifield (2008:397-398) listed the key successes of the Information Commons as:

- Convenience; a one-stop shop for IT, information, language and learning needs.
- Expert support; collaboration between librarians, IT professionals, writing consultants, media specialists, language and learning advisors
- Continuum of service; supporting the access, use, evaluation, management, integration, and creation of information
- Integrated technology-enabled learning environment; latest hardware, software, multimedia, networks and file storage
- Flexibility to adapt the physical, virtual and service environments to accommodate changes in technology and in the expectations and needs of students
- Catering for collaborative and individual learning styles and social needs.
- Promoting IT and information literacy development
- Service excellence; self-service, satisfaction, seamlessness
- Comfort and collaboration
- Formal and informal learning groups and communities of scholarship.

These are considered as guiding principles in the continuous design, delivery and improvement of services.

It is only fitting that the final comment be that of a student:

Just a quick word of compliment instead of a complaint: It's good to see that you guys are paying attention to the students and are actively fulfilling requests by students. I know that it is very hard to keep everyone happy, but it seems you guys are doing a really good job of it. I don't want to name names but a previous university I was at [omitted] were much much less organised and a lot of the student's requests were left ignored or unattended for weeks on end. Anyways, good job guys! Big thumbs up!

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