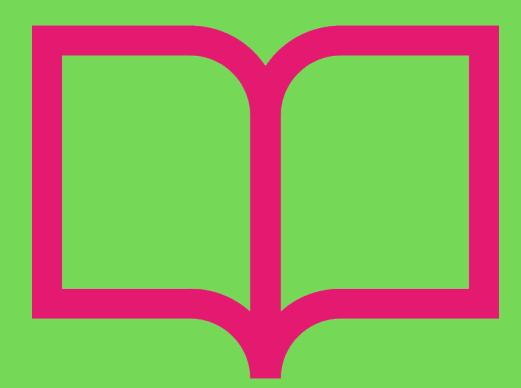
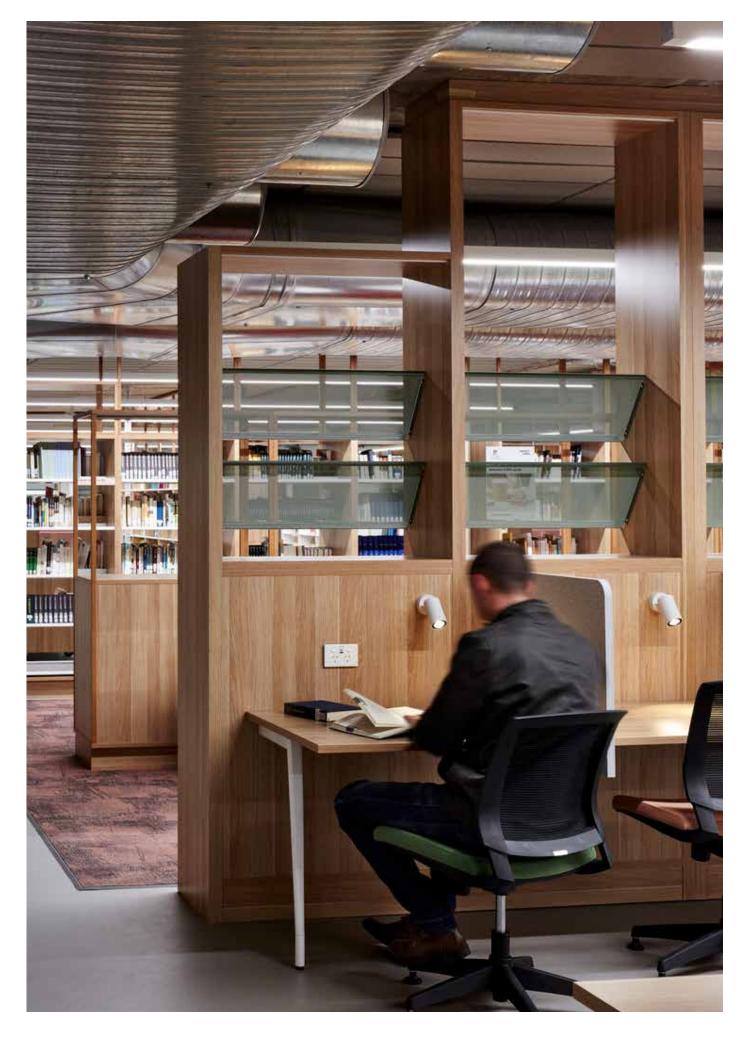
Balancing the books

A global review of university

library space priorities







H

Hassell 61 Little Collins Street Melbourne VIC Australia 3000 T +61 3 8102 3000 hassellstudio.com @hassell_studio Contact Michaela Sheahan Senior Researcher msheahan@hassellstudio.com +61 03 8102 3132

1.	The evolving library	1
2.	Surveying the scene	3
3.	Priority #1 – study space	5
4.	Books aren't just for reading	7
5.	Technology is crucial	9
5. 6.	And another thing	11
7.	Conclusion	13
8.	References	14

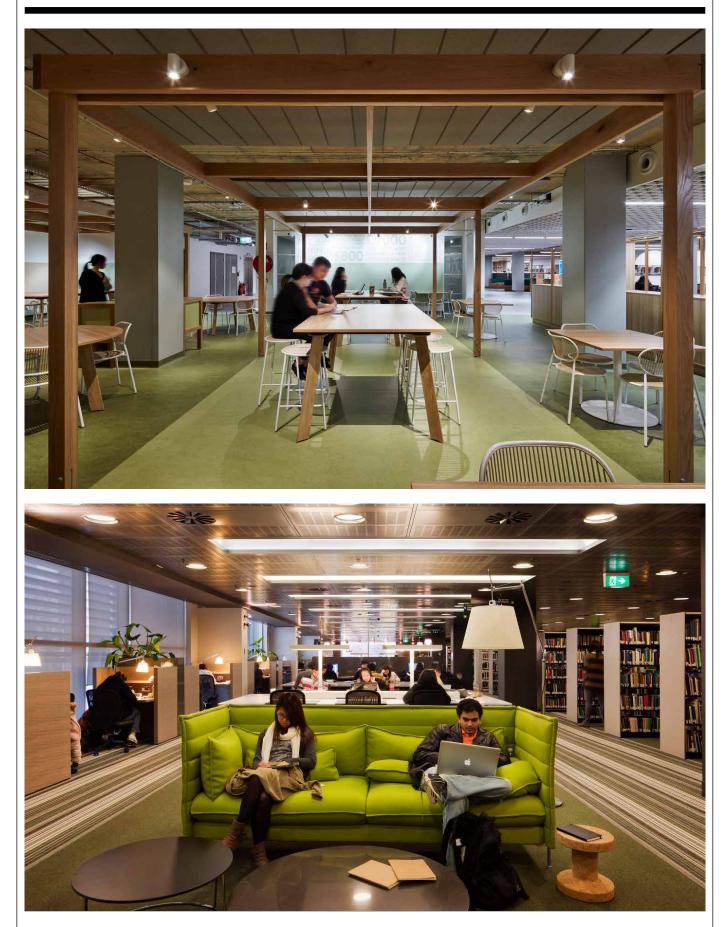
THE EVOLVING LIBRARY

Academic libraries are stretched to the limit, balancing financial, cultural and strategic goals to keep so many different users happy.

They're now facing — or staring down — a host of new and exciting challenges, including open science, digitisation, artificial intelligence, changing pedagogies, service models and skills shortages.

In this research, we're looking at just one chapter in the book of challenges — how to design spaces that work for libraries in a rapidly-changing landscape.

It's all ahead, or here already!



 Barr Smith Library, The University, of Adelaide, Australia. Photography by Sam Noonan
Giblin Eunson Library, The University of Melbourne, Australia. Photography by Shannon McGrath

SURVEYING THE SCENE

Imagining the academic library of the future is a big task. As designers, our small role in that big task is to deliver effective and welcoming library spaces — places people love to use.

This means satisfying the competing demands for solo and collaborative space, digital and print collections, vibrancy and silence.

The demand for study space in particular is relentless, often at the expense of book collections. But a study hall supported by a digital portal is not what students or librarians want or need. They want a library. A place with a variety of spaces and services: a space to feel comfortable and supported to learn.

Most librarians believe there will always be the need for a library building,¹ despite a move from emphasising collections to services, or at least, collections as one service among many others.²

These services now range from specialist subject support to cake and coffee, from exhibitions to archiving, and from rare books to 3D printers. It's a tricky balancing act, but library spaces have evolved and accommodated these different needs remarkably well over recent years.

Perhaps, though, it's time to share the load.

Our survey

Hassell surveyed Head Librarians at 43 university around the world to understand developments in library design at a time when their use is changing dramatically.

This was a small but nonetheless valuable sample of opinions and experiences of those at the front line of academic library services globally.

We asked about how their spaces have changed, the role of technology in those changes, and how libraries might best serve their users' needs in the future.

Our findings

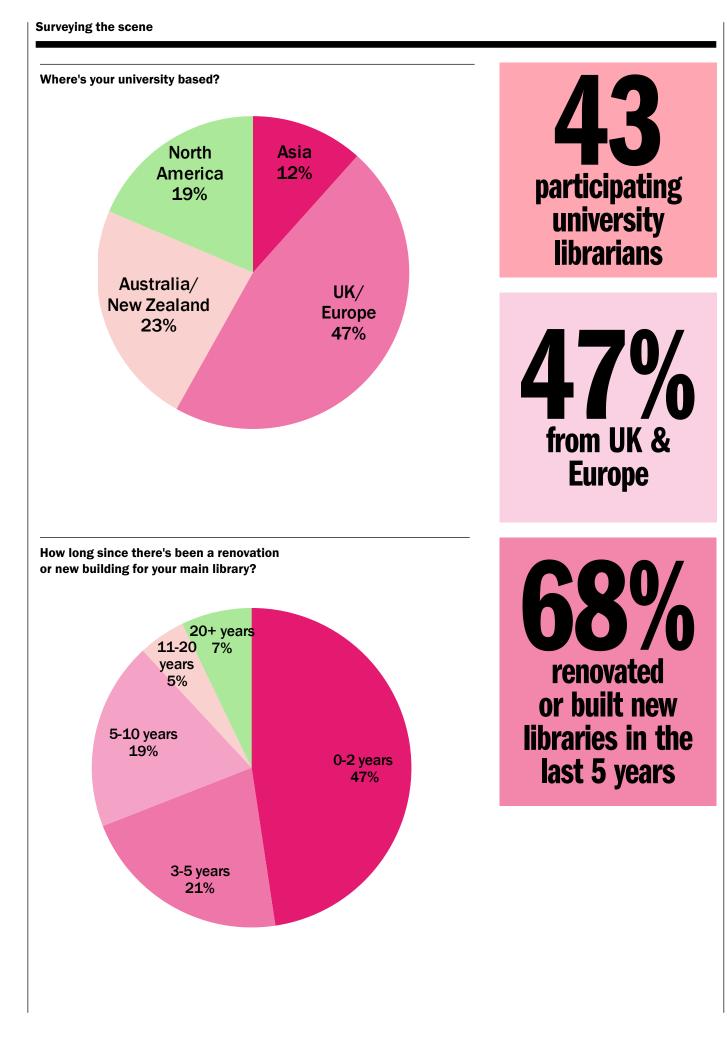
What we found is that librarians are an optimistic bunch. And despite spatial, financial and technological pressures, they want to provide the best possible opportunities for students and staff to explore, learn and grow.

The data revealed a complicated picture, but two simple messages shone through:

 \rightarrow Study space is the #1 priority \rightarrow Books aren't just for reading

Add these together and libraries have a seemingly impossible balancing act to perform: increase study space while retaining book collections, in a fixed amount of space.

But a solution to this difficult issue is gradually emerging. It's time to distribute study space across the campus.



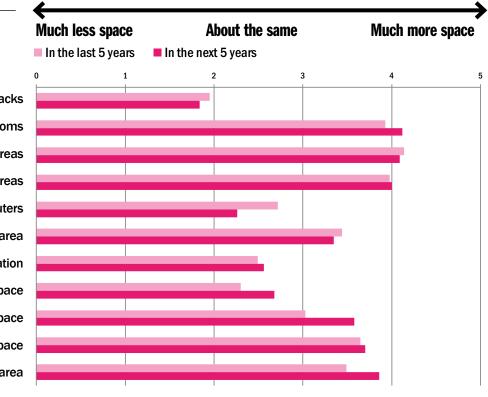
PRIORITY #1 --STUDY SPACE

Surprise! Study seats are the top space priority for academic libraries, driven by the increasing emphasis on student experience across the higher education landscape.³

As student expectations rise in line with tuition fees,⁴ libraries are shouldering the burden of the oncampus study space needs of more and more students. Ubiquitous wifi, mobile technology and project-based curricula are pushing up demand for on-campus study space, for both individuals and groups.

Our research shows that in the last five years, study space (whether enclosed, group or silent) has grown most significantly compared to other types of space in libraries (administrative, cafe, exhibition, teaching, etc). It's also the type of space librarians would most like to provide more of in the next five years. As a proportion of space, book stacks are decreasing most significantly, while administration areas are likely to remain roughly the same.

Space for fixed computers seems likely to decrease, although responses to this were mixed. Some librarians noted strong demand for computer terminals, as well as a responsibility to provide them, while others believed the ubiquity of laptops made fixed workstations redundant.



How is space use in libraries changing?

Book stacks Enclosed group study rooms Open study areas Silent study areas Fixed computers Cafe/social area Administration Object-based learning space Gallery/exhibition space Teaching/learning space

Peak collaboration

The finding that all types of study space have already grown and need to grow more is consistently strong across all regions, but the results suggest that the Antipodes may have reached 'peak collaboration' compared to other regions.

After a sustained period of investment in student hubs that focus on collaborative learning, the participating librarians at Australian and New Zealand universities (80 per cent of which have refurbished or built new libraries in the past five years) unanimously agreed that silent study space is most needed.

In other words, 100 per cent agreed 'much more' silent study space is required in the next five years, with one survey participant noting:

"The students are the most conservative group when it comes to library space. Silence is the most valued quality."

While perhaps most acute in that particular region, the trend is widespread. A study of European academic libraries⁵ shows that group study space currently occupies around 10 per cent of all user space, but is projected to grow significantly.

Students definitely have an appetite for collaborative space, but preferably not at the expense of silent study space.⁶ Whatever type of study, collaborative or individual, the space needs to come from somewhere.

The typical course of action is to remove book stacks from libraries, but a survey participant pointed out:

"...there is a danger of just making the space into a study hall and not a library."

Another, less obvious, option is to distribute the study space load more evenly across campus.

Sharing the load

Fortunately for libraries, the amount of space dedicated to informal learning in other locations — most notably faculty buildings — is growing quickly.

For hundreds of years, university faculty buildings have dedicated their space to formal teaching methods: a series of corridors linking lecture theatres, labs and tutorial rooms. But with the rise of collaborative and student-centred pedagogies in recent years, that's changing.

New teaching buildings in universities now routinely include informal learning space to give students somewhere to meet, study and socialise close to their lectures and tutorials – an immediate gathering space that makes them a more cohesive group, keeps conversations flowing and provides access to faculty.

A recent review of eight Hasselldesigned faculty buildings (including the Life Sciences Precinct building at The University of Melbourne shown below) indicates an average formal to informal learning space ratio of around three to one.

In other words, a quarter of all teaching space is dedicated to peerto-peer learning. That proportion of informal learning space is undoubtedly growing, providing an opportunity to ease the squeeze in libraries. Instead of progressing further towards a study hall model, libraries may be able to harness this change to concentrate on delivering a balanced learning environment with a variety of the most effective spaces and resources – and an authentic academic library experience. Several participants made this point, including one who said:

"It is not only the library that has a responsibility to provide decent study seating for students. We should protect the integrity of what an academic library stands for."

In a move we are seeing more often from higher education clients, the American University of Cairo is developing a series of design interventions for formal and informal learning spaces beginning in the library, but eventually spreading across the campus in a 'ribbon of learning'.

This new approach to campus-wide informal learning space planning may be a turning point, where pressure to be 'everything to everyone' eases on libraries.



Life Sciences Precinct, The University of Melbourne, Australia. Photography by Earl Carter

BOOKS AREN'T JUST FOR READING

For all the talk of book-less learning commons, libraries still need (and want) books, albeit less in volume and variety. Our research uncovered so many reasons to keep books other than their primary function, although there's still plenty of reading going on!

Many students — even the new generation of digital natives — still strongly associate books with a library environment. They also provide a number of immeasurable nonreading benefits:

- \rightarrow Behavioural cues, where books encourage people to be quiet
- → Way finding, where stacks divide spaces into visible movement, study and talking zones
- → Discoverability, where browsers can find unexpected or new books that may be otherwise hidden in digital databases
- → Ambience, where, well, "it's nice with a lot of books!"

One survey participant quoted an annual figure of 8.5 million digital downloads at their library compared to just 140,000 physical loans. Seems damning, but another 800 thousand books were used in the library and re-shelved without being loaned.

That's a lot of eyes on the printed page.

While many students feel a strong and symbolic link between books and learning, librarians reported back on the practical benefits they see:

"Book stacks provide zoning, a good sound buffer and break the space."

Librarians also noted some faculties have a greater dependence than others on printed materials, particularly monographs. Humanities scholars were singled-out for their preference to retain books in libraries, among a number of more general observations:

"One challenge of removing books is the relationship with academic staff. Removing collections off site was met with mostly negative responses." Other downsides to downsizing? Retrieval from off site storage slows down access to books. It also poses a challenge to find appropriate and adequate storage facilities in the first place. But the most significant issues relating to increasing study spaces were the hidden challenges in building upgrades.

As mentioned earlier, we found there's been a significant run of library construction in recent years, with 68 per cent of our participants saying they had work done on their main library space in the past five years. And about four out of five of those projects was a refurbishment rather than a new build.

This bonanza of construction has brought some unexpected and expensive design complications for those seeking to replace book stacks with study seats. More students in the building means more toilets, fire regulation issues and noise.

Safe egress, amenities, acoustic treatments and ventilation systems are costly and difficult to manage in buildings where ceiling space is limited, structural, mechanical and electrical systems are outdated, and noisy students are replacing quiet books. As one librarian discovered:

"Libraries were not designed for the number of study seats we want to provide to meet demand. We are finding issues with Occupational Health and Safety compliance (staircases, emergency exits, door widths), air conditioning systems can't cope with increased equipment and people, toilets are inadequate."

Is a library without books like red wine without a cork? It's not quite right, but we'll get used to it eventually.

TECHNOLOGY IS CRUCIAL

The push to at least partly replace books with digital collections is logical, inevitable, and in some cases, practically complete.

Broadly speaking, librarians are enthusiastically embracing technology within the budgetary and practical constraints of their unique circumstances. And they've been doing it for some time:

"We are already 99% digital. Open access/open science is the next big challenge."

Or, as another noted more bluntly:

"If you haven't already made the transition to a high technology environment, your library is in a pretty bad space."

As higher education participation has increased, digital collections have enabled access to off-campus, 24/7 online learning for new and broader cohorts of students. Tech systems are also beginning to free staff from time-consuming activities like borrowing, re-shelving and administration so that they can be deployed to more direct learning experiences for students:

"Technology enables users to have a more selfdirected experience, fewer staff interventions for routine transactions and releases staff to provide more fact-to-face/online and personalised support."

That's a sound staff resourcing strategy at a time when library budgets are under so much pressure.

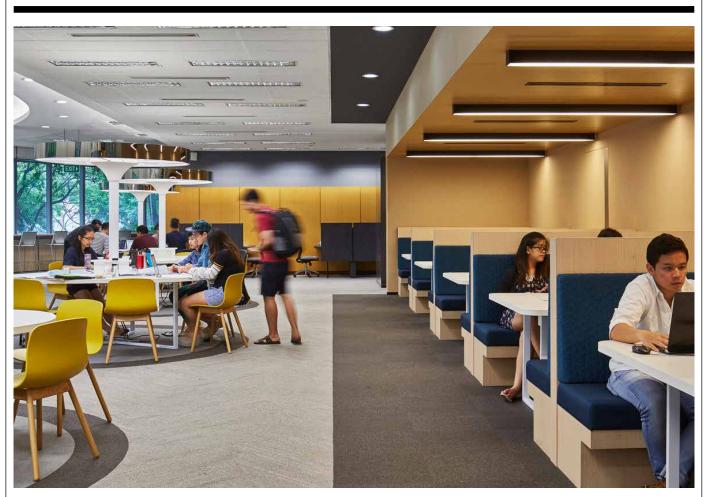
In France, around 30 per cent of academic library staff are engaged in book acquisition and processing compared to just four per cent for the provision and development of digital services.⁵ As book stacks continue to decline as a proportion of floor space and digital collections grow, this balance (in France, and around the world) will shift quite significantly.

So technology investments may save money in staffing, but initial outlays are never cheap and can lead to other issues down the track, as one participant explained:

"The technology challenges are cost and securing revenue to ensure regular investment. We also have problems securing staff with relevant skills to develop and manage technology."

It's important to make smart technology choices to avoid costly obsolescence, and to have the budget to maintain and upgrade the systems as technology develops. It's also prudent to make sure staff and students are trained use technology to its full potential.

Technology is crucial



Li Ka Shing Library, Singapore Management University, Singapore. Photography by Hassell

High value, high use space

It is unlikely that digital collections will entirely displace books, or that librarians will be replaced by artificial intelligence and chat bots.

Nor is it inevitable that libraries will bear the burden of providing all of the study space demanded by students — at the expense of book stacks or other space uses.

But as the prime location on campus that most students will visit at least occasionally, the library has an obligation to pursue a high value, high use strategy. Study space is a very visible and desirable use that satisfies a growing demand. It also contributes to student experience measures in some universities.

For example, the Russell Group of institutions in the UK sets a benchmark of one study space on campus per six students,³ and currently achieves around ten seats per student.

In Europe the average provision is also around ten, but the ratio in Germany is as high as 19 students per seat.⁵ The desire to lower these ratios is strong for libraries, as well as facilities departments and the university more broadly:

"The benefit of removing book stacks is taking decreasingly used and valued space and converting it into space that advances the strategic priorities of the university."

But new and more study space should not come at the cost of the quality of existing study spaces, nor the plethora of emerging activities that complement the traditional library services that remain relevant.

AND ANOTHER THING...

A quick summary of other findings from the survey

Libraries are not decreasing in overall space

At most universities in the survey, libraries are expanding slightly. But the use of space is certainly changing — and under increasing pressure.

"We have a large program of expansion of spaces: a large new library, refurbishing existing libraries, and also repurposing former libraries into study centres. We are working on a new hi-tech campus that will not have a library, but will provide digital services and pop ups, as well as a series of study centres."

Opening hours

The benefit of extended library hours – convenience for students – is challenging to balance with staffing costs and security risks. Extended hours during exam periods are the compromise for many libraries.

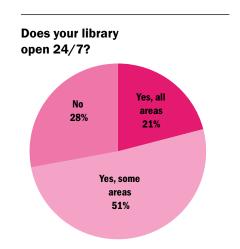
"Even though this being open 24 hours is not economical, and there is a lack of students truly using the space overnight, it is a demand from our students and a recruiting tool for our university."

Post-graduate students are a little bit different

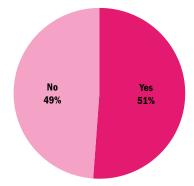
Over half of all libraries have a secure space for post-graduate students.

This is the user group that most librarians believe needs different types of space to others. But many noted that creating exclusive spaces for post-graduates potentially deprives other students of space, if they are not used to full capacity.

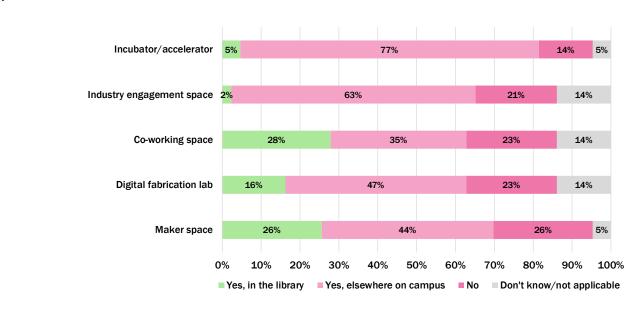
"Our building is inclusive by design — a principle of using the different spaces depending on what you want to do, not who you are."



Does your library have a secure post-grad only space?



Does your library have the following space uses?



Emerging space types are not emerging very quickly

Questions relating to new, different types of spaces such as fabrication labs, maker spaces and incubators were met with some ambivalence, particularly when it came to objectbased learning.

While universities are promoting these spaces to suit changing curricula and pedagogies, they are largely located beyond the library.

"We need not jump on bandwagons. For instance, I am unconvinced on the maker space trend."

Community engagement is easier and more relevant for libraries than industry engagement

While participants readily embraced community engagement (primary/ secondary school involvement, exhibitions and access to collections), librarians largely agreed that industry engagement is more suited to individual faculties than the library.

Licensing of resources is a particular challenge for industry engagement.

"We are a public university so community engagement is very important. The University's industry engagement is constantly increasing. I am sure this will have an impact on the library, just not sure how or what, yet. "

Technology is vital, but challenging

Increased use of digital material and services has significant benefits, including new learning opportunities, greater reach and better student experiences.

The challenges relate to the cost of purchasing and maintaining infrastructure, the cost of training staff and the varying abilities of students to use it.

"Technology enables users to have a more selfdirected experience, fewer staff interventions for routine transactions, and releases staff to provide more personalised support where needed."

CONCLUSION

There's no denying the urgent need for study space on campus. That seems to be one thing everyone we heard from agreed on. But we also know that students and staff don't want to see academic libraries emptied of books to make that happen.

And while librarians see the benefit of digital collections (and technology more generally) in offering a truly comprehensive knowledge service, it's not just about moving in one direction.

The key is to strike a balance between the old and the new. And that means making a case for a more even distribution of informal learning spaces across campus, so they're not just found in the most expected places – libraries – but in faculty buildings too. Ultimately, that mix will create a better outcome for the university community and beyond.

REFERENCES



Li Ka Shing Library, Singapore Management University, Singapore. Photography by Hassell

 SCONUL Stats UK libraries to 2013. https://www.lboro.ac.uk/microsites/infosci/lisu/lisu-statistics/lisu-statistics-trends.html
Pinfield, S., Cox, A. an Rutter, S. (2017) Mapping the Future of Academic Libraries https://sconul.ac.uk/sites/default/files/documents/SCONUL%20Report%20Mapping%20the%20Future%20 of%20Academic%20Libraries.pdf
Hassell, 2018. Snakes and League Table Ladders: The value of campus facilities in student experience. https://www.hassellstudio.com/uploads/ RP_20200225_SnakesAndLadders.pdf
Lenton, P. 2015. Determining student satisfaction: An economic analysis of the National Student Survey. Economics of Education Review. www.elsevier.com/locate/econedurev
Anjeau, E. (2018) Study of European Indicators: The Situation of Fenerch Iniversity Libraries Compared to With Other European Countries Association des

The Situation of French University Libraries Compared to With Other European Countries, Association des Directeurs and personnels de direction des Bibliotheques Universitaires et de la Documentation. https://sconul.ac.uk/sites/default/files/documents/ADBU-Study-Key-and-Performance-indicators.pdf 6. Hassell, 2017. Not Lazing, Learning!

https://www.hassellstudio.com/research/not-lazing-learning

Brisbane 36 Warry Street Fortitude Valley QLD Australia 4006 T +61 7 3914 4000 E brisbane@hassellstudio.com

Hong Kong 22F, 169 Electric Road North Point Hong Kong T +852 2552 9098 E hongkong@hassellstudio.com

London 1 Curtain Place London EC2A 3AN United Kingdom T +44 20 7490 7669 E london@hassellstudio.com

Melbourne 61 Little Collins Street Melbourne VIC Australia 3000 T +61 3 8102 3000 E melbourne@hassellstudio.com

Perth Level 1 Commonwealth Bank Building 242 Murray Street Perth WA Australia 6000 T +61 8 6477 6000 E perth@hassellstudio.com San Francisco Level 7 650 California Street San Francisco CA 94108 United States T +1 415 860 7067 E sanfrancisco@hassellstudio.com

Shanghai 12F base 45 Caoxi North Road Xuhui District Shanghai 200030 China T +8621 5456 3666 E shanghai@hassellstudio.com

Singapore 33 Tras Street #02-01 078973 Singapore T +65 6224 4688 E singapore@hassellstudio.com

Sydney Level 2 Pier 8/9 23 Hickson Road Sydney NSW Australia 2000 T +61 2 9101 2000 E sydney@hassellstudio.com

© Hassell. This document and the ideas incorporated within, as an instrument of professional service, is the property of Hassell. It shall not be used or reproduced in any manner what so-ever, in whole or in part, or for any other project without the prior permission of Hassell.