# Directions in library technology in higher education

#### **Bibliotheca forum**

"Exploring future possibilities" Nottingham May 2018.

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### Ken Chad –some of the things I do.....

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More effective libraries - making sense of a confusing landscape....

Change, innovation and strategy....digital content and ebooks, social media, open source, open access, open data, the cloud, 'library services platforms', research data, shared services, hard economic times, and new business models

Read More

Briefing paper

#### Higher Education Library Technology

Library management system to library services platform.

Resource management for libraries: a new perspective

DOI:10.13140/RG.2.1.4315.3128

Ken Chad, Ken Chad Consulting Ltd. August 2015 (ORCID ID: orcid.org/0000-0001-5502-6898) **Rethinking the Library Services Platform** 

Briefing paper DOI: 10.13140/RG.2.1.4989.4481

Ken Chad, Ken Chad Consulting Ltd. January 2016 (ORCID ID: orcid.org/0000-0001-5502-6898) Local Government Library Technology



#### My contribution today should be treated as "food-for-thought"



Context.....



### Some context/themes

#### higher education...is it worth it?

Students around the world are concerned that the growing cost of higher education (HE) is not delivering good value



Is college worth it? The Economist [US Edition] 5 April 2014. <a href="http://www.economist.com/news/united-states/21600131-too-many-degrees-are-waste-money-return-higher-education-would-be-much-better">http://www.economist.com/news/united-states/21600131-too-many-degrees-are-waste-money-return-higher-education-would-be-much-better</a>

#### Teaching excellence and learning outcomes: what's the role of the library?





Review of the research literature on defining and demonstrating quality teaching and impact in higher education

Lucy Strang, Julie Bélanger, Catriona Manville and Catherine

https://www.heacademy.ac.uk/syst em/files/resources/defining\_and\_d emonstrating\_teaching\_quality\_an d\_impact.pdf "The importance of 'high quality teaching' in higher education (HE) is becoming increasingly emphasised both in the United Kingdom (UK) and abroad

Excellence in teaching has become entrenched in higher education policy and in the educational strategies of academic institutions, and increasingly linked to the performance and assessment of these institutions"

#### The consumer

### consumerization

http://en.wikipedia.org/wiki/Consumerization



Consumerization is the reorientation of product and service designs around the individual end user. The emergence of **the individual consumer as the primary driver of product and service design** originated from and is most commonly seen as a major IT industry shift

The primary impact of consumerization is that it is forcing businesses.. to rethink the way they procure and manage IT equipment and services.

#### Gartner.

# Renovating the customer experience is a digital priority

Digitalization and the digital business are catalysts of change that are affecting the human-machine relationship and driving better customer outcomes.

http://www.gartner.com/doc/2864817?refval=&pcp=mpe

#### **UX-User** experience

It is impossible for a user experience to be too good......(has anyone turned to an "inferior" product because the better one was too enjoyable?).

'What Clayton Christensen Got Wrong'. By Ben Thompson. Stratechery [blog]. 22 September 2013 http://stratechery.com/2013/clayton-christensen-got-wrong/

#### The cloud

"You can have different opinions about how complete and how fast this transition is going to happen, but it also seems apparent at this point that **the cloud is becoming the new normal**." Andy Jassy Amazon Cloud Strategy Chief. 2014

How Amazon is turning cloud computing into the new normal. By Heather Clancy, Fortune 13 November 2014 <a href="http://fortune.com/2014/11/13/amazon-cloud/">http://fortune.com/2014/11/13/amazon-cloud/</a>

#### "Multi-tenant" Cloud based platforms

"There is only **one copy of the application** software, one operating system and one database **supporting multiple organizations** on a single bank of servers. The vendor only has to deploy, develop, maintain and upgrade one copy of the software."

Library management system to library services platform. Resource management for libraries: a new perspective. HELibTech Briefing paper. Ken Chad HELibTech August 2015.

#### **Platforms**



#### "Platforms are eating the world"

"Now, market upstarts are displacing market leaders faster than ever before as entire industries transform. We are in the midst of a **seismic shift in business models**, powered by the Internet and a **generation of connected users**.

Sangeet Paul Choudary, Geoffrey Parker and Marshall Van Alstyne. Outlook 2014: Platforms are Eating the World. Wired Blog October 2014 http://www.wired.com/insights/2013/12/outlook-2014-platforms-eating-world/

"The world's most valuable resource is no longer oil, but data. Smartphones and the internet have made data abundant, ubiquitous and far more valuable"

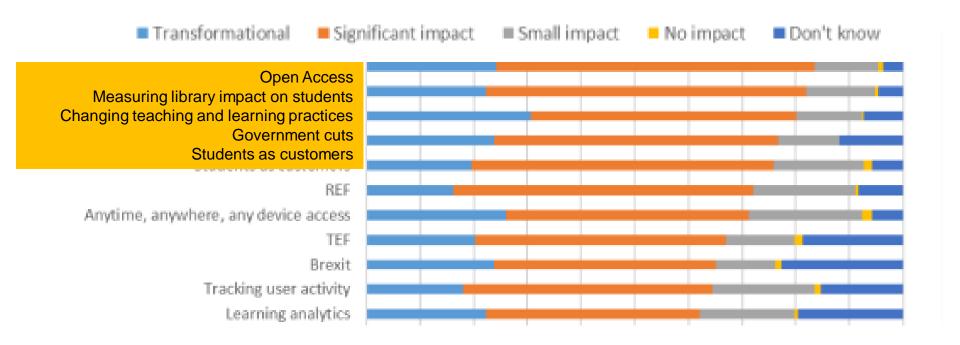


The world's most valuable resource is no longer oil, but data. The Economist. 6 May 2017 <a href="http://www.economist.com/news/leaders/21721656-data-economy-demands-new-approach-antitrust-rules-worlds-most-valuable-resource">http://www.economist.com/news/leaders/21721656-data-economy-demands-new-approach-antitrust-rules-worlds-most-valuable-resource</a>

# What are some key issues/trends for libraries in HE?

#### **Trends**





Kenchadconsulting helping create more effective libraries.....

#### Open Access roadmap: How will libraries manage the 'flip' to OA?



"Most research libraries in the world are still deeply grounded in the subscription system and have yet to recognize and adopt the goal of transformation to an open access publishing system."

Remove any barriers to subscription budgets being merged with publication funds; subscriptions and OA payments need to be consolidated under a single management: don't allow your system to support separation

Implement mechanisms to monitor (transparency!) and analyze costs of scholarly publishing (for instance, build on the example of the German APC initiative or others that document their OA payments, such as the Austrian Science Fund or the Wellcome Trust).

Kenchadconsulting helping create more effective libraries.....

#### Library impact

"Students tend to be more engaged with learning on the whole if they engage with library resources, interact with library staff, and spend time using libraries"

Australasian Survey of Student Engagement [AUSSE] 2012 Institution Report (p. 40-41)

"First-time, first-year undergraduate students who use the library have a higher GPA [Grade Point Average] for their first semester and higher retention from fall to spring than non-library users"

Library Use and Undergraduate Student Outcomes: New Evidence for Students; Retention and Academic Success. **S**oria, Krista M., Jan Fransen, and Shane Nackerud. Portal: Libraries and the Academy. Vol 13, No. 2 (2013), pp. 147-164. <a href="https://www.press.jhu.edu/journals/portal\_libraries\_and\_the\_academy/portal\_pre\_print/current/articles/13.2soria.pdf">https://www.press.jhu.edu/journals/portal\_libraries\_and\_the\_academy/portal\_pre\_print/current/articles/13.2soria.pdf</a>

#### Changing teaching and learning practices

"It doesn't take a genius to figure out that the adoption of technology in the learning sphere is mostly determined by its ability to produce **enriched and personalised learning experiences**"

The Evolution of the Digital Learning Experience. Amy Donelan. Kortex Blog 30 Nov 2017 http://www.kortext.com/blog/the-evolution-of-the-digital-learning-experience/



UNIVERSITIES PUBLISHERS PARTNERSHIPS

Blog

#### 'Flipped' learning

Academy

Academy

TRANSFORMING TEACHING INSPIRING LEARNING

"Flipped learning is a pedagogical approach in which the conventional notion of classroom-based learning is inverted, so that students are introduced to the learning material before class, with classroom time then being used to deepen understanding through discussion with peers and problemsolving activities facilitated by teachers."

https://www.heacademy.ac.uk/knowledge-hub/flipped-learning-0

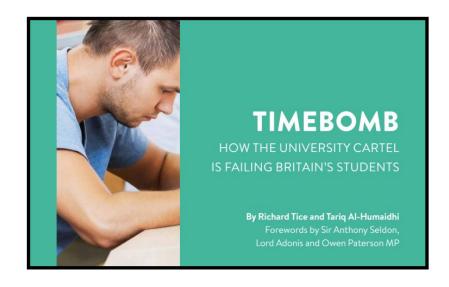


Fees accounted for more than two-thirds of total income at 42 per cent of UK universities, while 22 institutions depended on fees for more than three-quarters of their income in 2015-16.

The risks of this are obvious: a sudden drop in student demand, even spread over a few years, could be catastrophic: a peril highlighted by the strong correlation that now exists between changes in real-terms income for universities

University financial health check 2017: future prospects? Simon Baker. Times Higher 17 August 2017 https://www.timeshighereducation.com/features/university-financial-health-check-2017-future-prospects

#### The student customer/consumer



There is 'growing evidence of just what poor value for money many universities are providing', with **students cheated** of the benefits they were repeatedly assured they could expect in return for their money

The producer interest reigns.
The voice of the consumer, in other words the student, has not been taken greatly into consideration

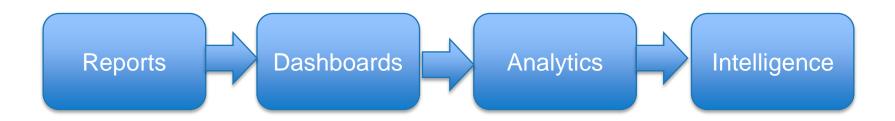
Timebomb: how the university cartel is failing Britain's students. By Richard Tice and Tariq Al-Humaidhi.UK2020 Ltd. 2017. http://www.uk2020.org.uk/wp-content/uploads/2017/09/JRTI5635\_UK\_higher\_education\_t imebomb\_report\_170830\_WEB.pdf

#### **Analytics**



"Every time a student interacts with their university – be that going to the library, logging into their virtual learning environment or submitting assessments online – they leave behind a digital footprint. Learning analytics is the process of using this data to improve learning and teaching"

Learning analytics in higher education: A review of UK and international practice. Read our updated briefing on learning analytics and student success from January 2017. By Niall Sclater, Alice Peasgood & Joel Mullen. Jisc. 2016. <a href="https://www.jisc.ac.uk/reports/learning-analytics-in-higher-education">https://www.jisc.ac.uk/reports/learning-analytics-in-higher-education</a>



## How analytics can support student success

"Such approaches aren't just about improving retention and graduation rates, nor are they for those institutions that suffer from low rates, but they represent an opportunity to **improve** the overall student experience.

Students deserve more **personalised learning** in higher education. Predictive analytics can help make learning and support services more targeted, identifying students according to their characteristics, and understanding the risk of them disengaging or dropping out

How analytics can support student success. Charles Prince Wonkhe 26b April 2018 https://wonkhe.com/blogs/how-analytics-can-support-student-success/

There is competition –there are alternatives to conventional libraries

Facing up to competition.....

### Libraries face increasing competition



Libraries are so valuable they attract voracious new competition with every technological advance

## LIBRARYJOURNAL

http://lj.libraryjournal.com/2013/09/future-of-libraries/start-ups-take-library-jobs-reinventing-libraries/#

#### Alternatives to using (conventional) library resources



"For me personally using sci-hub has led to new research results in fields outside of my specialization that will (very likely) appear in leading peer reviewed journals. One problem I'm not sure about is whether it's wise to say in the acknowledgements: "I thank Alexandra Elbakyan for setting up Sci-Hub without which the research results reported in this paper would have been impossible", in an Elsevier paper"

https://academia.stackexchange.com/questions/87688/what-are-the-consequences-of-using-sci-hub-cc

#### Alternatives to using (conventional) library services

## WIRED.CO.UK

### How to access free academia

CULTURE / 07 NOVEMBER 13 / by KATIE M PALMER 🚅

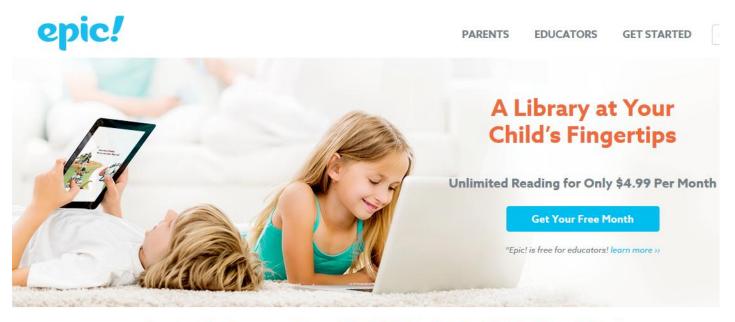
#### Ask for help

Certain internet-dwellers can do your highbrow dirty work for you. **On Twitter, post the URL** of a paper with #icanhazpdf. Delete the request afterwards, and remember not to thank the sender by name.

#### Go incognito

If a site offers a limited number of articles for free per month, **try browsing via Chrome Incognito.** Your cookies get dumped when you exit, so sites can't recognise that you've been there before.

#### A platform based library service.....?



Instantly Access Over 20,000 Books for Kids 12 and Under

"the best online library that I've seen"

https://www.getepic.com/

#### Libraries will need to re-think where they can compete best

Insights – 27(3), November 2014

Doing away with the library catalogue | Simone Kortekaas and Bianca Kramer



## Thinking the unthinkable – doing away with the library catalogue

Based on a paper presented by Simone Kortekaas at the 37th UKSG Annual Conference, Harrogate, April 2014

"At Utrecht University we strongly believe that **academic libraries** have lost their role in the discovery of scientific information and should focus on delivery instead".

"Without your own discovery tool you might feel stark naked.

However, we have to admit that **others can do a better job** on discovery, so don't spend too much time on this. **Make a priority of your delivery task** and rethink the way you can provide value for your users"

Library technology

Where is library technology going?

#### ILS to LSP

#### Higher Education Library Technology

Briefing paper

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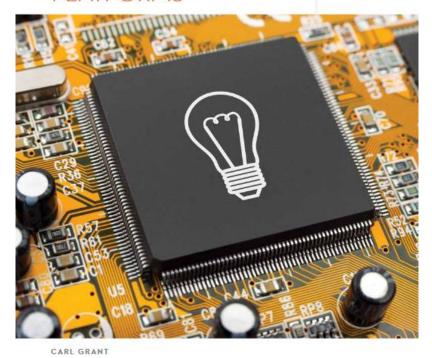
DOI:10.13140/RG.2.1.4315.3128

Ken Chad, Ken Chad Consulting Ltd. August 2015

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#### "Sometimes you have to start over"

## THE FUTURE OF LIBRARY SYSTEMS: LIBRARY SERVICES PLATFORMS



Sometimes you have to start over

"The amount of change we've seen, both in computer technology and in library management/operations, is so substantial that the best way to accommodate the change is to start with a fresh design that can take advantage of all of these changes."

The Future of Library Systems: Library Services Platforms. By Carl Grant. NISO. Information Standards Quarterly. Fall 2012. Vol. 24. Issue 4. ISSN 1041-0031

http://www.niso.org/apps/group\_public/download.php/9922/FE\_Grant\_Future\_Library\_Systems\_%20isqv24no4.pdf

#### When will your library system do this?

#### **Voice Search Is Growing Faster than Type**

According to Behshad, speech recognition word error is as low as 8%. This is a huge improvement over two years prior, when the error rate was over 20%, and has led more and more people to rely on voice over type because it now actually works.

"It's kind of a magical experience. Just take your phone and ask it about the things around you"

## The *Ultimate Assistant will* understand your *intent*

the ultimate assistant should understand the world, you and your world, and your current context. It will be an intent expert

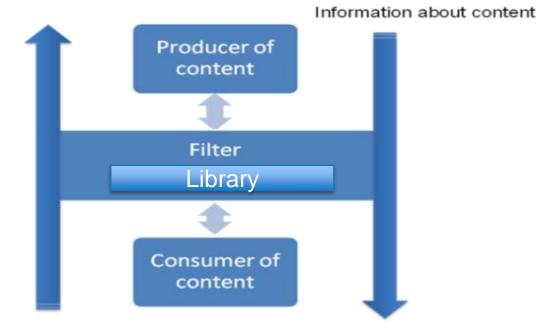


Behshad Behzadi, Director of Conversational Search @ Google

http://www.wordstream.com/blog/ws/2016/03/02/smx-west-google-voice-search

#### Platform in a library context

The platform can be thought of as a filter. Just as Uber delivers the 'best' taxi ride or Airbnb the 'best' accommodation, the ... platform delivers the 'best' ... resource.



Information about users

#### Data is the driving force.

The student consumer and the rise of e-textbook platforms. HELibTech Briefing paper March 2018

#### Platforms-new solutions to old problems

#### "Platforms are eating the world"

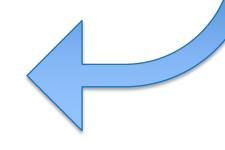


Today's network platforms aid the creation of entirely new markets by connecting producers and consumers with each other.

Sangeet Paul Choudary, Geoffrey Parker and Marshall Van Alstyne. Outlook 2014: Platforms are Eating the World. Wired Blog October 2014 http://www.wired.com/insights/2013/12/outlook-2014-platforms-eating-world/

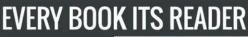






Five laws of library science S. R. Ranganathan

1931





**EVERY READER HIS BOOK** 

http://librarysciencedegree.usc.edu/resources/infographics/dr-s-r-ranganathans-five-laws-of-library-science/

Summary .....

#### The time to innovate?



Academic libraries are facing times of unprecedented challenge and unparalleled change. Innovation has moved from a consideration to a necessity.

http://www.libraryinnovation.org/article/view/420/625

#### "The enterprising librarian"

"It requires a shift from bureaucracy to enterprise, an adaptive organization that reviews and reshapes what it does in light of changing requirements".

"in an environment of change while overall mission and values may remain the same, new and shifting goals become the norm. ....

As goals shift in a changing environment, so does the need to think about how to marshall the means to meet them. This may need reorganization, new staff skills, changing priorities, reallocation of staff and resources, and so on.

The enterprising librarian. Lorcan Dempsey. Blog 30 June 2012. http://orweblog.oclc.org/archives/002201.html The library world is ramping up in terms of UX work & initiatives





#### The future: the ecosystem

"No single vendor will be able to develop all the applications necessary to meet the technology requirements of a complex library – and librarians like to see choice in the market.



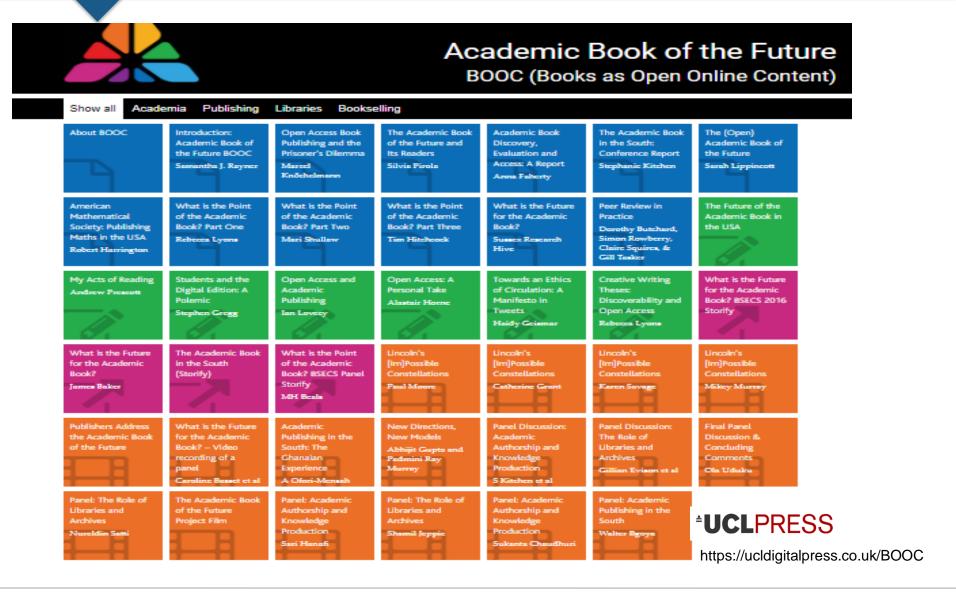
#### Rethinking the Library Services Platform

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#### New kinds of content –the BOOC



#### New kinds of content - could this replace the textbook?



#### Benefits of lecture capture

- You can review your lectures any time and anywhere to reinforce your learning.
- Recordings are viewable on multiple devices.
- The lecture capture system allows you to create your own bookmarks and private revision notes.
- You can work together in groups for revision tasks.
- Any points that you would like to clarify during your live lecture will be available to you afterwards.
- You can prepare thoroughly for your subsequent lectures and assignments.

#### **Solent Online Learning**

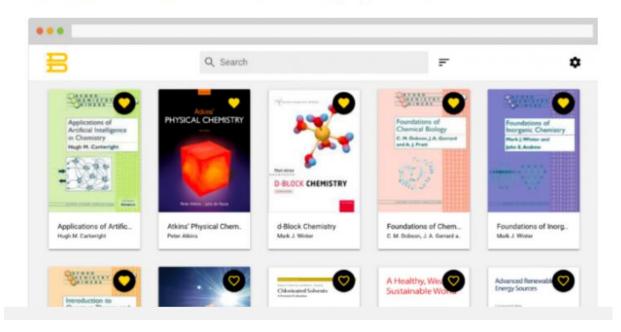
https://learn.solent.ac.uk/mod/book/view.php?id=370075

#### New kinds of systems for delivering content

## The Spotify of the textbook world takes off as Bibliotech is go

1 August 2017

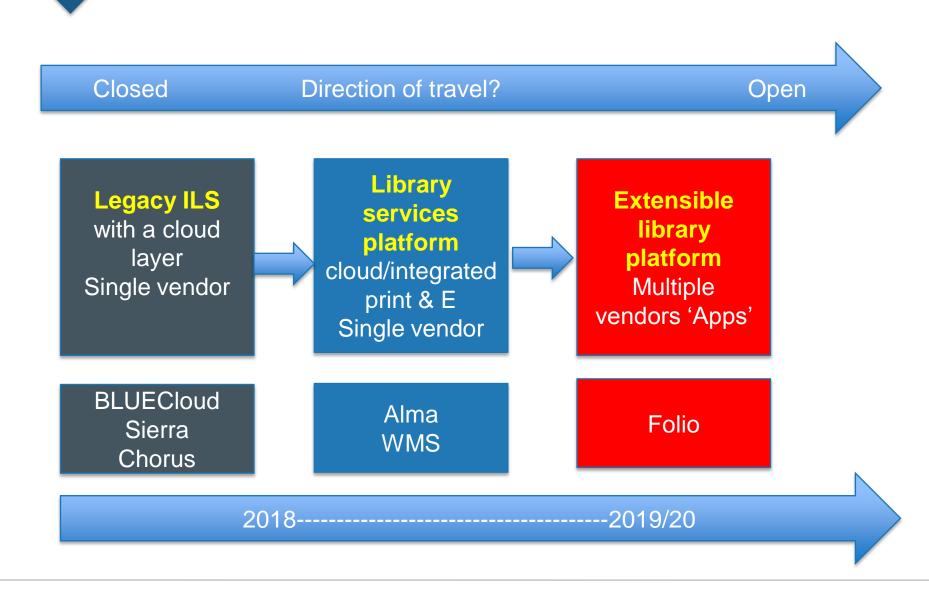
As libraries look to widen access to core texts, how can they make this affordable to both universities and students?



https://www.jisc.ac.uk/news/the-spotify-of-the-textbook-world-takes-off-as-bibliotech-is-go-01-aug-2017

Kenchadconsulting helping create more effective libraries.....

#### Where are library systems now and where are they going?



Kenchadconsulting helping create more effective libraries.....

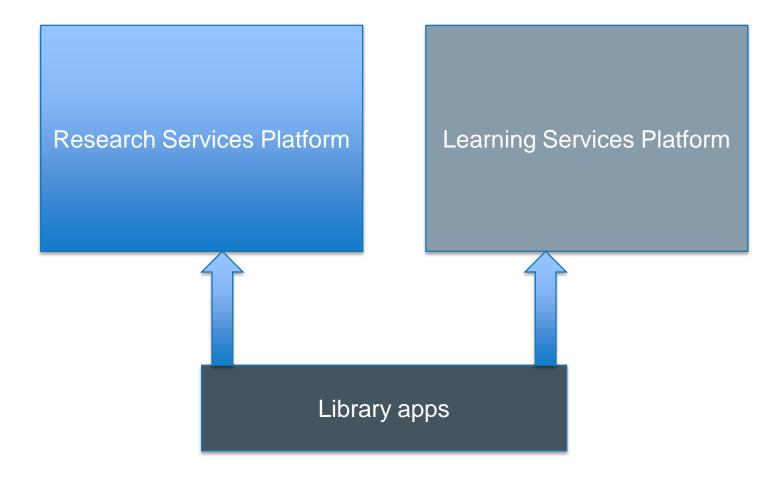
#### It no longer just about the library...(it actually never was)

Don't	just talk about Library resources
Don't	just talk about library technology
Don't	just talk about Library analytics
Don't	just talk about Library staff

'All this suggests a trend for library technology and educational technology to merge. We will certainly see reading list systems, VLEs and digital textbook platforms better integrated and perhaps even subsumed into common *learning services platforms*. '

The new role of the library in teaching and learning outcomes. By Ken Chad & Helen Anderson. Higher Education Library Technology (HELibTech) briefing paper (No. 3). June 2017

#### The new paradigm?



#### The data wars are starting....

"The value of data analytics will surely be a key driving force. Data from reading lists and digital textbook platforms combined with information from other institutional systems on student retention and academic performance will produce powerful insights. Such analytics will be invaluable to institutions, publishers and intermediaries as they look at new ways to deliver content.

The new role of the library in teaching and learning outcomes. By Ken Chad & Helen Anderson. Higher Education Library Technology (HELibTech) briefing paper (No. 3). June 2017



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