Beyond Retention
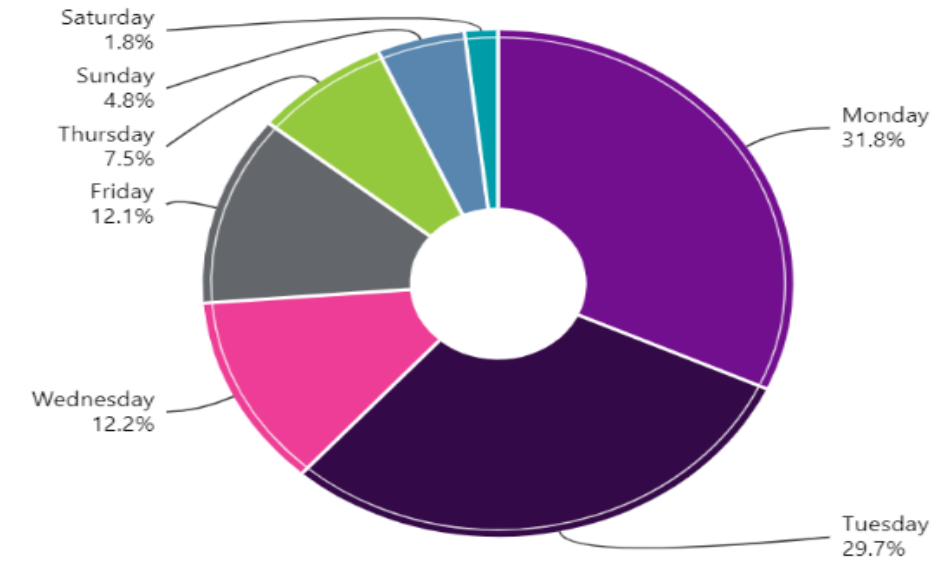
Kortext Analytics

- As a key supplier of personal e-Textbooks to over 45 universities in the UK, we have been delivering for a number of years detailed Analytics in the use of these key study materials

- These detailed analytics record use of the resources via both our web interface and our apps for all the major systems

- We record each action that users make in the books – logging in, turning pages, time spent on pages, access route, features used, time of day and day of week and all linked in to each student record
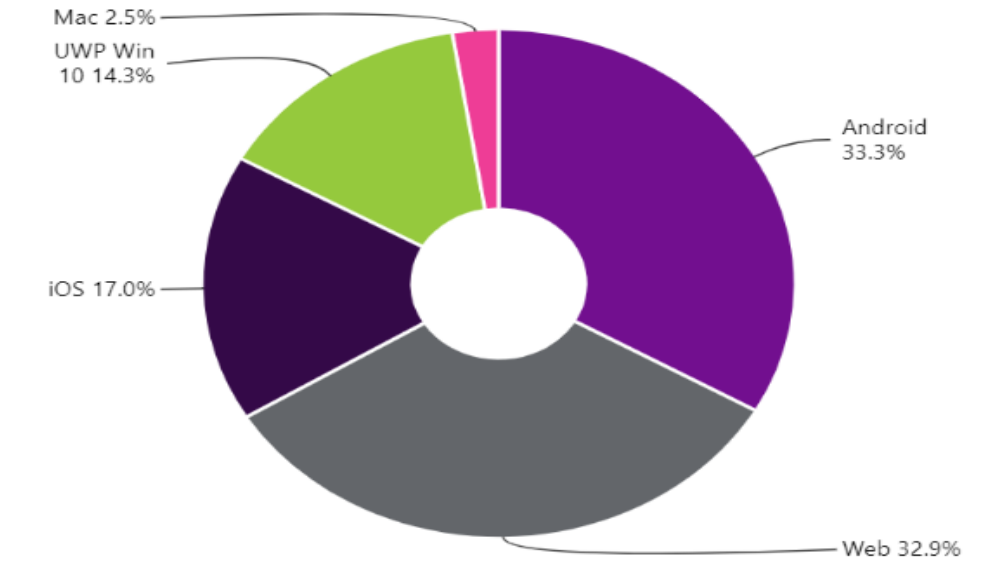
Kortext Analytics

Students			Activity			Courses	

Students

Total Students	
24	

Registered Users	Active Users
11	18

Registered Users %	Active Users %
45.83%	163.64%

Activity

Total Pages Viewed		
6,490		

Pages Read	Prints and Copies	Searches
473	21	249

Bookmarks	Notes	Highlights
49	194	278

Courses

Total Courses	Total Modules
1	15

Books

Book Allocated	Downloads
192	474

Total Pages Viewed by Day, Period and Hour

Saturday 1.8%
Sunday 4.8%
Thursday 7.5%
Friday 12.1%
Wednesday 12.2%
Tuesday 29.7%
Monday 31.8%

Pages Viewed by Device

Mac 2.5%
UWP Win 10 14.3%
iOS 17.0%
Android 33.3%
Web 32.9%

Reading

Average Page Views
360.56

Average Page Reads
26.28

Average Prints Copies
1.17

Average Books
8.00

Average Annotations
30.28

Average Downloads
26.33

Kortext

Analytics and Curriculum Design

- Data can be used to refine and improve curriculum design
- Knowing which chapter of the book students use most
- Knowing which page is most visited
- Knowing which terms are most searched
- This allows for additional real time support, reflection and curriculum review

Curriculum Design

- Do students need extra support on a topic?
  - 2 lectures instead of 1 etc
- Do you need to provide additional or alternative viewpoints?
- Are examples up to date?
- Reading data can be combined with other performance metrics to give a more complete overview of concept mastery

Justifying University Expenditure

- Detailed analytics are not just about student retention and achievement.

- Using Analytics around the Kortext etextbooks, other detailed library analytics and analytics from suppliers of bursary schemes a clear link between resources and achievement can be shown

- Universities can then target spending and support on the services that support their students best.

Student Progression

- Bringing together this study behaviour with the data in the Jisc Datawarehouse allowing us to present a strong picture of student progression

- On a large dataset you can quickly start to identify strong patterns in behaviour
  - Engagement in resources
  - Attending Lectures
  - Background student data
  - Grades
  - All these and more can be used to predict student outcome

Prediction to Outcome

- Using past data, you can fine tune algorithms to give good predictive data

- These predictions can then be used to make suggestions to help improve grades. This is likely to be especially beneficial for students predicted to be around the edge of a grade.

- However these are not firm outcomes, but predictions
  - Handle with care
  - Recommend academic intervention not machine led
  - Gives grade prediction and suggested activities to enhance probability of achieving better grade

Identifying unusual outcomes

- Essay mills have been in the news a great deal recently, with concern over students purchasing high grade essays.

- As we know these essays are more difficult to detect using traditional anti-plagiarism software.

- Analytics can be used as another weapon against the use of these assignments

- Analytics software can be used to check use of resources such as etextbooks, library resources and VLE items in the weeks leading up to an assignement

- They can be configured to pick up either generally out of place high grades or more generally good grades when engagement analytics are low

- Although these are not conclusive it can alert a tutor to investigate more closely.

Partnership with Microsoft

- Kortext has a strong partnership with Microsoft
- Power BI embedded service has been in use for over a year in our Kortext Analytics service
- We are working with Microsoft to ensure the predictive and prescriptive analytics are using the latest machine learning and AI technology

Kortext

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Partnering with Kortext

- Kortext is now looking to work with University partners

- Currently building Analytics for our reading list service KeyLinks

- Combining Jisc Data warehouse with other data a key aspiration