

Evaluating the Big Deal: What metrics matter?

Usage Statistics for Decision Making
London, 18 November 2010
Selena Killick
Research & Development Officer

Evaluating the Big Deal: What metrics matter?

Disclaimer: This presentation will not provide an answer to the above question!

Who are we?

- The UK's only wholly postgraduate university focused on science, technology, engineering and management
- One of the UK's top five research intensive universities
- Annual turnover £150m
- 40% of our students study whilst in employment
- We deliver the UK Ministry of Defence's largest educational contract

My Role

(amongst other things)

- Provide analysis and advice on customer feedback and library performance data:
 - Key Performance Indicators
 - SCONUL Statistics
 - LibQUAL+
 - Enquiry monitoring
 - Focus groups

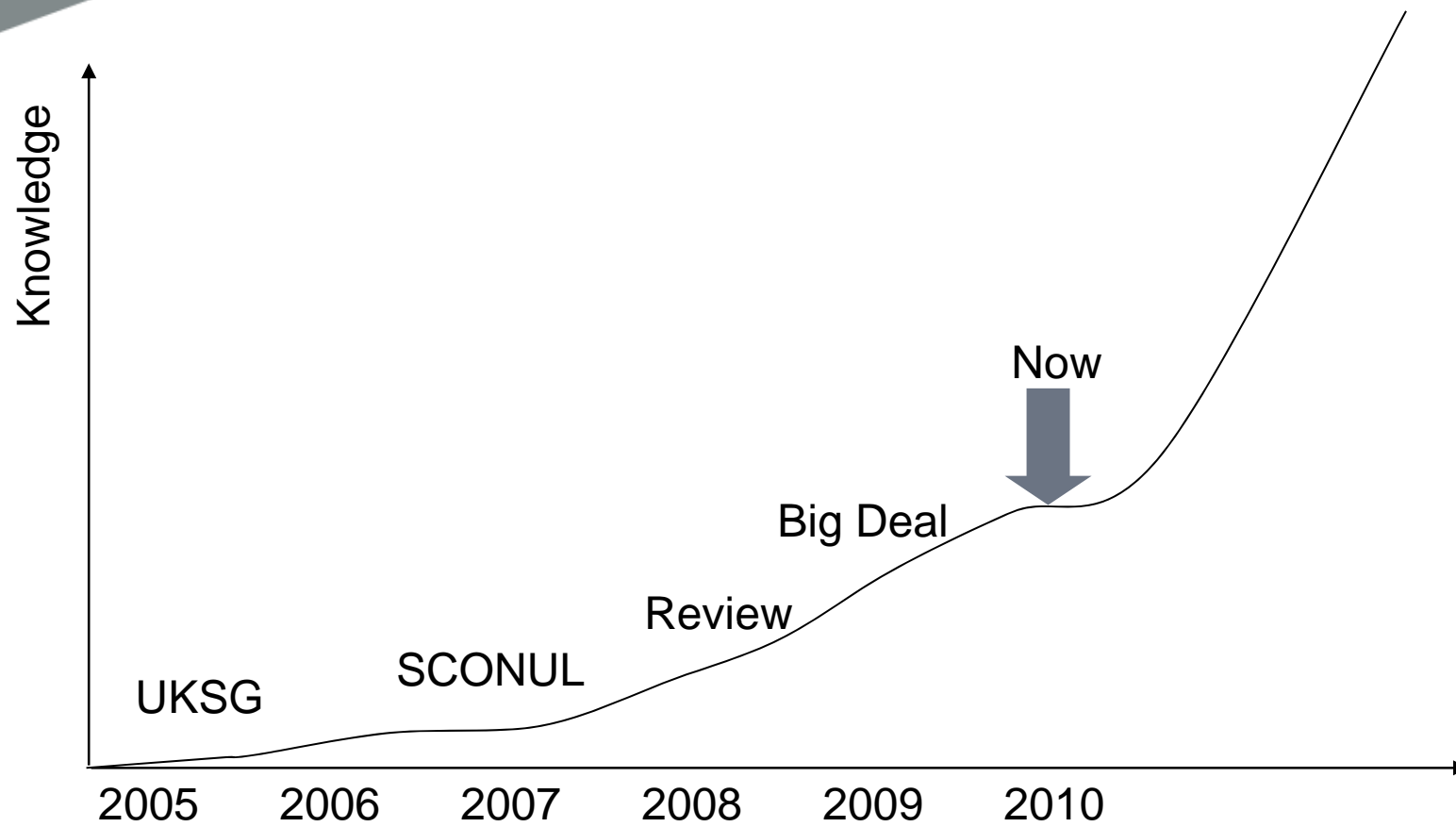


My Usage Statistics Journey

- 2005: UKSG Usage Statistics training
 - Personal interest but limited analysis
- 2007/08: Need to report usage statistics for SCONUL Return
- 2008: First resources budget review
 - Trimming the fat
- 2010: Review of the Big Deals



Learning Curve



Evaluating the 'Big Deals'



Evaluating the 'Big Deals'

- Resources budget cut predicted
- Small publishers and book budgets already reduced
- Review of four electronic journal packages ('Big Deals') required
- Initial discussion focussed on cost-per-use only
- More analysis needed



Standing on the Shoulders of Giants

- What are others doing?
 - Cliff Spencer (via Lib-Stats email list)¹
 - Newcastle University (via Lib-Stats web site)²
 - Angela Conyers
 - Evidence Base³
 - UKSG⁴

Adapted to our local needs...



Metrics, Metrics, Metrics


Basic metrics

- Number of titles
- Total annual full-text downloads
- Downloads per FTE student/staff/total
- Number and % of titles in usage group zero/low/medium/high
- Top 20 titles as % of total downloads

Value Metrics

- Average number of requests per title
- Total cost as % of information provision expenditure
- Average cost per title
- Cost per full-text download
- Average cost per FTE student/staff/total

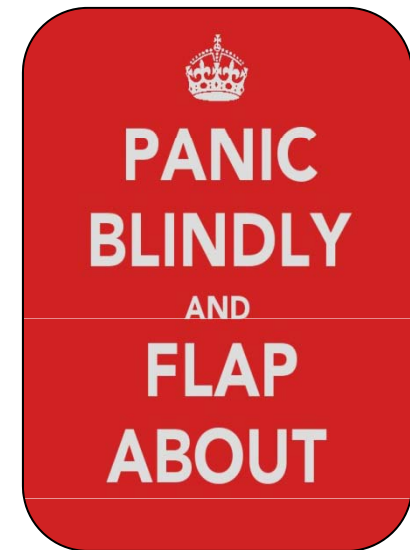
Management Desire to Review Print Subs

- Costs by format and as % of information provision expenditure
- Number of print subs
- Full-text downloads of print titles 
- Number and % of print subs in usage group zero/low/medium/high
- Average number of requests per title
- Average cost per title
- Cost per use by title
- Number and % of print subs in Top 20

Get Organised...

More metrics than I knew what to do with!

1. Become an Excel whizz
2. Download relevant reports and store locally
3. Design Excel template
4. Run the analysis on each package
5. Benchmark between packages
6. Report back to Library Management



Excel Template

- Two main data sources:
 - COUNTER JR1
 - Subscription agents financial report
- Automated as much as possible
- Match formulas working with ISSN to link title price to usage/holdings
- Three data outputs:
 - Print Subscriptions Review
 - Top 20
 - Key Performance Indicators

A Margin of Error

- When to measure from/to; calendar, financial/academic, or contract year?
- How many titles do we have?
- Do we have access to all of the 'zero use' titles?
- Which are our subscribed titles?
- What about the aggregator usage statistics?
- Do we trust the usage statistics?
- What is the size of the target population?

Sometimes you've got to work with what you've got.

Print Subscriptions

- Trends in
 - Usage
 - Title price
 - Cost per use at title level
- High / Medium / Low groupings for all three
- Problems with gaps in the data from Subscription Agent

	A	B	C	D	E	F	G	H	I	J	K	L	M
			2007 Total Use	2008 Total Use	2009 Total Use	2008 Cost	2009 Cost	2010 Cost	2008 Cost per use	2009 Cost per use	Price Bracket (2009)	Usage Bracket (2009)	Cost per Use (2009)
1	Title	ISSN											
2	Journal A	1234-5678	0	8	5	£ 4	£ 2	£ 4	£ 2	£ 7	Very High	Very High	High
3	Journal B	1234-5679	9	1	3	£ 6	£ 9	£ 4	£ 9	£ 9	Very High	Very High	Medium
4	Journal C	1234-5680	9	0	2	£ 4	£ 2	£ 2	£ 2	£ 3	Very High	Very High	Low
5	Journal D	1234-5681	5	2	6	£ 6	£ 6	£ 3	£ 2	£ 2	Very High	Very High	Low
6	Journal E	1234-5682	6	3	4	£ 5	£ 7	£ 7	£ 7	£ 3	Very High	Very High	Low
7	Journal F	1234-5683	8	6	1	£ 9	£ 4	£ 9	£ 9	£ 8	Very High	High	High
8	Journal G	1234-5684	6	5	7	£ 3	£ 2	£ 3	£ 4	£ 7	Very High	Very High	Medium
9	Journal H	1234-5685	4	1	0	£ 4	£ 7	£ 7	£ 4	£ 7	Very High	Very High	Medium

Top 20

- What are the highest used titles within the package?
- How many do we take in print?
- Does this list change annually?
- Which titles are consistently being used heavily?
- Which subject areas do they support?
- How much do they cost?

	A	B	C	D	E	F	G	H
1	Rank	Change	Title	[Year] Full-Text Accesses	Print Holdings?	P + E	Elec	Subject Area
2	1	0	Journal Title A	962	Yes	£ 1,456	£ 145	ENGINEERING - CHEMICAL ENGINEERING
3	2	+4	Journal Title B	583		£ 4,545	£ 1,245	ENGINEERING - ENGINEERING MECHANICS AND MATERIALS
4	3	+6	Journal Title C	481		£ 12,545	£ 12,000	CHEMISTRY - ANALYTICAL CHEMISTRY
5	4	+1	Journal Title D	476		£ 1,251	£ 1,234	BUSINESS AND ECONOMICS - MANAGEMENT
6	5	New	Journal Title E	399	Yes	£ 455	£ 356	CHEMISTRY
7	6	New	Journal Title F	398		£ 458	£ 445	MEDICAL SCIENCES - DENTISTRY
8	7	New	Journal Title G	381	Yes	£ 1,312	£ 1,312	

Key Performance Indicators

- Overview of basic and value metrics
- Basis for comparing packages against each other
- Quick-glance % change column

	B	C	D	E	
	Metrics	2008	2009	% change 08/09	
3	M1	Number of Titles	76	5	3%
4	M2	Total Full-Text Downloads	07	7	3%
5	M3	Downloads per FTE Student	.5	0	3%
6	M4	Downloads per FTE Staff	.2	0	3%
7	M5	Downloads per FTE Total	.9	3	3%
8	M6	Number of zero use titles	08	57	3%
9	M7	Percentage of titles with zero use	5%	%	3%
10	M8	Number of low use titles (1-9 FT downloads)	50	47	7%
11	M9	Percentage of titles with low use	4%	%	7%
12	M10	Number of medium use titles (10-99 FT downloads)	39	33	5%
13	M11	Percentage of titles with medium use	3%	%	5%
14	M12	Number of high use titles (100+ FT downloads)	49	08	4%
15	M13	Percentage of titles with high use	2%	%	4%
16	M14	Average number of requests per title	1.2	1	7%
17	M15	Top 20 best performing titles as % of total hits	3%	1%	5%
59		Value Metrics	2008	2009	% change 08/09
60	VM1	Total print costs	£ 2	£ 0	6%
61	VM2	Total electronic costs	£ 5	£ 7	4%
62	VM3	Total print credits	£ 9	£ 3	3%
63	VM4	Total cost (electronic plus print subs)	£ 6	£ 4	7%
64	VM5	Total cost as % of information p&a expenditure		4%	7%
65	VM6	Average cost per title	£ 6	£ 27	4%
66	VM7	Average cost per FT download	£ 3	£ 55	4%
67	VM8	Average cost per FTE Student	£ 5	£ 57	6%
68	VM9	Average cost per FTE Staff	£ 8	£ 05	4%
69	VM10	Average cost per FTE Total	£ 9	£ 59	4%

Metrics, Metrics, Metrics... but what metrics matter?

- Average cost per title?
- Cost per download?
- Number of titles with high use?
- Percentage of zero use titles? (The long tail)
- Cost to replace the highly used titles?
- ILL equivalent costs if titles weren't taken?
- Downloads per FTE in target audience?
- Cost per FTE in target audience?



For Cancellation Decisions
one metric held more
weight than any other:

The Subscription End
Date.

Metrics, Metrics, Metrics...
but what metrics matter?

Answer: All of them, and
more besides...

Metrics Used in Decision Making

- All of them tell a story about the resource
- Danger of relying just on cost-per-use
 - Highest c-p-u had second highest usage

BUT:

- Usage statistics are only two dimensional, they should never be used in isolation
- Other factors that must be used in decision making process includes qualitative local knowledge e.g.
 - Local academic's 'top journal' for their discipline
 - Small (but income generating) research areas
 - Groundbreaking research information needs

So, what did we cancel?

- Out of the four packages under review, one had a cancellation date in this financial year
- Other resources were cut, but we successfully lobbied to renew the one 'Big Deal' for another year
- All four packages now have the same renewal date for the next financial year...



Looking Ahead

- Systematic review of all resources to demonstrate smart procurement
- Qualitative research into resourcing needs
- Review of resource 'uniqueness'
- Benchmarking resources
 - Between each other
 - With peer institutions

References

1. Spencer, C., 2009. RE: Usage stats. *Lib-stats* [email]. 30 July. Emailed to: lib-stats@newcastle.ac.uk
2. Newcastle University Library, 2010. Lib-Stats: Key Performance Indicators 2007 – Journals [online]: Available at: <http://www.lib-stats.org.uk/>
3. CONYERS, A., 2007. What do publisher usage statistics tell us? The Analysing Publisher Deal project from Evidence Base. *SCONUL Focus*, no.40, pp.72-76, Available at: <http://www.sconul.ac.uk/publications/newsletter/40/25.pdf>.
4. CONYERS, A., 2010. Usage Statistics and Online Behaviour (2). In: G. STONE, R. ANDERSON and J. FEINSTEIN, eds, *The E-Resources Management Handbook – UKSG*. Burford: UKSG. Available at: <http://uksg.metapress.com/link.asp?id=084t98646x2rn62k>

Useful Resources & Future Developments

- Journal Usage Statistics Portal (JUSP)
<http://www.jusp.mimas.ac.uk/>
- Publisher and Institutional Repository Usage Statistics (PIRUS2)
<http://www.cranfieldlibrary.cranfield.ac.uk/pirus2/>
- MUDL: Managing and Understanding Data in Libraries
<https://www.jiscmail.ac.uk/cgi-bin/webadmin?A0=MUDL>
<http://mudl.wikispaces.com/>

Selena Killick

Research & Development Officer
Cranfield University

s.a.killick@cranfield.ac.uk

Tel: 01793 785561