



Value of Libraries: Relationships between Provision, Usage and Research Outcomes

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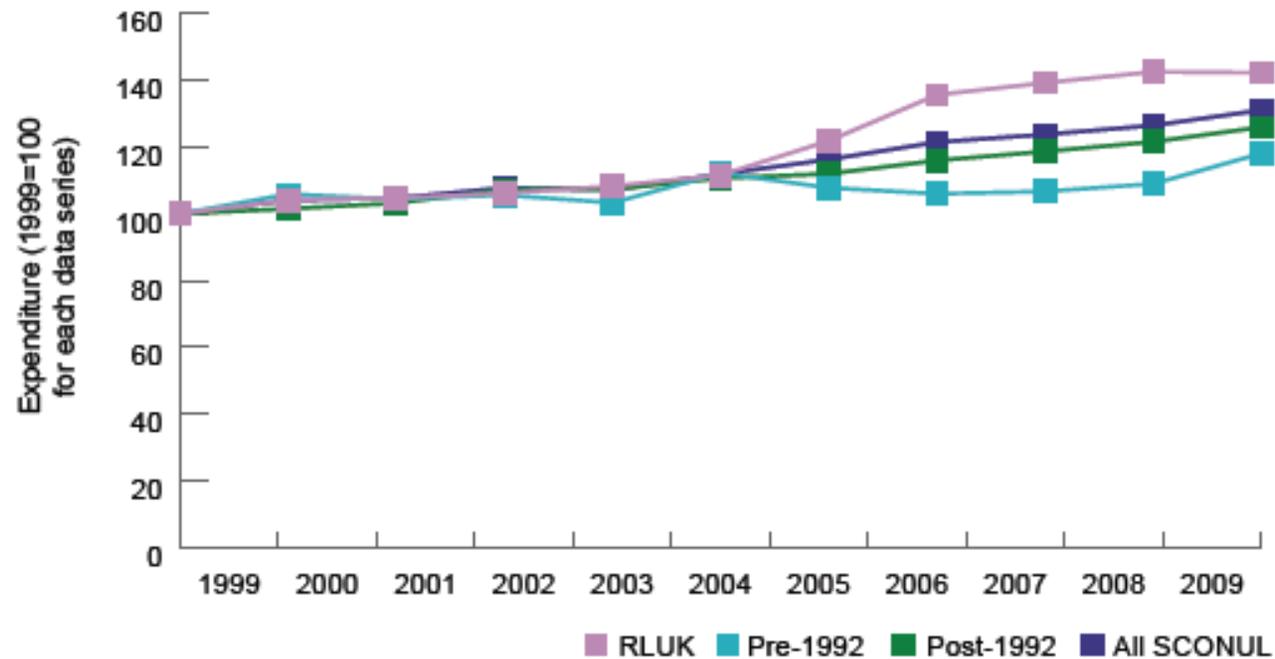
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- A vertical bar on the left side of the slide with a gradient from dark blue at the top to orange at the bottom.
- UK context
 - levels of expenditure and usage of e-journals
 - variations between subjects and institutions
 - relationships between usage and value

UK Context

- 165 universities and colleges (HEIs)
- libraries represented by SCONUL
- a differentiated HE sector
 - Russell Group (represented by Research Libraries UK)
 - other pre-1992 universities
 - post-1992 universities and university colleges
- growth in all parts of the sector since mid-1990s
- hard times coming

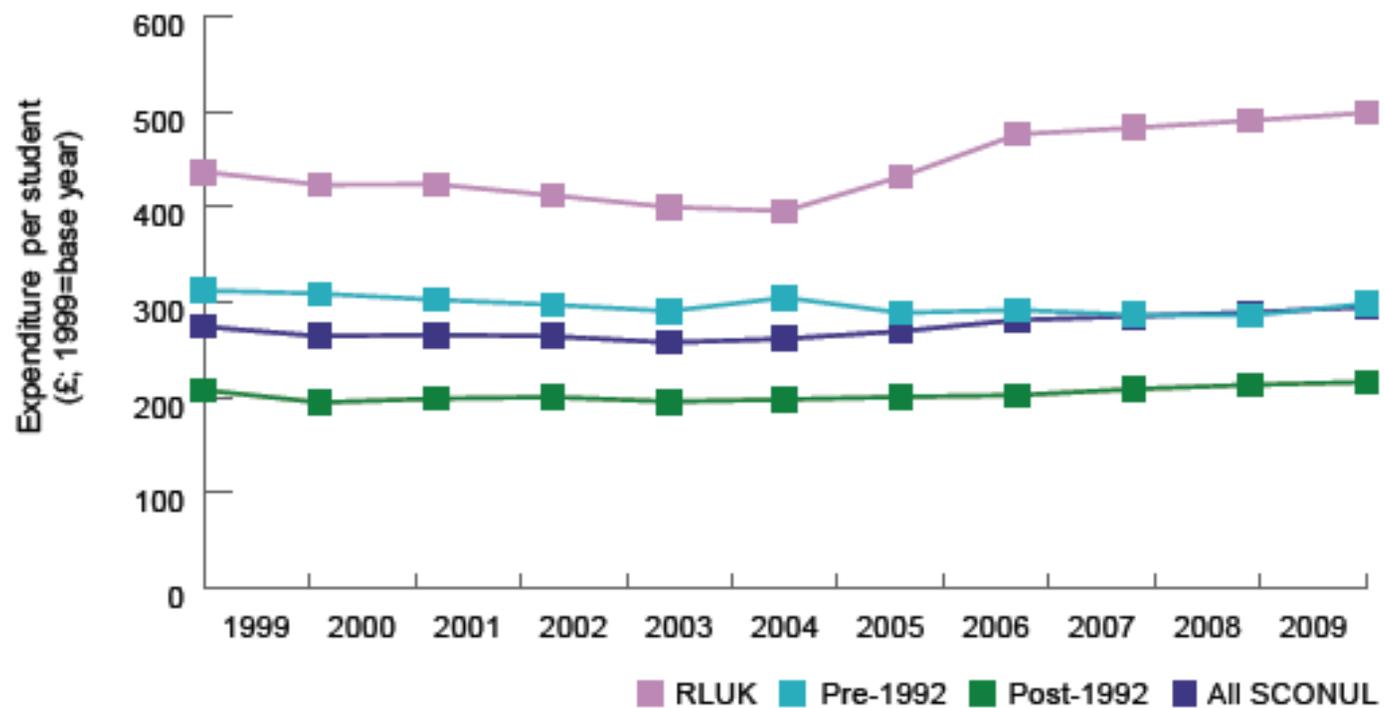
UK university library expenditure

Chart 1: Indexed real terms expenditure per institution on libraires



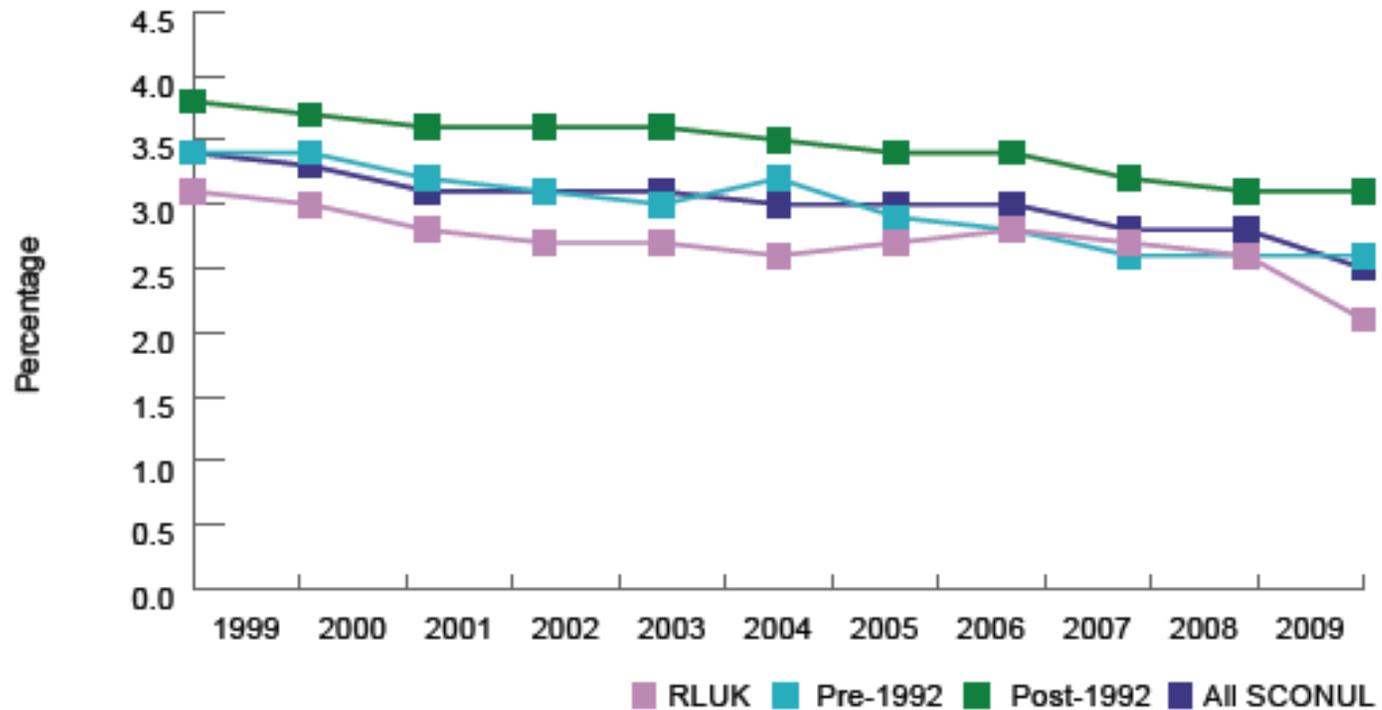
UK university library expenditure

Chart 2: Real terms library expenditure per FTE student



UK university library expenditure

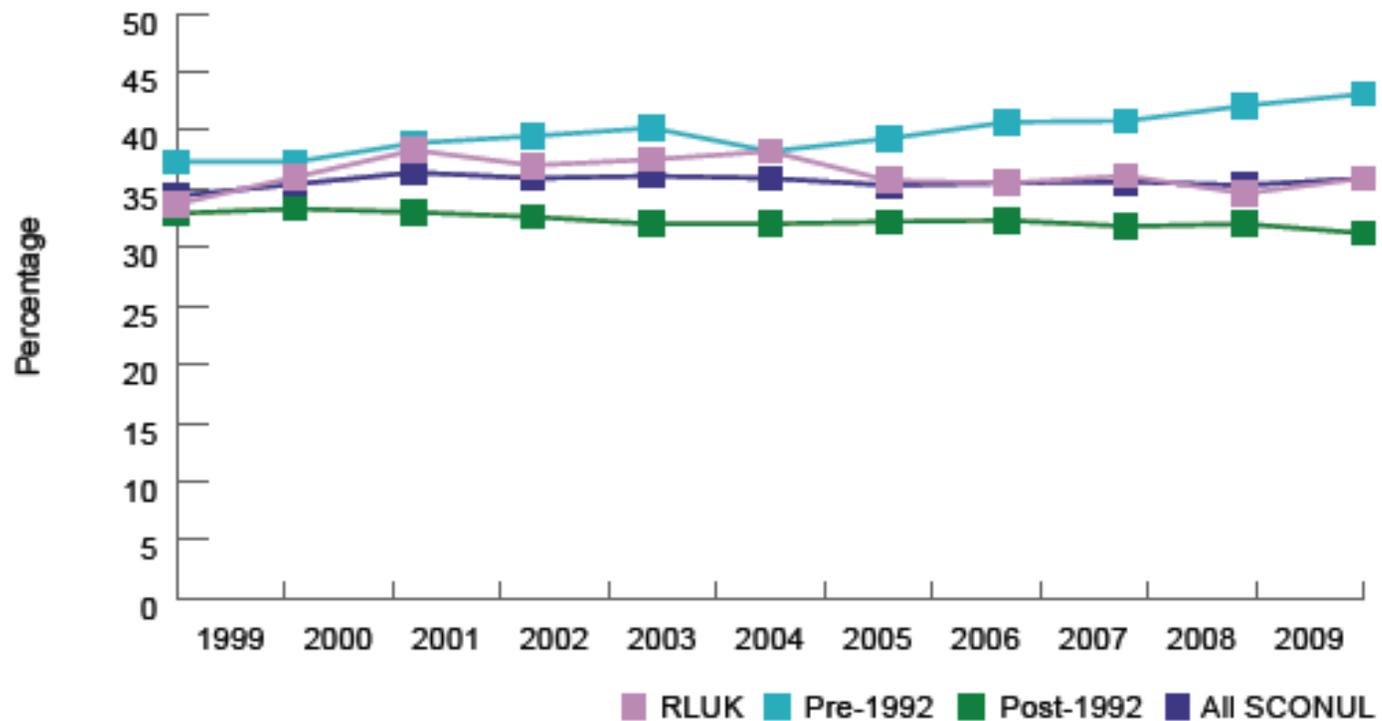
Chart 3: Library expenditure as a percentage of overall institutional expenditure



Expenditure and usage of e-journals

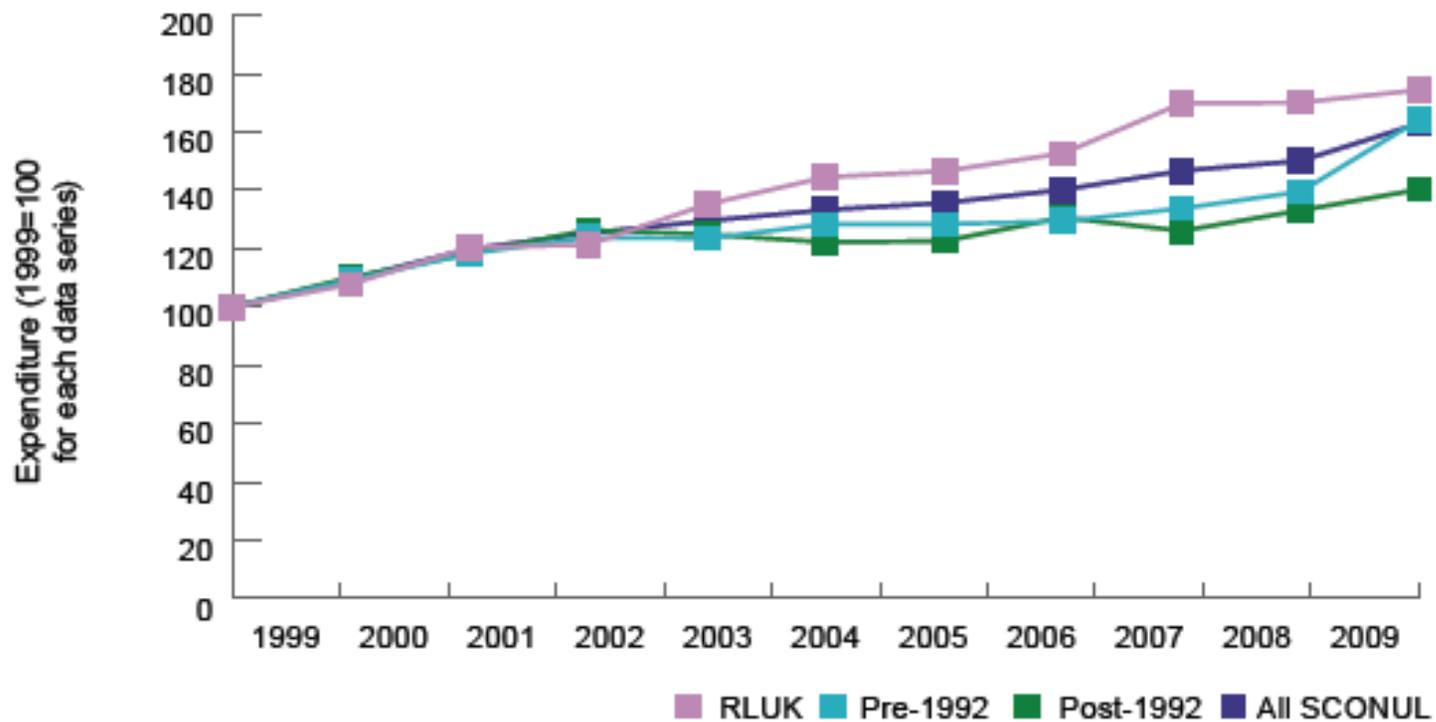
Expenditure on information provision

Chart 5: Information provision expenditure as a percentage of overall library expenditure



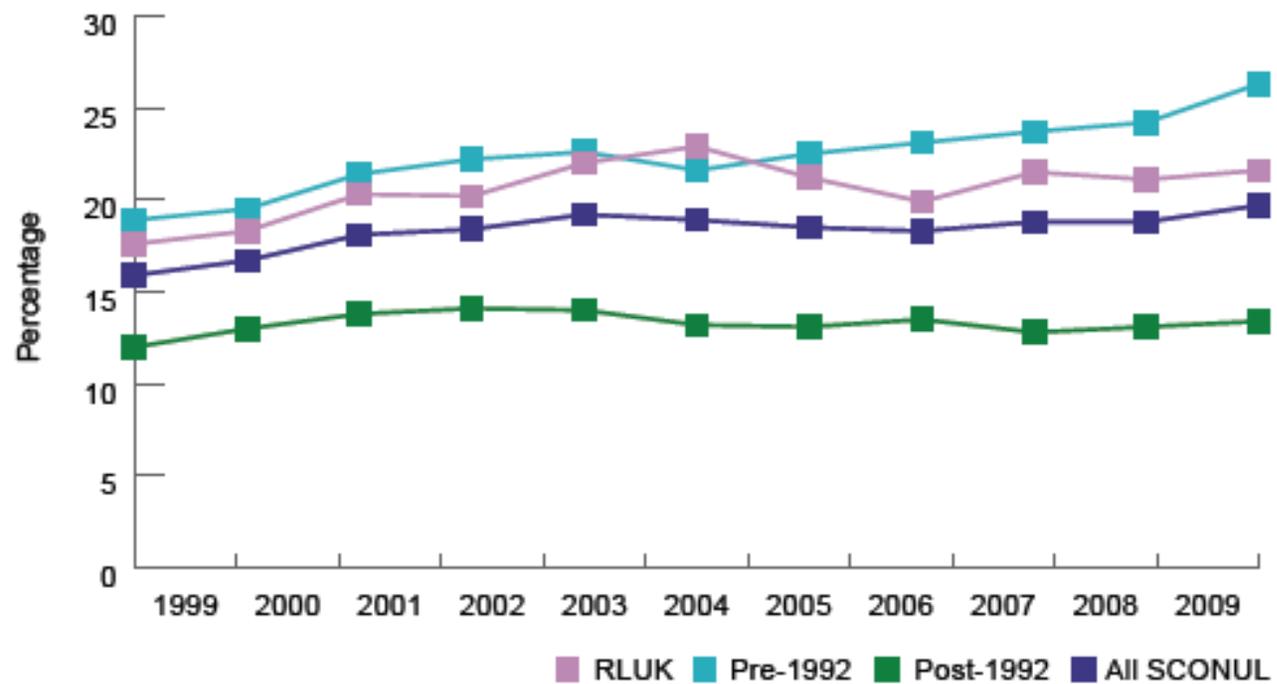
Expenditure on serials

Chart 8: Indexed real terms expenditure per institution on serials



Expenditure on serials

Chart 9: Serials expenditure as a percentage of overall library expenditure



Number of serial titles

Table 16: Number of serial titles in all formats (Sconul)

YEAR	Mean for sector					Index 2004 = 100				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Russell Group	15,187	14,723	17,588	19,751	17,694	100	96.9	115.8	130.1	116.5
Pre-1992 institutions	6,453	7,344	7,483	8,080	9,433	100	113.8	115.9	125.2	146.2
Post-1992 institutions	7,467	8,425	8,352	9,288	9,865	100	112.8	111.8	124.4	132.1
Total	8,360	9,049	9,562	10,567	11,016	100	108.2	114.4	126.4	131.8

Downloads of e-journals

Table 22: Annual COUNTER downloads (CIBER estimates based on Sconul)

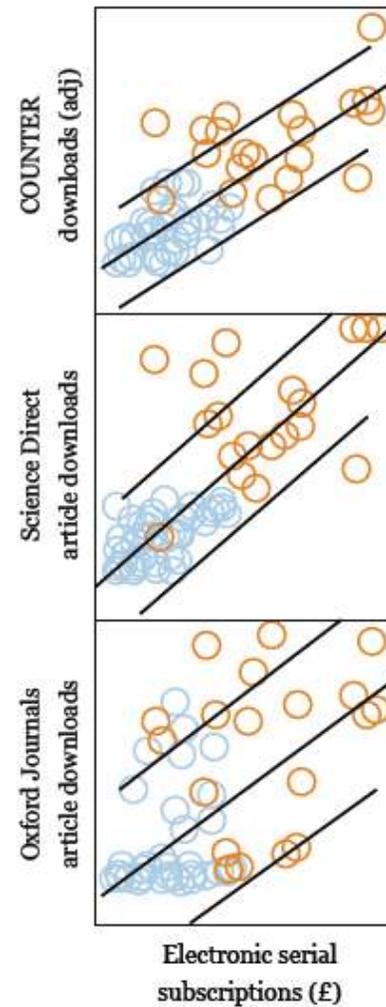
	Mean for sector (Huber's M-estimator)				
YEAR	2004	2005	2006	2007	2008
Russell Group	783,870	1,377,603	1,846,121	2,211,245	2,795,825
Pre-1992 institutions	439,813	632,144	665,926	819,335	1,001,521
Post-1992 institutions	283,760	332,251	443,027	521,350	592,253
Total	432,693	632,758	772,600	930,415	1,134,165
	Index 2004=100				
YEAR	2004	2005	2006	2007	2008
Russell Group	100	175.7	235.5	282.1	356.7
Pre-1992 institutions	100	143.7	151.4	186.3	227.7
Post-1992 institutions	100	117.1	156.1	183.7	208.7
Total	100	146.2	178.6	215.0	262.1

Direct cost per download

Table 23: Direct cost per download at constant prices (Sconul/COUNTER/CIBER estimates)

YEAR	Mean for sector (Huber's M-estimator)					Index 2004=100				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Russell Group	£1.73	£0.99	£0.82	£0.74	£0.66	100	57.2	47.4	42.8	38.2
Pre-1992 institutions	£1.20	£0.96	£0.98	£0.91	£0.81	100	80.0	81.7	75.8	67.5
Post-1992 institutions	£1.01	£0.85	£0.73	£0.68	£0.65	100	84.2	72.3	67.3	64.4
Total	£1.19	£0.91	£0.83	£0.77	£0.70	100	76.5	69.7	64.7	58.8

Expenditure and usage



Variations between subjects and institutions

Information-seeking behaviour in different subjects

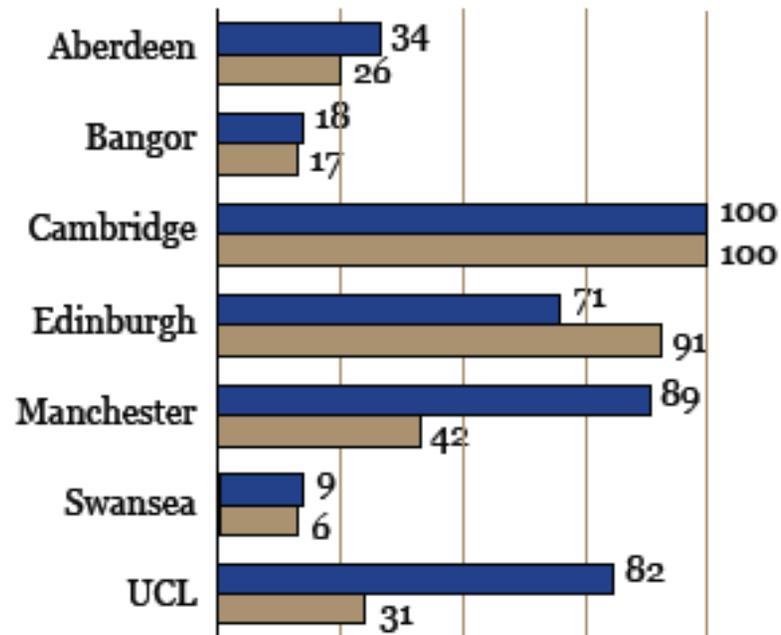
	Journal titles viewed	Most popular 5% of journals accounted for % use	Page views (<i>average per session</i>)	Abstract views (<i>% sessions</i>)	Gateways (<i>% page views arriving via gateways</i>)
Chemistry	196	39.5	3.2	23.3	49.2
Environmental sciences	248	29.6	3.6	22.7	41.4
Economics	132	46.9	3.8	30.4	19
Life sciences	531	38.1	2.0	19.5	65.9
Physics	204	26.6	2.5	20.1	57.8

Differences between institutions

Case study	Average impact factor of journals viewed	Relative impact
Aberdeen	3.0	1.2
Bangor	2.3	0.9
Cambridge	5.0	2.0
Centre for Ecology and Hyrology	2.6	1.0
Edinburgh	3.7	1.5
Manchester	3.9	1.6
Rothamsted	2.6	1.0
Strathclyde	2.7	1.1
Swansea	2.5	1.0
UCL	4.1	1.7

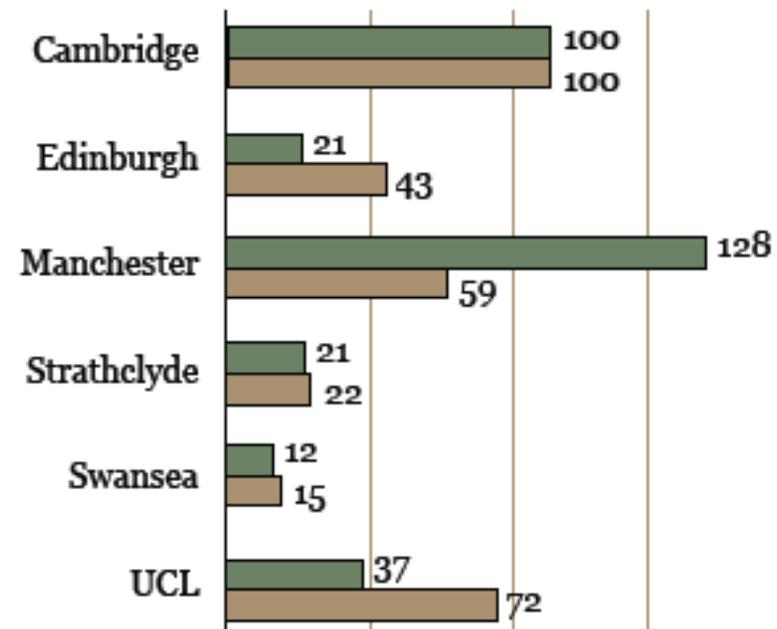
Differences between universities: life sciences

■ Relative use
■ Relative size

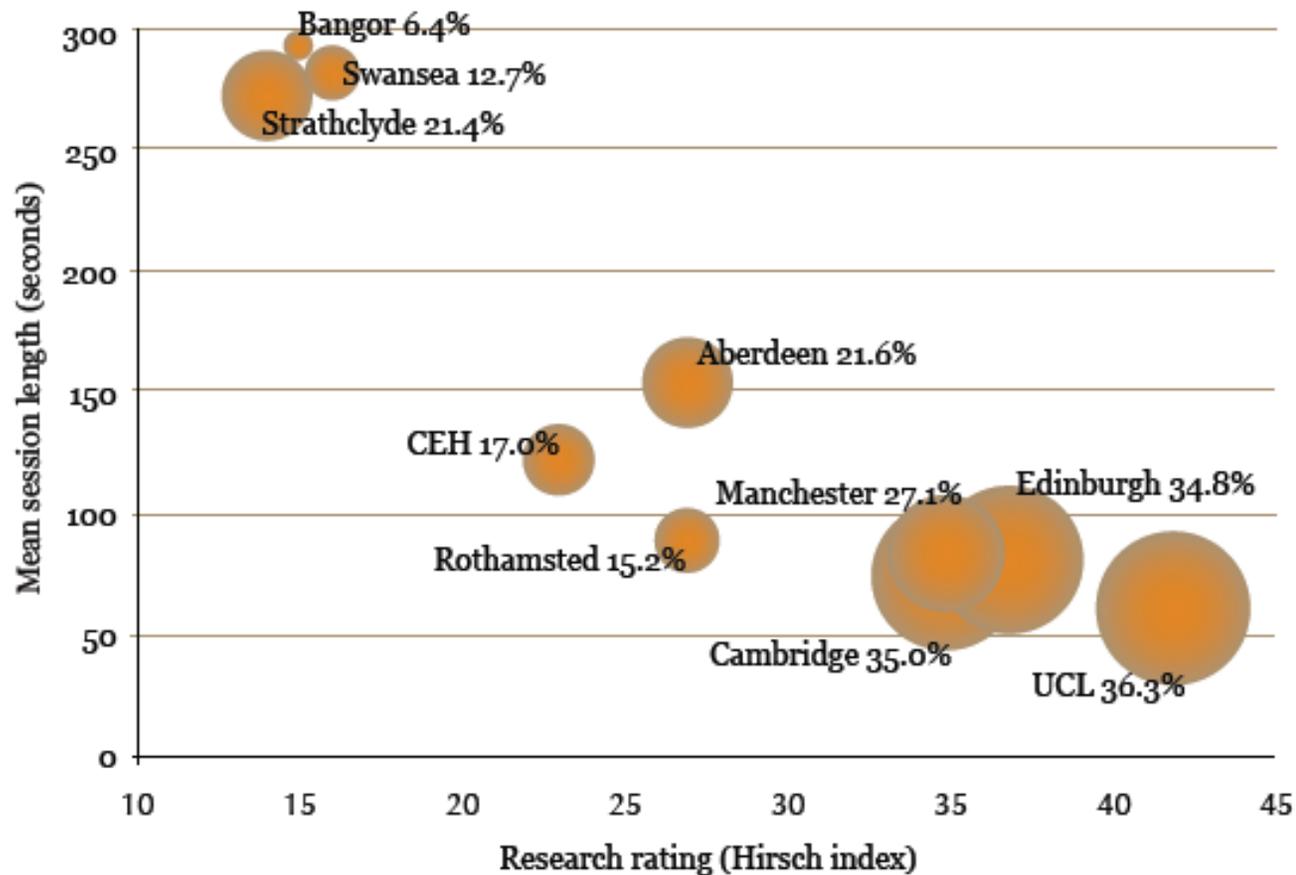


Differences between universities: physics

■ Relative use
■ Relative size



Gateways, session length, and research rating

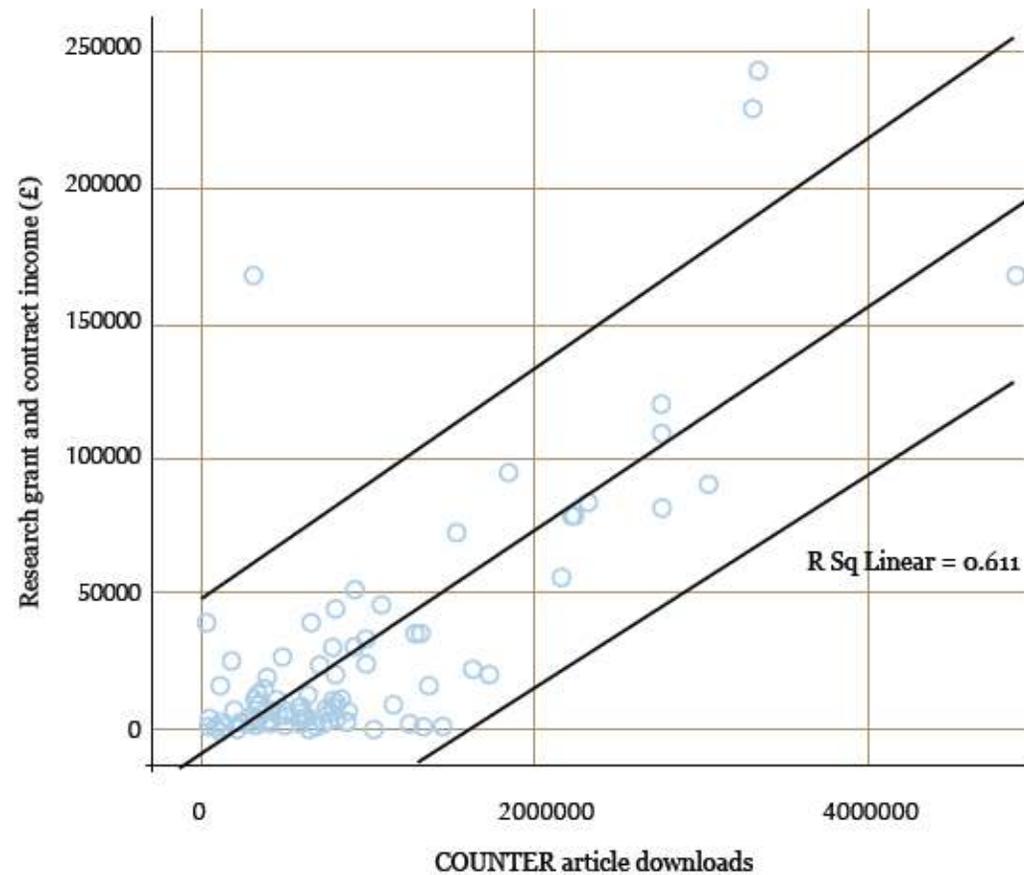


Relationships between usage and value

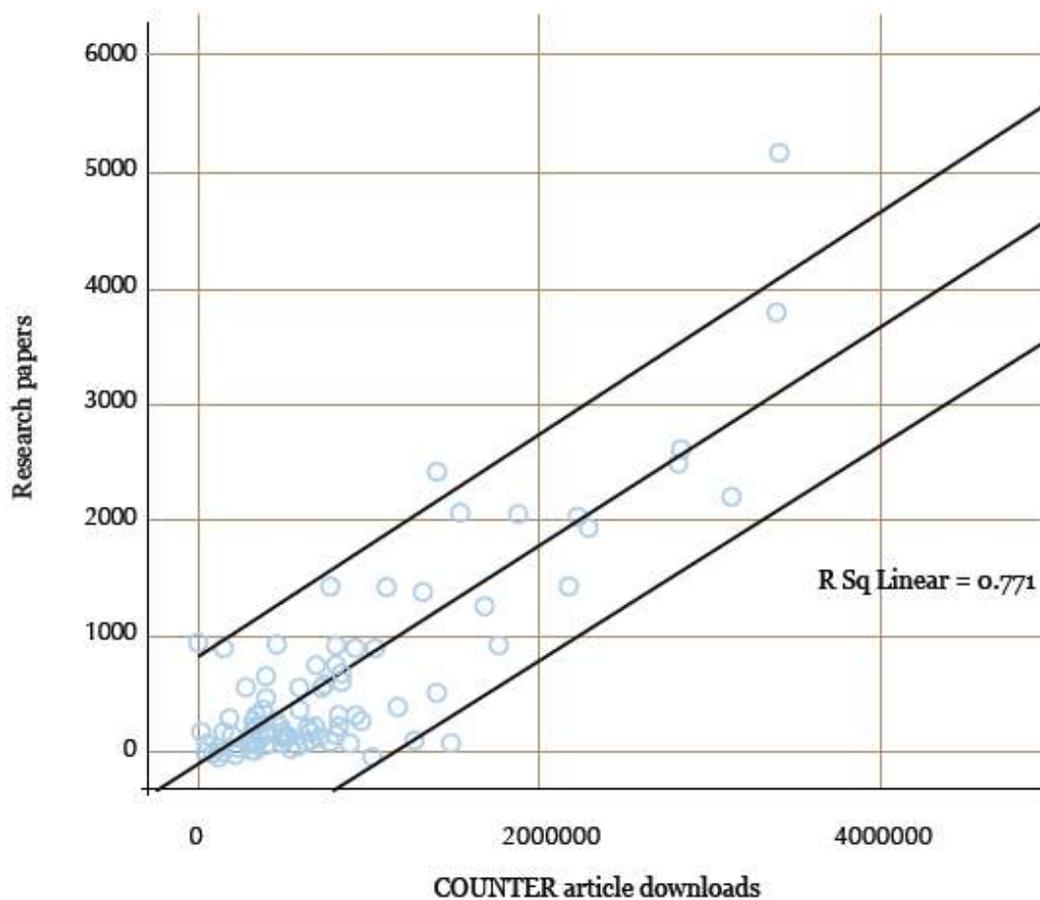
Levels of usage and indicators of research outcomes

	Moderate users (<i>n</i> =80)	High users (<i>n</i> =25)	Super users (<i>n</i> =10)
Research papers per academic	0.4	0.8	1.0
Research grants and contracts per academic (£000's)	12.7	29.0	39.7
PhD awards per 100 academics	9.1	17.5	17.4
Cost per download	£0.89	£0.74	£0.60

Usage and outcomes: research income



Usage and outcomes: publications



Linking expenditure, usage and outcomes?



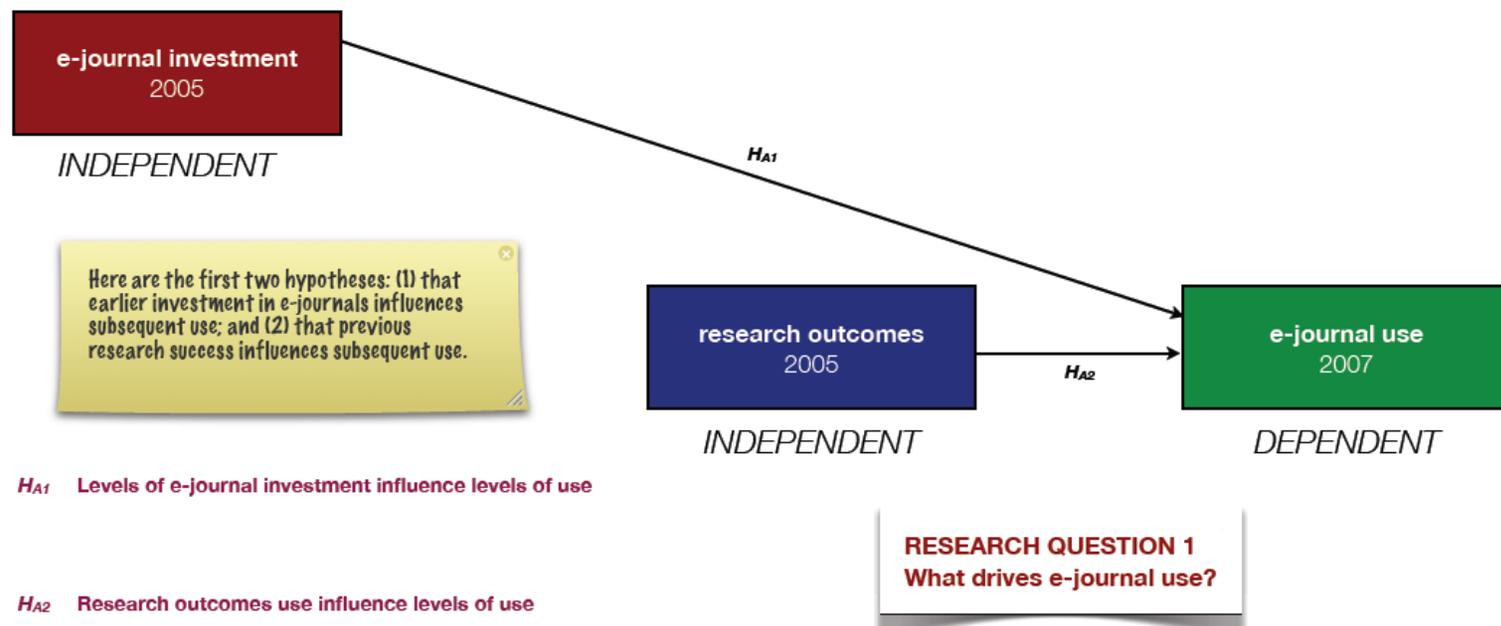
Six hypotheses:

-  levels of library expenditure influence subsequent levels of use of e-journals
-  levels of e-journal use influence subsequent levels of library expenditure
-  levels of library expenditure influence subsequent research performance
-  successful research performance influences subsequent levels of library expenditure
-  levels of e-journal use influence subsequent research performance
-  successful research performance influences subsequent levels of use of e-journals

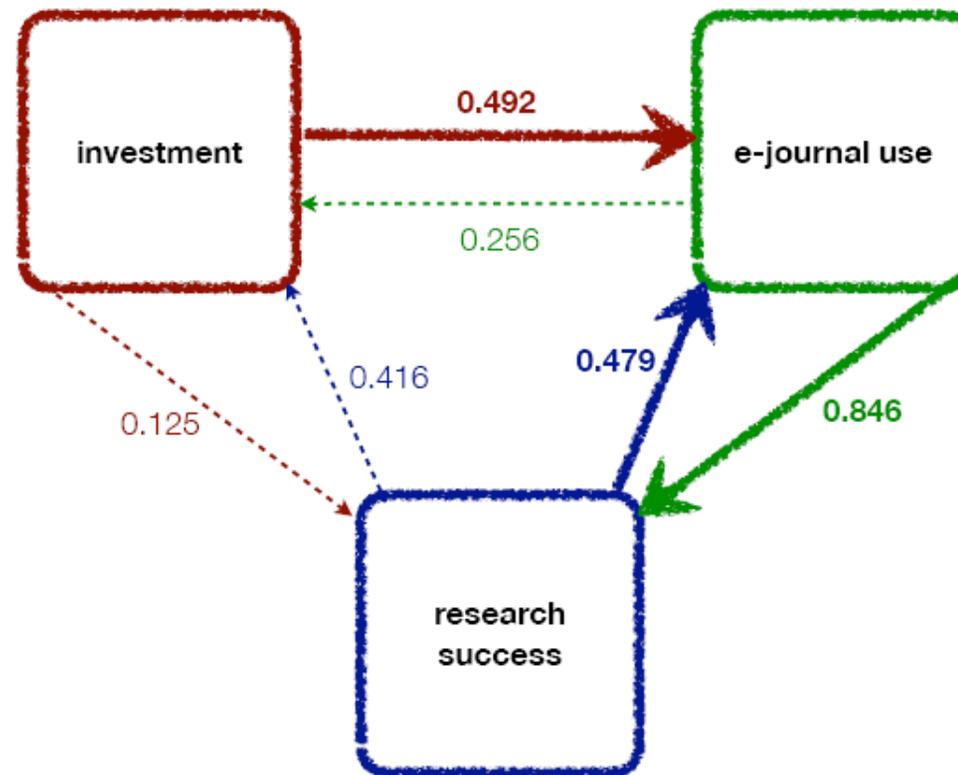
Linking expenditure, usage and outcomes?

Understanding e-journal investment, use and research outcomes

Research model A and hypotheses



Linking expenditure, usage and outcomes?





Questions?

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