

Open access publishing for academics in Russell Group Universities: a 2013 survey report

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My PhD thesis



- Working Title: Are the new forms of scholarly communication the pathway to open science?**

- Open Science:**
 - 1. Open access publishing
 - 2. Sharing research data
 - 3. Using social media to publish on-going research updates

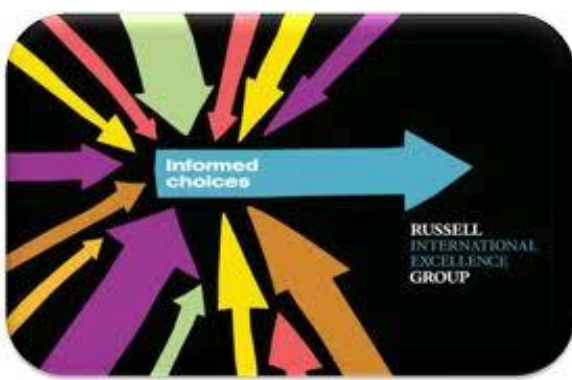
Open access publishing



- Electronic journals have replaced hard copy journals in the recent years in academia (Nicholas *et al* 2010)
- In Higher Education, the access to academic journals depend on whether a university has subscriptions to certain journals if those were Non-OA journals.
- Open Access publishing emerged with the development of new technologies such as open source software and public copyright licenses.
- More and more academic papers are available freely to learners and the public via **open-access journals (Gold OA)** and **open-access repositories (Green OA)**.
- **RCUK policy on Open Access** to the outputs of RCUK-funded research which came into effect on 1 April 2013.

Research Questions reported today

- What kind of experiences have UK based academics had with **Gold** and **Green** OA publishing?
- To what extent do academics acknowledge the importance of OA publishing and to what extent are they aware of **RCUK policy on Open Access** to research outputs?
- Are there any **discipline, gender and age disparities**?



Mixed-methods

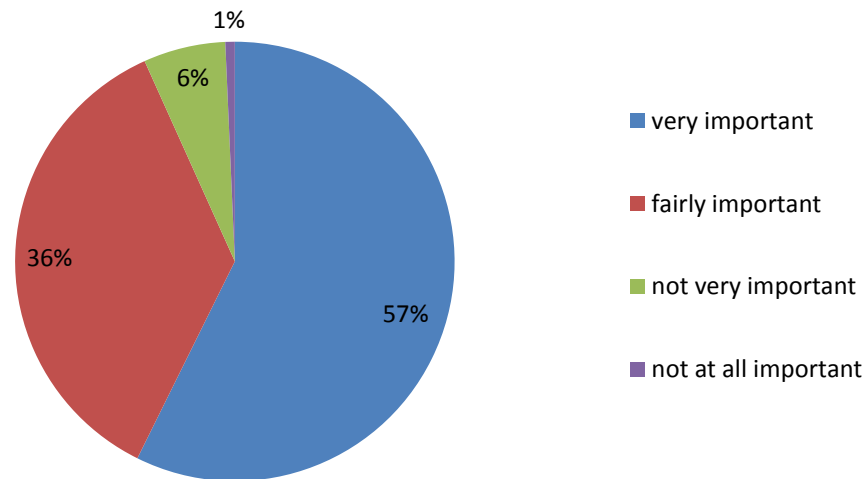


- **Scoping studies:**
- Pilot interviews, observation and case study
See Zhu and Procter (2012)
- **Internet Survey:**
- 1829 academic respondents from 12 Russell Group universities at July 2013
- See details of research methods and sampling strategies of survey: <http://yimeizhueresearch.wordpress.com/talks-and-publications/>

Summary of demographic characteristics (N=1829)

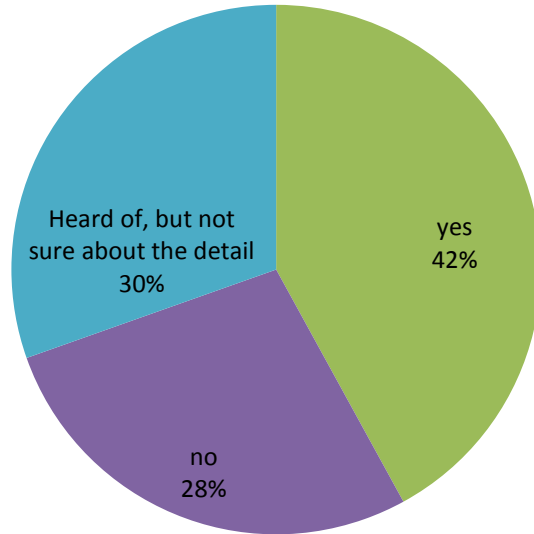
Variables		N	%			N	%	
Gender	female	836	46%	Discipline	medical, biological & human	635	35%	
	male	977	54%		Areas	natural science & engineering	415	23%
	other	6	0%			business, law & social sciences	490	27%
	Total	1819	100%			humanities & cultural studies	279	15%
					Total	1819	100%	
Age group	under 25	72	4%	Grade	professor	313	17%	
	25-35	561	31%		reader	101	6%	
	35-44	475	26%		senior lecturer	232	13%	
	45-54	390	21%		senior researcher	50	3%	
	55-64	233	13%		lecturer	342	19%	
	65 and over	89	5%		research fellow/post-doc	318	17%	
	Total	1820	100%		phd candidate	260	14%	
Research Experience	1-5 years	441	24%	research assistant	72	4%		
	6-10 years	399	22%	Mphil/MSc/MA student	16	1%		
Experience	11-20 years	476	26%	other	117	6%		
	over 21 years	481	26%	Total	1821	100%		
	N/A	32	2%					
	Total	1829	100%					

**How important do you think it is, in general,
to make research articles freely accessible
online to everyone? (N=1722)**

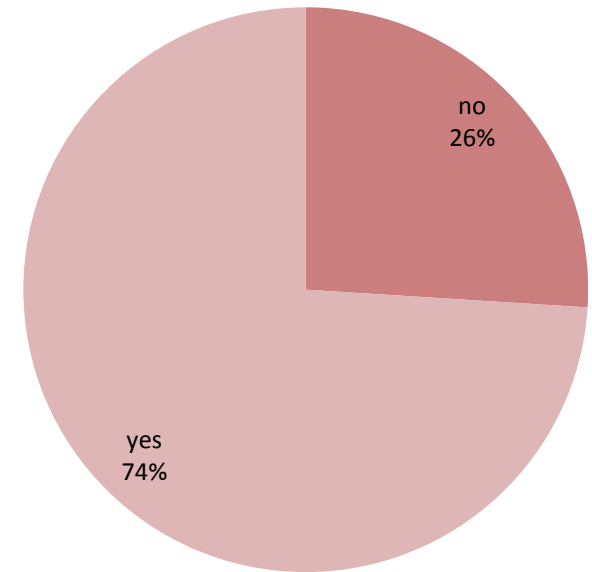


- Vast majority of respondents (**93%**) agreed with the principle of making knowledge freely to everyone.
- Of the respondents who had publishing experiences, **41%** experienced **Gold OA** & **43%** experienced **Green OA**.
- Over **60%** of academics who had published had experienced at least one of the OA publishing models

Are you aware of RCUK Policy on OA policy to outputs of RCUK-funded research which came into effect on 1 April 2013?



Are you aware of open-access repositories for depositing research articles?



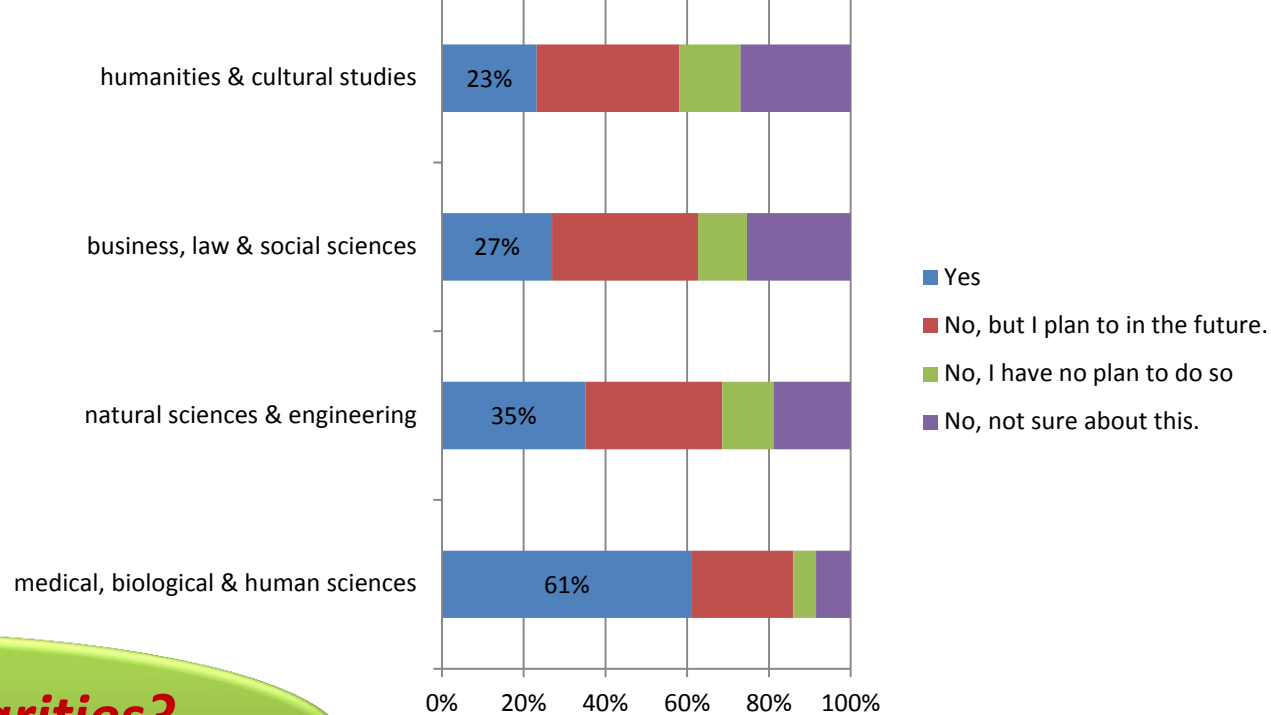
- The difference between attitudes and practice can be due to respondent's lack of knowledge about the existence of OA repositories and OA policy by UK major research funders.

Barriers: Author fee and academic rewards

In general, do you prefer to publish research articles in openaccess journals rather than subscription based journals if they have similar reputation or ranking of citation impact?	N	%
Yes, I prefer OA journals even if I personally have to pay author fee.	146	9%
Yes, I prefer OA journals only if I personally don't have to pay author fee.	498	31%
No, I prefer conventional subscription-based journals.	164	10%
I don't have a preference, it all depends on which journals have higher reputation in my field.	642	39%
Don't know enough information about this matter.	176	11%
Total	1626	100%

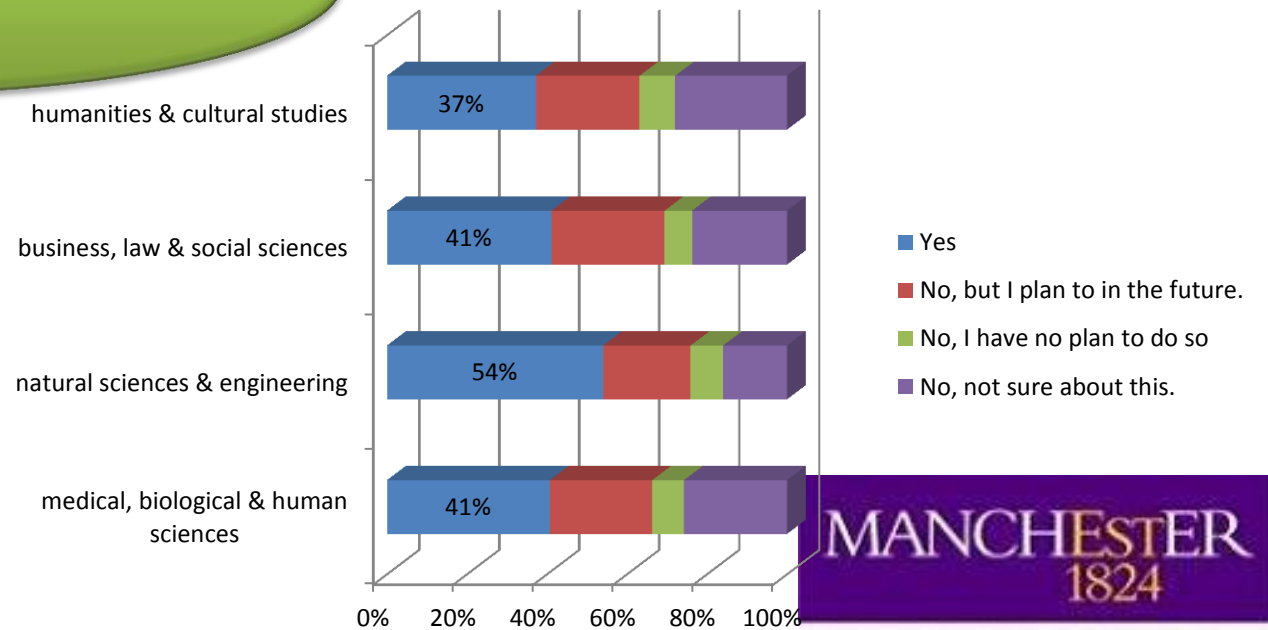
- The high cost of **article-processing charges (APCs)** have become barriers for those who are not funded by RCUK or have no sufficient funding to publish in Gold OA journals.
- **Green OA** provides opportunities for financially disadvantaged researchers to self-archive their work which they had not been able to publish in **Gold OA**.
- The evidence suggests that the reputation and citation impact of the journals remain a key factor for decision making of which journal to publish.
- Other reasons of not publishing in OA are related to the potential problems such as copyrights, quality concerns and misinterpretation.

Gold OA



Disciplinary disparities?

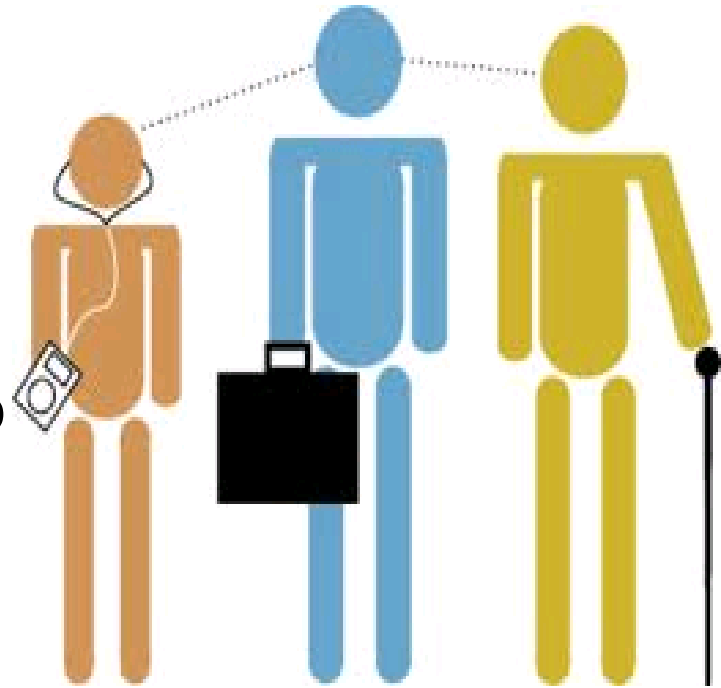
Green OA



- Respondents who rated 'very important' for making research articles freely accessible online to everyone were most likely to be in Medical, Biological and Human sciences (67%), in comparison to 58% of those in Natural Sciences and Engineering, 53% in Business, Law and Social sciences and 41% of those in Humanities and Cultural Studies.
- Respondents who had published in **Gold OA** journals were most likely to be in **Medical, Biological and Human sciences** and those who had **Green OA** experience were most likely to be in **Natural Sciences and Engineering**.
- Respondents in Natural science and Engineering seemed to be more likely to be aware of RCUK policy on Open Access & more likely be aware of the open-access repositories.
- A number of respondents in Mathematical Sciences and Physics commented that they frequently used a preprint repository called **ArXiv** as a resource for searching for information and depositing their research articles.
- Respondents in Humanities seem to be the least experienced with both **Gold** and **Green** OA publishing and had the most reluctant attitudes towards publishing in **Gold** OA. A study (Darley et al. 2014) found that journals in Humanities particularly English and Modern languages had very low levels of Open Access availability outside the UK.

Age disparities

- In general, younger, less experienced and respondents in lower job grades were more likely to rate the importance of making research articles freely accessible as 'very important' and 'fairly important'.
- However, respondents' experiences with **Gold OA** & **Green OA** and reported awareness of open-access repositories and RCUK policy on Open Access **increased with age, job grades and research experiences.**



Gender Disparities

Have you published in gold OA journal?

	Have you published in gold OA journal?				Total
	Yes	No, but I plan to in the future.	plan to publish in OA journal	No, not sure about this.	
female	276	232	57	153	718
	38%	32%	8%	21%	100%
male	370	262	105	132	869
	43%	30%	12%	15%	100%

Have you published in Green OA?

	Have you published in Green OA?				Total
	Yes	No, but I plan to in the future.	No, I have no plan to publish in OA journal	No, not sure about this.	
female	277	194	38	218	727
	38%	27%	5%	30%	100%
male	411	217	87	158	873
	47%	25%	10%	18%	100%



- Women (96% vs 91%) were slightly more likely to rate making research articles freely accessible online to everyone as **'important'**.
- Men were more likely to have experienced both Gold and Green OA publishing than women.
- Men (48% vs 36%) were more likely to be aware of RCUK policy on Open Access to the outputs of RCUK-funded research by answering 'yes' Men (79% vs 69%) were also more likely to be aware of open-access repositories for depositing research articles than women.

Do you have a permanent academic job?

	female	male
yes	53%	65%
no	47%	35%
Total	100%	100%



What's your grade?

	female	male
professor/reader	14%	32%
senior lecturer/researcher	14%	19%
lecturer/research fellow/postdoc	46%	34%
researchers in training	26%	16%
Total	100%	100%

- In academia, gender disparities were evident in job status and academic achievements (Fox 2001; Hopkins et al 2013).
- The age/seniority disparities in awareness and experiences in OA publishing may explain part of the gender disparities.

Conclusion and Discussion

- Many academics had little awareness of open-access publishing or chose to remain in ignorance of its implications in spite of having heard of the term (Swan 2006).
- The reputation and citation impact of the journals remain a key factor for decision making of which journal to publish, which is in line with findings from other studies (Solomon and Björk 2012; Rowlands and Nicholas 2006).
- The findings of disciplinary disparities from this study confirms that the gold model is well-developed in the life and medical sciences, whilst green model has been adopted to a greater extent in natural sciences such physics and mathematics (Björk et al 2010)

Conclusion and Discussion

- Respondents who had higher awareness and more experiences with OA publishing tend to be male, older, senior and more experienced.
- One respondent suggested that women 'tend to use new technologies to a lesser extent (or have slower take up)'. The gender disparities for OA publishing had similar patterns compared to other studies (Shema et al 2012; Procter et al 2010) which found that the use of new technology was more easily accepted by men.
- However, women were found to be slightly more likely to adopt Twitter to post ongoing research updates and gather research information (Zhu 2014).
- Age/seniority disparities in awareness and experiences in OA publishing may explain part of the gender disparities.
- The slightly higher proportion in women rating more positively is consistent from other attitudes studies such as University students' satisfactions rates (Attwood 2012).

- Further research will be carried out to explore what other factors are associated with the reported experiences of OA publishing.
- Thank you for listening!

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