Introduction

Aim of the survey
This questionnaire is sent to you by the Harbingers Research Project (http://ciber-research.eu/harbingers.html), which is seeking to determine whether early career researchers – the new wave of researchers, are set to be the harbingers or agents of change when it comes to the scholarly communications system. The questionnaire majors on the key scholarly activities of information use and seeking behaviour, publishing, peer review, sharing/collaborating and reputation building, with a special focus on the impact of open access publishing, the social media, online social networks and emerging reputation mechanisms on these activities.

We are most interested in hearing from researchers who are generally not older than 35, who either have received their doctorate and are currently in a research position or have been in research positions but are currently doing a doctorate. In neither case should researchers be in established or tenured position. But if all of that is just too complex if you believe you are an early career researcher that is all that counts!

Participating in the survey
This survey will take approximately 25 minutes to complete. You may exit the survey or leave a question unanswered at any time. There is minimal risk attached to your participation. The survey is completely anonymous and individual responses will be kept confidential. Any papers or conference presentations will be based on the aggregated statistics without direct links to an individual survey response.

About us
If you have questions at any time about the study or the procedures you may contact the principal researchers, Professor Dave Nicholas (Dave.Nicholas@ciber-research.eu).

Prize draw
At the end of the survey there is an opportunity to enter your e-mail address to enter a prize draw (in a separate form) to win an Amazon voucher worth $100. Your email information will NOT be connected to your survey answers. The prize draw will be on 20 July 2019.

Informed Consent
By clicking NEXT and completing the survey, you are indicating that you have agreed to take part in this research and give permission for us to gather and analyze the answers you provide.

Are you ECR
Do you consider yourself an early career researcher (ECR)? (Please see our definition of ECR below)
• Yes (go to next Q)
• No (disqualified, exit and thank you)

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Reading, citing, publishing

1. To what extent are the following statements true about how you look for and find scholarly material?

To a great extent/ Somewhat/ A little/ Very little/ Not at all

• I rely on Google Scholar to search for and find scholarly publications.
• I rely on Google to search and find scholarly publications.
• I rely on PubMed to search and find scholarly publications.
• I search for scholarly publications on a smartphone.
• I search for non-peer reviewed content, too, for my research (for example, blogs or presentations).

2. To what extent are the following statements true about your current practices concerning reading?

To a great extent/ Somewhat/ A little/ Very little/ Not at all

• I read the full text of scholarly publications on a smartphone.
• The number of downloads a publication obtains influences my decision to read it.
• The author’s country of affiliation influences my decision to read a publication.
• Suggestions/recommendations from social media influence my decision to read a publication.
• The ease of access to a publication influences my decision to read.
• Rank and impact factor of an article’s journal influences my decision to read it.
• The journal’s prestige (standing in the community) influences my decision to read it

3. To what extent are the following statements true about your current practices concerning publishing?

To a great extent/ Somewhat/ A little/ Very little/ Not at all
• I share my work in subject or institutional repositories before publication in a journal.
• I look to publish in journals perceived to be highly ranked for career-advancing reasons.
• I rely on quantifiable metrics (such as the impact factor) when deciding which journal to publish in.
• I use social media (Twitter, Facebook, blogs etc.) to promote my research.
• I share links to and news about my publications on social media.
• I post the peer-reviewed version of my publications on social media based scholarly platforms (e.g. ResearchGate).
• I don’t share research data/results before their publication for fear of losing my competitive edge.
• I utilise social media to disseminate less formal/interim outputs (e.g. presentations, working papers).
• I make an effort to embrace open science principles (i.e. greater transparency, more sharing) in my research work.

Authorship

4. Have you published any co-authored paper?
• Yes (Go to 5)
• No (Go to 7)

5. What was your contribution to the papers you have co-authored? (tick as many as applies)
• Writing the paper
• Reviewing the literature
• Editing the paper
• Conducting the fieldwork
• Analysing the data
• Finding funds for the research
• Obtaining funds for open access publishing (APC)
• Producing or gathering data
• Others (please specify): ...

6. Do you feel you have an influence on authorship decisions when you co-author?
• Yes, a big influence
• Yes, some influence
• No

7. Are you subject to a formal or informal authorship policy, which determines authorship status and order?
8. If Yes, what are the main specifications of the policy? (tick as many as applies)
   - Criteria for determining who can be named as authors of a paper
   - Criteria for determining the order in which authors are named
   - Criteria for determining the corresponding author
   - Criteria for determining first author
   - Other (please list):

9. Would you do things differently if you were in charge of arrangements?
   - Yes
   - No
   - Don’t know

10. What differences would you make?

11. Have you been involved in responding to reviewers’ comments on papers you have authored or co-authored?
   - Yes (go to Q12)
   - No (go to Q15)

12. If Yes, how in general did you find the experience?
   - Good (go to Q13)
   - Mixed (go to Q14)
   - Bad (go to Q14)

13. If good, what did you feel were the benefits? (tick as many as applies)
   - Was a good learning experience
   - Improved my writing/presentational skills
   - Helped to plug holes in my knowledge
   - Helped understand the academic publishing process
   - Academic recognition afforded was beneficial for career progression
   - Others (please specify):

14. If mixed or bad, why was that? (tick as many as applies)
• Reviewers’ comments were superficial
• Reviewers’ comments were not informed
• Reviewers badly chosen
• Reviewing process took too long
• ECRs are treated as novices
• Reviewers were not receptive to new ideas
• No opportunities to respond to the reviewer after receiving the review
• Others (please specify):

15. **Have you been a reviewer?**
• Yes (go to Q16)
• No (go to Q18)

16. **Think of the last time you were recruited for a review, how were you recruited?**
• An invitation from my supervisor/ mentor or the head of your group
• An invitation from journal because of my previous publications in the same journal
• An invitation from journal because of my previous relevant publications in other journals
• An invitation from journal because I have contacts in the editorial board
• Because I am a member of the editorial board

17. **If Yes, what did you learn from acting as a reviewer?**
• Reviewing is time consuming
• Reviewers not given enough time to do a proper job
• How poor writing standards are
• How uncomfortable it is to criticise/reject the papers of one’s peers/colleagues
• Seeing other people’s errors is a good learning experience
• What other researchers are doing
• How to be positive and contribute to the improvement of other people’s work
• Others (Please specify):

18. **What type of peer review do you prefer best as a reviewer?**
(choose one)
• Single blind (The author does not know who the reviewers are)
• Double blind (The reviewers don't know the identity of authors, and vice versa)
• Triple blind (Not only are authors and reviewers blind to each other's identities but editors are also blind to the identity of both).
• Open identities- where reviewer’s name is published
Open reports – where only the content of the review is made public  
Post-publication – where papers are reviewed after publication  
No preference / Don’t know

19. **What is the main reason for your choice? (pick one main reason)**  
- Anonymity is crucial for an honest and unbiased review  
- Anonymity can overcome reviewer bias, misconduct or abuse  
- Transparency encourages reviewer accountability and thoroughness  
- Transparency inhibits voicing negative views/criticisms  
- Others (specify, please):

20. **Could peer review be improved for ECRs?**  
- Yes  (go to Q21)  
- No  (go to Q22)

21. **To what extent do you think each of these actions will improve peer review for ECRs?**  
**A great extent/ Somewhat/ A little/ Very little/ Not at all/ don’t’ know**  
- More rigorous assessment of the merit and novelty of an article  
- More constructive comments for the improvement of an article  
- Reviewers should be more open to innovative ideas  
- Cascading peer review should be adopted, where reviewing is transferred from a rejecting journal to another  
- Post-publication peer review would be an improvement.

22. **Should publishers continue to organise peer review?**  
- Yes  (go to Q24)  
- No  (go to Q23)

23. **If No, who else should do it? (choose one)**  
- Learned or scientific societies  
- Libraries  
- Educational institutions  
- Social media institutions  
- Funders  
- Independent peer-review service  
- Research communities via thematic repositories (e.g. BioRXiv)

24. **Do you publish papers open access?**  
- Yes, frequently  (go to Q25)
• Yes, occasionally (go to Q25)
• No (go to Q26)

25. You said yes, what was the main reason?

26. You said no, what was the main reason?

27. In your experience, to what extent do you see each of the following as advantage of publishing papers as open access?

A great extent/ Somewhat/ A little/ Very little/ Not at all/ don’t know

• Increased visibility/discoverability
• Wider and bigger potential audience
• Greater connectivity/networking potential
• Enhanced collaboration-affording opportunities
• Increased impact in terms of more downloads, reads, citations, social media mentions
• Faster publishing/shorter turnaround time of OA journals
• Compliance with university or funder mandates
• Contributing to the faster pace of scientific advances made
• Others (please specify):

28. In your experience, to what extent do you see each of the following as disadvantages of publishing papers as open access?

A great extent/ Somewhat/ A little/ Very little/ Not at all/ don’t know

• Perceived poor quality of OA journals
• Perceived lower prestige/status of OA journals
• Costs of OA publishing
• Risks from a career advancing and reputational point of view
• Possibility that OA journals are more easily plagiarised
• Too many predatory journals
• Others (please specify):

29. Have you produced data?

• Yes (go to Q30)
• No (go to Q34)

30. If Yes, was it made openly available?

• Yes (go to Q31)
• No (go to Q33)

31. **How was it made available?** (tick as many as applies)
- Publishing data as supplementary materials to a paper
- Publishing a data paper about the dataset
- Hosting data on a website. With files available for a download
- Hosting data in a repository such as Dryad, Figshare and Zenodo

32. **Why did you choose to make it openly available? (Please choose up to three main reasons)**
- Enables reproducibility
- Enables reuse
- Ensures preservation and future accessibility
- Encouraged/ mandated by open science policies
- Compliance with journal publication policy
- Confers a citation advantage
- Signals credibility
- Facilitates collaboration
- Belief in OS policies
- others (please specify):

33. **If No, what are the reasons for not doing so (pick up to three main reasons)**
- Competitive worries
- Risk to career advancement as data sharing not generally rewarded by current reward systems
- No policies that mandate data sharing
- Too much trouble to clean up
- Size of datasets prohibited sharing
- The nature of data (i.e. confidential, national security related) prohibited sharing
- Others (please specify):

**Social media**

34. **Do you use social media for any scholarly purpose?**
- Yes (go to Q35)
- No (go to Q37)

35. **You said yes, to what extent for each of the following purposes?**

* A great extent/ Somewhat/ A little/ Very little/ Not at all/ Not applicable
• finding research content
• networking
• current awareness
• sharing research
• research collaboration
• building and showcasing your reputation
• conducting original research
• testing research hypotheses
• keeping up to date in your field
• others (please specify)

36. Are there any social media tools/platforms that you find particularly beneficial for your research activities?
• No
• Yes, please list up to 4:

37. Do you make use of citation-based indicators (e.g. no of citations, h-index etc.) for any purpose?
• Yes (go to Q38)
• No (go to Q39)

38. To what extent do you use citation indicators for each of the following purposes?
A great extent/ somewhat/A little/ Very little/ Not at all/ not applicable to me
• Getting hired
• Getting tenured/promoted
• Obtaining funding
• Showcasing my achievements/ building my digital identity
• Monitoring my scholarly impact
• Finding experts or collaborators
• Finding must read papers
• Measuring acknowledgment of a concept/idea/methodology
• Others (please specify):

39. What is the main reason for not using citation indicators? (choose one main reason)
• Not accepted by my university/work-organisation
• Not required in my university/work-organisation
• Frowned upon by my mentors/ senior colleagues
• Not used by my peers either
• Others (please specify):
40. Do you make use of altmetrics (i.e. no of downloads, reads, mentions, recommendations etc.) for any purpose?
   • Yes (go to Q41)
   • No (go to Q42)

41. If Yes, to what extent for each of the following purposes?
   To a great extent/ somewhat/ A little/ Very little/ Not at all/ not applicable to me
   • Getting hired
   • Getting tenured/promoted
   • Obtaining funding
   • Showcasing my achievements/ building my digital identity
   • Monitoring my scholarly impact
   • To know which articles receives the most traction
   • To know which countries / continents are engaging most with an article
   • To know whether citizens (the general public) are engaging with my work
   • Others (please specify):

42. If No, what is the main reason, pick two reasons?
   • Not accepted by my university/work-organisation
   • Not required in my university/work-organisation
   • Frowned upon by my mentors/ senior colleagues
   • Not used by my peers either
   • Too easily gamed
   • Others (please specify):

43. What is your gender?
   • Female
   • Male
   • Prefer not to answer
   • Other, please specify ----

44. What is your age?
   • 21-25
   • 26-30
   • 31-35
   • 36-40
   • 40+

45. What is the higher degree you have completed?
   • Bachelor’s degree
   • Master’s degree
• Doctorate degree (PhD)
• Professional degree (MD, JD, etc.)
• Prefer not to answer
• Other, please specify...

46. **Which job position best applies to you?**

- Doctoral student
- Post-doctoral student/researcher
- Academic researcher
- Non-academic researcher
- Non-tenure track faculty
- Assistant professor/ lecturer
- Other, please specify

47. **How many years have you been an active researcher?** (write a whole number between 1 and 20 with digits e.g. 2, 5 etc.)

48. **Approximately how many articles did you publish in 2018?** (Please write a number with digits like 0, 5, 12 etc.)

49. **Please select up to three research classification terms from both of the lists below that best describes your field of research.**

- Health sciences (e.g. Medicine, dentistry, nursing & health professionals, pharmacology, veterinary science & medicine...)
- Life sciences (agricultural and biological sciences, biochemistry, genetics, environmental science, neuroscience, microbiology, immunology ...)
- Physical sciences and engineering (e.g. physics & astronomy, mathematics, chemistry, chemical engineering, energy, engineering, material science, earth & planetary sciences...)
- Social sciences (e.g. business, management, sociology, decision science, marketing, economics, finance, education, psychology, law, library science ....)
- Arts and humanities (e.g. philosophy, religious studies, history, linguistics, archaeologyarts...)
- Other please specify

50. **In which country are you an academic/researcher?**

After submitting, on the next page you will see the link to the prize draw form to enter your email.
Thank you for completing our survey! We really appreciate the time you spent on this.

If you want to take part in the prize draw, please go to the link below in order to enter your email for the prize draw (please copy and paste it in your browser):