The scholarly communication attitudes and behaviours of Gen – Z researchers: a pathfinding study

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Abstract

In preparation for a major study of Generation–Z early career researchers' (ECRs) scholarly communications attitudes and practices we report on how different Gen-Z researchers included in our earlier studies of ECRs were. It is a qualitative, pilot study that covered a convenience sample of around 30 Gen-Z ECRs from 8 countries and all subjects and compared to around 120 of their older colleagues. Conversational, in-depth interviews lasting an hour or more were the main form of data collection. An AI analysis, employing Claude AI, was used both to provide an initial analysis of the data and also assess the published literature on the topic. The findings are that there is enough evidence to suggest that there are big enough differences between Gen-Z and their Millennial colleagues – even though all are ECRs - to merit further research. Younger researchers in particular appear to be strategically adopting AI for efficiency and career advancement, while older researchers possess heightened awareness, and caution, regarding the philosophical and ethical consequences of technological transformation in scholarly communication.

1.0 Introduction and aims

The Harbingers longitudinal research project has been studying the scholarly communication attitudes and behaviour of Millennials for a decade now[1]. Millennials, then, are getting long in the tooth now (some of our most recent ECRs interviewed were

[1] https://ciber-research.com/harbingers-2/

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in their forties) and, so, it is high time to turn our attention to the next generation in line - Gen Z (born between 1997 and 2012). They are the first generation to grow up with the internet, social media, and smartphones and are a truly mobile generation We have always looked at scholarly communications through the lens of the researchers of tomorrow and now the lens of Gen Z ('Zoomers'). From a research perspective that is essentially studying ECRs in their twenties we are dealing with. With the new project we shall be studying generational change supercharged by AI[2]. Big changes could be in the air?

We decided to prepare for the new study by looking at those ECRs in their twenties who we had already interviewed in the past two rounds of Harbingers repeat interviews held respectively in 2024 (H-3) and 2025 (H-4) and seeing what they said about scholarly communications and, especially, AI. We had 16 for H-3 and 12 for H-4, nearly 30 altogether, so sufficient for a pilot study. They come from 8 countries. What, of course, we wanted to determine was whether there was evidence of them behaving or thinking differently to their elders, so we compared what they said about scholarly communications to what the older researchers said. Something that would help us to design the new interview schedule for the full-blown study beginning in Spring 2026 (H-5).

2.0 Scope

International in scope: China, Malaysia, Poland, Portugal, Russia, Spain, UK and covers subjects from science the social sciences and humanities. Definition of ECR adopted is as following: *Researchers 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 are they researchers in established or tenured positions. In the case of academics, some are non-tenure line faculty research employees.*

3.0 Research background

There is very little in the way studies covering Gen-Z early career researchers, and the sparse literature identified by Claude AI points to the fact that generational analysis requires methodological caution. Research, like ours, can conflates cohort membership with age, life stage effects with generational characteristics, and period influences with intrinsic traits. Nevertheless, substantial research documents patterns associated with Generation Z that differ from predecessor cohorts, warranting careful examination. Thus, Katz et al. (2022) conducted multi-year research at Stanford's Center for Advanced Study in the Behavioral Sciences, including 120 interviews across Stanford, Foothill College, and Lancaster University (UK), plus 2,000+ survey respondents aged 18-25 in the US and UK. Their findings identify Generation Z as highly collaborative, pragmatic, valuing direct communication and authenticity. Significantly, they question rules and authority whilst being accustomed to finding information independently—traits potentially valuable for

[2] https://ciber-research.uk/harbingers-5.html

research, but challenging for traditional hierarchical academic structures. Francis and Hoefel (2018) conducted research in Brazil with 2,321 respondents aged 14-64 plus 120 qualitative interviews and focus groups. They identify Gen-Z core behaviours including search for truth, value for individual expression, and analytical, pragmatic decision-making. These orientations suggest Generation Z approaches career decisions instrumentally rather than idealistically, with potential implications for academic career persistence.

Pasquini et al. (2024) examined Italian university students aged 20-23 through focus groups analysing values and media consumption. Strikingly, Generation Z participants described contemporary society as "society without values" or witnessing "disintegration of values." This perception of value collapse may influence their approach to academic careers, potentially fostering scepticism toward traditional academic hierarchies and norms whilst seeking alternative sources of meaning and community.

Claude AI also *speculated* on the basis of the data that was found that for Generation Z researchers specifically, LLM tools may represent assumed rather than novel technology. Where previous generations adapted to email, search engines, and digital libraries as innovations, Generation Z encounters LLMs as simply another available tool. This normalisation could facilitate integration whilst potentially reducing critical evaluation of limitations and biases. Also, the moment of career emergence proves significant. Generation Z enters research careers precisely when AI tools become ubiquitous but before clear norms crystallise. ECRs risk either falling behind by insufficient tool adoption or facing accusations of inappropriate use through excessive reliance. Navigating this uncertain terrain whilst simultaneously managing precarious career situations creates additional stress. Moreover, generational differences in technology comfort could create new forms of inequality. Those most comfortable with technology may not be most aware of its limitations and biases. If Generation Z researchers adopt AI tools uncritically, they could face career damage from inappropriate use despite—or because of—their technological fluency. All of this we need to test in the forthcoming study.

4.0 Methods

The details of our methodology can be found widely in many of our published papers (e.g. Nicholas, 2025a, b) and here, for brevity, we provide just an outline. Both rounds of interviews covered ECRs from all disciplines and from 8 countries around the world (China, Malaysia, Poland, Portugal, Russia, Spain, UK and US. A convenience sample of around 150 ECRs were recruited using research and personal networks. We employed our trademark conversational, open-ended interviews to gather data on work-life, scholarly communications and AI. These interviews, lasting more than an hour, contained around 50 questions covering all aspects of the scholarly system such as citations, peer review, social media, publishing, OA and AI. Interview transcripts were translated where necessary, coded and entered on a database, which was searchable.

Undertaking the analysis of more than 150 conversational interviews lasting more than an hour, would have been a mammoth operation so we used NotebookLM to conduct the initial analysis. The analysis compared the interview responses of ECRs in the 'Youngest' age segment (H3: 25–29; H4: 25–30) against their older colleagues (Age > 30). This synthesis draws upon the data contained within the H3 and H4 quantitative reports and the corresponding interview excerpts, highlighting key disparities in AI engagement, perspectives on scholarly communication, and publishing behaviours. The product of the AI exercise was shared with all the national interviewers to assess its accuracy and to supplement it where necessary. In general, the AI scoping analysis was thought to be highly accurate, but nevertheless required verifying and editing.

5.0 Results

The results section is divided into four sections: 1) Differences in AI adoption, experience, and application; 2) Disparities in perceptions of AI impact and the future of academic research; 3) Differences in scholarly communication and publishing practices; 4) Career focus and evaluation.

5.1 Differences in AI adoption, experience, and application

The interview data presents contrasting trends between H3 and H4 cohorts concerning the sheer level of AI adoption as you would expect with longer exposure to AI, but reveals consistent differences in *how* AI tools are employed by the age bands:

In the H-3 analysis, ECRs aged over 30 reported substantially greater general AI experiences and encounters and a higher level of AI use compared to the Gen-Z cohort (25–29). Conversely, and significantly, the quantitative analysis for the H-4 cohort suggested a remarkably high degree of engagement among the youngest group (25–30). They reported universal success in testing or considering AI-based tools for research work (100% said this). They reported universal success in testing or considering AI-based tools for research work (100% said this). Like this from a Polish soft social scientist: “I often use GPT chat to translate ready-made articles into English. (...) I also sometimes generate graphics using the napkin.ai tool. I have seen this second tool used by several foreign researchers. All you must do is enter the text and the graphic is generated automatically, then you just need to adjust it a little to suit your needs.”

Furthermore, the youngest ECRs in the H-4 sample were more likely to report that AI-based tools are a regular part of their research work (92% replied 'Yes') compared to their older counterparts (70% replied 'Yes'). So, there is clear water here between the generations.

A notable distinction emerges regarding the functional ways AI is integrated into the research workflow between the two cohorts:

1. Data analysis**:** Youngest ECRs in H-4 were almost twice as likely to have used AI-based tools for assembling and analysing datasets (50% said so) compared to the

older cohort (28%). This might suggest a greater propensity among the younger cohort to use AI for core research computational analysis tasks. But it could also be because youngest are likely to be junior and therefore doing the 'lab rat' drudge work.

2. Idea generation and drafting: The older ECRs aged over 30 (H-4) demonstrated a higher likelihood of using AI tools as a prompt or sounding board to develop/explore new ideas (63% said they did') compared to the youngest segment (33%). This could be the inverse of the above, that is older academics, with greater seniority, were more likely to be forming ideas, proposals etc. Similarly, older ECRs were more inclined to use AI to generate a first draft, recast, or rewrite their own original text (67% said so) compared to the youngest ECRs (42%). Qualitative interview data support the idea that for some of the younger ECRs, AI assists in the structural and language refinement process. For instance, a Spanish medical scientist asked ChatGPT to draft a version for comparison. Similarly, a Gen Z Malaysian physical scientist described using AI primarily for efficient ideation and iteration - “paraphrasing, generating ideas and asking quick simple questions that’s not worth scrolling through the internet or finding the right articles.”

5.2 Disparities in perceptions of AI impact and the future of academic research

ECRs aged over 30 generally expressed stronger opinions regarding the transformative power and ethical implications of AI:

1. Transformational force and inequality: ECRs aged over 30 (H-3) were dramatically more likely to view AI as a transformational force and significantly more likely to believe that the use of AI will exacerbate existing disparities and inequalities compared to the Gen-Z researchers, who were more likely to take it all in their stride, such as this Portuguese humanist: “I don't think it's particularly transformative. I think we're already making great strides towards a more digital and simplified world. AI will be a valuable tool in this process.”
2. Decline in quality**:** In the H-4 cohort, ECRs aged over 30 were substantially more concerned that the AI-associated potential for rapid production of scientific articles would lead to a decline in the overall quality of research output (73% thought so) compared to the youngest segment (50%). This concern is echoed qualitatively, as a Spanish soft social scientist believes the impact of generative AI will lead to a loss of credibility for informal media, and another soft social scientist notes that AI-generated output contains an unacceptable number of epistemological inconsistencies. However, the lower rate of concern among the youngest researchers should not be interpreted as complacency. Instead, it appears to reflect a more nuanced, instrumental view of the risk, as articulated by a Gen Z Malaysian researcher who called AI a "double-edged sword." Her verbatim explanation - that we can use AI “to enrich the whole reader experience and lit rev [literature review]” or “to write the whole text but lose its depth to shallow, redundant information” - suggests a generational shift from seeing quality as

something AI undermines to seeing it as something a skilled researcher must actively defend when using AI.

3. Impact on publishing ratings. (H-3): ECRs aged over 30 in the H-3 cohort were notably more likely to believe AI will change traditional journal ratings or introduce new factors compared to the youngest group. Of course, the latter have most to lose/gain if the rules of the scholarly game change.

5.3 Differences in scholarly communication and publishing practices

The main observed differences relating to established scholarly practices are:

1. Open access and affordability. The quantitative data shows conflicting results especially regarding the affordability of Gold Open Access (OA) publishing:

- In the H-3 cohort, ECRs aged over 30 were significantly more likely to report that they could afford to publish in Gold OA journals. This is, perhaps, because they are more senior and more able to obtain funds?
- In the H-4 cohort, however, the youngest ECRs (25–30) were numerically more likely to afford Gold OA publishing (50% replied 'Yes') compared to their older colleagues (34%). Something seems to have happened in the interim between studies and this will be pursued in the full-blown study we have embarked on.
- Despite these differences, there is a general qualitative acknowledgment of the growing importance of OA. Thus, a Polish humanities ECR, just starting a PhD stated they are contractually required to publish everything in open access and ethically believe all research should be OA. However, this belief clashes with practical anxieties over cost. For instance, a Gen Z Malaysian scientist with a grant expressed contingent hope it would “cover 100% when the time comes”, suggesting that perceived affordability among younger cohorts may reflect hopeful contingency rather than secure financial capacity.

2. Informal communication and preprints

Older ECRs (H-3) were considerably more optimistic that informal modes of communication (e.g., preprints, tweets, blogs) will play a larger role in the future. Regarding preprints specifically (H-3), ECRs aged over 30 were significantly more likely to consider a preprint to be an alternative to a traditional publication. This again might be a consequence of young researchers wanting to tread the established path for career purposes and which we shall look at again.

Qualitatively, scepticism towards preprints also remains evident in the younger cohort, especially in the Humanities/Social Sciences. A Polish humanities ECR said they distrusted preprints and that traditional publications hold value/credibility only after the entire editorial process. A Chinese physical scientist said they generally preferred disseminating results only once they have yielded concrete outcomes and been published.

3 Peer review trust and quality perception

Especially in the H-3 cohort, ECRs aged over 30 demonstrated a higher measure of absolute trust in the peer review system compared to the youngest cohort. However, ECRs across age bands commonly agree that the peer review system needs (big) improvement.

4. Technology for information seeking

The youngest ECRs (H-3) were, perhaps surprisingly, noticeably more likely to report *not* using smartphones to search for/find formal scholarly information (74% replied 'No') compared to their older colleagues. First thoughts might be that this implies a greater reliance on traditional computer/laptop environments for scholarly searching within Gen-Z, but it might be that they were just likely to say this because maybe it would be an admission that would make them look unprofessional.

5.4 Career Focus and Evaluation

In the H-3 context, not surprisingly, the youngest ECRs showed a greater focus on aiming for a permanent academic career (88% agreed) compared to those aged over 30 (77%). This finding, however, is contradicted in the H-4 data, where the older ECRs reported a slightly higher average rate of aiming for a permanent career (82% vs 75% for youngest). The jury is plainly out here and the reasons why will be sought in our main study. Possibly the explanation is that between H3 and H4 prospects changed, younger researchers still had time to revise their plans, older ones it is a case of too late to turn back?

The importance of traditional metrics, such as ministerial points (Poland) and citation counts, remains a focus for some younger ECRs: “Unfortunately, you don't get points for social media posts, and academics have to think about that (the points) if they want to keep their jobs at the university.” (Social scientist). “The number of articles in highly ranked journals, participation in conferences, and grants—these are the indicators of success. I am interested in all of these categories, although I am most interested in the ministerial score and the number of citations.” (humanist)

Finally, a Chinese physical scientist expressed a sense of helplessness concerning evaluation mechanisms and a desire for diverse presentation forms, adherence to current systems remains necessary for career progression.

6. Conclusion and discussion

Regarding our own pilot research, while the youngest generation (Gen-Z) in the H-4 study showed higher practical integration of AI tools, particularly for data handling, the older ECRs (Age > 30) demonstrated a more profound recognition of AI’s potential for broad transformation, its impact on societal inequalities, and its influence on traditional structures like drafting and idea generation. Younger researchers appear to be strategically adopting AI for efficiency and career advancement, while older researchers possess heightened awareness, and perhaps caution, regarding the philosophical and ethical consequences of technological transformation in scholarly communication. Of course, as noted above, different career stages may explain different uses and perspectives and this requires further research

There is some suspicion that in their responses to questions Gen Z researchers, in pursuit of permanent posts might have been looking not to be seen challenging expected reputational norms. Telling their elder colleagues that they were not challenging, not too revolutionary.

What published literature there was revealed a complex and potentially troubling picture for Generation Z pursuing academic research careers. They enter a profession experiencing fundamental restructuring, where secure positions have declined substantially across diverse national contexts, credential inflation reduces the value of even doctoral qualifications, and rapid technological change creates both opportunities and uncertainties.

Clearly, then, there is enough here in this pathfinding study to suggest that there are enough differences between Gen-Z and their Millennial colleagues – even though all are ECRs - to merit further research. This is especially so if we believe what is written about them: they are self-driven, collaborative, and diverse-minded. Value flexibility, authenticity, and have a pragmatic approach to addressing problems. They are also said to be entrepreneurial and adaptive. So, they just might have a big impact and change perceptions.

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