

HARBINGERS-2: ECRS IN THEIR OWN WORDS

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Early career
researchers:
scholarly
communication
trends, work life
and impact of
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Early career researchers (ECRs) on work life, scholarly communications and the impact of the pandemic

Introduction

In order to demonstrate how productive and interesting the in-depth interviews proved to be presented here are a selection of quotes gathered from 177 science and social science ECRs from China, France, Malaysia, Poland, Russia, Spain, UK and US. This paper is a taster of what is to come. The quotations are not chosen wholly representatively, but more on the basis that they say something clear, interesting, topical or unusual. The quotes very much show the personal side and openness of ECRs. The spreadsheet analysis, of course, will give us a better idea of the weight and the balance of opinion.

Compared to Harbingers-1 ECRs are proving more vocal and engaged in the interviews, with the exception of the inexperienced doctoral ECRs, who by definition have less to say, and this could be because of their growing maturity, the passage of time or Covid. Probably, them all.

The common denominator identifiable in ECR's experiences is that scholarly life under COVID has not proven to be quite as bad as some commentators would have it. Challenging, yes, and especially so in regard to that all-important networking, collaborating and career development. Not surprisingly, working from home and problems of caring particularly exercise ECRs.

Clearly, there are ups and downs in respect to the pandemic, but ECRs are typically fighters, robust and resilient and have managed as best they can and appear to have proved the doomsayers wrong. The vast majority of ECRs seem to be determined to do well as researchers, whatever it takes, and it does take a lot even under normal circumstances, certainly now. Playing by the rules, above all, even now when it is harder than ever, though, again, at least at first glance it does not seem as impossible as it was thought it would turn out to be. A lost generation? That, at least, looks unlikely...

Overall impact of COVID on research

"Definite negative impacts. One, making meetings harder—that's probably the smallest one. Two, I'm an experimental economist, and you can't do laboratory experiments during the pandemic, so that has postponed and required me to move to different formats. There are a lot of fixed costs involved in that and also, it's just inconvenient. In some of the revisions I've been doing, we wanted to do more sessions, and to keep them parallel we wanted them in the lab, and that's not going to happen. So, a lot of that. Not being able to go into the lab has had a substantial negative impact on my research. Third, just being sick, because I got Covid, and I got this long version that's lasted

months and months, and while it's not so bad now, the first three months, it was very draining and going to doctors was taking a lot of time. Having the energy was very difficult, having to focus was very difficult." (US; Chemical sciences).

"Suppose some Medical Unit declares a quarantine, then you won't get there, and the research stops. It's hard to say whether it will resume or not. Accordingly, this situation greatly influenced the data collection." (Russia; Medical sciences)

"The impact is much bigger than just not being in the lab, perhaps, most important is not being able to travel and network in order to build up a future independent research life. There is also the loss of money from charities." [UK; Life sciences]

"Pandemic enables a lot of time at home to write up publications, but I think that any advantage (i.e., in terms of publication count) is short-lived for most. As the pipeline backlog that labs have managed to clear out and push to publication is now done – and they have nothing new to be working on. You can see that in conversations across twitter. The things that could be worked on and polished have been down – the toll will hit in the next 12 months for many." (UK; Hard social sciences)

"The pandemic has led to a reduction in research funding, but the funding distribution method has not changed. So, it is even more difficult for young people to get funding. Making trees as a metaphor that fits the situation. Young researchers are saplings, which are easily blown down by even breeze. The opposite, big trees are more likely to survive in those circumstances." (China; Mathematical sciences)

"COVID-19 doesn't have a big impact on my own research, but it has a big impact on the whole scientific research world, including a lot of people who are going to choose science research as their careers. Many ECRs may choose to do COVID-19 related research, and many high-school students want to study medical/clinical science when go to university." (China; Medical sciences)

On working from home

"What an amazing time for me—staying at home doing the stuff that I love, focusing on research, being productive. This was the most rewarding year ever! I know it's a strange answer, but I'm confessing it was fabulous for me. It's like stress, either you die or you just recover again and move on. "It has been advantageous to my research because it gives me more time and more flexibility so I can work on my research more without interruptions, without keeping the door open (open door policy). No one's just jumping into the office and interrupting you. It has been really great because it gives me more time to do stuff that I love to do: deliver authentic skills to business." (US; Hard social sciences).

“At the beginning it was not too bad, but at this point it is starting to affect my productivity. The number of meetings and workload has increased and restrictions are still in place; making the whole situation very challenging.” (Spain; Life Sciences)

“Now it is difficult for me to separate my private life from my work, since July this has actually turned into pressure, i.e. I feel all the time the pressure that I should work. I am not overworked, I just feel this pressure, because before the pandemic I could go out with friends or even go to the university, and now I have a whole workshop at home and it is a bit heavy for me”. (Poland; Mathematical sciences)

“Another problem is I think because there's no boundary between work and home. Because this is where I would do my work, but then next door is the place where I sleep. If I work at Uni, I have about 20 to 30 minutes of journey that can separate me from working at home. When it comes to online, a lot of things that you need to manage differently. Also, because the boundaries are quite blurred”. (Malaysia; Mathematical sciences)

"I live in a studio flat so my desk is in my bedroom/living room which can make it hard to be motivated and I am often lonely and call/message family members to reduce loneliness (UK; Medical sciences)

“The strange thing is that the day no longer has any limits. The small flat becomes a melting pot where everything converges: work, personal, household chores, etc. It saturates and clutters the mind where the different tasks to be done are all on the same level. You can no longer prioritise.” (France; Chemical sciences).

"Informal communication seems to be less..... Online working makes me feel out of work during the pandemic, it is really distracting. I didn't know what to do at home every day.....There is no one to remind you to follow. As for me, I feel that the work efficiency and working status are super low." (China; Biological sciences)

On work and caring

"For a few months when my wife delivered our son, I had to take care of her and the baby, because of the pandemic we could not have our mothers (to visit), or a confinement lady coming. Also [I] cooked specific meals with Chinese herbs, A bit unproductive at that time, I spent more time with them. As a result, I have not had anything published in 2020. (Malaysia; Mathematical sciences)

“I think in terms of my own work it is quite ok. But I feel burnt out a bit because I'm at home and I need to take care of all my kids at home, their online schooling.” (Malaysia; Mathematical sciences)

"I have had a range of problems relating to the management of my group which has not been helped by the fact that I am home-schooling two small children." (UK; [Chemical sciences](#))

"My wife has not gone back to paid work after our son was born so was able to continue with main childcare responsibility but I worked from home and was able to help. The flexibility of working from home meant that I could help during the day and make up on work later" (UK; [Medical sciences](#))

"Working from home is difficult because I am easily distracted by my son. The positive is that I can spend much more time with her son and husband gardening" (UK; [Life sciences](#))

"I do not think that productivity problems are only for those with caring responsibilities. It is important to remember that people have had other factors such as mental health issues which may have affected productivity." (UK; [Environmental sciences](#))

"If it was not for the baby, I would have been able to do a lot more writing from home" (UK; [Hard social sciences](#))

"I definitely know some women in my department whose husbands just, nope, don't contribute to homelife, generally; so, [those women] have to try to juggle taking care of the home, children, and their work. And then there's men in my department who have the prototypical housewives and have no clue what it would be like to have to share those home duties. They are enjoying working from home, saying 'Oh, this isn't a big deal. This is actually fun.' But then, one of my best friends in the department, she and her husband have a more egalitarian household. They have scheduled times where he's trying to take care of the kid while she's working and then she takes care of the kid while he's working. So, you know, I guess it's just how egalitarian the household is to start with" (US; [Soft social sciences](#)).

On changing research direction

"I grow my mushroom Ganoderma in a bio-reactor, I extract them to produce anti-biotic for cancer treatment.... we have tested that on dengue virus, next is I plan to produce medicinal mushroom for Covid-19." (Malaysia; [Life sciences](#))

"After the pandemic, one's plans or expectations for the future and the development of the world as a whole may be changed. This is what our President Xi calls "profound changes unseen in a century." Everyone is in the flood of the times, and everyone's achievements are largely influenced by their efforts and the development of the times. As I said before, the changes in the country's scientific research orientation towards

medical and "stranglehold problems" may lead to a change or inspiration in my research direction." (China; [Electrical Engineering](#))

On overworking

"I am overworked. I wake up early, pray, and then face my laptop. I want to let you know that I don't close my laptop until 11.30 pm, honest! Last year 2020, I managed to produce, not to brag, but I feel good about, at least 11 papers for that year only. Yes, conference and journals. That's crazy! But I think it's crazy because this the mood of covid-19 and I'm staying at home makes me work very well! The immersive research process makes you not want to stop." (Malaysia; [Hard social sciences](#))

On security

"I feel that those more senior academics are often very secure in their employment. This makes it less of a turbulent time as the roof will stay over their heads. On the other hand, they often have families to balance and juggle and caring responsibilities. ECRs are the more vulnerable group – and so the pandemic has undoubtedly shaken their prospects more, because the ground we stand on is shaky to begin with". [019]

"I feel very secure in my job, regardless of the pandemic, as my research funding is guaranteed for the next year and the monies have already been set aside by the funders." (UK; [Environmental sciences](#))

"During the epidemic, I reflected on such a question, whether we should do valuable research or research which can get good papers. The value of some results is actually limited even in a good paper, because it provides nothing useful to society." (China; [Mathematical sciences](#))

On research slowing

"There has been a slowing down of scientific activities. Everyone in the family has someone ill, so we are also busy with other things, not only scientific." (Poland [Mathematical sciences](#))

On collaboration and sharing

[Unusually or maybe uniquely] "as far as collaboration is concerned it easier because you do not have to wait until face to face is possible. (UK; [Medical sciences](#))

[Unusual take] "It is easier for everyone in an expedition when a participant is a man. [...] They, for the most part, see you as a woman who needs to be looked after, who is helpless, who is an object of worship for some. But not as a colleague and specialist. I no longer suffer from physical work, and I had some problems with the guys on the flight expedition when I started carrying boxes of equipment. It's not difficult for me to lift 30-

20 kg at all, but for them, there was some kind of horror, how the girl carries heavy boxes, and we missed this moment.” (Russia; Physical sciences)

“To further your career, it is sometimes better to keep certain tools to yourself and distinguish yourself from the rest of the pack applying for fellowships and grants. So, though I would love to share everything the current system will publish me rather than rewarding me for this behaviour.” (UK; Life sciences)

“There are researchers who come from some Asia countries that have a more positive attitude towards cooperation with China. For example, countries in Southeast Asia, Japan and South Korea are still positive to collaborating with China. But there are some countries that may have a different attitude, for example, New Zealand and Australia ... There is still a gap between what they know about China/ Covid-19 and what the real China is, so there may be some different understandings. (China; Mathematical sciences)

On teaching

“The teaching is done on the Teams platform, but it is more difficult. I receive a lot of emails from students, it was easier to answer questions in class to a whole group of students than remotely to each individual student. It is more difficult for me to explain issues remotely than in traditional classes”. (Poland; Physical sciences)

“To be honest I have breakdowns, I believe those who teach face this, I have to conduct an online laboratory. This is impossible. How can you conduct lab online? you cannot teach students how to use a micropipette, it’s impossible [online]”. (Malaysia; Life sciences)

“But when it comes to work, I think I am overworked to be honest, especially, last semester was worst, one, because I had to coordinate a class of about 300 students.” (Malaysia; Hard social sciences)

“Teaching online costs, a lot of time to re-prepare the lectures. The students may feel the same or even worse compared to off-line teaching, but we did a lot of extra works. I think there is probably a sense of being underestimated. In fact, the effect of face-to-face teaching and online teaching is not the same.” (China; Electrical Engineering)

On an academic career

"I did two sessions with a coach and learned to change my perspective in the way I presented things. To see the glass half full, not the glass half empty. To present my choices and my trajectory, according to the expected framework, and not according to what I consider to be shortcomings. That's how inactivity between two Post Doc

contracts turned into a sabbatical for instance! I became aware of what, as a woman, was a form of self-censorship. (France; Biological sciences)

“Yes, I think that funding will be more difficult to obtain in the future because a large proportion of research in the field comes from charities. Funders may become more selective in the future due to limited funds or change their research focus to a new area.” (UK; Environmental sciences)

On conferences and virtual ones

"It's hard to go to these conferences anyway and sit there and listen to talking, but it makes it twice as difficult when I'm sitting here in my living room. I could just mute these people and play video games. And then what blew me away, they did an online virtual meet-and-greet, food and drink session. You sit in front of your computer, and you drank your beer, and you ate your food. It was the weirdest thing I've ever been a part of. It is very bizarre, and at the very end, the last 30 minutes 'we're going to put some music on, and you guys can mingle. 'I'm like, what do you mean 'mingle?' Yes, it has affected me" (US; Medical sciences).

"I think that we really missed out on just running into people starting new collaborations at conferences. I feel like virtual conferences aren't going to provide those same networking opportunities as the in-person ones" (US; Medical sciences).

"It is not effective and it is exhausting"(Spain; Life sciences)

“I do not think that the traditional conference is dead, but I do think people's approach to travel is likely to be changed long term and people will expect virtual access”. (UK; Chemical sciences)

“There are pluses and minuses. The pandemic prevents physical contact = trust, but at the same time easier to go to virtual conferences so more scope for meeting new people. I hope future conferences will be hybrid.” (UK; Medical sciences)

One of the best parts of an academic conference is dining and wining, in online conference you cannot have diner and drink wine with friend and peers. My mentor from a Japanese university said that in East Asia everyone feels that if we have a meal together, we are good friends. There were also some teachers from Taiwan who were very keen to come to the conference on the mainland.” (China, Computer Science)

On peer review

“The system is good but the problem is the industry. People are not paid for their time. I think introducing elements of transparency would have a huge impact in the quality of reviews. Double blind would be great, but I think some aspect of open peer review

would be even more impactful: publishing reviews along with the paper. This would already be a great way to read about the criticism and feedback on the paper, and potential address questions you have as a reader. I also think that publishing reviews (whether signed or with anonymous reviewers) would mean that reviewers would be more likely to write more constructive or more respectful reviews (even under the current system where we only have single blind – if the whole scientific community is going to read your anonymous nonsensical review, you might try harder to write a more useful one). I support publishing reviews, moving to double-blind, or moving to completely open. I think at the moment single blind combined with no transparency of the review content puts a lot of power in the two/three reviewers who have been chosen, and with the editor”. (UK; [Physical sciences](#)).

“People are more unsatisfied because more papers have been sent to journals and, as a consequence, editors are rejecting many papers without sending them to review, saying that they are not within the journal’s scope (for instance). Besides, reviewers are refusing to review an increasing number of papers which are looking for a reviewer. ([Spain; Environmental sciences](#))

“The situation is getting more and more complicated. The problem is that the experts on a topic frequently reject to review because they don't get any compensation, which means that other less experts researchers will do the evaluation. Therefore, the quality and credibility of the process has been affected” ([Spain; Environmental sciences](#))

“I prefer not to perform peer review because I involuntarily lose objectivity when I know the authors of the manuscript, which is the common way of reviewing in my field (open identities). It is easy to favour reputed authors” “I think that open reports will make it even more difficult to find reviewers and it is already difficult enough” ([Spain; Environmental sciences](#))

[On speed of peer review] “Research about Covid is an exception. Peer review needs time to understand correctly the manuscript content. Speed in reviewing is not a good option for the quality of published research” ([Spain; Environmental sciences](#))

“The impact of the pandemic on paper publishing is also quite obvious. I just submitted an article to a United States journal this year (2020), where the pandemic was serious, and because of the conflict between China and America, involving some political and ethnic factors, the review time for articles was very long, and the article was rejected at last. Later on, I submitted my article to a UK journal, which was also hit by a serious pandemic at that time, so it was also delayed.” ([China, Medical Sciences](#))

On publishing/disseminating speedily

“Caution, speed can lead to mistakes. There is a Spanish saying, which says dress me slowly as I am in a hurry. This means that if you want to quickly reach a goal, act

carefully, proceed step by step, because by speeding too much you may spoil your opportunity (tenure, next position). Publishing quality science takes time, you have to be familiar with your data in order to discuss it in depth" ([Spain; Environmental sciences](#))

On open access publishing

"I doubt it [whether the pandemic will boost OA]. Maybe, there was a first wave of generosity and humanity that could have boosted OA. But I do not believe that it will consolidate its position unless the evaluation criteria changes"([Spain; Physical sciences](#))

"They charge us like crazy for the hard work that we do! Just imagine USD1000 APC, yet the data is ours, we write the paper, experts review for free, so that doesn't make sense. Crazy! Unless publishers consider to reduce the APC [we will row back] ...don't charge us like the price of a car." ([Malaysia; Life sciences](#))

"I am keen on OA; it is more social responsibility than ethics or morals. The pandemic has made me keener on OA and more and more important that information is available. For those reasons I publish OA." ([UK; Physical sciences](#))

On preprints

"There has been criticism about publication by press release during the pandemic and many preprints never end up actually being reviewed, so I think traditional journals will be around for a bit longer. There are lots of poor-quality preprints which never get published. I suspect this is a way of getting published rather than furthering science" ([UK; Medical sciences](#))

"I think preprints would be an alternative. They are less authentic because of the absence of peer review process. But when you look at some of the peer reviews now, you don't know how much of it are real and valid. For us young people, preprint is a good alternative to break out the old rules which is not very fair." ([China; Mathematical sciences](#))

"During the pandemic, some researchers want to get the chance of publishing, so they submit quick-written papers which quality is not good. Some journals publish such hot-topic papers without proper peer review, that would lower their qualities." ([China; Physical sciences](#))

On outreach

"As a consequence of COVID I am more conscious of the importance of disseminating [research] results and "educate the public " of the importance of research in daily life".

"I believe that the pandemic has driven the dissemination of scientific results, especially through social media " (Spain; Environmental sciences)

"I was fortunate enough to be invited to speak (to the public, online) once during the pandemic, but the opportunity was relatively rare and I didn't feel I was good enough. If I had such an opportunity, I would definitely like to try it. " (China; Soft social science)

On smartphones

"I use this App called "Researcher" on my phone...use this before I go to bed. Using this I can know that my research is still a hot topic or has become outdated...I love this app, read only the title and abstract but it gives me a lot of ideas. Because of this Researcher App, my phone has become my good friend." (Malaysia; Life sciences)

"We spend much time on the smartphone every day, and it is more convenient to read full-text papers on it." (China; Life Sciences)

On discovery

"Twitter is my main source – passive use rather than active as my network tells me about recent article of interest." (UK; Life sciences)

On metrics

"I open my Google Scholar every day...I have two colleagues we always talk about all these numbers, metrics, what do they mean...not that we are nerds, but we love what we do and that's the output." (Malaysia; Life sciences)

[On altmetrics] "I am interested in how research is being shared online and so aware of them, but it does not demonstrate quality." Also, I would not necessarily always associate them with the wider usefulness of the work at face value, unless I was going to look at them in detail". (UK; Mathematical sciences)

"After the epidemic, the government issued a new policy that not a single penny could be awarded to researchers for publishing papers. However, this is not a bad thing as rewarding WoS indexed papers will corrupt the whole academic system. (China; Mathematical sciences)

"They [the authorities] only recognize the first author affiliation, which doesn't encourage cross-university collaboration. We should pay attention to one's actual contribution of output, rather than just focusing on institution ranking. (China, Biomedical sciences)

On transformations

"The Covid woke us up to our social responsibility as researchers, to what we owe to society, to our societies. What we must do to accompany this society in this paradigm shift where everything can be questioned, and where science has less authority. This is where the future of our profession lies from now on. ([France](#); [Biological sciences](#)).