

Disruption and the Rise of AI: Exploring the role of technology in qualitative research

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 LUMIVERO



Agenda



01

DISRUPTION 2020; DISRUPTION 2023

Background to this research

02

FOCUS OF THIS PRESENTATION

Generative AI and impact on qualitative research

03

OVERVIEW OF FINDINGS

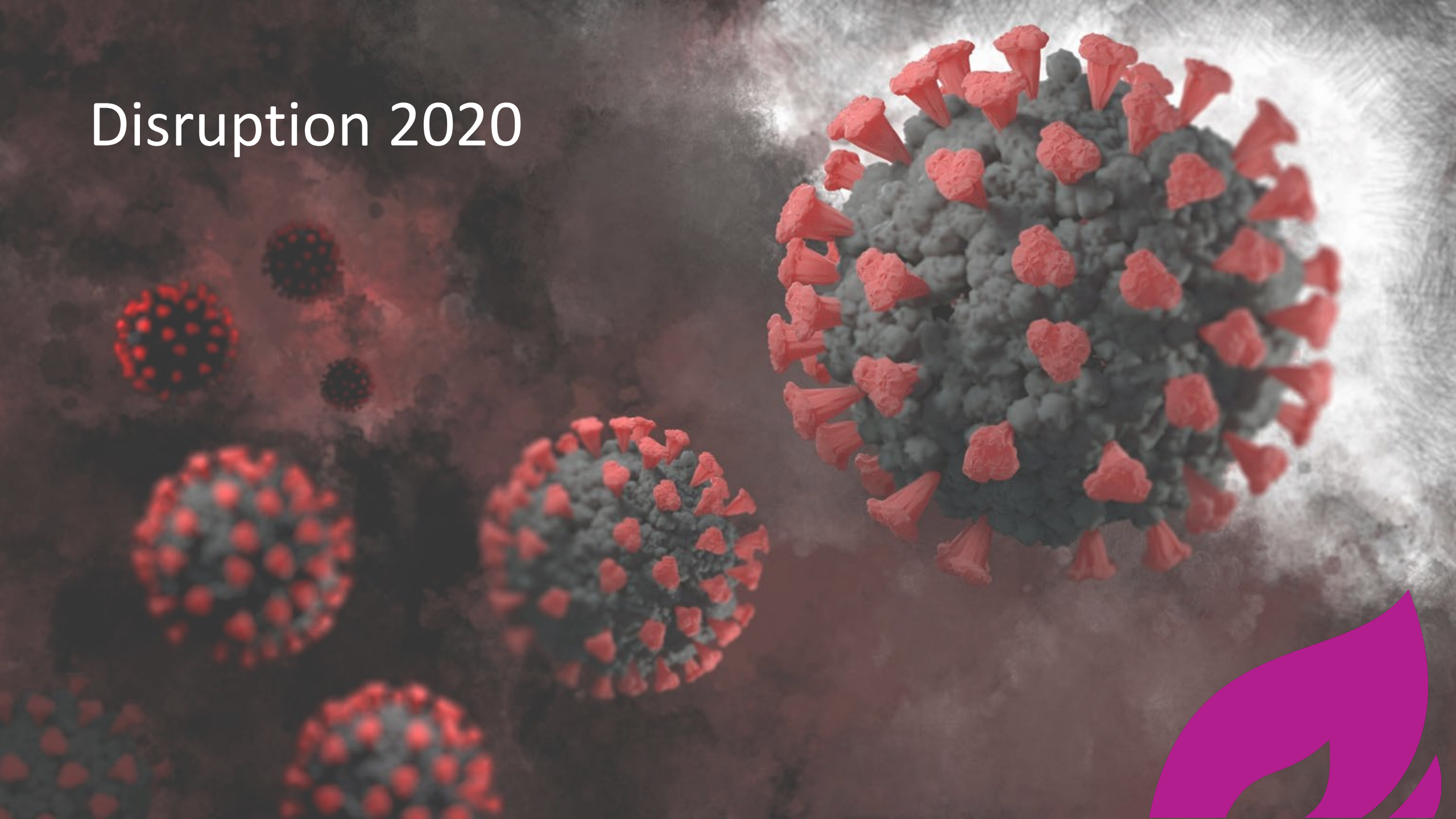
From the survey and follow-up in-depth interviews

04

LOOKING AHEAD

Implications for the future of qualitative research

Disruption 2020



Working from home



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"64/365 - Moose is so helpful when I work from home" by [thelittleone417](#) is licensed under [CC BY-SA 2.0](#)



"Work-at-Home Dad" by [REGUSmedia](#) is licensed under [CC BY-ND 2.0](#)



"Working from home during the COVID-19 pandemic" by [World Bank Photo Collection](#) is licensed under [CC BY-NC-ND 2.0](#)



"Working at home" by [Ben-Romberg](#) is licensed under [CC BY-NC-ND 2.0](#)



"Mothers Working From Home - Credit to <https://www.lyncconf.com/>" by [nodstrum](#) is licensed under [CC BY 2.0](#)

Researchers considering changing their research

N=346

- Change to online data collection – 38%
- Extending timeline/postponing – 22%
- Change research questions – 8%
- Change to phone interviews – 8%
- Change research design – 7%

Percentage who did change their research January 2021 – N=70

- 53% Changed from F2F to online or phone
- 20% Changed research focus
- 15% Postponed data collection
- 10% Changed from F2F to documentary research
- 2% Changed from qual to quant study

Impact of the 2020 disruption

Online surveys

21%

2020

24%

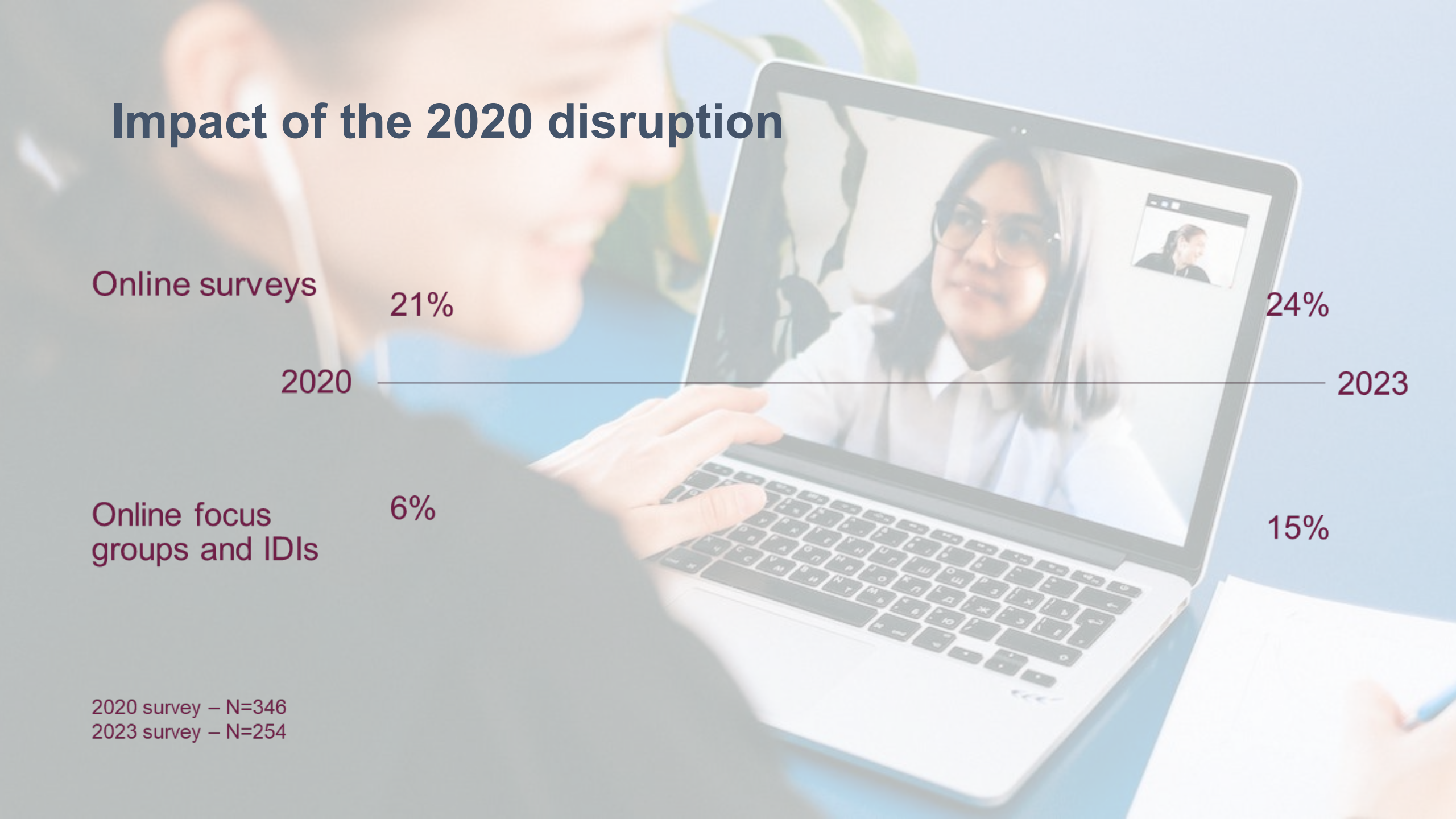
2023

Online focus groups and IDIs

6%

15%

2020 survey – N=346
2023 survey – N=254

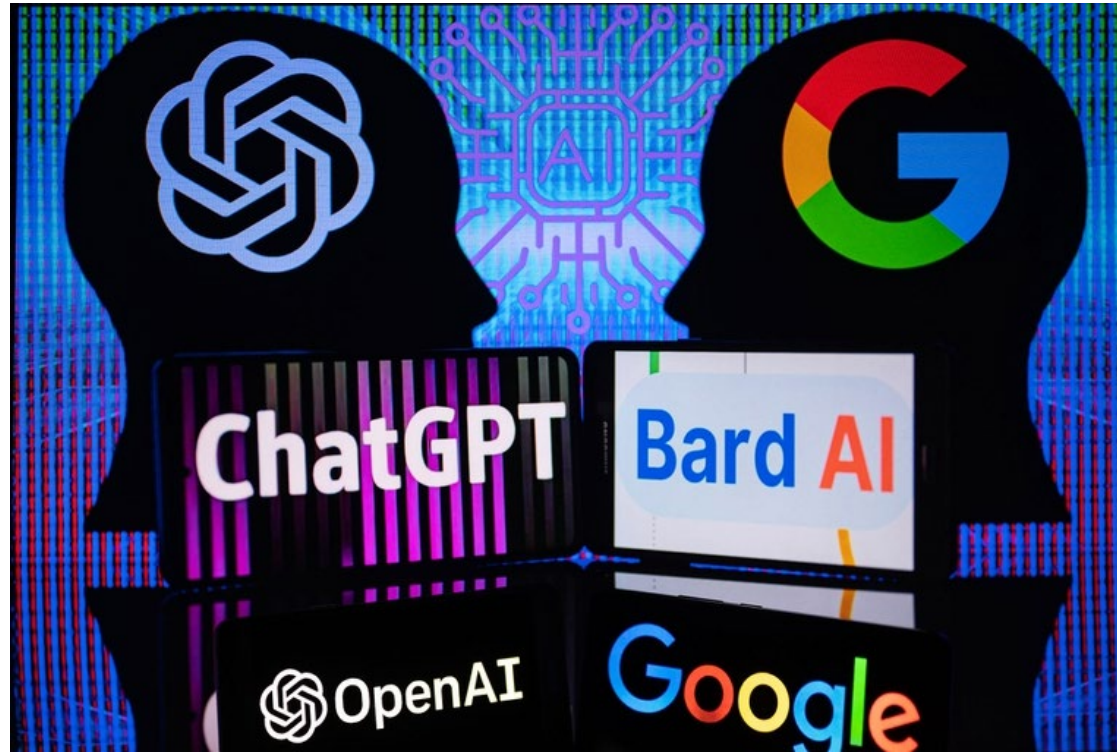


Disruption 2023



AI





Artificial Intelligence for Qualitative Analysis

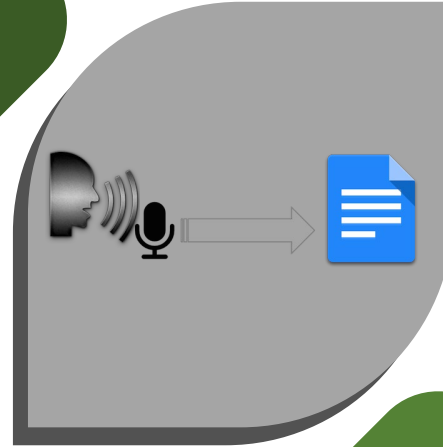
Natural Language Processing

Sentiment Analysis.
Topic Extraction



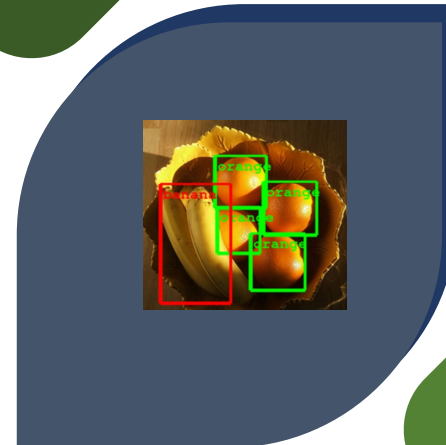
Speech

Speech to text – automated transcription.
Translation



Vision

Image recognition. Facial emotion recognition.



Admin Assistants

Help with scheduling. Smart replies. Real time summaries of analysis.



What's different about ChatGPT?



Can generate text – when asked a question it generates a response on patterns learned from vast quantities of text data.



It is pre-trained on a large corpus of text, This helps it understand language, context and a wide range of topics



The underlying neural network (transformers) allows it to consider different parts of a prompt when generating a response. This makes it good at handling context.



AND it's easy to use, accessible to anyone and is free

Generative AI and the impact on qualitative research

What you think about generative AI regardless of whether you have used it or not, and any ideas you have on how it could help (or not) the qualitative research process.



Sample Frame – 174 Respondents



Participants of Lumivero webinar on
Qualitative Data Analysis with
ChatGPT and NVivo

156



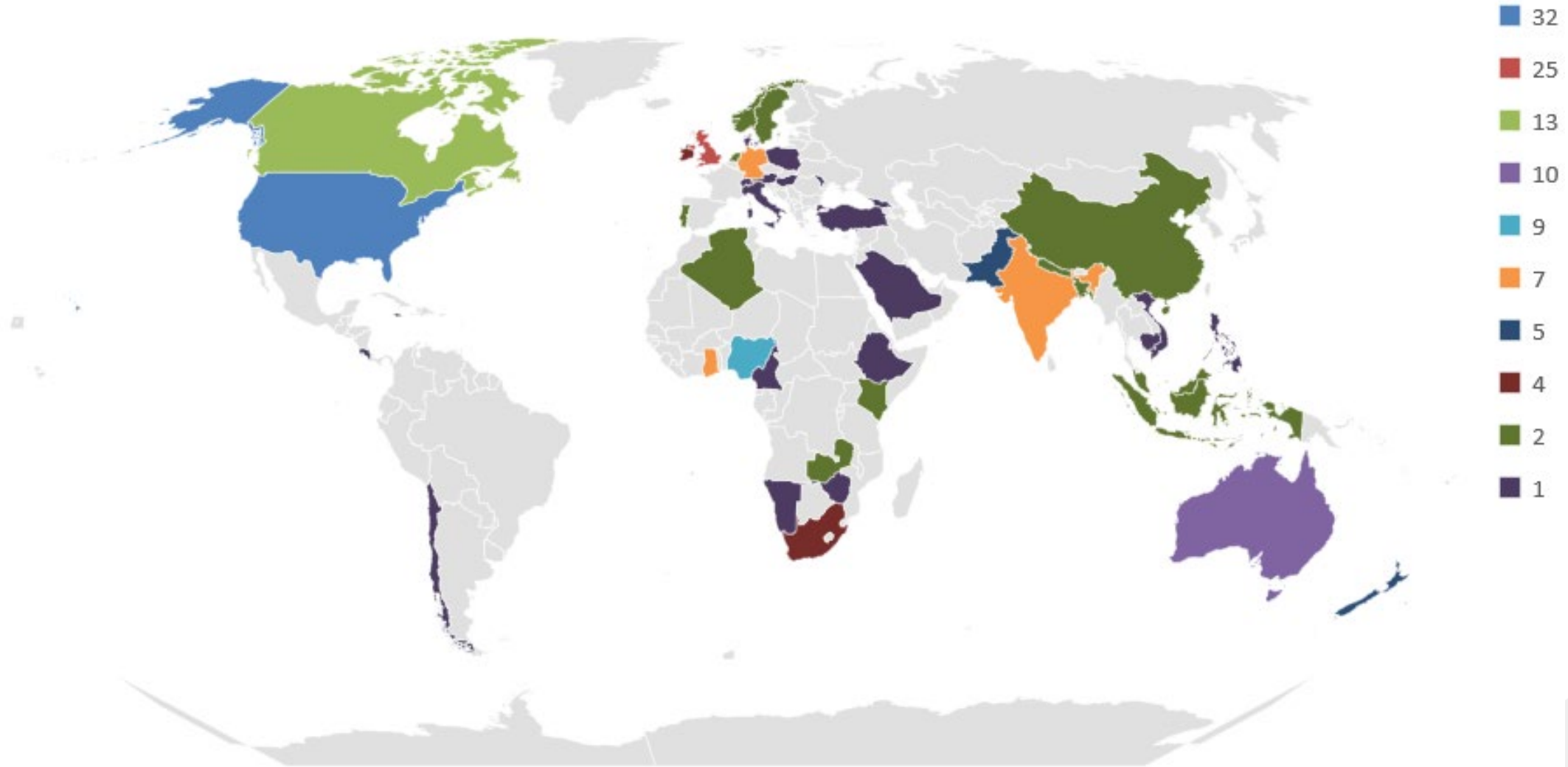
Posted survey on 4 research forums:
qual-software, air-I, social policy and
evidence-based-medicine

18

Follow-up Interviewees

Interviewee	Qual Experience	AI Comfort level	AI Experience	Position	Country
52 (M)	Some experience	7	Used for research	Doctoral student and lecturer	Norway
82 (M)	None	10	Used for research	Doctoral student	Ghana
44 (M)	Very experienced	6	Played with it but not used in research	Established academic	UK
47 (F)	Very experienced	4	Played with it but not used in research	Consultant	UK
94 (F)	Very experienced	7 (5)	Played with it but not used in research	Consultant	New Zealand
114 (M)	Very experienced	8	Played with it but not used in research	Research Officer in academia	USA
113 (M)	Some experience	9	Not used	Early career academic	UK/S Africa

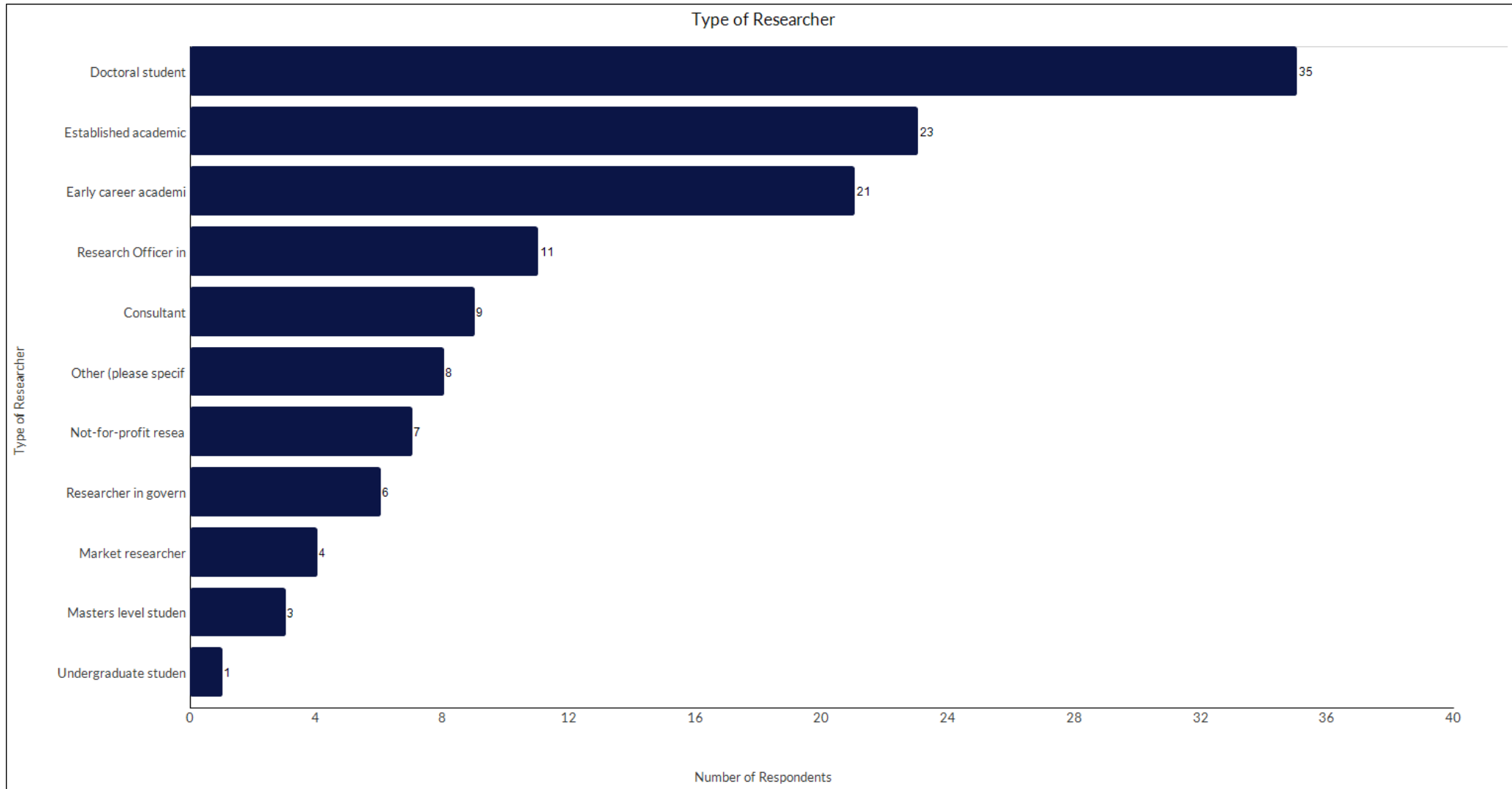
Respondents by country



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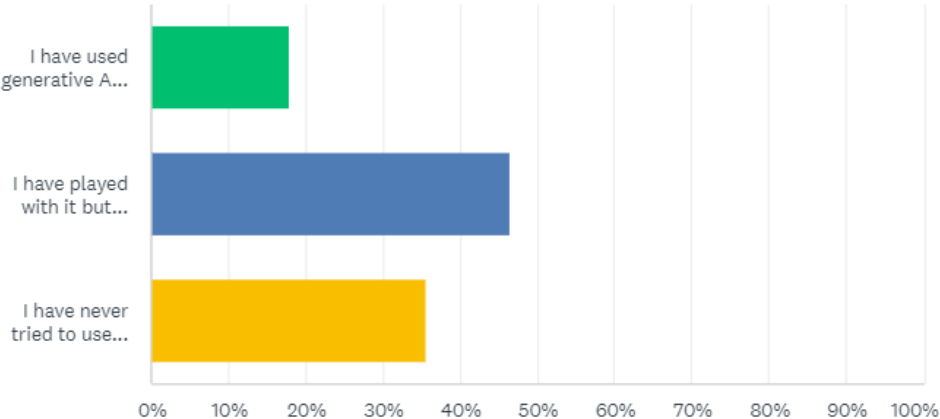
Type of researcher



Ever used or played with GenAI

Have you ever used generative AI tools in your qualitative research process?

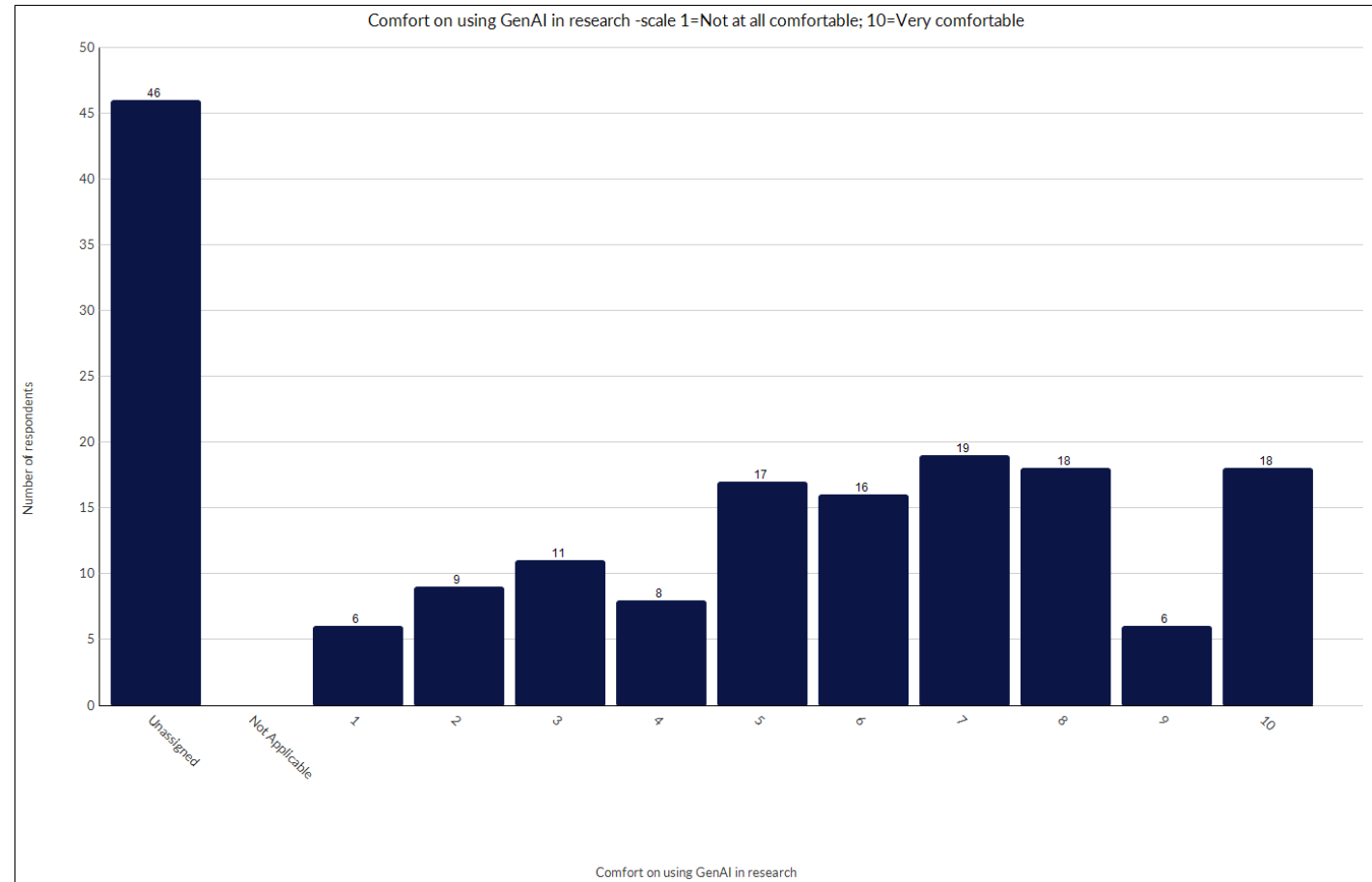
Answered: 174 Skipped: 0



ANSWER CHOICES	RESPONSES
▼ I have used generative AI for my research	17.82% 31
▼ I have played with it but have not used it seriously for my research	46.55% 81
▼ I have never tried to use generative AI for my research	35.63% 62
TOTAL	174

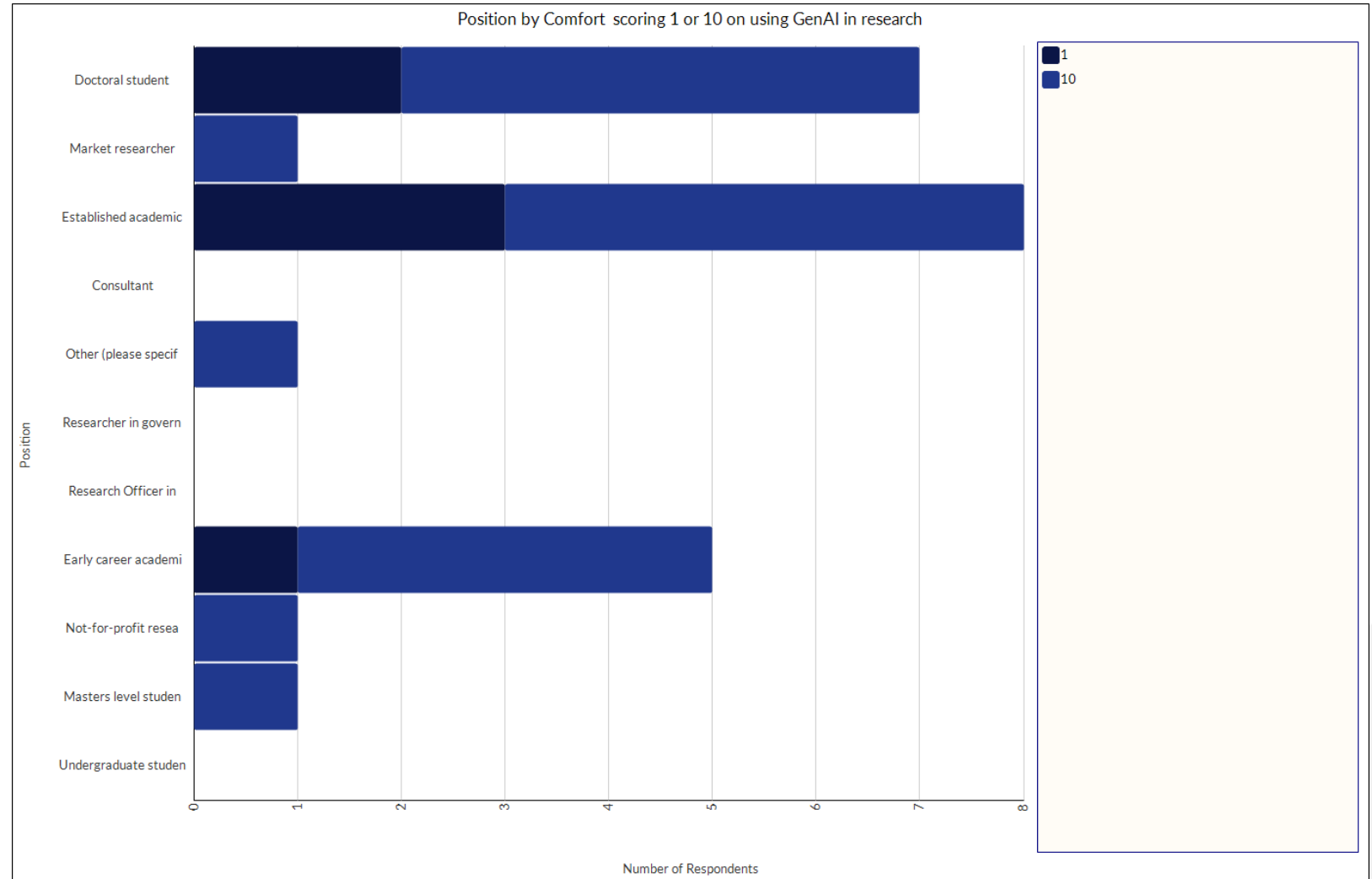
- Full range of answers from 1 to 10
- Average is 6 as is the median value
- While there are some people who are very comfortable with generative AI and others who are very uncomfortable with it, most people are on the fence but slightly on the positive side
- 46 people did not answer the question
 - Indication that they are not sure??

On a scale of 1 to 10, how comfortable are you with the idea of employing generative AI as an assistant in your qualitative research? (1 = not at all comfortable; 10 = very comfortable)



- The academics scored 10 the most but they also scored 1 the most

Position by comfort scoring 1 or 10 on using GenAI in research



How has used GenAI

9:23 AM
What can I help
you with?



- Generative AI tools that respondents said they played with or used for research

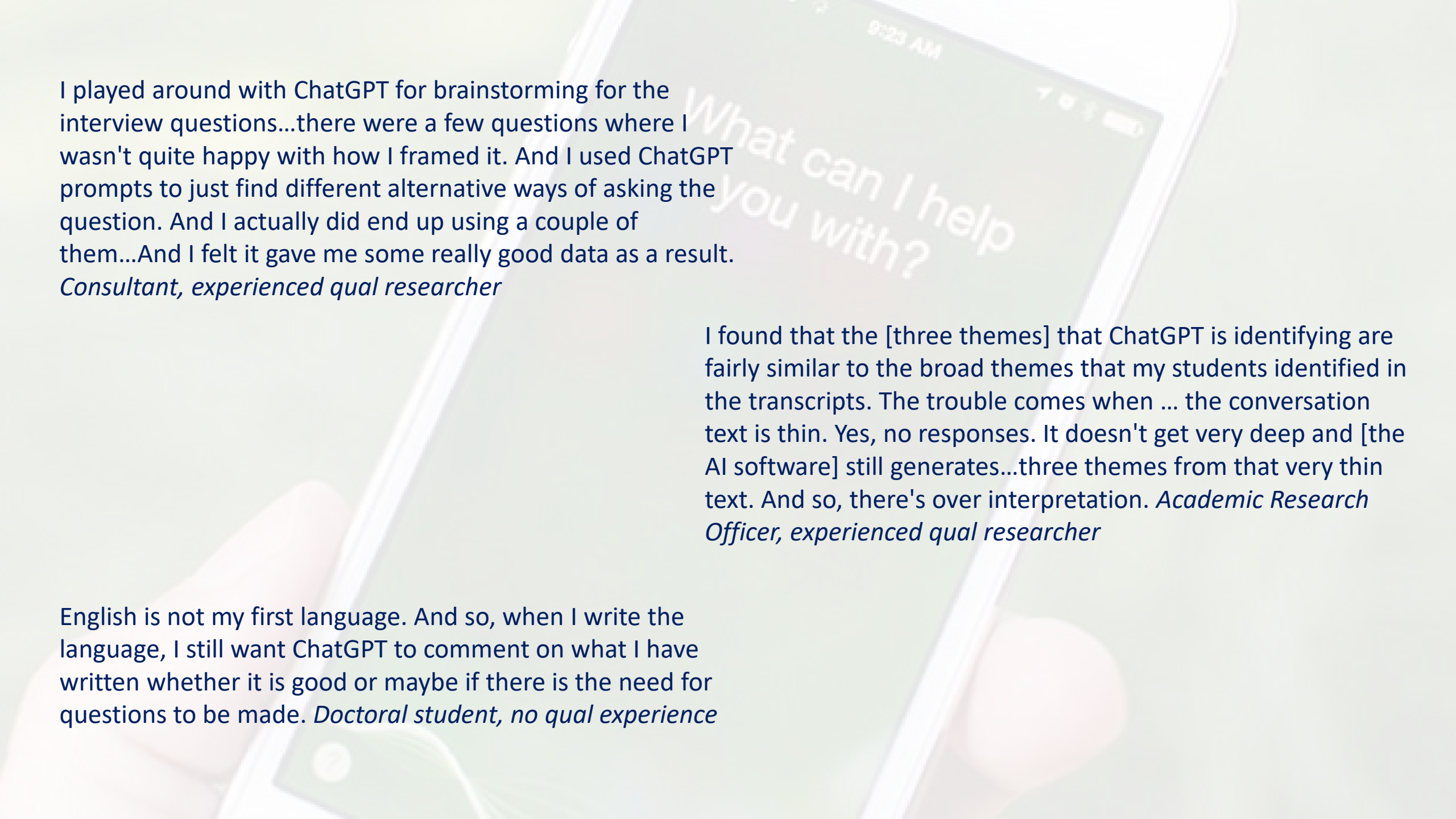
ChatGPT	88
Bard	15
Claude	5
Elicit	5
ConsensusAI	4
BingAI	3
BingChat	3
ChatPDF	3
Grammarly	3
Quillbot	3
ResearchRabbit	3
ASKAI	2
CoLoop	2
DALL-e	2
gammaAI	2
Nvivo	2
Petal	2
you.com	2
AILYZE	1
AskWriter	1
ConnectedPapers	1
Github	1
Jasper	1
Knowledgemaps	1
Lens	1
LitMaps	1
NotionAI	1
Scispace	1
SciteAI	1
Yabble	1
Bedrock	1
NoleJ	1
Zoom	1

How has used Generative AI



How used GenAI by Qual Experience

GenAI Survey Respondent	13 Experience of doing qual research = Very experienced (have done more than two qualitative research projects) (62)	13 Experience of doing qual research = Some experience (have done one or two qualitative research projects) (51)	13 Experience of doing qual research = None (I am still learning) (15)	Total (128)
Teaching ideas materials	1	3	0	4
Exploring testing	9	7	1	17
Summarizing	6	4	2	12
Writing	8	10	5	23
Improve language	4	2	1	7
Ask for explanations	0	4	1	5
Generating ideas	6	6	1	13
Identifying themes	16	5	2	23
Literature review work	7	8	4	19
Total (unique)	38	36	11	85



I played around with ChatGPT for brainstorming for the interview questions...there were a few questions where I wasn't quite happy with how I framed it. And I used ChatGPT prompts to just find different alternative ways of asking the question. And I actually did end up using a couple of them...And I felt it gave me some really good data as a result.

Consultant, experienced qual researcher

I found that the [three themes] that ChatGPT is identifying are fairly similar to the broad themes that my students identified in the transcripts. The trouble comes when ... the conversation text is thin. Yes, no responses. It doesn't get very deep and [the AI software] still generates...three themes from that very thin text. And so, there's over interpretation. *Academic Research Officer, experienced qual researcher*

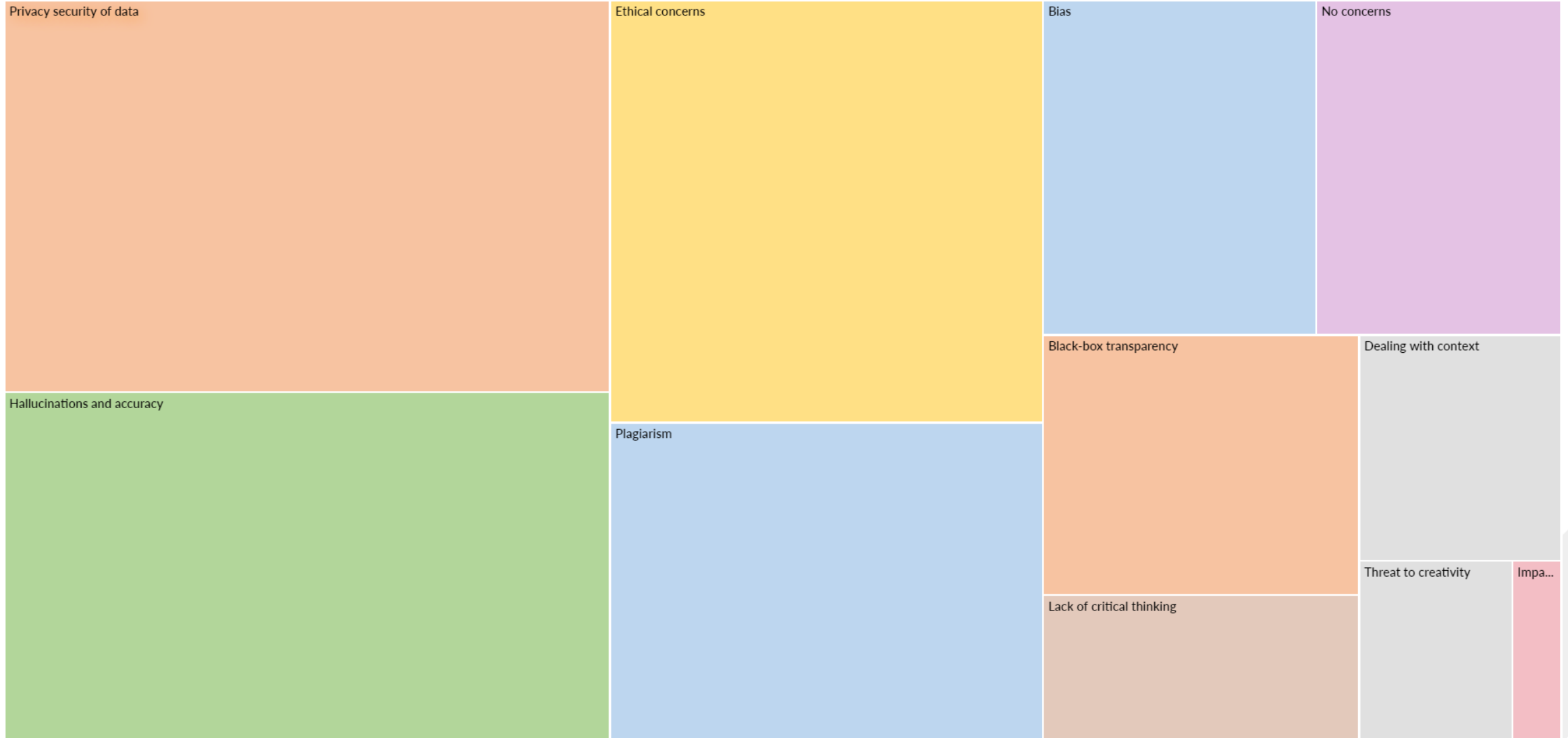
English is not my first language. And so, when I write the language, I still want ChatGPT to comment on what I have written whether it is good or maybe if there is the need for questions to be made. *Doctoral student, no qual experience*

Concerns about Generative AI

*It's sort of just this massive blank canvas
that's quite intimidating, to be honest.*

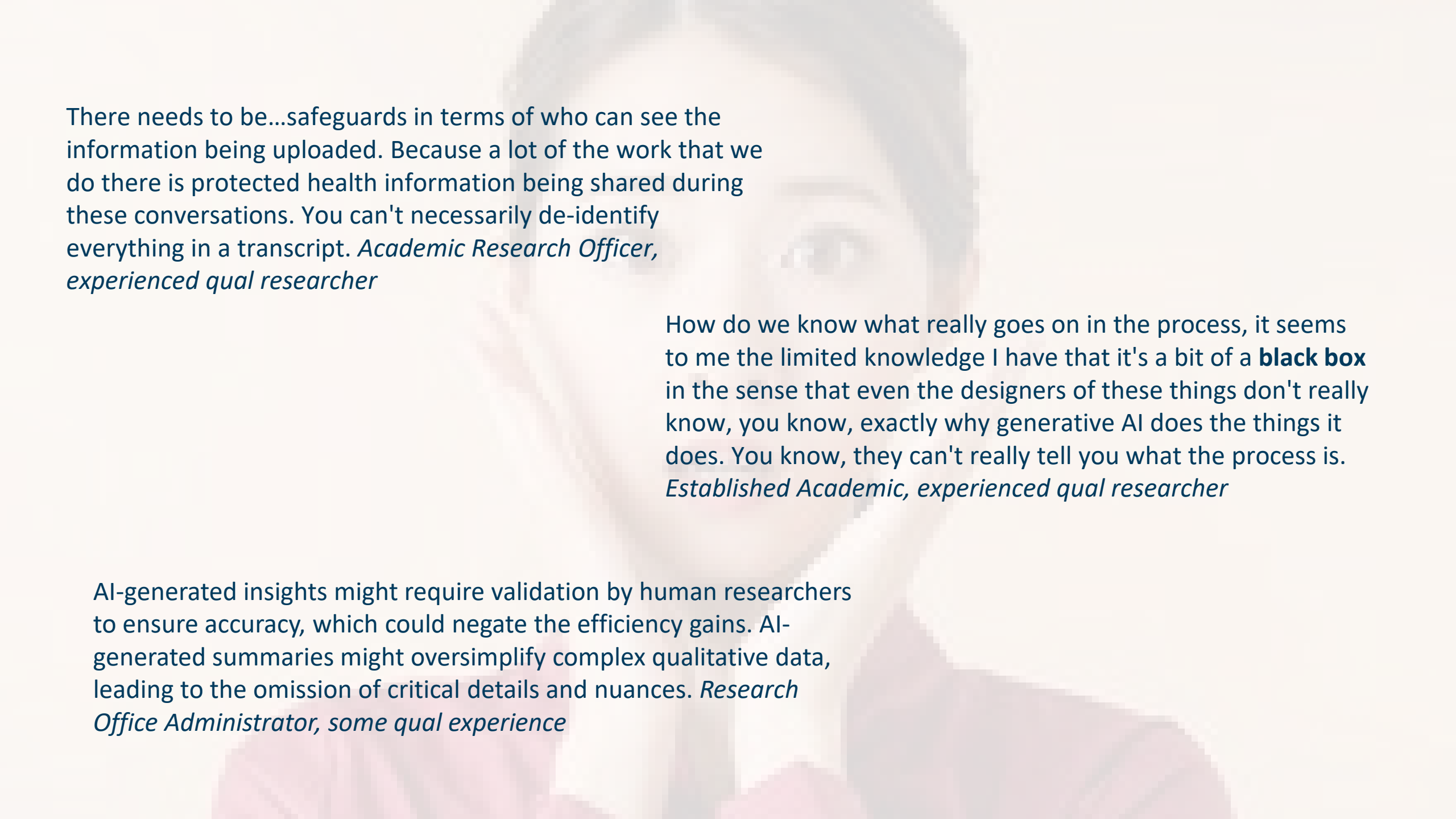


Concerns about Generative AI



Concerns by Qualitative Experience

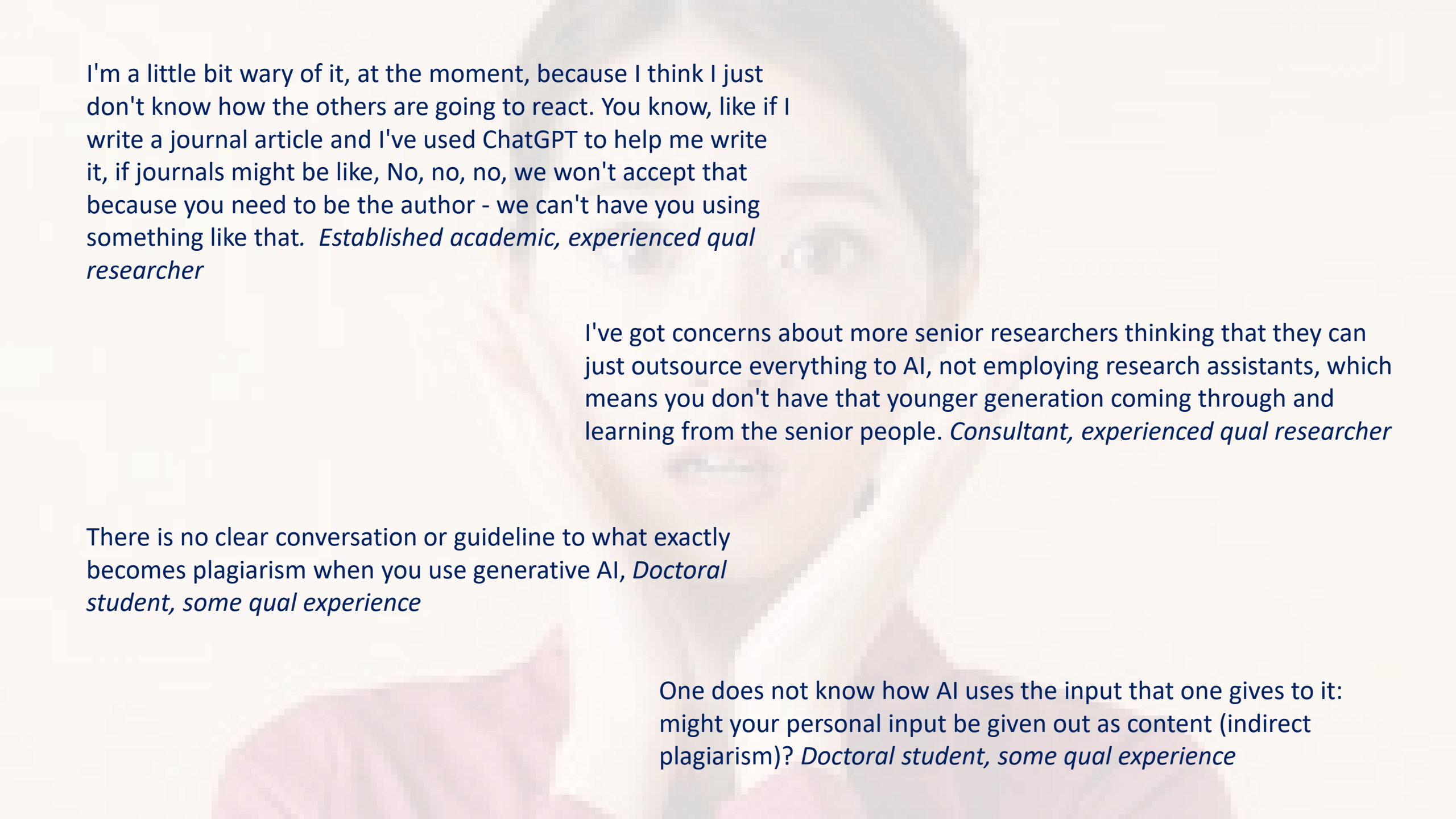
GenAI Survey Respondent	13 Experience of doing qual research = Very experienced (have done more than two qualitative research projects) (62)	13 Experience of doing qual research = Some experience (have done one or two qualitative research projects) (51)	13 Experience of doing qual research = None (I am still learning) (15)	Total (128)
Bias	6	4	0	10
Black-box transparency	5	4	0	9
Dealing with context	3	2	0	5
Ethical concerns	10	8	2	20
Hallucinations and accuracy	12	9	2	23
Impact on novice researchers	1	0	0	1
Lack of critical thinking	4	1	0	5
No concerns	2	5	2	9
Plagiarism	3	6	6	15
Privacy security of data	16	9	1	26
Threat to creativity	2	1	0	3
Total (unique)	48	40	11	99



There needs to be...safeguards in terms of who can see the information being uploaded. Because a lot of the work that we do there is protected health information being shared during these conversations. You can't necessarily de-identify everything in a transcript. *Academic Research Officer, experienced qual researcher*

How do we know what really goes on in the process, it seems to me the limited knowledge I have that it's a bit of a **black box** in the sense that even the designers of these things don't really know, you know, exactly why generative AI does the things it does. You know, they can't really tell you what the process is. *Established Academic, experienced qual researcher*

AI-generated insights might require validation by human researchers to ensure accuracy, which could negate the efficiency gains. AI-generated summaries might oversimplify complex qualitative data, leading to the omission of critical details and nuances. *Research Office Administrator, some qual experience*



I'm a little bit wary of it, at the moment, because I think I just don't know how the others are going to react. You know, like if I write a journal article and I've used ChatGPT to help me write it, if journals might be like, No, no, no, we won't accept that because you need to be the author - we can't have you using something like that. *Established academic, experienced qual researcher*

I've got concerns about more senior researchers thinking that they can just outsource everything to AI, not employing research assistants, which means you don't have that younger generation coming through and learning from the senior people. *Consultant, experienced qual researcher*

There is no clear conversation or guideline to what exactly becomes plagiarism when you use generative AI, *Doctoral student, some qual experience*

One does not know how AI uses the input that one gives to it: might your personal input be given out as content (indirect plagiarism)? *Doctoral student, some qual experience*

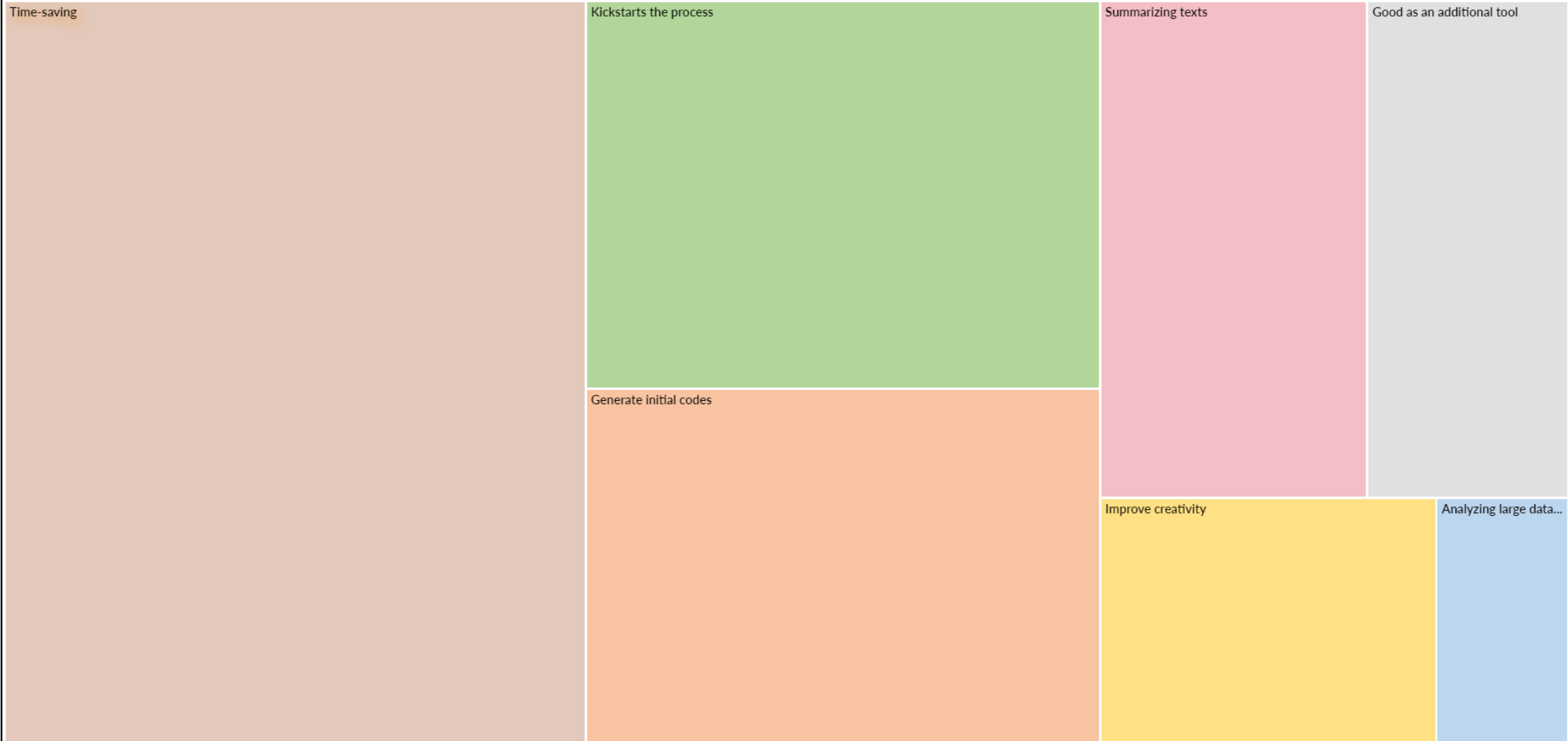


The Benefits of Generative AI

And it would probably take a while before we kind of get there, but I think it will become quite normal.

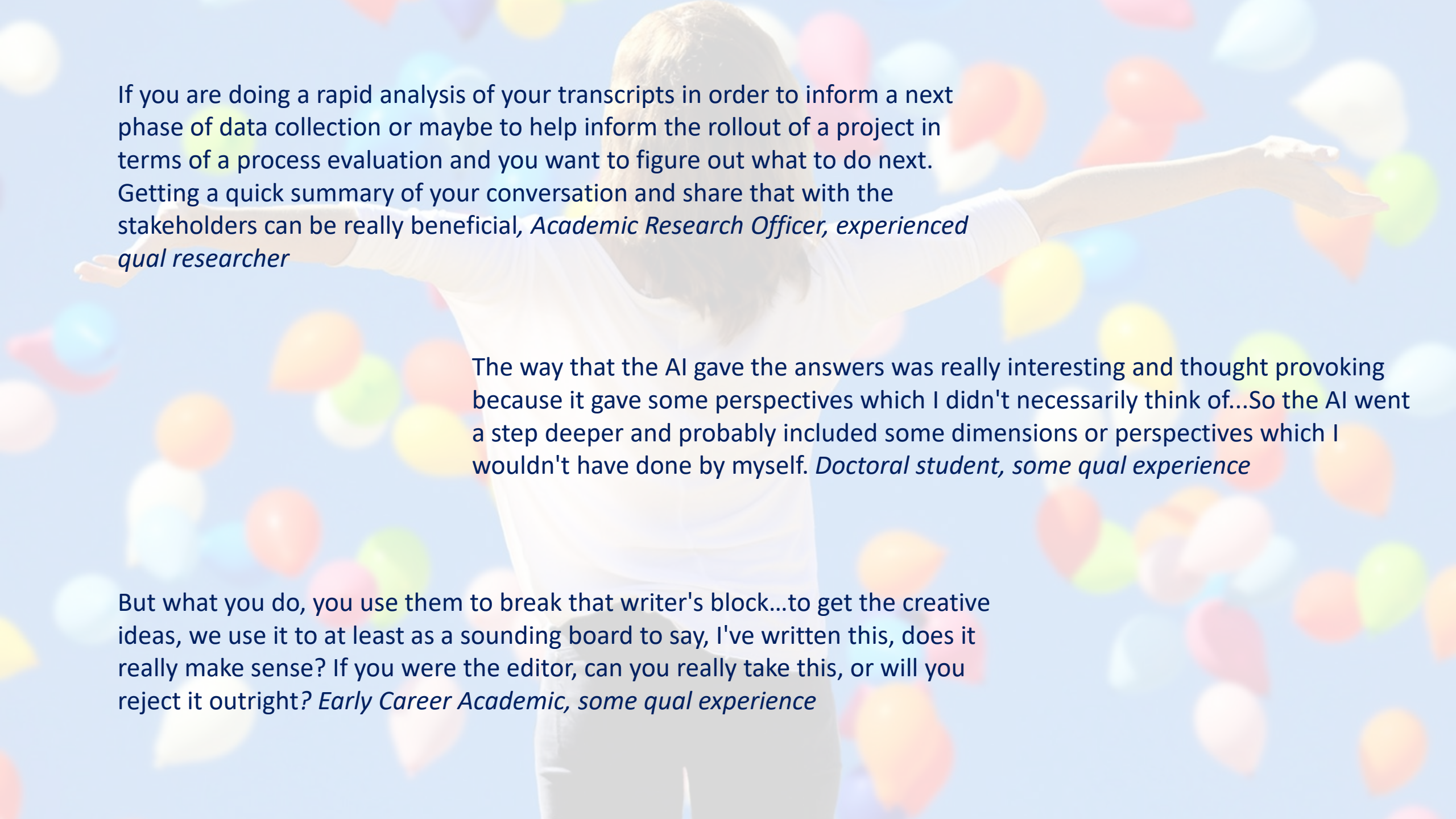


The Benefits of Generative AI



The Benefits of Generative AI

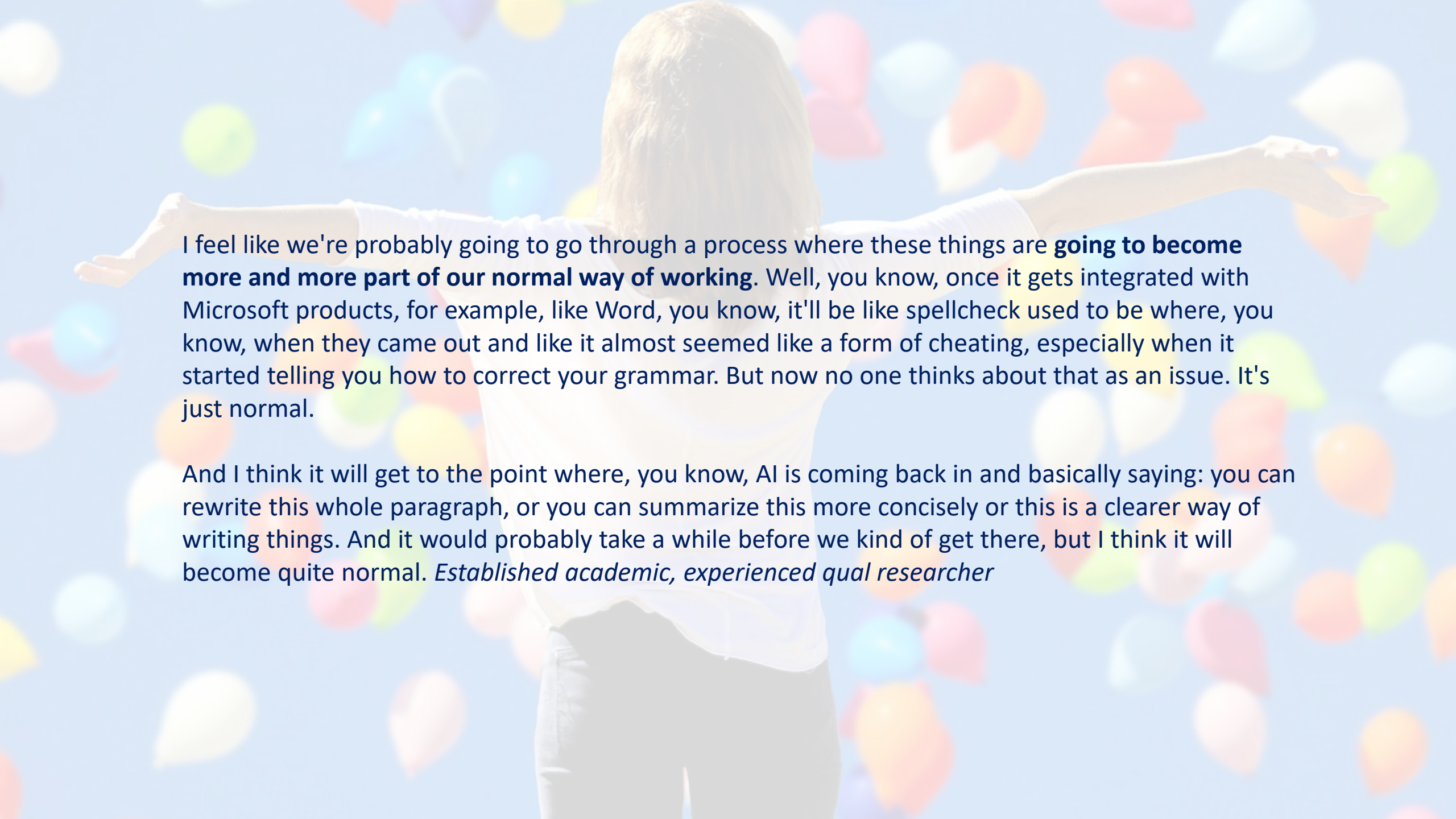
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Analyzing large datasets	2	0	0	2
Generate initial codes	7	3	1	11
Good as an additional tool	1	4	1	6
Improve creativity	3	2	0	5
Kickstarts the process	5	6	1	12
Summarizing texts	4	4	0	8
Time-saving	14	12	0	26
Total (unique)	28	24	3	55

A person with long dark hair, wearing a white long-sleeved shirt, stands with their back to the camera and arms outstretched horizontally. They are in a field of many colorful balloons (red, yellow, blue, green, orange) against a light blue sky. The scene is bright and celebratory.

If you are doing a rapid analysis of your transcripts in order to inform a next phase of data collection or maybe to help inform the rollout of a project in terms of a process evaluation and you want to figure out what to do next. Getting a quick summary of your conversation and share that with the stakeholders can be really beneficial, *Academic Research Officer, experienced qual researcher*

The way that the AI gave the answers was really interesting and thought provoking because it gave some perspectives which I didn't necessarily think of...So the AI went a step deeper and probably included some dimensions or perspectives which I wouldn't have done by myself. *Doctoral student, some qual experience*

But what you do, you use them to break that writer's block...to get the creative ideas, we use it to at least as a sounding board to say, I've written this, does it really make sense? If you were the editor, can you really take this, or will you reject it outright? *Early Career Academic, some qual experience*



I feel like we're probably going to go through a process where these things are **going to become more and more part of our normal way of working**. Well, you know, once it gets integrated with Microsoft products, for example, like Word, you know, it'll be like spellcheck used to be where, you know, when they came out and like it almost seemed like a form of cheating, especially when it started telling you how to correct your grammar. But now no one thinks about that as an issue. It's just normal.

And I think it will get to the point where, you know, AI is coming back in and basically saying: you can rewrite this whole paragraph, or you can summarize this more concisely or this is a clearer way of writing things. And it would probably take a while before we kind of get there, but I think it will become quite normal. *Established academic, experienced qual researcher*

The Way Ahead

I think the level of understanding of AI among qualitative researchers is currently quite low, so it is really important to explore further what can be done and have conversations about how it should or could be used.



A lot to think about



Education

What is AI and Generative AI?

Best practices on when to use it
and how to use it

Prompt guides



Guidelines

Existing ethics guidelines to be
reviewed

Guidance for use by researchers
and students



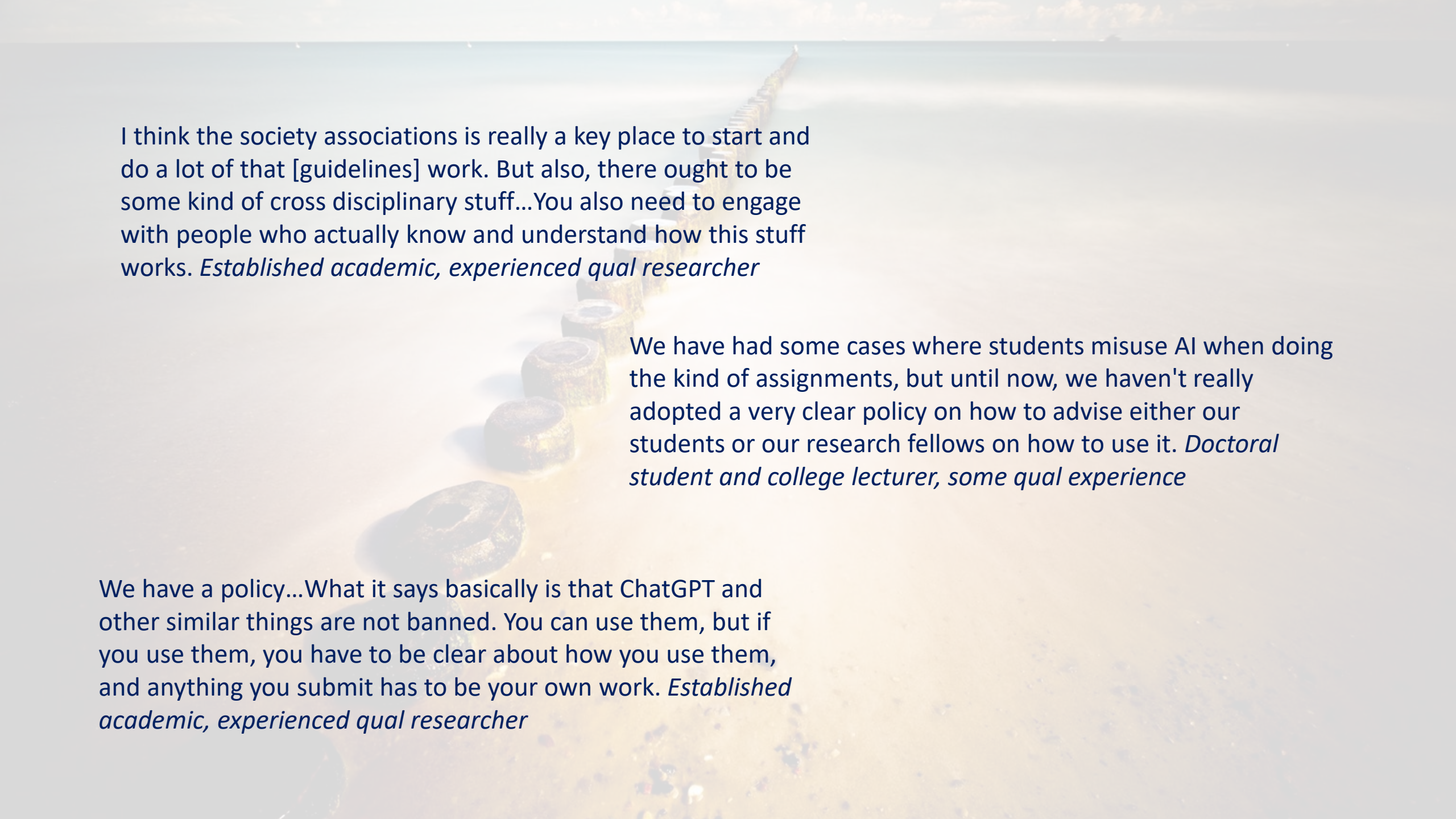
Opening the Black Box

Transparency

Trustworthiness

Biases

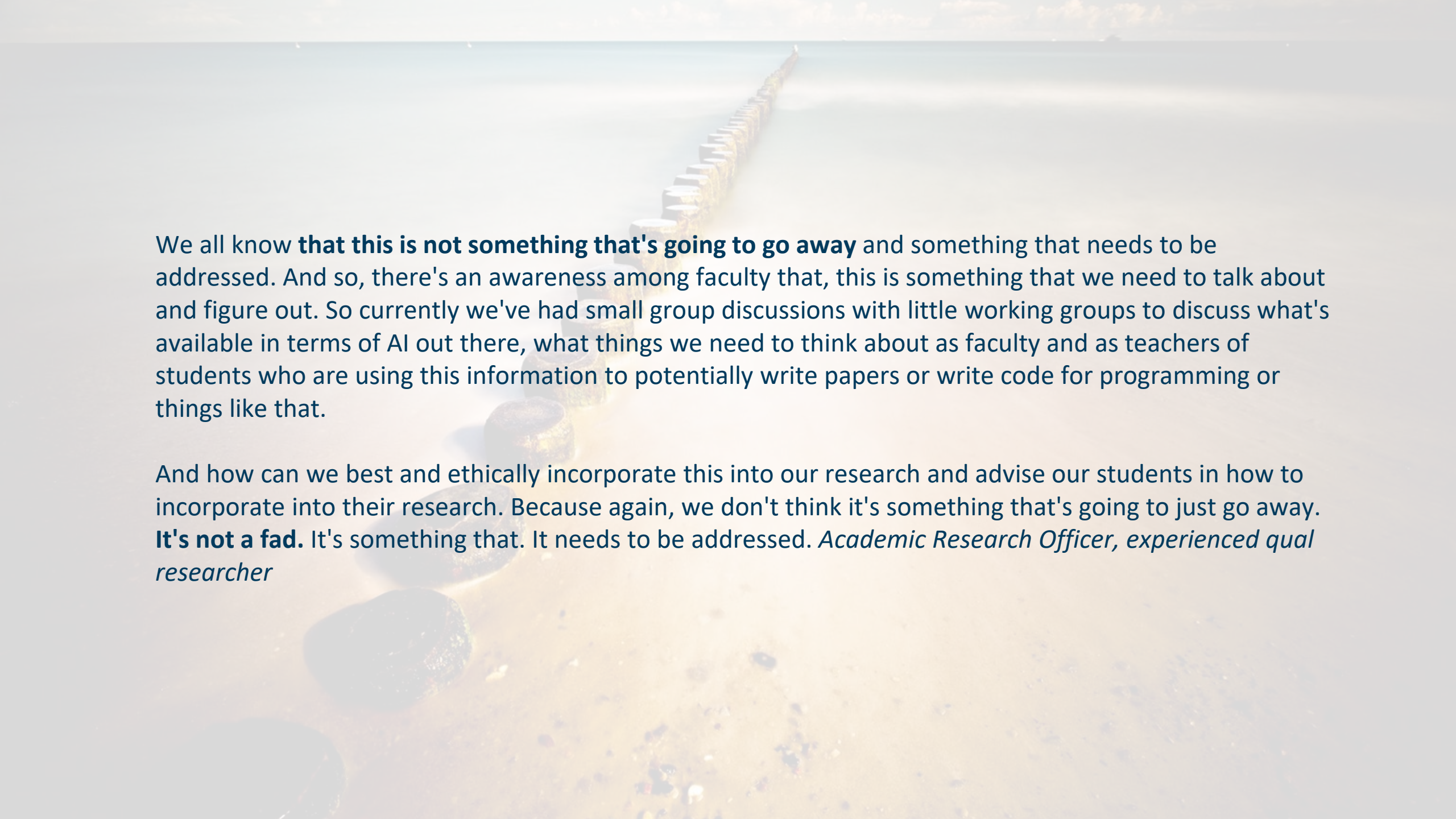
Security



I think the society associations is really a key place to start and do a lot of that [guidelines] work. But also, there ought to be some kind of cross disciplinary stuff...You also need to engage with people who actually know and understand how this stuff works. *Established academic, experienced qual researcher*

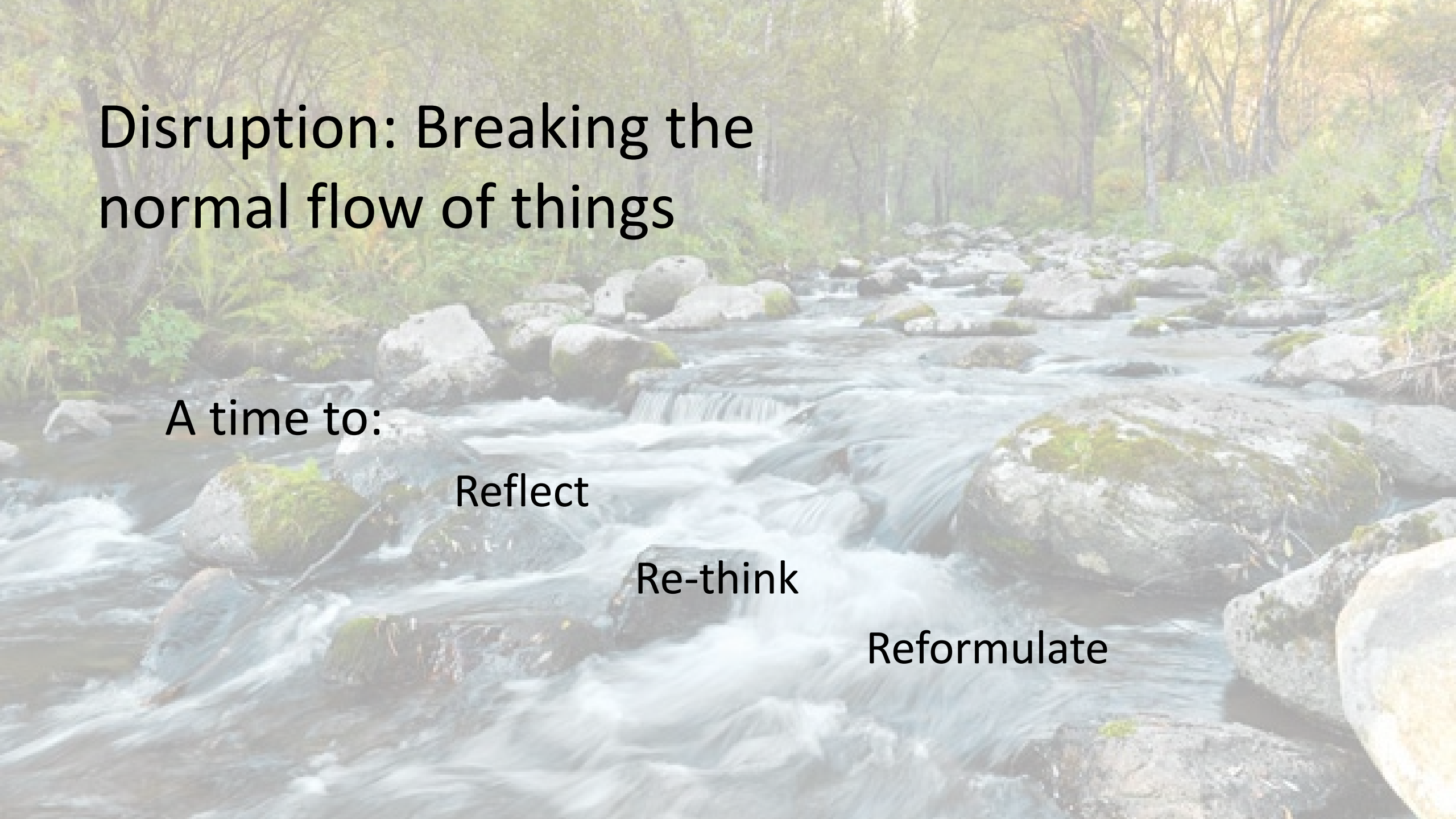
We have had some cases where students misuse AI when doing the kind of assignments, but until now, we haven't really adopted a very clear policy on how to advise either our students or our research fellows on how to use it. *Doctoral student and college lecturer, some qual experience*

We have a policy...What it says basically is that ChatGPT and other similar things are not banned. You can use them, but if you use them, you have to be clear about how you use them, and anything you submit has to be your own work. *Established academic, experienced qual researcher*



We all know **that this is not something that's going to go away** and something that needs to be addressed. And so, there's an awareness among faculty that, this is something that we need to talk about and figure out. So currently we've had small group discussions with little working groups to discuss what's available in terms of AI out there, what things we need to think about as faculty and as teachers of students who are using this information to potentially write papers or write code for programming or things like that.

And how can we best and ethically incorporate this into our research and advise our students in how to incorporate into their research. Because again, we don't think it's something that's going to just go away. **It's not a fad.** It's something that. It needs to be addressed. *Academic Research Officer, experienced qual researcher*

A long-exposure photograph of a river flowing over rocks in a forest. The water is blurred, creating a sense of motion and flow. The rocks are large and mossy, and the forest in the background is dense with trees. The overall scene is serene and natural.

Disruption: Breaking the normal flow of things

A time to:

Reflect

Re-think

Reformulate

We've been listening to you,
and we are committed to
develop our software
addressing your needs and
concerns



A Customer Advisory Group on Generative AI



Purpose

To gather insights, feedback, and concerns from a diverse group of customers regarding the potential implementation of generative AI into Lumivero's products



Scope

Discuss potential features and applications of generative AI in the software.

Highlight potential ethical, usability, and privacy concerns.

Offer feedback on prototypes or early versions of the software.

Advise on communication and training strategies for the broader customer base.

Join the AI SIG after this session if you
want to continue the conversation

