Survey Overview

Ethics. Ethical approval for the survey was sought from the Medical Sciences Interdivisional Research Ethics Committee (MS IDREC) of the University of Oxford, UK (reference number R92500/RE001). MS IDREC determined that no ethical review was required for this survey, and provided authorisation to proceed.

Distribution. JISC Online Surveys platform was used to conduct the survey between April and May 2024. We invited each author of Zador *et al* (2023) to share the survey with their own trainees and their institution/program, as prominent figures in NeuroAI; we also reached out to each of the NeuroAI institutes and organisations listed in our Resources tables (https://github.com/8erberg/NeuroAI_Trainee_Resources), encouraging them to share it with their own trainees; lastly, the survey was advertised at a workshop of the International Conference on Learning Representations (ICLR) in May 2024.

Table S3. List of all survey questions and possible answers.

Question	Possible answers
1. Are you a trainee (student/ RA / ECR in academia, industry or government/private institute)?	Yes No
2. Gender identity	Male Female Prefer not to say
3. Are you interested or potentially interested in working at the intersection of neuroscience and AI (even if you have not done so yet)?	Yes No
4. What is your current career stage?	Research assistant Undergraduate student Master student PhD student Academic postdoc entry-level position in industry/private institute
5. What is your highest academic degree?	Completed Undergraduate degree Completed Master's degree Completed PhD

	Completed one or more postdoc position(s)
	Started an undergraduate degree, but not finished
6. What is the main research focus of your current department/division/company/institute?	Neither
	Mostly neuroscience-focused (most people work on neuroscience/cognitive science)
	Mostly AI-focused (most people work on AI/CS/ML)
	Both
7. Do you have any relevant industry (bio/tech company) experience?	Yes, but NOT in a relevant sector
	Yes, employment
	Yes, internship, self-arranged (e.g., over summer)
	Yes, internship/secondment/placement, as part of an academic degree
	Yes, collaboration with industry/consulting role
	No experience in industry
8. What is your main source of training in computer science / artificial intelligence?	Self-taught
	Online courses
	Expert mentoring
	Full university degree(s)
	Some university courses (but not an entire degree on it)
9. What is your main source of training in neuroscience/ cognitive science?	Self-taught
	Online courses
	Expert mentoring
	Full university degree(s)
	Some university courses (but not an entire degree on it)
10. For your neuroscience/cognitive science training, was it:	Mostly focused on human brain/mind

	Mostly focused on in vivo non-human animals
	Mostly focused on in vitro/ ex vivo preparations
	I did not have any formal or informal neuroscience/ cogsci training
11. Do you have experience with using or sharing open code or data?	Using open code
	Sharing open code
	Using open data
	Sharing open data
12. Did you ever receive funding dedicated to NeuroAI?	No, my funding is not dedicated to NeuroAI / I am not receiving funding
	Yes, institutional
	Yes, governmental
	Yes, from a charity
	Yes, from industry
	Prefer not to say
13. What is the balance of AI and neuroscience in your work/interests?	Some neuro preference
	Primarily neuro
	Some AI preference
	Primarily AI
	Perfectly balanced
14. What is the main direction of your interest in neuro-AI?	From AI to Neuro (i.e., use AI as a tool to learn about the brain)
	From Neuro to AI (i.e., learn from the brain to build better artificial systems)
	Prefer not to say
15. How important is each of these in motivating you to work in the field of Neuro-AI?	Most important
	Very important
15.1. Academic career prospects	Somewhat important
15.2. Industry career prospects	Not important at all

15.3. Potential to satisfy own curiosity	
15.4. Potential for direct applications	
16. What would you like to be doing professionally in 5-10 years' time?	Research in academia Research in industry Research in a joint academia + industry position No research, but something related to science Nothing related to science
16.1. Research: academia	
16.2. Research: industry / private institution	
16.3. Research: Joint academic & industry appointments	
16.4. Not research, but still related to science	
16.5. Not related to science	
17. What is your prediction for what someone with your credentials and career stage will be doing professionally in 5-10 years' time?	Research in academia Research in industry Research in a joint academia + industry position No research, but something related to science Nothing related to science
17.1. Research: academia	
17.2. Research: industry / private institution	
17.3. Research: Joint academic & industry appointments	
17.4. Not research, but still related to science	
17.5. Not related to science	
18. How much is your neuro-AI work and development affected by each of these potential barriers?	Access to data Access to funding Access to computing resources Insufficient AI/computer science training to compute with AI/compsci researchers Insufficient neuroscience science training to compute with neuroscience researchers
18.1. Access to funding	
18.2. Access to computing resources	
18.3. Access to data	
18.4. Insufficient training to compete with AI / computer scientists	
18.5. Insufficient training to compete with neuroscientists	
19. If you had X hours per week to allocate to additional training, would you train more on:	AI methods AI empirical results AI theory Neuroscience methods Neuroscience empirical results Neuroscience theory
19.1. Neuro Discoveries (empirical results)	
19.2. Neuro Theory	
19.3. Neuro Methods	
19.4. AI Discoveries (empirical results)	

19.5. AI Theory	
19.6. AI Methods	
20. Would you prefer an environment where people work:	Combined (most people work on BOTH neuroscience and AI) Half-half (some people working primarily on AI, some people working primarily on neuro, in relative equal numbers) Mainly on AI/ compsci Mainly on neuroscience/cognitive science Neither Prefer not to say

Participants

We received 111 responses to our survey. All respondents indicated their interest in working in the field of NeuroAI. Five indicated not to be trainees (student, RA or early career researcher) working in academia, industry, or a government/private institute. These participants were excluded from the analys, leaving 106 responses for analysis. Among these, 38 respondents were female (36.8%), 66 male (62.3%), and two preferred not to say (0.02%).

We coded formal training as "Yes" (full degree), "Some" (some university courses, expert mentoring), and "No" (self-taught, online courses).

Only 8 individuals had a full degree in both AI/CS and neuroscience. Of these, 7 were PhD students and one was a postdoc. None of the respondents had neither formal training in neuroscience, nor in AI.