# Careers with a Cognitive Science degree

Cognitive science is concerned with how the mind works, the relation between mind and body. It seeks to explain all aspects of the mind, including: thinking, memory, creativity, imagination, free will, perception, action and language. Through your study in this field not only will you take part in what has been described as *humanity's most ambitious intellectual enterprise: to understand ourselves*, but you will acquire skills and knowledge that are highly valued by a very wide range of employers.

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### Career areas

You will see from the different roles and examples of employers below, just how many career choices cognitive science graduates have. For some roles, the components of your degree won't be a factor, but for others it's important to tailor your university courses to the field you want to work in, i.e. to choose the right specialisms. You can get advice from your course tutors and the Careers Service.

The roles have been roughly classed 'technical', suitable for graduates whose degree included more informatics and computing components, and 'less technical', perhaps appealing more to graduates who focused on Philosophy, Psychology or Linguistics.

#### **Technical**

- Academic <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/education/lecturing-he">http://www.ed.ac.uk/careers/your-future/options/occupations/education/lecturing-he</a>
- Artificial Intelligence
   http://www.ed.ac.uk/careers/your-future/options/occupations/info-tech/programming-software
- Clinical or cognitive engineering (human factor)
   <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/engineer/specialisms">http://www.ed.ac.uk/careers/your-future/options/occupations/engineer/specialisms</a>
- Communications, e.g. mobile systems
   http://www.ed.ac.uk/careers/your-future/options/occupations/info-tech
- Data science/ data analysis
   http://www.ed.ac.uk/careers/your-future/options/occupations/info-research-culture/statistical-services
- Games design
   http://www.ed.ac.uk/careers/your-future/options/occupations/info-tech/programming-software
- Health, including: medical related research and development, and the pharmaceutical industry <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/scientific-research">http://www.ed.ac.uk/careers/your-future/options/occupations/scientific-research</a>

- IT http://www.ed.ac.uk/careers/your-future/options/occupations/info-tech
- Human computer interface (HCI) design (UI, UX, Human performance testing) e.g. Voice User Interfaces

http://www.ed.ac.uk/careers/your-future/options/occupations/info-tech/programming-software

- Linguistics analysis opportunities in many areas, e.g. speech recognition, text-to-speech synthesis, artificial intelligence, natural language processing, user research, and computermediated language learning, among many other areas. Employers include Google. <a href="https://www.google.com/about/careers/jobs">https://www.google.com/about/careers/jobs</a>
- Neural network applications
   <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/scientific-research">http://www.ed.ac.uk/careers/your-future/options/occupations/scientific-research</a>
- Programming http://www.ed.ac.uk/careers/your-future/options/occupations/info-tech/programming-software
- Research e.g. medical analysis, life sciences http://www.ed.ac.uk/careers/your-future/options/occupations/scientific-research
- Software design and development (e.g. educational software)
  <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/info-tech/programming-software">http://www.ed.ac.uk/careers/your-future/options/occupations/info-tech/programming-software</a>

There is also a growing demand in the biotechnology and pharma industries for cognitive scientists who also took courses in biology and/or chemistry.

#### Less technical

Look for careers where strong analytical, research, problem solving and writing skills are needed, as well as understanding of how humans behave.

- Advertising, marketing & sales
   http://www.ed.ac.uk/careers/your-future/options/occupations/advert-pr-market
   http://www.ed.ac.uk/careers/your-future/options/occupations/buy-sell-retail
- Civil service
   <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/public-services-and-policy-work/">http://www.ed.ac.uk/careers/your-future/options/occupations/public-services-and-policy-work/</a>
   public-sector-admin
- Community work (CLD)
   <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/social-guidance-community/community-learning">http://www.ed.ac.uk/careers/your-future/options/occupations/social-guidance-community/community-learning</a>
  <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/social-guidance-community/community-learning">http://www.ed.ac.uk/careers/your-future/options/occupations/social-guidance-community/community-learning</a>
  <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/social-guidance-community/community-learning">http://www.ed.ac.uk/careers/your-future/options/occupations/social-guidance-community/community-learning</a>
- Consultancy
   <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/business-management/management-consultancy">http://www.ed.ac.uk/careers/your-future/options/occupations/business-management/management-consultancy</a>
- Economics
   <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/info-research-culture/statistical-services">http://www.ed.ac.uk/careers/your-future/options/occupations/info-research-culture/statistical-services</a>
  <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/info-research-culture/statistical-services">http://www.ed.ac.uk/careers/your-future/options/occupations/info-research-culture/statistical-services</a>
  <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/info-research-culture/statistical-services">http://www.ed.ac.uk/careers/your-future/options/occupations/info-research-culture/statistical-services</a>
- Education
   http://www.ed.ac.uk/careers/your-future/options/occupations/education

- Finance analysis and research http://www.ed.ac.uk/careers/your-future/options/occupations/accountancy-finance
- HR
   http://www.ed.ac.uk/careers/your-future/options/occupations/business-management/hr-training
- Information Architect
   <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/info-tech/programming-software">http://www.ed.ac.uk/careers/your-future/options/occupations/info-tech/programming-software</a>
- Journalism and publishing <a href="http://www.ed.ac.uk/careers/your-future/options/occupations/publish-media-perform">http://www.ed.ac.uk/careers/your-future/options/occupations/publish-media-perform</a>
- Science policy
   http://www.ed.ac.uk/careers/your-future/options/occupations/public-services-and-policy-work/
   policy-work
- Science communication and public engagement <a href="https://mycareerhub.ed.ac.uk/docs/408/Science-communication-and-public-engagement.pdf">https://mycareerhub.ed.ac.uk/docs/408/Science-communication-and-public-engagement.pdf</a>
- Social work
   http://www.ed.ac.uk/careers/your-future/options/occupations/social-guidance-community/social-probation-work
- Writing e.g. journalism, science writing https://mycareerhub.ed.ac.uk/docs/409/Science-communication-on-TV-and-radio.pdf

### Who are the employers?

As well as the information at the links above, there's some great resources to help you research different sectors and find out who the employers are, including SCOTBIS. Once you have identified employers you can look for their vacancies, or consider making <u>speculative applications</u>. Also look for recruitment agencies, as many companies, large and small, use them, e.g. TribePost. You'll find more information and advice about this, and links to resources, on our website:

http://www.ed.ac.uk/careers/looking-for-work-2/graduate-jobs/researching-employers

Here are a few examples of employers from some of the fields that employ cognitive scientists.

- Tech companies, e.g. IBM
- Communications, e.g. BT, Motorola
- Consultancies, advise clients selling software, mobile communications, games and e-commerce services to ensure the user need is fully understood in the service design, e.g. PwC, Scott Logic, Capgemini
- Government, e.g. specialist fast streams Government operational research service (GORS), Government Economic Service, Statistical Service, Social Research Service, Communication Service, GO for Science. Secret Intelligence Service, HMRC.
- Media, e.g. Sky, especially UX and UI positions
- Publishing firms companies hire people with backgrounds in ISD (Instructional Systems Design), human cognition, UX and research to create interactive education solutions, instructional computer games and



### Work experience and skills development

Cognitive science graduates develop a combination of highly transferrable hard and soft skills, making you an attractive prospect to many employers. (For more discussion of skills, see our leaflet, <a href="Why Do">Why Do</a> <a href="Employers Want Cognitive Science Graduates">Employers Want Cognitive Science Graduates</a>). You should aim to enhance the skills you develop during your course with some relevant work experience.

For advice about finding **internships and placements** visit the Careers Service website:

• <a href="http://www.ed.ac.uk/careers/looking-for-work/internships">http://www.ed.ac.uk/careers/looking-for-work/internships</a>

e.g. **Cambridge Cognition**, a global science and technology company, and a leading provider of computerised cognitive tests for academic researchers, pharmaceutical companies and healthcare providers, has a paid internship programme giving students and young researchers 6-8 weeks work experience.

<a href="http://www.cambridgecognition.com/company/careers">http://www.cambridgecognition.com/company/careers</a>

**Speculative applications** - use the resources discussed above to find employers you're interested in working for and ask if they can offer you any work experience.

Use our online advice, or discuss this approach with a Careers Consultant – book via MyCareerHub.

Build up **research experience**. What are you interested in? Within the university, contact academics, PhDs and postdocs researching in your area of interest to ask if can help with experiments, volunteer in labs studying the brain and human behaviour for opportunities to analyse data, be involved in designing new studies.

Use this approach for opportunities in other fields, e.g. if interested in science policy work contact MPs/MSPs/local councillors whose areas of interest/responsibility match your own and volunteer to research/write briefing papers.

**Uni societies -** As well as being a great place to meet like-minded peers, societies can help you to develop skills, to hone your knowledge, and you will have the opportunity to attend (or even organise) events and network with industry professionals. **Cognitive Science Society (Cogscisoc)** - sign up and find out about events on the society's Facebook page:

https://www.facebook.com/cogscisoc/

**Local Tech meet-ups** – a place to meet, engage with and learn from the local tech community, with regular meetings covering a range of areas, including UX, app development, game development, and more

http://techmeetup.co.uk/

### **Professional bodies**

These bodies are great sources of careers information, industry news, and organise conferences, events and networking opportunities. Some also advertise jobs directly or link to important vacancy sites. There are a large number of professional bodies in the Cognitive Science field. Choose the society for your 'specialism':



The American Philosophical Association – US organisation, but lists jobs and events connected with the Philosophy of Cognitive Science worldwide. It promotes the discipline and profession of philosophy, both within the academy and in the public arena. The APA supports the professional development of philosophers at all levels and works to foster greater understanding and appreciation of the value of philosophical inquiry.

- http://www.apaonline.org/
- http://philevents.org/search/topic/599
- http://philjobs.org/

The British Society for the Philosophy of Science (BSPS) is a professional society that furthers the study of the logic, the methods, and the philosophy of science, as well as those of the various special sciences, including the social sciences.

http://www.thebsps.org/

British Association for Cognitive Neuroscience – aims to advance education in cognitive neuroscience for the public benefit. Visit the website for news, conference details and job adverts.

http://www.bacn.co.uk/

The **Cognitive Psychology section of the British Psychological Society** –national forum for the discussion of research and issues of concern to cognitive psychologists. Activities include an annual conference, and one or more specialist events each year.

 http://www.bps.org.uk/networks-and-communities/member-microsite/cognitive-psychologysection

The **Cognitive Science Society** – a worldwide non-profit professional society, promoting Cognitive Science and fostering scientific interchange among researchers in areas of study including: AI, Linguistics, Anthropology, Psychology, Neuroscience, Philosophy, and Education. Activities include sponsoring an annual conference and publishing the journals Cognitive Science and TopiCS. Advertises jobs, mainly in US, but St Andrews University is currently advertising a postdoc position, and events are international, e.g there's a conference in Lancashire in June.

- http://cognitivesciencesociety.org/about overview.html
- http://cognitivesciencesociety.org/employment\_overview.html

**European Society for the Cognitive Sciences of Music (ESCOM)** - an international non-profit society with the aim of supporting theoretical, experimental and applied research in the cognitive sciences of music. Has useful links to other societies, journals and resources.

http://www.escom.org/

The **Mind Network** is a community of UK researchers in **philosophy of mind and cognitive science**, meeting twice a year to present papers, exchange ideas **and have a jolly good time!** 

http://www.mindcogsci.net/

The **Mind and Cognition** group here at Edinburgh *ranks among the world leaders, and specializes in the study of embodiment, consciousness, perception, action, and situated reason.* This group *supports a large array of student and faculty events* and should be really useful for





students specializing in Philosophy.

<a href="http://www.ppls.ed.ac.uk/philosophy/groups/mind-cognition-edinburgh">http://www.ppls.ed.ac.uk/philosophy/groups/mind-cognition-edinburgh</a>

The Royal Institute of Philosophy – this body is dedicated to the advancement of philosophy in all its branches. Its activities include arranging free philosophy lectures, debates, joint talks, and discussions all over the country, and it offers funding to philosophy postgraduates:

http://royalinstitutephilosophy.org/

The Society for the Study of Artificial Intelligence and Simulation of Behaviour (AISB) is the largest AI society in the United Kingdom, for people with a serious interest in AI, Cognitive Science and related areas. Members are from academia and industry, and student members are welcome.

http://www.aisb.org.uk/

**UK-CLA** aims to develop and promote Cognitive Linguistics within the UK and Europe, and to foster initiatives and exchanges at the wider international level. The Association organises a biennial UK-based conference in Cognitive Linguistics and cooperates with other Cognitive Linguistics Associations, under the auspices of the International Cognitive Linguistics Association

http://www.uk-cla.org.uk/

**User Experience Professionals' Association (UXPA)** - a not-for-profit organisation run exclusively by volunteers, affiliated with the International UCXPA. Members come from a broad range of disciplines such as user-centred design, research, and human factors. The association advertises jobs, can help you find a mentor, and provides professional development opportunities.

http://uxpa-uk.org/

## Postgraduate and further study

Further study is common in this field, with courses providing training in specialist areas including cognitive psychology, computer modelling, linguistics analysis, brain imaging, UX/UI design, and research. As well as academic research careers, some courses are routes into other careers, including medicine, clinical psychology and many IT roles.

The Careers Service website useful has information about further study, including links to resources to search for and compare courses and institutions, and links to the major funding websites:

http://www.ed.ac.uk/careers/your-future/options/further-study/postgraduate

You should also seek advice from academic staff at the institution/s you are considering applying to, such as the course director or a potential supervisor. They can answer enquiries about course content, the types of jobs students completing the course go on to do, funding opportunities (e.g. is the course eligible for Research Council funding) etc.

**Examples of different types of institutions** offering further study opportunities for cognitive scientists include:



The **Cognition and Brain Sciences Unit (MRC)**, University of Cambridge. Offer 20-30 PhD studentships, funded by MRC. Study human cognition and the brain. Researchers and postgraduate students are investigating topics such as attention, emotion, language and memory.

http://www.mrc-cbu.cam.ac.uk/

**General Assembly** – UX Design course, on-campus and online options available. Cheaper than a Masters.

• <a href="https://generalassemb.ly/education/user-experience-design">https://generalassemb.ly/education/user-experience-design</a>

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