

## Post Specification

<b>Post Title:</b>	<b>Research Fellow</b>
<b>Post Status:</b>	Specific Purpose Contract – Full-time
<b>Research Group / Department / School:</b>	Gillan Lab, Trinity College Dublin, the University of Dublin
<b>Location:</b>	Trinity College Institute for Neuroscience, Trinity College Dublin, the University of Dublin College Green, Dublin 2, Ireland
<b>Reports to:</b>	Dr Claire Gillan
<b>Salary:</b>	Appointment will be made on the Researcher Salary Scale point 2, in line with Government Pay Policy €40,583 per annum
<b>Hours of Work:</b>	9-5.30pm
<b>Closing Date:</b>	Rolling

## **Post Summary**

The Gillan Lab at Trinity College Dublin ([www.gillanlab.com](http://www.gillanlab.com)) is looking for a postdoctoral fellow to work on an exciting project that applies natural language processing, machine learning and network analysis methods to help understand how psychotherapy works, ask fundamental questions about the nature of depression, and help digital providers use basic science insights to deliver personalised and more effective care.

The role is for 3 years in duration and arises from a partnership between Woebot Health (<https://woebothealth.com/>) and the Gillan lab. The successful candidate will enjoy a dual role within the industry and university organisations, with a 90/10 Trinity/Woebot split.

The postdoctoral fellow will work closely with Dr Gillan and key team members in the Gillan lab and at Woebot, collaborating on data processing, analysis, validation and dissemination. There is considerable scope for input in design of research questions that fall within the remit of using data science to refine digital psychotherapy interventions. The work will build on recent work from the Gillan Lab using natural language on social media to understand depression dynamics (<https://www.nature.com/articles/s41467-022-28513-3>), extending these principles to clinical data with a clear pathway to real-world impact.

The postdoc will join a growing team of PhD students, postdoctoral fellows, and technical staff (e.g. app developers) in the Gillan lab and will participate in regular lab meetings, learn about diverse methodologies in mental health science and have the opportunity to attend international conferences annually. Although the postdoc will be primarily employed at Trinity College Dublin, they will additionally avail of a range of resources and opportunities to participate in corporate events at Woebot.

Woebot Health was founded on the following principles:

1. Behavioral Health For Everyone: We believe that like physical fitness, emotional fitness is something that people can actively cultivate on a daily basis. Creating a cultural shift in this direction is a crucial pathway towards tackling the mental health crisis.
2. Academic Rigor By Design: We are committed to demonstrating outcomes and contributing to the field. In addition, we apply best practices from human subjects research to our users and the protection of their data.
3. Humans First: We practice human-centered product design principles. In essence, we listen to our users as well as pay attention to and design for their lived experience of mental health problems.

## **Standard Duties and Responsibilities of the Post**

The research fellow will be responsible for data cleaning and aggregation of time series of text interactions between client and the Woebot platform, necessary for analysis. They will maintain the highest of security and privacy standards in line with Woebot and Trinity College Dublin data protection policies and procedures. The postdoc will additionally take a leading role in research design and implementation of analysis plans on aggregate data, with a central goal of using real-world language data to improve our understanding and treatment of depression and related conditions. In addition, postdocs will participate fully in lab life, attending regular meetings and collaborating with other lab members. As a senior role in the lab, the ideal candidate will be mature, responsible and show readiness for leadership.

On completion of this post, it is envisioned that the postdoctoral fellow will have gained the organisational, technical and leadership skills necessary for making the transition to Principal Investigator of their own laboratory. That means that during their time in the lab, they will be expected to assist in the supervision of junior team members and will be encouraged to apply for independent research funding and will become increasingly autonomous over the course of their tenure in the lab. Though not required, postdocs will have the opportunity to take on some light teaching if they wish.

Crucially, candidates will simultaneously be prepared for a future in industry. Due to the dual appointment at Woebot, the postdoc will gain experience of data science in industry, and learn by proximity about agile practices (sprints, etc), user interface design, user feedback and product development activities at Woebot.

### **Funding Information**

This position is funded by the SFI ADAPT Centre and Woebot Health

### **Person Specification**

#### **Qualifications**

- PhD in psychology, cognitive neuroscience, computer science or a related field

*If the PhD is not in psychology, additional domain-relevant experience is essential*

#### **Knowledge & Experience (Essential & Desirable)**

- Experimental/research design (essential)
- Manipulating large unstructured datasets (essential)
- Time series analysis methods (essential)
- Dissemination (e.g. publications, oral presentations, posters) (essential)
- Clear and transparent scientific practices (e.g. code sharing, preprints, data availability) (essential)
- Core foundation in mental health science (Essential)

#### **Skills & Competencies**

- Strong data analysis skills, using python, R or similar (essential)
- Inferential statistics (essential)
- Natural language processing (desired)
- Machine Learning (desired)
- Network Analysis (desired)

#### **Application Procedure**

Applicants should submit a full Curriculum Vitae, covering letter, and the names and contact details of 2 referees (including email addresses) via the following form:

<https://forms.gle/BDpwWgUtjKCxY1E9A>

### Further Information for Applicants

URL Link to Area	<a href="http://www.tcd.ie">www.tcd.ie</a>
URL Link to Human Resources	<a href="https://www.tcd.ie/hr/">https://www.tcd.ie/hr/</a>

## Trinity College Dublin, the University of Dublin

Trinity is Ireland's leading university and is ranked 108th in the world (QS World University Rankings 2020). Founded in 1592, the University is steeped in history with a reputation for excellence in education, research and innovation.

Located on an iconic campus in the heart of Dublin's city centre, Trinity has 18,000 undergraduate and postgraduate students across our three faculties – Arts, Humanities, and Social Sciences; Engineering, Mathematics and Science; and Health Sciences.

Trinity is ranked as the 17th most international university in the world (Times Higher Education Rankings 2020) and has students and staff from over 120 countries.

The pursuit of excellence through research and scholarship is at the heart of a Trinity education, and our researchers have an outstanding publication record and strong record of grant success. Trinity has developed 19 broad-based multidisciplinary research themes that cut across disciplines and facilitate world-leading research and collaboration within the University and with colleagues around the world. Trinity is also home to 5 leading flagship research institutes:

- Trinity Biomedical Sciences Institute (TBSI)
- Trinity College Institute of Neuroscience (TCIN)
- Trinity Translational Medical Institute (TTMI)
- Trinity Long Room Hub Arts and Humanities Research Institute (TLRH)
- Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN)

Trinity is the top-ranked European university for producing entrepreneurs for the past five successive years and Europe's only representative in the world's top-50 universities (Pitchbook Universities Report).

Trinity is home to the famous Old Library and to the historic Book of Kells as well as other internationally significant holdings in manuscripts, maps and early printed material. The Trinity Library is a legal deposit library, granting the University the right to claim a copy of every book published in Ireland and the UK. At present, the Library's holdings span approximately 6.5 million printed items, 400,000 e-books and 150,000 e-journals.

With over 120,000 alumni, Trinity's tradition of independent intellectual inquiry has produced some of the world's finest, most original minds including the writers Oscar Wilde and Samuel Beckett (Nobel laureates), the mathematician William Rowan Hamilton and the physicist Ernest Walton (Nobel laureate), the political thinker Edmund Burke, and the former President of Ireland Mary Robinson. This tradition finds expression today in a campus culture of scholarship, innovation, creativity, entrepreneurship and dedication to societal reform.

### Rankings

Trinity College Dublin is the top ranked university in Ireland. Using the QS methodology we are ranked 98th in the world and using the Times Higher Education World University Ranking methodology we are 146th in the World.

- Trinity College Dublin is Ireland's No.1 University (QS World University Ranking 2023, Times Higher Education Rankings 2022)
- Trinity is ranked 98th in the World (QS World University Ranking, 2023)

- Trinity is ranked No.1 in Europe for Producing Entrepreneurs for the 7th year in a row Pitchbook 2021-2022

Full details are available at: [www.tcd.ie/research/about/rankings](http://www.tcd.ie/research/about/rankings).

## **Equal Opportunities Policy**

Trinity is an equal opportunities employer and is committed to employment policies, procedures and practices which do not discriminate on grounds such as gender, civil status, family status, age, disability, race, religious belief, sexual orientation or membership of the travelling community. On that basis we encourage and welcome talented people from all backgrounds to join our staff community. Trinity's Diversity Statement can be viewed in full at <https://www.tcd.ie/diversity-inclusion/diversity-statement>.

## **Pension Entitlements**

This is a pensionable position and the provisions of the Public Service Superannuation (Miscellaneous Provisions) Act 2004 will apply in relation to retirement age for pension purposes. Details of the relevant Pension Scheme will be provided to the successful applicant.

Applicants should note that they will be required to complete a Pre-Employment Declaration to confirm whether or not they have previously availed of an Irish Public Service Scheme of incentivised early retirement or enhanced redundancy payment. Applicants will also be required to declare any entitlements to a Public Service pension benefit (in payment or preserved) from any other Irish Public Service employment.

Applicants formerly employed by the Irish Public Service that may previously have availed of an Irish Public Service Scheme of Incentivised early retirement or enhanced redundancy payment should ensure that they are not precluded from re-engagement in the Irish Public Service under the terms of such Schemes. Such queries should be directed to an applicant's former Irish Public Service Employer in the first instance.

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<https://forms.gle/BDpwWgUtjKCxY1E9A>



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