



Oxford Internet Institute  
University of Oxford



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OXFORD INTERNET INSTITUTE

<b>Job title</b>	Researcher and Technical Development Officer (computer science)
<b>Division</b>	Social Sciences Division
<b>Department</b>	Oxford Internet Institute
<b>Location</b>	1 St Giles – Oxford – OX1 3JS
<b>Grade and salary</b>	Grade 7: £31,076 to £38,183 per annum (Doctorate degree required)
<b>Hours</b>	Full time
<b>Contract type</b>	Fixed-term (18 months, with possibility of renewal up to 36 months)
<b>Reporting to</b>	Prof Phil Howard
<b>Vacancy reference</b>	130383
<b>Research topic</b>	BOTFIND: Finding Bots, Detect Harassing Automation, and Restoring Trust in Social Media Civic Engagement
<b>Principal Investigator / supervisor</b>	Prof Phil Howard
<b>Project website</b>	<a href="http://www.politicalbots.org">www.politicalbots.org</a>
<b>Funding partner</b>	European Research Council
<b>Recent publications</b>	<p>Howard, Philip N., and Bence Kollanyi. 2016. "Bots, #Strongerin, and #Brexit: Computational Propaganda during the UK-EU Referendum." Working Paper 2016.1. Oxford, UK: Project on Computational Propaganda. Available at <a href="https://arxiv.org/abs/1606.06356">https://arxiv.org/abs/1606.06356</a>.</p> <p>Howard, Philip N. Pax Technica: How the Internet of Things May Set Us Free, Or Lock Us Up. New Haven, CT: Yale University Press, 2015.</p>



## **Overview of the Positions**

Applications are invited from highly-qualified individuals for the position of Researcher focusing on computer and data science for the BOTFIND/COMPROP team. The position is suited to candidates who have recently completed a doctorate in a relevant field (postdocs). The position requires someone with extensive skills in computational social science and an interest in political communication and politics. The primary task will be to build tools for detecting politically motivated, highly automated content production on social media platforms.

The researchers will be at the centre of an extended international network of social and computer scientists working on algorithms and social control and there will be significant opportunity to collaborate with the OII's other data scientists, researchers, and graduate students.

The position is available immediately for 18 months, with possibility of renewal thereafter, for up to 36 months. The position is located in Oxford the candidate is expected to move to Oxford to take up the position, though depending on the assignment there may be significant periods of international fieldwork involved. Travel costs for fieldwork are covered by the project.

## **Responsibilities/duties**

### **1. Computer Programming Duties**

- Develop, operate and maintain bot detection tools based on existing project knowledge, industry contacts and original research;
- develop novel and creative ways of identifying online bots on a variety of web platforms in order to stay at the cutting edge of bot research;
- be responsible for maintaining the technological infrastructure necessary to support the bot detection software and train, where necessary, others in the functionality and maintenance of the developed programmes;
- build the public interface that will allow average users to explore the impact of highly automated accounts in their own social networks.

### **2. Public-Facing Duties**

- Liaise with collaborating firms and individuals to obtain new data on online bots and their detection and management;
- work with industry-professionals in developing bot detection tools;
- contribute to scholarly conversations about the methods for detecting the automated production of political content;
- actively disseminate knowledge about the public tools you develop so as to expand the user base for your tools.

### **3. Other Research Duties**

- Collaborate in the preparation of publications and presentations;
- present findings at academic and industry conferences and meetings;
- Represent the research group at external meetings/seminars, either with other members of the group or alone;
- Manage own workload and priorities under the PI's guidance and coordinate activities with other project members;
- Assist in project administration;

- Contribute ideas for new research projects;
- Participate actively in the OII's programme of seminars and events;
- Such other comparable duties as may be required by the PI.

## **Selection criteria**

### **Essential**

- Hold a doctorate degree, or be near completion, in a relevant computer science, social data science, or computational social science (a background in social science is welcome if the programming skills are first rate);
- Excellent programming skills and knowledge of tools/libraries used in computational social science and bot detection development including C++, Java, python and willingness to learn additional languages as necessary for the development of bot detection tools;
- Familiarity with contemporary scholarly collaboration tools used by distributed research teams (R statistical modules as relevant, Zotero, Slack, PGP encryption);
- Ability to disseminate research output, and communicate findings to journalists, policy makers, and the interested public;
- Ability to collaborate effectively with other academic researchers and with industry professionals and maintain relationships with industry professionals working in bot detection and management;
- Ability to work flexibly, prioritizing tasks to meet given deadlines and maintaining a high standard of accuracy and attention to detail;
- Interpersonal skills relevant to working as part of an international team and communicating across disciplines and industry-academia boundaries;
- The ability to write both public policy briefings and scholarly publications in fluent English;
- Substantive interest in bots, algorithms and computational propaganda on social media.

### **Desirable**

- Experience working with bot detection on social media;
- Experience maintaining beneficial working relationships with industry professionals;
- Experience working with collaborative coding projects;
- Experience with natural language processing or machine learning or other;
- Computational or computer programming experience that can be used in bot detection and research.

Please note that the appointment of the successful candidate will be subject to standard compulsory pre-employment screening, such as right to work checks.

## About the University of Oxford

Welcome to the University of Oxford. We aim to lead the world in research and education for the benefit of society both in the UK and globally. Oxford's researchers engage with academic, commercial and cultural partners across the world to stimulate high-quality research and enable innovation through a broad range of social, policy and economic impacts.

We believe our strengths lie both in empowering individuals and teams to address fundamental questions of global significance, while providing all our staff with a welcoming and inclusive workplace that enables everyone to develop and do their best work. Recognising that diversity is our strength, vital for innovation and creativity, we aspire to build a truly diverse community which values and respects every individual's unique contribution.

While we have long traditions of scholarship, we are also forward-looking, creative and cutting-edge. Oxford is one of Europe's most entrepreneurial universities. Income from external research contracts in 2014/15 exceeded £522.9m and we rank first in the UK for university spin-outs, with more than 130 companies created to date. We are also recognised as leaders in support for social enterprise.

Join us and you will find a unique, democratic and international community, a great range of staff benefits and access to a vibrant array of cultural activities in the beautiful city of Oxford.

For more information please visit [www.ox.ac.uk/about/organisation](http://www.ox.ac.uk/about/organisation)

## The Oxford Internet Institute (OII)

The Oxford Internet Institute has expanded rapidly since its founding in 2001 to become a world-leading centre for the multidisciplinary study of the Internet and society, with activities focusing on research, post-graduate teaching and policy-making and practice.

The OII aims to bring about a greater understanding of the various social factors that are shaping the Internet and their implications for society. Central to this vision is a view of the Internet as a phenomenon that goes far beyond its technical capabilities to encompass all the people, services, information, and technologies that are intertwined in this 'network of networks'. Excellence in research underpins the Institute's collaborative and teaching activities. Wide-ranging collaborative relationships with experts from academia, government, business, and industry in the UK and around the world also play a central role in its strategic drive.

The OII's research strategy has targeted areas critical to the public interest, where the design and use of the Internet and related technologies are likely to contribute to a substantial restructuring of social practice and institutional arrangements. Having developed critical mass in these areas, the OII's strategy for the next five years is geared towards deepening and extending the range of grant-funded research around each theme and disseminating the outputs in high-quality journals, while ensuring that research helps inform and shape policy and practice.

Research at the OII focuses on 8 research clusters:

- **Connectivity, Inclusion & Inequality:** understanding the shifts in the power dynamics caused by information and communication technologies.

- **Digital Knowledge and Culture:** charting the on-going digital transformations of the sciences, social sciences, arts and humanities, and their implications.
- **Digital Politics & Government:** investigating political behaviour, digital government and government-citizen interactions in the age of the internet, social media and big data.
- **Education, Well-Being and Digital Life:** addressing the psychological, social and educational implications of the Internet, for people of all ages, across the full lifespan, with a particular focus on children and young people.
- **Ethics and Philosophy of Information:** investigating the ethical, epistemological, logical and ontological aspects of information, its sciences, phenomena and dynamics.
- **Internet Economics:** understanding the economic and social implications of new business models, new market structures, and new types of economic activity.
- **Information Governance & Security:** analysing the challenges created by the digitisation of information, seeking solutions through new governance rules, processes and institutions, and investigating the relationship between emerging technologies, their design, and information security and privacy.
- **Social Data Science:** seeking a quantitative understanding of how individuals behave and interact in society.

In all its research, the OII aims to operate at the cutting edge in both quantitative and qualitative methodologies that cut across disciplines and topics. Methodological innovation is vital given the changing nature of the Internet and advances in ICTs which both necessitate and facilitate the development of new techniques. OII researchers are developing methodologies such as the embedding of ICTs for real time observation of social phenomenon; webmetric techniques for observing the underlying structure of the web presence of social institutions; artificial intelligence design; experimental research; on-line action research; content analysis; investigation of virtual environments; and online survey research.

For more information about the Oxford Internet Institute please visit <http://www.oii.ox.ac.uk>

## How to apply

Before submitting an application, you may find it helpful to read the 'Tips on applying for a job at the University of Oxford' document, at [www.ox.ac.uk/about/jobs/supportandtechnical/](http://www.ox.ac.uk/about/jobs/supportandtechnical/).

If you would like to apply, click on the **Apply Now** button on the 'Job Details' page and follow the on-screen instructions to register as a new user or log-in if you have applied previously. Please provide details of two referees and indicate whether we can contact them now.

You will also be asked to upload a CV and a supporting statement. The supporting statement must explain how you meet each of the selection criteria for the post using examples of your skills and experience. This may include experience gained in employment, education, or during career breaks (such as time out to care for dependants).

Your application will be judged solely on the basis of how you demonstrate that you meet the selection criteria stated in the job description.

Please upload all documents **as PDF files** with your name and the document type in the filename.

All applications must be received by **midday** on the closing date stated in the online advertisement.

### Information for priority candidates

*A priority candidate is a University employee who is seeking redeployment because they have been advised that they are at risk of redundancy, or on grounds of ill-health/disability. Priority candidates are issued with a redeployment letter by their employing departments.*

*If you are a priority candidate, please ensure that you attach your redeployment letter to your application (or email it to the contact address on the advert if the application form used for the vacancy does not allow attachments)*

Should you experience any difficulties using the online application system, please email [recruitment.support@admin.ox.ac.uk](mailto:recruitment.support@admin.ox.ac.uk). Further help and support is available from [www.ox.ac.uk/about\\_the\\_university/jobs/support/](http://www.ox.ac.uk/about_the_university/jobs/support/). To return to the online application at any stage, please go to: [www.recruit.ox.ac.uk](http://www.recruit.ox.ac.uk).

Please note that you will be notified of the progress of your application by automatic emails from our e-recruitment system. **Please check your spam/junk mail** regularly to ensure that you receive all emails.

## Important information for candidates

### Pre-employment screening

Please note that the appointment of the successful candidate will be subject to standard pre-employment screening, as applicable to the post. This will include right-to-work, proof of identity and references. We advise all applicants to read the candidate notes on the University's pre-employment screening procedures, found at:

[www.ox.ac.uk/about/jobs/preemploymentscreening/](http://www.ox.ac.uk/about/jobs/preemploymentscreening/).

### The University's policy on retirement

The University operates an employer justified retirement age for all academic and academic-related posts (grade 6 and above), for which the retirement date is the 30 September immediately preceding the 68th birthday. The justification for this is explained at:

[www.admin.ox.ac.uk/personnel/end/retirement/revisedejra/revaim/](http://www.admin.ox.ac.uk/personnel/end/retirement/revisedejra/revaim/).

For **existing** employees any employment beyond the retirement age is subject to approval through the procedures: [www.admin.ox.ac.uk/personnel/end/retirement/revisedejra/revproc/](http://www.admin.ox.ac.uk/personnel/end/retirement/revisedejra/revproc/)

There is no normal or fixed age at which **support staff** in posts at **grades 1–5** have to retire. Support staff may retire once they reach the minimum pension age stipulated in the Rules of the pension scheme to which they belong.

### Equality of Opportunity

Entry into employment with the University and progression within employment will be determined only by personal merit and the application of criteria which are related to the duties of each particular post and the relevant salary structure. In all cases, ability to perform the job will be the primary consideration. No applicant or member of staff shall be discriminated against because of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation.