

# The Alan Turing Institute

## **Digital Humanities Post-Doctoral Research Associate – Living with Machines Project**

The 'Living with Machines' project is looking for a postdoctoral researcher in digital humanities to join its team working on the social and cultural impact of mechanisation across the nineteenth and early twentieth centuries. 'Living with Machines' proposes a new research paradigm – a radical collaboration between historians, data scientists, geographers, computational linguists, and curators - to harness the growth of digitised archives, and model the effects of mechanisation on ordinary people at the dawn of the modern era. It is widely recognised that Britain was the birthplace of the world's first industrial revolution, yet we still know remarkably little about the human, social, and cultural consequences of this historical moment.

This project aims to use computational techniques and very large datasets in order to ask questions about the ways in which technology altered the very fabric of human existence on a hitherto unprecedented scale. The project exploits a corpus of digitised sources, including newspapers, trade directories, census data, and patents, and other resources yet to be digitised (the unstamped press, trade press, business archives and autobiographies). By developing intuitive computational interfaces and a philosophy of interdisciplinary collaboration we will enable close interaction between computational methods and historical inquiry.

'Living with Machines' is carried out in partnership between the Alan Turing Institute, the British Library, and the Universities of Cambridge, East Anglia, Exeter and London (QMUL). The project is led by Ruth Ahnert (QMUL), and co-led by Adam Farquhar (BL), Emma Griffin (UEA), James Hetherington (Alan Turing Institute), Jon Lawrence (Exeter), Barbara McGillivray (Alan Turing Institute and Cambridge), and Mia Ridge (BL).

## **THE ALAN TURING INSTITUTE**

The Alan Turing Institute (the Institute) is the national centre for data science and artificial intelligence (AI), established in 2015 with the mission to make great leaps in research to change the world for the better.

The Institute has cross-disciplinarity at its core; we bring researchers in mathematics and theoretical computer science, statistics and machine learning, algorithms for data analytics and distributed computing, computational social science and data ethics, software engineers and industry partners, to work together in an open and collaborative environment with a shared goal to generate world-class research.

The Institute is motivated by driving impact, both through theoretical development and application to real-world problems. In our first year, we have identified six priority domains to focus our translational research: data-centric engineering; defence and security; smart cities; computing technology; financial services; and health and well-being, with artificial intelligence informing work across the Institute.

We have attracted a broad range of strategic partnerships including the Lloyd's Register Foundation, Intel, the UK Government Defence and Security sector and HSBC. We have already announced a collaboration with a range of other partners from industry, government and NGOs, including

Accenture, the Office of National Statistics (ONS) Data Science Campus and the British Heart Foundation.

We invite you to join us as we grow our research capability, supporting our goal to develop the next generation of leaders in data science and AI, shape the public conversation, and push the boundaries of this new science for the public good.

## **THE ROLE**

As a Post-Doctoral Research Associate (RA) on the Living with Machines Project you will work closely with the project PI (Dr Ruth Ahnert), Co-I Dr McGillivray, and the wider inter-disciplinary team based at the Turing Institute and the British Library. You will be actively involved in compiling and cleaning the project's linked datasets, and in developing custom digital approaches to our research questions. You will have the opportunity to play an active part in all aspects of research from the development of a research programme, through modelling to writing up and publication. This is a collaborative research role and there is an expectation that you will play an active part in the team based at the Alan Turing Institute. Your appointment will be until April 2021, with the possibility of renewal for a further two years (funding permitting).

## **DUTIES & RESPONSIBILITIES**

You will help oversee the processing of historical text sources and work closely with the project's data scientists to ensure high quality of the processed digital datasets. You will take lead responsibility for a substantive strand of enquiry using computational methods. You will collaborate on generalisable models for tracking change over space and time. Depending on your particular expertise you may help develop natural language processing models to track the emergence and diffusion of people, technologies, concepts and ideas, or on time series analysis for detecting correlations across those changes. You will play a collaborative role in building the code base and writing joint conference papers and publications arising from the project.

## **PROFILE**

### *Essential:*

- A PhD (or equivalent experience and/or qualifications) in Digital Humanities, or similar
- Experience with computational processing of textual data
- Fluency in at least one coding language
- Ability to lead one's own work, including planning and execution, and to prioritise work to meet conference and other deadlines
- Excellent written, verbal and graphical communication skills including the ability to present complex or technical information in an understandable form

### *Desirable:*

- Knowledge of nineteenth-century history
- Experience of working with historical newspapers, or one of the other corpus-types with which we are working
- Experience in either corpus linguistics, or network analysis
- Evidence of high quality publication(s) in a relevant field (published or in-press) commensurate with your career stage
- Experience of research collaboration including co-writing papers and articles

**To Apply:**

If you are interested in this opportunity, please send your CV, with contact details for your referees and a covering letter to [jobs@turing.ac.uk](mailto:jobs@turing.ac.uk). The deadline is 14 September 2018, and the interviews will take place on 28 September. We wish to appoint applicants to the post on 1 October 2018 or as soon as possible thereafter.

If you have questions or would like to discuss the role further with a member of the Institute's HR Team, please contact them on 0203 862 3375 or email [HR@turing.ac.uk](mailto:HR@turing.ac.uk).

**Please note all offers of employment are subject to continuous eligibility to work in the UK and satisfactory pre-employment security screening which includes a DBS Check.**

**Full details on the pre-employment screening process can be requested from [HR@turing.ac.uk](mailto:HR@turing.ac.uk).**