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RESEARCH INTERESTS

Computational Social Science
Data Science and Data Analysis
Social Network Analysis and Network Visualisations

EDUCATION

09/2018 – 02/2023 **PhD** in Informatics**,** The University of Edinburgh (UoE), UK
Thesis: Religious Polarisation over Social Networks
Advisors: Dr Walid Magdy and Dr Maria Wolters

09/2017 - 08/2018 **MSc (First Class)** Artificial Intelligence**,** The University of Edinburgh (UoE), UK
Thesis: Analysing Online Cultural Disengagement in the Arab Twittersphere
Advisor: Dr Walid Magdy

09/2012 - 07/2017 **B.Sc. (Honors)** Computer Engineering, Qatar University, Qatar
Graduation Project: Signal Processing with Real-Time Response Application on FPGA SoC.
Advisor: Prof Abbes Amira

WORK EXPERIENCE

02/2024– current **University Teacher**, School of Informatics, UoE

Course: *Aim: Teaching the Text Technologies for Data Science (TTDS).*

Task: Prepare and deliver the TTDS course material and assessment to MSc and UG4/5 students.

08/2022– 02/2024 **Research Associate**, School of Informatics, UoE

Project: *Aim: To compare human-generated data on Twitter from enormous online datasets to understand the societal and individual responses to sensitive topics. The project integrates AI techniques for efficient indexing, processing, visualization, and reporting within a user-friendly system, facilitating social media analysts in their analysis.*

Task: Develop an AI system that collects, stores, processes, and analyzes various social media contents. Also, to utilize the developed tool in computational social science studies.

01/2022– 08/2022 **Research Fellow (**Project: Telling Good Stories**),** School of Social & Political Science, UoE
Project: *Aim: To compare human-generated data on Twitter to long-term historical data.*

Task: Collect, store, process, and analyze tweets relevant to narratives of compassion and support during challenging times such as the Covid-19 pandemic. Compare this social media content with long-term historical data on the similar topics, focusing on demonstrating sympathy and solidarity among individuals and across published works.

03/2021 – 11/2021 **Research Assistant,** Digital Influence & Intelligence Lab, Informatics & SSPS, UoE
Project: *Aim: Build an online (live) social media analysis framework for monitoring public opinion over various topics of interest, e.g., Brexit, Scottish referendum, and Covid-19 pandemic.*

Task: A member of a four-person team whose expertise covers both computer and political sciences. My responsibility was to build the backend of the platform, which includes tweets streamer, language identification, media detection, geo-location detection, and integration of multilingual sentiment analysis, and enabling fast scalable live search using Solr.

08/2020 – 03/2021	**Research Assistant, (**Project: Huawei**),** ILCC, University of Edinburgh, UK
Project:	*Aim: Build an internal platform for Huawei to monitor public reviews on their products online. Task: A member of a team of three, my role was to build an online scalable and modular-based system to collect, process, index and report multilingual (European Languages) data from Twitter.*

01/2020 – 08/2020	**Remote research Assistant,** (Project: Yemen Crisis) United Nations (UN), New York, US
Project:	*Aim: Analyse the crisis in Yemen from social media. Task: Build a platform for collecting tweets about and from Yemen in Arabic to identify the locations and groups that are the most in-need so that the UN can provide immediate help.*

08/2018 – 08/2022	**Teaching Assistant,** School of Informatics, University of Edinburgh, UK
Main Duties:	• *Co-supervising master's degree students:*

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  - *M C Polo and M Desblancs, 2022/2023*
  - *G Zhou, 2021/2022*
  - *S Wang and L Gu, 2020/2021*
  - *A Althagafi and R Alhadhrami, 2018/2019*
- *Tutoring, Lab demonstrating, and Marking (in person and online sessions) for the courses:*
  - *Text Technologies for Data Science (TTDS, 2018, 2019, 2020, and 2021)*
  - *Accelerated Natural Language Processing (ANLP, 2018, 2019, 2020, and 2021)*
  - *The Human Factors (2021)*
  - *Case Studies in Design Informatics (2020)*
  - *Introduction to Java Programming (IJP, 2018 and 2019)*

EXPERTISE

- Data Science
  Statistical data analysis, sensitive data handling, and data indexing with Solr and MongoDB.
- Computational Social Science
  Qualitative and quantitative analysis methods for answering social/political research questions.
- Social Network Analysis and Visualisations
  Networks analysis, communities' detection, and visualization.

SKILLS

- Specialist in real-world big data collection and quantitative and qualitative analysis approaches.
- Teaching and assisting in teaching large classes (250+).
- Natural Language Processing techniques such as topic modelling, name entity detection and sentiment analysis.
- Skilled in Data Visualisation:
  - Python libraries (Plotly, Matplotlib, Seaborn, Altair…etc.),
  - Network visualisation and analysis (Gephi),
  - Practical methods of data visualisation (at Design Informatics School, UoE).
- Building and managing data indexing systems and search engines including Apache Solr.
- Backend and frontend development with Python, SQLAlchemy, React JS and Node JS.
- OOP using major languages and platforms mainly with Python and Java.
- Competent in communication skills, including oral presentation and documented reports.
- A project-oriented and teamwork-oriented hard worker.

TEACHING INTERESTS

- Data Science
- Text Technologies
- Natural Language Processing

TALKS/LECTURES

- *Invited lecture:* Social network analysis workshop for students, Edinburgh Future Institute, Edinburgh, Mar 2024
- *Invited lecture:* Twitter Data Collection Workshop for Engineering students, SUNY New Paltz, NY, USA, Mar 2022
- *Conference talk:* Atheists versus Theists: Religious Polarisation in Arab Online Communities.
  24th ACM Conference on Computer-Supported Cooperative Work and Social Computing, Oct 2021
- *Conference talk:* Arabs and Atheism: Religious Discussions in the Arab Twittersphere. Social Informatics. SocInfo, Doha, Qatar, Nov 2019

PUBLICATIONS

1. **Al Hariri Y**., Magdy W., Wolters M. (2024), 'Do Polarized Networks Discuss the Same Topics? Analyzing Arabs' Topics of Interest According to Their Spirituality'. (*under submission*)

2. Brownlie J., Anderson S., **Al Hariri Y**. (2024), 'Tales of hope and fears of dupery: in search of the good story'. (*under submission*)

3. El Alfy, A., Quigley, J., Tang, L., Al Haririr, Y., & Weber, O. (2024). Sustainability tweeting triumphs during the COP events: analyzing environmental, social, and governance (ESG) communication on Twitter. Journal of Asia Business Studies (Mar 2024).

4. **Al Hariri Y**., Magdy W., Wolters, M. K. (2021), 'Atheists versus Theists: Religious Polarisation in Arab Online Communities'. *Proceedings of the ACM on Human-Computer Interaction, vol* 5, CSCW2, Article 361 (October 2021), 28 pages. https://doi.org/10.1145/3479505

5. **Al Hariri, Y**., Magdy, W., Wolters, M. (2019). Arabs and Atheism: Religious Discussions in the Arab Twittersphere. In: *Social Informatics. SocInfo 2019. Lecture Notes in Computer Science*, vol 11864. Springer, Cham. https://doi.org/10.1007/978-3-030-34971-4_2

6. Mhaisen, N., Abazeed, O., Hariri, Y. A., Alsalemi, A., & Halabi, O. (2018). Self-Powered IoT-Enabled Water Monitoring System. In *Proceedings of the 2018 International Conference on Computer and Applications (ICCA)* (pp. 41-45). (IEEE). https://doi.org/10.1109/COMAPP.2018.8460401

7. Shata, O., Mhaisen, N., Abazeed, O. & **Al Hariri, Y.** (2015)**.** Teaching Database Management Systems in Higher Education: An Efficient Approach for Introductory Courses. *Sylwan journal*. (11).

8. Shata, O. & Mhaisen, N. & Abazid, O. & **Al Hariri, Y**. (2015). Teaching Tools for the Database Introductory Courses: Comparing the Features. *Wulfenia. Vol. 22, No. 6.*

RESEARCH SERVICES

- Reviewing for conferences: CSCW, ASONAM, CHI, and ICWSM.
- Reviewing for the journals: OSNEM and SNAM

REFERENCES:

Walid Magdy, PhD
> *Reader at the School of Informatics, the University of Edinburgh, UK*
> *wmagdy@inf.ed.ac.uk*

Bjorn Ross, PhD
> *Lecturer in Computational Social Science, the University of Edinburgh, UK*
> *b.ross@ed.ac.uk*

Maria Wolters, PhD
> *Research Group Lead, Social Computing, OFFIS Institute for Informatics, Germany.*
> *Reader in Design Informatics, the University of Edinburgh, UK*
> *maria.wolters@offis.de*

Tamer Elsayed, PhD
> *Associate Professor at Qatar University, Qatar*
> *telsayed@qu.edu.qa*