

Data Skills Masterclass

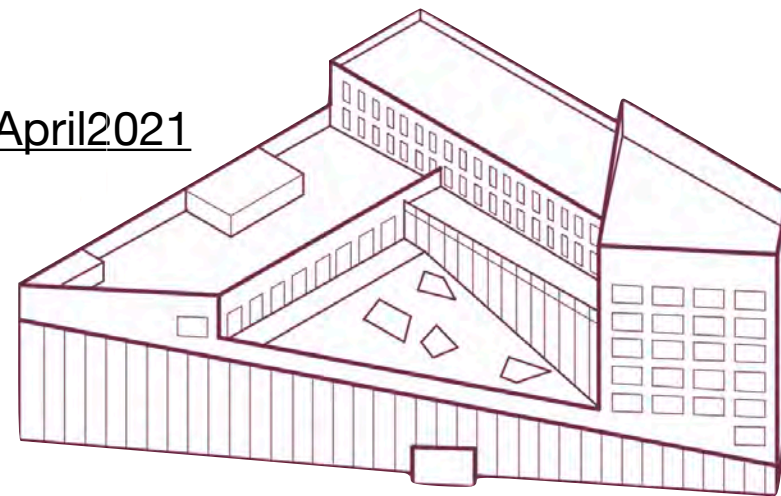
15th April 2021

Matt Forshaw

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National Skills Lead, The Alan Turing Institute

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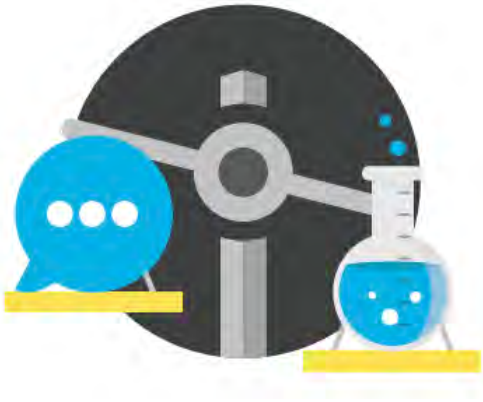
Resources: <https://github.com/MattForshaw/DataMasterclass-April2021>



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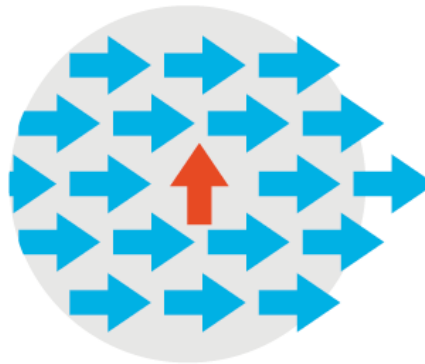


Challenges and Opportunities in the data science and AI skills landscape



Terminology and Nomenclature

Lack of agreed definitions and role descriptors



Lack of alignment

Mismatch between academic/industry need and skills offerings



Raising awareness and widening access

Visibility of, and access to, the variety of routes to training among students, employees and industry

Total for UK*

2013	2017/2018
736,611	996,262

35%
Growth since 2013

North West

2013	2017/2018
45,286	61,871

37%

Northern Ireland

2013	2017/2018
4,987	11,902

139%

Scotland

2013	2017/2018
36,388	41,117

13%

North East

2013	2017/2018
7,444	11,095

49%

Yorkshire and the Humber

2013	2017/2018
37,885	47,014

East Midlands

2013	2017/2018
30,957	37,743

East of England



Defining the Data Skills Gap

DCMS and
Opinium
Feb. 2021

AI Labour
Market
analysis

Office for AI
Ipsos MORI
Q1, 2021

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BBC Matthew

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BBC and partners announce new apprenticeship to drive data skills in the UK

Date: 07.10.2019 Last updated: 07.10.2019 at 16.30
Category: Corporate; Online and interactive

Employers, recent graduates, people interested in technology and employees will be able to benefit from a new apprenticeship that has been created with the BBC, UK universities and a number of agencies.

Employers, recent graduates, people interested in technology and employees will be able to benefit from a new apprenticeship that has been created with the BBC, UK universities and a number of agencies. The Level 7 Artificial Intelligence (AI) Data Specialist Apprenticeship will give people the skills to help the BBC and others stay ahead in a data-driven future.

In 2017, the BBC launched a major Data Science Research Partnership with eight UK universities. Working with a number of organisations such as BT, EasyJet and TUI, the BBC designed and developed this new apprenticeship.

Data is important to the BBC for two reasons:

- In order for the BBC to remain relevant in an era of streaming and subscription services, the BBC uses data to make its products and



The introduction of this new standard will help to build the next generation of talent in AI, who are so integral to the future of our society and the UK's industrial ambitions."

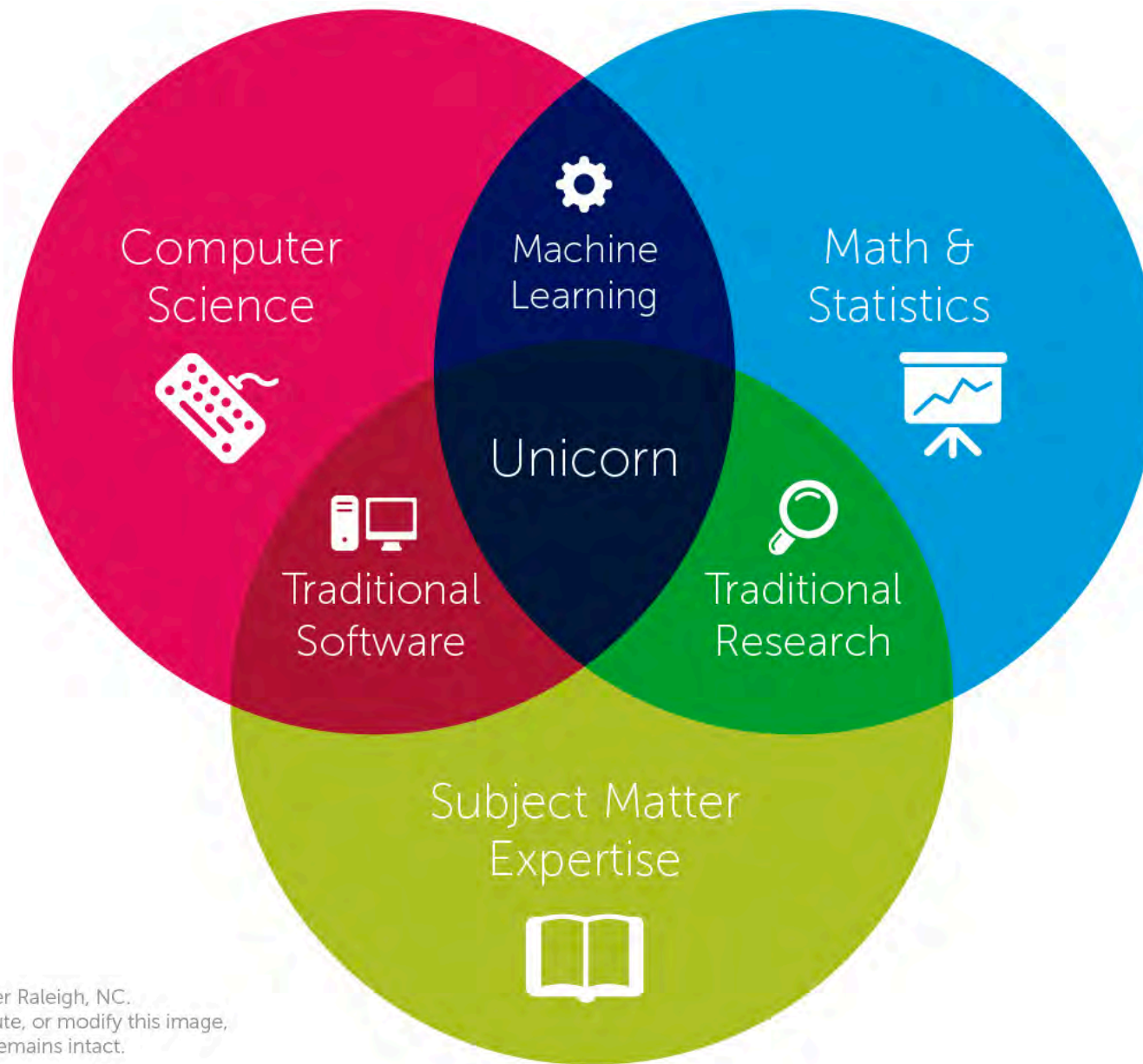
Matthew Forshaw

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85% of big data and data science projects fail to move from proof-of-concept (POC) to production.

Gartner



Newcastle
University



National
Innovation
Centre
Data

-
Powered by
Newcastle University



CODE OF ETHICAL BEHAVIOR



∞

DAYS WITHOUT
DISCRIMINATORY AI

amazon

 Microsoft

IBM

Face++ 旷视

Google



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UK passport photo checker shows bias against dark-skinned women

By Maryam Ahmed
BBC News

🕒 12 hours ago

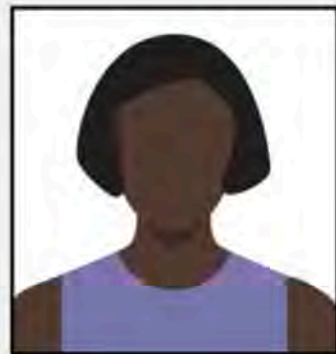
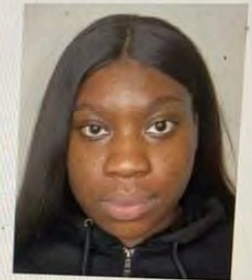
result

Your photo

Your photo doesn't meet all the rules and is unlikely to be suitable for a new passport.

Find out the reason for this result

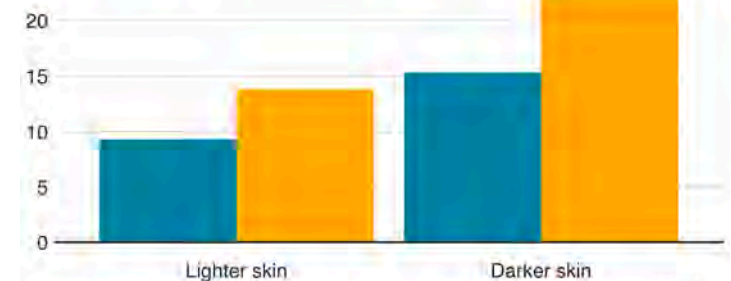
It looks like your mouth is open



Automated checks give low scores to women and darker-skinned people

Percentage of photos graded poor quality

■ Male ■ Female



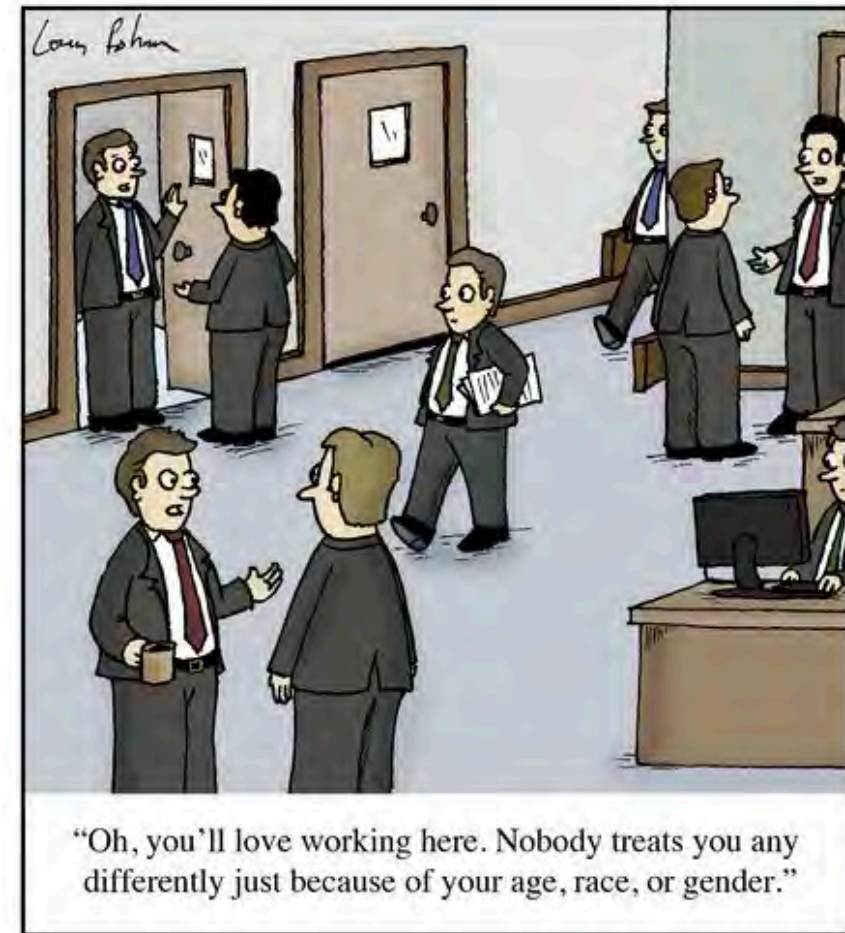
Source: BBC research


BBC

The White Gaze

The Coded Gaze

The Male Gaze





70% of 1.5 million roles at risk of automation are held by women

Office for National Statistics, 2019



REPORT
JUNE 2019

SCALING UP THE ETHICAL ARTIFICIAL INTELLIGENCE MSc PIPELINE

CREATING A DIVERSE, INCLUSIVE, SUBSTANTIAL
PIPELINE OF ETHICAL, COMPETENT AND TALENTED
MSc GRADUATES HIGHLY SKILLED IN MACHINE
LEARNING AND ARTIFICIAL INTELLIGENCE



Making IT good for society

Freethinkers wanted

Your future in AI and data
science starts here



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HM Government



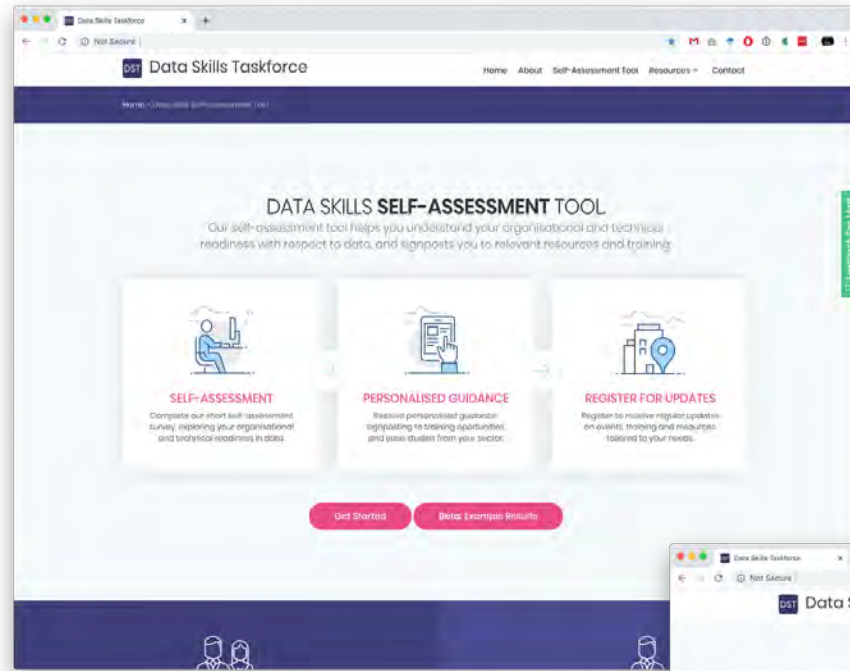
#JoinYourAIFuture

“We’re delighted to be partnering with the University of Newcastle on this project. Data science and Artificial Intelligence (AI) skills are crucial to the future success of our business and many others, so we’re excited to see a diverse range of new talent in our industry. To support the students, we’ll be working with the university on developing the skills they need for their future careers and offering mentoring from some of our data science and AI experts.”

Carol Fletcher

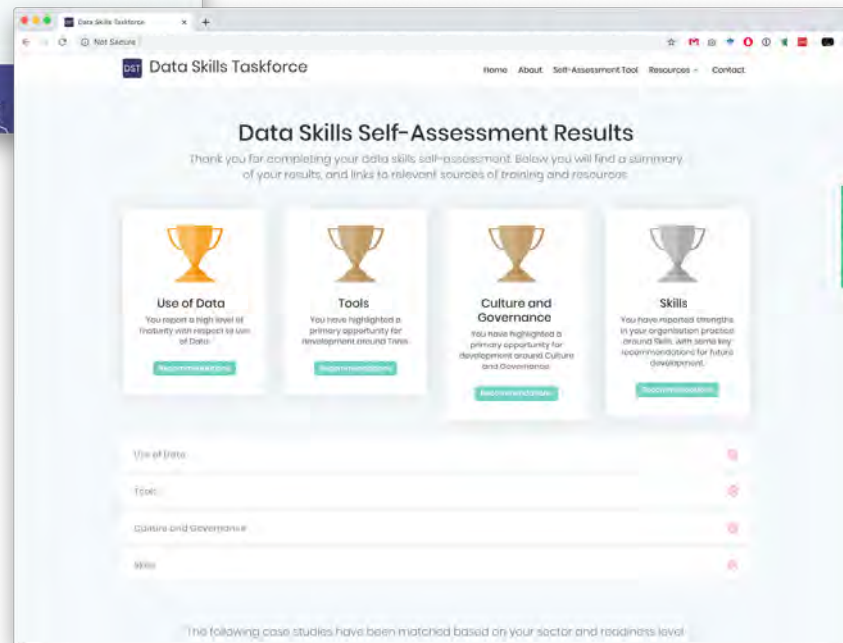
Head of Academic and Research Partnerships at BT





“launch an online portal to support businesses’ access to data skills training, helping signpost SMEs to good-quality online training material matched to their technical data science capabilities and ambitions”.

Forthcoming commitment of the Digital Strategy and National Skills Fund



The Alan Turing Institute



**Department for
Digital, Culture
Media & Sport**



Building Society

accenture

DST Data Skills Taskforce



Analyst Network North East

A regional branch of The OR Society.

Networking ● Events ● Mentoring ● Education

Our network is for anyone with an interest in analysis happening in the academic, public or private sectors in North East England.

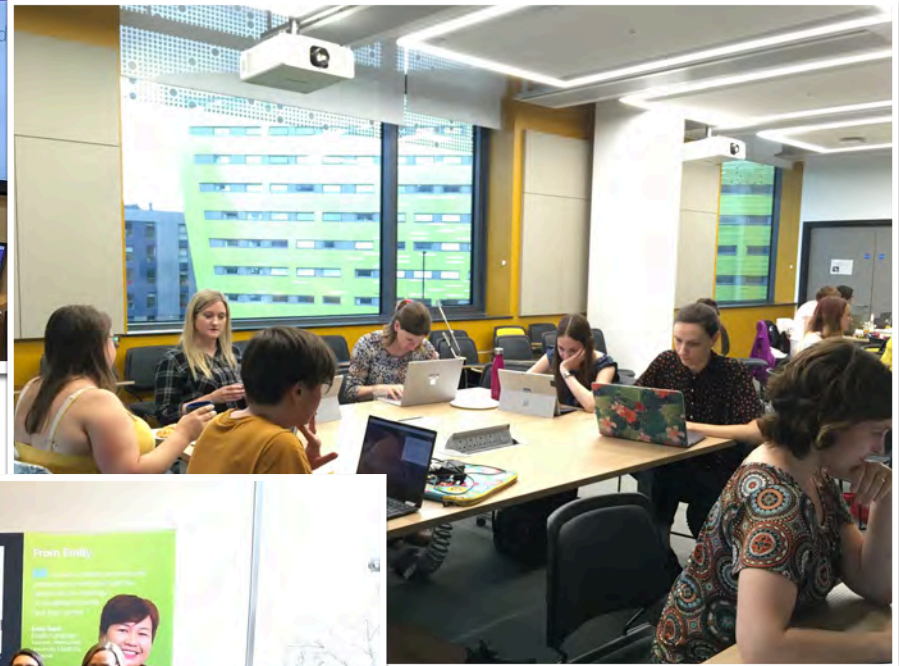
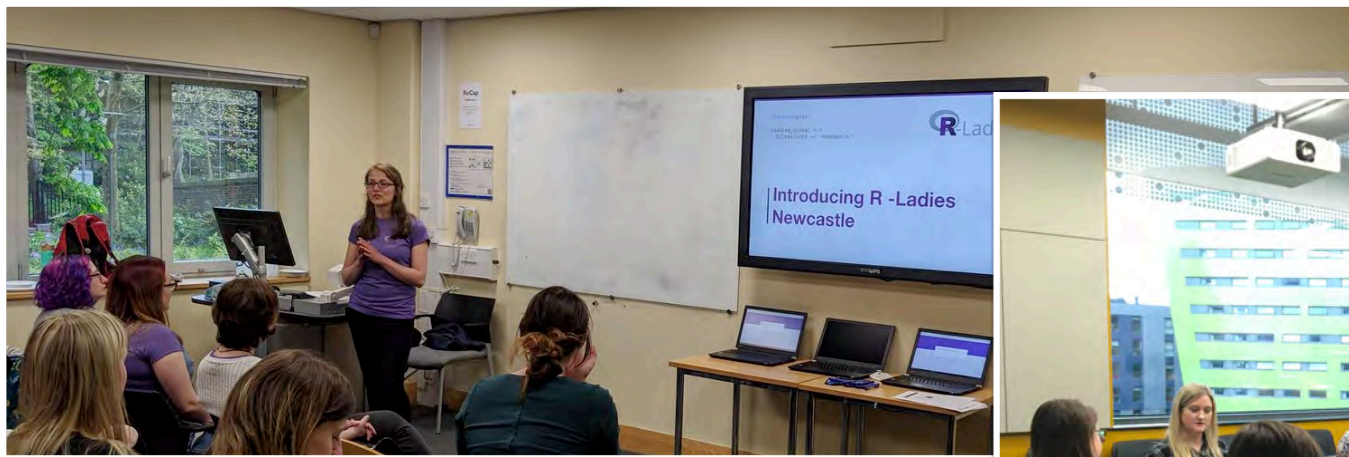


@AnalystNetNE



AnalystNetNE@gmail.com





#RLadies

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15th April 2021

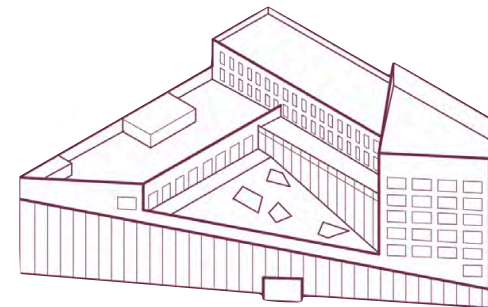
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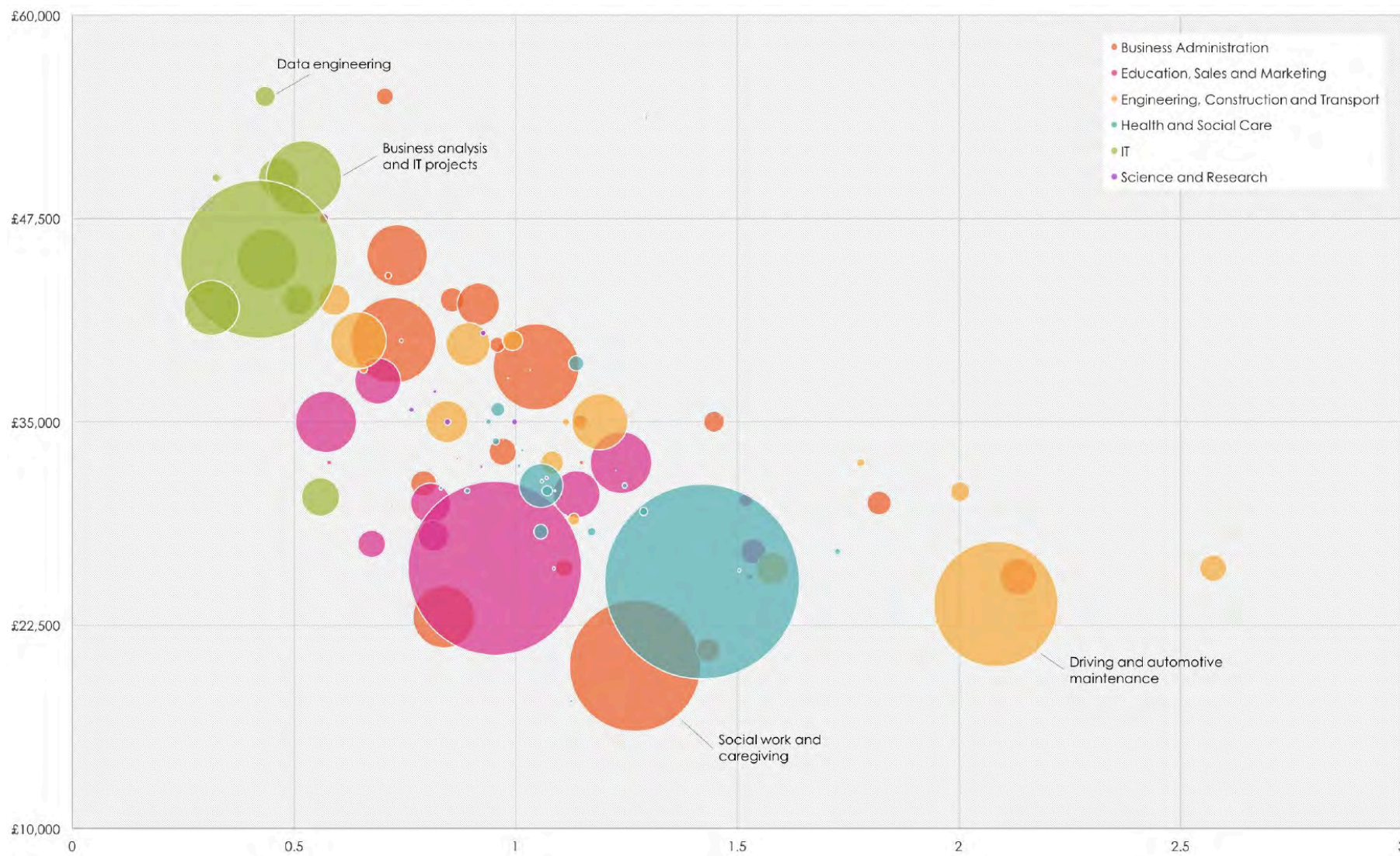
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Resources: <https://github.com/MattForshaw/AIFestival-2021>

**The
Alan Turing
Institute**





Measuring regional skill mismatch and access to jobs.
Dr. Stef Garasto and Jyldyz Djumalieva (NESTA and Productivity Insights Network). June 2019