AI in UK

ARTIFICIAL INTELLIGENCE INDUSTRY LANDSCAPE OVERVIEW Q3 / 2018

TECHNOLOGIES, COMPANIES, INVESTORS, TRENDS

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Artificial Intelligence in UK Landscape Overview Q3/ 2018

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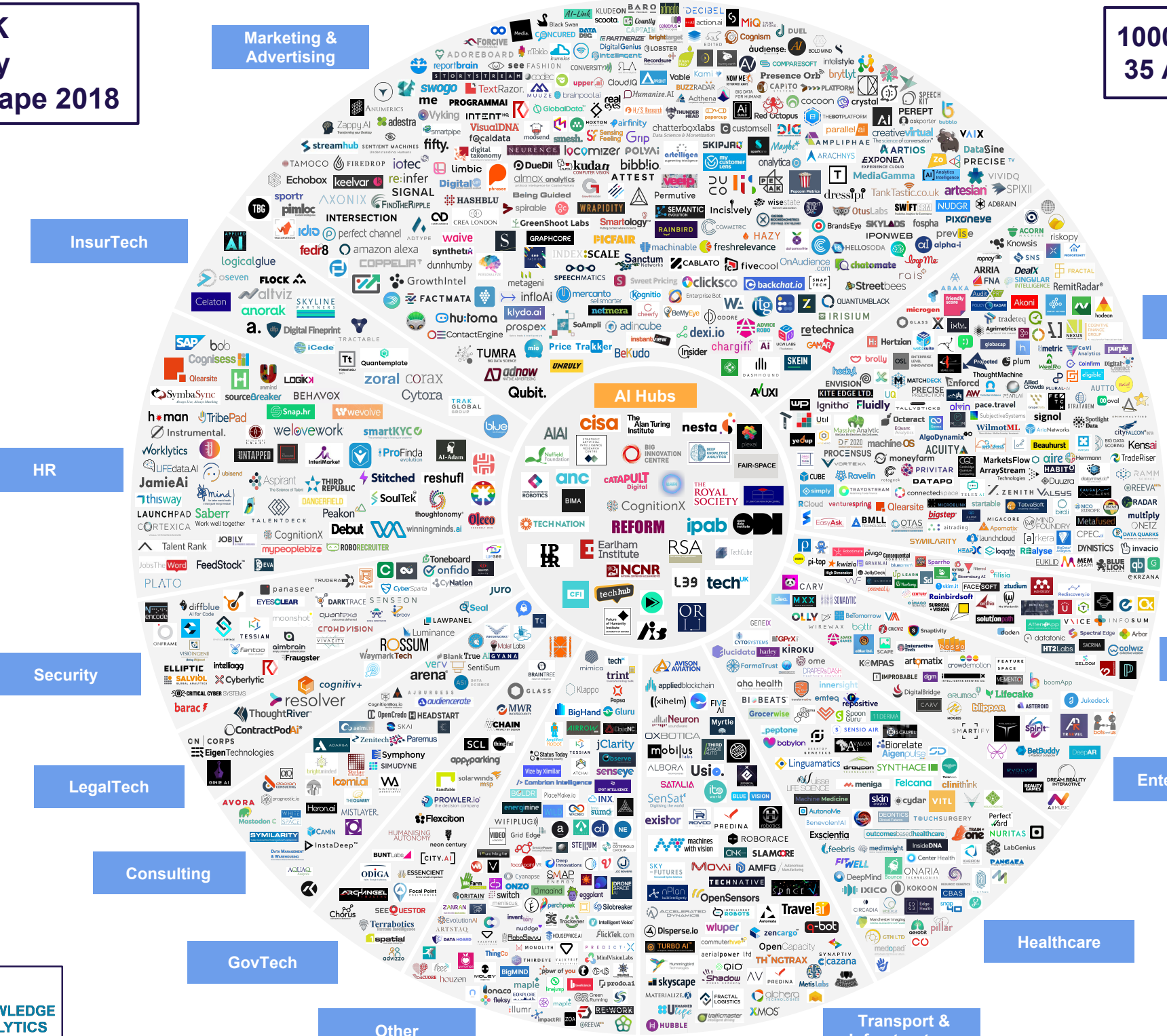
AI in UK Industry Landscape 2018

1000 AI Companies
35 AI Hubs



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The UK has all the elements and building blocks required to become a leader in the AI industry, but additional work should be conducted for further development of the UK AI invitation ecosystem and assembly of these elements to create maximum synergy between the existing components of the entire AI field. These resources are quite significant and enough to gain an undeniable leadership position on a global scale.

The UK has quite enough resources on the side of investment and soft Government support, but AI industrial applications are significantly disproportionate. For example, there is an obvious and unnecessary abundance of sectors such as marketing and advertising, entertainment and FinTech, and a clear lack of development in such strategically important sectors as EdTech or GovTech.

This disproportionality is also present between scientific advances and practical applications that are arriving on the market, as well as in the development of specific methods of AI technology itself - on this matter an additional efforts should be applied to fill these gaps, taking in account examples of successful solutions implemented by other countries.

Having established a very promising AI Industry foundation, the nation is now tasked with forumating proactive strategies to increase synergy between subsectors and distribute resources strategically, being transferred them from overvalued subsectors to subsectors that are comparatively lacking, despite being much more important in terms of both potential value as well as strategic impact.

On a global scale China and US are currently obvious leaders. Several countries (Canada, EU, Israel, Russia, as well as Southeast Asia countries, such as Singapore, South Korea, Taiwan and Japan) are competing for the leading positions in the Top-10 list. Accordingly to the recent declarations of president Macron France is also making significant investments on the Government level to accelerate the development of its AI industry.

The UK is the best contender for #3 and has the strong possibility to outcompete the EU, Canada and Southeast Asia (excluding China), because of the fact that UK is also a global financial and advanced scientific hub, it has a strategic competitive advantage over most other countries.

Today AI-technology has become much more than technology, and is considered as the most impactful sector affecting the future of entire states and nations. **The UK Government has proven itself as one of the most proactive and progressive countries in its national AI-strategy, which is internationally recognized among the most pragmatic and balanced strategies put forward by any nation.**

This report is a step in an ongoing effort to provide a framework for assessing the optimal road forward, and for developing a roadmap that can be used to assist in the efficient and synergetic assembly of the tools and assets which the UK has at its disposal.

While China is actively challenging the US as the dominant leader in the international AI race, **the UK has considerable prospects of becoming an international leader in some specific niches including healthcare and fintech, and in the development of AI ethics, governance and safety frameworks on a global scale. In particular, it has substantial potential to set the gold standard for "Good Trusted AI" and to develop international laws for the prevention of oppression, discrimination and biases resulting from the unethical use of AI.**

The UK's strong potentials in this area is is the synergetic result of numerous supplementing factors, including the fact that London is a leading financial global hub, the substantial scientific prowess and intellectual excellence emanating from constellation of world-class universities, including Oxford and Cambridge, and the unparalleled reputation that the UK has cultivated for the development of strong ethical traditions relating to industry, finance and governance. **It is the combination of these factors that makes the UK one of the most probable candidates to become the leading engine of the 4th industrial revolution, economic growth and social progress globally.**

The ultimate aim of this report is to provide a framework of AI industry for assessing the optimal road forward, to assist in the efficient and synergetic assembly of the tools which UK has at its disposal, and for development of the most advanced AI innovation ecosystem by 2020.

AI in UK / Key Influencers

Policymakers

Christopher Holmes

Eileen Burbidge

Elizabeth Denham

Gila Sachs

Greg Clark

Jeremy Wright

Margot James

Martha Lane Fox

Matthew Hancock

Matthew White Ridley

Norman Lamb

Rajesh Agrawal

Rannia Leontaridi

Roger Taylor

Sam Gyimah

Sana Khareghani

Stephen Metcalfe

Sue Black OBE

Theo Blackwell

Timothy Clement-Jones

Academia

Alan Winfield

Christine Foster

Dame Wendy Hall

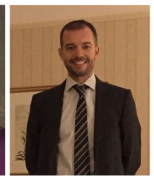
Daniel Rueckert

Joanna Bryson

Kaspar Althoefer

Luciano Floridi

Margaret Boden


Mark Briers

Mike Wooldridge

Miles Brundage

Nando de Freitas

Noel Sharkey

Peter McOwan

Rebecca Fiebrink

Rodrigo Mendoza Smith

Rose Luckin

Sandra Wachter

Seán Ó hÉigeartaigh

Stephen Cave

Business

Ali Parsa

Andrew Anderson

Azeem Azhar

Claire Calmejane

Demis Hassabis

Dmitry Kaminskiy

Goncalo de Vasconcelos

Jacob Ayres-Thomson

Jérôme Pesenti

Katia Walsh

Kenneth Mulvany

Mark Nicholson

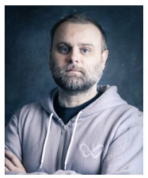
Mustafa Suleyman

Nicole Eagan

Nigel Toon

Reggie Bradford

Rishi Khosla


Rodolfo Rosini

Sally Eaves

Stan Boland

Think Tanks and Hubs

Alan Wilson

Anthony Painter

Benedict Dellot

Berndt Müller

Birgitte Andersen

Eleonora Harwich

Felicity Burch

Geoff Mulgan

Imogen Parker

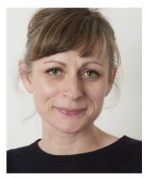
Jeni Tennison

Nick Bostrom

Niki Iliadis

Olly Buston

Pete Trainor


Rachel Coldicutt

Sue Daley

Tabitha Goldstaub

Tarek Nseir

Tina Woods

Tom Kibasi

The number of AI startups headquartered in the UK grows day by day, and the UK AI Industry's dynamic of growth has now reached a truly astonishing pace. The number of UK AI Industry investors is also growing steadily. And there are incredible opportunities for international collaboration, not only with the US but also with other global growing Tech hubs like Singapore, Hong Kong, Dubai, etc**.**

We are now at the point in time when all of the activities mentioned above, taken together, can be reasonably described as the Cambrian Explosion of AI in the UK. The nation has very strong potentials to become a global leader in AI, provided that sufficient commitments from the UK Government were made in order to prioritize it as a matter of national strategic importance. Given the substantial surge of activities on the part of the UK Government throughout the past several months, ranging from Governmental reports, new AI offices and committees, and the announcement of well-funded Government and private sector **partnerships** and **initiatives,** it is clear that the **Government *has* confirmed its commitment to prioritize the development of the AI industry as a core part of its national agenda.**

There is no doubt that the nation will see tangible and practical deliverables as a result of these efforts and initiatives over the course of the next several years. The only remaining question pertaining to the **specific nature** and **magnitude** of those results is how these now-abundant resources and initiatives can be most **effectively assembled**, in a **synergetic** and **convergent** manner, in order to maximize the return on the investment of funds and non-monetary resources. Effectively understanding the **challenges** and **opportunities** of the UK AI Industry landscape is exactly what this report has set out to achieve; serving as an effective tool for the **tactical optimisation** of the industry as a whole.

Nonetheless, there are roadblocks to progress that remain in place. One of the foremost roadblocks is referred to as the "**brain drain**" problem in Section III of the present report, and denotes the fact that the US is rapidly acquiring many of the UK's top AI talent and specialists, thereby diluting the resource which is not only the most scarce, but also the most crucial to succeeding in the mission to become a global leader of AI within the next several years.

These and other **infrastructural roadblocks** remain. **The UK has many potentials to neutralize these pitfalls and bottlenecks**, but only through effectively recognizing them, and executing strategic initiatives in order to combat them. And it is this specific purpose - i.e., **effectively understanding the challenges and opportunities of the UK AI Industry landscape - that this report seeks to assess and forecast, in order to serve as an effective tool for the strategic optimization of the industry as a whole.**

In this report we systemized and summarized all the publically available data on the AI industry in the UK, and created comprehensive mind maps to represent this data. Our aim in producing this report was to provide useful tools for decision makers and technical experts to further the development of this industry.

The AI revolution is going to be enormous and it demands the concentrated attention of a dedicated legislator at the government level. AI is likely to have wide applications in the processing of applications and submissions, including for tax, benefits, visas, passports, and other Government licenses. Thus, AI is going to have strategic positions in the world's economy and politics. It is possible to see AI becoming a utility, improving the functioning of all digital applications and digitized functions.

"AI in UK: Artificial Industry Landscape Overview 2018" begins with an analysis of the current state of the industry. It is well known that UK is one of the countries leading the AI industry. In October 2017, the UK Government announced an industry-led review of how the private sector and Government can create the conditions for the AI industry to continue to thrive and grow in the UK, as part of a broader Digital Strategy for the UK economy. Likewise, building public confidence and trust will be vital to successful development of UK-based AI industry. That is why the Government should actively promote and bring awareness of the impact that AI will have.

The report has several chapters dedicated to **1000 companies** based in the UK and **600 investors**, and covers various AI-subsectors, including: Healthcare, FinTech, GovTech, etc., and profiles leading companies operating in each of these subsectors. The report also features profiles **AI related think tanks, tech hubs, accelerators, conferences, research centres.** A specific chapter is dedicated to **80 influencers** and is divided into 4 parts: influencers in business, academia, think tanks and policymakers.

A specific chapters are dedicated to government and parliamentary initiatives on AI in the UK; analysis of a global AI race and current state of development of AI-industries in different countries, and position of UK in this global AI-landscape; ethics of AI, issues related to data security and privacy, inequality and statistic related biases; private, commercial, non-profit Initiatives and activities.

A significant part of the report is dedicated to profiling of multiple practical applications and use cases.

The goal of this report is to give a clear perspective and in-depth snapshot of the current state of the AI industry in the UK in Q3 2018, and to identify the main players (companies, investors, influencers, hubs, government entities) involved in the industry and to outline main trends.

AI in UK Technology Landscape 2018

1000 AI Companies

Machine Learning

Computer Vision

Chatbots & AI assistants

Predictive Analytics

Robotic

IoT

Other

Search Engines and Language Processing

Recommendation systems

Intelligent Data Analysis

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600 - AI Investors

Marketing and Advertising

Security

Entertainment

Healthcare

Transport & Infrastructure

Other

AI in UK INVESTORS Q3 2018

GovTech

Education

HR

Consulting & Outsourcing

FinTech

InsurTech

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BIG INNOVATION CENTRE

1000 - AI Companies

MARKETING & ADVERTISING

CONSULTING & OUTSOURCING

ENTERTAINMENT

HEALTHCARE

LEGALTECH

OTHERS

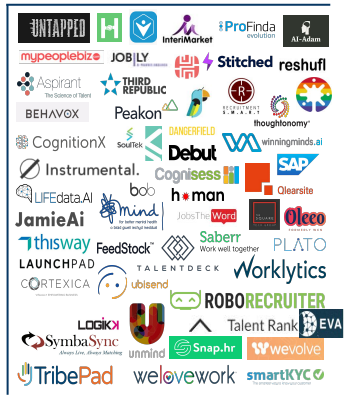
AI in UK

Q3 2018

GOVTECH

EDUCATION

HR



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