Written by Ed Dixon, CEO of Bayezian

“If G20 countries fail to adapt to meet the needs of the new technological era, they could be in line to miss out on as much as $1.5 trillion in GDP growth over the next 10 years.”

As we head into a new decade, a decade coined the fourth industrial revolution, the attention turns to the well documented global skills gap, specifically in the areas of digital, automation, data science, machine learning and AI. The headlines such as the above are prophesying impact at an economic scale. In my travels across our industry I'm seeing business leaders addressing the gap head on and the needle is shifting. A focus area for me is could the next generation of school leavers, graduates and those at the start of their career go some way to bridging the gap.

The esteemed science institution The Royal Society announced in May of last year that according to a labour market analysis commissioned for Dynamics of data science skills.

“demand for workers with specialist data skills like data scientists and data engineers has more than tripled over five years (+231%),

In 2018, global consulting firm Accenture suggested that should this failure to close the digital skills gap continues, the UK economy could forfeit as much as £141.5 billion of the GDP growth promised by investment in intelligent technologies over the next ten years.

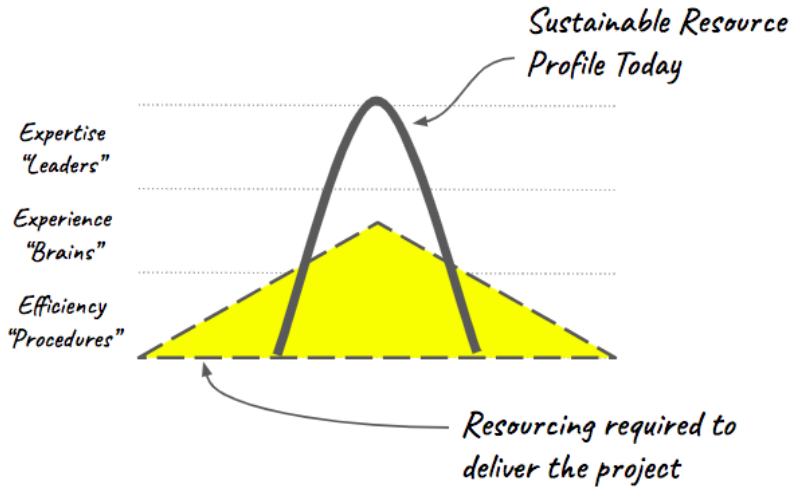
And way back in 2016 IBM foretold a lack of skills in the digital workforce with Sanjay Brahmawar, the Global Head of strategic business development at IBM pointing out that “by 2020 we will have one million unfilled jobs in the IT sector. Primarily because the skills we have today aren’t the right skills for the future. The future is more about the business understanding and its data.” Do we have one million unfilled jobs?

It’s not all about the lack of digital skills as I'm finding...

- Sourcing models are changing as companies take in-house digital transformation looking to traditional outsourcers to run their legacy systems or do the heavy lifting.
- And dare I say with Brexit "getting done” next week there remains uncertainty over freedom of movement for digital skills.
- Finally, with IR35 looming the reliance on contractors becomes complicated.

Bridging the Gap, Fixing the Pyramid and Launching Careers

One of the major challenges is that resourcing profiles are traditionally not sustainable to support peaks in demand. The skills gap compounds this with expensive, experienced team members, and in some cases management, having to undertake the jobs designated for those at the lower, efficiency part of the pyramid.



It's not new news that school leavers and graduates are well positioned to play a significant role in bridging the digital skills gap and fixing the pyramid. The question is how ready are they?

Robust research last year from Dellotte - based on responses from 158 digital leaders from FTSE-listed companies, large private companies and large UK public sector organisations with a combined market value of £1.38 trillion - pointed out that:

“Digital skills are not a static set of skills. We live in a world where the half-life of a technical skill is two-and–a-half years at most. On that basis it should not be a surprise that people are coming out of education with skills that are not relevant to the way we work."

“18 per-cent of business leaders believe that school leavers and graduates have the right digital skills and experience, up from 12 per cent six months earlier."

So if we are to launch careers, there are a number of things employers might consider...

- Last year has seen many companies follow tech giants Apple, Google, and Netflix announced that candidates do not require a degree and this is becoming the norm.
- Even the best graduate programmes fail new starters, especially when the candidate already knows what they want to be…. “I want to be a data scientist and I want to focus on my career from day one”;
- Are companies ready for school leavers? Are apprenticeships the answer? As of today, there are five Data Science apprenticeship schemes on gov.uk, four of which are from the same organisation.
- Whilst 90% of graduates find employment, of the 800,000 graduates 380,000 were "underemployed" according to The Office of National Statistics at Sept 2019. Is this down to schools, universities, companies, government or the individual?

The good news is this year, the UK government announced investments of £1 billion in AI, including funding for 1,000 AI PhDs and training for around 8,000 secondary school teachers in computer science.

Companies across the UK are investing significantly in digital technologies in order to transform their businesses. Without ensuring that teams are made up of expertise, experience and efficiency with the right knowledge and abilities at each level of the pyramid, then most of these investments may well not deliver and prove worthless.

About Bayezian

Welcome to Bayezian. We are the UK's first Data Science & AI incubator and services business that trains and retains people at the start of their career to bridge the skills gap in data science & AI for our customers and create the next generation of leaders and innovators.

About the Author

Ed Dixon is the founder, CEO and Chief Mentor at Bayezian dedicated to launching and accelerating early careers in Data Science & AI.

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