

WE ARE TECH NORTH



# Northern Digital Jobs Strategy Report

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#DigitalJobs

# Foreword

## Richard Gregory, Tech North



Back in April 2017, we convened over a hundred members of the digital community in the North of England to propose solutions to the skills gap... not just talk around the edges of it. We were, and still are, focused on action.

Since the event, which happened during the leadup to the General Election, we've commissioned some solid data to further help us quantify the size and shape of the tech skills gap in the North. By doing this, we've moved from anecdote to fact. Over the past three years there have been 712,750 digital tech job vacancies across the North of England. This presents a big challenge - digital tech roles are more likely to remain unfilled compared to other industries. However, this is also an opportunity since these jobs typically pay 48% more than the median average salary, and deliver a higher level of productivity to the economy.

As this report shows, we've summarised a number of streams of activity resulting from the April event. Tech North (soon to be Tech Nation) will attempt to address some of the topics, but it's for the industry as a whole to take ownership of the challenge.

I want to take this opportunity to thank our sponsor, EY, for recognising the need to take action and for supporting us to date.

# Foreword

## Bob Ward, Senior Partner, North at EY



The findings of this report chime with EY's own research in our annual UK Regional Economic Forecast, which illustrates the importance of sectors in determining growth prospects in the short to medium-term. The report forecasts that nationally, the Gross Value Added (GVA) of the Information and communications technology (ICT) sector will grow by 3.5% a year over the next three years. In contrast, manufacturing is only expected to grow by 1% over the same period.

The report also indicates the beginnings of potentially radical changes in where the North's future employment growth will come from. The digital revolution continues apace with marked changes to the make-up of the North's economy on the horizon. One particularly bright spot is Manchester, which is forecast to be the strongest performing UK city in terms of both GVA and employment growth to 2020. Technology is cited as one of the sectors that will be key to driving Manchester's economy.

The digital and technology sector offers one of the biggest opportunities to create a more diverse Northern economy and investment in tech skills will therefore be vital to improving the North's growth trajectory.

The Government's investment in both training computer science teachers and digital skills - referenced in November's Budget - is very welcome at this time of rapid change. But the speed of growth this sector is experiencing and the size of the opportunity for the North means that, if we are to ensure we have the right talent to make the most of it, we all need to respond now.

That's why EY is supporting this report by Tech North which, after extensive consultation with members of the North's digital community, outlines tangible, practical action. These recommendations will help to ensure that the North has some of the best tech talent in the country to meet the opportunity and ultimately improve the growth prospects of the North.

The EY logo, consisting of the letters 'EY' in a bold, white, sans-serif font, set against a dark green background.

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# Executive Summary

**The 'digital skills crisis' is never far from the headlines in most digital economies across the world today. Companies in the UK say they need 'talent' more than anything else to help them grow – and they need it yesterday.**

Likewise, the 'Northern Powerhouse' concept continues to gather both positive media mentions and probing questions in near-equal measure. Regional groupings in the North now span the public and private sector, looking at everything from infrastructure to education within increasingly formalised structures. These groups are currently arming themselves with the information and supporters they need to cement the success of this political project.

At Tech North, one thing we wanted to understand was how we might solve our region's skills challenges, in order to shore up the North's future. Unlike a city like New York, which leads the world's innovation measures because its political leadership is willing and able to act on this issue, the North has no one leader and is instead a patchwork of local governance with little or no control over education.

We know that digital jobs pay more, but from our work with the IPPR North on its Devo Digital skills report, we also know that all of the North's regions have substantial digital skills gaps for those workers educated to undergraduate level or equivalent.

But our region kickstarted the industrial revolution, is the home of cooperative business, led the women's suffrage movement and created the first computer – which makes a great basis for the North to lead on building a collaborative and diverse digital sector.

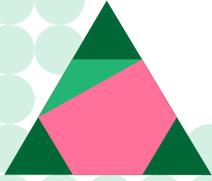
And with good salaries, great jobs, jump-for-joy house prices and awesome quality of life, our region has things that many other cities across the world simply cannot offer.

This Northern Digital Jobs Strategy has been created using research from Manchester's Centre for Local Economic Strategies and the IPPR North think tank to create eight themes under which our efforts can be grouped. These eight themes were then consulted on with the community at Tech North's Digital Jobs Action Summit, supported by EY.

The document explores a range of ideas for local, regional and national initiatives for action brought forward at the event. They include creating a regional digital skills network, building a regional digital jobs portal and launching a jobs campaign.

Tech North is set to launch a new platform that aims to provide the most accurate measure of the scale of the 'digital skills gap', by number, vacancy type and skill.

This will help policymakers, employers, parents, teachers and learners make decisions about how and where they invest their time or money.



# THE NORTH IN NUMBERS

**168,671** digital tech workers

Productivity growing 4x faster than the wider economy

**48%**

higher average salary in digital tech

**£9.9 BILLION GVA** from digital tech roles



**31**

universities



**11**

local enterprise partnerships



**8**

key digital clusters



**7**

of the most cost-effective places to have a digital job



**3**

metro mayors

**712,750** digital tech job vacancies in three years

**58%**



# 1 big problem

Digital tech vacancies are the most common job type in the North of England

58% of digital companies in the North say finding 'talent' is a key business challenge

# Digital Jobs Action Summit

**The Digital Jobs Action Summit was a day-long event held in Leeds on the 27 April 2017. It brought together people from the public, private and third sectors to discuss the significant skills challenges facing the North. The day included high-profile keynote speakers, a series of panel discussions and several short 'lightning talks' from companies already addressing parts of the problem, then opened up for contributions from all the attendees.**

**Below are some highlights from the day.**

## Keynote Speakers

### Julian Misell, Researcher, Tech City UK

- High-quality digital jobs have been created across the North, but many employers cite finding 'talent' as their biggest challenge.
- According to Tech Nation 2017, 58% of employers in the North say that 'talent' supply is a challenge, compared to 53% in London and the South East, and 35% in Northern Ireland.
- The primary challenges faced by companies include a lack of relevant industry experience among candidates (45%), difficulty targeting the right people (39%) and issues surrounding pay (35%).
- The North is struggling to recruit international hires to fill the gap – only six per cent of digital workers in the North are foreign nationals, compared to 31% in London.
- This is an especially large issue because just 11% of the UK's digital workforce has a master's degree or PhD, compared to 13% of EU nationals and 18% of non-EU digital workers.
- This challenge will be exacerbated by Brexit, with over a third of the North's businesses saying Brexit will make it harder for them to attract people.

## Stuart MacDonald, Associate Director, The Centre for Local Economic Strategies (CLES)

- Employment in the digital sector has been growing across the North in recent years, with the strongest growth in Cheshire and Warrington, then Greater Manchester.
- The number of businesses in this sector as captured by CLES has grown by 215 across the North in the past year.
- CLES mapped skills provision across the North and found a total of 638 providers offering more than 3,000 different courses from Level 3 to Level 7.
- While there is a lot of traditional digital skills provision, teaching has not kept pace with digital job demands.
- One in five businesses in Manchester report turning down work because of skills shortages, and 18% said they had to outsource work in response, according to Manchester Digital's talent survey.
- The skills devolution process has been patchy and partial – a more coherent package of devolution is needed to meet these challenges, including a devolved digital industrial strategy with enough funding to make it happen.

## Grace Blakeley, Researcher, IPPR North

- Local businesses should pool the funding they will receive as part of the Apprenticeship Levy and invest this in a set of agreed strategic initiatives to promote digital skills in their area.
- Greater power over funding for adult skills should be devolved to local and combined authorities.
- Depending on the nature of Brexit, overall issuances of Tier 1 and Tier 2 visas for digital workers should be increased.
- Long-term system changes should focus on curriculum, CPD, careers and collaboration.

## Lauren Andersen, Executive Director, New York Tech Talent Pipeline (NYTTP)

- The city of New York's Talent Pipeline audited the talent needs of the sector and used this data to compile the NYC Tech Talent Industry Insights briefing.
- It then engaged the sector in order to co-produce solutions based on these insights, before testing what works and bringing successful initiatives to scale.
- Through this process, the NYTTP has engaged over 175 employers, created 10 new programmes serving over 750 academic institutions, leading to 1.1m students receiving a computer science education.
- Some of the most important lessons from this process have been:
  - Skills provision isn't philanthropy, it's good business and good governance.
  - Bringing something to scale isn't the same as replicating it locally.
  - Empowering champions is critical for maintaining momentum and moving towards self-sustainability.

## Nick Srnicek, Author, Platform Capitalism

- The risk of automation varies by sector and location, and many jobs are not at risk – borne out by the increasing polarisation of the labour market, with the lower end of the skills spectrum marked by precarity and low pay.
- While the tech sector itself is growing, it is an increasingly jobs-lite industry – in the UK, manufacturing employs three times as many people, while the growing gig economy represents only 3% of the labour market.
- The caring economy, on the other hand, is booming, partly as a result of demographic changes – and these jobs are increasingly digitally-enabled.
- We need to rethink the way in which we define digital jobs, as well as looking in greater detail at the skills necessary for the new economy – the future will be “high-tech and high-touch”.

# Panel Discussions

## What is the real problem?

- The careers advice system isn't fit for purpose – people are making decisions about their careers with insufficient information and support.
- Teacher training is a critical part of this – something that could be facilitated via Massive Open Online Courses, given large demands on teachers' time and limited resources.
- Digital skills aren't just technical skills – digital jobs require a whole host of 'hard' and 'soft' skills that should be taught more proactively from a young age.
- It's important to ensure business is engaged with schools to raise awareness of jobs and ensure schools are teaching the right thing.
- Tackling the gender employment gap requires culture-wide change in established organisations – they need more visible role models, to keep hold of 'talent' and to get the best out of returners to work.

## The supply of workers and the perception of jobs

- There's plenty of technical 'talent' out there, but many don't have 'soft' skills to back it up, making it harder for them in the workplace.
- Digital jobs aren't just attractive because of pay, they are creative, have a lot of autonomy and there is potential for rapid progression.
- It's very important that different sectors are collaborating to share best practice around attracting and keeping staff.
- There's still the perception that careers in tech are inaccessible, niche and specialist.
- Universities have to adapt to the changing economy – they need to become less elitist and more grounded in their local communities to encourage the development of local skills systems.
- Apprenticeships should be sold as a legitimate alternative.

## The demand from companies and the culture of work

- Culture is something that has to be set proactively, not assumed.
- Leaders need to set an example to promote positive group dynamics and engagement.
- Culture must be flexible to the needs of people in the workforce – people from different backgrounds, particularly non-university, find digital culture hard.
- Being a fully integrated employee and team member are not skills taught at school – but are really important for integrating employees.
- Retention is very important, especially women, and culture is a critical part of this – digital companies should be better at using tech to help new parents stay engaged.

## Why can't we learn? Lessons from success

- Assessment and accreditation isn't built around the needs of employers – we need to move away from exams to a holistic process.
- Teachers, employers and students should all be involved in designing qualifications for the market.
- Employers must take some responsibility for making the most of the people they have, to think more creatively about who they hire and why, and to provide proper training.
- It's very important to create localised skills solutions, and devolution should be a big part of this – city regions are good geographies to audit skills provision and have stakeholders work together towards a shared goal.

# A Northern Digital Jobs Strategy

**Following on from the talks and panel discussions, participants at our Digital Jobs Action Summit were divided into groups to discuss what they had heard, focused on eight themes created using the IPPR North and CLES research.**

These interactive workshops were chaired by Happen CIC and the results were combined with an online poll that allowed people from across the region to vote for their preferred intervention.

The winning theme identified via the online poll was to 'design and fund an alternative system to our traditional education system to solve the problem' and while we would support an organisation that takes on this challenge, it is beyond the scope of this document.

The other results from the poll are outlined below, followed by a greater look at each problem we're seeking to address, with key suggestions we felt might solve it.

- 1. Create a Northern Digital Skills Network to connect, coordinate and drive digital skills activity in the North, in line with the Digital Skills Partnership agenda (19%).**
- 2. Create a Northern Digital Jobs Portal to drive employers with opportunities, and learners with availability, into one place (13%).**
- 3. Improve careers advice so that, no matter what your age, you know there are opportunities in digital (12%).**
- 4. Make digital mainstream in schools so that the 'digital skills crisis' fixes itself long-term (12%).**
- 5. Encourage those from underrepresented groups into the digital sector (6%).**
- 6. Use the Apprenticeship Levy as a catalyst for changing our attitudes to employability, as well as ensuring that other types of training still count (6%).**
- 7. Run a Northern digital jobs awareness campaign to drive people to seek out training and jobs opportunities in the North (5%).**
- 8. Prioritise skilling up our local workforce to deal with the potential effects of Brexit (5%).**

One of the most pressing of these areas is the creation a Northern Digital Skills Network that can drive shared policy, knowledge and activity across the North, as well as providing a platform for the region to be visible to national government.

Transport for the North is set to gain statutory status as England's first regional body for transport, paving the way for different critical areas like skills to gain the legal power and financial independence they need to drive progress.

Many of the other ideas outlined below should be taken forward by such a group, with the support of the digital sector, as well as local, regional and national government.



## Create a Northern Digital Skills Network to connect, coordinate and drive digital skills activity in the North, in line with the Digital Skills Partnership agenda

**THE PROBLEM: THE PROBLEM:** There is no clear view of, or consensus, on what a regional digital jobs strategy should look like and do, limiting the potential for collaboration, the opportunities for pooling influence and the necessary strategic initiatives delivered at the right level to have the biggest impact.

- Convene a meeting of key stakeholders to be involved with the Northern Digital Skills Network, spanning both geography and sectors.
- The meeting will agree a vision and broad aims of the group, and discuss the policy recommendations outlined in this strategy.
- Participants will approve a structure for the organisation, including membership, digital collaboration platform, key work areas, key roles, and next steps.

### CASE STUDY: NEW YORK TECH TALENT PIPELINE

- In 2014, Mayor Bill de Blasio unveiled a vision for an 'effective pipeline' for getting people into tech spanning right from primary school into the workforce.
- The 2016 NYC Industries Insights report collates hundreds of conversations with a now-175-strong network of employers, everyone from Kickstarter to JPMorgan, in order to define the key competencies, skills and tools of a tech worker.
- The NYTTP has an advisory board of 28 CEOs, CTOs, CIOs and other executives from leading tech companies in the city to help define and refine tech education.
- An academic council of post-16 educational institutions are now equipped to deliver 'quality, industry-informed tech education at scale'.
- Job descriptions, internship opportunities and applicant screening tools have all been developed in conjunction with employers.



## Create a Northern Digital Jobs Portal to drive employers with opportunities, and learners with availability, into one place

**THE PROBLEM:** Many people do not know about the abundance of digital jobs in the North, what skills those jobs require, where they might get those skills and who they could be employed by. This means well-paid jobs are going unfilled, while people leave education without a clear idea about where they could work and others remain in jobs that are low-skilled, and at risk of automation.

- Create a single place where employers who are engaged with the Northern Digital Skills Network can host digital opportunities, and learners including those returning to work can go to find them.
- Ensure technical and non-technical digital opportunities are visible, understandable and obtainable, with clear routes into jobs even if training is required.
- Use Tech North's Northern Digital Skills Index training companies as the basis of a marketplace for opportunities in tech, obtained via these different courses.

### CASE STUDY: NORTHERN DIGITAL SKILLS INDEX

- Tech North worked with The Tech Partnership to create a measure for alternative digital skills provision, to make training more transparent and more accessible.
- Tech North can now signpost and recommend local training courses to employers and potential students, using SFIA and Ofqual-equivalent metrics.



## Improve careers advice so that, no matter what your age, you know there are opportunities in digital

**THE PROBLEM:** A lack of informed careers guidance means that young people are often not aware of all the opportunities available to them in the digital sector. Funding for careers services has been cut substantially over the last 10 years and so it's up to local stakeholders to be creative about how to get the right information to the right people.

- Create a business-supported knowledge hub and event series to share best practice and resources between industry, education, parents and learners, including creating role model profiles, highlighting pay and progression, and showcasing returnships.
- Create a regional digital competition across all ages to showcase digital skills in the real world.
- Extend the role of university careers hubs, ensuring they interact with local people and local needs, including disseminating careers advice to FE providers.

### CASE STUDY: FOUNDERS4SCHOOLS AND WORKFINDER

- Founders4Schools was created as a free service in the UK by entrepreneur Sherry Coutu to help schools find relevant, local careers speakers from industry.
- F4S has facilitated around 200,000 interactions through its easy-to-use web platform.
- The new Workfinder app enables young people to arrange their own work experience in just a few taps using F4S' database of willing employers.



## Make digital mainstream in schools so that the 'digital skills crisis' fixes itself long-term

**THE PROBLEM:** Progress has been made in recent years in the mainstream education system – with the introduction of the coding curriculum a particularly welcome step. Despite the creation of a host of new educational brands – like University Technical Colleges and Future Tech Studios – for the most part mainstream education has changed little over the last 10, and even 100, years.

- Universities to provide digital skills training for all trainee teachers, as well as additional professional development courses to those already in work.

### CASE STUDY: TECH FOR LIFE

- Newcastle's Tech for Life provides digital skills training for people of all ages, and now teachers can benefit from cost-effective, industry-led computer science, coding and electronics CPD courses.

- Train and appoint 'digital governors' to lead on ensuring relevant initiatives like teacher-business skill-swaps and relevant careers advice are embedded in schools.

### CASE STUDY: 1 MILE PROJECT

- Rocket Fund's 1 Mile Project in Hackney helps local schools raise funds for digital equipment by partnering up with tech firms located nearby.
- Part of a campaign to ensure businesses are better-embedded in their community, offering employees the chance to get behind local people.

- Embed work-like practices into school time, including cross-curriculum project weeks, work-related briefs set by industry, and a focus on 'internships' and not 'work experience'.

### CASE STUDY: MEDIACITY UTC

- Salford's MediaCity UTC partners with local companies and organisations like the BBC to set worthwhile, live briefs to show off their students' skills.
- Partners can get as involved as they like, ranging from giving a talk or running a workshop, to offering a workplace.



## Encourage those from underrepresented groups into the digital sector

**THE PROBLEM:** The digital workforce in the UK is not diverse and does not appear to offer jobs for all kinds of people, which means employers are selecting from a limited pool, pushing up salaries and making hiring expensive.

- Companies should sign-up to and implement the seven recommendations of the Tech Talent Charter, including identifying a responsible person internally, creating a benchmark to measure progress and contributing data to a shared diversity resource.
- Create free or subsidised digital courses, and conversion courses, to fast-track underrepresented groups into jobs.

### CASE STUDY: 23 CODE STREET

- Women-only coding bootcamp 23 Code Street trains a woman in India for free every time someone in the UK signs up for the 12-week, part-time, £1,500 course.
- 23 Code Street has now partnered with Amaliah, a lifestyle and identity website for Muslim women, to subsidise two spots for its audience.

- Create an open database of resources to help a diverse range of people find the right company for them and help companies be inclusive to all, with a 'super network' to connect advocate groups together.

### CASE STUDY: PROJECT INCLUDE

- Project Include is a not-for-profit that offers a step-by-step process for companies aiming to create diversity in the workplace.
- It focuses on inclusion, as well as comprehensive and accountable change.

### CASE STUDY: DIVERSITY CHARTER

- The Diversity Charter offers resources for event organisers and speakers in order to help them ensure their event is inclusive to all.
- It also asks users to pledge to make their events inclusive in the future.

### CASE STUDY: NORTHERN VOICES

- Tech North's Northern Voices trained 28 women working in digital for public speaking and media opportunities, followed by six months helping them secure bookings.
- The idea was to help women use existing platforms to highlight the digital industry as an attractive option for more people, while eradicating 'all-male panels' and the business culture that implies they are acceptable.
- By bringing together technical and non-technical women of all ages and backgrounds, it wanted to make it clear that they don't have to be 'techies' to be in tech.
- So far, the women have almost 200 appearances done or in the pipeline and the idea has now been taken up by the Department for Work and Pensions.



## Use the Apprenticeship Levy as a catalyst for changing our attitudes to employability, as well as ensuring that other types of training still count

**THE PROBLEM:** The Apprenticeship Levy has come into force, but more work is required to ensure businesses can take advantage of this opportunity, particularly as this route into work is still not as well-regarded as going to university by employers, teachers, parents and learners.

- Turn temping agencies into apprenticeship funnels.

### CASE STUDY: DORIS IT

- Doris IT hires graduates of any background and trains them for digital jobs, paying for it by hiring them out as contractors to companies like Co-op Digital and Shop Direct.
- All grads start on £20,000, going up to £24,000 and then £28,000 over the next two years.
- Eliminates the 'two years experience' requirement that can mean graduates find themselves in a 'catch 22', while taking the hiring risk away from companies.

- Create an Apprenticeship Training Agency model for digital businesses that are unable to commit to finding, hiring and supporting an apprentice full time.

### **CASE STUDY: ROBERT GORDON UNIVERSITY'S GRADUATE APPRENTICESHIP**

- These work-based learning degrees were set up with funding support from Skills Development Scotland (SDS) to address the national digital skills shortage.
- RGU's School of Computing Science and Digital Media is running two GLAs, a BSc (Hons) IT Management for Business and a BSc (Hons) Software Development for Business.

- Enable local businesses to pool the funding they receive as part of the Apprenticeship Levy so they can invest it in a set of agreed strategic digital skills initiatives, backed up by relevant digital tools so that apprentices can support and learn from each other.

### **CASE STUDY: MANCHESTER DIGITAL SOFTWARE DEVELOPER APPRENTICESHIP**

- The Manchester Digital Level 4 Software Developer Apprenticeship has been created by industry, for industry.
- It is co-designed and co-delivered with Manchester Digital members, ensuring the skills taught are those that businesses need right now, including 'soft skills' that ensure apprentices are work ready.
- The programme is delivered through an upfront programming bootcamp and then a series of two-day bootcamps, masterclasses and a hack day across an 18 month period.
- Manchester Digital currently takes one cohort a year but talent spots throughout, using test centres as an opportunity for companies to see relevant people before inviting them for interview.



## Run a Northern digital jobs awareness campaign to drive people to seek out training and jobs opportunities in the North

**THE PROBLEM:** Many people do not know about the abundance of digital jobs in the North and may be put off by the perception that these jobs ‘aren’t for them’, or have stereotyped views about who works in digital. This means well-paid jobs are going unfilled, while people leave education without a clear idea about where they could work and people remain in jobs that are low-skilled, and at risk of automation.

- Establish a means by which to regularly quantify the number, type and skill profile of vacancies across the region, in order for policymakers, educators, businesses and learners to make more informed choices about what they do.
- Create a pan-regional marketing campaign to incorporate some of the following messages:
  - ‘De-geeking’ the digital job image
  - Communicating what digital jobs are, without jargon
  - Ensuring that apprenticeships are seen as a great opportunity
  - Removing the assumption that skills are qualification-based
  - Embedding the idea that learning is lifelong
  - Labelling suitable companies as ‘good for women’, ‘good for disabled people’
  - Challenging the intellectual elite culture perception eg. ‘we are all mobile’
  - Changing perceptions of jobs by changing perceptions of local cities

### CASE STUDY: COMPUTER SCIENCE FOR ALL

- Mayor Bill de Blasio has expanded his Computer Science For All pledge, which saw high-quality technical education brought to every New York child, to commit to a doubling of public college graduates with tech degrees by 2022.
- The CS Doubling Initiative will ensure all courses have ‘industry aligned instruction, knowledgeable advisors and relevant work experience’.

- Create a pan-regional marketing campaign to incorporate some of the following components:
  - A youth advocate programme in schools, like STEM ambassadors, but to include wider digital jobs opportunities, like digital marketing
  - A graduate and apprentice-led recruitment campaign made possible by training first-jobbers to be digital jobs advocates
  - Local companies showcasing their culture by creating case studies for schools, teachers, colleges
  - Yearly 'back to your roots' inspiration scheme for employees at SMEs
  - Physical and digital connectivity to target different audiences where they feel most comfortable
  - Place-based summits created as a collaboration between industry, and further and higher education providers

### CASE STUDY: STEM AMBASSADORS

- There are currently 30,000 STEM Ambassadors across the UK, covering careers from architecture to zoology.
- STEM ambassadors volunteer to help in schools with everything from technical expertise and lesson planning, to careers talks and creating industry links.



## Prioritise skilling up our local workforce to deal with the potential effects of Brexit

**THE PROBLEM:** Now that the UK has voted to leave the EU, this could limit the amount of skilled immigration from the EU or present the UK as a less attractive option for international staff, which will compound the skills shortage we have in digital.

- Conduct an audit of successful global bootcamp models and ongoing available sources of funding, and assess potential for establishing or supporting bootcamps exploring:
  - Collaboration with job centres to provide training for unemployed people
  - Universities embedding or offering additional training programmes for students, graduates and local people
  - Engaging third-sector organisations, and health and social care services, to provide programmes for more socially excluded people

### CASE STUDY: CODE YOUR FUTURE

- After a successful pilot in London, Code Your Future is coming to Manchester to skill-up local refugees and asylum seekers.
  - The not-for-profit offers a six-month crash course in HTML, CSS and Javascript, along with Node.JS and Javascript library React.
  - Greater Manchester has one of the highest concentrations of asylum seekers in the country, plus good transport links and excellent business opportunities.
  - Empowering refugees to seek employment in tech will also go some way to alleviating the industry's diversity problems.
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- Undertake mapping exercises of existing assets including:
    - Employee Assistance Programmes, to highlight companies that are good to work for
    - Community assets, to identify existing infrastructure that could be better deployed to help address our skills challenges, like university careers departments
    - Supply of people and demand for digital workers, the latter of which is a project being commissioned by Tech North

### CASE STUDY: EDSPACE

- Edspace is a coworking and events space for those working to transform education, located in Block D of Hackney Community College in East London.
  - The space is also home to Emerge Education's 14-week edtech accelerator programme for social innovation companies and teachers with big ideas.
  - There are 61 schools within a one-mile radius of the school, perfect when the time comes for testing new educational ideas.
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- Encourage businesses to appoint skills ambassadors within their organisations tasked with creating taster days, hosting drop-in sessions and championing internal development.

# Recommended Reading

## Interesting data

The Psychological drivers that propel and sustain women and men into leadership positions, Northern Power Women, June 2017

[http://docs.wixstatic.com/ugd/1a69ab\\_66e819403ddc4710b2df877f371b449d.pdf](http://docs.wixstatic.com/ugd/1a69ab_66e819403ddc4710b2df877f371b449d.pdf)

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The Charity Digital Skills Report, Skills Platform, March 2017

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The Great British Brain Drain, special report on Leeds by Centre for Cities, March 2017

<http://www.centreforcities.org/publication/great-british-brain-drain-analysis-migration-leeds/>

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## Cool interventions

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Tech Talent Charter, Code First: Girls

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Digital Leadership and Digital Attitudes Survey, Doteveryone

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Diversity and inclusion solutions for the tech industry, Project Include

<http://projectinclude.org/>

Graduate Level Apprenticeships, Robert Gordon University

<https://www.fenews.co.uk/press-releases/14768-more-organisations-sign-up-for-scotland-s-pioneering-work-based-learning-degrees>

Cities of Learning, RSA

<https://www.thersa.org/action-and-research/rsa-projects/creative-learning-and-development-folder/cities-of-learning>

Public speaker training and network, Upfront

<http://weareupfront.com>

## Tech North's work

Northern Voices, Tech North's public speaker training programme for women in the tech industry

<https://technorthq.com/programmes/northern-voices/>

Upskill, an accelerator for 16 digital skills providers from across the North

<https://technorthq.com/programmes/upskill/>

Northern Digital Skills Index, a new metric for measuring alternative skills training

<https://technorthq.com/northern-digital-skills-index/>

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**WE ARE TECH NORTH**

