Employability rebooted

Democratising the future of work

Foreword

It is rare to be able to call an event cataclysmic without exaggeration. But, in the case of the effects of the Covid-19 crisis on students graduating in 2020, it is not hyperbole.

The class of 2020 will have faced severe disruption while seeking to complete their degrees, with final assessments altered and placements that contribute to completion either cancelled or suddenly turned virtual. They may have seen the part-time jobs that support their studies end abruptly – or become far more intense if they were in the supermarket, healthcare or agriculture sectors. As they look to take their next step in the world, students graduating in 2020 are entering an entirely different employment market to students in previous years. Graduate job offers are being deferred or rescinded. The economy is facing a long and uncertain road back to recovery.

When I started chairing the advisory group on employability and diversity convened by Emerge Education and Universities UK in partnership with Handshake, our primary area of investigation was the employability journey of students from underrepresented backgrounds, looking at enrolment at university through to first experience of the workplace. We mapped key touch points on that journey and took an ambitious look ahead to what a more democratised employment journey in 2030 could look like – and how we might get there.

As the impact of the global pandemic became clear, our focus of investigation shifted to take an in-depth look at the here and now – how careers services are rising to the challenge of supporting students through these times – and considered how these changes will play out over the 10-year horizon.

We believe that, by harnessing the power of technology, the employability ecosystem by 2030 will have become more networked, tailored and accessible, transforming the employability journeys of students from underrepresented backgrounds and democratising the future of work.

This report seeks to stimulate thought and debate, and to prepare us all for the opportunities that technology offers to democratise employability. I hope that universities, policymakers and innovators will find it thought-provoking and useful as we move into the next phase of these extraordinary times.

Professor Quintin McKellar
Vice-chancellor, University of Hertfordshire

Foreword

When we consider the student employability journey there are numerous "gaps" that exist and hurdles students need to overcome to ensure successful employment.

There is the gap between what is taught and what is needed in the workplace, the gap between the experience of education and the experience of the workplace and a gap in outcomes, especially for students from underrepresented backgrounds.

Universities have increasingly engaged in activities such as internships, employer input into the curriculum and one-on-one careers advice to close these gaps. All of these activities involve bringing universities and employers closer together earlier on in the student experience. It is in employers' interests to do this because, to prosper, grow and succeed, they need graduate talent with higher-level skills. In the future learners need to become more like employees and employees need to become more like learners.

We are grateful to Emerge Education for enabling our Innovation and Policy Network to improve these links with employers at the highest level. It has been especially rewarding to work with a group of employers and business leaders who offer a fresh perspective and are often difficult to connect with: startups.

If we had proposed only a few months ago that the entire higher education sector should switch to online delivery in a matter of weeks we would have been dismissed as fantasists detached from reality. Yet this has happened. It demonstrates that the extraordinary can be achieved in the face of unprecedented challenges.

We now face the challenge of economic and social recovery. Universities and their staff and students have a vital role to play. However, one risk of a recession is that those already disadvantaged in the graduate labour market see their prospects worsen, compounding the existing gaps.

This report shows that, with the advice and support of startups and the smart use of technology, it doesn't have to be this way. We have the potential to change the landscape of the employment journey in a way that defies the traditional impacts of a recession and enables students, universities and employers to bridge the gaps that exist. It is an ambitious agenda but the sector has already achieved the remarkable in response to Covid-19. With the recommendations in this report it can do the same for student employability.

Greg Wade
Policy manager,
Universities UK

From fixes to foresight: Jisc and Emerge Education insights for universities and startups

At Jisc and Emerge Education, we believe that education technology (edtech) has rich potential to help UK universities solve their biggest challenges. We see edtech startups as key to the innovation and agility that higher education needs to navigate the rapidly changing present and future. This is a critical part of building a sector that is resilient to unforeseen changes and that can further transform using advanced technologies, as part of our vision for an Education 4.0.

We have worked as close partners for several years and our collaboration brings together Jisc's 30+ years of experience in providing digital solutions for UK education and research, and Emerge's in-depth knowledge of the edtech ecosystem based on investments in 55 startups in five years. Together, we've developed unique insights into the potential of edtech in higher education.

To unlock that potential, we're undertaking a programme of research. It's focused on exploring the most urgent priorities that university senior leaders will face over the next three years, which we investigated and set out in our initial joint report, The start of something big? Can edtech startups solve the biggest challenges faced by UK universities?

Priority one
Delivering the best, most equitable student experience.

Priority two
Adapting to students evolving expectations about employability and career outcomes.

Priority three
Expanding the university's reach by attracting more (and more diverse) students.

Priority four
Transforming digital and physical infrastructure.

Priority five
Recruiting, retaining and developing world-class staff.

Each report in this series explores aspects of each priority in more detail, mapping current approaches and challenges, and highlighting specific edtech solutions and startups. The reports draw on the expertise of leaders from HE, employers and startups, through Jisc – Emerge Education advisory groups on specific topics, including the future of assessment, the employability journey of students from underrepresented backgrounds, student recruitment in challenging times, employer-university collaboration and the student mental health and wellbeing challenge.

We find that there are plenty of opportunities for startups to hear from each other but very few for them to hear from real customers – universities – and understand, in depth, the priorities they have and the problems they are facing. This report series does that, providing startups with the information they need to shape their products so as to ensure they meet university needs. For universities, the series offers insights into how the sector is managing change as well the possibilities for the future.

The work on the reports was well underway when the Covid-19 pandemic hit, and we have seen the university sector adapt more rapidly than many thought possible to the challenges of digital delivery. But in the midst of crisis, it is important to draw a clear line between our immediate response and what it tells us about the future. The reports in this series seek to look across the immediate and long-term time horizons to give readers a map and compass out of the current situation and towards the future of higher education.

Ultimately, we want to build a vibrant, highly effective edtech ecosystem, with seamless collaboration between universities and leading startups, to ensure students get the educational experience they deserve.

Paul Feldman
CEO, Jisc

Nic Newman
Partner,
Emerge Education

CONTENTS

Summary

There are more students from underrepresented backgrounds in higher education than ever before but their job outcomes often lag behind more privileged peers.

Pay gaps and pay penalties persist and the rise of the gig economy has further exacerbated these inequalities. Why is that, what can be done and what role can technology play in supporting students, universities, and employers?

This report considers the student and graduate journey from enrolment at university to first experience of the workplace, and focuses on key interactions and touchpoints between students, universities and employers along that journey. By mapping out key points at which access to specific experiences or interventions can help or hinder the employment prospects of students from underrepresented backgrounds, we are able to highlight examples of best practice and specific opportunities for universities, employers or technology startups to provide more support.

The first part looks at the immediate crisis situation and the impact of Covid-19 on the 'bridge to work' of the graduating class of 2020. A recent Prospects survey of 5,000 students found that 29% of final year students have lost their jobs and 26% have lost their internships, while 28% have had their graduate job offers deferred or rescinded. The latest Institute of Fiscal Studies figures report that job postings at the end of March were just 8% of their levels in 2019. What effect is this having and how are universities and employers responding? How are the measures forced on careers services and

graduate recruiters by lockdown, such as virtual assessment centres and virtual careers fairs, playing out? What digital tools and platforms are they using to support their work – and what are they lacking? Through seven case studies we explore the challenges faced by careers services in supporting students in these intense times with a particular emphasis on the impact on students from underrepresented backgrounds and any extra barriers they may be facing.

The second part looks ahead to a vision of a more democratised employment journey in 2030, in which technology is used effectively at every step of the journey. We consider the factors involved in improving the employability prospects of students from underrepresented backgrounds and imagine what their employability journey should look like in 2030 to maximise the positive impact of a university education on their ability to embark on meaningful careers. With an eye to the role of technology in supporting students, university staff and employers, we suggest that in 2030, the employability journey must be networked, tailored and accessible, taking each in turn to identify the benefits of such an integrated system.

Finally, the report offers advice for universities and employers plus insights for startups to help them initiate productive conversations, tailor effective solutions and maximise their impact.

Throughout this report we use 'underrepresented' to mean students and graduates who come from groups with low participation in higher education or from backgrounds that have, in the past, been denied equal entry into universities. It may include students from BAME backgrounds, those from areas of low household income or socioeconomic status, mature students, students with disabilities, care leavers or carers. When it comes to graduate career outcomes, it may also include women. In short, we are most concerned with those who are hardest hit by inequalities in access to higher education or post-university careers.

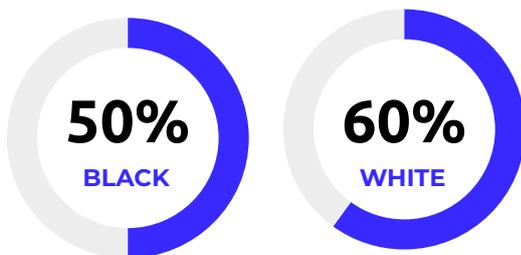## First degree earnings of £30,000+

16% WOMEN

28% MEN
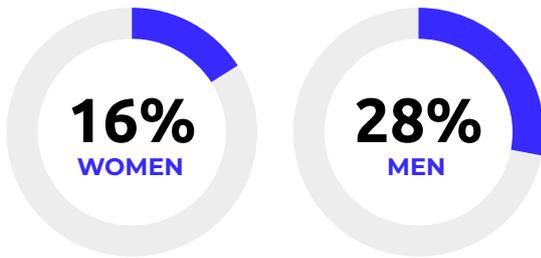
Only 16% of women with a first degree earned more than £30,000 within 15 months, compared with 28% of men.

First year earnings of £39,000+

3% WOMEN

6% MEN
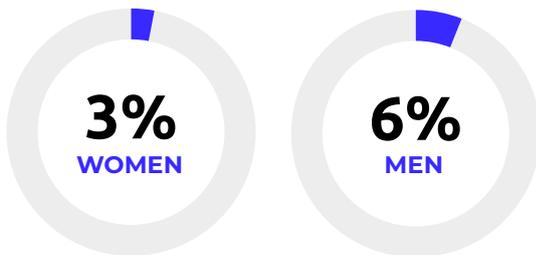
6% of men earned more than £39,000 a year after graduation, compared with 3% of women.

Full-time employment one year after graduation

50% BLACK

60% WHITE

Only half of black university graduates were in full-time employment more than a year after they left, compared with more than 60% of white students.

Source: HESA (2020) Higher Education Graduate Outcomes Statistics: UK, 2017/18

For English-domiciled care-experienced and estranged students due to graduate in 2020:

5%

11%

67%
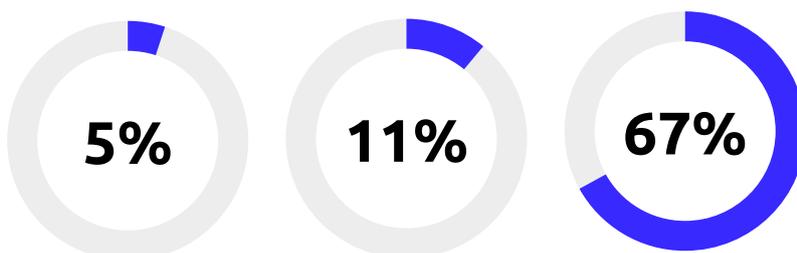
Only 5% have a job to go to that is likely to go ahead as planned. 11% have had job offers postponed or withdrawn and 67% have no job and no plan to go to further study.

Source: Become, Stand Alone, the National Network for the Education of Care Leavers (NNECL), the Unite Foundation and Spectra (2020) Financial Survey

Introduction

The coronavirus crisis has had an immediate impact on the work that university careers teams do with students. The lockdown and social distancing measures have resulted in services being moved online at speed. Staff have had to grapple with the social and technical logistics of virtualising things that may have felt inherently physical, from careers fairs to internships.

Longer term, the forecasted deep global recession will also have a profound impact on the student employability journey and the work that careers services do with students. In these case studies, we share an overview of how seven universities are dealing with the situation and we take a closer look at the impact on students from underrepresented backgrounds and any extra barriers they may be facing.

What role is technology playing and could any of the measures being taken help to level the field in any way?

Six fixes

1 **Trailblazing**
Radical change at speed and at scale

Example: University of Liverpool

What is Liverpool doing?

The University of Liverpool's careers and employability team is unusual in that its 'frontline' – the drop-in service where students physically meet a career coach and chat through their future or concerns and get advice on applications – is delivered by student career coaches, who are both paid members of staff and students. That service was rapidly moved online along with a full digital offer, including online advice, video interviews, online CV checks and interactive digital resources. In addition, the career coaches were asked to make a series of short blog posts and videos about how they were feeling, addressing key concerns, such as cancelled placements and anxiety about getting a graduate job, in the student voice.

"We started the peer-to-peer element of what we do two years ago and it's been such a success. Students have really liked speaking to other students about their career plans and co-exploring opportunities. One of the things that's come out from research we've done around that is that it's all about the shared experience. That shared experience is going to be even more important going forward because no one is going to understand better the concerns of a student than another student who is living those same concerns at the same time.

Our coaches are skilled in finding where resources are. They don't have all the answers, but that practice of co-exploration is also going to be key going forward because everything is so uncertain that nobody really has the answers."

Emma Moore, director of careers and employability

Liverpool's spring careers fair was due to take place just as lockdown began but, while the physical event was cancelled, the careers team moved swiftly to give it an online presence. They quickly organised virtual events that took place on the day instead so that students could still interact with some of the employers that were going to be there.

By the second week of lockdown the careers team had launched Virtual Connect, a programme of employer events where students can interact with employers in different ways, from webinars and Zoom chats to virtual office tours, which has proved popular.

"Having to do that very quickly showed us some of the wrong ways to do things as well. Trying to recreate a physical event virtually we found there were lots of pitfalls. But it also gave us an early taste of what was going to be popular with students and what actually works and it got us moving quickly on the events side."

Emma Moore

How is the crisis affecting students from underrepresented backgrounds?

"By moving our frontline offer to being staffed by our peer-to-peer student coaches, it's freed up our professional staff to give very high-value, high-intensity support to underrepresented groups, like care leavers, who may not have traditionally sought out services."
Emma Moore

Liverpool is focusing on three groups of students in particular: commuter students, care leavers and disabled students. They are all being affected in different ways. Commuter students, who tend to live at home with their parents, may not feel the extent of the impact immediately if there has been little change in their home situation but are more likely to have lost a part-time job that they rely on to earn income to support their studies. It is likely that the regional SME jobs market may be very bleak, which will impact them disproportionately.

For care leavers, a cohort with whom Liverpool works hard to develop relationships from very early on in their university experience, the Covid-19 crisis has been particularly difficult. Without a parental home to go to or other sources of support, many of these students have had to isolate in their university accommodation. The careers team have stepped in to offer in-depth support through weekly check-in chats, using time freed up by the peer-to-peer network tackling more routine matters.

The issues faced by students with a disability are wide-ranging and the careers service has a particular focus on students with autistic spectrum disorders, who may find accessing virtual content and interacting with potential employers via technologies such as Zoom very difficult.

"Our whole graduate population is going to be severely affected going into the jobs market through this, but I would say those groups of students even more so. At the same time, we supply a lot of bursaries for students to buy the right clothes to wear for assessment centres, support the cost of travel and hotels. If those assessment centres move virtually then those issues are gone and it does make things a bit more level and accessible, which is positive."
Emma Moore

How is technology helping or lacking?

"Our partnerships with consultants and suppliers have come into their own at the moment. Being able to chat through issues around technology with them has been invaluable for us."
Emma Moore

Liverpool has a package of online tools that students can use while at the university. This year, this offer will be extended to its graduates. The package should also include access to LinkedIn Learning License for two years after graduation. The package also includes access to the Handshake careers platform, the video interview software Shortlist.Me, Graduates First, practice online tests and the opportunity to attend a virtual assessment centre or to complete a virtual internship.

Example: Staffordshire University

What is Staffordshire University doing?

Like Liverpool, Staffordshire University (Staffs) has a peer-to-peer model. Since October 2019 all of its one-to-one front facing career provision has been delivered by existing students. The 11 student career coaches are employed on weekly 10-hour contracts, having been through an intensive training programme. They were recruited to be reflective of the student body, encompassing commuting students (the majority of Staffs students) and international students.

"When the pandemic hit, the ability to switch to remote support worked very well because the students that we've got are very tech-savvy. They have all the equipment so, with the flick of a switch, they were able to deliver all the one-to-one peer-to-peer support that they were delivering before."
Martin Perfect, head of student and graduate employability

Staffs is considering its options in terms of virtual careers fairs but, more significantly, has moved GradEX, its one-day university-wide final year exhibition, online for the first time and seen a 25% rise in submissions from students compared to previous years. It will also enjoy greater reach - rather than the 1,000 employers who have tended to turn up on the day, the online exhibition will be sent to the university's 6-7,000 employer contacts.

"From an employer's perspective, across the summer months and into the autumn they can access that portal and have conversations with students at different times and at different stages. It opens it up to more people and over a greater length of time. It's a real success story moving online."
Martin Perfect

In addition, Staffs offers lifetime support to its alumni and is anticipating working intensively with its 2020 graduates that are finishing this summer. It is also contacting and sharing the stories of alumni from 2008, who can share their experiences of their first 12-18 months of graduating during a recession and the positive stories of where they are now, 12 years on.

How is the crisis affecting students from underrepresented backgrounds?

"Engagement is always a challenge. Wherever careers and employability provision isn't in the curriculum and students have to opt in to employability activity, generally what we see is that students from underrepresented backgrounds focus very hard on the academic side and maybe don't engage as much with us. In the last three or four months, we've seen that more and more."
Martin Perfect

Staffs long-term response, supported by the move to a peer-based frontline, is to focus resources on professional career relationship managers who work individually with each school, reaching an in-depth understanding and better

embedding employability into the curriculum.

"By investing the time to understand the needs of students and getting close to academics that are delivering in all of those areas, you can offer the nuanced and tailored support that the students need."

Martin Perfect

More immediately, concerned that some students might lack confidence and be panicked into taking the first job available, whether graduate level or not, the careers team is running a focused series of labour market sessions for final year students. These attempt to dispel some of the myths about the current state of the graduate labour market and engender a more positive outlook as they embark on their job search.

Access to technology has been a challenge for some students from these backgrounds and the university has

stepped in with hundreds of laptops, devices and dongles for connectivity.

How is technology helping or lacking?

Video interviewing software that enables students to practice interview techniques has proved successful at Staffs. The university also has a long-standing partnership with Microsoft and offers Microsoft Office specialist exams, which are free to its students. Around 1,000 students have taken these exams in subject areas such as Word, PowerPoint, Excel, which provide formal certification from Microsoft.

"We've had very positive feedback from employers. Historically, there has been a criticism that students just out of university might be academically strong but not up to speed with a lot of business-related technology and systems. We've made a good leap forward in that space."

Martin Perfect

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2 Innovative:
Building on an innovation base and scaling it up

Example: University of York

What is York doing?

Thanks to its location in the North Yorkshire area, surrounded by many isolated businesses in need of graduate support for projects, the University of York has been an innovator with virtual

internships. The university initiated them five years ago and they are now a core element that has enabled a relatively seamless transition to an online service.

"We adapted our process about five years ago, and that's now coming into its own. We're looking to run virtual internships on campus roles as well,

working for both professional and academic departments."

Tom Banham, director of employability and careers

In addition, York's core offer has become fully virtual, with meetings for advice and placement opportunities held on Zoom or Google Meet, and a number of skill-based interventions, such as interviewing skills and automated CV technology (with direct feedback on uploaded CVs in two to three seconds) made through an online platform. York is also putting in place Zoom-based practice assessment centres for students to gain experience, given that many employers have transitioned quickly to Zoom-based assessment centres.

How is the crisis affecting students from underrepresented backgrounds?

"The challenge for certain students will be having the technology. There'll be students who don't have a laptop and who don't have access to wifi. There'll be students who live in a one-bedroom flat, sharing a room with other family members, and don't have quiet study space. We have to take all this into account when we're supporting students as a university."

Tom Banham

While the move to online may democratise some opportunities because mobility will no longer be an issue, access to technology may become more of an inhibiting factor. In response to this risk, York has set up a student support fund, providing bursaries to students who face unanticipated financial challenges due to Covid-19. Those challenges can include technology costs associated with online learning. If demand is high, priority is given to certain groups, such as care leavers, students with children, students with disabilities and students with refugee or asylum-seeker status.

How is technology helping or lacking?

York uses TARGETconnect and will be migrating to Handshake for the next academic year. The university uses an automated CV tool and a virtual mentoring system that allows students to engage with alumni. It also has interview technology tools, so students can practice video-based interviewing, and assessment centre activities.

"Tech firms have really stepped up and demonstrated their offer. It's fantastic that organisations like Handshake and GTI have adapted their offer and are supporting students free of charge."

Tom Banham

3 **Innovative flexible:**
Maximising fairness and flexibility

Example: Ulster University

What is Ulster doing?

The impact on placements has been a big issue for Ulster University because a number of its placement models are accredited and an integral part of the degree programme. The university set up a strategic Covid placement group along with a placement response team to deal with the issue, having pledged that students should not be disadvantaged when it comes to how their placement will be assessed.

Ulster is now looking at new, hybrid models of placement that support civic and economic recovery, coupling enhanced learning and development programmes with innovation components and periods of real work-based learning, and fully exploring flexibility and innovation within each element. This is likely to be more resource intensive as students will need to be better prepared for new placement and work experience opportunities, and staff will be required to fully exploit digital technologies to broker new relationships between students and employer networks, to deliver increased availability of virtual placement, remote working and flexible internships. Part of this new delivery model may include a brokering and matching service: finding the opportunities and matching students into them, possibly removing the recruitment experience. The hope is that it will ease both student and

employer barriers to engagement.

Ulster is also looking at more consultancy support for employers around their recruitment needs and at smaller and more focused virtual recruitment events for particular sectors or courses rather than the large careers fairs of the past.

"Everyone wants customised, personalised events and opportunities. I think that's an opportunity and something that will be welcomed by all stakeholders. It's more responsive to both sector recruitment needs and students getting access to timely and relevant opportunities."
Shauna McCloy, head of careers and employability services

How is the crisis affecting students from underrepresented backgrounds?

"The immediate impact is that a lot of our students will have opportunities withdrawn from them, whether that's employability or skills events, internships, placements or graduate job offers. There are going to be trigger effects to this, that are going to be very significant and profound for widening-access students."
Shauna McCloy

Around 37% of Ulster University's students come from a widening-access background and so the university has

existing infrastructure and additional levels of support in place. There are solutions available for providing technology support and equipment to ensure equality of access to all aspects of virtual campus and online provision.

However, challenges and concerns are ongoing in relation to the pandemic's impact on mobility opportunities, as support avenues for employability are largely focused on encouraging students who are managing widening-access contexts to consider learning and work experiences outside of Northern Ireland, whether it's to other parts of the UK or further afield.

How is technology helping or lacking?

Ulster uses a range of tools such as TargetConnect for student opportunities and events, VMock for automated CV reviews, Aluminati for alumnae mentoring and internally developed staff and student employability portals that provide additional customised employability information and analytics. The careers team also works with the university's learning management system, Blackboard Learn, so that employability is integrated within the core curriculum and core learning and teaching space.

"There are a wide range of essential tools identified and our challenge is to help our students to navigate them in a user friendly way, as we work towards a 'one stop shop' for all of their employability needs. We have identified Handshake as a solution

which will enable a streamlined system solution for a number of services that currently utilise an extended number of disparate technologies. For all of our stakeholders – students, staff, employers, and the careers team – everything is there. It provides all of the analytics and reporting functionality that we require in terms of having central control and oversight of the business intelligence to help us to strategically navigate and direct work that we do."
Shauna McCloy

Finally, the career service's excellent digital skills have been invaluable to the university, ensuring that employability remains embedded in core learning and teaching activities and, through close collaboration with academic staff, supporting the rapid move to remote learning. The team provided an immediate response to mobilise learning materials online, revise assessment and feedback strategies and design new online learning activities to embed employability into the curriculum.

"All of our staff have extensive training in digital tools for embedding the learning and teaching of employability, including assessment and feedback. We fully deploy the integrated curriculum design framework, in close collaboration with university faculties, demonstrating our added value as a core and essential part of the learning and teaching provision."
Shauna McCloy

4 Innovative flexible:
Maximising fairness and flexibility

Example: University of Hertfordshire

What is Hertfordshire doing?

When its spring fair was cancelled in March, followed quickly by lockdown, the immediate issue for the University of Hertfordshire (Herts) was the students using its placements service, which runs alongside its career service: overseas students had to be repatriated and, for those in the UK, the service had to work out and discuss options, not least whether each placement could continue and whether it could be done from home.

This major undertaking complete, the careers team turned to the future and, in particular, two significant decisions. The first was to extend its leavers' summer programme and to add ongoing students who were clearly going to have labour market issues for some time to come and needed to begin preparation now. This created a vastly bigger programme than ever before. Non-virtual workshops were reconfigured for online use and new workshops were added to tackle current realities (eg negotiating with employers if your contract is ending).

The result was a programme stretching from May throughout the summer, designed to motivate and upskill students and leavers, and to help them access the jobs that are still there and the graduate programmes that are still recruiting.

The second was to assess the feasibility of physical fairs, physical assessment centres and physical internships in the autumn, and commit early to virtualising them. Herts had high engagement from both employers and students for the summer SME Internship Scheme, advising companies on how to manage the interns virtually. This experience will be taken into the autumn term. The team also assessed the virtual fair platforms available and made its recommendation for the autumn.

How is the crisis affecting students from underrepresented backgrounds?

The majority of students at Herts are from underrepresented backgrounds. As a result, the university has a history of embedding employability initiatives into the curriculum, as well as running a number of specialist programmes that attract high numbers of BAME students.

"We've always had those kinds of programmes but in 2016 we piloted a mock assessment centre, with the business school, for 450 students. Now we have eight of the nine schools and the mock assessment centre is run over three weeks for 3,100 second years. That's where we put a lot of our resource. Many of our students don't have the cultural capital of more privileged students. They don't necessarily know about the whole process of what assessments look like

in large companies. For us, it's a game-changer."
Judith Baines, head of careers and employment service

The challenge is to take mock assessment centres online by the autumn. There are downsides to making them online-only – for example, for students from home environments who struggle with quiet space, internet bandwidth and adequate equipment – but they would mirror the online environment students will face in 'real' virtual assessment centres. Herts recently committed to running them virtually, with the academic staff on board.

How is technology helping or lacking?

"Technology to me is not a solution. It's an enabler. It lets you scale up and it lets you bring more opportunities to students, while freeing up the time for the career service to still have one-to-one interventions but much more targeted, focused and supportive of students."
Judith Baines

As an enabler, the technology of virtual assessment centres and career fairs – if the providers get it right – can be a great leveller, enabling large employers to reach more universities, and more students of different backgrounds, than their resources have allowed hitherto.

"The more fairs go virtual, the more access our students should have to a wider range of employers who may not have looked to us before. That has to be one good thing to come out of this."
Judith Baines

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5 ## Radical:
Minimising stress in the student experience

Example: University of Miami

What is Miami doing?

"In addition to being responsive, we are actually looking at it from a lens of 'potential' because out of these kinds of situations, innovation happens oftentimes. Sometimes a solution has been right in front of your face the entire time. You don't realise that until something like this happens. So I've challenged my staff to not look at this from a perspective of, 'Oh, we have to adjust,' but, 'No, let's innovate. Let's try something different'."
Christian Garcia, associate dean and executive director, Toppel Career Center

Most of Miami's resources, services and tools were already online and it

had switched to a drop-in peer-to-peer model two years ago, which it could quickly and easily move to a virtual environment.

Miami has also decided to go virtual on all of its career service events from enormous career expos and graduate school fairs to subject-specific events such as the accounting career fair.

"Even if we're back on campus, I don't think we're ever going to get back to 'normal', at least not in the next few years. Do we really want people to be in a room with 2,000 others, shaking hands? I just don't think it's realistic. I don't know that employers are going to want to do that, or that they are going to be in the position financially to be travelling to college campuses, so virtual events make most sense."
Christian Garcia, associate dean and executive director, Toppel Career Center

How is the crisis affecting students from underrepresented backgrounds?

Diversity, equity and inclusion are a key focus for the Toppel Career Center at Miami, which includes educating, informing and training careers staff on the variety of different student populations and the issues related to those populations, and engaging with those students.

"It's one thing to learn about them but then you need to be present in those spaces and they need to see you as an ally, whether it's first generation, black students, Latinx students or LGBTQ students."
Christian Garcia

While access to the necessary technology has not been raised as a major issue by students at Miami, the move to virtual – and unpaid – internships is more challenging. Toppel has an internship fund dedicated to providing up to $3,000 to students who are participating in unpaid internships and need support financially. Demand for that fund is increasing. The service is also highlighting 'micro internships' which are not full-time and allow the student to take a paid part-time job but still benefit from the skills acquired in a career-focused internship.

How is technology helping or lacking?

"The biggest difference between now and 2008 is the technology we have now. It has really transformed what we do. To be able to provide access to those students who don't have the network, the social capital, compared to their peers has been amazing. It's all about democratising access. The fact that now they have way more job opportunities and internship opportunities at their disposal is great."
Christian Garcia

Miami uses three main platforms. Foremost is Handshake, which it particularly values for its algorithm-based recommendation engine, facility to connect students with peers across the world – to share experiences and advice on jobs, interview processes etc – and ease of use. Miami also uses PeopleGrove to enable students to connect quickly and easily with alumni to discover who is working in the areas they would like to go into and develop mentoring relationships. Finally, Miami

uses a new platform, Interstride, dedicated to international students, which filters job postings according to residency requirements and much more.

"I was a first-generation student and I often put myself in the shoes of the student today. What if I wanted to go into Wall Street? How would I have done that? My parents were immigrants. Nobody in my family, not even distant cousins, knew about that world. How would I have been able to figure it out? So my heart always goes out to these students, and that's why the platforms we use are critical for students who don't have those networks. They're competing with other students who have parents, grandparents and even great grandparents with a legacy of college education and professional experience."

Christian Garcia

6 Incremental:
Building on experience

Example: Falmouth University

What is Falmouth doing?

As an arts-based, creative-based university, Falmouth has had to move quickly away from the traditional degree show approach to showcasing student work. It has developed a website where students can upload examples of their work as well as setting university-wide challenges – creating digital assets and tools in response to Covid-19 – for students to engage with, in order to offer experiential options within a distanced approach.

The careers team has converted services and opportunities to an online, distanced-focused domain, focusing on repackaging tools and support for students so they can access resources on demand rather than as paper-based resources or physical spaces. It is rapidly moving to a virtual placement model with associated support for students and employers.

Falmouth has a strong background in setting 'live briefs', giving students the opportunity to work with businesses on real life problems and challenges. It sees this as an area of growth, if undertaken in a way that avoids putting additional pressure onto businesses at a difficult time.

"The labour market is under an extraordinary amount of pressure at the moment in terms of opportunities available so a huge amount of innovation is needed. Falmouth has traditionally been very active in that space with live briefs for employers.

We are focusing on keeping those relationships warm, giving students the experience they need and demonstrating to employers what our students are capable of."

Rob Ingram, head of employability

How is the crisis affecting students from underrepresented backgrounds?

For Falmouth, the crisis may open up more opportunities for its students from underrepresented backgrounds. As a relatively geographically isolated university, the travel costs for students to take advantage of interviews and assessments can be prohibitive. The move to more virtual forms of engagement with employers reduces these barriers for both students and employers.

Falmouth prides itself on being an inclusive and welcoming place for students with disabilities. The increase in digital resources, if produced in a fully accessible way, may be a positive development in terms of increasing the opportunities to engage with materials in different ways.

How is technology helping or lacking?

Falmouth uses Handshake for employer engagement with students and also Abintegro and CareerHub. It is in the process of reviewing all its systems, digital tools and resources to create and integrated ecosystem.

"We are looking to create an on-demand career service available for students in the same way that they're able to access Netflix or Amazon Prime at the push of a button. We want the right resources to be available 24/7 for students to support whatever needs they've got. While it was already on the strategic plan, Covid-19 has been an adrenaline boost that has kickstarted development in this area."

Rob Ingram

Challenges

The pandemic has brought into focus a number of challenges for careers services and the students they support:

Virtual careers fairs

Every career service is wrestling with how to move large physical networking events online in the most effective way. Solving this challenge effectively will involve going back to first principles and understanding where the value lies – creating authentic virtual connections at scale between employers and students – rather than simply attempting to digitise an offline experience.

Platform proliferation

As more services provided by careers teams move online, there is an increasing need for more streamlined, integrated and personalised systems that do not require multiple logins and passwords from staff, students, employers, graduates and alumni.

Budget pressures

The right technological solutions are critical, especially for smaller career support teams, but those teams also have smaller budgets, putting some products out of reach.

Increased demand for services

Most career services commit to supporting graduates for a certain amount of time after graduation. It is likely that they will have to extend that commitment for the class of 2020, and possibly future cohorts, putting more pressure on services. In addition, more graduates may choose to defer their entry into the graduate jobs market and undertake postgraduate study instead, if they can afford that option.

Digital skills

Turning face-to-face services into good-quality virtual ones requires digitally skilled staff. In addition, the move to online learning and teaching across institutions as a whole has an impact on how employability is embedded in the curriculum and how career teams work with academic staff, who may also lack effective digital skills. In the Jisc digital experience insights survey 2019, only 34% of HE teaching staff said they were offered regular opportunities to develop their digital skills and only 13% were given time and support to innovate.

"The enablers are having the right staff on your team, making sure that their skill set is flexible, agile, that they have access to the right CPD with dynamic and robust technology solutions available. Creativity and innovation have space to flourish when these enablers are present."

Shauna McCloy, head of careers and employability services, Ulster University

Collaborative skills

Employability initiatives that bring students together to develop valuable team working and problem-solving skills can be hard to replicate online.

Introduction

As the digital shift of spring/summer 2020 has shown, technology offers the potential to make interventions more accessible, scalable and better informed.

How technology can support the employability journey

There are a number of key areas where we see a role for technology in improving the career prospects of graduates from underrepresented backgrounds.

- Connecting students to volunteering, work placement, or micro-internship opportunities, locally or remotely

- Helping students discover and fully engage with experiences that have a proven impact on employability, such as extra-curricular activities or external mentoring

- Removing barriers to project-based learning

- Enabling delivery of curriculum components co-designed with employers

- Allowing employers to recruit, at scale, from wider networks of universities or to access candidates with particular characteristics

- Reducing individual bias at different stages of the recruitment process

- Testing candidates on current skills and future potential in areas most important to the particular employer

- Supporting the onboarding of early-career graduates and their development, particularly around leadership and soft skills

- Providing effective mental health and wellbeing support

The far-reaching potential of these developments and opportunities were fed into and discussed by the joint working group run by Emerge Education, UUK Innovation and Growth Policy Network and Handshake, along with input from university vice-chancellors, experts and senior HR managers from some of the largest corporate employers in the UK.

The result is a vision for 2030 that harnesses the power of technology to transform the employability journeys of students from underrepresented backgrounds and democratise the future of work.

Our vision for 2030 is based on three key characteristics. We see these as the minimum requirements for an effective employability support ecosystem that underpins the employability journeys of students from underrepresented backgrounds.

That ecosystem must be:

Networked

A more connected employability journey will use technology to scale up access to opportunities, so that those opportunities are no longer restricted by university size, location or a student's existing social capital. Greater analytical insight into every step of the journey will make the transition from university to the workplace seamless not just for students, but for career advisers, recruiters, and managers too.

Tailored

By 2030, job discovery, application, feedback and development will be more meaningful and less biased. Across the employability journey, technology will change education and recruitment practices to more closely fit individual employer needs and student aspirations.

Accessible

The employability ecosystem will meet students where they are, rather than depending on on-campus participation, and career support and progression will be embedded in the student experience.

This vision is based on input from university vice-chancellors, experts and senior HR managers, from some of the largest corporate employers in the UK, into the joint working group run by Emerge Education, UUK Innovation and Growth Policy Network and Handshake.

The employability journey in 2030 must be… networked

Built on network effects

The new ecosystem will maximise the opportunities available to students, regardless of the university they attend, by aggregating networks of large graduate recruiters, local SMEs, global remote employers and more, and making all of them available to any university. Technology platforms will drastically reduce the resources required to engage with these global networks, freeing up career services and graduate recruiters to support those students who need it most.

Boosting graduates' personal networks

Mentoring opportunities will be made available and engaging to all, at university and in the workplace, so that every student has someone who can guide them and understands their lived experience.

Proactive, not reactive

Employers won't just post vacancies at recruitment time and hope for the best. They will be able to look specifically for the type of graduate most needed in their organisation and communicate directly with them to build relationships long before job-hunt season.

Connected employability journey

The support received by students and graduates at each step of their journey towards meaningful careers will build on their earlier experiences. Information about their participation in employability-boosting activities will be available to employers in a common format, and data from the recruitment process will feed into the support that early career talent receives from managers and HR in the workplace.

👓 INSIGHT FOR STARTUPS

"I feel like the bane for any career centre, as well as employers, is all these different systems – another system to onboard, another system to get funding approval for. To have something that would encompass everything, that's the dream."

Christian Garcia, associate dean and executive director, Toppel Career Center

The employability journey in 2030 must be... tailored

Supporting meaningful careers

Instead of a handful of graduate routes, the new employability journey will be built around facilitating graduates' discovery of opportunities, careers, employers and job roles. Students' understanding of their career choices will depend less on their existing social capital and instead will be shaped by their competences, experiences, interests and passions, with technology helping them to discover how they could pursue these. Technology will also help employers cope with large volumes of applicants by providing higher-quality feedback to thousands of applicants and sharing strong candidates with other employers, reducing the rate of 'silent rejection' and its adverse psychological effects while helping students discover new opportunities that are a better fit for them.

Future looking

University curricula will be based on a better understanding of future needs, not past performance, and government metrics will eventually follow suit. Universities and employers will work together more effectively to help students understand what the world of work is like and support them to reflect on and articulate how their experience has helped them develop the necessary skills.

Meeting employer needs

Across the employability journey, technology will change education and recruitment practices to more closely fit individual employer needs. Assessment centres based on competencies specific to the company will be common to all organisations regardless of size, not just the large graduate recruiters who can afford the expense. There will be a 'skills API' – a common way of sharing information about skills and competencies that closes the gap between the languages of academia and the workplace.

Mitigating bias

Technology will make bias awareness training widespread and affordable. Where automation is used in the recruitment process, ethical use of algorithms will mean that they mitigate, rather than propagate, existing biases, ensuring fair assessment of performance on common tasks, not of 'future potential'. Digital solutions will help remove common stumbling blocks – for example, making true anonymity of background possible.

The employability journey in 2030 must be… accessible

Meeting students where they are

Employability support will not be dependent on physical presence. This shift will suit on-campus, fully online and blended learning students equally well. It will improve student buy-in and remove the unfairness inherent in the old model of on-campus participation, which many students (such as those with disabilities, caring responsibilities and so on) cannot or do not wish to join. On the employer side, virtual assessment centres will reduce recruitment process costs and open up wider pools of candidates. The experience will be cross-platform, adapted to the technology students use in their day-to-day life and not forcing them to jump through unnecessary and time-consuming hoops.

Embedded in the student experience

Career centres will no longer be a separate silo and technology providers will help universities and employers collaborate across the curriculum and every other part of the student experience, maximising the value each brings to the table. This will help demystify the world of work for students and set their expectations around the skills and attitudes required to succeed in it, improving engagement and student buy-in. The use of intermediary platforms (such as coding competitions) as an 'anonymising' layer between employer and student will help improve diversity in the workplace, with fewer students deterred from applying for positions that feel out of reach for them.

Providing targeted, informed support

Career services will be able to focus on high-value, high-touch activities to support the students who need it most. Data on participation in employability activities, improved training and greater personalisation of support will have a positive effect on underrepresented students' employability prospects, as will opportunities to connect with mentors and peers who better understand their life experiences.

INSIGHT FOR STARTUPS

"The products in the marketplace at the minute are all heavily focused on saving time, effort and money, taking all of the transactional and repetitive duties out of your service and freeing staff up to do higher-value activity. While the products are really good, they're also very expensive and that's a barrier to a lot of smaller employability and career services."
Shauna McCloy, head of careers and employability services, Ulster University

Where does 2020's experience take us?

How will the disruptive events of spring/summer 2020 change the way universities support underrepresented students on their employability journey in the longer term?

"We're having to rip up the rule book, to think about what our service needs to look like moving forward longer-term."
Tom Banham, director of employability and careers, University of York

Underrepresented students face a number of significant barriers along the journey from university to the workplace but there are early indications that some of the technology-driven changes shaping the post-Covid future of learning and work are already reducing some of these barriers, moving the sector closer to the 2030 vision of an employment ecosystem that is more networked, tailored and accessible.

Breaking the geographical binds

"Once we get the hang of virtual assessment centres and virtual fairs then it enables us to do more. I can see us bringing in more SMEs and having smaller fairs. There are a lot of recruiters who may not have come to us before because we're not the Russell Group and we're not on their top list. But it's a lot easier for them to turn to us to help with diversity agendas when we're not asking them to travel. I think, if we're being optimistic, it could actually open up a lot of options for our students, a lot more opportunities."

Judith Baines, head of careers and employment service, University of Hertfordshire

The complete move to virtual and all the possibilities it opens up is, perhaps, the most exciting development. If issues around access to technology are resolved, this alone may make a significant difference to students from underrepresented backgrounds, opening up access to opportunities that were previously limited by geographical location, whether through prohibitive travel costs for students or location-limiting choices made by employers.

"For those organisations that are so set on recruiting at a core group of schools, does that make sense anymore? Now you're operating in a predominantly online environment, why would you just go to the Ivy Leagues? Why not consider this engineering school? Or maybe this Hispanic-serving institution or this historically black college or university? It would make sense to open that up. I hope that students who didn't have access before, perhaps because of where their university was or because it's really small or liberal arts, will have more access to employers and vice versa."

Christian Garcia, associate dean and executive director, Toppel Career Center

While, post-pandemic, the level of remote working seen during lockdown will not remain at such heights, with 49% of British workers reported working from home in early June 2020 (ONS), there is no doubt that patterns of working have changed for good.. Many organisations are unlikely to return to full office-based attendance and some will take the opportunity to reduce costs by pivoting to remote-only. Given that underrepresented students are less likely to relocate for work than their more advantaged counterparts, there is an opportunity for the shift towards remote working to open up opportunities that those students would previously have ruled out because of geography.

Opening up work experience

"The best form of inclusion that we can look at is ensuring that every student gets an opportunity to engage in real life work experience. It should not be optional. Students should be working with employers throughout their degree, working in a transdisciplinary format, engaging with people from other courses and engaging with wider society while studying. In that way students develop better links in a way that can be scaled so it doesn't rely on social capital. It shouldn't rely on a student coming to university already having the right connections to line up a job."

Rob Ingram, head of employability, Falmouth University

In the extremely challenging post-Covid labour market, the increased competition for 'graduate' jobs is likely to accentuate employers' tendency to differentiate on factors other than degree. A third of recruiters already see prior work experience and extracurriculars for graduates as a minimum requirement (High Fliers Research (2019) The Graduate Market in 2019), but these experiences are typically more widely available to students from privileged backgrounds, increasing social and income inequality.

Traditionally underrepresented students often come from schools with poor careers advice and are often less aware of which skills and experiences are valued by employers. As we've seen in the case studies above, they may also put off engaging with support structures such as careers services until the very end of their course – an experience described by one student as *"a bit like going to the dentist. I'll leave it until I'm actually in a lot of pain, and it's an absolute last resort."*

More generally, students from lower socio-economic backgrounds are less likely to join societies, take leadership roles in sport or take up internship opportunities for a variety of reasons, including financial, time constraints or the pressure of caring responsibilities.

While employers emphasise that any experience of the workplace (including, for example, part-time work in a pub or shop) is highly valuable, students may not be aware of this or have difficulty articulating the skills such work has helped them develop. There is a danger that the class of 2020, and the cohorts below them, may also find that their part-time work has become another Covid casualty, hitting not only their finances but also their future employability.

Relatively few employers provide work experience and better-connected students end up securing placements through their own networks. Engaging directly with universities that have a higher proportion of traditionally underrepresented students is also difficult as the recruitment teams are resource-constrained, so employers may end up engaging with a relatively small number of HEIs (23 on average, according to ISE survey).

In that context, it becomes important to find innovative ways of connecting with students early on in their journey. Roche, for example, provides bursaries to students at universities such as King's College London and Hertfordshire, and offers mentorship and work experience opportunities alongside financial support to help the company identify high-potential students from disadvantaged backgrounds early on.

Virtual internships, which have come to the fore during the pandemic, also provide flexibility and opportunity without the mobility issues. As we have seen in the case studies, many companies are converting in-company internships to virtual ones, which may serve to widen access. This has been seized on by Bright Network's Intern Experience UK, which is offering an unlimited number of places on three-day virtual internships over June-July 2020 with companies such as Google, Marks & Spencer, PwC and Vodafone.

Volunteering and community engagement also have a role to play and some universities are planning to extend their community engagement work and help rebuild local communities post-Covid.

Building emotional intelligence and resilience

"One of the challenges we're going to experience moving forward, and in the next 12 months in particular, with the lack of face-to-face contact, is how we build the emotional intelligence and growth mindset of students. With fewer social interactions available to students we've got to be very conscious to take them out of their comfort zone and we need to be thinking of different methods that we can come up with to provide that. We're looking at lots of different options, particularly with our employer partners, around 'real world projects', where we set students from different disciplines working on an industry-set challenge."

Martin Perfect, head of student and graduate employability, Staffordshire University

The trend towards flexible, remote, and self-employed work will require workers to demonstrate the higher emotional intelligence, better communication skills and more resilience that is needed to develop less stable (if potentially more rewarding) careers. Here, again, the threat is that students from privileged backgrounds are more likely to have the social and cultural capital to navigate these changes successfully.

However, universities are very well-placed to address these challenges and prepare growing numbers of entrants from less privileged backgrounds for the world of high-skilled, flexible and/or remote work while employers need to adapt to changing expectations of students. The changes in the structure of the market are creating new opportunities for those institutions that have the will, capacity and resources to do this.

A significant amount of career service work is already based in the curriculum

and embedded in students' courses and the social element of the university experience cannot be discounted. What does that look like if there is no on-campus delivery for, possibly a whole year? While there are challenges around replicating in an online environment, experiences that develop team-working and problem-solving skills, career services are having to consider urgently how to resolve this and find new ways forward. It could open the way for fresh thinking on how to support students in developing and articulating these skills.

"Across the sector, employability must become part of a degree rather than a separate dusty service where students go to get their CVs checked and have a nice chat to a careers advisor for half an hour. Employability must be substantively part of learning and teaching and par for the course and seen to be that way. That means engaging with employers at all levels."

Rob Ingram, head of employability, Falmouth University

Scale

One of the main challenges faced by HEIs in achieving this goal is their ability to scale employability activities across the institution and reach as many students as possible, suggesting a role for technology solutions across the spectrum of employability activities. As the University of Liverpool has already shown with its peer support system, there is a value in focusing the efforts of the most experienced staff on high-value, high-touch activities to support the students who need it most. Introducing a level of automation below the work of the peer-to-peer system, using AI, would further free up valuable staff time for one-to-one support.

"I think the change is going to be more radical than what universities are used to. I hope in some ways that it is, because I think it's time to use this as an opportunity to do things completely differently."

Shauna McCloy, head of careers and employability services, Ulster University

🤓 **INSIGHT FOR STARTUPS**

"For students, opportunities to meet other students from different courses and work together in groups to solve real-world problems are really valuable and a key part of any careers team's offer. How do we replicate those opportunities virtually? That is one thing that we haven't found a good solution for yet, but we're looking at it."

Emma Moore, director of careers and employability, University of Liverpool
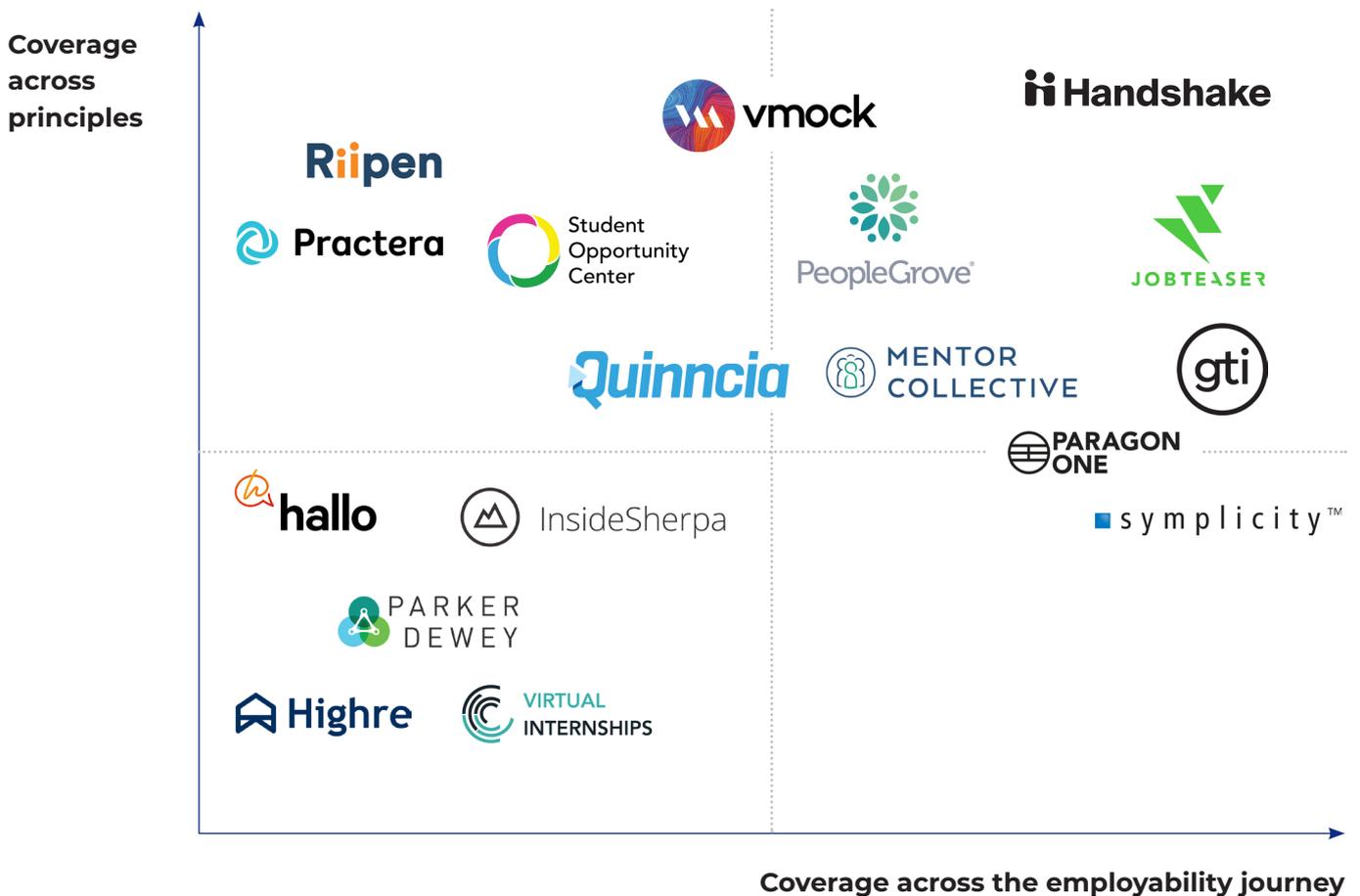
Employability journey market map

We have identified the leading startup players that are set to transform each of the key steps in the employability journey and deliver an experience that is networked, tailored and accessible.

These three principles have been reflected across the vertical axis of the map, while the horizontal axis reflects the extent to which the company provides support across the following steps in the employability journey:

- Career exploration and advice
- Work experience and experiential learning
- Job search and identification
- Job application and assessment support

Specifically, we have focused on the innovative technology providers that deliver a high-quality user experience for students and recent graduates.

Coverage across principles

Coverage across the employability journey

👓 Insights for startups

Observation	Implication
Careers technology has multiple end users: students, careers services staff, employers, IT teams.	Startups should consider the university and wider ecosystem as broadly as possible when designing platforms to ensure that ease of use is at the forefront for all stakeholders, not only the most obvious end users.
Universities have placed a high value on the close partnerships developed with technology suppliers during the crisis, especially the extra support they have offered to staff and students.	Startups can build better relationships with universities by understanding the pressures they experience, and continuing to offer ongoing support and provide evidence-based recommendations about how to support each student's career journey.
There is a risk of reinventing the wheel in a sub-optimal way by rushing to replicate an in-person experience on a virtual platform. This is a particular risk with large-scale events such as careers fairs.	Startups can differentiate themselves by addressing first principles. Regardless of how the physical version has always achieved that aim, how could a virtual platform approach that differently and, perhaps, more successfully by using all the affordances of technology?
Implementation and integration are consistently cited as key issues by university careers staff.	If startups work in partnership with universities to co-create solutions, it is more likely that they will be able to integrate their solution seamlessly with existing university systems and have a significant advantage.
Universities and employers both have strong reasons to improve student employability but universities face tougher budget constraints.	Startups can build better relationships with universities by setting their pricing model to reflect both relative budget size and the direct recruitment benefits that employers will realise.
UUK's June 2020 report, Supporting graduates in a Covid-19 economy, calls for the government to explore what could be done to encourage platforms such as Target Connect, Career Hub and Handshake to collaborate and share their internships between systems, so that careers services and students have access to a far wider range of opportunities.	Startups need to be aware that there is strong sector interest in greater alignment of platforms and tools and that, according to UUK, *"more could be done to join up these different platforms to enhance opportunities for students and ultimately increase enrolments onto such [internship] schemes"*.

Q+A with David Shull, head of Handshake UK and Europe

Handshake is the industry-leading early career network and career management platform connecting 950 universities, 500k employers and 17m students. It launched in the UK this year with a mission to democratise opportunity.

Can you describe Handshake's growth?

Handshake was launched in 2014, in Michigan, USA, with five university partners. In five years it has grown to support more than 950 universities in the UK and US, becoming the fastest growing education technology company in history and the experts in what it actually takes to transition universities at scale.

What role did Handshake's approach to implementation play in enabling or slowing that growth?

We've had to reimagine what the implementation process looks like to enable our growth. One of the first interactions I had with a director of a career centre in the United States revealed how important it is. She was really impressed by the tool but added "honestly, I'd rather retire than switch systems." For young founders that was certainly hard to hear, but it instilled in us the understanding that if we wanted to grow quickly then we had to make implementation easy. That fed into our strategy from day one.

What are some of the common pitfalls that make implementations particularly challenging for universities?

We realised that a lot of the cognitive load that came with switching was because career services and IT didn't speak the same language. IT teams often struggled to understand exactly what was required to transition systems because there was limited, or hard to find, documentation. We also realised that some parts of implementation were consistently time consuming for universities, like setting up single sign on.

How does Handshake make implementation easy for universities?

To make something easy you need to understand what makes it hard. There will always be some things you can't change but there is a surprising amount you do have control over as a technology company.

Firstly, there's documentation. It sounds very basic, but it's amazing to me how few startups in the edtech space have robust and public technical documentation. We invest in great documentation that makes it very clear what is (and is not) required from IT to launch Handshake.

We've also eschewed flashy for practical. Every university says it wants an API. APIs are great when it's critical to have a real-time data exchange, but they also require a programmer, which are scarce commodities at most universities. What can every university do relatively easily? Automate the uploading of a CSV file from their student information system to another platform. We've taken that approach as it drastically reduces the load for the IT teams and in most cases a 24-hour delay in information exchange is trivial for our users.

We've also invested in tooling. We've built an in-house tool that allows IT teams to set up and test single sign on on their own without our involvement. That can save months in back and forth. Setting up single sign on with Handshake now takes most IT teams less than an hour. We also built a tool called the Importer which gives universities instant feedback on their data feed, speeding up the development process dramatically.

Finally, and where we're most contrarian, is around customisation. Everybody is obsessed with the idea of customisation without understanding its shadow. Every customisation results in a decision the university must make during implementation. Every decision results in a conversation, analysis and trade offs – adding weeks, if not months, to the actual implementation process. So we decided from the beginning that we are only going to introduce customisation where it's absolutely necessary.

We've drastically simplified the whole approach. We build tools for IT, not just for the end users. We create straightforward documentation and approaches that align with what the university can do easily, and we avoid unnecessary customisation. We now support 950+ universities with an average implementation time of eight weeks, so we think that shows it's worked pretty well.

What advice do you have for other start-ups trying to make it easy for universities to launch their technology?

A lot of the time, startups focus on building tools for their end user. They miss the fact that they also need to put the same amount of attention and detail into making it easy for other university stakeholders. Everybody thinks universities are slow and lack innovation. The reality is, technology companies have failed to make it an easy experience to transition systems.

Many companies make money charging the university for consultants to support a lengthy and complex implementation period – don't do that. It creates misaligned incentives that may generate revenue in the short-term but will result in much slower adoption in the long run. For startups to grow quickly, they need to make their product as out-of-the-box as they possibly can, and reduce the number of different decisions that govern implementation.

Acknowledgements

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About Emerge

Emerge Education is a European seed fund investing in exceptional founders who are solving the $8.5tn skills gap. Emerge is backed by strategics such as Cambridge University Press, Cambridge Assessment and Jisc, as well as founders/investors of Trilogy and 2u. The team has a solid track record with 50+ investments, with those companies raising £100m+ from investors such as Local Globe, Stride, Project A, Rethink Education, Learn Capital and Reach Capital. Emerge also convenes Edge, a series of thought leadership forums for higher education and corporate leaders working on addressing the skills gap in their organisations and beyond. Through Edge, Emerge is able to help founders gain unique customer insights and build defining business partnerships that help their companiesgrow faster.

About UUK

Universities UK is the voice of universities, helping to maintain the world-leading strength of the UK university sector and supporting our members to achieve their aims and objectives.

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About Jisc

Jisc is a not-for-profit providing the UK's national research and education network (NREN) Janet, and technology solutions for its members – colleges, universities and research organisations. It is funded by the UK higher and further education and research funding bodies and member institutions.