

Please cite the Published Version

Christie, Fiona , Page, Catrina and Lupton, Ben  (2021) Report 4: Partner Perspectives On Rise Digital Activities (OFS Local Challenge Fund Project). In: Graduates for a Greater Manchester: Partner perspectives. Project Report. Manchester Metropolitan University, Manchester.

Publisher: Manchester Metropolitan University

Version: Published Version

Downloaded from: <https://e-space.mmu.ac.uk/632403/>

Usage rights:  In Copyright

Enquiries:

If you have questions about this document, contact openresearch@mmu.ac.uk. Please include the URL of the record in e-space. If you believe that your, or a third party's rights have been compromised through this document please see our Take Down policy (available from <https://www.mmu.ac.uk/library/using-the-library/policies-and-guidelines>)



**Manchester
Metropolitan
University**

Decent Work
and Productivity
Research Centre

Graduates for a Greater Manchester: Partner perspectives

**Report 4: Partner Perspectives
On Rise Digital Activities
(OFS Local Challenge Fund Project)
November 2021**

Prepared By The Decent Work And Productivity Research
Centre Research And Evaluation Team

AUTHORS: FIONA CHRISTIE, CATRINA PAGE, BEN LUPTON

Graduates for a Greater Manchester



**Manchester
Metropolitan
University**



The University of Manchester



Table of Contents Page

Executive Summary	3
1. Introduction and Rationale	5
2. Methods	6
3. Findings	8
3.1 General perspectives on RISE Digital	8
3.2 The benefits of University Engagement with Tech and Creative Digital Partners	11
3.3 RISE Digital activities shaped to reflect Skills Gaps and Shortages	13
3.4 RISE Digital Activities shaped to raise Awareness of T and CD sectors	17
3.5 Perspectives on the T and CD Sectors in Greater Manchester	19
3.6 Barriers to students considering careers in T and CD sectors	21
4. Conclusions	26
Appendix 1 – Interview questions	28

Executive Summary

This report contributes to an evaluation of the ongoing impact of the RISE Digital projects at Manchester Metropolitan University that focus on developing students' digital skills, awareness, and confidence (part of the OFS funded 'Graduates for a Greater Manchester' project). It draws on interviews conducted in July 2020, and July and September 2021, with external partners to the project who provided development opportunities for participating students.

The main conclusions from the research are as follows:

1. Partners involved in RISE Digital were overwhelmingly supportive of the programme. RISE Digital was considered valuable and positive for both students and for themselves as employers, stakeholders and learning providers. All partners were keen to continue their collaboration with MMU and RISE Digital and were excited to develop their activities further.
2. Working with external partners to deliver activities was seen as beneficial in helping to creating a mini- digital skills ecosystem whereby,
 - a. students (taking aligned and non-aligned degrees) can learn about Technical and Creative Digital (T and CD) skills and careers
 - b. employers can foster and find new talent whilst also addressing both existing and emerging skills shortages and gaps.
3. The range of activities developed was seen as effective in supporting the development of varied employability skills (highlighted as important alongside digital skills), digital literacy, and some specific T and CD sector skills (e.g., app development, photography, digital marketing). This range of skills were seen as valuable across all industry sectors not just the T and CD sectors.
4. The project interventions were seen as more appropriate for developing some skills than others. It was recognised by partners that some more complex technical skills required longer to develop than was possible given the timescales of the interventions.
5. The project activities were reported as being effective in developing students' confidence around T and CD skills, and also their awareness of T and CD career possibilities and routes and confidence to pursue them – this latter point was perceived to be particularly the case with students on non-aligned degrees, addressing a key project objective.
6. Barriers to students considering employment within the T and CD sectors were highlighted by partners, and these included a lack of transparency of roles and careers, the requirement for prior work experience and perceptions of employer requirements for person/organisation fit. Some barriers to inclusivity (including gender, ethnicity, disability) may be hidden and complex to address. These barriers notwithstanding, Greater Manchester was seen by partners as a thriving and growing destination for T and CD careers.
7. Work experience was, as noted above, viewed by partners as critical for students wishing to gain access to the digital sector as a whole. However, placements were not seen as the only viable route; many of the RISE activities enabled students to create digital artefacts which they could then use to demonstrate 'work' experience.
8. Overall, there is very good evidence that Rise Digital has met its key success criterion to develop engagement and partnership with relevant T and CD sector organisations and employers.

The following are recommendations of areas that the RISE team together with partners may wish to explore further:

1. Continue to market the RISE Digital activities across the student cohort and in recognition of barriers reported upon and where possible, target female, BAME and disabled candidates. Marketing can highlight the combination of skills that learning opportunities offer, including digital skills, literacy, employability, creativity, and interpersonal skills.
2. Explore ways in which skills shortages which were not addressed (e.g., data analysis, user experience/UX) might be catered for in future in more elaborate ways.
3. Due to the lack of clarity and transparency and the rapidity of newly emerging jobs/skills there is a continued need to work with industry and professional partners to develop available careers guidance and advice. This includes advice about the skills that are required and can be learnt through short RISE activities.
4. Developing modes of work in T and CD, e.g., freelance and platform working need to be outlined to students including what kinds of roles, jobs and tasks are best suited to new work modes, what employment regulations exist (e.g., IR34), and the importance of maintaining 'decent work' in more atypical work.
5. Future activity development needs to consider the benefits and drawbacks of how RISE activities are delivered. Online learning emphasises self-learning, digital communication and collaboration skills and can be scaled to reach more students but requires highly motivated students. Face-to-face learning is more time consuming but builds interpersonal and professional skills and allows partners to build relationships and spot future talent. It is suggested that the adoption of hybrid delivery is preferable.
6. Research is required to further explore the characteristics of specific role requirements which appear to be creating a gender split between certain tech and creative jobs. Whilst RISE activities were attracting more females, more research is required to understand the perceived and actual barriers to them taking up certain job roles.

1. Introduction and Rationale

This is the fourth report in a series which supports the OFS-funded (Local Challenge Fund) Graduates for a Greater Manchester project. The first two reports provided an overview of the context for the project in relation to the labour market, skills, and employment trends¹. The third report² summarised evaluative qualitative research (focus groups and interviews) conducted with students who participated in RISE (formerly Third/Term) Digital projects. This fourth report reveals findings from qualitative evaluative research conducted with a range of project partners/stakeholders, who were responsible for providing digital activities for students during 2020 and 2021.

In this report for the Project Steering Group, we (the DW&P Evaluation team) were asked to address the project's success criteria regarding the alignment of the RISE Digital skills project to labour market needs and the effectiveness of industry partnerships. Although this was our primary focus, we were also open to discovering other findings which add to the evidence base about the success of the RISE Digital programme and knowledge regarding its wider inputs/activities/outputs, especially as the activities took place during 2020 and 2021 during periods of national lockdown. This meant that the RISE programme team had to rapidly pivot activities to short intensives and projects that were conducted virtually. Our approach to evaluation is to seek to add to wider knowledge about such activities and not adopt an instrumental or justificatory approach. We sought to discover themes that could be important for the development of such activities in the future.

Specifically, the DW&P Evaluation team were asked to address the following success criterion from the Graduates for a Greater Manchester project plan:

Increase in 'deep partnerships' (stakeholders who contribute to the steering group, programme design, delivery and placement provision)

In addition, our interviews were able to illuminate wider perspectives of RISE partners around the following areas of interest for the programme:

Evidence of: Increased external engagement with relevant sector partners

Evidence of: Improved alignment between the RISE Digital Programme and the city-region.

Evidence of: RISE Digital activities shaped to reflect the skills gap in Greater Manchester.

Partners who had provided activities (including skills and training sessions, placements) and training for students participated in the evaluation in July 2020 and July and September 2021. The proximity to provision of their activity and engagement in the evaluation varied in timing due to the dispersed nature of RISE Digital provision.

1 Christie, F., Lupton, B. (2020) REPORT 1: 'TECH AND CREATIVE DIGITAL': LABOUR MARKET TRENDS AND GRADUATE SKILLS IN GREATER MANCHESTER. Manchester Metropolitan University

Ball, C., Christie, F., Lupton, B. (2020) Report 2: 'TECH AND CREATIVE DIGITAL': PATTERNS OF GRADUATE EMPLOYMENT IN GREATER MANCHESTER. Manchester Metropolitan University

2 Christie, F., Papadopoulos, O. Lupton, B. (2021) REPORT 3: STUDENT PERSPECTIVES ON RISE DIGITAL ACTIVITIES (OFS LOCAL CHALLENGE FUND PROJECT). Manchester Metropolitan University

2. Methods

The engagement of an additional internal evaluator from DW&P to produce insights over and above what is done by the RISE team contributes to the depth and breadth of the Graduates for a Greater Manchester project evaluation. To add to other data collected by the project manager (e.g., engagement of sector and regional partners in the Steering Group), the DW&P Research and Evaluation team (following consultation and with the agreement of the Graduates for a Greater Manchester project team), decided to use qualitative methods (i.e., interviews) with partners providing activities and training. All interviews were originally planned for 2020 but due to the pandemic, it was decided to disperse them across both 2020 and 2021.

The value of doing qualitative research is to be open to new discoveries about what engagement in the project meant for partners. On the recommendation of the project manager, twelve partners were approached to be interviewed. Nine accepted the invitation including one who was interviewed twice (once in each year). Interviews were semi-structured, and questions (see appendix one) included general perspectives on RISE Digital, engagement with students and impact of activities, perceptions of T and CD sectors in Greater Manchester, the digital skills supply and gaps/shortages and the roles of different stakeholders in addressing skills development.

Table 1 captures brief details of participants (presented anonymously) in the evaluation. Many participants held leadership roles in small companies with close connections to the T and CD sectors and all were external to the university. All were engaged in training activities of varied kinds for students and had considerable experience of working with students/education providers outside of the RISE programme so were able to bring these insights into the research interviews. The duration of activities delivered by partners varied and is reflective of a decisive move by the RISE team to increase numbers of students participating by offering many short intensives and training sessions rather than extended activities and placements.

Table 1: Partner participants in evaluation

2020 Interviews (conducted in July)		
Partner participant	RISE Digital activities provided	Participant Number
Director of a Tech Social Enterprise company (tech for good)	App Design and Development Design Thinking for Social Good Podcasting and Vlogging	GfGMIV1_2020
CEO of a Tech Social Enterprise company (film production)	Podcasting and Vlogging Vlogging Manchester Met	GfGMIV2_2020
Director of a Creative Media company	Managing Social Media	GfGMIV4_2020
2021 Interviews (conducted in July and September)		
Director of Specialist Digital Skills Training Company	Get Confident in Coding	GfGMIV6_2021
Director of Specialist Digital Skills Training Company	Various Industry and sector insights training	GfGMIV5_2021
Director of a Specialist Creative Recruitment Organisation	Various specialist training on digital identity development	G4GMIV8_2021
Training manager, Digital Skills, Corporate company	Various specialist training on AI, Digital identity. Volunteering re digital inclusion	G4GMIV9_2021
Senior Director, Social Media (Training), Specialist Digital Marketing Company	Various specialist training - digital marketing	G4GMIV10_2021
2x Interview conducted (2020 and 2021)		
Education manager, Creative Digital Talent and Training Social Enterprise Company	Digital marketing and branding Creative incubator Photography bootcamp	1st Interview GfGMIV3_2020 2nd Interview GfGMIV7_2021

3. Findings

Overall, the evaluation discovered that partners involved in the provision of Rise Digital activities found the experience overwhelmingly positive. Partners delivered a huge range of activities from hour long workshops to more intensive Summer long projects. Most partners had direct contact with students whom they found to be engaged and motivated. Generally, the student output was viewed by partners extremely positively.

The following key themes emerged:

1. Working with external partners to deliver activities was beneficial in creating a mini digital skills ecosystem whereby students (aligned and non-aligned) can learn about T and CD sector skills and careers; and employers can foster and find new talent whilst also addressing both existing and emerging skills gaps and shortages..
2. The range of activities developed were effective in delivering employability skills, digital skills, digital literacy, as well as some specific T and CD sector skills (e.g., app development, photography, digital marketing). Furthermore, this range of skills are valuable across all industry sectors not just the T and CD sectors. Partners were candid about the limitations of what short activities could achieve in addressing skills that need longer and more elaborate learning.
3. Barriers to students considering employment within the T and CD sectors were highlighted and these included, a lack of transparency of roles and career pathways in 'Tech digital' and 'Creative digital' (and the relationship between them). That said, Greater Manchester as a thriving and growing destination for these careers is viewed positively.
4. Work experience is viewed as critical for students wishing to gain access to the digital sector as a whole. However, placements were not seen as the only viable route; many of the RISE activities enabled students to create digital artefacts which they could then use to demonstrate 'work' experience.

3.1 General perspectives on RISE Digital

Our participants' perspectives on their experience of the RISE Digital programme of activities were overwhelmingly positive. All participants in the research had designed and delivered varied activities and commented positively on the ease of delivering the sessions as well as levels of student engagement, enthusiasm, and quality of outputs. Many were honest about aspects that had been more challenging for them (especially about adjustments required due to the pandemic) but all were keen to build on the work done and continue working with Manchester Met students. Their comments provide useful ideas for the RISE Digital team to consider in planning.

IV 6: Overall it's been easy, and it's been a nice easy way to engage and a flexible way to engage which suits organisations like us... So, this model where we have people in MMU who'll make it easy for us to engage.

IV2: And the whole process was amazing. The students learnt so much and they got so stuck in.

IV7: I think there was only meant to be about four winners and there ended up being about nine because they were all amazing.

One participant reflected that where students had not been able to secure their first choice of activity, this negatively impacted on the attendance and level of engagement.

IV2: ...most of the students who were put onto the project had applied for something else... Well, I struggled in my strand with 8 students that were meant to be committed...It's because they did not intentionally put themselves to it.

The impact of the pandemic was seen by some participants as having a detrimental impact on levels of engagement. However, for most the shift to online learning was relatively unproblematic and even beneficial in maintaining activities and getting a bigger audience.

IV10: The uptake was probably disappointing... there could be more people engaged...in the programme but you're asking students to commit to something, you know at a time when we're in a pandemic.

IV5: What we did as well was very attended... And the fact that it was on Zoom I suppose you know not ideal but because you know in some way you lose that one to one and face to face interaction and communication and stuff like that. But the students were really engaged, and it was a good alternative to face-to-face sessions.

One participant noted that the larger number of students' engaging impacted on the scope to interact with all students. However, this did not negatively impact on the learning and enjoyment of the course

IV 6: We didn't get anywhere near as much interaction with the students, and I think that's cos the group was much bigger. We were asked to do it for more students, and I think that was a mistake in retrospect, if I'm going to give you some honest evaluation. We were asked to expand it because it was so popular, but the group was too big ... and everyone was quiet, and it was extremely difficult to get as much interaction with them. I would say it succeeded as a programme because they learnt and the informal evaluation at the end said, we learnt a lot and we really enjoyed it.

All partners expressed the desire to continue working with RISE and Manchester Met students. A desire was clear to grow involvement and continue to improve their course content and delivery of activities. Participants were keen to widen participation and ensure content is engaging and reflects current and emerging trends.

IV9: I just think it's a really good programme. I think the students loved it because you know, if they didn't they wouldn't have been that many people on... Get as many students as you possibly can on it. We'd love to run sessions again in the future. You know, obviously our content has expanded and there's more so I'd love to sit down and go through it all and see what we can do for the future.

IV1: I'm excited about next year because I know it's going to be an amalgamation of both [online and face to face] and I'm going to work to improve it on those levels. But yeah, so I'm really looking forward to what happens next year.

3.1.1 Impact of Covid-19

Participants reflected upon the changes required due to Covid-19. Interviews were conducted in both 2020 and 2021 so captured views at different points of the pandemic. The ability to shift to online activities facilitated by the RISE team was appreciated. Participants recognised the reasons RISE Digital moved online and adapted their delivery to shorter activities that could reach more students. The move to online activities was an interesting experience for participants who identified both benefits (e.g., ability to scale up) and some drawbacks (harder to identify talent).

IV3: And then this time we ran it again but it was a little bit different and was all over Zoom. So a few changes had been made but we were able to have more students involved, but they still got to do and take part in the same programme, which was great.

IV6: I'm sure other people that come into the university like I do, do the same things. You know we're looking for people to stand out and I suppose the downside of doing it digitally online is that it's harder for people to stand out.

Overall, participants felt T and CD sectors benefitted in terms of requiring a rapid adoption of tech solutions, which one participant who felt COVID had advanced the adoption by 10 years:

IV9: Yeah I think COVID has given us... a ten-year push... I think it's pushed us quicker to use technology more. But it's pushed companies to react in a technological way quicker as well... But it's given that push to them companies to advance these online platforms so people can use them more freely... COVID has helped technology.

IV6: So, there's going to be more demand for those services that can be provided online and that work that can be done online. I think it's going to shift; it's going to stay there for the foreseeable future because people have seen the possibilities... There's going to be more e-commerce, more people buying stuff rather

than going to the shops and there's going to be much more remote working. Even if we could all do that safely again people have shifted. So there's going to be more demand for tech jobs. The companies that provide those kind of services, they're fine and they've got more jobs than ever. It's just, yeah so that is growing. There's going to be more demand because of COVID

Participants commented that online delivery had been relatively easy for them, but many observed that face-to-face interactions are important for the softer skills necessary for future work. Questions were raised about what mode of delivery works best for different purposes. Short online activities were considered good for working at scale, basic upskilling, creating awareness of job roles, and building digital confidence. Participants observed that activities online required students to do more independent exploration of digital skills that can lead to a greater self-learning ability. Participants also acknowledged the skills they had to develop to keep students engaged in virtual activities. There were comments that more complex skills development (tech digital, data analytics) might benefit from longer activities with some in-person contact. It is interesting that even for partners representing digital industries, many stressed the importance of face-to-face interactions.

IV1: it's such a shame that we had to do it online because you know, we really did the bare minimum just to keep it safe and make it useable in the timeframe that we had. I'm excited about next year because I know it's going to be an amalgamation of both and I'm still going to, I'm going to work to improve it on those levels. But yeah, so I'm really looking forward to what happens next year.

IV10: So there has been good change in some respects. You can scale but at the same time if I look at my role I do prefer being in person because I get my energy from people really. I don't think we should take that away from learning because it's good.

IV5: The fact that it was on Zoom I suppose you know is not ideal because you know in some way you lose that one to one and face to face interaction and communication and stuff like that. But the students were really engaged, and it was a good alternative to face-to-face sessions.

3.2 The benefits of University Engagement with Tech and Creative Digital Partners

An important success criterion for the RISE Digital project is around its ability to develop partnerships with relevant sector organisations, employers, and others. Participants were asked their views on their interaction with the university and its students. Engagement of expert external partners to design and deliver projects for students aligns with the university's civic mission to find ways to work jointly with local industry for mutual benefit. In addition, in sectors which are moving fast in terms of labour market and skills' needs, it is appropriate to look to industry experts to supplement student learning. Evaluative work with students illustrated how they valued learning from external partners.

3.2.1 The value of university and T and CD partnerships

Participants interviewed for the evaluation were from a range of organisations. Notably, many were from small organisations (including several social enterprises) that were already active in providing learning opportunities for educational providers (including universities). All were supportive of a shared social responsibility to develop student skills and address skills gaps. Broadly, they rejected clichés which simplistically criticise universities for not producing 'work-ready' graduates. They valued the RISE Digital model in which universities, employers and sector organisations work together to help provide placement opportunities, short intensives/courses, and opportunities to network. They felt that they were well-positioned to identify emerging roles, occupations, and skills shortages

and gaps which could aid a speedy adaptation of activity design, which cannot happen in standard undergraduate and postgraduate education which moves more slowly.

IV9: ...for us it's our social responsibility in making sure people are aware and vigilant about what's going on. So, we're always adapting and changing our... content and what we're ...supporting students with, depending on what's going on at the moment.

IV2: ...And the beautiful thing is I'm still having conversations with those students, and we build a sustainability chain in that sense.

IV8: Yes you know, honestly I've been coming into the university for years and I can give you lots of examples of students that have come along to talks I've given or events that I've hosted, and you know, I've ended up helping those students find jobs...because I've stayed in touch with them. So, there's a real benefit to me yeah from getting involved and that's... you know because I will spot good talent and be exposed to it and that's exciting for me...in terms of what I do professionally.

3.2.2 Creating a sustainable and active pipeline of talent

Partnership activity between the university and employer/sector organisations was considered mutually beneficial ('win-win') and of benefit to students and the wider T and CD sectors. Participants described RISE Digital as offering the opportunity to contribute to upskilling the next generation and providing a talent pipeline to fill entry level positions. Some participants who acted as recruiters saw engagement in RISE Digital as a way to spot future talent.

IV10: We had a partnership together, we're helping each other. We're helping upskill and you're also giving us talent that we trained up to fill roles at a junior level, at a high level, like 'win win', you know.

IV7: ...students are getting to meet those businesses, they're creating connections with them and the local businesses are then able to see what kind of talent is coming through the university, what's coming up in the future when they come in to hire and ... So, it creates a really nice talent pipeline which is exactly what we aim to do through RISE...

IV8: ...whenever I do anything with the university, you know I'm always interested to see who's there, to see who follows up with me because I remember names and I remember people and you know, when I'm doing these things I'm talent spotting

3.2.3 A digital skills ecosystem to benefit student learning

One of the themes to emerge from the interviews was around the challenge that employers are increasingly looking for students who are 'work ready'. Several partners commented that their RISE Digital activities can help facilitate students' transition from university to employment. This would have a two-fold benefit: firstly, it helps students to gain practical skills and experience to help bridge the gap between studying and working making them more attractive to employers; secondly, by providing students with an insight into work in the sectors, students can gain a more realistic understanding of what to expect from their first job role.

Partners were adamant about the important role of engaging employers and sector organisations as much as possible. RISE is considered a great example of an infrastructure to allow this to happen.

IV1: As somebody who employs people, I always have... a caution about new graduates because I will be giving them their first work experience and that might not live up to the reality of what they're expecting... I always see myself as someone who likes to ground people a little bit in what work will actually look like when they get out of it.

IV5: I've got ambitions to support the employment and skills piece particularly for the digital and tech industry in Greater Manchester and university partnerships and collaborations are key to that. So, it's always important for us to get involved if there's an initiative that supports that shared ambition I suppose... That's why things like RISE is useful so employers can know of a specific project they can contribute to. So strategically for an SME they might want to connect to graduate talent in a wraparound way.

IV8: I truly believe the closer the relationship between industry and universities, the better because the graduate will get a better experience from their time at university and will come out like I say, more industry ready from day one. You know so the more, the closer those links are, the better for everybody really. Better for students, better for the university, better for the industry. I think the more the industry is involved with students during their time at university I think would improve that employability and so like, you know employers have got to step up and do more and universities have got to find ways of getting them in more whether it be part of the curriculum or extracurricular, there's got to be more.

3.3 RISE Digital activities shaped to reflect Skills Gaps and Shortages

A key success criterion of RISE Digital was to respond to the skills gaps in the T and CD sectors in Greater Manchester. Previous research from Manchester Digital³ suggests that there are specific tech digital skills shortages, although other research from Graduate Prospects⁴ has highlighted that digital skills are not alone in being in short supply. Other cognitive and employability skills and attributes are also required and often interact with digital skills (EU⁵, Nesta⁶). Questions were raised about where skills gaps really lie with some participants arguing that it was not at entry graduate level; but that there are bigger concerns about the skills of mid-level staff.

Participant reflections in this evaluation support the messiness of discussions around skills and how digital skills interact with other cognitive and employability skills. Skills shortages and gaps identified by partners go beyond 'hard' tech digital skills which have tended to attract most public and media commentary. Partners commented on the importance of digital capabilities/literacy for all future jobs and careers (not limited to the T and CD sectors). They also commented on the importance of developing employability and 'soft' skills. Partners described how they continually responded to emerging skill shortages and created activities to address the gap, for example, coding training, digital photography bootcamp. Several partners mentioned that they saw an important part of digital skills development was to provide students an opportunity to evidence of their learning in the form of a 'digital artefact' which would then enable them to confidently demonstrate their skills in the application and job-hunting process.

3.3.1 Digital Capabilities/Literacy (beyond the T and CD sectors)

There is a growing demand for digital capabilities/literacy beyond the T and CD sectors. Several participants emphasised graduates, regardless of their course discipline, would benefit from an understanding and awareness of the core capabilities related to the technology and creative digital sector. Partners' testimonies stressed digital literacy as a fundamental and necessary skill for the future. The use of digital technologies is transforming existing jobs and occupations, whilst creating entirely new jobs that are emerging constantly; for example, skills in computer programming may be essential for a variety of occupations, but at the very least an understanding of what coding jobs entail will be crucial as it ensures cross-functional collaborative working. Identifying and teaching these life-long skills will be a priority for all partners including universities, employers, and sector organisations.

IV6: People who might want to go and work for a government department...as the public sector digitises more and more... they understand the possibilities of digital which I think if you've done a bit of coding you understand better, you can think how to make these services more efficient and that kind of thing. Even though you're not going to do it, you can have a better conversation with the people who are going to do it.

IV7: You might go into hairdressing, but you need to help run the social media and the website, so digital is really important across all sectors and as I say, we just want to be able to help students into that next step. You've got the creative digital tech as a sector itself but actually creative digital and tech exists in all careers.

3 Manchester Digital. (2019). Manchester Digital Skills Audit 2019. Manchester Digital. Online: <https://www.manchesterdigital.com/post/manchester-digital/digital-skills-audit-2019>

4 Prospects. (2019). Skills shortages in the UK 2019/20. Prospects Luminate. Online: <https://luminate.prospects.ac.uk/skills-shortages-in-the-uk>

5 Pabollet, A., E., Bacigalupo, M., Biagi, F., Cabrera Giraldez, M., Caena, F., et al. (2019). The changing nature of work and skills in the digital age. EUR 29823 EN, Publications Office of the European Union, Luxembourg: EU Joint Research Centre.

6 Bakhshi, H., Downing, J. M., Osborne, M. A., & Schneider, P. (2017). THE FUTURE OF SKILLS; EMPLOYMENT IN 2030. Online: <https://www.nesta.org.uk/report/the-future-of-skillsemployment-in-2030/>

3.3.2 Importance of Employability and 'Soft' Skills

A narrow technical skill set are unlikely to be fully adequate to meet labour market needs. Students need to develop both 'hard' skills (e.g., coding, computer programming; data analysis) as well as 'soft' skills, such as problem solving, emotional intelligence, and critical thinking. This cross-functional skillset has helpfully been described as 'fusion skills' by the UK Select Committee on Digital Skills⁷ and our research indicates that partners view students who can demonstrate a mix of creative, social and technical skills will be highly sought by the T and CD sectors.

The importance of developing student confidence to try new things and develop new skills was a common theme across participant responses. It is unclear whether the lack of perceived 'student confidence' by partners is felt equally by students. However, it might suggest that some personal skills/attributes which the sector perceives as necessary (e.g., confidence, extraversion, resilience), that represent behaviours/attitudes which are learned over time can be fostered to a greater extent by education providers.

IV4: I think especially within creative and social [media], you can't always tell people what to do because the industry's changing so much. I think you've got to have the right people that are constantly adapting.

Several participants were keen to stress the importance of creating activities that enabled students to demonstrate or learn some key employability skills. Examples mentioned included adaptability, communication, willingness to learn, problem solving, decision making, showing initiative.

IV1: the main things that'll make somebody successful in digital is the ability to adapt. So it isn't, it isn't about block chain, it's about the ability to understand what block chain is, if you need to use it, and also deciding whether it's

the right solution or not...they'll be a new block chain next month...and it's about being able to keep on top of that and understand whether that's right or wrong...

IV2: ... they're quick learners because we are already living in an age where a lot of people are in touch with something techie, if that makes sense and so for them to just adapt it to using video or video editing, that's just, a thing like second nature in itself. So, I was impressed with the way they learnt quickly, and I expected nothing less I guess maybe.

IV3: If you can see someone is passionate about something like photography, goes out in their own time to try different skills, try different things, and learn things by themselves at home even. So maybe it's not something they study at university but they're coming home at night, watching YouTube videos on how to edit or how to film.

IV5: Tech skills needs can change rapidly – self-learning is required. Once they know they can always learn they can realise they don't have to rely on a tutor to show them how to do something and that's what employers want.

IV4: if someone's done the intensive course and then gone away and had a play with it, maybe they've got a hobby or a side project and they've utilised what they've learnt on their own... then they might get a bit more insight and then they can build on that.

Several of the activities developed by the partners were aimed at increasing students understanding and confidence in using digital skills in both the workplace and employment context, but also to help them develop their career management skills to perform better in the application a job-hunting process, or even in growing their own freelance businesses.

⁷ House of Lords: Select Committee on Digital Skills (2015) Make or Break: The UK's Digital Future. <https://publications.parliament.uk/pa/ld201415/ldselect/lddigital/111/111.pdf>

IV9: We focus on...the knowledge of how to create really good...CVs, understanding what business interviews are, what competency-based interviews are, how they can become more...aware of what questions are going to be asked. Become more confident in knowing that this is what we're going to do to support you

IV7: After she did the web development workshop she's now started up her own online blog about helping women feel more confident and go into business... And that's just from giving her the confidence to be able to know how to use web development... She's now got the skills to be able to do that and as I say, it just shows that the RISE project and ourselves, we're all about teaching the skills, helping them to whatever their end point might be.

3.3.3 Tech digital skills shortages and gaps

A number of the activities provided were able to give a flavour of some of the digital skills required by employers and industry, such as how to communicate and collaborate digitally through the online learning platforms, how to recognise and manage cyber security risks and how to engage customers to drive online traffic to websites.

Reflecting further on skills shortages and gaps in tech digital, partners were candid about the limitations of the short intensives and projects that students were engaged in. Many participants commented that longer training would be required to address shortages of programmers, software engineers and data analysts. However, they were confident that the RISE Digital projects would serve to stimulate interest amongst students and lead some to want to get better skilled in specific niche areas.

IV1: No, you're not going to turn someone into a developer over the Summer, not, but what you might do is make somebody interested in it

IV6: So, in the job market there's an oversupply of young people for creative digital but there's a lesser supply of people who do the harder tech stuff ...there's still a challenge about more development of advanced digital skills and actually how we might build on some of the short experiences in a deeper way. Which could help plug some of those issues and a concerted look at more advanced digital stuff.

IV6: I think through our sessions ... we want them to feel that they've broken through a barrier and [think to themselves] "that actually this whole world of coding which maybe I was a bit afraid of and uncertain of, but I know is important now, I think I could go away and either work in this field-, or maybe not work in the field but more confidently interact with coding with people who do code."

3.3.4 Creating Digital Artefacts using T and CD Skills

Participants reported that the RISE team had briefed them to create activities, workshops, toolkits, and short intensives to give students insights and experience into the skills needed in the Tech and Creative digital sectors. They acknowledged that activities provided could not teach complex competencies such as coding, however, many of the partners were ambitious in terms of what could be achieved by students. Some short intensives encouraged students to learn and develop a wide range of creative and tech digital skills from basic coding, digital photography, app development, social media and digital marketing strategy and video production.

IV4: So, we went through the processes of identifying an audience to actually what apps to use and why you should use them. And then into how to physically create a content plan, how to plan your content, and then right down to actually what the narrative of that is.

IV6: We did hour long sessions, and they were all based on coding. Everything we do is based on coding, but the idea is it's coding and something and the series was called 'Make Something with Code'... we did two of each and any student would just come along to one session for an hour and in that hour they would, yeah make a piece music, make a piece of art, or make a story. So that's what we did, just those one-hour sessions.

Several participants enthusiastically described practical activities for students to create digital artefacts that students could use as evidence in job hunting and interview processes and to showcase on digital profiles (e.g., LinkedIn) or as a springboard to deeper self-learning. Arguably, creating digital artefacts gives students real 'work' experience and demonstrates tech digital and/or creative digital skills and/or employability skills. This creation of evidence is especially important as several partners noted lack of work experience as a barrier to the sector, while also acknowledging that some employers in the sector have yet to embrace more organised work experience and placements for students (especially SMEs).

IV1: If you were not techie, there was like a build an app from scratch if you've never built an app before in your life or done anything. And then if you were techie there's like, build a proper app with real coding language, which might be a challenge. So, no it was quite good at showcasing all sorts of level of experience and expertise.

IV6: They built a smart home device. So, the first thing we did was any student would just come for an hour and get an insight into something creative with code, and then more recently what we did is a four-part programme where they had to sign up for each of the four sessions and gradually we built a smart home device. We sent them some kit that then they could hold onto.

IV7: The students...maybe had never edited a video before or even filmed something. They may have never designed a logo or even had a go at graphic design. So, we put on over the four weeks different workshops including social media marketing, video production, graphic design and web development, and video production of course, to allow them to have those skills and learn those skills to be able to create an online portfolio at the end... So, it's something they could use in the future ... their online portfolio had to include their personal brand. So, we wanted them to create a logo and they had to create a video CV as well.

As many of the activities were planned and largely delivered online due to the pandemic the ability to scale and deliver to more students than a traditional work experience placement allowed more students to develop skills and confidence to perform better in job applications and interviews. Moreover, some partners reported creating completely new activities due to their collaboration with RISE, having identified skills that would be useful and appeal to students. A digital photography bootcamp is an example of this.

IV7: They were given all the skills to be able to learn photography using smartphones and cameras... And they were set a brief on week three over the Easter break to take photos using the skills they'd learnt over the last three days, one using natural light and one using artificial light. One of the reasons we did the photography bootcamps, is because people always need photographers. They need photographers to do headshots, to do behind the scenes, to do event photography and that's exactly why we ran the photography bootcamp, to show people that, you know people are doing in photography day to day and they don't realise they can do that as a career, which is exactly why from our side we could see that people were crying out for photographers and RISE are asking us, what are businesses asking for at the moment that we can do a placement on.

3.4 RISE Digital Activities shaped to raise Awareness of T and CD sectors

One of the key aims of the RISE digital programme was to raise student awareness of the T and CD sectors in Greater Manchester. Participants agreed there was a lack of awareness of new and emerging roles in the T and CD sectors. Participants were keen to stress the value of the RISE Digital project as a way of addressing this issue. Moreover, a key objective of the RISE digital activities was to engage and inspire students from across the student body including drawing from courses not aligned to the T and CD sector. Making Greater Manchester and the T and CD sectors attractive for students to remain will be critical in order to service the 10,000 creative, digital and tech companies in the city⁸. Our participants acknowledged success in delivering effective courses that were both accessible, enjoyable and valuable **for all students**, inspiring students to develop a wider engagement and interest in pursuing careers within the T and CD sectors.

3.4.1 Inspiring students from non-aligned courses to consider careers in T and CD sectors

RISE Digital activities engaged students from both aligned and non-aligned subject disciplines. RISE Digital sought to increase the tech and creative digital skills of students from non-aligned courses. Overall, the partners felt that they had contributed to this aim and a number described examples where they had success in highlighting career opportunities to students from a range of courses unrelated to their part of the T and CD sectors including Psychology, Architecture, English, Tourism and Finance students. Participants were positive about what such students could bring to T and CD career fields.

IV3: We had Tourism degrees, we had people studying Accounting & Finance, we had people studying Film and Media, some

doing Linguistics and English Language and Literature... So, it was more to not create new coders overnight but to open students' eyes to just how many possibilities there are for them out there.

IV4: A sort of bitesize tool for students to look through at various areas of social they might not get to unless they're in that area of employment. I think it's quite useful. I mean the last four or five people I think I've hired in a social media role, one's come from a geography degree, one's come from psychology, one's come from events management.

IV 7: These architecture students who didn't realise, are going into businesses and creating better work than some of the graphic designer students are. So, it just shows that yeah the net definitely can be cast wider, and it's definitely been recognised that you may not have had to study that in the past, but you definitely are able to pick up these skills and the fact that they're all willing to learn and pick it up so quickly is perfect.

3.4.2 Increasing students' knowledge of T and CD careers

Participants agreed that students often lacked knowledge of new and emerging career fields and that employers and sector organisations (including themselves) could do more to raise awareness. There were many comments that RISE Digital activities could support this growing awareness.

IV5: Well, I hope that they felt they understood more about what's involved and what they can do to get a career in digital marketing cos we know that one of the main barriers in getting an industry job is not knowing how to get in and what role there are and what the work involves. So, I hope the sessions will open their minds to opportunities and then that will help them get into jobs

⁸ Tracey, H (2020) Creative, Digital & Technology Factsheet. Online: <https://www.investinmanchester.com/sectors/digital-and-technology>

IV7: Showing them what's on their doorstep, the careers that are available to them and giving them experience days where they can take part in workshops with different businesses to get an idea of what some of the careers are, are available to them. There were placements who didn't realise that they had the skills to have a career in creative digital...A lot of the students kind of don't know the careers available to them

IV3: There's that many different careers behind the scenes in TV and it's another thing that people don't know enough of, that just behind the set there's not just your director, producer, camera and actors, there's about 70 different people minimum just behind set on its own. And that's kind of what we want to push, that there is, there are so many more opportunities actually in Manchester that we just need to spread the word about it more.

3.4.3 Inspiration leading to deeper engagement in T and CD

Several participants described how creating the awareness of opportunities is important, however they also stressed that their activities might encourage students and act as a gateway to deepen their engagement with the sector beyond their individual sessions.

IV5: So, we did one session which was about highlighting opportunities, career opportunities such as in digital marketing sector, which was like, I think important because it's a bit of a door opener and just giving students and insight as I think one of the things we've learnt is that you don't know what you don't know, and we make assumptions when we work in the industry and I think about what the jobs are...

IV6: these short activities, they don't teach skills in any kind of gap. They give an insight into a skillset and they start someone off on a journey of thinking, ah I could do that, or I understand how that thing works, or yeah when I talk to other people now who do that, I can have a better-quality conversation with them. Or

it might even for some people be an inspiration to think, I'm going to get deeper into that.

IV9: it gives the students a foundation of knowledge that they can then progress...And then they can expand it to learn more and understand more. But it's also skills they can take away into their careers. So being able to understand how to manage your time better, how to manage your stress levels better, you know understanding how AI is affecting their job role etc....

3.4.4 Transferability of Skills

Participants were keen to stress that whilst they agreed that there is a lack of awareness of roles and career opportunities in the T and CD sectors, another important issue is helping to raise student awareness of transferability of existing skills to these roles. Raising awareness of roles without educating students to reflect meaningfully on their transferable skills was a perceived risk. Some participants stated that students need to understand and feel confident in how they can transfer and maximise the skills they have already invested in and then consider how they might top them up with T and CD sector specific skills. The RISE Digital activities appeared well-placed to plug this gap and several partners testified to the benefit of the RISE activities they delivered contributing to delivering this awareness to students.

IV3: the main part of the placement was to... show them that they can transfer their skills from whatever degree they're doing to the creative, digital and tech sector. And ... that you might be working in a completely different sector and not have idea about creative digital and where you kind of fit in and that's what this placement was all about.

IV5: I think in my experience there's a disconnect it's not so much skills graduates don't have but sometimes what they are able to utilise. Sometimes graduates need more guidance about what skills they can learn themselves and that they could learn some of

this stuff. Online and soft learning isn't given enough emphasis and maybe students need more self-direction to learn specific skills. The Business world needs the appetite to learn continually.

IV7: So, we have done a range of different placements ...to show them that their skills are transferable to the creative digital sector. So, they might be architecture students who didn't realise they can be graphic designers, or sports media marketing students who didn't realise they can work in social media marketing, to show them that there's just so many careers that they could possibly go into. And we want to... give them those skills and give them that knowledge to be able to break into the working world.

A number of partners also noted that some students had already developed some digital skills, but they were considered hobbies as opposed to marketable skills they could take into the workplace. This suggests RISE activities that can build in careers guidance and CV writing might be especially useful.

IV7: So we had one student who ...was doing filming and editing in his spare time but didn't think to mention that at any point and didn't think that was relevant to what he was doing because he was studying something different... he submitted his video CV and it was amazing. And I said, have you'd edited before, because this is brilliant and if you'd learnt that over two weeks that's even better but have you done this before because this is amazing. And he was like, oh yeah I've dabbled a bit in the past. I've actually got a YouTube channel where I've created these videos. And I was like, you could walk into a job in video production and you didn't even realise that.

3.5 Perspectives on the T and CD Sectors in Greater Manchester

Manchester has recently been ranked as the UK's Top Digital Tech City⁹, based on the size and scale of digital business activity coupled with the affordability of the city-region - a fact largely left unacknowledged by our respondents. Regardless, respondents were mostly positive about Greater Manchester's T and CD sectors. Whilst respondents focussed on the thriving nature of the T and CD sector, it is perhaps worth noting the region has more to offer those who chose to remain here as seen by various polls over the past two years in that Manchester was voted the Best UK City to Live by the Economist in 2019 and the 3rd Best City in the World by Time Out in 2021¹⁰.

With the move of Channel 4 to Leeds and the growing T and CD sectors in Liverpool, a number of partners identified the potential threat to student talent exiting Manchester, therefore ensuring students are informed of both the emotional as well as the rational components¹¹ related to decisions of where to live after graduation may also be important aspects of future course delivery.

3.5.1 Attractiveness of Greater Manchester as a Creative Cluster

Overwhelmingly, participants felt that Greater Manchester offered students many work opportunities and a positive culture where they would be able to thrive and build solid careers and good working relationships. This accords with what are known about the city and the specific features of a creative cluster¹² in which many different sub-sectors co-exist creating a flourishing environment. Positivity remained undimmed by the impact of the Covid pandemic, and many partners (notably in

9 Invest in Manchester (2020) World-first AI Survey Identifies Manchester as UK's Top Digital Tech City. Online: <https://www.investinmanchester.com/media-and-events/industry-news/2020/3/18/world-first-ai-survey-identifies-manchester-as-uks-top-digital-tech-city-a2769>

10 Invest in Manchester (2021) Best UK City to Live. Online: <https://www.investinmanchester.com/why-manchester/living-in-manchester/quality-of-life>

11 Ball, C., Christie, F., Lupton, B. (2020) Report 2: 'TECH AND CREATIVE DIGITAL': PATTERNS OF GRADUATE EMPLOYMENT IN GREATER MANCHESTER. Manchester Metropolitan University

12 Chapain, C., Cooke, P., De Propriis, L., MacNeill, S., & Mateos-Garcia, J. (2010). Creative clusters and innovation. Putting creativity on the map. Online: <http://creative-blueprint.co.uk/library/item/creative-clusters-and-innovation>

2021 interviews) felt that in many ways, the T and CD sectors had benefitted from the pandemic, in relation to the growth of demand for digital.

IV1: They've created a really nice culture there. There's so many tech meet ups in Manchester. I think it's got more tech meet ups than most cities in the world, which is a great you know show of what kind of tech culture we have. And there's loads of people willing to contribute to that culture.

IV2: what better city to do it in than to do it in Manchester because that's kind of where I feel like and especially from a digital perspective it's what you're asking, it would be a city to flourish in.

IV8: there's an unbelievable amount of opportunity for graduates entering the sector in Manchester. You know, Manchester is only second to London in this sector and it's growing all the time and at the moment there isn't enough experienced people to fill all the vacancies that there are.

IV8: They've [students] said to us at the end of it, we didn't realise there was such great companies in Manchester doing what I want to do. And then they'll stay in Manchester. So ... getting industry involved more because it might help showcase to graduates that there are the right type of companies for you when you graduate. You know you don't have to go to London or wherever. You can stay in Manchester cos there's lots of opportunity and there's lots of good places to work.

3.5.2 Challenges for T and CD in Greater Manchester

There was a mixed view of Greater Manchester as being a good place to work for the T and CD sectors in terms of offering a wide variety of opportunities. So, whilst respondents noted the combined T and CD sector in GM is the second largest outside of London, there was some acknowledgement that depending on the sub-sector, the opportunities are

far fewer than in London. Moreover, one respondent described how the scale of organisations in London offer opportunities and diversity within one company which is not available in Greater Manchester.

IV1: So, if you are going to stick around in Manchester and you want to work for a charity and do social good, you'll be working with a tiny little charity which has very little budget and there aren't a lot of opportunities outside of London.

IV10: So, I think it's definitely one of the best hubs outside of London. I do think though if I'm completely honest with you, I have learnt significantly more in the role that I'm in now [in London] than I ever have [in Manchester]. And I have a lot more opportunity especially when it comes to things like working with different markets globally, working with a diverse range of people as well.

Access to talent was identified as a potential threat to the success and growth of the sector in Greater Manchester. Moreover, both Leeds and Liverpool were noted as emerging cities with a growing T and CD sectors especially driven by the move of Channel 4 to Leeds. The proximity of these northern cities although appearing to be competitors could also be helpful to Manchester's sectors in line with a wider Northern Powerhouse.

IV5: Manchester very strong for this sector and more businesses are moving into the North so Liverpool and Manchester. Bigger Businesses attracted to re-locate. All affects the eco-system and need to sort the talent issues as we want the businesses to stay. Important relationship between bigger and smaller businesses. GM needs to scale up to meet the challenges.

IV4: there seems to be a lot of people coming up from the South. But I think there's been a big effect from the likes of Media City and obviously the BBC there. Channel 4 now I think has moved to Leeds. I think with that I think there's a lot of people realising that there's a lot of roles, a lot of jobs.

3.6 Barriers to students considering careers in T and CD sectors

When asked about access to careers in the T & CD sectors, several barriers were discussed by the participants. These included issues related to awareness of and understanding of the key terms related to the sector. This impacts students' ability to recognise how their skills and courses are related to the jobs and careers in the sector. Furthermore, participants also noted that employers can be nervous about hiring graduates without experience. The RISE Digital activities were an excellent way of providing students with an insight into the range of jobs and careers in the sector but also a number of the RISE activities offered short placements. Moreover, several of the activities provided a learning platform which allowed students to build or create some form of digital artefact which would enable them to demonstrate to potential employers real 'work' experience.

When asked to think about the kinds of people who work in the T&CD sector, two issues were raised. Firstly, there appears to be a gender divide within the sector and whilst the RISE Digital activities were praised for attracting a high percentage of women, the participants noted the sector remains male dominated in tech roles. Secondly, several participants also noted the characteristics 'required' by certain jobs in the sector, with coding, analyst or tech roles being for introverts and maths 'geeks', whilst the creative and social marketing roles being suited to extroverts. Overall, however the participants were keen to stress that the sector was making efforts to attract more female talent into the sector and certainly the RISE Digital activities are part of those efforts.

Participants were also keen to stress a culture of inclusivity across the T and CD sectors, where anyone could feel accepted and find suitable work, however, there does appear to be opportunity and scope for more to be done here.

3.6.1 Perceptions of accessibility and transparency

Several themes emerged in relation to the barriers that may exist for entry into T and CD sectors. Participants reported on a lack of apparent accessibility, sometimes this was due to perceptions regarding skills, but also changing job titles. Participants recognised that this could be a particular challenge for those from non-tech/non-creative degree courses who might have many of the cognitive abilities required. The RISE Digital project and associated activities were viewed as especially useful at driving awareness of creative and tech digital careers.

IV6: Our world of coding is less accessible. It can be quite hard, but we aim to say, you could do it. It's a world that there is a barrier to. There's a barrier of perception about who it's for and who can do it and it's more difficult, so young people don't know how to code as a rule, except the school system's bringing through more people who code cos every kid has a go at some kind of coding now in school. It's part of the curriculum. But yeah it's a world that they haven't necessarily got access to or confidence in but it's important. It's very important to get some knowledge of this to help I think in the future workforce.

IV7: When I was looking at jobs and I was searching media jobs and nothing was coming up, I was thinking oh my God I've studied this for how many years and there's nothing. And of course, there's nothing because the right wording isn't being used ... because it's more than just video, pictures, and film. It's social media, it's web development, it's graphic design, it's video production and photography, it's a lot more than media just kind of underpins and I think again that's why it's really important that terminology is concentrated on and focused on to make it more accessible.

IV8: Often the people that do well in those roles come off like maths and science degrees or history, what degrees are more analytical. But part of the problem with the industry is like, how do you tell those students those jobs exist and that there's an opportunity for them there

3.6.2 Defining the Industry

Whilst most partners agreed that the RISE Digital activities were useful in demystifying job roles and potential careers, there was also consensus that the terminology used by the sector was somewhat opaque. There was a lack of clarity and agreement over what the various terms related to the Tech and Creative Digital sector meant. Many of the participants conflated the terms themselves and often used creative, design, digital and technology/technical and social media almost interchangeably therefore potentially adding more evidence of the confusion over what jobs, roles and skills are required by the sector. This creates a challenging environment for careers advisors and students.

IV1: There's even arguments about things like the more marketing side of things. Does that fit in tech. So social media, there's a lot of discussion about whether that's even tech and digital... I have divorced myself slightly from tech and moved more towards design which you'll find quite a lot as well. I think a lot of people have done this, because it's not about the tech, it's about the solution and the humans and the research leading into the solution.

IV10: It's all technology but there's just different disciplines within that. There's like the analytical side of things and then you have the creative side of things and the creative can lend itself well to social or content marketing for example. I don't think there is like a right terminology to be honest in my opinion.

IV8: Tech digital more about software and technology type industries whereas creative digital I always think more about the creative end of it, you know social, websites, etcetera rather than for me technical digital seems more hardware.

IV7: The right wording isn't being used and that's when it comes into, it is turning into creative digital because is more than just video, pictures, and film. It's social media, it's web development, it's graphic design, it is video production and photography.

Notably, several RISE Digital activities focussed on developing both an online professional profile and networking – this reflects the shift towards *freelancer models* of working which were identified as a common mode of work. According to several participants, students who want to work in T and CD sectors may also need to understand the role of the freelancers and the platform or 'gig' economy. Partners attested to the regular use of freelance workers who were being used to plug skills gaps. There appears to be two main concerns for employers, the first is the higher rates of pay for freelancers and the impact on firms ability to train less experienced employees. There is no indication of concerns related to the drawbacks for freelancer workers in this sector as they appear to be able to demand much higher rates of pay.

IV3: I think the thing with creative digital and tech and media is that it's not your typical nine to five and it never probably will be your typical nine to five. And it's more often than not it's the six month long contracts and then you might move onto something different.

IV4: We have had the busiest months commercially...since we started and we started three years ago and we're the busiest we've ever been right now to the point where we're pulling freelance resource. If we need a certain resource and we're using freelancers, we can't develop someone, we have to go and find someone with experience. In which case you've got to pay for that experience.

IV9: Going self-employed and making a name for yourself or being freelance and ... getting paid a lot more. Because when you tend to be freelance you tend to earn a lot of money

3.6.3 “Work” experience is critical

Participants were in broad agreement about the importance of work experience required to help students get into the T and CD sectors. However, they also recognised that securing work experience was not easy for students and that sometimes employers should be prepared to invest more time in training graduate hires. Their comments also suggest employers in these sectors need to be better at creating relevant work experience opportunities.

IV3: I think you then have some businesses that will always stick to that Catch 22 of, you've not got any experience so you can't get a job, but you can't get a job without experience.... But I think a lot more businesses now are realising that they need these young people to come in with the new skills and the new ideas and fresh minds, and whether they need a little bit of training or not, they can come in and kind of, they just seem to kind of get on with it and kind of learn on the go

IV7: They might say in their job description, you need to have at least two years' experience doing this. And that just cuts out a lot of people straightaway. Because it might not be experience in a business, but it might be two years' experience working on something themselves while they were studying as well. These students are coming out with all these skills and not knowing where to go with them and employers are asking for skills but asking for experience as well.

IV9: Experience is the key thing to allow graduates to be able to showcase what they can offer, be able to put what they've learnt into practice. You know whether it's through work placements, whether it's through volunteering it's having the experience out there in the real world to be able to do that.

While many recognised that employers need to be more flexible about what they ask for, there were also comments that indicated that students and graduates also need to be realistic about what they might be able to do in a first graduate role.

IV2: As somebody who employs people, I always have like a caution about new graduates because I will be giving them their first work experience and that might not live up to the reality of what they're expecting, and I worry that they'll move on quite quickly because it's not matching reality.

Some participants expressed the hope that the development of projects such as RISE and the credentials and experience this confers would give employers more to look at when selecting candidates. RISE Digital experiences appear to offer an alternative to standard work experiences, which may be especially valuable to students who have not gained 'gold standard' relevant work experience.

IV3: Just by giving them those few little credits on their CV seems to open more doors for those employers that are expecting readymade ones

IV1: But the credits obviously encourage people to get involved with that and it like opens your people's eyes to different careers.

3.6.4 Stereotypes of who does what in T and CD sectors

In this section we reveal interesting reflections from participants about the perceived characteristics of workers/employees in the T and CD sectors. The research team asked questions about what kinds of people who might be attracted to the sector, which were primarily intended to uncover issues of demographic and geographic mobility. Participant responses were optimistic about the scope for the sectors to attract a diverse workforce but also suggested some stereotyping of roles especially around gender and character traits. Participants often did not agree with such stereotyping but shared their observations of what was going on in their sectors.

IV3: We do have, you know people with disabilities and we never say, creative digital doesn't have any barriers. The point in creative digital is to overcome every barrier going. So, we do have people with disabilities. We do have BAME...It's completely varied.

IV10: I think creatives you tend to find that there's a lot of extroverts. I think both genders. I think it's a lot more open when we look at diversity and equality and sexuality, probably the more quirky types. When it comes to coding I think it's predominantly male and I know there are a lot of businesses looking to bring more women into that space...

Whilst some participants were keen to stress there is diversity within the sector there was a clear narrative that the sector is largely white and certain roles are dependent on specific behavioural characteristics.

IV4: But I think in where, you know [in my] previous role it was quite heavily sort of Caucasian, white male, female to be honest. There was a bit more diversity within the developer roles, the more tech side of it ... within the digital team. Within the wider ...design, creative, social, photography I'd say there wasn't a balance at all.

IV1: There aren't enough people from varied backgrounds in tech. It tends to be white men; this is the thing and it's getting worse.

There were several consistencies across the responses which seem to imply certain behavioural character traits as important for certain jobs role. Further, there appears to be a creeping gendering of roles which are collapsed into character traits, e.g., creative social media roles are increasingly perceived as roles preferred by women, whilst tech (coding and web development) roles are perceived as roles preferred by men.

IV4: Yeah so the social media side is heavily female...I reckon over the last sort of four or five years I'd say 90% of CVs that I've received from those have been female. I think it seems to be that they're quite, especially with social media management, *it's quite an organised role and managing the accounts and replying to things*, it's quite planned... there's loads of data on account managers in our industry is heavily female as well and it's the case it seems to draw more female attention...

IV6: It's become a male field.... Some of the great pioneers of computing work were women and we talk about them as much as possible. But it's become for some strange reason a male field and so it attracts traditionally men and it attracts, you could say even slightly more introverted people as well who like spending lots of time in front of the screen...So people who are interested in that, so people who are interested in the sciences and maths and so on, people who are say introverted and some types like to spend at least some of their time working on their own and really getting deeply into a problem....and the big question we always ask is, is it that boys are more attracted or is it that at school there's an unconscious assumption that this is a male subject...

The most concerning aspect of this gendering of roles was the view expressed by one respondent who commented on the lack of support for women:

IV1: So, I've worked a lot in pipeline and encouraging women to be whatever they want to be, but then I also kind of feel guilty for pushing them into an industry that isn't going to support them as well as it should be doing. That's really negative

There was also a distinction between work deemed appropriate for introverts and work that is considered more suitable for extroverts. The stereotype of the introvert as a 'geek' prevails, although there is acknowledgement that in the tech digital sector these characteristics are welcomed and desirable. That said, the notion that introverts might need learn to behave more extroverted is concerning especially since there was no call for extroverts to behave more introverted.

IV6: There is this idea towards introversion as well but if you go to some of the companies that employ coders, there's a great deal of interaction. There's creativity, there's openness and they need to be able to work with each other as a group and they *try and encourage people who might be more introverted to help them behave in a more extroverted way. The coding world is much more introvert friendly.* Even though I've said it is a place where they do want people to work together, there will be quiet people working with quiet people and they understand each other's quietness, and it is quite soothing and calming ... so you do need introverted people and the industry understands that very well but society at large might consider people who are not so open maybe sometimes are a *bit rude or a bit shy or some kind of geek.*

IV8: I think generally people who've got an interest in creative or feel like they're a creative person but also people who like to collaborate. Generally good communication skills are a must and people who like working in isolation don't tend to get on very well in the sector really.

IV10: When it comes to coding and this kind of role, it's very specific. You need to have a specific type of brain. So, coders typically you would usually say they're introverted, and I do not want to use this word but like that kind of like geeky guy. That's typically who it attracts, and those types of people are usually very high functioning but it's under resourced, I know that. Really struggle to find people that can do these things.

There is therefore a suggestion that web developers and coders are primarily male, introverted and 'high functioning' which seems to imply certain roles are suited to people (males with introverted characteristics). It is implied introverts are attracted to specific tech digital roles as they tend to require lots of solitary working. The responses indicate that women are primarily attracted to the creative digital sector, especially the social media marketing roles which require extravert skills such as building communities, working well in groups and enthusiasm.

Whilst the participants suggest that certain cognitive and behavioural characteristics suit certain roles within the sector, such stereotypes are perhaps to some extent impacting on the shortage of graduates and potential candidates into parts of the sector. The RISE Digital activities can certainly play a role in widening participation into the sector but may perhaps have to work with industry partners to consider the impact of these enduring stereotypes.

The RISE project was positively viewed by participants as working to overcome some of the stereotypes by encouraging women into the tech digital sector. However, there is a greater opportunity to explore how Manchester Met and its partners can explore these sectors further to ensure greater diversity across the T&CD sector in the future.

IV6: All our publicity we put young women on the publicity and we just try, and people have told us about gendered language and so on and we try very hard to make it more open and we shifted from about 20 odd percent female participation to 40 odd percent. Still not enough, it should be 50 or 50, which is why *it's so pleasing that the RISE participants, there were more female than male participants* and that was interesting and it's something to look into. But yeah, the tech digital field is too male dominated. There's no reason why it should be.

4. Conclusions

Interviews with the key external partners involved in RISE Digital revealed overwhelming support for the programme. RISE Digital was considered valuable and positive for both students and for themselves as employers, stakeholders and learning providers. All partners were keen to continue their collaboration with MMU and RISE Digital and were excited to develop their activities further.

A key success criterion of RISE Digital was to develop engagement and partnership with relevant T and CD sector organisations and employers. The interviews highlighted how delivery partners reported a win-win relationship that stemmed from the activities and engagement with the student body. The activities were viewed as an effective platform for the development of a range of skills, and for some partners a valuable talent-spotting opportunity. Moreover, the skills students were able to develop were considered beneficial for creating a sustainable and active pipeline for future talent.

In addition, activities provided by the partners were considered effective in responding to wider skills sought by employers as well as specific skills gaps identified in Greater Manchester. Partners reported on activities aimed at improving students' basic digital literacy skills in recognition that awareness of such skills are required across most jobs, not just those specifically aligned to the T and CD sectors. Partners stressed the importance of developing students' employability skills, including confidence, willingness to learn, and decision making. A blend of employability, creative and digital skills were successfully introduced to students by the partners through the RISE activities. Furthermore, some RISE activities included the creation of digital artefacts which students could use as concrete evidence in future job search and interviews.

Some respondents noted the limitations of what RISE Digital activities can achieve in terms of teaching deep technical and analytical skills. The ability to teach and learn complex digital skills such as data analytics, web development and UX was widely accepted as not possible, as these require more sophisticated and longer learning journeys. To conclude, due to the nature of the activities, which were relatively short in duration varying from single one-hour workshops to a four-week part-time placement, the activities were not able to develop deep or complex technical learning.

However, the research has clearly demonstrated that the RISE activities were considered by the partners to be effective at creating an awareness of careers in the T and CD sectors. Indeed, partners suggested that the activities provided were effective in inspiring students to consider careers in the T and CD sectors. The activities were considered especially effective in reaching and communicating to students from non-aligned courses which was a key objective for the project. Moreover, the activities were viewed as a springboard whereby inspired students could develop their new-found basic skills using their own initiative or indeed via some of the platforms provided by the partners.

One of the aims of the RISE Digital project was to encourage students to feel confident in applying their newfound digital skills in job applications and subsequent employment. Importantly, some partners reported on how their activities were designed to highlight how students existing skills can be both transferable and valuable to the T and CD sectors. In addition, partners also noted that their activities allowed some students to uncover some 'hidden' digital skills which they had not realised were marketable employment skills. Following on, some partners stressed the importance of students developing life-long learning skills which will enable them to respond to a rapidly changing work context.

Our evaluation aimed to explore the perceptions of partners as to whether Greater Manchester is a buoyant place to start a career in the T and CD sectors. The evaluation team found that partners were in broad agreement that the T and CD sectors in Greater Manchester are vibrant and growing, and the important catalyst of the Media City and the BBC move to Salford were noted.

Partners' perceptions of barriers to the T and CD industry sectors for graduates also emerged. To summarise, issues identified include, the lack of clarity of careers and job roles, the importance placed on work experience by employers and the perceived characteristics deemed necessary by the industry. The importance of team, job and organisational fit appears to raise some gendered role issues (e.g., social media tends to be considered female-dominated whilst coding appears to be largely male dominated). Some partners also commented on barriers that exist in relation to ethnicity and neurodiversity/disability for new entrants to these sectors. Additional points were raised regarding perceived desirable personality characteristics and roles considered suitable for introverts or extroverts.

Finally, our interviews with participants led us to observe how RISE Digital activities and skills sessions were designed and implemented by partners in light of COVID. Overall, partners reported both benefits such as the ability to reach more students and the boost to adopting digital communication platforms as well as noting some key drawbacks such as lack of face-to-face interaction and the ability to spot future talent.

Appendix 1 – Interview questions

The following topics shaped what questions asked during interviews.

Introductory questions

- Please can you introduce yourself, who you are and what you do?
- What led you to be involved in the RISE programme?
- What is your view of RISE and how your project/activity fits into it? What's your understanding of the digital stream of RISE (funded via OFS) that your project is part of?
- What do you think that RISE digital activities such as yours (many are short intensives) can achieve (e.g., influencing students, building university and local industry/partner connections?)

Engagement with project and students/graduates

- What have you done as part of the RISE project or activity you were part of? Please talk me through what you have done in a bit more detail.
- What level of interactions have you had with students as part of the project? Have you had other interaction with students outside of your project involvement?
- What do you think, and hope students will have gained from your activity/project?
- Do you have any views on student skills and motivation regarding the T and CD sector and roles? Bear in mind project aims to encourage pipeline into the sector. Any comments re differences in creative digital and tech digital?

Perceptions of the sector

- Do you think the opportunities in T and CD are clear for potential entrants? Any comments on differences between tech digital and creative digital?
- What is your view of Manchester as a buoyant place for the T and CD sector with plenty of opportunities as a whole? Does your experience bear this out?
- What are your thoughts on the future of work in relation to tech and creative digital? How has it been (and will it) affected by Covid-19 given many companies are SMEs?
- Do you think the RISE projects should be focussing on digital skills development of relevance to all sectors and jobs not just T and CD?
- What 'kind of people' tend to be attracted to go into the sector? (in relation to demographic issues that we covered in report and also graduate geographic mobility)?

Skills supply and role of stakeholders

- How do you see the skills supply into these fields in GM and beyond - Skills shortages/gaps in this field? Any concerns or not?
- What do you consider the role of universities to be in developing future skills of students/graduates for these fields?
- What do you consider to be employers' role in developing the future skills of staff/ new graduate hires in these fields?
- What do you think re the contradictory picture re some employers complaining of a skills deficit amongst graduates for the sector (e.g., Manchester Digital), while elsewhere there are trends which indicate a considerable number of graduates are under-employed in GM?

Conclusion

- Any other comments about RISE and your involvement?