

Co-designing Pathways to Opportunities for Young People in the North West of England.

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Abstract: This paper presents ongoing research from the first of a series of projects examining how collaborative design approaches can raise aspirations and increase opportunities for people throughout the North West of England, in support of the UK Government's Industrial Strategy. The paper presents a case study where design practitioners and youth workers have worked together to co-design a prototype for an intervention that aimed to foster positive engagement between young people and businesses in Burnley in the North West of England. The paper outlines a number of insights that have emerged from observing and participating in the co-design process including the importance of trust in partnerships, skills and learning of the team, steps needed to sustain the project, and the challenges and opportunities of co-design. The paper concludes on how a "place-based co-design approach" may potentially contribute value to more resilient and sustainable communities.

Keywords: co-design, social change, sustainable communities, place-based, young people, aspirations

1. Aim

This paper presents ongoing research that examines how a team comprising of youth workers and design practitioners collaborated to co-design an intervention that would connect young people with businesses and create valuable new pathways to learning and work opportunities using assets in the Burnley District in the North West of England, aiming to transform an area where young people have low aspirations, despite growing work opportunities. This paper describes the context of the research and outlines the methodology, which includes the details of the design process alongside reflections from the team. It concludes with insights that have emerged from the first author's participation in and observation of the co-design approach, focusing on a place-based co-design approach for more resilient and sustainable communities, including the team's skills, design methods and the challenges experienced.

2. Context

2.1 Transforming the Economy and Productivity in the UK

This research supports the UK Government's Industrial Strategy (HM Government, 2017), outlining their plan to transform the UK's economy and productivity, highlighting five foundations for change:

- Ideas
- People
- Infrastructure
- Business Environment
- Places

The 'Places' foundation calls for prosperous and productive communities throughout the UK and highlights how some places are not reaching their full potential. To achieve this, regional differences in skills and education attainment need to be tackled, opportunities for all to learn throughout life need to be provided and access to careers advice needs to be improved. It states that ultimately, finding satisfying work keeps people healthy; both mentally and physically, provides economic independence and opportunities to "fulfil ambitions in life" (p.121). It posits an opportunity to make better use of local assets, linking back to the 'People' foundation, suggesting that "education and skills are among the biggest determinants of local productivity" (p.229).

The Careers Strategy (Department of Education, 2017), cited in the Industrial Strategy, explains that careers advice in the UK must improve to help people of all ages, targeting social mobility, meaning to provide everyone with the opportunity to have a good life, regardless of their background or where they live (Social Mobility Commission, 2017). Both strategies highlight inclusivity through increasing opportunities throughout the UK.

2.2 Transforming the North West

This research draws on the findings from the first of an ongoing series of research projects feeding into doctoral research, focusing on collaborative design for social transformation and raising aspirations in the North West of England. This is part of a larger doctoral training programme called Transformation North West (TNW) funded by the AHRC, in which PhD researchers at five universities are co-creating projects with businesses, gaining an understanding of how design techniques can drive growth and prosperity in the region. Figure 1 gives details of the programme.



Figure 1. Map of TNW universities in the North West, including the Burnley District.

2.3 Pathways to Sustainable Opportunities in Burnley

The Burnley District in Lancashire has the opportunity to utilise local business assets and create positive engagements to help young people reach their full potential. Currently they face a number of challenges; educational attainment is significantly below the national average and it has the highest level of NEET (not in employment, education or training) young people in Lancashire (Lancashire County Council, 2018). It is in the top 20 most deprived areas in England (Department for Communities and Local Government, 2015) and the population is in long-term decline due to migration, in contrast to the rest of the UK (Lancashire County Council, 2018).

On the positive side, Burnley Council has its own strategy for raising aspirations (Burnley Council, 2017), Burnley was awarded 'Most Enterprising Area' in the UK in 2013 and is in the top 10 for private sector jobs growth (Burnley Council, 2017), demonstrating a variety of opportunities. It has been proven that positive engagement between young people and businesses can make a significant difference to future prospects and social mobility, as well as contributing to social and economic sustainability in the area (Burnley Council, 2017; Collins & Barnes, 2017; Department of Education, 2017).

Sustainability is about growth and improving quality of life without depleting resources people rely on, but it is also about developing the economy, promoting wellbeing and empowering people to reach their potential (Forum for the Future, 2018; Nesta, 2015; Woodcraft, Hackett and Caistor-Arendar, 2011). A widespread conception of sustainability focuses on generating value for three linking elements: environment, economic and social (Purvis, Mao, & Robinson, 2018; United Nations, 2018). The majority of the literature in design focuses on environmental sustainability, rather than social or economic (Calvo & De Rosa, 2017; Colantonio, 2009; McMahon & Bhamra, 2015; Woodcraft, Hackett, & Caistor-Arendar, 2011). There is an opportunity to explore how design practice and research contributes value to these areas.

Economic sustainability is about generating economic growth and productivity, as well as generating jobs and a skilled workforce, which design can add value to (Design Council, 2018). Education and employment play a key role in ensuring social and economic sustainability (Barron & Gauntlett, 2002; United Nations, 2018), however this is an area thought to be neglected by design research (Carvalho & Goodyear, 2018). ‘Sustainable communities’ incorporate both social and economic sustainability, as communities (in this case living in the same location) “persist and thrive socially and economically”, ensure the quality of life of everyone and provide “access to resources and services that meet their diverse set of needs” (Alvarez, 2015). As social and economic challenges vary between people and places (Alvarez, 2015; McMahon & Bhamra, 2012) and are difficult to amend, a place-based approach is key: working with a variety of people working and living in a location, gaining local knowledge and using existing resources effectively (Munro, 2015).

The YPLNKEDIN project, the name of which was inspired by the networking website, LinkedIn, works towards a more resilient and sustainable community aiming to improve skills, the prospects of young people and businesses, therefore potentially boosting the local economy and generating a better quality of life. The project strived to be inclusive, ensuring that the voices of those from disadvantaged backgrounds in Burnley were heard and aimed to deliver opportunities for all, connecting the ‘People’ and ‘Place’ foundations in the Industrial Strategy. The project stemmed from the experience of youth workers in not-for-profit organisation in Burnley. They observed that many of the young people they worked with had limited knowledge of how to seek jobs or how to identify and promote their skills to potential employers. Many struggled with school, did not get the support they needed, had low aspirations and confidence; this corresponds with the findings in local and national publications, as explained earlier. The youth workers secured funding from the Big Lottery Fund to tackle these issues in collaboration with a design company specialising in digital services for social impact, with whom they already had a relationship through previous work. Figure 2 depicts the relationship between the actors in the project.

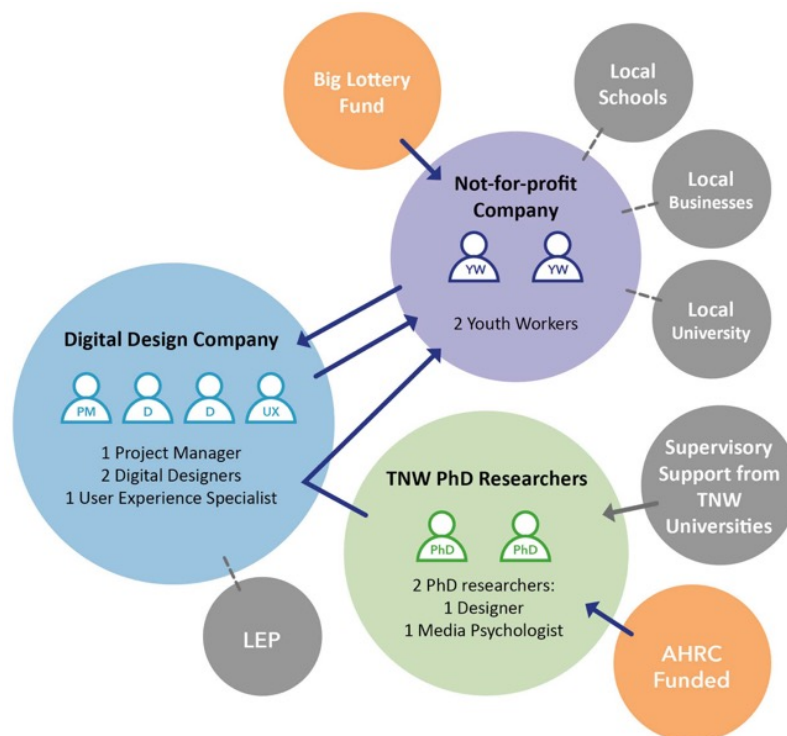


Figure 2. Diagram showing the connections between the design company, the youth workers, TNW, and other stakeholders.

3. Methodology

3.1 Research Approach

The research presented in this paper is ‘Research through design’ (Frayling, 1993), where insights emerge through participating in and examining the collaborative design process. The research adopts a multi-methods approach, combining participant observation, which allowed the first author to become fully immersed in the co-design team, alongside interviews and questionnaires, which helped gather further information and assisted the team’s reflection on their approach.

The first author participated in the majority of the activities that took place on the project over a period of six months. During each interaction, the first author took notes, photographs, asked questions and actively engaged in the analysis of the data and co-design of the intervention. A baseline questionnaire was sent to the team at the beginning of the project, followed by interviews or questionnaires, depending on the availability of the team members, after each stage of the project. These were designed to benefit the team as well as the researcher, aiding reflection on the process, as well as taking a short time to complete. These decisions were based on the first author’s experience of delivering co-design processes, where mutual benefits for the first author and the participants would help to sustain the research project.

3.2 YPLINKEDIN Project Co-Design Approach

On the YPLINKEDIN project, the co-design team worked together closely throughout the design process. The digital design practitioners led the co-design approach, guiding the youth workers through the first three stages of their four stage design process (Figure 3), based on the Design Thinking Model created by the Hasso Plattner Institute (Plattner, Meinel, & Leifer, 2011) similar to the Design Council’s Double Diamond (Design Council, 2005).

Establishing a clear process assists with communicating, planning and managing the process and creates clear stages to ‘discover’ the needs of the end users, ‘define’ the design specification through data analysis and ‘ideate’ potential ideas for the final social design intervention (co-design).

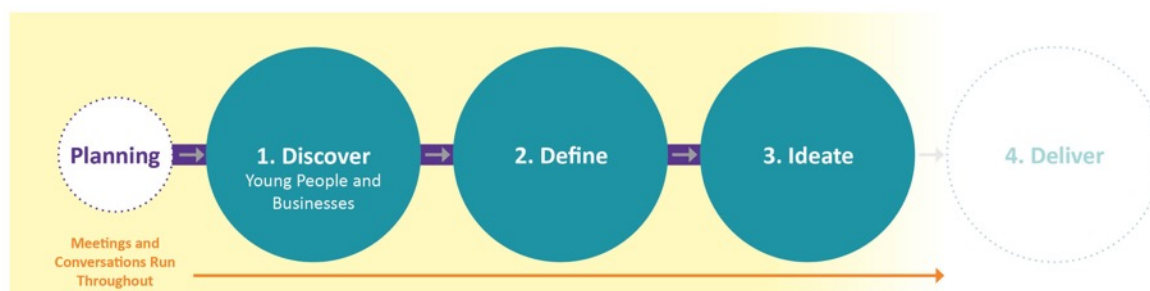


Figure 3. Diagram depicting the stages of the design process applied to the project. Delivery is faded because it is a stage dependant on further funding.

There is an increasing interest in design research and initiatives that focus on the opportunities that tackle complex social challenges, such as sustainability, often referred to as ‘social innovation’. Social innovation is when design practitioners help to develop design interventions to change social practice, such as businesses engaging with young people to improve their future prospects, often through the use of participatory methods (Armstrong, Bailey, Julier, & Kimbell, 2014). It is widely believed that designing to address social challenges requires a collaborative approach, which is open and transparent (Burns, Cottam, Vanstone, & Winhall, 2005; Jégou & Manzini, 2008; McMahon & Bhamra, 2012). Co-design is defined as “designers and people not trained in design working together

in the design development process”(Sanders and Stappers, 2008, p.6). A complex challenge benefits from a range of experience, actors and skills (Del Gaudio, Franzato, & Jefferson De Oliveira, 2016; Manzini, 2015; Stokes, Baeck, & Baker, 2017). Working together to solve problems, for example in workshop settings, provides space for those co-designing to learn in a process of mutual inquiry, establishing a shared understanding, which contributes to the sustainability of the intervention (Merkel et al., 2005).

In this example, drawing on the expertise of the youth workers throughout contributes to the long-term goal for them to continue to promote, drive and support the use of the final intervention. Socially orientated projects often start small but have the potential to scale-up, which requires a new set of skills, including co-design (DESI Network, 2017). Sejer Iversen and Dindler (2014) believe that as researchers and designers work to engage with complex social challenges, they should consider what happens during the project to ensure its sustainability; “a longer process of transformation” (p.156), considering ways to scale, replicate and evolve the project. Much of the literature on co-design discusses the role of the designer as ‘facilitator’, ‘mediator’ or ‘trigger’, all of which are roles where they might spark creativity in others (Manzini & Rizzo, 2011; Sanders & Stappers, 2008). It suggested that designers should also be experts in the implementation of technology, drive the design process, establish and maintain relationships and understand the business context (Sanders & Stappers, 2008; Stokes et al., 2017). Less is said about the skills that those from non-design backgrounds also bring to the process.

4. YPLINKEDIN Project Case Study

4.1 Planning Stage

At the start of the YPLINKEDIN project, the team met to create a shared plan that helped them to understand the scope of the project, participatory activities to be applied, and resources available. A ‘Planning’ Stage’ (Figure 3) is added to the design team’s process because all members of the team reflected on how valuable they found the stage, with one of the design practitioners stating that the planning gave the team confidence going into the workshops.

4.2 Discover – Young People

The first part of the ‘Discover Stage’ aimed to understand the views of almost 100 young people living across the Burnley District aged between 14 and 18. The design practitioners carried out a literature review, which informed the aim of the workshops and interviews to discover personal information such as the skills, achievements, role models, and knowledge of how to find future opportunities living and working in Burnley. The youth workers led the youth engagement, arranging two-hour workshops with five schools and colleges, which were supported by the whole team. A series of workshop activities were framed through the use of simple paper-based tools to engage and capture responses. The form of these tools was decided before the workshop by the whole team. However, the youth workers led the production of the tools as they have significant experience here.

First, the groups completed a ‘Bucket List’ sheet with their aspirations and goals (Figure 4) using an outline of a person to describe their personal interests to produce a representation of themselves (Figure 5). Following this, they were asked to describe their qualities, with the help of a friend, including their dream job, what success looked like, and their role models (Figure 6). The young people were asked to give their views on Burnley, whether or not it represented a place for work opportunities and if they thought they wanted to continue to live there, giving it a ‘Trip Advisor’ style rating out of 5 (Figure 7).



Figure 4. Young people responding to the Bucket List engagement tool during the workshop. Photo credit: YLINKED project, 2018.

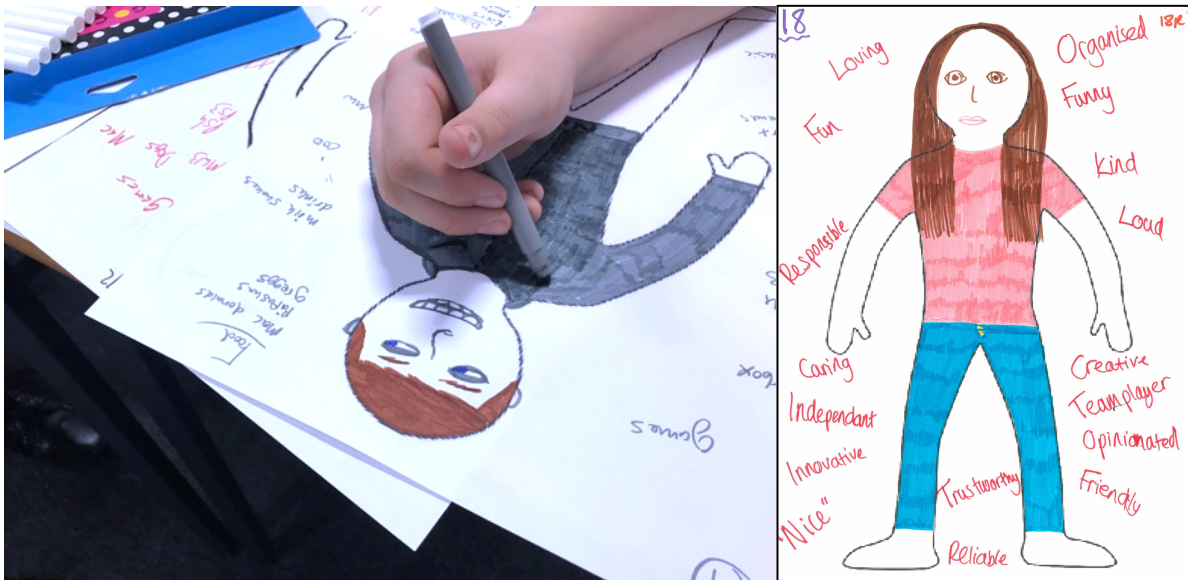


Figure 5. Young people created characters that represents their interests. Photo credit: YLINKED project, 2018

framework developed by the design company, which was translated into a user profile, representing each user as shown in Figure 8. The findings from the workshops and interviews are included in section 5.

Complementary skills were important during this stage; the youth workers provided connections to young people and the design practitioners shared their method for collecting and analysing data. The team, including the first author reflected that the tools were not enough on their own to engage all of the young people and required the facilitation of the team to help draw out responses, corresponding with Vaajakallio & Mattelmäki (2014) and Donetto, Pierri, Tsianakas, & Robert (2015). It was challenging to encourage the young people to provide answers that were not influenced by their peers. However, interviewing individuals from the group helped to obtain original answers, enhancing the data collected. The young people were not asked to reflect on the possibility of engaging with local businesses or provide their ideas on possible design interventions in the workshops but the team thought there may be an opportunity during the Ideate Stage, if time and resource allowed.

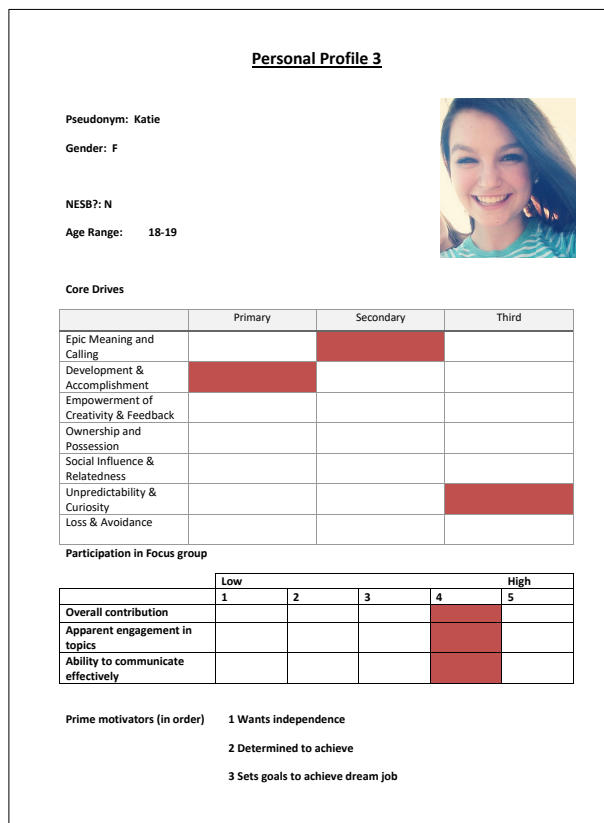


Figure 8. An example of one of the user profiles created by the design practitioners, which records the motivations and contributions of the young person based on the design practitioner’s framework for analysis.

4.3 Discover Stage - Business

Representatives from local businesses attended a two-hour workshop to provide their views and describe the challenges they faced with engaging and recruitment. The youth workers organised the workshop, inviting businesses they already had a relationship with. Representatives from The Calico Group; who provide local services such as social housing, Warburtons; a bread baking company with a local factory, and Transdev, who provide transport services attended the workshop.

Questions for the businesses were decided prior to the workshop by the design practitioners and the first author. The aim was to discover information on current practices, the barriers faced, and encourage ideas on what the solution might look like, therefore initiating some ideation with the participants, an opportunity unexplored at the Discover Stage with young people. The discussion was facilitated by one of the design practitioners (Figure 9) and the main points were recorded throughout, an example of which is shown in Figure 10.



Figure 9. A conversation with local business representatives. Photo Credit: YPLINKEDIN Project, 2018

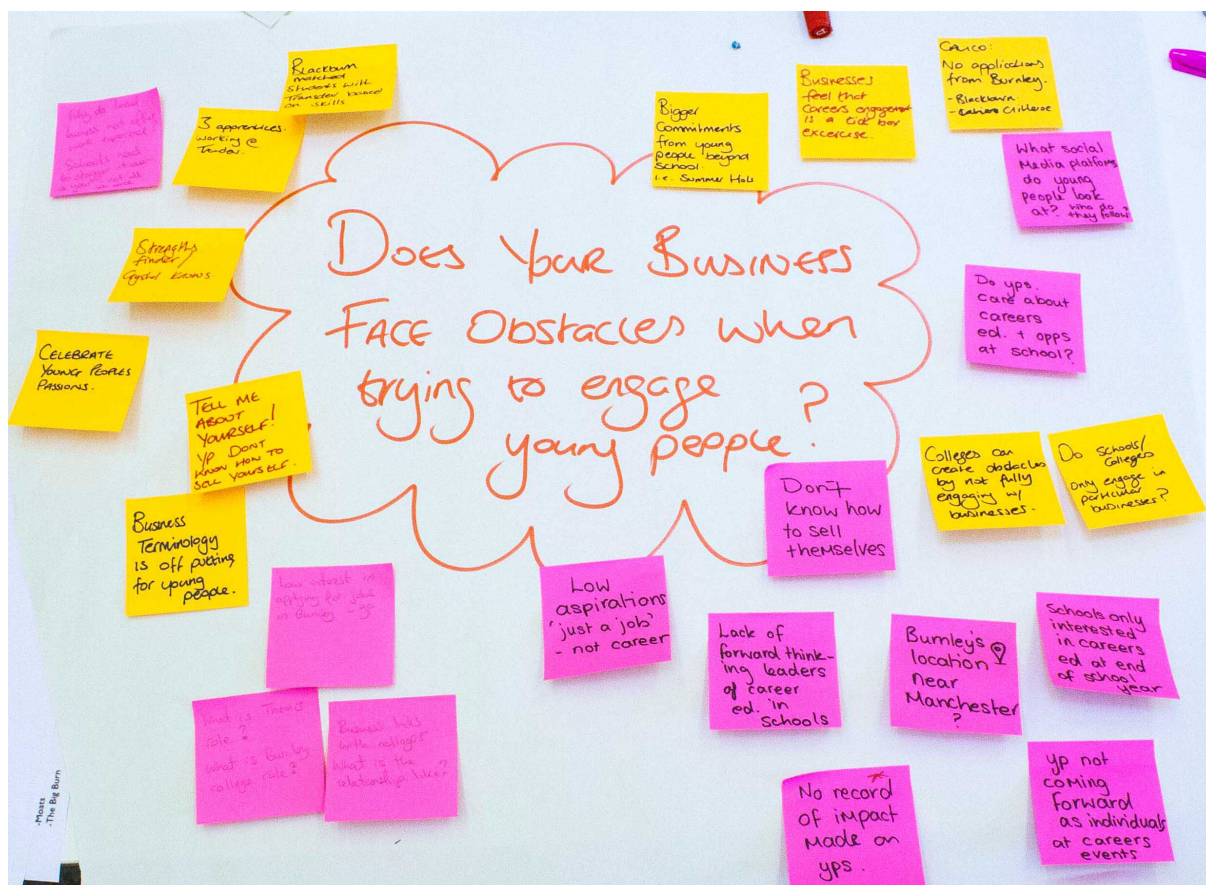


Figure 10. Responses to the obstacles faced when trying to engage young people. Photo Credit: YPLINKEDIN Project, 2018

The team reflected that they would have liked to have engaged with a larger number of businesses. However, they struggled to gain enough interest and describe the purpose of the workshop to businesses they did not already have a relationship with. They reflected that they would seek to engage with more in the future development of the design.

4.4 Define Stage

The 'Define Stage' of the project helped the team to revisit the data together, discussing and debating the implications of the insights gathered collectively, which would help to prioritise specifications for the final design. The design practitioners facilitated the sessions due to their experience of the process, drawing out everyone's opinion (Figure 12). The team found that overall, the young people, particularly the younger members of the group were most influenced by their family and friends when making choices about their futures, followed closely by a desire to develop themselves and achieve, particularly by the older members of the group.

It was clear from the observations and interviews that the whole team's presence in the session generated rich insights into the responses. Everyone spoke positively about the experience, reflecting that it was a highlight of the whole process, providing learning for future practice and an opportunity to represent the views of the young people. Displaying all of the data collected for each individual helped to generate a lively discussion (Figure 13) but it was observed that distilling the data down to ratings represented on a user profile may have lost some of the richness provided in the workshops, including the data collected around the young people's opinions of Burnley and the views of the businesses.



Figure 12. The data collected was discussed in the workshop. Photo credit: YPLINKEDIN Project, 2018



Figure 13. User profiles, interview answers and workshop responses were grouped and displayed. YPLINKEDIN Project, 2018

4.5 Ideate Stage

The 'Ideate Stage', covering two days, generated a variety of ideas for the functions of the design intervention. The sessions were similar to the 'Define Stage', where the team responded to the user profiles in a process facilitated by the design practitioners (Figure 14). At this stage, the team had to shift from placing most emphasis on the needs of the young people to considering the needs of the businesses, as well as reflect on how the implementation of the intervention may be maintained and supported by youth workers.

The team decided upon a digital platform as a solution, drawing on the design practitioners' competencies in digital design. The platform would enable young people of different ages and abilities to create a profile of their skills, prospects and pathways, which would contain five different levels of engagement as follows:

1. Aptitude Test - A questionnaire that produces results that helps the young person to understand and build upon their skills, creating links to business needs.
2. Fellowship - Enables a young person to find a role model on the platform, look at their skill-set and compare it to their own.
3. One to One Support - Specific support from a careers mentor or youth worker.
4. Match Making - Enables young people and businesses to connect with one another depending on interests and needs.
5. Plan My Route - To help young people break down their route to particular careers.

The team stated that to their knowledge, there are no existing careers platforms that have been created alongside youth workers, pupils and businesses, which aim to connect together young people and businesses in a specific location.



Figure 14. The team used the data collected to generate ideas for the platform. Photo credit: YPLINKEDIN Project, 2018

The second Ideate session enabled the team to go into more detail on the benefit and function of each level, with the support of the design practitioners. One of the design practitioners generated digital visualisations of the platform (Figure 15) and the other facilitated short sprints of design activity, where the youth workers were encouraged to participate in the discussion and sketching of ideas. Some of the team found it difficult at first, which they believed was due to too much time passing between the sessions, making it difficult to recall all of the design decisions previously made.

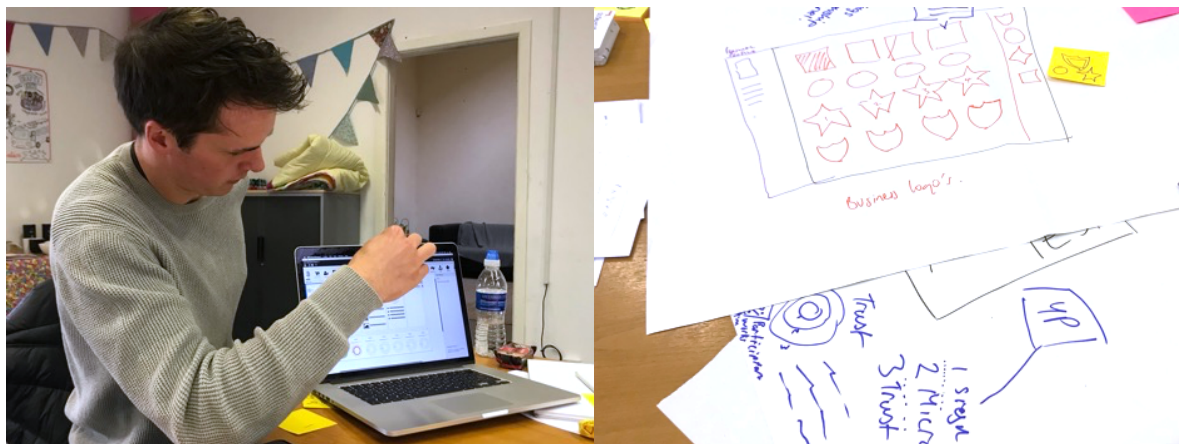


Figure 15 – One of the designers produced wireframes for the platform while the rest of the team created ideas. Photo credit: YPLINKEDIN Project, 2018

4.6 Reflection and Future Work

A number of conversations with organisations and businesses took place throughout the project, generating awareness and support, as well as potential future partnerships and funding. Meetings were held with representatives from the Lancashire Local Enterprise Partnership and a local university with a campus situated in Burnley, both of which had the potential to be future partners or funders. However, both felt their full support was dependant on their evaluation of a final platform, causing a challenge for the team, who were dependent on funding to develop the platform. The Project Manager reflected that discussions with various interested parties generated a vast quantity of information that was difficult to manage, as well as concerns that they would inadvertently interfere with the work of other organisations with similar interests.

At the time of writing this paper, the design practitioners have almost finished creating a working prototype to use to test and seek feedback from young people and businesses in Burnley, which will be used as evidence of the value of the platform when pursuing additional funding. The youth workers plan to maintain and grow the involvement of both young both and businesses in the development of the platform, as well as approach the local council to seek support.

5. Findings and Insights

As a result of engagement with local young people and businesses in the case study presented, a number of key findings emerged that shaped the development of the prototype platform:

- Regardless of the age or where they lived, all of the young people engaged shared a lack of clarity on how to find jobs and had no awareness of the opportunities available in the Burnley District.
- Life circumstances, including where the pupils lived had an impact on their ambitions, many of which said that family had considerable influence on their own aspirations.
- The majority of the young people, especially those from disadvantaged backgrounds struggled to describe their own skills and how they related to a future career path.
- Very few young people were motivated by financial or material gain, many preferring to aspire to stability in their future lives.
- Views of Burnley were mostly negative with many young people describing a lack of opportunities and no desire to continue to live there. However, some of the young people discussed that although they felt Burnley had developed a bad reputation, they believed the town had some positive aspects, such as “friendly people” and the location of their families.
- Local business believed that young people do not apply to local jobs and they also thought that young people do not understand the value of work experience and career based events, such as job fairs, despite growing opportunities in the area.

Insights emerged around the process of co-designing in a social context, which included the importance of partnerships built on trust, a combination of skills, maintaining a project, mutual learning and place-based knowledge.

5.1 Partnerships Built on Trust

Trust within a co-design team is an important foundation for delivering a complex social project. There should be opportunities to build trust through clear communication throughout a project, a shared understanding of goals, as well as frequent space to work and learn together. If there is time

and resource, running a short pilot project, before committing to a longer project may provide the opportunity for trust to develop. This co-design project was built on trust stemming from the experience of members of the team working together previously, as well as trust enabling the team to establish connections with community groups to engage with, as shown in section 4.2 and 4.3. As the project progressed, the team built a strong partnership together, which they reflected on in interviews where both youth workers and design practitioners separately expressed the possibility of the collaboration developing into a long-term partnership, based on their ability to work well together and an interest in building on their co-design experience, suggesting the project has the opportunity to evolve.

5.2 Skills and Mutual Learning

Working together closely throughout the process provides an opportunity to learn together through mutual inquiry (Merkel et al., 2005), as well as combine skills from both a design and social work background in different ways to achieve results when co-designing in a social context. An opportunity to work in a co-design process provides a space for both parties to learn skills from each other, which may influence future practice and partnerships. This fusion of skills also provides those involved with a greater understanding of the challenges faced and aspirations of local communities, ensuring that their views are not tokenistic and integral to the design of a valuable place-based social intervention.

Those from a design background have the ability to lead the overall co-design process, driving each stage towards the creation of a design intervention. The designers were able to use their knowledge of the capabilities of the technology, skills to visualise possible concepts and provide the methods to collect, analyse and narrow down the data to add value to the design. In this case study, this is evidenced by the frequency that the design practitioners reflect on the process of design in detail throughout the process. In this example, it is the youth workers who provided the tools to engage and frame questions for the young participants and were sensitive to the needs of the young people through frequent reflection of the needs of those from different backgrounds and abilities based on the participatory nature of their work.

Those who embark on similar projects should consider the benefit of a team member who has a neutral interest in the outcome of the project, who can act as a mediator, asking questions throughout, prompting further inquiry and highlighting missed opportunities. In this case, the first author, who took part in the project added value through acting as mediator, which was verified by a member of the team.

5.3 Place-Based Knowledge

Co-designing with someone with existing knowledge of the place, as well as drawing on the views and ideas of the local community can greatly benefit a place-specific project as it assists with making connections to various community groups, builds awareness of local assets and helps to embed the design intervention into the community. However, this knowledge is not enough on its own; a design process and methods can bind all of these elements together, providing the project with greater potential to generate an intervention that develops economic and social value in the local area.

It would be beneficial to question the range of local knowledge required to form a well-rounded design, for example, if the support and knowledge of local businesses is needed to inform the design of an intervention, partnering with someone with expertise in that area would be advantageous, as explained in section 4.3. Further research into how to map the required knowledge could assist co-

design teams faced with similar challenges. Additionally, as mentioned in section 4.4 of the paper, there is an opportunity for further research into how a community's view of opportunities in their local area can be better utilised in place-based social innovation.

5.4 Sustaining the Project

Arguably, in order for a co-design project to generate any value or ripples of change in the local community, the sustainability of the project should be cultivated throughout the entire co-design process. Co-producing a project with those who will eventually gain value from it, in this example the young people and businesses, as well as those who potentially deliver the intervention, such as the youth workers has the power to maintain and evolve the project.

In this example, one of the main challenges will be to continue to nurture the engagement of young people, businesses and other potential stakeholders, growing a network that provides a wide range of quality opportunities in the area, providing the foundations for value creation. The question here is what skills, support and tools will those involved need to enable them to achieve this?

5.5 Challenges and Opportunities of Co-Designing

Taking a thorough co-design approach, which involves actively designing with a range of people who will gain value from the designed intervention may be considered challenging, time consuming and resource intensive in practice. Does this have to be the case and is there an opportunity for design research to explore ways to challenge this assumption and contribute a better understanding of how to tackle co-design in practice? One solution to this could be that research for design undertaken in a project, as well as the analysis of data and ideation is not kept separate in the process, instead, these aspects could intertwine throughout the process, encouraging participants to not only be supported to give their views on the challenges they face but also be supported to start to imagine what the solution might look like to them from the beginning, as tested in section 4.3, as Figure 16 explains.

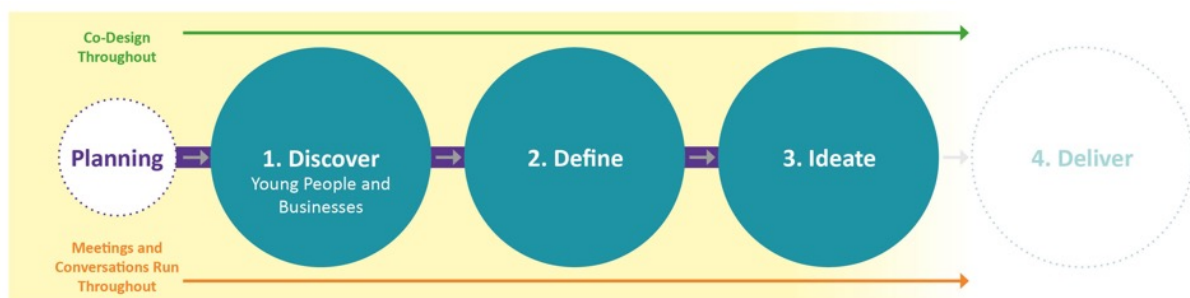


Figure 16. The design process includes co-design from the Discover Stage onwards where possible.

There are points in the co-design process where a designer's expertise in using tools to generate a prototype may mean that they have to work alone at a distance from the rest of the team, which in this example coincides with a drop in frequency of communication, meetings and clarity of the direction of the concept for other team members as explained in section 4.5. With further evaluation of this part of the process, it may be possible that the co-design could be more communicative and transparent throughout the process of transforming co-designed ideas into a final concept.

6. Conclusions and Future Research

There is a genuine need and potential for interventions to be designed to provide quality engagement experiences between young people and businesses in areas of the UK that are often overlooked and are struggling to tackle issues such as educational attainment, unemployment and skills shortages as described in section 5. Design can be used to include people and use local assets to build networks and generate value in these geographical areas. If teams can be supported to develop interventions similar to this case study and some of the ideas and approaches produced in this project can be maintained, scaled, or even translated in other contexts by those who respond to this research, then interventions have the potential to contribute to prosperity and sustainability in local communities.

This ongoing research is limited until the prototype is finalised, evaluated and refined by the team and tested by the young people and businesses who will benefit from it. If further funding is secured to develop the concept and continue to build a network of users and contributors, a clearer picture of its value to the community it serves will be established. The progress of the project will be monitored alongside additional TNW projects to gain a better understanding of this.

This is the first of a series of projects from an overarching PhD project, where a number of findings have emerged that will be one piece of a larger project exploring the themes of design, collaboration, social transformation, inclusion and aspiration in the North West of England. This will be reinforced by other projects that aim to explore the views and aspirations of people in the region.

References

- Alvarez, M. (2015). So...what exactly do we mean by sustainable communities? A closer look at what we mean by "Sustainable Communities" at Nesta Impact Investments. Retrieved October 31, 2018, from <https://www.nesta.org.uk/blog/sowhat-exactly-do-we-mean-by-sustainable-communities/>
- Armstrong, L., Bailey, J., Julier, G., & Kimbell, L. (2014). *Social Design Futures*.
- Barron, L., & Gauntlett, E. (2002). *WACOSS Housing and Sustainable Communities Indicators Project*. Retrieved from http://www.regional.org.au/au/soc/2002/4/barron_gauntlett.htm
- Burnley Council. (2017). *Making it in Burnley: Burnley Council's strategy for raising aspiration 2017-2020*. Burnley. Retrieved from <https://burnley.moderngov.co.uk/documents/s5767/Aspiration Strategy 2017.pdf>
- Burns, C., Cottam, H., Vanstone, C., & Winhall, J. (2005). *Transformation Design*. London. Retrieved from www.designcouncil.org.uk/red.
- Calvo, M., & De Rosa, A. (2017). Design for social sustainability. A reflection on the role of the physical realm in facilitating community co-design. *The Design Journal*, 20, 1705–1724. <https://doi.org/10.1080/14606925.2017.1352694>
- Carvalho, L., & Goodyear, P. (2018). Design, learning networks and service innovation. *Design Studies*, 55, 27–53. <https://doi.org/10.1016/J.DESTUD.2017.09.003>
- Christopher Frayling. (1993). Research in Art and Design. *Royal College of Art Research Papers*, 1(1), 9. Retrieved from http://researchonline.rca.ac.uk/384/3/frayling_research_in_art_and_design_1993.pdf
- Colantonio, A. (2009). Social sustainability: a review and critique of traditional versus emerging themes and assessment methods Book section Social sustainability: a review and critique of traditional versus emerging themes and assessment methods. In M. Horner, A. Price, J. Bebbington, & R. Emmanuel (Eds.), *SUE-Mot Conference 2009: Second International Conference on Whole Life Urban Sustainability and its Assessment: conference proceedings*. (pp. 865–885).

- Loughborough: Loughborough University. Retrieved from <http://eprints.lse.ac.uk/35867/>
- Collins, J., & Barnes, A. (2017). *Careers in the Curriculum. What works?* London. Retrieved from www.careersandenterprise.co.uk
- Del Gaudio, C., Franzato, C., & Jefferson De Oliveira, A. (2016). Hope against hope: tackling social design. *Journal of Design Research*, 14(2), 119–141.
- Department for Communities and Local Government. (2015). *The English Indices of Deprivation*. London. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/465791/English_Indices_of_Deprivation_2015_-_Statistical_Release.pdf
- Department of Education. (2017). *Careers strategy: making the most of everyone's skills and talents*. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664319/Careers_strategy.pdf
- Design Council. (2005). Design Methods. Retrieved November 13, 2018, from <https://www.designcouncil.org.uk/news-opinion/design-methods-step-1-discover>
- Design Council. (2018). Designing a Future Economy. Retrieved from https://www.designcouncil.org.uk/sites/default/files/asset/document/Designing_a_future_economy18.pdf
- DESIS Network. (2017). DESIS Network. Retrieved November 15, 2018, from <https://www.desisnetwork.org/about/>
- Donetto, S., Pierri, P., Tsianakas, V., & Robert, G. (2015). Experience-based Co-design and Healthcare Improvement: Realizing Participatory Design in the Public Sector. *The Design Journal*, 18(2), 227–248. <https://doi.org/10.2752/175630615X14212498964312>
- HM Government. (2017). Industrial strategy White paper: Building a Britain fit for the future. *Department for Business Energy & Industrial Strategy*, 256. <https://doi.org/10.1049/ir:19930092>
- Jégou, F., & Manzini, E. (2008). *Collaborative services by Strategic design Scenarios*. Milan: Poli.design. Retrieved from https://issuu.com/strategicdesignscenarios/docs/collaborative_services?backgroundColor=FFFFFF&layout=http%25253A%25252F%25252Fskin.issuu.com%25252Fv%25252Fcolor%25252Flayout.xml
- Lancashire County Council. (2018). Burnley District. Retrieved October 25, 2018, from <https://www.lancashire.gov.uk/lancashire-insight/area-profiles/local-authority-profiles/burnley-district/>
- Manzini, E. (2015). *Design, When Everybody Designs*. Cambridge, Massachusetts: The MIT Press.
- Manzini, E., & Rizzo, F. (2011). Small projects/large changes: Participatory design as an open participated process. *CoDesign*, 7(3–4), 199–215. <https://doi.org/10.1080/15710882.2011.630472>
- McMahon, M., & Bhamra, T. (2012). “Design Beyond Borders”: international collaborative projects as a mechanism to integrate social sustainability into student design practice. <https://doi.org/10.1016/j.jclepro.2011.10.022>
- McMahon, M., & Bhamra, T. (2015). Social Sustainability in Design: Moving the Discussions Forward. *The Design Journal*, 18(3), 367–391. <https://doi.org/10.1080/14606925.2015.1059604>
- Merkel, C. B., Clitherow, M., Farooq, U., Xiao, L., Ganoe, C. H., Carroll, J. M., & Rosson, M. B. (2005). Sustaining Computer Use and Learning in Community Computing Contexts: Making Technology Part of “Who They are and What They Do.” *The Journal of Community Informatics*, 1(2), 158–174. Retrieved from <http://ci-journal.net/index.php/ciej/article/view/215/174>
- Munro, F. (2015). *IRISS On Place-Based Working*. Glasgow. Retrieved from

- <https://www.iriss.org.uk/sites/default/files/2016-07/iriss-on-placebasedworking-08-2015-2.pdf>
- Plattner, H., Meinel, C., & Leifer, L. (2011). *Design Thinking: Understand - Improve - Apply*. Potsdam. Retrieved from <http://www.springer.com/series/8802>
- Purvis, B., Mao, Y., & Robinson, D. (2018). Three pillars of sustainability: in search of conceptual origins. *Sustainability Science*, 1–15. <https://doi.org/10.1007/s11625-018-0627-5>
- Sanders, E. B. N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign*, 4(1), 5–18. <https://doi.org/10.1080/15710880701875068>
- Sejer Iversen, O., & Dindler, C. (2014). Sustaining participatory design initiatives. *CoDesign*, 10(2–4), 153–170. <https://doi.org/10.1080/15710882.2014.963124>
- Stokes, M., Baeck, P., & Baker, T. (2017). *What next for digital social innovation? Realising the potential of people and technology to tackle social challenges*. London. Retrieved from https://media.nesta.org.uk/documents/dsi_report.pdf
- The Gatsby Charitable Foundation. (2018). *Good Careers Guidance*. London. Retrieved from www.gatsby.org.uk/GoodCareerGuidance
- United Nations. (2018). Sustainable Development Goals. Retrieved November 5, 2018, from <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>
- Vaajakallio, K., & Mattelmäki, T. (2014). Design games in codesign: as a tool, a mindset and a structure. *CoDesign*, 10(1), 63–77. <https://doi.org/10.1080/15710882.2014.881886>
- Woodcraft, S., Hackett, T., & Caistor-Arendar, L. (2011). *Design for Social Sustainability*. Retrieved from www.futurecommunities.net

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Acknowledgements: The authors would like to thank those who contributed to this project, including Blackbeard Design, Participation Works North West, the companies, organisations and pupils who participated, as well as those who supported through Transformation North West. We would also like to acknowledge the North West Consortium Doctoral Training Partnership (NWCDDTP), funded by the Arts and Humanities Research Council for their support.