

Open innovation in Health and Social Care: ICT supported co-creation of quality improvements

Project Report

Dr Philipp Grunewald | Schumacher Institute, Bristol
(<http://schumacherinstitute.org.uk/>) | philipp@schumacher-institute.org.uk

Dr David Gerrard

Dr Nicola Bateman | Centre for Service Management
(<http://lboro.ac.uk/csm>)

Centre for Service Management
School of Business and Economics
Loughborough University



Executive Summary

This brief report considers a research project, carried out in 2016-2017 that aimed at testing an approach and software for the co-creation of health and social care (H&SC) quality improvements. The general approach used and tested has been named 'Living Map Approach'; in this study, it has been trialled in the H&SC field. Two focus group type discussions were facilitated by the researchers. Practitioners (service providers) and service users addressed a complex question, chosen by the service provider. The question chosen was "How could we get more people involved in helping people in the community?"

This pilot project identified potential in influencing service design and delivery at a local governance level; both in terms of grass roots and local government. Introducing an approach and technology that allows for structured conversations of complex issues and tying those conversations together in concept maps offers a range of potential benefits. Chiefly amongst those is the idea that emerging themes and interconnected ideas and issues (emergent from the 'bottom up') can help re-orientate councils, social enterprises and charities to closer match the evolving expectations, ambitions and demands of local communities. The approach also enables such institutions to support community driven initiatives as and when needed in a responsive (non-prescriptive) manner.

The benefits of the facilitated sessions are manifold; ranging from increased confidence in participants to insights for quality improvement. As described above the Local Area Coordination (LAC) team used some of the information generated to improve their service, the communication of their service and to imagine ways in which health and social services generally (rather than just LAC) can become more responsive to community members' own plans. However, most of the findings in this report must be considered tentative. The small scale of this pilot project did not allow for the establishment of generalizable findings and conclusions.

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1. Introduction

This report considers a research project, carried out in 2016-2017 that aimed at testing an approach and software for the co-creation of health and social care (H&SC) quality improvements. The general approach used and tested has been named 'Living Map Approach'; in this study, it has been trialled in the H&SC field. Two focus group type discussions were facilitated by the researchers. Practitioners (service providers) and service users addressed a complex question, chosen by the service provider. The question chosen was "How could we get more people involved in helping people in the community?"

This question, as well as the idea to facilitate such sessions in the community, was intended to empower the community, and its members to take ownership of their own lives, and reduce people's reliance upon services, and to generate lessons (for quality improvements) for the service provider. The reason for the strong focus on empowerment lies in the nature of the social care service that was focused upon; Local Area Coordination (LAC), a technique that was introduced to the UK public sector from Australia. LAC is underpinned by an ethos that values people's independence and a belief that people need to be strengthened within their communities and networks, rather than being removed from these for the receipt of services.

This report outlines the context and background of the undertaken work, describes the approach and methodology, discusses its findings and, finally, makes recommendations for future research and testing.

2. Background

This pilot research project is part of a wider research programme into the use of computer supported argument visualisation, collective intelligence and collective awareness for social and ecological purposes. The wider research programme has been named 'Socio-Ecological Enterprises', which are defined as social systems (institutions, projects, movements, etc.) that are conscious of themselves as inherently embedded in wider social and ecological (biophysical) systems. Generating awareness about interactions and relationships with wider systems, but also within each social system, is a key concern for people partaking in a Socio-Ecological Enterprise.

One way in which this action-research programme develops knowledge, practical skills, and tools to support this overall agenda is through the 'Living Map Project'. The Living Map Project aims at the exploration of Collective Awareness Platforms and their merits to support the emergence of Socio-Ecological Enterprises and the transformation of compartmentalised systems into resilient systems with vibrant interactions and sustainable relationships. It is within this Living Map Project that a small grant of £4,000 was secured (which enabled a focus upon quality improvement in social care).

Derby City Council, in particular the team working on Local Area Coordination, and the researchers had a sustained dialogue about how collective awareness could be raised in local communities to build social capital and community resilience. This is embedded into wider ideas around the strategy of Asset Based Community Development (ABCD). The ABCD Institute describes ABCD as "a strategy for sustainable community-driven development" (ABCD Institute, n.D.). In their seminal work from 1993, Kretzman and McKnight describe (what they understand to be) a new paradigm of community development. Instead of starting the community development journey with deficiencies, needs and/or problems the focus shall be on opportunities, strengths and existing assets. Such assets could include local businesses, physical resources like land, infrastructure, and skills and capacities of residents.

The Living Map Project attempts to support communities having dialogues that build their own resilience, whilst visualising their interconnectedness within and their embeddedness externally. In the process boundaries and silos are dissolved, and effective and efficient, fluent interactions between agents in the overall network can occur.

LAC has existed in Australia for decades and has been brought to the UK recently. Based on the original work by Bartnik and Chalmers (2007), Vincent (2010) summarises the principles LAC is based on when stating:

- “Get to know people well over time and develop an effective relationship.
- Staff themselves should be well connected to the local community and based locally.
- Hold positive values and assumptions about individuals, families and communities with safeguards as needed and shift focus and resources to strengths and prevention.
- See our job as building capacity and self-sufficiency rather than just providing a service to fix a problem.
- The need to ask the right question —‘what’s a good life?’ versus ‘what services do people need?’” (p.204)

It can be deduced, there are central overlaps between the principles and visions in LAC, ABCD, the Living Map Project, and Socio-Ecological Enterprises. Whilst coming at related issues from different angles, all attempt to support without patronizing, analyse without putting people in boxes, value and strengthen what is there, and enhance capacity. Furthermore, all are workplace based (without neglecting any wider connections).

During the collaboration between the researchers and Derby City Council (and other LAC stakeholders), questions emerged regarding how ICTs could help further enhance capacity and resilience in communities. The Living Map Project is a partial response to that question. Whilst acknowledging that it is human communication and relationships that are core to the endeavour of self-empowerment there might be scope to enable people to draw on information and processes that were impossible before the advent of personal computing and the internet. The test/pilot that this report describes was envisaged in this context.

The scope of this exploratory research project encapsulated using a tool to collaboratively visualize argumentation in the community and process that data to determine if further useful visualisations could be extracted for the Council. The following research questions were derived:

1. Does the collaborative visualization of argumentation (collaborative creation of issue maps) provide any benefits in the LAC context?

2. Can we develop further visualisations, based on the issue maps created in the process, that provide additional value to the local Council?
3. Is this avenue of enquiry one that has potential for societal impact and, thus, warrants further study and development?

3. Methodology

This methodology section will outline two sets of ideas and procedures. Firstly, it will describe the trialled methodology (collaborative argument visualization/creation of issue-maps and development of further visualisations based on these) and, secondly, it will describe how answers to the research questions were established.

3.1 The method to be tested

Two focus group type discussions were facilitated by the researcher. Practitioners and service users were invited to address the complex question of ‘How could we get more people involved in helping people in the community?’ The sessions were facilitated and recorded using an issue mapping technique similar to dialogue mapping (Conklin, 2006). The technique is intended to identify the underlying threads of a conversation, ensuring co-creation of the artefact/output (instead of various attendees taking personal meeting minutes) and help people address wicked problems (like the question of quality improvements).¹ The issue mapping technique was applied by the facilitator using Compendium (an open source software developed for that purpose).² Since there were various focus groups the information gathered needed to be integrated into one data set. To that end the information was aggregated into a concept map that emerged from the focus groups.

The purpose of the concept map was to represent ideas and issues that cut across the individual sessions. Instead of building the concept map manually, as in a thematic analysis conducted by a researcher through coding, the concept map was generated automatically based on decisions taken by individuals in the issue mapping sessions. Tagging individual concepts ensured they were represented in the concept map. If more than one concept was mentioned in a statement (one of the bubbles in the issue map

¹ Rittel and first outlined the idea of ‘wicked problems’ in 1973. They outlined a range of characteristics stating that all societal (non-natural science) problems are wicked by default. Meaning that they have no final definition, no clear boundaries or true-false solutions, need to be addressed on an ongoing basis, etc. (Rittel & Webber, 1973)

² Available at: <http://compendiuminstitute.net/download/download.htm>

for example in figure 1) then these concepts were given a binary relationship with all the other tagged concepts in that statement. Furthermore, if the statement was connected to a statement that had been mentioned previously (a bubble to the left in the issue map) then all of the tagged concepts in that statement are were given relationships with all the tagged concepts mentioned in the previous connected statement.

The connecting of tags was an experimental part of the study that was not included in the scope of the research questions due to limitations in time and funding. The procedure for the creation of the concept maps was based on the following assumptions and reasoning. Firstly, if tagged concepts were mentioned in single statement one can assume that (in a large majority of cases) these concepts will, within that statement, have a meaningful relationship. This warrants them being connected in the issue map. Secondly, if in the collaborative issue mapping process the present group of people decide that there is a relationship between statement 2 and statement 1 (that had been captured previously) then one can assume that (in a large majority of cases) these two statements also had a meaningful relationship. If the statements had a relationship, so to must the concepts that were used to express the statement. This line of reasoning can be pursued further and further, creating more and more connections between concepts that were mentioned in statements further and further apart. However, at this early experimental stage the above outlined was perceived as sufficient to address the research questions. Further research is necessary to test and develop more elements of this new technique and methodology.

Issue mapping sessions often start with a broad and complex (wicked) question. Within the general area of service improvement the service provider decided to ask the question: “How could we get more people involved in helping people in the community?”. This question allowed for an exploration of citizens helping citizens (rather than depending on service providers, which is what LAC tries to avoid) and potentially led to suggestions about how LAC could facilitate further citizen to citizen engagement (grow social capital and community resilience); this would be considered a quality improvement from the LAC perspective.

This question was addressed in two issue mapping sessions with two groups of residents and Local Area Coordinators. Compendium (an open source software developed for that purpose) was used to create the issue maps. A script, written by the researchers (available at:

<https://github.com/SocioEcologicalEnterprises/DialogueConceptMapper>

) was then used to transfer the tagged concepts into the concept map that shows pressing issues and recurring ideas that emerged in the focus groups.

3.2 Addressing the research questions

As can be seen above, research questions one and two mainly enquire about the value of the method (described above) to LAC and the local council in general. Therefore, these questions were answered through a focus group with representatives of the LAC team and the council upon completion of the two pilot sessions.

The focus group was structured into three parts. Firstly, a general introduction to the background of the work was shared with the attendees. Secondly, the artefacts of the process (up to that stage) were shared with everyone present. At each point, questions about the process and technique were answered to ensure general understanding of the attempted and achieved. Thirdly, an open discussion was facilitated to determine the benefits, weaknesses and value of the technique to LAC and the council as a whole.

The third research question was discussed and responded to by the researchers themselves.

4. Findings and discussion

In the following the findings are presented and some discussion of the findings shall be offered. This section is subdivided into three sub-sections (each addressing one of the three research questions). Firstly, addressing the value of argument visualisation and issue mapping in the LAC context. Secondly, showing some further visualisations that were produced (concept maps) as one way of generating further insights from the data and issue maps created in the facilitated sessions. Finally, some reflections are offered on the potential impact of this avenue of enquiry.

4.1 Collaborative visualisation of argumentation in LAC context

As described above, two issue mapping sessions were facilitated. The first session was attended by nine participants and the second session by ten participants. In both sessions, the service provider was represented by three staff members. One researcher was present and facilitated the session.³ Only the researcher, one representative of the service provider and one community member were present for both sessions.

Purposive sampling was applied. Local Area Coordinators in the respective wards (where the sessions were taking place) and neighbouring wards were asked to think of community members they felt would be able to participate in a meeting with strangers. This does not mean that only individuals for whom this was easy were chosen. Many community members that are in touch with Local Area Coordinators suffer from social isolation and other circumstances and conditions that can potentially lead to meeting strangers to discuss an issue being an exceptionally stressful experience. Therefore, care was taken to choose individuals that the Local Area Coordinators expected to cope with the situation we were setting up.

The issue maps are presented in figures 1-4. Figures 1, 2 and 3 were created in the first session. Figure 1 shows the main structure; it includes two purple nodes that represent the further issue maps (figure 2 and 3) that have been created in separate visualisations. Figure 4 represents the entire conversation that took place in the second session.

³ Ideally, some additional observers would have been present but due to the limitations in budget this was not possible.

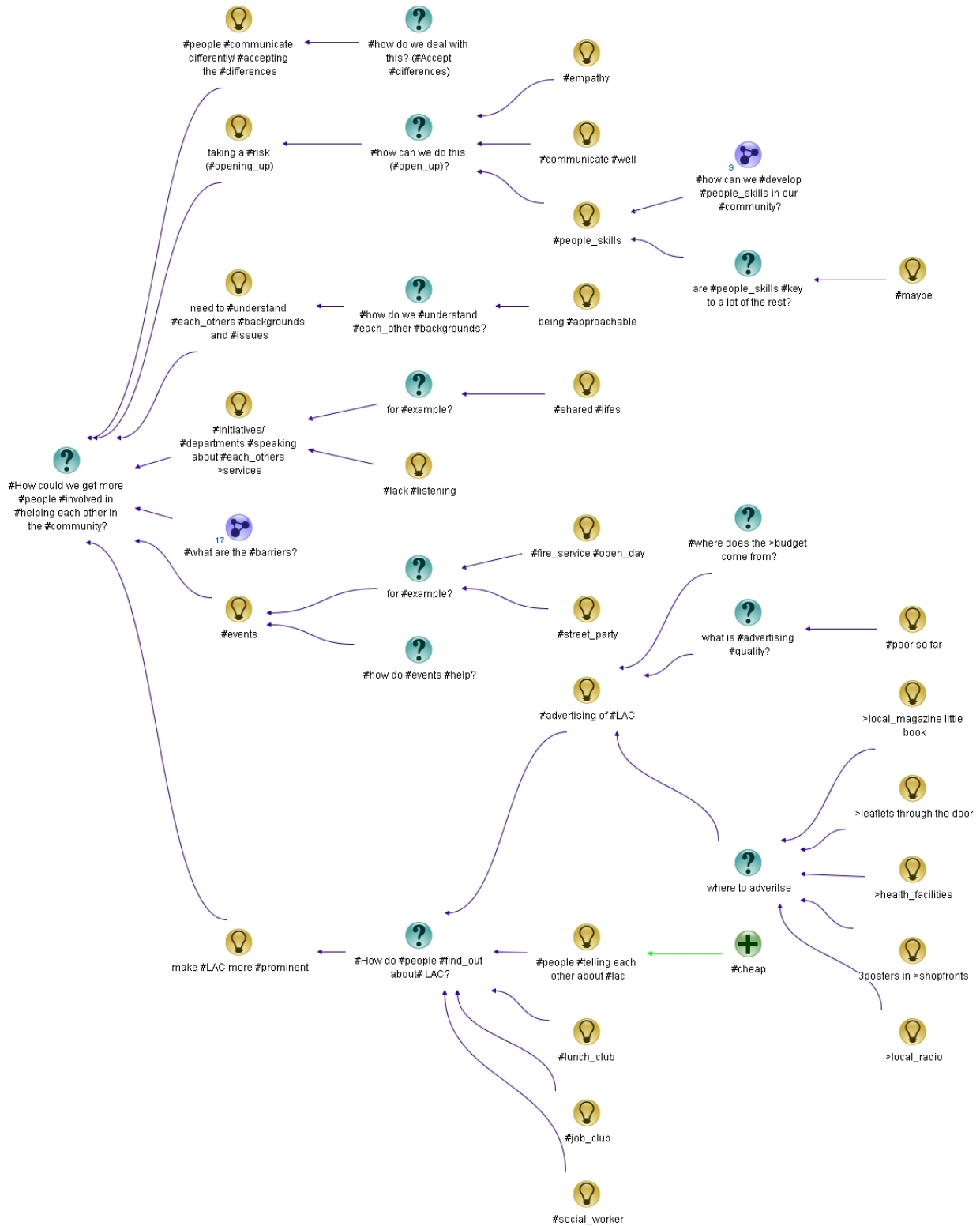


Figure 1: Map 1 from issue mapping session 1 (created with Compendium)

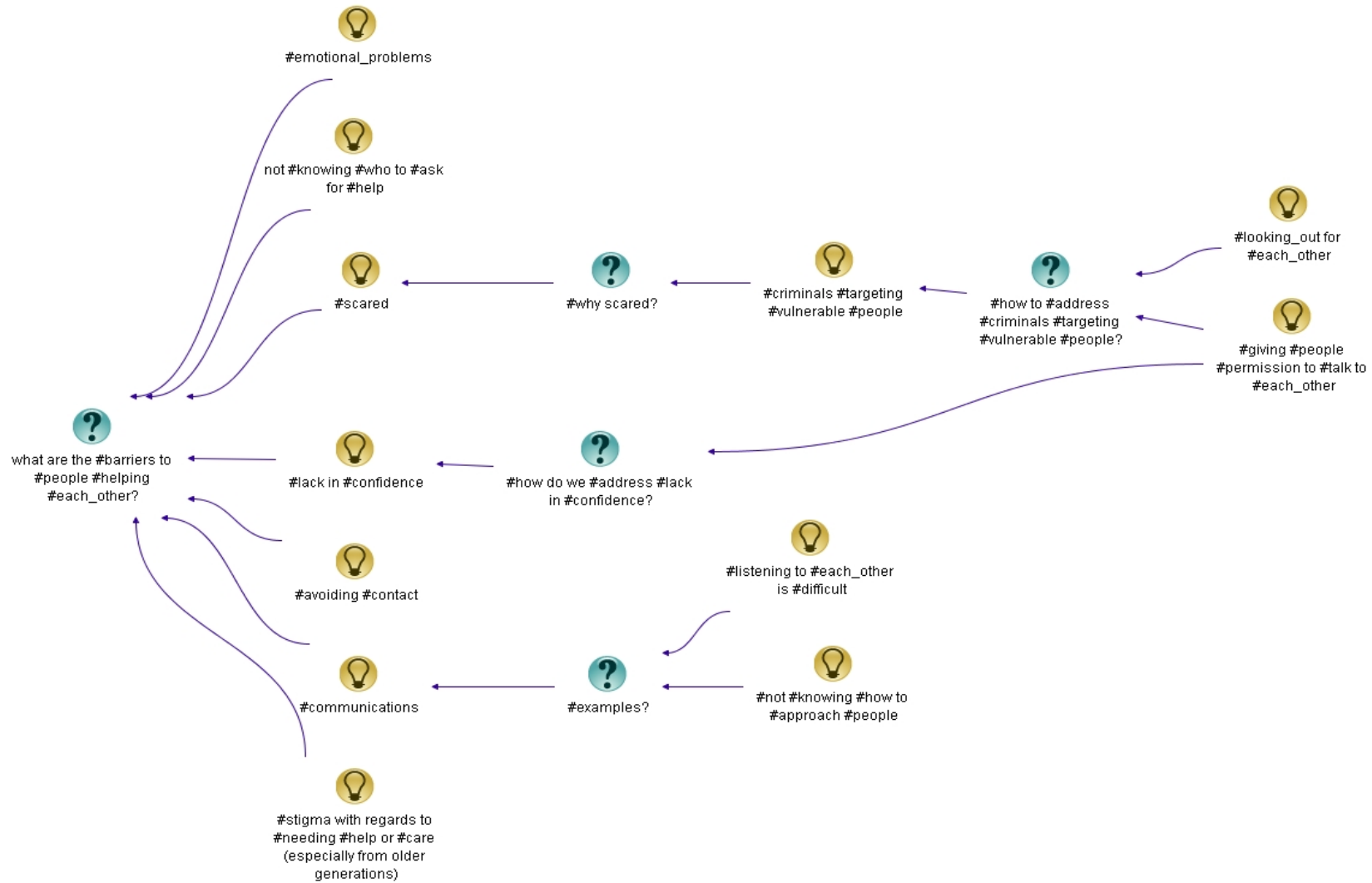


Figure 2: Map 2 from issue mapping session 1 (created with Compendium)

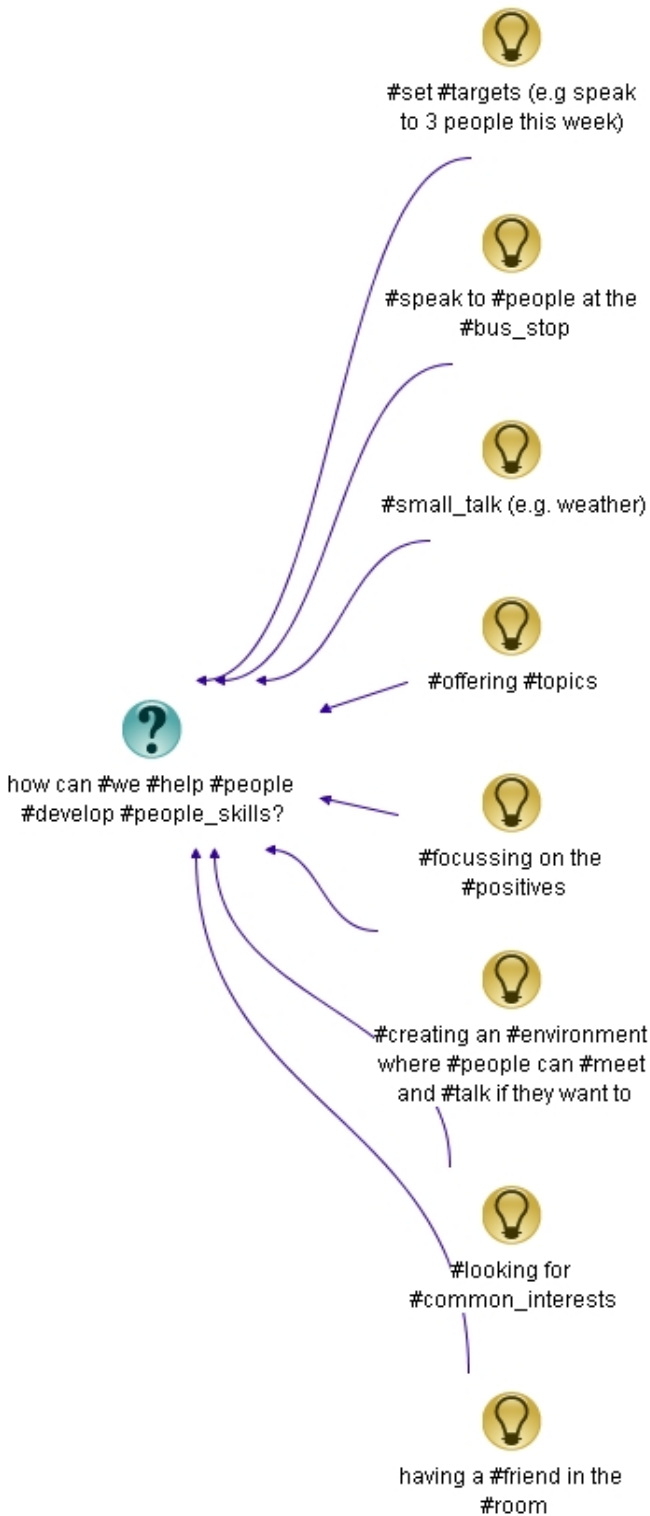


Figure 3: Map 3 from issue mapping session 1 (created with Compendium)

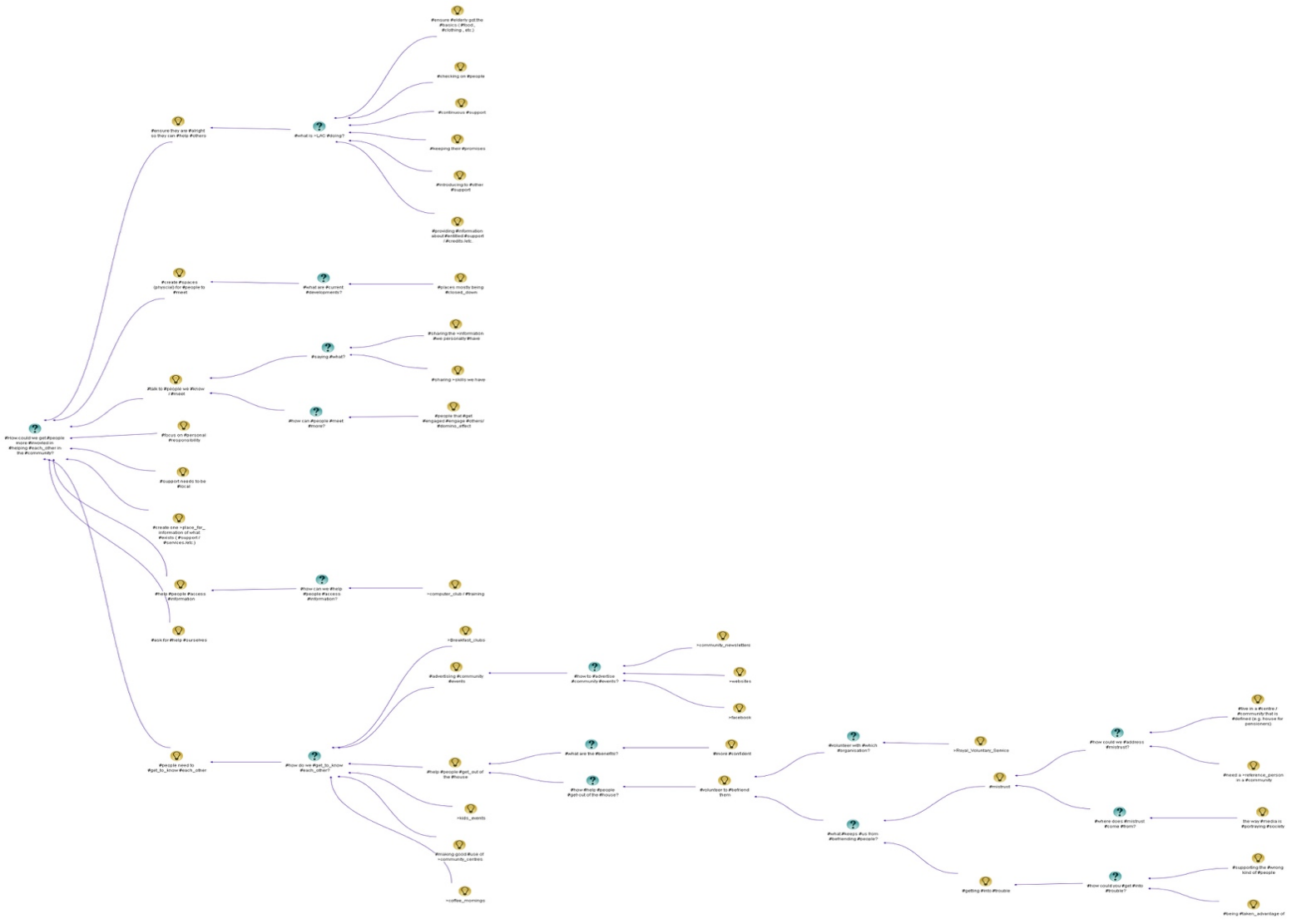


Figure 4: Map from issue mapping session 2 (created with compendium)

After the issue mapping sessions were facilitated, a further discussion with the service provider was organized. This session was designed to elicit a response from the service provider about the usefulness of the two issue mapping sessions. Eleven individuals were present (including the researcher) and most of them were Local Area Coordinators. Most of the Local Area Coordinators that participated in the issue mapping sessions were present.

This means that the feedback outlined below and thoughts that were noted in the session were provided by individuals that had experienced the sessions and from individuals that had not. The sessions were broken down into three parts. Firstly, individuals that had participated in the sessions were asked to share their experience and views with everyone. Secondly, the issue maps and further visualisations (see next section) were shared with everyone and discussed. Thirdly, the value of the initiative was discussed.

With regards to the sessions the feeling that people expressed was generally positive. They perceived it to be valuable to see community members share information as freely as they did; something that was not predictable. Various individuals indicated that this was not because community members benefited from the opportunity to practice communication in a group; rather they observed that some participants' confidence was heightened after they had participated in the issue mapping session. These benefits seemed to apply in particular to the individuals experiencing learning difficulties. It was perceived that the issue mapping sessions were inclusive in that they allowed everyone to speak, but the visual element also seemed to aid participants in following the discussion. Having a concise summary helped individuals orientate themselves.

From the perspective of the LAC team and the local council the information represented/gathered in the issue maps was useful. For example, it was discussed how important it appears (since the sessions have taken place) to "give people permission to talk to each other". This is an insight directly based on the conversations and issue maps and a practice that Local Area Coordinators want to adopt more to create social capital in the community. With regards to social relationships a further story was shared. Four community members that participated in one of the sessions decided to meet for a cup of tea on Christmas Day. They would have otherwise been alone throughout Christmas.

Besides providing the LAC team with actionable information the sessions were perceived to shift the conversation (between service provider and user) from "you said,

we did” to “you said, you did”. This correlates deeply with ABCD, LAC principles and the intended community empowerment.

A further large benefit that was noted was the knowledge sharing that occurred in the facilitated sessions. Local Area Coordinators were delighted to see community members share information about available support, coping strategies, etc. Following this up with community members it appeared that the sessions offered space for peer support and furthermore, the peer support was more credible than information shared by the service provider would have been. Due to the dialogical nature of the facilitated sessions direct feedback upon suggestions was possible. It was noted that this led to some “quality control” of suggestions; e.g. individuals mentioning services they had heard about and others qualifying this by saying that they had used them and that they had been very helpful (or not).

Besides the positives some more critical thoughts were shared. It was discussed that the issue maps are open to interpretation when one returns to them or sees them for the first time. Partially due to this, some certainty about what is done with the gathered information would be beneficial.

A critical note that relates to the initiative only partially, but is still worth noting, was the general perception that communities and community members are “tired of consultations”. On the whole, it would be better to move some of the issue mapping and facilitation into the community; for mobilization and co-creation to happen from within the community (rather than community members being subjected to consultations).

Further thoughts evolved around how the method fits in with what councils currently do. It was perceived to be a valuable approach (and addition) to consultations. It was suggested that such an approach (as explored in this pilot) can also strengthen place based commissioning and joint strategic needs assessments. In the case of the latter the living map could represent an asset based alternative to the conventional more negative (need based) approach.

4.2 Concept maps – extracted from issue maps

Similar points were raised about the concept maps. The concept maps, together with the data gathering method that also produces the issue maps, can be used in consultations, place based commissioning, and in an asset based alternative to the joint strategic needs assessment.

Due to the early state of the technological development no concept map of both conversations was generated. Instead, figure 5 illustrates one string of conversation (that focussed on people skills).

Instead of concept maps, the software we developed so far (referred to above) produces what is shown in figure 6. Figure 6 shows concepts, resources and statements in a single diagram. These are centred around the two conducted issue mapping sessions. Whilst it gives some indication of what the overlapping issue in both sessions were (located at the centre of the diagram between the two nodes that represent session one and two) the diagram is of limited usability. The presence of the statements influences the gravitational behaviour of the concepts and resources. The size of the nodes and edges does not reflect the frequency of their occurrence. There are many other potential developments that would make these graphs more meaningful for decision makers and researchers alike, and easier to interpret. Further development is necessary to realise this.

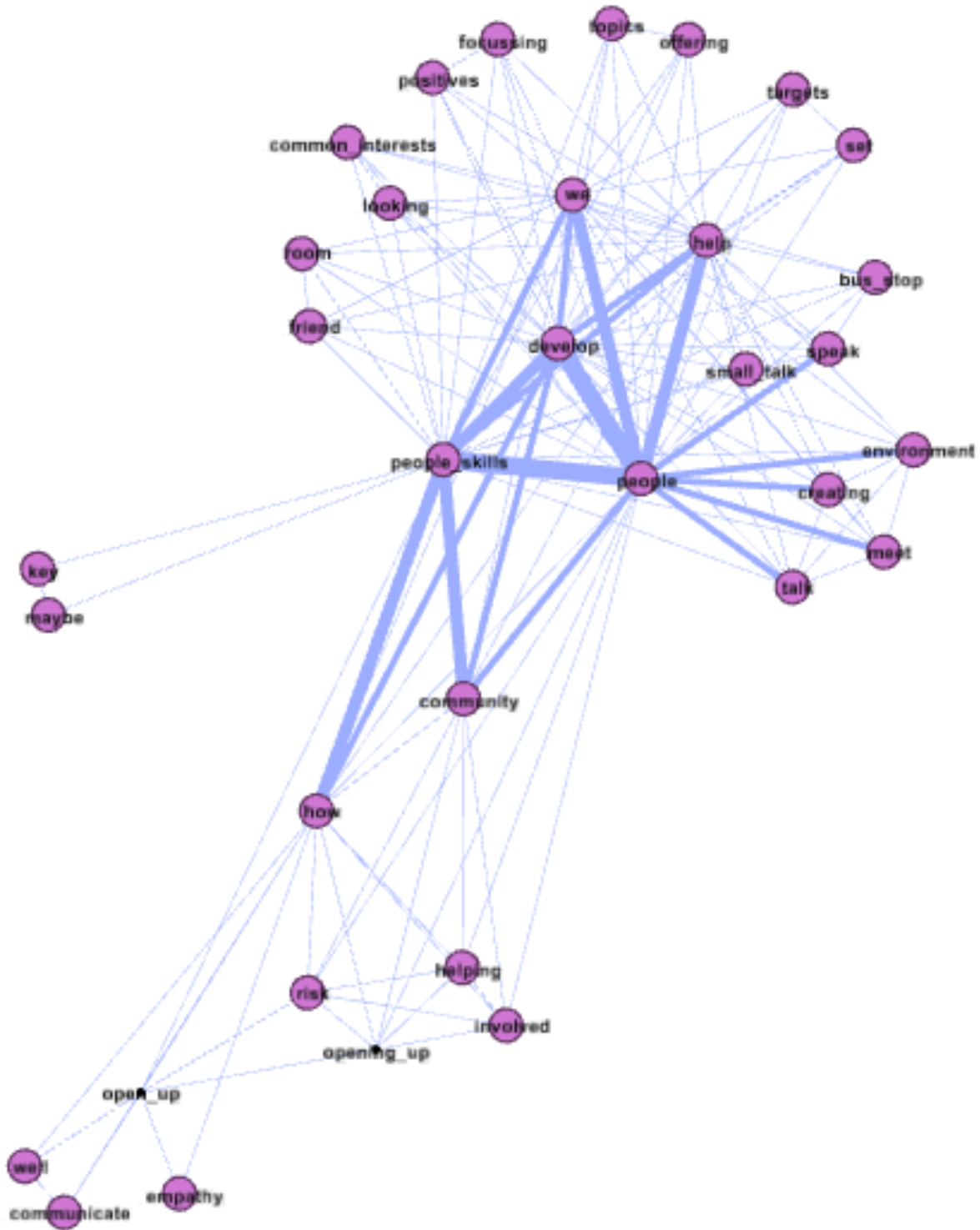


Figure 5: Partial Concept-map

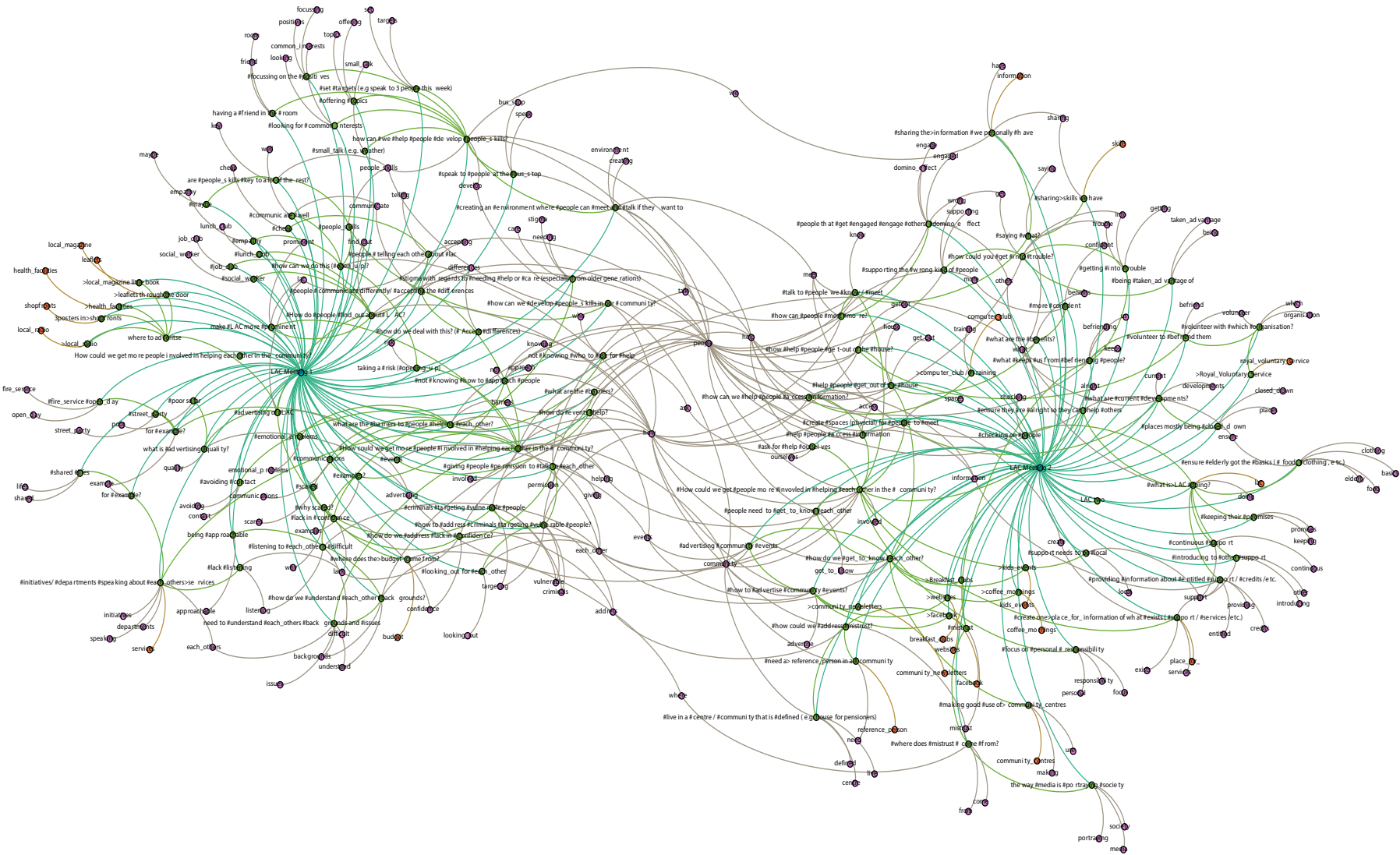


Figure 6: Map with statements, concepts and resources (zoomable)

Furthermore, the LAC team found it valuable to see themes emerging from the dialogues. Such themes can be helpful in the orientation and re-orientation of council services. However, this is of limited use after merely two facilitated sessions. It was speculated that such benefits and impact would increase exponentially with applying the method at larger scale (e.g. city wide). Furthermore, it was discussed that concept maps would (if applied at that scale) help offer people the right support to develop their own communities. The council could, in this way, turn more responsive to community processes).

4.3 Potential societal impact – further exploration

In the session with the LAC team it was suggested that the method (and technology) could be use by local charities; for example, it was suggested that a local charity that hosts lunch and job clubs could be using this to facilitate discussions. Additionally, some social enterprises could employ this to facilitate focus groups with their stakeholders and clients (e.g. for market research). Additionally, neighbourhood groups and neighbourhood boards could use it in a similar way.

However, it was suggested that the method would be ideal to develop plans for areas. It was emphasized that getting the question right would be crucial (or ideally established through prior conversations). But if this could be accomplished neighbourhood and/or city specific plans can put power into local communities. Finally, it was suggested that the LAC team (and councils in general) could focus more on creating spaces and opportunities for community to take matters into their own hands.

5. Conclusions and Recommendations

It appears that the Living Map approach has potential for influencing service design and delivery at a local governance level; both in terms of grass roots and local government. Introducing an approach and technology that allows for structured conversations of complex issues and tying those conversations together in concept maps offers a range of potential benefits. Chiefly amongst those is the idea that emerging themes and interconnected ideas and issues (emergent from the 'bottom up') can help re-orientate councils, social enterprises and charities to closer match the evolving expectations, ambitions and demands of local communities. It also enables such institutions to support community driven initiatives as and when needed in a responsive (non-prescriptive) manner.

The benefits of the facilitated sessions are manifold; ranging from increased confidence in participants to insights for quality improvement. As described above the LAC team used some of the information generated to improve their service, the communication of their service and to imagine ways in which health and social services generally (rather than just LAC) can become more responsive to community members' own plans. However, most of the findings in this report must be considered tentative. The small scale of this pilot project did not allow for the establishment of generalizable findings and conclusions.

From a Higher Education perspective, it could be further explored to involve students in the data gathering/facilitation process and to set this up as a practice module in H&SC management. Different students/student groups could host workshops/focus groups, and all could then contribute to one centralised map of service quality issues and ideas.

This pilot has suggested that even without professional facilitation valuable sessions can occur. Techniques such as, for example, dialogue mapping have their own rules, codes, etc. and facilitators are usually trained. However, during this project the hypothesis emerged that the real value (in this context) lies in creating the space, having a conversation about an issue, recording it in an issue map, and then doing something with that information. Professional facilitation might not be essential for valuable issue mapping sessions; however, this is a key issue that the researchers will endeavour to explore further.

As was outlined at the outset, this project is part of much larger visions and aspirations that aim at facilitating the emergence of collective consciousness around social and ecological issues. We will be taking this work forward, developing the Living Map Approach and the supporting software. If you are interested in collaborating please get in touch.

Bibliography

- Bartnik, E. and Chalmers, R. (2007), 'It's about more than the money: Local Area Coordination Supporting People with Disabilities' in S Hunter and P Ritchie (eds) *Co-Production and Personalization in Social Care: Changing relationships in the provision of social care* (London: Jessica Kingsley, 2007).
- Conklin, J. (2006). *Dialogue mapping: building shared understanding of wicked problems*. Chichester: John Wiley.
- Kretzmann, J. P., & McKnight, J. L. (1993). Building communities from the inside out: A path toward finding and mobilizing a community's assets. Evanston, IL: ABCD Institute, Institute for Policy Research.
- Rittel, H., & Webber, M. (1973). Dilemmas in a general theory of planning. *Integrating Knowledge and Practice to Advance Human Dignity*, 4(2), 155–169.
<https://doi.org/10.1007/BF01405730>
- Vincent, A. (2010). Local Area Coordination: An Exploration of Practice Developments in Western Australia and Northern Ireland. *Practice*, 22(4), 203–216.
<https://doi.org/10.1080/09503153.2010.494768>