

Multiple Perspective Problem Framing method

A practical guide

Multiple perspective problem framing or MPPF is a unique innovation method developed by Dr Stuart English at Northumbria University. The approach involves constructing a detailed understanding of a complex situation, and employing interpretive methods to frame new forms of value from uncertainty. This document summarises MPPF method as a 12-stage integrated system of use that can be applied flexibly in wide range of personal, business, social and organisational contexts.

Introduction

Research led by Dr Stuart English at Northumbria University has demonstrated that an organisation's capacity for innovation is dependent upon the way they perceive problems and opportunities. Organisations can sometimes be dominated by pre-conceptions and rely on familiar approaches to innovation, which may be inaccurate or not fit for the emerging challenges they face. This can create a tunnel-vision that excludes alternative potential opportunities or approaches, and thereby limits innovation and growth.

Through research conducted with SMEs, multinational businesses, and public sector organisations, English and his collaborators developed and studied how integrated mind-mapping techniques facilitate team-based workshop activities and combine multiple perspectives into one canvas for ease of navigation. Iteration of these techniques with 80 collaborating organisations resulted in the Multiple Perspective Problem Framing (MPPF) approach to design-led innovation. MPPF involves collecting various datasets which frame issues and opportunities from widely different, singular perspectives in order to evaluate, compare, and determine their commercial potential. MPPF synthesises this onto a single

canvas of interrelated factors where the competing benefits and challenges of different perspectives can be seen in an original framing unique to each company. The collaborative process enables a company to visualise and navigate its relationship with technology, intellectual property, and commercialisation, allowing potential strategies to be robustly and holistically evaluated. English's research also indicates how MPPF facilitates organisations in developing or refining their innovation strategy and product/service delivery to meet industrial and sectoral trends, ensuring the adoption of an economically sustainable route to internal innovation.

A 12-stage system of use

Multiple perspective problem framing or MPPF is a way of building a detailed understanding of a complex and often dynamic situation, and employing interpretive methods to frame new forms of value from uncertainty.

In this practical summary MPPF method is presented as a 12-stage integrated system of use that can be applied flexibly in wide range of personal, business, social and organisational contexts.

These stages are not applied in a rigidly sequential way but rather provide an MPPF framework of activities that encourages a rich exploration and expert synthesis. The stages can be summarised as follows:

1. Identify Fields of Enquiry (FoE)

Decide on up to six or seven general fields of enquiry (FoE). Choosing a wide range of FoE will expand the scope of the problem or situation and open up the potential for creative insight. At this stage it is helpful to ask colleagues and critical friends about their perspective of the problem or situation and to pose the question “what do you think is relevant?” If working in a team it is important to avoid “group think” and to draw out the diversity within

the team, such diversity can be an important driver of innovation. It is also crucial that each member of an innovation team is in full agreement with the centres of enquiry chosen and owns them individually.

2. Create Push Questions in each FoE

Push Questions, generated within each FoE should aim to find out as much as possible about the problem or situation but should not attempt to solve it. Each FoE can be considered independently and questions generated should thoroughly explore each value sector such that when answered they completely and exclusively describe everything you need to know about the problem or situation. It is important to exploit the diversity of any team or network that is helping to generate push questions, all questions should be considered with equal importance and should not be discounted because the majority judge them to be irrelevant.

Push Questions that do not fit neatly into a particular FoE should not be discarded at this stage as they may lead a team to reassess the way the FoEs are described.

3. Record Push Data

Depending on the area of investigation it's likely that the team will be able to answer some if not many of the push questions through experience, for others, they may know not know the answers but may know where to go to find them. However, some questions may be entirely new and may require considerable investigation even to find out where to begin look for answers. It is important to take the time to investigate these difficult questions as they may in themselves provide new insights.

Additionally, in the course of the investigation the initial push questions are likely to raise further questions, these should be recorded and again answers should be sought.

4. Map out the Value Arena

At this stage answers to push questions may need to be simplified to one or two words where possible. These transposed answers should provide the team with sufficient information to know what they refer to but they should be distilled down to their component parts. The aim here is to break up the structure of the knowledge so that it can be put back together in different ways. Each push answer should be mapped onto the value arena in a form that is movable. This could be achieved by writing each push answer onto a separate sticky note (using a different colour for each centre of enquiry) and sticking them into sectors defined by the chosen FoEs. Alternatively mapping software can be used to create independently movable answers that provide nodes within a network. Additionally different layers can be created either using a mapping software or manually, for example, using layers of tracing paper.

Once completed the value arena should provide a rich and interactive map of the problem or situation where the relationship between the concepts (the distilled push data) can be modelled to offer new ways of seeing the situation.

Stage 4 simply aims to distil and map out push answers onto the value arena, this means that the data is likely to be jumbled, often with similar information populating different parts of each sector. Stage 5 brings the innovators perception into focus.

5. Give form to the Value Arena

Once the push data has been distilled and mapped onto the value arena stage 5 is a sense making process that allows the innovator to get to grips with the interrelationship of the factors described by the push answers. Stage 5 does not aim to assign any judgment to the data but does aim to simplify it by grouping together similar concepts within each value arena sector.

Additionally, as part of a clustering of similar concepts it may be helpful to add in new words that help to describe the nature of that group of concepts.

During stage 5 the same factor may appear in more than one sector, there is no need to group factors across sectors however significant groupings may begin to evolve.

6. Centrifuge process

Stage 6 is the point in the process where the individual or team applies their own expert judgment to the value arena data. This synthesis is influenced by the innovators own experience and intuition. In the centrifuge process key factors are brought inwards towards the hub or value core whilst more contextual factors are spun out towards the edge of the value arena. The relationship between these factors is not lost but greater importance is given to factors around the value core than to the more contextual factors at the edge of the value arena.

As part of the centrifuge process the distinction between fields of enquiry may become blurred as key factors emerge and transcend distinct value sectors. Engagement with the centrifuge process enables cornerstones of innovation to emerge.

7. Identify Cornerstones of Innovation

Identify up to six or seven cornerstones of innovation. A cornerstone is a key framing factor, a concept that may have been identified by answering a push question or may be one or a grouping of several push answers. The choice of cornerstones focuses and defines the problem space so even by changing only one of six cornerstones the potential for innovation can be significantly influenced. This is a crucial stage of the process since the chosen cornerstones frame the potential for innovation that can be envisaged in the value core.

The choice of cornerstones of innovation should be considered carefully. A cornerstone should be critical and not generic or mundane. By interrelating and overlapping up to six or seven cornerstones it is possible to describe clearly the focus of attention.

8. Create a universal form

A design universal is a concept or string of concepts that completely and exclusively defines the bounds of our creative attention. As such a universal is a useful tool for framing all of the potential solutions to a particular problem.

A universal can be constructed by distilling key concepts that appear as cornerstones of innovation and pull questions. These concepts may be simply be a set of interrelated words or could be formed into a sentence that describes what it is that the team will create.

A design universal frames every possible solution so the exact choice of words is critical to the shape of the solution space and therefore the nature of any innovation that is generated.

9. Define pull questions

Having framed the problem or situation with well-chosen and interrelated cornerstones of innovation the team should then consider the purpose of engagement with the value arena. What is the motivation? What does the team want to achieve? A range of pull questions can describe the purpose of engagement, for example (in generic terms) “how can we solve our customer’s problem?” or “how can we encourage particular behaviour?”

Pull questions may be informed by the fields of enquiry that were used to form the value arena but they may apply equally in each value sector. Hence pull questions can be considered independently of value sectors and applied in relation to the value arena as a whole.

10. Respond to pull questions

The scoping out of solution space is an ideation activity within the bounds of a universal and aims to generate particular embodiments of the universal form described in 8. This is the stage in which specific ideas arise.

The bounds of solution space are set by the universal and answering pull questions stimulates particular ideas.

The range of practical answers to pull questions can be mapped onto the terrain of the universal form to scope out the solution space.

11. A mental model

The same complex problem or situation can by its nature be interpreted from a variety of perspectives according to our beliefs and motivation. Advertising can reinforce and exploit our beliefs by building a purposeful vision that encourages us to act in a particular way (to buy the product for example).

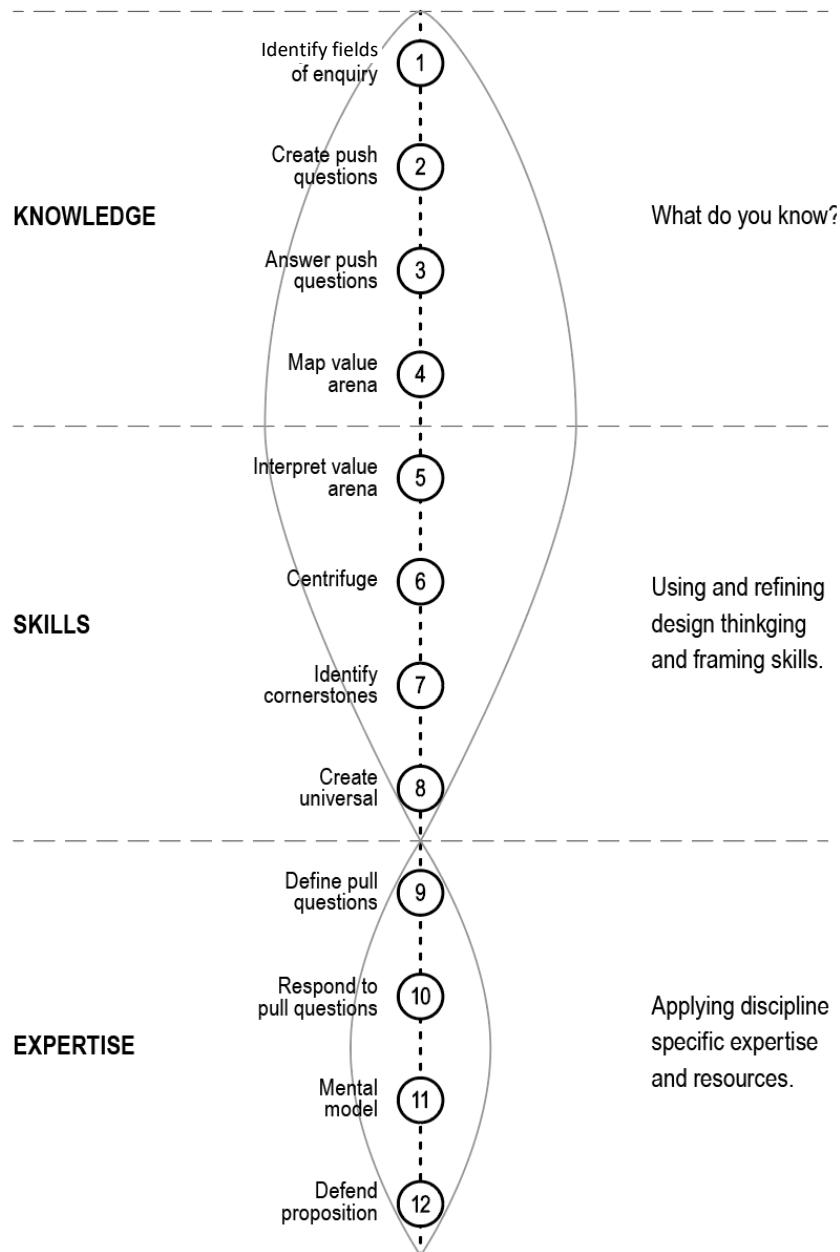
To synthesise the complexity of interrelated factors it may be helpful to stand back from the problem or situation in order to imagine a purposeful vision.

One way to do this is simply to choose a photograph in which we imbue the qualities and values that we aim to achieve. A simple way to envisage a mental model might be to fill in the gaps in the following statement: “My/our mental model is a way of seeing _____ so that _____ giving me/us _____”.

12. Defend a proposition

This 12-point system of use distils a value core within a rich and structured arena of related factors. Whilst this process nurtures effective value innovation it also establishes a validation framework that can be used to defend resulting propositions. Since the value arena is richly populated with interrelated push data these can provide a network of support for any idea that is framed by the chosen cornerstones of innovation.

By placing an idea or proposition within the value core, the factors that make up the value arena can be configured in support of that idea. The resulting map can be used to present and defend a value proposition.



12 stages of Multiple Perspective Problem Framing

Support for innovation

Ideas-lab offers a range of publications, workshops and consultancy to support organisations create new forms of value and refine their strategic direction through the implementation of MPPF innovation method. Please e-mail us at hello@ideas-lab.co.uk to discuss your innovation challenge.