tools, tactics and methods to harness the power of people, data and technology to solve global challenges

CREATED BY
Nesta’s Centre for Collective Intelligence Design

WITH SUPPORT FROM
UNDP’s Accelerator Lab network
STAGE: DEFINE CHALLENGE
The Challenge Definition Worksheet is used to help you clearly define the challenge to be addressed. It helps you examine your issue from a number of angles, as well as articulate the wider context. The key aim is to capture, compare and discuss different viewpoints before focusing on a clear challenge on which you can base the rest of your collective intelligence project. Consider working on the Challenge Definition Worksheet with a diverse range of other stakeholders, as this will usually bring up different perspectives and insight than just working with immediate team members.

INSTRUCTIONS:
1. Quickly review the Challenge Definition Worksheet questions
2. Answer each question by capturing responses on post-it notes. Stick your answers in the appropriate sections.
   a. Regarding question 2 use a Stakeholder Map Worksheet (A3) and People Prompt Cards (C2) if you need help to identify the right people.
   b. Regarding question 3 use the Issues Map Worksheet (A2) if you need help to identify the underlying factors.
   c. Regarding question 4 use the Data Mapping Worksheet (B1) and Data Prompt Cards (B2) to consider what data is, or could be relevant.
   d. Regarding question 5 use the format “Our challenge is that… we want to help [who?] to understand/find/decide/learn [what?]” or use the Challenge Call to Action Worksheet (C6).
   e. Regarding question 6 use the Cover Story Worksheet (A4) to help you consider what is the purpose of your collective intelligence project?
   f. Regarding question 7 sketch out a quick timeline and budget.
3. When you’ve completed your first draft of the worksheet review the post-its and write up your final answers to the questions directly on the worksheet. However, if you need some reflection time, review the post-its at a later date or share with others before writing up.
4. When you’ve completed your first draft of the Challenge Definition Worksheet transfer the main points onto your Collective Intelligence Project Design Canvas in the Define Challenge stage.

REFERENCE:
ADAPTED FROM NESTA DIY TOOLKIT, PROBLEM DEFINITION

TIME FRAME
60 - 90 mins

GROUP SIZE
4 - 8 people

MATERIALS
Challenge Definition Worksheet, 1 - 2 markers, bluetack
1. What is the issue you want to address?

2. Who does your issue affect and how?

3. What factors shape this issue and have the greatest impact?

4. What evidence do you have about this issue?

5. Now reframe your initial issue as a collective intelligence challenge.

   Our problem is that...

   We want to help [who] to understand/find a solution to/decide/learn [delete as appropriate] [what].

6. If we are successful, what is the change we will have brought about?

7. What is your timeline, milestones, budget and constraints?

REFERENCE:
ADAPTED FROM NESTA DIY TOOLKIT, PROBLEM DEFINITION

STAGE:
DEFINE CHALLENGE
INSTRUCTIONS:

1. Start with making a (very) large canvas by sticking a 8-10 flipchart sheets together - see the layout on the next page.

2. At the edges put some labels that represent broader categories of potential drivers (e.g. political, economic, social, technology, environmental, legal).

3. Then write the issue you would like to explore in the middle (e.g. urban flooding in informal settlements).

4. You may assign two participants who will map out the drivers (as a facilitator you should guide the conversation).

5. Then ask participants: “What’s driving or causing this issue?”... one person at a time may give a suggestion. To avoid the group being dominated by loud/confident people we suggest you enforce a ‘turn taking rule’. After one person has made one suggestion, the next person may then make one. This means everyone can have their say.

6. When a participant mentions a possible cause, the mappers draw a line from the category (you may also ask participants what category it goes under) to the centre, and add a brief description. Encourage groups to write a short phrase rather than a single word or two. “Sustained economic growth in China” gives a better sense of change than “the economy”.

7. It is important to mention that there is no right or wrong answer; all drivers mentioned are relevant for consideration as a potential cause.

8. Once all the drivers are mapped out, you may ask participants to vote for what they consider to be the key drivers (the most important). Depending on group size, they may select 2 or 3. They can use sticky dots to indicate their choices. Have a brief discussion about each one, and ask for evidence they have or how they might find it.

9. Once they have the key drivers, you may ask them: “Where would you intervene?” “Where are the leverage points?” “Where could we make the biggest difference?” Remind the group that in a system you may need to do multiple interventions at the same time to shift it.

issue map

Issue Mapping is a visual way to capture the different interconnected issues linked to a central or core issue. Everything is captured on a single ‘poster’ helping participants to see the issue at a systems level.

TIME FRAME
60 - 120 mins

GROUP SIZE
10 - 40 people

MATERIALS
Flipchart sheets, 3-4 markers, sticky dots for voting, masking tape

STAGE:
DEFINE CHALLENGE
issue map
What is the issue we want to i. understand ii. solve iii. make a decision on or iv. create knowledge about?

ISSUE FOR EXPLORATION

- TECHNOLOGICAL
- ENVIRONMENTAL
- OTHER POTENTIAL DRIVERS
- SOCIAL
- ECONOMIC
- LEGAL
- POLITICAL
- INSTITUTIONAL
stakeholder map

This worksheet helps to make tangible who has a stake in the issue. Specifically it helps identify: who causes or indirectly influences the issue, who is affected by it (directly or indirectly), and how these actors are related.

INSTRUCTIONS:
1. Starting at the centre, answer ‘What is the issue you are trying to resolve?’
2. Move to the next question and get people to call out answers as you capture responses on post-its.
3. Keep working your way out spending 5 - 10 minutes on each question.
4. Draw connections between your stakeholders using arrows to show the flow of value, resources, data, knowledge, influence between them. This will help you to see the relationships as a whole.
5. Use the answers from this worksheet to help you complete the Challenge Definition Worksheet (A1) and transfer the relevant information to the Collective Intelligence Project Design Canvas.

TIME FRAME
60 - 120 mins

GROUP SIZE
3 - 8 people

MATERIALS
Stakeholder map, post-its, 3-4 markers, masking tape

REFERENCE:
NESTA STATES OF CHANGE, MAPPING STAKEHOLDERS TOOL AND ODI DATA ECOSYSTEMS MAPPING TOOL

STAGE:
DEFINE CHALLENGE
stakeholder map
Who does your issue affect? Who might already have, or could create solutions?

- **STAKEHOLDER REMOTELY RELATED**
  Who is remotely influencing or affected by the issue?

- **STAKEHOLDER INDIRECTLY RELATED**
  Who is influencing the direct stakeholders?
  Who is indirectly affected by the issue?

- **STAKEHOLDER DIRECTLY RELATED**
  Who (people and organisations) is directly causing, influencing or affected by the issue?

- **YOUR CHALLENGE**
  What is the issue you are trying to resolve?

REFERENCE:
NESTA STATES OF CHANGE, MAPPING STAKEHOLDERS TOOL AND ODI DATA ECOSYSTEMS MAPPING TOOL

STAGE:
DEFINE CHALLENGE
cover story

The Cover Story Worksheet is a newspaper style mock-up describing how the future could be if your challenge is successfully addressed.

**TIME FRAME**
45 mins

**GROUP SIZE**
3 - 8 people

**MATERIALS**
Blank Cover Story Worksheet, 10 coloured markers

**INSTRUCTIONS:**
1. Work in groups on one template together imagining the best case scenario for your issue (30 mins).
2. The object of the activity is to complete the template using post-its before writing up:
   a. ‘Headlines’ convey the substance of the cover story.
   b. ‘Paragraph’ tells the story 10 years from now.
   c. ‘Sidebars’ reveal interesting aspects of the cover story.
   d. ‘Quotes’ can be from anyone related to the story.
   e. ‘Images’ support the content with illustrations.
3. If there are multiple groups, reconvene and take turns to present back the story and the supporting elements (5 mins).
4. Note any common themes and areas of agreement, differences, insights or concerns.
5. Finally transfer the main future considerations identified through using this worksheet to your Collective Intelligence Project Design Canvas in Define Challenge stage (A).

It can be helpful to search online for examples of local/national newspaper headlines to get inspired.
cover story
What is the change we want to bring about?

Headline

Body Paragraph

Sidebar

Timeline

Reference: UNITED WAY ACCELERATOR

Stage: DEFINE CHALLENGE
STAGE:
GATHER DATA, INFORMATION, IDEAS
The Data Mapping Worksheet helps you consider what you need to know, what data sources are currently available and what new data you may need to create.

**INSTRUCTIONS:**

1. Quickly review the Data Mapping Worksheet questions. One person could nominate themselves to read them out to the group.

2. Then, start by answering the question at the top of the worksheet, “What specifically do you need to know?” Capture suggestions from the group on post-its or write on the worksheet directly. Spend 5-10 minutes.

3. Now move to the next question on the bottom left and spend 5-10 minutes discussing this as a group. Work your way across from left to right capturing answers on post-its in the appropriate sections.

4. Use in conjunction with the Data Cards (B2) for inspiration to stretch your thinking.

5. After you have explored many possible data sources, it is important to focus on 1-3 key data sources that are a) likely to be most relevant to your issue b) give the necessary granularity or timeliness and c) are feasible to gather in the timeframe for the project. Highlight those on the worksheet.

6. When you've completed this worksheet, add your shortlisted data sources to the Collective Intelligence Project Design Canvas.
<table>
<thead>
<tr>
<th>What specifically do you need to know?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>What data are you already using?</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>For example: official or government data, data from NGOs or business.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What other data exists, which you are not using?</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Are there other types of data or datasets that might contribute similar information, or act as a proxy measure?</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What new data could you create?</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Could you start collecting new types of data to help you now and in the future?</em></td>
</tr>
</tbody>
</table>
**data ethics**

This worksheet is for anyone who collects, shares or uses data. It helps identify and manage ethical issues – at the start of a project using data, and throughout. It gives a framework to develop ethical guidance that suits any context.

**TIME FRAME**
60 - 120 mins

**GROUP SIZE**
3 - 8 people

**MATERIALS**
Data Ethics Worksheet and examples, post-its, 1 x pen per person, bluetack

**INSTRUCTIONS:**

1. Individually, review the Data Ethics Worksheet questions.

2. Start in the top left of the worksheet and work across to the right, row by row. Answer the questions as a group, spending 5 - 10 minutes on each. Capture responses on post-it notes. Stick your answers in the appropriate sections.

3. When you've completed your first draft of the Data Ethics Worksheet review the post-its and write up your final answers to the questions directly. However, if you need some reflection time, review the post-its at a later date or share with others before writing up.

4. Finally transfer the main ethical or regulatory issues identified through using this worksheet to your Collective Intelligence Project Design Canvas in Gather Data, Information and Ideas (stage B).

**REFERENCE:**
ODI DATA ETHICS CANVAS
<table>
<thead>
<tr>
<th>DATA SOURCES</th>
<th>LIMITATIONS</th>
<th>SHARING DATA</th>
<th>ETHICAL AND LEGISLATIVE CONTEXT</th>
<th>RIGHTS AROUND DATA SOURCES</th>
</tr>
</thead>
</table>
| Describe your project’s key data sources, whether you’re collecting data yourself or accessing via third parties. Is any personal data involved, or data that is otherwise sensitive? | Are there limitations that could influence your outcomes?  
  - bias in data collection, analysis, algorithms  
  - gaps or omissions  
  - provenance/quality  
  - other issues affecting decisions? | Are you going to be sharing data with other organisations? If so, who? Are you planning to publish any of the data? Under what conditions? | What existing ethical codes apply to your sector or project? What legislation, policies, or other regulation shape how you use data? What requirements do they introduce? | Where did you get the data from? Is it produced by an organisation or collected directly from individuals? Was the data collected for this project or for another purpose? Do you have permission to use this data, or another basis on which you’re allowed to use it? What ongoing rights will the data source have? |

<table>
<thead>
<tr>
<th>YOUR REASON FOR USING DATA</th>
<th>COMMUNICATING YOUR PURPOSE</th>
<th>POSITIVE EFFECTS ON PEOPLE</th>
<th>NEGATIVE EFFECTS ON PEOPLE</th>
<th>MINIMISING NEGATIVE IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your primary purpose for collecting and using data in this project? What are your main use cases? What is your business model? Are you making things better for society? How and for whom? Are you replacing another product or service as a result of this project?</td>
<td>Do people understand your purpose – especially people who the data is about or who are impacted by its use? How have you been communicating your purpose? Has this communication been clear? How are you ensuring more vulnerable individuals or groups understand?</td>
<td>Which individuals, groups, demographics or organisations will be positively affected by this project? How? How are you measuring and communicating positive impact? How could you increase it?</td>
<td>Who could be negatively affected by this project? Could the way that data is collected, used or shared cause harm or expose individuals to risk of being re-identified? Could it be used to target, profile or prejudice people, or unfairly restrict access (e.g. exclusive arrangements)? How are limitations and risks communicated to people? Consider: people who the data is about, people impacted by its use and organisations using the data.</td>
<td>What steps can you take to minimise harm? How could you reduce any limitations in your data sources? How are you keeping personal and other sensitive information secure? How are you measuring, reporting and acting on potential negative impacts of your project? What benefits will these actions bring to your project?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ENGAGING WITH PEOPLE</th>
<th>OPENNESS AND TRANSPARENCY</th>
<th>ONGOING IMPLEMENTATION</th>
<th>REVIEWS AND ITERATIONS</th>
<th>YOUR ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can people engage with you about the project? How can people correct information, appeal or request changes to the product/service? To what extent? Are appeal mechanisms reasonable and well understood?</td>
<td>How open can you be about this project? Could you publish your methodology, metadata, datasets, code or impact measurements? Can you ask peers for feedback on the project? How will you communicate it internally? Will you publish your actions and answers to this canvas openly?</td>
<td>Are you routinely building in thoughts, ideas and considerations of people affected in your project? How? What information or training might be needed to help people understand data issues? Are systems, processes and resources available for responding to data issues that arise in the long-term?</td>
<td>How will ongoing data ethics issues be measured, monitored, discussed and actioned? How often will your responses to this canvas be reviewed or updated? When?</td>
<td>What actions will you take before moving forward with this project? Which should take priority? Who will be responsible for these actions, and who must be involved? Will you openly publish your actions and answers to this canvas?</td>
</tr>
</tbody>
</table>

**REFERENCE:** ODI DATA ETHICS CANVAS

**STAGE:** GATHER DATA, INFORMATION, IDEAS
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**REFERENCE:**
ODI DATA ETHICS CANVAS

**STAGE:**
GATHER DATA, INFORMATION, IDEAS
solutions brief

The Solutions Brief Worksheet helps you to clearly articulate the requirements of the solution(s) you are seeking including how developed they need to be.

**TIME FRAME**
30 - 90 mins

**GROUP SIZE**
2 - 10 people

**MATERIALS**
Blank Solutions Brief Worksheet, pens, bluetack

**INSTRUCTIONS:**

1. First review the questions. You may need to do some more research before you can answer all of them.

2. Think about the criteria for what a ‘good’ solution(s) needs to do without prescribing how the solutions should work. Consider things like the context and the user.
   
   For example: we need a diagnostic test for antibiotic infection. A good solution will be a) low-cost b) for use at the point-of-care c) will give a result in 30 mins or less d) can be used anywhere in the world.

3. Use in conjunction with the solution readiness tool if you need help to consider the maturity of solutions you are looking for.

4. Finally, transfer the main requirements identified through using this worksheet to your Collective Intelligence Project Design Canvas in Gather Data, Information and Ideas (stage B).
<table>
<thead>
<tr>
<th>What solution(s) are we looking for?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the problem we want to solve?</td>
</tr>
<tr>
<td>What solutions already exist, and why aren't they working?</td>
</tr>
<tr>
<td>What would a 'good' solution look like? This is where you identify the criteria that are important to you (e.g., it needs to be able to work in a setting with regular electricity outages).</td>
</tr>
<tr>
<td>What maturity of innovations do we need?</td>
</tr>
<tr>
<td>What are the key barriers to innovation and how can we overcome them?</td>
</tr>
</tbody>
</table>
**solutions readiness**

When seeking solutions, it can be helpful to consider the readiness level that is required. Do you want something that is already tried and tested, or are you searching for early ideas? The Solution Readiness Level (SRL) guide will help you discuss and clarify where you set your aspirations.

**INSTRUCTIONS:**
1. Review the SRLs. They range from early ideas to proven solutions at scale.
2. Review the main different types of solution maturity and consider which is appropriate for you.
3. Select the SRL that most closely matches the level of solution maturity you want to find or create through your collective intelligence project.
4. Transfer the maturity of the solutions required to your Collective Intelligence Project Design Canvas in the Gather Data, Information and Ideas (stage B).

**TIME FRAME**
30 mins

**GROUP SIZE**
2 - 10 people

**MATERIALS**
Solutions Readiness Level (SRL) Guide, Solutions Readiness Worksheet

**REFERENCE:**
NASA TECHNOLOGY READINESS LEVELS

**STAGE:**
GATHER DATA, INFORMATION, IDEAS

B6
**Solution Readiness**

What solution(s) are we looking for?

SRL 1 – Research of basic principles for a solution
SRL 2 – Early idea or concept formulated
SRL 3 – Experimental proof-of-concept
SRL 4 – Proof of concept validated in a test environment
SRL 5 – Prototype validated in a real live environment
SRL 6 – Prototype tested in a real life environment
SRL 7 – Pilot demonstrated in one or multiple contexts
SRL 8 – Minimum viable product, service or process piloted
SRL 9 – Proven implementation of product, service or process at scale

**Reference:**

NASA Technology Readiness Levels

**Stage:**

Gather Data, Information, Ideas
PROOF OF CONCEPT
A proof of concept often involves a small exercise to test the real-world potential of an incomplete idea.

This isn’t about delivering the idea, but demonstrating whether it is feasible. It should be used in the early stages when you first have an instinct about an idea. A proof of concept shows if a product, feature or system can be developed, whilst a prototype shows how it will be developed. For example, a proof of concept might be used to test a technical feature of an online service by quickly building a working model.

SRL: 2 - 4
TIMESCALE: MINUTES < DAYS

PROTOTYPE
A prototype is the visible, tangible or functional manifestation of an idea, which you test with others and learn from at an early stage of the development process.

Prototypes should be used when you have a hypothesis about a solution, but there is still uncertainty about how it looks, feels and works. Insights from testing can then be used to improve the idea. Prototypes are also a way to engage your stakeholders to develop a shared vision or common ground for a solution.

SRL: 5 - 6
TIMESCALE: HOURS < WEEKS

PILOTS
Pilots are often used as the first stage of a new innovation. They are a ‘live’ activity, usually with a small group of real users or citizens.

Pilots should be used when you believe you have an effective solution and are looking to understand how it works in reality. By offering a partially implemented concept to a limited population, it is possible to see what actually happens. This is useful when preparing to scale a solution to a wider group. Pilots, are ultimately measured by success or failure, and so there is usually only room to make minor tweaks.

SRL: 7
TIMESCALE: WEEKS < MONTHS

MINIMUM VIABLE PRODUCT (MVP)
An MVP allows you to accelerate your learning about a possible solution whilst using minimal resources. It does this by testing only the essential core of your concept (rather than the full solution) with real users in practice.

This means that you can find out early on if there is an actual need or demand for the solution, what is working and what isn’t, and make any adjustments accordingly. MVPs are about using fewer resources and minimal effort to gather insights and obtain feedback on potential changes.

SRL: 8 - 9
TIMESCALE: CONTINUOUS

REFERENCE:
NESTA
STAGE:
GATHER DATA, INFORMATION, IDEAS
mapping solutions

This tool helps you to start thinking about where to find existing solutions that relate to your challenge.

**TIME FRAME**
5 - 30 mins

**GROUP SIZE**
2 - 10 people

**MATERIALS**
Mapping Solutions Worksheet, Gather Data, Information and Ideas Methods Cards (B3).

**INSTRUCTIONS:**
1. Review the the questions and consider where to find existing solutions that relate to your challenge.
2. Identify and write down websites or databases and associated keywords that you would use to conduct an online search.
3. Then consider other contexts or stakeholders that might be relevant and how you might best engage with them.
4. Finally transfer the main requirements identified through using this worksheet to your Collective Intelligence Project Design Canvas in Gather Data, Information and Ideas (stage B).

**REFERENCE:**
NESTA STATES OF CHANGE, SOLUTIONS MAPPING TOOL

**STAGE:**
GATHER DATA, INFORMATION, IDEAS
**ONLINE SEARCH**
If you wanted to identify existing solutions, what websites would you go to and what keywords or phrases would you use in your search?

<table>
<thead>
<tr>
<th>KEYWORD</th>
<th>WEBSITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTP://</td>
<td></td>
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<tr>
<td>HTTP://</td>
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<tr>
<td>HTTP://</td>
<td></td>
</tr>
</tbody>
</table>

**OTHER AREAS/CONTEXTS**
In what other industries, areas, contexts or regions might people have already developed solutions?

<table>
<thead>
<tr>
<th>KEYWORD</th>
<th>WEBSITE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
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</tbody>
</table>
finding solutions

This is a matrix to help you explore different methods for seeking solutions, according to the type of solution needed and the audience you want to engage.

**TIME FRAME**
5 - 30 mins

**GROUP SIZE**
2 - 10 people

**MATERIALS**
Finding Solutions Worksheet, Gather Data, Information and Ideas Methods Cards (B3).

**INSTRUCTIONS:**

1. Explore different parts of the matrix, and mark a cross where your project could go.

2. Each of the methods here corresponds to one of the Gather Data, Information and Ideas Methods Cards (B3) or the Connect Methods Cards (D1) in the playbook. They are there to guide you towards case studies or approaches that might be helpful, but they are not definitive or exhaustive.

3. Explore other prompt cards with the Seek Solutions icon (e.g. Crowdsourcing, Collaborative Platform, etc.). These are broad enough to be placed anywhere on the diagram, depending on the topic or task at hand.

4. After discussing the different methods or approaches you might use, try to work through the questions from the corresponding quadrants of the diagram. Each of the questions raised here is revisited in more detail with specific activities and tools at later stages in the playbook.

5. Finally transfer the main methods identified through using this worksheet to your Collective Intelligence Project Design Canvas in Gather Data, Information and Ideas (stage B).

**REFERENCE:**
INSPIRED BY BRABHAM’S CROWDSOURCING DECISION TREE

**STAGE:**
GATHER DATA, INFORMATION, IDEAS
finding solutions
What methods will we use to find those solutions?

QUADRANT 1
Audience is known
(participation requires specific expertise)

QUADRANT 2
Solution is more 'objective'
(e.g testable against some known criteria)

QUADRANT 3
Audience is unknown
(participants could be anyone)

QUADRANT 4
Solution is more 'subjective'
(e.g based on morals, opinions or beliefs)

HACKATHON
COMMUNITY OF PRACTICE
SOLUTIONS MAPPING
ONLINE FORUMS
CHALLENGE PRIZE
WIKISURVEYS
PETITION PLATFORM
CITIZEN SCIENCE

REFERENCE:
INSPIRED BY BRABHAM'S CROWDSOURCING DECISION TREE
STAGE:
GATHER DATA, INFORMATION, IDEAS
### What methods will we use to find those solutions?

#### QUADRANT 1

- **Audience is known**
  - (participation requires specific expertise)
  - **IF IN QUADRANT 1 OR 2:**
    - Who are the specific stakeholders or experts you need?
    - What channels or tactics will you use to gain access to them?
    - How will you ensure a wide diversity of different perspectives and evidence?
    - (Also see the Solutions Brief Guide).

#### QUADRANT 2

- **Audience is unknown**
  - (participants could be anyone)
  - **IF IN QUADRANT 2 OR 3:**
    - Moving towards the right of the diagram could lead to potentially intense deliberation, higher chance of conflict, capture or gaming.
    - How will you deal with competing perspectives or moral values?
    - (Also see the Crowd Facilitation Guide and ORID Framework Guide).

#### QUADRANT 3

- **Solution is more ‘subjective’**
  - (e.g. based on morals, opinions or beliefs)
  - **IF IN QUADRANT 3 OR 4:**
    - How will you motivate people to participate?
    - “What’s the call to action?”
    - “How will you ensure you gather perspectives from the widest variety of people possible?”
    - (Also see the Engagement Plan Worksheet and the Challenge Call to Action Worksheet).

#### QUADRANT 4

- **Solution is more ‘objective’**
  - (e.g. testable against some known criteria)
  - **IF IN QUADRANT 1 OR 4:**
    - What are the criteria for a ‘good’ solution?
    - How can you break these down into simple guidelines and communicate them to participants clearly?
    - (Also see the Solutions Brief Guide).

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**REFERENCE:**

INSPIRED BY BRABHAM’S CROWDSOURCING DECISION TREE

**STAGE:**

GATHER DATA, INFORMATION, IDEAS
unique perspectives

It's easy to get stuck consulting the same narrow group of experts or the professional representatives of particular groups. This worksheet will help you look beyond the usual suspects and consider who could bring new insights, ideas or perspectives.

INSTRUCTIONS:
1. Quickly review the tool questions.
2. Answer each question by capturing responses on post-it notes. Stick your answers in the appropriate sections. Make sure you think about people and communities who might be affected by the issue.
3. Use in conjunction with the People Cards (C2) for inspiration if you are struggling.
4. Once you have finished mapping all of the people you could potentially involve, it is important to focus on a smaller number of key groups that are a) likely to be most relevant to your issue b) feasible to involve in the timeframe for the project. Highlight those on the worksheet.
5. When you've completed your first draft of the Exploring Unique Perspectives Worksheet review the post-its and write up your final answers to the questions directly on the tool. However, if you need some reflection time, review the post-its at a later date or share with others before writing up.
6. Add the prioritised people/groups to the Collective Intelligence Project Design Canvas.
unique perspectives
Who do we need to involve? Who could help us?

Who are we already talking to?

Who else has relevant information or ideas?

Who else could have relevant information or ideas?
The Engagement Plan outlines the key steps to consider when thinking about the people you want to engage and how you will reach and incentivise them.

**INSTRUCTIONS:**

1. Quickly review the Engagement Plan Worksheet questions.
2. You may want to complete the Personas Worksheet (C4) before embarking on this activity, so that you have a good understanding of your audience.
3. Answer each question in order, starting with objectives, capturing responses on post-it notes. Stick your answers in the appropriate sections.
4. Use this worksheet in conjunction with the Incentives and Retention Worksheet (C5), to develop ideas in this worksheet.
5. When you’ve completed your first draft, review the post-its and write up your final answers to the questions directly on the sheet. However, if you need some reflection time, review the post-its at a later date or share with others before writing up.
6. Add key decisions to the Collective Intelligence Project Design Canvas.
<table>
<thead>
<tr>
<th>1. OBJECTIVES</th>
<th>2. AUDIENCES</th>
<th>3. KEY MESSAGES</th>
<th>4. INCENTIVES</th>
<th>5. CHANNELS</th>
<th>6. WHEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are you trying to achieve and what do you want people to do?</td>
<td>Who do you want to engage?</td>
<td>What are the main points you want your audience to hear and remember? What is the call to action?</td>
<td>What’s in it for them? Why should they engage?</td>
<td>How are you going to communicate with your audience? e.g. face-to-face, SMS, email, focus groups.</td>
<td>Where and when will the engagement happen? And over what period? Is it one-off or regular?</td>
</tr>
</tbody>
</table>
**Personas**

A Persona is an informal summary of a person or key audience outlining key characteristics such as needs, frustrations and goals. These can be completed prior to meeting stakeholders or after, or both.

**TIME FRAME**
30 - 60 mins

**GROUP SIZE**
3 - 8 people

**MATERIALS**
Persona Worksheet, 1 pen per person

**INSTRUCTIONS:**

1. Quickly decide who is going to write up which Persona using the Stakeholder Map Worksheet (A3) as a starting point then quickly review all of the Persona questions.

2. Working individually or in pairs, answer each question, starting on the left hand side of the Persona. It may be you already have a clear picture of who this person is based on personal experience, so complete your answers based on them. It’s also okay to complete the Persona based on an amalgamation of people you know (or best guess) to develop a persona type. Also draw a little sketch of the person, to help bring them to life.

3. On the right hand side of the Persona, the questions are more specific to them and your organisation. Complete each question adding as much detail as possible.

4. When you are unsure of the answer to a question, speak to another team member to see if they can help.

5. Personas are a work-in-progress so update them when you learn more about the person or the key audience.

6. Once the group has completed its Personas, each person takes 2-3 minutes to introduce each one to the wider group. Pay attention to duplication as there could be cross-over between Personas and you may decide to remove one.

**REFERENCE:**
NONON PERSONAS

**STAGE:**
MOBILISE PEOPLE
How will we reach our key audience and what will motivate them to be involved?

MEET...

Name:

Age:

Where they live:

SOME OTHER USEFUL THINGS TO KNOW

People that know them might describe them as...

What they enjoy doing includes...

Things that frustrate them include...

Their preferred way of engaging (tick all that apply)

- □ PHONE
- □ WEBSITE
- □ EMAIL
- □ TEXT
- □ PRINT
- □ FACE-TO-FACE
- □ AT HOME
- □ PROVIDERS
- □ PREMISES

THEM, YOUR ORGANISATION AND ITS SERVICES

What might they already think about your organisation?

What barriers or challenges might prevent them from engaging with you?

What moments in their life create the best opportunities for you to engage them?

What else is important to know about this person?
incentives and retention

This tool helps you to consider different ways to incentivise your contributors to engage and retain them more effectively.

TIME FRAME
30 - 60 mins

GROUP SIZE
3 - 8 people

MATERIALS
Incentives & Retention Guide,
Incentives & Retention Worksheet,
2 - 4 markers, bluetack

INSTRUCTIONS:
1. As a group, reflect on who you want to contribute to your project (you may have used the Unique Perspectives Worksheet (C1) to identify who you most want to involve). Review the Incentives and Retention guide to help identify the different approaches you could use.

2. Capture thoughts on the most important incentives for engaging and retaining your desired contributors on post-its. If in smaller teams then share as a larger group.

3. After you have explored different options, it is important to focus on those that you think will be most significant for your contributors. Highlight the 1-3 you are prioritising on your worksheet.

4. When you’ve completed this worksheet, add the key incentives you’ll use to the Collective Intelligence Project Design Canvas.
### Incentives and Retention

**What might motivate and incentivise people to be involved?**

<table>
<thead>
<tr>
<th><strong>Engage</strong></th>
<th><strong>Retain</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Reward</strong></td>
<td><strong>Communication</strong></td>
</tr>
</tbody>
</table>
| **Winner takes all prize**  
People are motivated to contribute by the opportunity to gain income for themselves or their team.  
Eg. Challenge Prize | **Good communication is up to date, accessible in the participants’ own time, two way, and doesn’t bombard people.** |
| **Compensation** | **Feedback** |
| **Task compensation**  
Individuals are motivated by the guarantee of cash or other rewards (such as vouchers) for completion of a task.  
Eg. Amazon Mechanical Turk | **Good feedback is immediate, interpretable and identifies the usefulness of contributions made by participants. This can help them develop their skills.** |
| **Reputation** | **Benefits to Contributor** |
| **Gaining recognition**  
Individuals are motivated by the thought of having their knowledge and expertise recognized by their peers.  
Eg. Crowdsourcing platforms | **Make explicit and prioritise what the benefits are for contributors, not only the project and the stakeholders/beneficiaries.** |
| **PURPOSE** | **Passion** |
| **Greater purpose**  
People are motivated by the prospect of helping to move an idea or area of research forward in ways they couldn’t alone. | **Fulfilment of passion**  
People are motivated to work on areas of interest which align with their passion or values. |
| **Passion** | **Satisfaction** |
| **Satisfaction**  
Individuals are motivated by the prospect of being able to do something well, commensurate with their skills. | **Good guidance ensures that contributors understand where and how they are best able to contribute. This can include FAQs or clear instructions.** |
| **Satisfaction** | **Guidance** |
| **Learning** | **Social Connections** |
| **Personal development**  
People are motivated by the idea of improving themselves, developing a new skill or gaining new knowledge. | **Growing a community**  
Individuals are motivated by the opportunity to build or expand their connections with likeminded people.  
Eg. Peer to peer communities |
| **Social Connections** | **Other** |
| **Growing a community**  
Individuals are motivated by the opportunity to build or expand their connections with likeminded people.  
Eg. Peer to peer communities | ???  
What else might incentivise and motivate people to participate? |
| **Other** | **Organisation** |
| **Organisation** | **Interest in Participants** |
| **Demonstrating high levels of organisation will give your contributors confidence in the process and in the commitment they are making.** | **Demonstrating genuine interest in your contributors and the value they provide will reassure them they are not being used or wasting their time.** |
### Incentives and Retention

What might motivate and incentivise people to be involved?

<table>
<thead>
<tr>
<th><strong>Engage</strong></th>
<th><strong>Retain</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Approach</strong>&lt;br&gt;Select an approach from the list provided.</td>
<td><strong>Approach</strong>&lt;br&gt;Select an approach from the list provided.</td>
</tr>
<tr>
<td><strong>Why and How</strong>&lt;br&gt;Why is this the most suitable approach for your audience? How do you plan to carry it out, and what steps will you take?</td>
<td><strong>Why and How</strong>&lt;br&gt;Expand on why this is the most suitable approach for your audience, and how you plan to carry it out.</td>
</tr>
</tbody>
</table>
Once you’ve identified challenge areas that you are seeking solutions for, reframe it into a call to action. Use the structured format to communicate your challenge clearly and in a way that motivates people to participate.

**INSTRUCTIONS:**

1. Refer back to your completed Solutions Brief Worksheet (B5). Try turning this into a compelling call to action for potential innovators.

2. Now take a look at your challenge question checklist and ask yourself if your questions address all of the criteria. If they don’t, then refine and update the question.

3. Finally go and test your challenge questions with relevant people or partners to check they make sense.

**REFERENCE:**

INSPIRED BY HOW MIGHT WE QUESTIONS ON DESIGNKIT.ORG

**STAGE:**

MOBILISE PEOPLE

---

**TIME FRAME**

30 - 60 mins

**GROUP SIZE**

2 - 10 people

**MATERIALS**

None
**challenge call to action**

What do we want people to do?

**VERSION 1: COULD YOU...**

**VERSION 2: COULD YOU...**

**VERSION 3: COULD YOU...**

**CHALLENGE QUESTION STRUCTURE:**

<table>
<thead>
<tr>
<th>COULD YOU...</th>
<th>CREATE / DEVELOP / FIND</th>
<th>FOR</th>
<th>WHO WANT TO</th>
<th>(CHALLENGE)</th>
<th>(AUDIENCE)</th>
<th>(GOAL)</th>
</tr>
</thead>
</table>

- e.g. Could you (develop) (an easy-to-use point-of-care diagnostic test) for (health professionals) who want to (administer the right antibiotics at the right time)?

- e.g. Could you (create)(tools to source, analyse or translate data into actionable information) for (smallholder farmers) who want to (improve agricultural productivity)?

**CHALLENGE QUESTION CRITERIA:**

- OPEN
- INTERESTING
- ANSWERABLE
- UNDERSTANDABLE
- MEMORABLE
- SPECIFIC

**REFERENCE:**

INSPIRED BY HOW MIGHT WE QUESTIONS ON DESIGNKIT.ORG
The saying ‘two heads are better than one’ alludes to the many potential benefits of group decision-making. But cognitive and social biases can also undermine the effectiveness of group decision-making. The short guide and world café exercise are intended to help your group become more aware of some of these potential pitfalls and to think about proactive tactics to mitigate against them.

**TIME FRAME**
40 - 90 mins

**GROUP SIZE**
10 - 40 people

**MATERIALS**
Flipcharts, pens, post-its

**overcoming biases**

**INSTRUCTIONS:**
1. Before running your first session, read through the overcoming biases guide.
2. Split your group into smaller groups, each with its own flip chart.
3. Write on each flip chart one of the biases from the guide, or any others you want the group to cover.
4. Give the group 5-10 minutes at each one, ask them to make comments around what this bias looks or feels like from their own experiences. Then add any strategies to avoid it.
5. After 5-10 minutes ask them to move around clockwise to the next one and add to it. Repeat this until everyone has contributed to each bias.
6. Ask them to go back to their original flip chart and give them a few minutes to summarise their bias before taking turns to present back to the wider group.
7. Remember to introduce ‘bias reflection moments’ lasting 10-15 minutes at key decision-points in any group decision-making process.
<table>
<thead>
<tr>
<th>POTENTIAL BIAS</th>
<th>TACTICS TO OVERCOME BIAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conformity Bias</td>
<td>• Allocate someone in the group to play devil's advocate</td>
</tr>
<tr>
<td></td>
<td>• Gain everyone's personal perspective first (e.g. through a silent brainstorm)</td>
</tr>
<tr>
<td>Confirmation Bias</td>
<td>• Actively seek out evidence that contradicts the group's theory/world view</td>
</tr>
<tr>
<td></td>
<td>• Ensure you have a diverse group</td>
</tr>
<tr>
<td></td>
<td>• Use techniques like ‘six hat’ thinking</td>
</tr>
<tr>
<td>Authority Bias</td>
<td>• Level the field by removing hierarchies among participants where possible</td>
</tr>
<tr>
<td></td>
<td>• Introduce turn-taking and prevent interruptions or collect input anonymously</td>
</tr>
<tr>
<td></td>
<td>• Ensure the leader doesn't state their opinion too early</td>
</tr>
<tr>
<td>Shared Information Bias</td>
<td>• Avoid time pressure or other constraints that might dissuade group members from sharing more information</td>
</tr>
<tr>
<td></td>
<td>• Listen out for the minority view for hidden insights</td>
</tr>
<tr>
<td>Anchoring Bias</td>
<td>• Allow time for group deliberation, reasoning and checking of logic</td>
</tr>
<tr>
<td>In-Group Out-Group Bias</td>
<td>• Look for commonalities between opposing groups</td>
</tr>
<tr>
<td></td>
<td>• Encourage empathy - asking people to put themselves in another person's shoes</td>
</tr>
<tr>
<td>Optimism Bias</td>
<td>• Undertake a 'pre-mortem', asking the group to imagine that their solution or project has gone very badly wrong and describe how this happened.</td>
</tr>
<tr>
<td></td>
<td>• This will help people think ahead.</td>
</tr>
</tbody>
</table>
INSTRUCTIONS:

1. Review the recommended daily and weekly tasks of the online crowd facilitator and the four main behaviours of the online crowd facilitator.

2. Build and moderate your online community and review, update and tailor your daily and weekly tasks as necessary.

crowd facilitation

Good facilitation of online forums and communities is vital to keep a crowd productive. By giving regular feedback the facilitator adds value through suggesting real-time changes as well as making conclusions in the final analysis. Here are the four primary tasks of a crowd facilitator, and some daily and weekly tasks to consider.

| TIME FRAME | 30 mins |
| GROUP SIZE | 50+ people |
| MATERIALS  | None |

REFERENCE: 100% OPEN CROWD FACILITATION GUIDE
DAILY TASKS

- Welcome new members in comments, messages or with an email
- Encourage new members to post pictures for their ideas and profiles
- Check and respond to new posts
- If posts are similar, link their authors
- Suggest workarounds if someone has a problem or question
- Moderate language if necessary
- Respond to any technical issues

WEEKLY TASKS

- Create or curate new blog posts and send newsletter
- Highlight and link to a variety of posts, from the most popular to random
- Discuss joining activity and the leaderboard positions if relevant
- Link to latest posts
- Compile weekly stats and activity into a report with a top line analysis and take note of significant trends
- Liaise with project team or partners and give updates on activity, flag any concerns and put forward any ideas for improvement
data flow

By mapping the data flows over the course of your project you will start to understand the interdependencies between different design stages. It will help you to iteratively refine your data methods, identify associated biases and suggest actions to mitigate. You may need specialist expertise to help you answer some of the questions.

INSTRUCTIONS:
Part 1: Mapping your project’s data flow
1. Review the questions on the Data Flows Worksheet, some of them may be familiar to you from earlier parts of the design process.
2. Fill in the first box with the data sources and methods that you have decided to use in your project.
3. For each subsequent question spend 5-10 minutes discussing different approaches using the Data Flow Guide and/or prompt cards as a group.

Part 2: Thinking about bias
4. Nominate 1-2 people in your group to act as the anti-bias ‘champions’. They should review the Data Bias Guide.
5. Other participants should spend 5 minutes writing down as many possible sources of bias in the dataflow as they can think of. Some might be down to the data collection while other biases might be the result of the methods used to process or analyse data.
6. With the help of the anti-bias champions cluster the biases by category. Discuss where along your data flow, these biases could occur.
7. Discuss potential mitigation strategies, using the Data Bias Guide as a starting point.

TIME FRAME
60 - 90 mins

GROUP SIZE
3 - 8 people

MATERIALS
Data Flow Worksheet, Data Bias Guide, Data Methods Prompt Cards, post-its, 1 x pen per person, bluetack
|---------------------------|---------------------------------------------|----------------------------------------|-----------------------------|-----------------------------------|--------------------------------------------------|

We have checked and obtained the necessary data permissions for collecting, using, sharing and storing the data.

We have considered mitigation strategies for different sources of bias along the pipeline.
How will we bring together our data (store, clean, process, share)? What biases might there be in our data?

**Identify what data you need and check data permissions**

- Structured data (machine readable)
  - Databases
  - In situ sensors
  - APIs
  - Satellite data etc.

- Cloud or internal server
- Data collaboratives
- APIs
- Data warehouses

- Detecting outliers
- Identifying missing values
- Exploratory analysis

- Modelling
- Statistical analysis
- Visualisation & mapping

- Visualisation
- Predictions
- APIs
- Open source repository

**Data collection**

**Data storage & access**

**Data cleaning & pre-processing**

**Data analysis**

**Use & share**

**Unstructured data**

- Web scraping
- Active or passive human contributions
  - Images
  - Videos
  - Measurements
  - Free text

Pre-processing and cleaning can make you aware of gaps where more data is needed.

You may have to go through many iterative rounds of cleaning and analysis as your understanding develops.

**Stage:**

- Connect & Interpret

---

**Collective intelligence design playbook**

**Data flow**

 nesta
### BIASES AFFECTING DATA COLLECTION

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DESCRIPTION</th>
<th>MITIGATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data collection protocol and parameters</td>
<td>The choice of data collection methods and which features of the data we choose to capture can sometimes reflect preconceptions we hold about the issue.</td>
<td>Think carefully about the issue you’re exploring and your choice of variables before you finalise your data collection methods. Discuss these as a team to make sure you’re capturing everything you need. For example, in the case of qualitative interview methods, questions should be neutral.</td>
</tr>
<tr>
<td>Measurement errors</td>
<td>Human recording errors or inaccuracies in the equipment used for measurements will affect data quality.</td>
<td>Make sure you check the quality of collected data. You can do this through peer or expert review or using multiple contributions for one datapoint.</td>
</tr>
<tr>
<td>Representation errors</td>
<td>Sometimes the data we collect is not representative of the underlying issue.</td>
<td>Discuss representation as a team and check your protocols with others who have experience with data collection or the issue you’re exploring.</td>
</tr>
</tbody>
</table>

### BIASES AFFECTING DATA ANALYSIS

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>DESCRIPTION</th>
<th>MITIGATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crowd worker bias</td>
<td>When you rely on a crowd for data analysis using microtasking, you risk increasing the potential for human error.</td>
<td>Providing training on the analysis task has been shown to improve microtasking accuracy.</td>
</tr>
<tr>
<td>AI model bias</td>
<td>AI models can be the source of inaccuracies if they are trained on biased (unrepresentative) datasets.</td>
<td>Interrogate your assumptions during data collection. Test your model on diverse datasets.</td>
</tr>
<tr>
<td>Data drift</td>
<td>During real-time data collection and processing, any structural changes to data at the source will affect the analysis.</td>
<td>Introduce period checks on the data to ensure that it hasn’t changed.</td>
</tr>
<tr>
<td>Model drift</td>
<td>When a model is trained on data about an issue or context that is changing rapidly, the model’s predictions can become outdated very quickly.</td>
<td>Seek advice from domain experts or peers. Introduce period checks of the stability of the model.</td>
</tr>
</tbody>
</table>
visualizing citizen-generated data

This activity for anyone who is looking for the best way to make sense of citizen-generated data through visualisation.

INSTRUCTIONS:
1. Review the guide and the nine different ways to visualise citizen-generated data.
2. Consider which visualisation technique might be best for you and your project.
3. Discuss with colleagues: can you think of any other ways to make the data you collect easy to visualize, and understand? What implications will the tools that you use have on how people provide information, or how they interact with one another?

REFERENCE:
ADAPTED FROM NESTA, SMARTER SELECT COMMITTEES

TIME FRAME
5 - 10 mins

GROUP SIZE
1 - 5 people

MATERIALS
None
A common challenge for collective intelligence projects is how to visualise large volumes of citizen generated text, ideas or interactions. Good visualizations are not only important to derive clear insights, they can also be presented back to participants to boost satisfaction and improve collective learning.

A range of different approaches can help to make messy, unstructured data from citizens more understandable and actionable. Examples like Pol.is are a powerful way to visualise consensus across a wide array of ideas and opinions, whereas other activities may be useful to visualise consensus within an online forum-style setting (e.g. Your Priorities and Kialo for larger groups, or Loomio for smaller groups).

The diagram opposite provides some examples and corresponding methods. Examples vary in the types of input they require from people, ranging from active to more passive participation; and from quick and easy to deeper, more deliberative engagement.

REFERENCE:
ADAPTED FROM NESTA, SMARTER SELECT COMMITTEES
STAGE:
CONNECT & INTERPRET
D6
collective decisions

There are many different types of collective decision making. This guide provides an overview of the six main types and provides an overview to consider which might work best depending on the decisions you want and need to make as a group.

**INSTRUCTIONS:**

1. Before running any collective decision making process, read through the Overcoming Biases Guide.

2. Consider your current project and organisation and consider the decision that you need to make.

3. Now use the table to consider to what extent that decision is a) urgent/non-urgent b) has wide impact/narrow impact c) has well defined options/undefined options d) is irreversible/reversible and e) is high risk/low risk. As a result select two or three decision making methods that could be appropriate.

4. Review the description of each type of collective decision and discuss the appropriateness for your particular situation.

5. Then select the decision making method(s) that you intend to use and in what context.

6. The first few times you try a particular method, factor in time afterwards to reflect on how it worked and whether it was effective, or whether any changes need to be made.

**TIME FRAME**
30 - 45 mins

**GROUP SIZE**
2 - 10 people

REFERENCE: DECIDER APP BY NOBL

STAGE: CONNECT & INTERPRET
# collective decisions

What type of decision do we need?

## THE DECISION...

<table>
<thead>
<tr>
<th></th>
<th>CONSENSUS</th>
<th>CONSENT</th>
<th>CONSULTATIVE</th>
<th>DELEGATION</th>
<th>DEMOCRATIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is urgent</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>Is non-urgent</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Has wide-impact</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>Has narrow impact</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Has well-defined options</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>Has undefined options</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Has irreversible consequences</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Has reversible consequences</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Is high risk</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Is low risk</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>
collective decisions
What type of decision do we need?

**CONSENSUS**
- EVERYONE MUST AGREE

Gathering consensus takes time, but it works well when a decision will impact lots of people and those people have both valuable insight and the capacity for candid negotiation. Consensus decision making asks everyone in the group to shape the decision until a compromise is reached that reasonably satisfies everyone.

Unlike some other decision making models, consensus strives to incorporate everyone’s perspectives, needs, and ultimately their permission. Consensus has a long history of use in tight-knit communities like faith groups, neighborhoods, and unions. Consensus also tends to be how recently formed organizations first approach decision making.

**CONSENSE**
- NO ONE OBJECTS

Consent works well when speed is needed, when the proposal is clearly defined, and when the impact of the decision is limited and reversible. Consent means the absence of objections. Similar to consensus, consent invites group participation in the decision making process. But instead of granting each member the power to mould the proposal in pursuit of a compromise, consent urges the group to accept a ‘good enough’ solution. A decision is ratified when there are no meaningful objections.

Consent has become increasingly popular among engineering and technology firms over the last decade because it attempts to combine both speed and inclusiveness.

**DELEGATION**
- YOU DECIDE, WITH LIMITATIONS

Delegation works well when time is critical, when a single member of the group has the best information (and it isn’t you), and when the group is crystal-clear on what the execution would look like. Delegation means giving someone in the group explicit authority over making a decision, often with some guardrails.

One of the greatest leadership traits you can develop is removing yourself from the decision making process. Giving members of the group the authority to make a call independently will help your group act faster and give you more time to focus on the high-priority decisions that do require your attention.

**DEMOCRATIC**
- MAJORITY RULES

Democratic decision making works well when choices are clear cut, when your team is well informed, and when your culture embraces majority rule. Democratic decision making is when a leader gives up authority over a decision and presents a series of options to the full group to vote on. The option accepted by the majority of the group is then enacted.

The democratic system, is usually traced to ancient Greek city states, although it’s probable that people have been voting throughout history. One form is the Nominal Group Technique which involves members of the group independently writing down ideas, then sharing and discussing, and finally voting by ranking or rating.

**CONSULTATIVE**
- I DECIDE, WITH INPUT

Consultative decision making works well when you need to gather expertise from a limited group or when you need the support of key members of the group. Consultative decision making means asking for input from a few select individuals, but ultimately reserving the decision for yourself. The consultative model is used when you need additional expertise or when you need to curry political favour.

The consultative process is often done one-on-one, but it can also happen in a small group setting. For instance the Delphi Technique is a group process using written responses to a series of questionnaires instead of physically bringing individuals together to make a decision.
ORID framework

The ORID (Objective, Reflective, Interpretive, Decisional) method of strategic questioning is a structured conversation (face-to-face and/or online), led by a facilitator, to make intelligent decisions. ORID can be used in different scenarios from small meetings where everyone is in the same room, to large distributed teams with the help of different digital methods. For instance in Taiwan the ORID framework was used by the government to structure a mixed online and offline consultation process over several weeks, using a range of digital tools to collect and synthesize information at each stage. This worksheet will help you plan your structured conversation.

INSTRUCTIONS:
1. Carefully set your goal for the conversation - this will help you articulate what you want to achieve.
2. Develop the ORID questions you want the group to respond to. It’s advisable to test these with a colleague/critical friend in advance of starting the process. You might want to brainstorm questions first before refining and reordering.
3. Use the right hand column to consider what methods or tools might help to facilitate the dialogue at each stage and/or throughout.
4. When kicking off the session, explain the ORID approach to participants and ask for their buy-in to follow it respectfully. It’s helpful to prepare your opening and closing remarks in advance.
5. Take the group through each set of ORID questions either capturing their key responses in the room as they’re shared or using an online collaboration tool.

TIME FRAME
Can be delivered as a 1hr+ session or as a guiding framework for a longer consultation

GROUP SIZE
10 - 40+ people

MATERIALS
ORID Framework Worksheet, pens, post-its

INSPIRED BY:
CONVERSATION, THE CANADIAN INSTITUTE OF CULTURAL AFFAIRS (ICA)
<table>
<thead>
<tr>
<th>O</th>
<th>OBJECTIVE QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The O questions identify objective facts relevant to the topic.</td>
<td></td>
</tr>
<tr>
<td>The key questions is: What do we know about this?</td>
<td></td>
</tr>
<tr>
<td>It’s essential you capture objective facts, not perceptions and opinions.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R</th>
<th>REFLECTIVE QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The R questions ask about how people feel about the topic.</td>
<td></td>
</tr>
<tr>
<td>The key question is: How do we feel about this?</td>
<td></td>
</tr>
<tr>
<td>Feelings might be positive, negative, apprehensive and sometimes emotional.</td>
<td></td>
</tr>
<tr>
<td>Ask participants to express their gut feelings even if they have no objective facts to support them. Capture likes, dislikes, fear and concerns. There are no wrong responses so encourage people to be honest and not hold back.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I</th>
<th>INTERPRETIVE QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The I questions are to do with meaning.</td>
<td></td>
</tr>
<tr>
<td>The key question of the interpretive stage is this: What does it mean for me/you/us/our organisation, society, etc?</td>
<td></td>
</tr>
<tr>
<td>Interpretive questions allow the topic to be put into perspective and for the potential impacts of the topic on the individual, organisation or society to be explored.</td>
<td></td>
</tr>
<tr>
<td>Useful interpretive questions might include &quot;What if…?&quot; questions as well as &quot;What would it mean…?&quot;, &quot;What would that do…?&quot; and so on.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D</th>
<th>DECISIONAL QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The D questions lead to a decision.</td>
<td></td>
</tr>
<tr>
<td>The key question at the decisional stage is: What are we going to do?</td>
<td></td>
</tr>
<tr>
<td>The focus of discussion should be future-focused and might include questions like: &quot;What would be the best course of action?&quot; &quot;What would be achievable, positive outcomes?&quot; &quot;What is realistic given the limitation of our resources?&quot;</td>
<td></td>
</tr>
<tr>
<td>OUR CONVERSATION GOAL:</td>
<td>WHAT QUESTIONS WILL YOU USE TO GUIDE PARTICIPANTS?</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td><strong>OBJECTIVE</strong></td>
<td>What do we already know about this?</td>
</tr>
<tr>
<td></td>
<td>(Facts, definitions, raw data)</td>
</tr>
<tr>
<td><strong>REFLECTIVE</strong></td>
<td>How do we feel about this?</td>
</tr>
<tr>
<td></td>
<td>(Reactions, likes or dislikes, emotions)</td>
</tr>
<tr>
<td><strong>INTERPRETIVE</strong></td>
<td>What does it mean for me / you / us / our organisation, society?</td>
</tr>
<tr>
<td></td>
<td>(Meaning, values, significance, implications)</td>
</tr>
<tr>
<td><strong>DECISIONAL</strong></td>
<td>What are we going to do?</td>
</tr>
<tr>
<td></td>
<td>(Resolution, actions, future direction)</td>
</tr>
<tr>
<td><strong>OBJECTIVE</strong></td>
<td>WHAT QUESTIONS WILL YOU USE TO GUIDE PARTICIPANTS?</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------------------</td>
</tr>
</tbody>
</table>
| What do we already know about this? (Facts, definitions, raw data) | What is ridesharing?  
Who are the key stakeholders?  
What are the current regulations in place for ridesharing in Taiwan?  
How many people use ridesharing in Taiwan? | Relevant government ministries share data they have on the topic in reader friendly 'Fact sheets', published on Slideshare. Definitions updated using Google Sheets. | Meeting agendas and consultation notes shared on live documents known as Hackpads. |

| **REFLECTIVE** | | | |
| How do we feel about this? (Reactions, likes or dislikes, emotions) | How do we respond to this data?  
What experiences can people share to these facts or data?  
What are people's reflections on the current regulations? | Pol.is for large scale conversation. | SayIt for publishing transcripts. |

| **INTERPRETIVE** | | | |
| What does it mean for me / you / us / our organisation, society? (Meaning, values, significance, implications) | What have we learned about ridesharing from the previous stages?  
How can we best summarise information gathered in previous stages?  
What are the implications? | In-person conversation with key stakeholders, live streamed on YouTube and facilitated so people can submit questions. | Online forum Discourse can be used to ask questions to relevant ministries and share experiences.  
Real-time moderation. |

| **DECISIONAL** | | | |
| What are we going to do? (Resolution, actions, future direction) | What are the key dividing points and what can key stakeholders agree on?  
What are the next steps? | ‘Rough consensus’ determined via live-streaming method above. | |
Making decisions together does not have to be long and painful. Consent based decision making can help organisations make decisions collectively, efficiently and wisely. Generative decision making is a consent based decision making process. It requires a host, and the person taking on this role can and should vary.

**TIME FRAME**
30 - 120 mins

**GROUP SIZE**
8 - 40 people

**INSTRUCTIONS:**
1. Use the Collective Decisions Guide (D7) to identify the type of decision that is appropriate for your issue. If you selected a consent based collective decision, then generative decision making is one method for achieving this type of outcome.

2. Before running your first session, read through the seven stages of generative decision making to give you an overview of the process involved. You may want to practice this technique before using it as part of your collective intelligence project.

3. Have all your participants seated in a circle facing each other. Ask people to put away distractions such as laptops and phones. Explain the process (steps 1-7) to participants, and the rationale behind it.

4. Run the session and take time to reflect on what worked well and what you could do differently next time.

**REFERENCE:**
PERCOLAB

**STAGE:**
CONNECT & INTERPRET
**STAGE 1. CHECK: ARE WE READY TO MAKE A DECISION?**

Understand whether the group is ready to make a decision. Is the context clear? Is there information or data that needs to be gathered? Could an open conversation help develop the group’s readiness to make a decision?

Hosting tips: You might need to offer the group one or two open conversation time slots to get to this point (e.g. “I am going to put the timer on for 10 minutes while you explore the topic in question”). Offer supplementary time slots as necessary. You might need to conclude that the group is not ready to make a decision, and this is ok. Listen in deeply and when you sense that there is a possible proposal in the air, the group is ready. Invite the group to head into the next step.

**STAGE 2. INITIAL PROPOSAL (VERSION 1)**

Invite the group — “would someone like to make an initial proposal?” This will help the group move forward into action and there will be lots of opportunities to fine tune the proposal together.

Hosting tips: Help the proposer name a proposal in ideally one single sentence. Avoid the proposal spreading into multiple proposals. Ensure that the proposal is written for all to see (separate from the proposer) and repeat it out loud.

**STAGE 3. GROUP SEEKS CLARIFICATIONS ON PROPOSAL**

The group has the opportunity to voice questions to the proposer. The proposer has two options: i) provides the answer or ii) says “not specified” if the answer is unknown.

Hosting tips: If someone is speaking without a question (i.e. reaction) remind them that is question period. Ensure that all questions are directed at the proposer and no one else intervenes. Avoid letting the proposer speak about anything further than the direct answer (keep it tight). Sense when the clarification period is about to finish (i.e. you feel that people are ready to react).

**STAGE 4. GROUP REACTIONS TO PROPOSAL**

It is mandatory that each person (minus the proposer) expresses to the group their reaction to the proposal; the different voices and perspectives of all need to be heard.

Hosting tips: Begin with the person who has the most reactive emotion and then go around, until everyone has shared their reaction. Make sure that the reaction is not about the proposer, but about the proposal itself — correct if necessary.

**STAGE 5. REVISED PROPOSAL (VERSION 2)**

The proposer formulates a new version of the proposal in light of all that has been spoken. The host ensures that it is written and visible to all and reads it out loud.

Hosting tips: If you feel that the proposer might want to stay with the same proposal, remind her that she can. If you sense that the proposer needs support in formulating the second version, remind her that it is possible to ask for help — however do not rush into saying this.

**STAGE 6. GROUP OBJECTIONS TO PROPOSAL**

An objection needs to express a risk or a backward movement for the organisation/initiative. All objections are expressed to the host who then decides if the objection is valid or not. If it is valid, then the proposer needs to integrate it into a new version of the proposal. (Then the objection round is repeated).

Hosting tips: Sometimes people might express personal concerns that are not in fact organisational/project risks. This needs to be differentiated. If it is fuzzy you may ask for help to the group. This is the hardest part of the process for the host.

**STAGE 7. DECISION ON PROPOSAL BY VISUAL CONFIRMATION**

With a revised proposal, everyone visually confirms “I can live with this decision” by raising their thumb. This is a way of allowing all to see that everyone is fully on board with this decision. If there is something that has not been spoken that needs to be it will show up because a person will be unable to raise their thumb. This can happen when i) someone is struggling to find words to put on an idea that is important to them or ii) someone is disengaging in the process (holding on to the possibility to question the decision in the hallway thereafter). Either way it will need to be addressed and the group needs to return to the part of the process that was not fully addressed.

Note: It is good to have visual confirmation as a cultural cue with which the process may be fast tracked. Someone makes a proposal and you can just do a quick check in to see right away if everyone could live with it.

Hosting tips: This is not a decision council and it is not an opportunity to lower thumbs and restart a process. It is simply a visual confirmation. If the process has run smoothly all thumbs should be raised. If someone is struggling to find voice for an objection, support the person and let them know that all information is important.
open space

Open Space is an event format that can promote engagement; identifying key areas of interest; to allowing for informal learning.

INSTRUCTIONS:
1. Before running your first open space session, read through this guide to give you an overview of what’s required to run session.

2. Start planning your session and test your thinking with a colleague.

3. Run your first session and take time to reflect on what worked well and what you could do differently next time.

TIME FRAME
60 - 120 mins

GROUP SIZE
20 - 100+ people

MATERIALS
Open Space Guide, paper, pens
**OPEN SPACE OVERVIEW**

<table>
<thead>
<tr>
<th>1. BEGINNING</th>
<th>2. FRAMING</th>
<th>3. FORMING</th>
<th>4. FLOWING</th>
<th>5. CLOSING</th>
</tr>
</thead>
<tbody>
<tr>
<td>All participants start by sitting in a big circle, with the facilitator in the middle, who explains the process. People are encouraged to then announce themes/topics for breakout sessions. There may be a blank agenda with timed slots and/or table or room numbers on the wall. The facilitator encourages those who are passionate about a topic and wish to take responsibility for convening a meeting to come to the centre. These participants write down their topic, announce it to the group, with a time and place to meet, and return to their seat. When all topics have been announced, everyone moves to sign up to those they are interested in. If there are similar topics, people may be asked if they wish to combine sessions. Everyone then disperses and attends the sessions they have chosen. People are actively encouraged to flow between sessions if they wish, if they feel they are not learning or participating. In each of the groups, the original convening participant should take notes of key points.</td>
<td></td>
<td></td>
<td></td>
<td>At the end, all of the different groups reconvene to form one big circle. In turn, each person is asked to reflect and share one key insight with the group as a whole.</td>
</tr>
</tbody>
</table>

**OPEN SPACE PRINCIPLES**

There are several underlying principles key to this process. They are:

1. Whoever comes are the right people.
2. Whatever happens is the only thing that could have.
3. Whenever it starts is the right time.
4. Whenever it's over, it's over.
group dialogue

A group dialogue can be rewarding and with some practice over time, it’s possible to facilitate these effectively.

These tips are meant to help you run your first dialogue session. If you’ve run them before, they can act as a refresher.

Use the tips to plan your session, to kick it off, and then as a guide to facilitate and conclude your session.

INSTRUCTIONS:

1. Before running your first session, read through the group dialogue guide to give you an overview of what’s required to run the session.

2. Start planning your session and test your thinking with a colleague.

3. Run your first session and take time to reflect on what worked well and what you could do differently next time.

REFERENCE:
TIME-OUT CONVERSATION CARDS

STAGE:
CONNECT & INTERPRET

TIME FRAME
30 - 120 mins

GROUP SIZE
10 - 40 people

MATERIALS
Group Dialogue Guide, paper, pens
## What is a Group Dialogue?
A dialogue is a constructive and equal way of having a discussion in a group of people. At its core, it is aimed at understanding others, but not at reaching consensus. A dialogue can generate new thinking and fresh insights. A dialogue aims to create a trusting atmosphere to support participants to gain a deep understanding of almost any topic. A dialogue supports the bringing together of people from different backgrounds to an encounter in which they are on an equal footing. For example, you can use a dialogue as part of the preparation or before decision-making.

## Preparing to Facilitate
1. Plan how you will start the dialogue and how people will introduce themselves.
2. Adapt the ground rules for discussion to make them better suit your style.
3. Plan how you lean into the topic and develop the initial question.
4. Familiarise yourself with the theme and capture questions related to the content of the discussion.
5. Consider how you will deepen the discussion and conclude it.
6. Decide if the discussion needs to be documented and how it will be done.

## Ground Rules
- **Listen** to the others, do not interrupt or start side discussions.
- **Relate** what you say to what the others have said and use plain English.
- **Talk** about your own experience including issues, events and situations that have shaped your views.
- **Be present** and respect the others and the atmosphere of trust.
- **Work together.** Talk to the others directly and ask about their views as a way to deal with emerging conflicts early.

## Tuning in Participants
Tuning in helps to build trust in which the participants feel they are on an equal footing. It moves the attention from other matters to this moment – the space, the other people and the topic discussed. Ensure you use adequate time to build an atmosphere of trust. Here are a few example questions to help participants start tuning in:
- Who are you and what brings you here today?
- What are the experiences in your mind when you come to discuss this topic?
- What perceptions or feelings do you associate with the topic?
- What is it like to talk about this together? What do we want to aim at in this discussion?

## Encouraging Participants to Express Their Experiences
- **Share** events, situations and experiences to them or start side discussions.
- **Ask** specifying questions about what they share including reasons and consequences.
- **Talk** about your own experience including issues, events and situations that have shaped your views.
- **Ask** participants to consider and express what kind of thoughts and experiences come to mind when they listen to others.

## Ways to Deepen the Discussion
- **Ask** the participants which kind of issues they would like to increase their understanding of.
- **Encourage** the participants to offer viewpoints that have not yet been presented even if they are difficult or conflicting.
- **Share** a personal experience related to the topic to shift the discussion from a general level to one where participants share their own personal experience.
- **Observe** the atmosphere of the discussion and the level of engagement. Are participants finding the discussion interesting and important?

## Activating the Quiet Participants
Explain that you hope as many participants as possible will participate in the discussion. Over time, pay attention to those who have not said anything, yet.

- Stop the conversation for a moment and say you would like to hear from those people who have not said anything.
- Split the group into pairs for a short period of time if there’s a large number of participants and the dialogue has stalled. After that, you can encourage those that have been quiet to speak.

## What is a Group Dialogue?
As a minimum, ask the participants to answer:
- What was the most important insight you gained in this discussion?
- Where should this discussion be continued and who should continue it?

If you have time, also ask:
- Have we discussed the right issues?
- Have we discussed different points of view?
- Was our discussion constructive?
- Did our understanding of the topic increase?
- What other feedback do you have?

## Reference:
TIME-OUT CONVERSATION CARDS

STAGE:
CONNECT & INTERPRET
INSTRUCTIONS:
1. Review the six stages of facilitating a study circle in this guide and consider an issue or topic to explore.

2. Give a personal invitation to a diverse group of people who might be interested in helping people address a specific challenge, and not just talk about them.

3. Be aware of the facilitators key role in the study circle process. Their role is to:
   a. Stay neutral. Not to promote an opinion, but to further the discussion.
   b. Encourage interaction. Let participants respond to one another.
   c. Don’t let anybody dominate the discussion, and draw out quiet participants.
   d. Keep the discussions on track.
   e. Allow for pauses and silences. People need time to think and reflect.
   f. Don’t worry about consensus. Just try to find some areas of agreement.
   g. When in doubt, ask the group what they would like to do.

4. Individual study circles can take place within communities or within organisations. However, they have the greatest impact when organisations across a community work together to hold multiple study circles as part of a large-scale program.

STAGE: CONNECT & INTERPRET
REFERENCE: COMMUNITY TOOLBOX

study circle
A study circle is a group of people who meet regularly over a period of weeks or months to address a critical issue in a democratic, collaborative way. In general, a study circle will progress from a session on personal experience (“How does the issue affect me?”) to sessions providing a broader perspective (“What are others saying about this issue?”) to a session on action (“What can we do about this issue right now?”). They emerge with recommendations for action that will benefit the community. A study circle is typically led by an impartial facilitator.

TIME FRAME  
60 - 120 mins

GROUP SIZE  
8 - 12 people

MATERIALS  
None
### 1. INTRODUCTIONS

Introduce yourself and explain that you are a facilitator rather than a teacher and interested in the topic rather than an expert.

Ask the participants to introduce themselves and explain their interest in the topic.

In subsequent meetings at least 90 around the circle to give names.

Folded name cards in front of everybody may be helpful.

### 2. IDENTIFY THE GOALS

Make sure you all know why you are there.

Ask for a list of questions the participants want answered.

Lay out a range of views. Ask the participants to volunteer what they see as the main view on the issue based on the reading material and their knowledge of the issue.

Keep these lists and post them each meeting for reference.

Review the agenda or study plan and adjust it to suit the group.

### 3. PERSONAL CONNECTION OR INTEREST IN THE ISSUE

Ask participants to talk about why this issue is important to them.

Telling their story is a good ice-breaker at the first session.

Anyone may pass.

### 4. DISCUSSION AND DELIBERATION

This is where you practise those facilitation skills.

Have questions prepared to help you in any possible situation.

Remain neutral.

Guide the discussion without controlling it.

### 5. SUMMARY AND COMMON GROUND

Ask the participants to summarize the discussion from time to time.

Use their words and phrases, not your own.

Look for common concerns in different approaches.

Check your lists of goals and questions.

### 6. CLOSING

Let the group know that the discussion is about to end. You might ask each participant for a closing comment. Establish direction for the next session.

Ask for comments on the group process. What did they like or not like about the discussion?

Thank everyone for their participation. Acknowledge the effort and contributions.

On your last session, ask for suggestions on further involvement or action on the issue. Ending with a pertinent quotation is an effective closing.
Prototyping Techniques

The Prototyping Techniques Guide provides a selection of ways to share and test your thinking, to gain valuable feedback and decide what to do next. Prototyping helps test how something looks, feels, works or behaves.

**INSTRUCTIONS:**
1. Agree with your group what idea(s) you would like to test.
2. Review the prototyping techniques and choose at least one.
3. Don’t spend lots of time discussing the intricacies of your project, jump straight into making your prototype - it will be the quickest way to surface assumptions or gaps.
4. Once you have built your prototype you will want to test it on people - this could be with colleagues at first, but ideally you want to test this with the people who you hope will use it in the real world.
5. Use the Prototype Testing Worksheet (E3) to articulate what you think will happen, and how you will know when it does.

**REFERENCE:**
**INSPIRED BY 100% OPEN PROTOTYPING TECHNIQUES**

**TIME FRAME**
45 - 120 mins

**GROUP SIZE**
3 - 8 people

**MATERIALS**
Paper, coloured pens, cardboard, glue, pipe cleaners, and anything else you have lying around. Use in conjunction with the Prototype Testing Worksheet (E3).
## Prototyping Techniques

**What do people need to see or feel in order to act?**

### Prototyping Physical Stuff
*(Eg. Products, Rooms, Components)*

**Scale Modelling**
This is particularly useful for physical space when it isn’t practical to build something at full-scale. Scale models can be built out of materials such as cardboard, foamboard and Lego.

### Prototyping Information
*(Eg. Apps, Signage or Leaflets)*

**Storyboarding**
Storyboarding is a very early stage technique for prototyping. Describing the idea as a six-step story helps to consolidate thinking, test stakeholder reactions and capture feedback.

### Prototyping Interactions
*(Eg. Meetings, Calls, Video)*

**Bodystorming**
Bodystorming is technique of physically experiencing a situation to derive new ideas. It requires setting up an experience - complete with necessary artefacts and people - and physically ‘testing’ it. This is important when an idea relies on physical interaction with a product or between people.

### Simulation
We use commonly available materials to make something physical to test with people. This isn’t about perfection, it’s all about speed - making a prototype that people can react to and give feedback.

### Paper Prototyping
Paper prototyping is a quick way to test using pens and paper. This can include mock-ups of how information is organised and shared through to mocking-up click-through screens for a digital interaction.

### Role Play
Role plays help you to test out thinking by following a script or by improvising (acting out a situation without prior preparation). Instruction cards providing cues such as specific tasks to be carried out, or character motivations, might be provided.

---

**Referenced:**
Inspired by 100%Open Prototyping Techniques

**Stage:**
Create Change
prototype testing

The Prototype Testing Worksheet will help you understand what you want to test and capture what you learn.

INSTRUCTIONS:
1. Once you have built your prototype you will want to test it on people - this could be with colleagues at first, but ideally you want to test this with the people who you hope will use it in the real world.

2. Use the Prototype Testing - Plan Worksheet Sheet to articulate what you think will happen, and how you will test and measure what does.

3. Carry out your test activity, and use the Prototype Testing - Learn Worksheet to capture what actually happened, what you learnt and the changes you need to make.

4. You may have multiple hypotheses you are looking to test through different experiments.

5. Incorporate feedback into a revised design of your prototype and/or project.

REFERENCE:
STRATEGYZER TEST AND LEARN CARDS. USED WITH PERMISSION ©STRATEGYZER, STRATEGYZER.COM

TIME FRAME
60 - 120 mins

GROUP SIZE
3 - 8 people

MATERIALS
Prototype Testing Worksheet, pens. Use in conjunction with the Prototyping Techniques Guide (E2).
NAME OF PROTOTYPE SOLUTION TO TEST:

NAME OF OWNER:

STEP 1: WE BELIEVE THAT...
(This is your hypothesis about what will happen)

STEP 2: TO VERIFY THAT WE WILL...
(This is the test you will carry out using the prototype)

STEP 3: AND MEASURE...
(This is the metric that will help prove or disprove your hypothesis)

STEP 4: WE ARE RIGHT IF...
(This is what will happen if your hypothesis is proven to be correct)
### Prototype Testing - Learn Worksheet

What do people need to see or feel in order to act?

<table>
<thead>
<tr>
<th>NAME OF PROTOTYPE SOLUTION TO TEST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME OF OWNER:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STEP 1: WE BELIEVED THAT...</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Your original hypothesis)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STEP 2: WE OBSERVED THAT...</th>
</tr>
</thead>
<tbody>
<tr>
<td>(What actually happened)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STEP 3: FROM THAT WE LEARNT THAT...</th>
</tr>
</thead>
<tbody>
<tr>
<td>(What worked well, and what didn't)</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>STEP 4: THEREFORE WE WILL...</th>
</tr>
</thead>
<tbody>
<tr>
<td>(The changes you are going to make)</td>
</tr>
</tbody>
</table>

**REFERENCE:**
STRATEGYZER TEST AND LEARN CARDS. USED WITH PERMISSION. ©STRATEGYZER, STRATEGYZER.COM

**STAGE:**
CREATE CHANGE
theory of change

The Theory of Change Worksheet helps you to clearly articulate and connect your work to your bigger goal, and allows you to spot potential risks in your plan by sharing the underlying assumptions in each step.

INSTRUCTIONS:

1. Start by noting down the main problem you want to solve, and also your long term vision on the change you want to accomplish.

2. Next work outwards from your defining problem, and towards your long-term impact. Write down the people that have power or influence to address your issue – this could be a small community group or a government minister. Then think about where to start, you may need to find a place, a person or a thing that will be your first port of call. Try to think of some practical steps that you can take to get your key audience to act. Try to keep these as action-oriented as possible.

3. And finally, what would the immediate results or outcomes be? These could be tangible results that help you monitor whether your project is making a difference. List the key outcomes that your activity would lead to: these are the preconditions that you need to realise your vision.

4. As you fill each of the boxes in the worksheet, it is critical to also reflect on the key assumptions that underpin these steps in your project. This may help you to spot potential risks or interdependencies.

TIME FRAME
60 - 90 mins

GROUP SIZE
3 - 8 people

MATERIALS
Theory of Change Worksheet, 1-2 pens, post-its, bluetack

REFERENCE:
NESTA DIY TOOLKIT THEORY OF CHANGE

STAGE:
CREATE CHANGE
What is the problem you are trying to solve?

Who is your key audience?

What is your entry point to reaching your audience?

What steps are needed to bring about change?

What is the measurable effect of your project?

What are the wider benefits of your project?

What is the measurable effect?

Wider benefits?

Measurable effect?

Wider benefits?

What are the wider benefits of your project?

What is the long term change you see as your goal?

Key Assumptions

Key Assumptions

Key Assumptions

Key Assumptions

Key Assumptions

Key Assumptions

Key Assumptions

Key Assumptions
collaboration agreement

A collaboration agreement helps initiate strong partnerships. It helps minimise the risks of working with new people. It helps to build trusting relationships and to develop and test the proposition itself. It is project-based and time-limited and sets out the rewards, risks and responsibilities as well as the development milestones for both parties.

INSTRUCTIONS:

1. First, review the six sections of the collaboration agreement and the three main questions in each.

2. Next, with your partner work through all of the questions and agree a joint approach or put in place a process to agree how to address each point.

3. Finally, write up, share and formalise the agreement as required and start collaborating.

REFERENCE:
100%OPEN TOOLKIT - COLLABORATION AGREEMENTS

TIME FRAME
60 - 120 mins

GROUP SIZE
2 - 10 people

MATERIALS
Collaboration Agreements
Worksheet, pens, post-its
**PROJECT OUTCOMES**

- What are the specific objectives of the project for each partner?
- How will each partner measure progress during and afterwards?
- What are the expected next steps after our project is finished?

**PROJECT PLANNING**

- What are the key milestones and timelines?
- What is the procedure for changing the plan if necessary?
- Are payments linked to milestones?

**ROLES AND EXPECTATIONS**

- Who will be in the steering group and what are their primary responsibilities?
- Who will do what when? How will disputes be resolved?
- Who will be responsible for communicating between partners?

**SHARED RESOURCES**

- Who will lead and allocate resources to each part of the plan?
- What resources will be needed and who will supply these?
- What are the main benefits and costs for each partner?

**OPERATING MODEL**

- What is the primary nature of the relationship between parties (joint venture, licensing, partnership etc)?
- How can we test and develop the model throughout the project?
- What is the procedure for modifying it if necessary?

**INTELLECTUAL PROPERTY**

- What is our approach to managing intellectual property (creative commons, licensing, acquisition etc)?
- Do we need a legal agreement to formalise the collaboration?
- What will we tell the outside world about what we are doing?
dataset nutrition label

To make sure your dataset or analyses are taken up by others you should provide as much information as possible about your data pipeline. This activity will help you think about which features of your dataset are important to log. It is particularly useful if you are planning to collect new data as part of your project.

INSTRUCTIONS:

1. In your team, spend 5 minutes discussing and identifying all of the new datasets you will be creating as part of your collective intelligence project.

2. Working individually or in pairs, take 5 minutes to write down as many features of a dataset that you think would help to describe its contents to others who would want to use it. Use post-its.

3. Discuss the features you identified with the rest of your team. Did you end up with the same answers? What were the differences? Explain why you think they are important to know for future users of the data.

4. Guided by the facilitator try to cluster the features you’ve identified into 4 categories: Metadata, Provenance, Variables and Statistics. The facilitator should explain what each of these means.

5. Try to use these new categories to come up with any additional features that you have missed. Work as a group.

6. When you have exhausted your ideas, review the completed example in the Dataset Nutrition Label Guide.

7. Finish with a discussion about feasibility. Which information will it be easy for you to capture? How often will you need to update the nutrition label for your datasets?

TIME FRAME
45 mins

GROUP SIZE
3-5 people, 1 person to act as facilitator

MATERIALS
Dataset Nutrition Label Guide, post-its, 1 x pen per person, bluetack

INSPIRED BY:
THE DATA NUTRITION PROJECT, DRAFT PAPER & DATASETS FOR DATASHEETS

STAGE: CREATE CHANGE
What to cover | Suggested Contents | Prototype label by the Data Nutrition Project
--- | --- | ---
**Metadata:** | Filename, file format, keywords, dataset size, missing values, date of creation, license for use. Summary of what your dataset contains and the reason for collection. | **Metadata**

**Title** COMPAS Recidivism Risk Score Data

**Author** Broward County Clerk's Office, Broward County Sheriff's Office, Florida

**Email** browardcounty@florida.usa

**Description** Laces ent, in culparum nimus dolor atetum que etur? Ipsapisque soluptandi ut ped endelenis ipsus illabo. Ugit eum fuga. Iti ut licium is resequundit apiendis rem iligendant harit officitiis nimporu niumquosaie. Ressimperum con comminus quatum velendeabis exceprovit, omnis comnit ilicentis

**DOI** 10.5281/zenodo.1164791

**Time** Feb 2013 - Dec 2014

**Keywords** risk assessment, parole, jail, law

**Records** 7214

**Variables** 25

| Laces ent, in culparum nimus dolor atetum que etur? Ipsapisqu. | numerical |
| Ugit eum fuga. Iti ut licium is resequundit apiendis rem iligendant harit officitiis nimporu. | numerical |

**Missing Units**

| 15452 (8%) |

This dataset contains variables named 'age', 'race' and 'sex'.

**Provenance:** | Source of the data and author contact information. Time period over which the data was collected. | **Provenance**

**Variables:** | A list and description of the different variables in your dataset. |

**Statistics:** | Min/max value, most frequent value (mode), mean, etc. | **Statistics**

This dataset contains variables named 'age', 'race' and 'sex'.

**Metadata:** | Descriptive information about your dataset. |

**Provenance:** | Where does the data come from? |

**Variables:** | The features of your data that take on different values. |

**Statistics:** | Basic statistics that describe your dataset (for numeric datasets). |
collective intelligence project design canvas

This canvas will help you paint a quick picture with your team of the main elements of your collective intelligence project.

- **GATHER DATA, INFORMATION, IDEAS**
  What data/information/ideas do we need to find, and how will we do it?

- **CREATE CHANGE**
  Who do we need to act, and what do they need to do this?

- **MOBILISE PEOPLE**
  Who might be able to help, and how can we best engage them?

- **CONNECT & INTERPRET**
  How will we bring together people and/or data, and make sense of the results?

- **DEFINE CHALLENGE**
  What is our issue and our purpose for using collective intelligence?
understand problems key questions
This guide provides some key design questions that your team will need to answer.

**GATHER DATA, INFORMATION, IDEAS**
What data/information/ideas do we need to find, and how will we do it?

- What do we specifically need to know/find?
- What data might help us understand this problem?
- How will we collect this data?
- Are there any ethical issues with using this data or involving people?

**DEFINE CHALLENGE**
What is our issue and our purpose for using collective intelligence?

- What is the issue we want to understand?
- Who does the issue affect?
- What is the change we want to bring about?
- What is our timeframe for action?
- What are our constraints?

**MOBILISE PEOPLE**
Who might be able to help, and how can we best engage them?

- Who could help us understand this problem?
- What do we want people to do?
- How will we reach those people?
- What might motivate them to be involved?

**CONNECT & INTERPRET**
How will we bring together people and/or data, and make sense of the results?

- How will people interact and share information?
- How will we make sure people can contribute independently and freely?
- How will we bring together our data (store, clean, process, share)?
- How will we make sense of the information we collect?
- What biases might there be in our data?

**CREATE CHANGE**
Who do we need to act, and what do they need to do this?

- Who do we need to act on the collective intelligence, and what do we need them to do?
- What do they need to see or know in order to do this?
- How will we open up this data/information to citizens?
- How will we feedback to participants?
- How will we know if we’re on track and creating change?

**B E C D**
**seek solutions key questions**
This guide provides some key design questions that your team will need to answer.

**GATHER DATA, INFORMATION, IDEAS**
What data/information/ideas do we need to find, and how will we do it?
- What solution(s) are we looking for?
- Where might solutions already exist?
- What methods will we use to find solutions?
- Are there any ethical issues to consider?

**DEFINE CHALLENGE**
What is our issue and our purpose for using collective intelligence?
- What is the issue we want to solve?
- Who does the issue affect?
- What is the change we want to bring about?
- What is our timeframe for action?
- What are our constraints?

**MOBILISE PEOPLE**
Who might be able to help, and how can we best engage them?
- Who could create a solution?
- What do we want people to do?
- How will we reach those people?
- What incentive(s) will we offer to people for sharing their solutions?

**CREATE CHANGE**
Who do we need to act, and what do they need to do this?
- Who will adopt successful solutions or help them scale?
- What will be our approach to partnership or intellectual property?
- How will we feedback to contributors?
- How will we know if we’re on track to creating change?

**CONNECT & INTERPRET**
How will we bring together people and/or data, and make sense of the results?
- What is the process for people to share their solutions?
- How can we support people to contribute ideas effectively?
- Who will judge which ideas to support or test?
**decide and act key questions**
This guide provides some key design questions that your team will need to answer.

- **GATHER DATA, INFORMATION, IDEAS**
  What data/information/ideas do we need to find, and how will we do it?
  What do we specifically need to know or find to make this decision?
  How will we collect this information?
  Are there any ethical issues we need to consider?

- **DEFINE CHALLENGE**
  What is our issue and our purpose for using collective intelligence?
  What is the decision we need to make?
  Who is affected by this decision?
  What is the change we want to bring about?
  What is our timeframe for action?
  What are our constraints?

- **CREATE CHANGE**
  Who do we need to act, and what do they need to do this?
  Who will need to act on the ideas and information, and what do we need them to do?
  What do they need to see or know in order to do this?
  How might we share this information with citizens to enable them to act on this issue?
  How will we know if we’re on track to creating change?

- **MOBILISE PEOPLE**
  Who might be able to help, and how can we best engage them?
  Who do we need to involve in the decision?
  What do we want people to do?
  How will we reach those people?
  What might motivate them to be involved?

- **CONNECT & INTERPRET**
  How will we bring together people and/or data, and make sense of the results?
  What type of decision do we need? (e.g., consensus, majority)
  How will we bring together people to share opinions and ideas?
  How will people contribute or interact?
  What do people need to know or have to contribute effectively? (e.g., will we provide factual information on the subject and guidelines for participation?)
  How will we make sure people can contribute independently and freely?
  How will we make sense of all the information or ideas we receive?
**collective intelligence design playbook**

**learn and adapt key questions**
This guide provides some key design questions that your team will need to answer.

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**GATHER DATA, INFORMATION, IDEAS**
What data/information/ideas do we need to find, and how will we do it?

- What specifically do we need to know?
- What data might help us answer these questions?
- How will we collect this information?
- Are there any ethical issues we need to consider with using this data or involving people?

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**DEFINE CHALLENGE**
What is our issue and our purpose for using collective intelligence?

- What knowledge do we want to create?
- Who are we creating knowledge for?
- What is the change we want to bring about?
- What is our timeframe for action?
- What are our constraints?

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**CREATE CHANGE**
Who do we want to act on the knowledge we create, and what do we need them to do?

- Who do we want to act on the knowledge we create, and what do we need them to do?
- How will we document our knowledge and make it available for others to use?
- How will we know if we’re on track to creating change?

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**MOBILISE PEOPLE**
Who might be able to help, and how can we best engage them?

- Who might be able to help us answer our questions?
- What do we want people to do?
- How will we reach those people?
- What might motivate them to be involved?

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**CONNECT & INTERPRET**
How will we bring together people and/or data, and make sense of the results?

- How will people contribute or interact?
- How will we make sure people can contribute independently and freely?
- How will we bring together our data (store, clean, process, share)?
- How will we make sense of the data and knowledge we collect?
- What biases might there be in our data?

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**learn and adapt key questions**
This guide provides some key design questions that your team will need to answer.