ENGAGE.
EMPOWER.
ENACT.

Citizen Engagement & Democratic Innovation Programme White Paper

LINDA DOYLE AND BETHAN SMITH

TABLE OF CONTENTS

INTRODUCTION

The Cynefin Centre's Citizen Engagement & Democratic Innovation programme provides tools for collective sense-making in the areas of community development and youth work; civic engagement and democratic innovation; collaborative service/policy design and evaluation; housing/tenant engagement; futures and planning; shared learning and peer to peer knowledge exchange.

WHAT IS CITIZEN ENGAGEMENT?

The underpinning philosophy of citizen engagement is that people are entitled to decision-making power regarding decisions that impact their lives beyond simply voting for a representative once every few years. A related concept, public participation, "describes the activities by which people's concerns, needs, interests, and values are incorporated into decisions and actions on public matters and issues" (Nabatchi & Leighninger, 2015, pp. 14).

Citizen engagement can take many forms such as direct outreach to citizens and information campaigns, public meetings and consultation, deliberative processes such as citizens' assemblies and citizens' juries, and using SenseMaker®. The degree of citizen engagement can be measured on Arnstein's ladder of engagement which ranges from manipulation at the bottom to citizen control at the top (Arnstein, 1969, pp. 216-224). Lower rungs of engagement are about one way communication; decision-makers telling citizens their plans. The higher rungs of the metaphorical ladder refer to when citizens have real decision-making power, they are in dialogue with decision-makers, and information, stories and ideas flow between them.

WHY PARTICIPATE IN CITIZEN ENGAGEMENT?

There are many benefits of moving up Arnstein's ladder towards a deeper, more empowering form of engagement. It gives citizens a chance to raise their voices and be heard by each other and those who serve them. This can be an immensely empowering experience in and of itself, and sets citizens/community members up to continue being a proactive force for good in their communities. This creates strong and resilient communities which can tackle challenges head on.

The effectiveness of many public/community interventions and policies depends on the response of citizens and communities. If citizens/communities feel they have not been properly consulted or feel powerless to effect decisions which impact their lives, they will be disenfranchised and have no desire to make an intervention work (see Fisher & Hotchkiss, 2008; Uomoto, 1986). Engaging citizens will avoid expensive mistakes by drawing on their knowledge and experience early on in the planning stage, and usually if citizens/ communities buy in, it will have a higher success rate (Gaventa & Barrett, 2012; Jagosh et al., 2012; Nabatchi & Leighninger, 2015; Zimmerman, 1990).

Our approach not only connects citizens to each other but also institutions. Citizen engagement is essential to build citizens' trust in institutions (Kumagai & Ilorio, 2020).
Trust enables social cohesion and enables smooth policies and service implementation.
Collaboration between citizens, communities and decision-makers is essential to bolster our democracies and to create the society we want to live in; a more effective, democratic, and healthy society. This brochure details a myriad of ways to engage citizens and to share decision-making power based on three broad principles.

ENGAGE.

The stories we tell are a fundamental patterning device through which we understand the world and, therefore, capturing these stories and underpinning them with quantitative data creates contextualised insights into what is happening and why, from country to community level at any given time. In understanding their dinner-table conversations; their experiences, observations, and perceptions, we can decode the patterns that are really driving behaviours and attitudes.

"[T]here is no way to give us an understanding of any society, including our own, except through the stock of stories which constitute its initial dramatic resources." (MacIntyre 1984, p201).

EMPOWER.

Our methods and approaches aim to empower citizens to make sense of what's happening in their community for themselves; what's working well, and what isn't. Our approach encourages innovation and adaptation of ideas through peer-to-peer knowledge-sharing. The ability to share learning, innovation, and experience is essential for policy to develop and for communities to thrive. Decision-makers and communities can draw inspiration from others, but also spot the opportunities for innovation in their own context.

ENACT.

Citizens become experts and problem-solvers in their own communities. We don't want the stories we collect to get lost in an online document no one ever reads. Together with citizens, communities and decision-makers we generate insights into what steps to take next. This creates a truly citizen/community-led approach. And the impact of interventions can be tracked over time so communities can track what's working and what's not.

OUR VISION
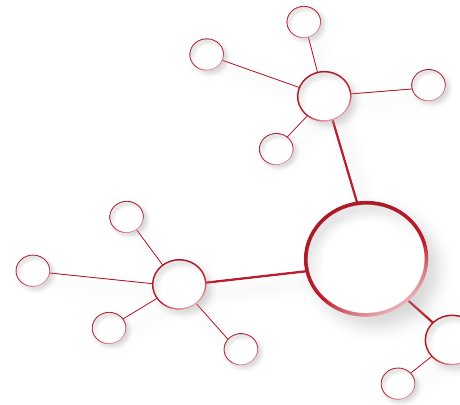
In this brochure, we outline our ecosystem of methods that enables the collection of narrative, collective sensemaking, and insight to action design, at scale. An approach that can create deeper, more inclusive, and more far-reaching engagement to advance our democracies. We use real-time feedback to create more strategic and evidence-informed decision-making, and we empower citizens and communities to co-create on a local scale so they can rewrite the global story.

We do this through **citizen sensor networks**. Citizen sensor networks provide real time feedback—essential to managing complexity—which helps to identify many different potential solutions and micro-scenarios to be explored, tested and monitored. A citizen sensor network developed for an everyday purpose can be activated in times of extraordinary need such as natural disasters or pandemics. This approach draws on the power of anecdotal evidence to get a real sense of what is happening on the ground and creates the opportunity for emergent and innovative thoughts, ideas, and solutions to arise. It also allows us to tap into informal networks which are the conduits of culture by asking citizens to engage with interpreting data as much as sharing it.

One method we use is our proprietary distributed ethnographic tool, SenseMaker®, which has been described as the first distributed ethnographic research tool. It brings quantitative data to a field normally dependent on qualitative research to gather stories across a greater diversity of people and perspectives. Our approach circumvents issues of geography, logistical barriers and social boundaries of literacy, language and dialect. It is scalable ethnography that makes sure everyone's voice is heard, not just those who shout the loudest. SenseMaker® can provide reliable data that, due to our human buffering approach, can not be added or skewed by artificial intelligence or bots as with social media.
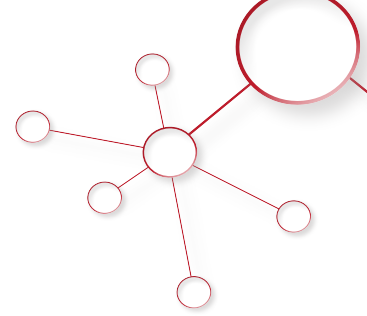
One method we use is our proprietary distributed ethnographic tool, SenseMaker®, which has been described as the first distributed ethnographic research tool. It brings quantitative data to a field normally dependent on qualitative research to gather stories across a greater diversity of people and perspectives. Our approach circumvents issues of geography, logistical barriers and social boundaries of literacy, language and dialect. It is scalable ethnography that makes sure everyone's voice is heard, not just those who shout the loudest. SenseMaker® can provide reliable data that, due to our human buffering approach, can not be added or skewed by artificial intelligence or bots as with social media.

---

1. Icon - Vision by Symbolon from the Noun Project

SENSEMAKER®

WHAT IS SENSEMAKER®?

SenseMaker® has been described as the first scalable distributed ethnographic research tool. It brings quantitative data to a field normally dependent on qualitative research to gather stories across a greater diversity of people and perspectives. Our approach circumvents issues of geography, logistical barriers and social boundaries of literacy, language and dialect.

Based on 20 years of research and situated learning, it democratises the sense-making process, reveals unexpected insights decision-makers weren't even looking for (in complexity theory, this is called 'unknown unknowns'), and prevents misunderstanding due to context, experience, and/or language—we start with exploring, not with assuming.

SenseMaker® can provide reliable data that, due to our human buffering approach, can not be added or skewed by artificial intelligence or bots as with social media. that makes sure everyone's voice is heard, not just those who shout the loudest.

The power of interpretation always remains with the person who told the story; they decide what it means (**self-ethnography**) by completing quantitative questions about their story. This contrasts with the traditional questionnaires and qualitative studies, in which participants often feel they need to give the 'right answer' and the data is mediated by experts or researchers.

SenseMaker® empowers citizens to discover what is happening in their community; what's working well, and what isn't. And the insights gained can not only inform intervention design, implementation, and when action should be taken, but also allows for each of these steps to be taken in collaboration with communities.

SenseMaker®'s capability to create a tailored approach to policy formation and evaluation enables accommodation of a diversity of needs across different / differing contexts.

WHAT IS A CITIZEN SENSOR NETWORK?

A citizen sensor network is collecting data from citizens on an ongoing basis. Rather than just capturing a snapshot in time, we enable continuous story collection over long periods of time, much like a virtual journal.

Real time feedback is essential for evidence-informed decision-making and informing strategy in complex environments. It enables measurement of what is happening on the ground, underlying ideation patterns together with insights into potential strategic interventions—before these become visible to conventional monitoring techniques. Immediate feedback about the impact of decisions and interventions enables taking necessary action to dampen negative consequences and amplify desired outcomes quickly.

Citizen sensor networks provide reliable data that cannot be faked. Networks created for an ordinary purpose can then be deployed in times of extraordinary need—when a natural disaster or a pandemic hits, a trusted network providing a real-time situational assessment is readily available to tap into.

In rapidly changing, high-stake, complex situations, decision-makers risk missing important information if they rely on familiar thinking and dominant narratives, without considering weak signals—the outliers in the data where opportunities and challenges exist. With SenseMaker®, weak signals are clear, and it is easy to attend to all perspectives in order to make an informed decision.

Quite often, we miss things we are not looking for. This is called inattentional blindness.
For example, when 24 radiologists were shown x-rays with a gorilla 48 times larger than a lung nodule, 83% of them did not notice the gorilla. If we do not see what we are not looking for, we can miss opportunities and challenges (Drew, Võ & Wolfe, 2013).

Citizen sensor networks are key to advancing the understanding of our democracies. Continuous engagement with citizens leads to more trust and thus more cooperation (Kumagai & Ilorio, 2020), which is especially important in crisis situations, such as pandemics.

More about citizen sensor networks coming soon.
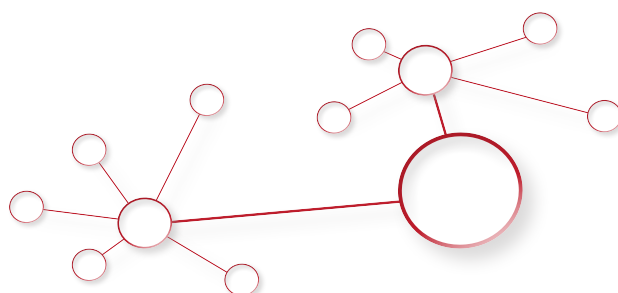
WHAT IS CITIZEN JOURNALISM?

So in a globalised world, how do we gain nuanced, localised understanding? How do we respond to the unheard or unarticulated needs of those who feel excluded from power? SenseMaker® empowers citizens to become ethnographers in their own communities by collecting the stories of friends, family, or other community members. Equipped with a smartphone (or other device), Citizen Journalists enable this scalable, sustainable, distributed ethnographic approach.

Anyone in a social community can become a Citizen Journalist. The Cynefin Centre has trained people of all ages to become Citizen Journalists. Citizen Journalists can extend the citizen sensor network beyond the usual suspects and reach those who wouldn't normally take part in citizen engagement activities. Citizens have privileged access to their communities and often unearth stories which would not be shared with outsiders. Young people can engage those who are less technologically literate, such as their grandparents. Engaging young people in decision-making and peer-to-peer knowledge-sharing is mutually valuable, empowering, and needed more than ever.

"Deprive children of stories and you leave them unscripted, anxious stutterers in their actions as in their words. Hence there is no way of giving us an under-standing of any society, including our own, except through the stock of stories which constitute its initial dramatic resources." - Alasdair MacIntyre

HOW CAN WE CREATE CHANGE?

The Cynefin Centre offers a different approach to traditional theory of change, in which changes can be achieved with small, contextual 'nudges'—aspects of the decision-making context are changed rather than incentives. Typically nudge theory is applied by decision-makers deciding what they want to achieve and then using environmental changes or messaging to move citizens towards this ideal end point. With this soft paternalistic approach, citizens are really being pulled towards someone else's preferred state with no dialogue or opportunity to voice their preference on what the desired outcome should be in the first place (Sætra, 2019; Jones, Pykett & Whitehead, 2011; Yeung, 2017).
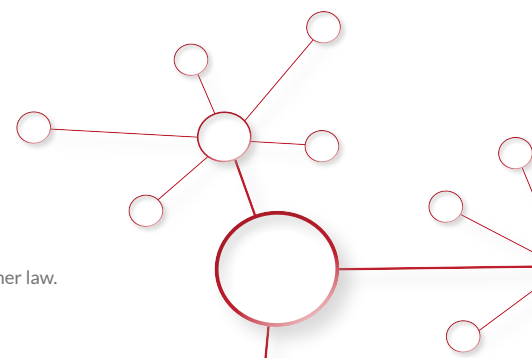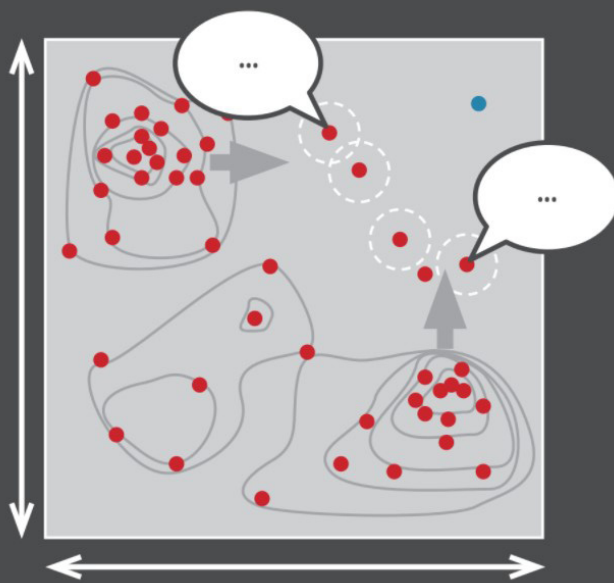
THE ADJACENT POSSIBLE

• The graph shown represents the quantitative results of a research project.

• The red dots and contours represent the patterns of real reponses (how the system is currently disposed). The blue dot represents the desired direction. It is clear that the results show two distinct groupings / peaks in the top left and bottom right of the landscape.

• The grey arrows indicate the direction towards "adjacent possibles" - small groupings of stories or observations that are already present in the system and therefore can be amplified in order to evolve the system in a beneficial direction, much like "crossing a river with stepping stones" rather than attempting to cross in one big jump.

• The corresponding stories of each quantitative data point provide rich insights into interventions that can bring about change.

Figure 1. Graph illustrating a target data point and adjacent possibles.

At The Cynefin Centre, we take an alternative approach by beginning with mapping the dispositional state of a population at a moment in time. From this data we can ascertain a particular direction or directions that we might wish to nudge towards. This is managing the potential to evolve from the present state by starting from where people are as, opposed to where someone deems they should be. This ensures nudges are ethical and authentic to the needs of the community. Through real-time observation of change, we can also make sure interventions are sustainable over time. Rather than relying on a grand vision of where you want to be long-term, it is more effective within complexity to map where you currently are and start to make small interventions to move in a desired direction. These interventions should be safe-to-fail rather than fail-safe and enable remaining open to different perspectives.

Mapping the current disposition of the network reveals natural points of interventions. It also provides insights into whether there is a propensity to change which may indicate when to introduce an intervention and how it will be received. In our workshops, participants consider "How do we create more stories like the ones people have identified as positive, and fewer like those that people felt were negative?" (This question can be asked of anyone regardless of educational level.)

Each story represents one data point on a quantitative question included in the SenseMaker® framework, and so it represents how participants felt about their story. We can see the target cluster in the top right corner. This is a cluster of responses that has been identified as desirable. There are two main clusters in the bottom left and bottom right of the graph.

The grey arrows indicate the direction towards an 'adjacent possible'—a small cluster of responses/data points that are closer to the target cluster. So we try to shift the clusters in the bottom corners towards the target cluster via the adjacent possible; much like crossing a river with stepping stones rather than attempting to cross in one big jump.

SENSEMAKER® IN PRACTICE

There are a variety of ways to use SenseMaker® and its outputs, examples include:

- Providing a channel for citizens' voice, advocacy and co-creation in policymaking and citizen engagement projects
- Citizen Journalism
- Creating citizen sensor networks
- Real-time engagements/polling, e.g. conferences and events
- Exploring new ideas and crowdsourcing
- Integrating SenseMaker® into citizens' assemblies and citizens juries to add additional value and reach
- Bespoke academic research tools
- Participatory evaluation
- Evidencing and measuring social impact
- Participatory budgeting
- Knowledge exchange and peer learning networks

SENSEMAKER® IN 3 QUICK STEPS

1. **Build your framework & gather perspectives:** SenseMaker® has a variety of different capabilities to collect stories—whether it's a one off or continuous capture to the type of questions asked. The design of the framework itself can be a participatory process; there are many options here depending on the needs of each project. We can gather people's stories of 'what it means to me?' and 'how I think it will develop?'

2. **Map situation:** Analyse the data and identify key clusters and outliers. Outliers are very important because they represent those who are thinking differently and diversity is key to adaptation. They also help us to think in an anticipatory way about what some of the consequences of this trend continuing mean in different contexts.

3. **Further engagement & problem-solving:** Invite those who participated in the SenseMaker® or others within the community to a workshop to explore the stories collected and to brainstorm how to solve the problems in their community. Empower decision-makers at all levels to take action in both long and short-term ways.

DIFFERENT WAYS TO BUILD YOUR SENSEMAKER® FRAMEWORK

SenseMaker® is a flexible tool that can be used for a variety of different purposes and ways of collecting data, which can be used in a variety of contexts. A SenseMaker® framework is our software designed for a specific project. SenseMaker® provides the following three core capabilities:

SenseMaker: The classic SenseMaker® framework asks an open, exploratory question; for example: "what is the biggest challenge facing your neighbourhood?" This maps opinions, attitudes, perceptions and motivations usually amongst a specific community or group. It can be a one-off engagement or data could be collected at several different points in time.

Case study: Measuring the Mountain, The People's Platform, Community Resilience in Cape Town, Citizens Take Over Europe, Malmö Libraries, Malmö Neighbourhoods

MassSense: MassSense can be used to test a scenario or new message with a large population. It allows for mass situational assessment and micro-scenario feedback in which material (infographics, text, video, etc.) are presented for interpretation through stories. MassSense is also a one-time engagement although several can be used in cadence to introduce new ideas evolving over time. The design of a MassSense framework could be informed by data collected on a smaller proportion of the population (with a classic SenseMaker®).

Case study: coming soon
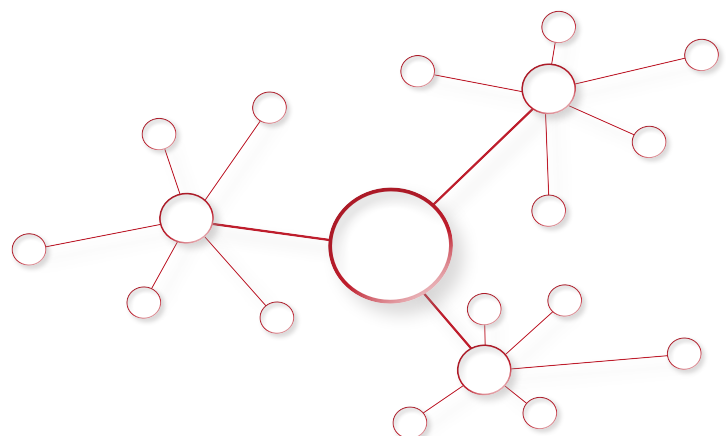
Journal keeping: Here a specific set of citizens or community keeps a regular journal relating to a specific topic. This real time assessment enables citizens and communities to be continually adaptive and create an ongoing dialogue. The data that comes back allows decision-makers at all levels to monitor the direction and magnitude of movement over time.
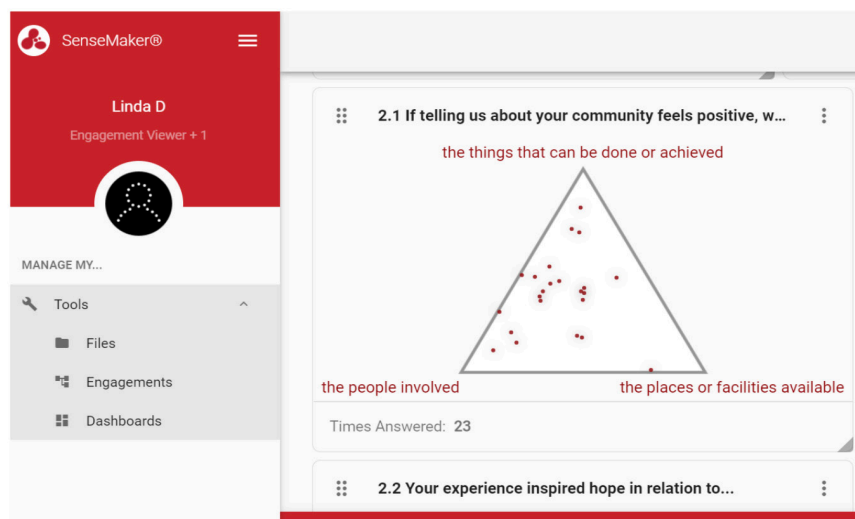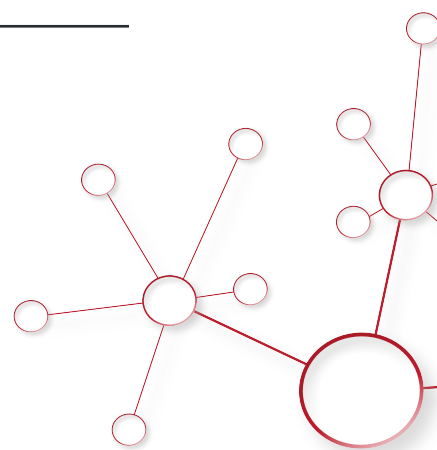
Case study: Valley Stories, Malmö Libraries

Figure 2. A screen-shot of the data from the local community public access project on our data dashboard.

DIFFERENT WAYS TO ENGAGE CITIZENS

Here are three basic ways you can engage citizens with the SenseMaker® framework you have collected. SenseMaker® has an open API structure so it can be embedded into other tools and datasets (e.g. data collected by other tools/ platforms and methodologies can be integrated into the SenseMaker® platform.)

Citizen Journalism: Citizen Journalists gather and share stories – not just about themselves but about their communities. Some of the most pioneering applications of this technique have been to engage young people, working through schools, sports clubs, churches etc as ethnographers to their own communities. As the voice of the future, their contributions to decision-making and peer-to-peer knowledge-sharing is mutually valuable and empowering. Once set up, the social networks of Citizen Journalists can be activated at any point because Citizen Journalists can reach out to their communities and engage them with SenseMaker®. This forms a highly relevant citizen sensor network that can offer up advice, red alerts and entry points to nudge the system towards a better result at any given time.

Case study: Valley Stories, Malmö Libraries, Malmö Museum

Pulse: Just as a sonar sends out a pulse of sound, you can send out an invitation to react to a prompt, or to tell the story of an experience. Pulse collects fast feedback with quick monitoring, and can be multiple in nature and not necessarily occur at regular intervals. This can be used to understand a smaller group or team context, or large scale involving all people in a geographical area or at an event. Pulse is particularly important in times of crisis, for example, if there is a natural disaster or a terrorist attack, you can pulse people in that geographical area to get real-time and verified information about what is happening on the ground.

A Pulse alert can be sent out through the SenseMaker® app, social media, or email network. It can also combine with Citizen Journalism. A 'story station' can also be set up at a fixed point in a library for example, with either a tablet or QR code, or group story telling could be organised cafe shop style.

Case study: coming soon

14
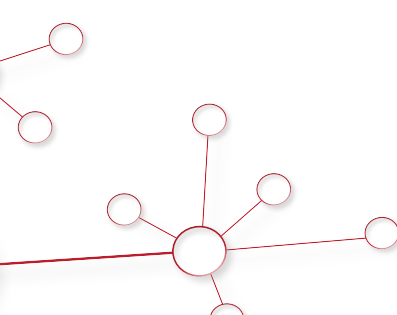
SenseMaker® can be adapted to serve a wide range of purposes, some we have not even dreamed up yet—your project could be the first of its kind! Get in touch with the Cynefin team by emailing cynefin@cognitive-edge.com. We also offer a virtual mentoring course, Virtual Quick Start, to help you create your own SenseMaker® framework, along with many other training sessions.

Explore SenseMaker® Virtual Quick Start

ADVANCED ANALYTICS

SenseMaker® is a software ecology that integrates decision support, research, monitoring and knowledge management. The stories are collected anonymously and are directly uploaded to a secure, encrypted database.

SenseMaker®'s data analysis dashboard
The data can be exported or analysed within SenseMaker®'s own analytic data dashboard and reporting tools. The combination of the visual representation of the results, the analytical support of our interactive dashboard, and the possibility to move between quantitative data and the deep specificity of individual stories makes it easier to turn information into action. The dashboard can be made available to a wide range of people including community members with varying restrictions on access. We provide training and direct support on using these tools. The Cynefin team can also produce Emergent Pattern reports on a regular basis.

By presenting the data in an easy to understand way, we're creating a buffered feedback loop. In contrast, social media is unbuffered with no filters, no human synthesis and sensemaking; or if there is it takes time for the data to be downloaded, cleaned, visualised and reported. All of this is instantaneous with SenseMaker®'s dashboard which provides a live buffered feedback loop essential for decision-making in complex environments, especially where there is rapid change, i.e., during times of crisis or emergency.

Fractal engagement
From one dataset, SenseMaker® can represent the dispositional landscape of specific groups. This could be a geographical region, such as a state, or a specific community, such as people who have self-identified as church-goers. This means the same questions can be asked to the whole constituency, or a school of their students, parents and staff. We can also hone in on specific groups to gain a more nuanced understanding and develop a targeted intervention. This provides insight into the question: "what can we do to serve the whole region?" but also: "what can we do to serve this specific community?" This targeted approach is key to cultural change and avoids taking a broad brush approach.

Peer-to-peer knowledge-sharing
The data can be open source so anyone who participates can access and understand through our bespoke data analysis dashboard. We can also customise the level of data sharing. This enables peer-to-peer knowledge-sharing and problem-solving; whether across communities or continents. The richness and deeply textured nature of narratives allows the same datasets to be applied to different social issues. It is a dynamic platform that has the ability not just to deliver results but to yield profound social change.

EMPOWERING THROUGHOUT ENGAGEMENT
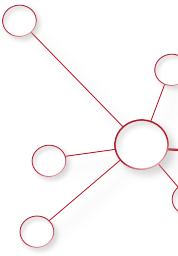
SENSE-MAKING IN CONTEXT

WHAT CAN OUR APPROACH OFFER GOVERNMENTS, INSTITUTIONS AND ORGANSIATIONS?

SenseMaker® and working with The Cynefin Centre can help institutions engage with citizens and communities. This can often be difficult for public institutions to manage, either going for a simple poll or open calls for ideas which leads to an avalanche of input that is impossible to deal with.

Often the people who most need to know 'the word on the street' are those who find it most difficult to tap into it. Political, academic and market approaches often involve layers of interpretation that unintentionally obscure the deepest essence of the message. SenseMaker® enables decision-makers to tap into the wisdom of their communities.

SenseMaker® is a flexible tool that once established within a specific community, can be adapted for multiple purposes, for example, officials engaging a particular group of citizens during a time of high activism or resistance to policy change.

EVIDENCE-INFORMED DECISION-MAKING

INFORMING EFFECTIVE GOVERNANCE AND ENGAGEMENT

Today's hyper-networked and complex world requires innovative forms of citizen engagement. The world we find ourselves in today is radically different than it was even a decade ago. Social media is pervasive but unbuffered. Many people believe manufactured "fake news" and unsubstantiated rumours can trigger civil unrest. SenseMaker® offers a new form of engagement; tapping into the wisdom and real-life experiences of citizens in order to provide insights to decision and policymakers.

MASS CONSULTATION WITH REAL TIME FEEDBACK

A human sensor network provides an opportunity for communities and to gain real time situational assessment, to evaluate options and to create, test and monitor micro-scenarios. A non-trivial question with deep implications: who decides what we can change, how we monitor change and what change we deem beneficial?

SenseMaker® collects ground level, real-time stories, experiences, observations and perceptions which can be used to inform policy formulation, testing, and strategic implementation. It enables multiple safe-to-fail experiments running in parallel to illuminate pathways towards a desired outcome.

A DEEPER LAYER

SenseMaker® can uncover a deeper layer when we ask ourselves what does this story convey, what is missing from this story? SenseMaker® can be used to take a needs based approach; in workshops the key themes and narratives underlying the stories can be explored and participants can consider what the person is really needing beneath the surface of their story. SenseMaker® focuses on tapping into the flow of conversations occurring in local communities, amongst family and friends, and across regions, which gives a deeper insight than town-hall meetings or social media. SenseMaker® enables citizens to get to the heart of what really matters to them, which enables accommodation of a diversity of needs within local contexts.

TAILORED INTERVENTIONS

Rather than using broad brush averages across a large population, communities can design their own interventions and establish their own targets. The individual progression of each community can be measured and evaluated on a case-by-case basis, eliminating the need for unrealistic goals, enhancing local policy-creation, and making sure impact is felt where it is needed most.

DATA AUTHENTICITY

With social media, the conversation can be dominated by those who 'shout the loudest' or have the most followers, and it can also be unclear who is responding and whether they are a member of your community and therefore it's relevant for you to listen to their needs on the matter. With a citizen sensor network, the data is authenticated and steps can be taken to ensure it is representative.

TAILORED INTERVENTIONS

The more layers there are, the more likely to miss weak signals—early warning signs of opportunities or challenges that with hindsight, you wished you paid attention to sooner. Weak signals can indicate people who are thinking differently; a key element to harness when managing complexity.

SERVING CITIZENS & COMMUNITIES

ENGAGEMENT IN PROBLEM SOLVING

The ability to share learning, innovation, and experience is essential for policy to develop and for communities to progress. Rather than simply transferring successful interventions from one community to another, SenseMaker® encourages serendipitous innovation and the evolution and adaptation of ideas through peer-to-peer knowledge-sharing. This means that communities can draw inspiration from others but also spot the opportunities for innovation in their own specific context. This is an empowering experience as community members become experts and problem solvers in their own communities and may be the start of community members' journey into civic engagement and organising to improve their community beyond the scope of the initial project.

CITIZEN JOURNALISM AND LOCALISED SENSE-MAKING

No-one has a better understanding of the real needs and concerns of a local community than the community themselves. In the past, agencies and governments have imposed well-intentioned interventions from afar—often with little effect. SenseMaker® enables every citizen to be a journalist in their own communities, gathering the stories that matter to them in the here and now. We also enable communities to make sense of their own patterns and co-create initiatives that will make a real impact. This enables governments to truly engage their citizens in radically different and empowering ways.

WHERE EVERY VOICE IS HEARD

By encouraging a sensor network that is community-driven and holistic, SenseMaker® represents the voices of the individuals within a community rather than the voices of a few arbitrarily selected leaders. This is incredibly important to ensure minority voices are not lost and to ensure a diverse range of perspectives on the issue.

LEADERSHIP THROUGH EMPOWERMENT

In times of crisis in complex adaptive systems, the volume of decisions requires detailed knowledge of the local context. Ideas and solutions can emerge from the group with direct experience of the issues as local experts are better equipped to respond to opportunities and challenges as they arise.

This redefines leadership as a practice of "engagement and empowerment rather than prescription and direction" in which leaders "intervene to provide a metalevel of coherence and clarity to facilitate action and the exchange of knowledge. […] Leadership needs to assume the role of a grand conductor - coordinating and creating space for local experts to make decisions for their contextual needs." (Snowden & Rancati, 2021).

Case Studies: Malmö City, The People's Platform, Measuring the Mountain, Corona Stories

WHAT CAN OUR APPROACH OFFER CITIZENS, COMMUNITY GROUPS AND ACTIVISTS?

SenseMaker® is a powerful tool that allows for an unprecedented level of shared knowledge and decision-making with the ability to create systemic shifts on fundamental social issues.

EMPOWERING COMMUNITIES

SenseMaker® can engage local communities or NGOs, who want to place community members at the centre of their own problem solving or give the most vulnerable in the community a voice. The data can be accessed by other communities or groups around the world for shared learning. SenseMaker® can also be used by citizens, civil society, and campaigners and movements to advocate for change. It can be particularly useful to demonstrate to elected officials that you have crowd-sourced your agenda and have poignant citizen testimonies to advocate for your cause.

SenseMaker® empowers citizens around the world to have their stories heard, and to hear each other's stories which can provide an impetus to fight for their vision. It provides voice and agency, with opportunities to engage and act, and helps to illuminate paths forward on some of our most daunting challenges. Telling our stories, stories that are often denied for those who are oppressed and marginalised, can be a rebellious and regenerative act in and of itself.

Engaging in real life projects on real world issues like climate change and homelessness, SenseMaker® offers a platform where minority groups are heard and empowered, where stories and ideas can be shared, and global policy creation can be enhanced. Citizen journalism and storytelling is about more than just collecting data, it also aids organic community development and connectivity by getting people to talk to each other about important and topical issues.

19

JUSTICE & AUTHENTICITY

When citizens self-interpret their story by answering quantitative questions about it. Aside from being a key component in epistemic justice, this adds considerable authenticity to the data patterns than what would be achieved with an algorithmic interpretation. Citizens also decide who they want to share their data with. SenseMaker® is designed to allow people to articulate their own needs and influence outcomes.

EMBRACE AND WORK WITH UNCERTAINTY

Knowing that you are working in a rapidly changing local environment, requires tools and capabilities to continuously probe and to monitor shifts on the ground. SenseMaker® gives you a way to understand the flow of observations and experiences of people receiving aid and support. Adapt your responses and interventions in real-time to allow you to ensure the most significant impact of your programme or initiative.

WHAT IS A COMPLEXITY INFORMED APPROACH TO UNDERSTANDING AND RESOLVING CONFLICT?

Conflict can be an opportunity which opens up new possibilities and stimulates creativity to explore how different needs can be met. In order to create and maintain a system/community that deals with conflict in a healthy way, sees it as an opportunity and is resilient, citizens/community members need the time to build trust, understanding and connection, for example colleagues getting the chance to chat at their children's football practice. These types of interactions are what make a community.

We help citizens/community members find common ground unrelated to the topic of conflict by getting to the heart of what matters to them on a day-to-day basis. This enables them to build connections across the ideological divide and build a basis on which to explore the topic of conflict when they are ready.

By using SenseMaker®, we can ask citizens/community members a question like 'what is the most important thing to you about living in this community?' or 'what is the most important thing you want to pass on to your grandchildren?'. Our unique interactive data dashboard presents the story patterns across groups that are in conflict and can be used to identify similarities in their day-to-day stories. Individuals from different groups are brought together because they have some common ground which can be built upon.
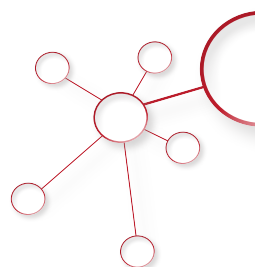
Engaging with each other in a completely different context than that in which the conflict occurred enables citizens/community members to build connection and empathy without the emotionality that arises when a conflict is addressed head on.

An example of this approach would be inviting two conflicting groups, whose stories indicate they are interested in protecting their local wildlife habitats, to take part in a wildlife conservation programme in which they could work together.

The ultimate aim is to find common ground between conflicting groups and invite them to engage with that common ground so that there is a basis for positive interaction. Then through that process, the topic of the conflict comes up naturally, rather than trying to talk about it directly. This empowers people to address the conflict themselves, to find their own solutions, rather than bringing in external experts to mediate the process or create interventions.

Other approaches to conflict include [the triopticon technique](#) which is for resolving conflict between three experts from different disciplines. Entangled trios can be used within an organisation to increase the connections across the network and stimulate innovation. The Cynefin Centre also has experience dealing with conflict within organisations around key systems such as decision-making, resources and communication. Another useful method is [Future Backwards](#) which can be used as "an alternative to scenario planning by increasing the number of perspectives that a group can take both on an understanding of their past, and of the range of possible futures".

Case study: Valley Stories, Systems Realignment Project

HOW CAN SENSEMAKER® BE USED TO ENSURE A REPRESENTATIVE SAMPLE OF CITIZENS' VOICES ACROSS BOTH DEMOGRAPHICS AND IDEOLOGICAL BELIEFS?

In deliberative processes such as citizens' assemblies or citizens' juries, SenseMaker® can be used to select people with a diverse range of ideological positions on the issue to be discussed.

In these deliberative processes assembly members are selected by lot, similarly to how members of a jury are selected for a legal trial, without the defence being able to dismiss members. Selecting members by lot for this purpose is known as sortition. Processes such as citizens' assemblies must include a representative proportion of the population because they must be made up of the same composition in terms of key demographic characteristics as the population who will be affected by its outcomes.
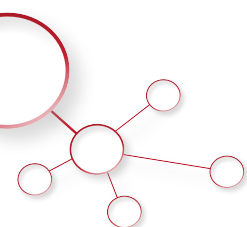
SenseMaker® can be used as a 'sortion' tool, that is, it can be used to select people by lot for a process such as a citizens' assembly. It can also be used to ensure the sample is representative in terms of demographic variables such as age, gender, location. And it's super easy to ensure equitable representation on a diverse range of beliefs, attitudes and experiences relevant to the issue at hand.

And since we don't rely on sending out letters like traditional sortition methods, The Cynefin Centre can conduct a sortition process in a fraction of the time whilst still creating a body of representative, randomly selected citizens ready to learn, discuss and make decisions.

Case study: Measuring the Mountain

HOW CAN SENSEMAKER® MAKE DELIBERATIVE DEMOCRACY PROCESSES AS INCLUSIVE AND EVIDENCE-INFORMED AS POSSIBLE?

Engaging citizens by inviting them to share their stories is immensely powerful. However, we can go further together by deepening the collaboration between citizens and decision-makers. In deliberative democracy processes, such as citizens' assemblies or citizens' juries, citizens learn about the issue from experts and those with direct experience, before discussing it with their peers before making a decision. This means members of the public can make informed decisions that serve the interests of their community. Deliberative processes can give decision-makers legitimacy to act on controversial issues and provide a basis for cross-party support.

Deliberative democracy processes such as citizens' assemblies and citizens' juries are important because they allow citizens to learn about a topic in depth, hear from experts and those directly affected by the issue, before making a decision. An informed public is a key aspect of democracy. Citizen engagement has led to many successful decisions and projects around the globe, e.g., Ireland, Poland, and Australia. "The citizens' assembly showed that if you structure the debate around information, discussion, questions and answers, and allow citizens to really thrash things out with expert advice, very often people will shift their positions." Sadhbh O Neill, an expert adviser to the citizens' assembly on Climate Change, Ireland (Stefanini, 2019).

WORKSHOPS

Whatever SenseMaker® data collection method you choose, you can further engage the community by sharing the stories in workshops and other deliberative processes.
Workshops can involve inviting either those who participated in the SenseMaker® or others within the community to a workshop in which they explore the stories collected and options to address the issues in their community. In workshops, participants consider 'how can we create more stories like that and fewer like those?'. This enables communities to synthesise their own stories, and to generate solutions and to lead interventions which are a lot more likely to be successful.

Workshops can also serve to bring together members of the community that do not usually work together. For example, intergenerational workshops that bring young and old together to read the stories from each other, friends, neighbours, community leaders, to identify what matters most to them, and how they can make a positive change.

Case study: Valley Stories, Community Resilience in Cape Town

DELIBERATIVE PROCESSES

Not only can SenseMaker® be used to facilitate and stimulate discussion in many deliberative contexts, such as community workshops or conferences, it can also be used to serve a variety of different purposes. The hashtags indicate at what stage in the deliberation process SenseMaker® could be used.

Mapping the system: Controversial topics are tricky and so is knowing when to take actions such as holding a referendum or citizens' assembly. SenseMaker® can be used to better understand citizen's beliefs, needs and feelings on a specific issue so decisions makers can determine whether it is the right time to engage in a costly deliberative process. #BEFORE

Priority setting: SenseMaker® can be used to set priority topics that a citizens' assembly/jury would deliberate on. This ensures the deliberative process is focused on what really matters to the community/population. #BEFORE

Witness testimony on mass: Witness testimonies from citizens who are directly impacted by the issue at hand are a key part of citizens' assemblies and juries. SenseMaker® could be used to allow the whole population to testify! In addition to some those who share their testimony face to face with the assembly, a selection of the stories captured with SenseMaker® could be discussed during the process. The full dataset could be available to everyone taking part in the process. #BEFORE #DURING

Data collection & synthesising: During a deliberative process, many different arguments, proposals and questions are raised. SenseMaker® can help synthesise the thoughts and ideas of the assembly itself in real time. This could help members understand where they are at collectively and how best to move forward. It could also be used to understand how the assembly members are finding the experience of taking part which would help the organisers address issues quickly and prevent attrition. This data would also be of great interest to academics studying deliberative processes. #DURING

Real time feedback from the wider community: SenseMaker® could provide real time feedback from the broader community on the citizens' assembly/jury's decisions/recommendations. The assembly could then decide to adjust their decisions/recommendations based on the broader community's input. Using SenseMaker®
during the assembly/jury can make the assembly process more interactive and engaging for viewers, whilst allowing members of the assembly to sense-check and consult more widely. This requires planning the assembly process, facilities and technical set up prior to the event in order to work seamlessly. #DURING #AFTER

CASE STUDIES

GET SENSEMAKER®
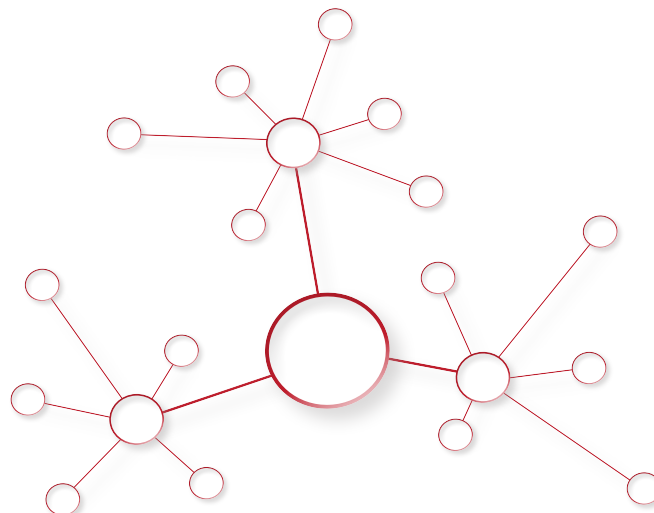
CYNEFIN

THE CYNEFIN CENTRE

The Cynefin Centre is an action research and development hub that focuses on the application of complexity science to social good. It is a membership-based organisation focused on working within the not-for-profit, government and academic sectors.

The Cynefin Centre is Dave Snowden's primary area of focus, with flagship research programmes into: healthcare; climate change; power, discrimination and conflict; "the Numinous"; citizen engagement and democratic innovation.

We work at the limits; where sparks become light, light becomes research, and research becomes practice. It is not a soundbite or a buzzword, we want, and we do, make a difference. We are a small, interdisciplinary team working with a distributed network of practitioners across the world. We are authentic to our commitments, our ethics, and the valuable work of our members.

The Cynefin Centre was founded in 2016 to focus on radical new methods for social engagement and understanding, basing its work in the natural sciences and the humanities, in particular complex adaptive systems theory.

A membership based organisation, it is responsible for the Citizen Engagement & Democratic Innovation programme as well as a series of related programmes on areas as diverse as patient journey, social work and sport. Starting with the original SenseMaker® concepts it is building a range of applications for use by communities worldwide in the field of complexity science. Wales is a small nation of some three million people with a rich cultural heritage which includes one of the oldest living languages in Europe.

Meaning of Cynefin
'Cynefin' is defined as the state of being influenced by multiple pasts of which we can only be partly aware: cultural, religious, geographic, tribal, etc. "It describes that relationship: the place of your birth and of your upbringing, the environment in which you live and to which you are naturally acclimatised - or knowledge and sense of place that is passed down the generations."
Cynefin has been linked to the Maori Tūrangawaewae which means a place to stand.

Cynefin Framework
Illustration by Sue
Borchardt

REFERENCES

1. Arnstein, S. R. (1969). A ladder of citizen participation. Journal of the American Institute of planners, 35(4), 216-224.

2. Drew, T., Võ, M. L. H., & Wolfe, J. M. (2013). The invisible gorilla strikes again: Sustained inattentional blindness in expert observers. Psychological science, 24(9), 1848-1853.

3. Fisher, G. S., & Hotchkiss, A. (2008). A model of occupational empowerment for marginalized populations in community environments. Occupational Therapy in Health Care, 22(1), 55-71.

4. Gaventa, J., & Barrett, G. (2012). Mapping the outcomes of citizen engagement. World development, 40(12), 2399-2410.

5. Han, Q., Zheng, B., Cristea, M., Agostini, M., Belanger, J., Gutzkow, B., ... & Leander, P. (2020). Trust in government and its associations with health behaviour and prosocial behaviour during the COVID-19 pandemic. Preprint.

6. Jagosh, J., Macaulay, A. C., Pluye, P., Salsberg, J. O. N., Bush, P. L., Henderson, J. I. M., ... & Greenhalgh, T. (2012). Uncovering the benefits of participatory research: implications of a realist review for health research and practice. The Milbank Quarterly, 90(2), 311-346.

7. Jones, R., Pykett, J., & Whitehead, M. (2011). The geographies of soft paternalism in the UK: the rise of the avuncular state and changing behaviour after neoliberalism. Geography Compass, 5(1), 50-62.

8. Kumagai, S., & Ilorio, F. (2020). Building Trust in Government through Citizen Engagement. World Bank. https://doi.org/10.1596/33346

9. Nabatchi, T., & Leighninger, M. (2015). Public participation for 21st century democracy. John Wiley & Sons.

10. Sætra, H. S. (2019). When nudge comes to shove: liberty and nudging in the era of big data. Technology in Society, 59, 101130.

11. Snowden, D. and Rancati, A., Managing complexity (and chaos) in times of crisis. A field guide for decision makers inspired by the Cynefin framework, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-28844-2 (online),978-92-76-28843-5 (print), JRC123629.

12. Stefanini, S. (February 19, 2019) A democratic experiment in Ireland could become the model for fighting climate change. QUARTZ. https://qz.com/1553567/a-democratic-experiment-in-ireland-could-become-the-model-for-fighting-climate-change/

13. Uomoto, J. M. (1986). Examination of psychological distress in ethnic minorities from a learned helplessness framework. Professional Psychology: Research and Practice, 17(5), 448.

14. Yeung, K. (2017). 'Hypernudge': Big Data as a mode of regulation by design. Information, Communication & Society, 20(1), 118-136.

15. Zimmerman, M. A. (1990). Toward a theory of learned hopefulness: A structural model analysis of participation and empowerment. Journal of research in personality, 24(1), 71-86.