

Model creation by social construction

Type : Open Source

Family : System

Models are a key aspect of sense making (a major component of the *Sensemaker* software. The best way of understanding a model so that it can be reused, is for the model, its domains, sub-domains and boundaries to be defined by sense making items (such as stories) that create context. The approach is illustrated here in respect of the Cynefin framework which is a primary sense-making model to understand the different types of system and associated decision models. It is recommended that complex facilitation techniques are used in this process.

Phase One: Generating Sense-Making Items

The first thing you need when creating a contextualised Cynefin framework is a diverse field of *sense-making items* (SMIs). A sense-making item is anything that can be used to make sense of a situation, anything that bears consideration with reference to the matter at hand. The list of types of SMIs one could potentially gather is huge. Some examples are forces, characters, groups, communities, factors, identities, events, turning points, issues, problems, solutions, surprises, accidents, perspectives, aspects, situations - and on and on.

There are several different ways to gather SMIs:

- just talk and write them down as they come up
- tell anecdotes and write SMIs down as they come up during the telling of stories
- review already collected anecdotes and write down SMIs found in them (or derive SMIs from other things found in anecdotes - motivations from characters, for example)
- use collected stories to create fables (see Story Construction) then consider things within those stories (characters, events, forces, turning points) as SMIs
- get SMIs from a Future Backwards exercise (turning points, or any hexagons from that exercise)
- use any diverse field of artifacts created by a divergent Cynefin process, or generate SMIs from any rich set of constructs created by a convergent Cynefin process

No matter how they are collected, sense-making items should have these characteristics:

- SMIs should be *concrete*, that is, about real events and real people and real perspectives. They should be things like "not enough free time" or "new opportunity for working together" that are real observations or issues, and not things like "we should all work together" or

"teamwork is important" which are more like truisms or cliches that are not rooted in the reality of the situation you are concerned with (and such cliches are especially illustrative of entrained beliefs). One way of keeping SMIs concrete is to gather them from narratives in one way or another.

- SMIs should be *diverse*, that is, they should show a wide variety of perspectives and viewpoints. This is something you have to see and react to in practice; it's hard to describe or predict in advance. If people are tending to all write or say the same things, use methods of complex facilitation to shake things up.
- SMIs should be *coherent*, that is not wildly diverse. They should be recognizably connected to one broad overarching theme or concern which relates to why you are doing the exercise in the first place. This theme often takes the form of a question, like "where is our customer relations philosophy going" or "why don't we see more innovation in our sales force" or "how can we respond to globalization" or "why are we in this business".

Phase Two: Defining Extremes

There are two ways to go about contextualisation: let's call them the *corners* method and the rainbow method. The method is essentially the same (at an abstract level) for each, so we can describe them interspersed. If you have a large enough group, it is best to use both methods within one workshop and combine or compare the results.

In this stage extremes are discussed and made sense of. The corners method starts with four extremes, and the rainbow method starts with two.

Corners method

Describe the four extreme sub=domains of the generic Cynefin framework. There are many ways to describe the extremes based on how you are presenting Cynefin, but here is one example:

- there is one right answer
- only experts know the right answer
- there are many right answers
- there is no right answer

(If you don't know to what extremes these refer, you'd better go back and read some more about the Cynefin framework!)

Ask people to draw these corners on a very large space (usually covered with paper) and talk about the extremes in the context of the overall purpose of the exercise. You might ask people to write some quick references to each extreme in the corners, say "one answer", "expert answer", "many answers", "no answer". Ideally people should also write labels for each extreme that make sense in the context they are looking at. If they can, ask people to find a few SMIs that fit at the extremes and place them there (written on hexagonal sticky notes).

Rainbow method

Draw a line on a large space (usually covered with paper, but a chalkboard will do as well) and give people labels for the two extremes. The labels will depend on the purpose of the exercise but in general they should be between synonyms for controllable and uncontrollable. Some other labels might be

- tractable vs. intractable
- symmetric vs. asymmetric
- certain vs. uncertain
- known vs. unknown
- safe vs. dangerous
- skill vs. intuition

Probably you as facilitator will decide on what these labels will be, but you could also ask the people to come up with their own and just check them to make sure they work (as controllable vs. uncontrollable). As with the corners method, ask people to see if they can place any of the SMIs they have at the extremes.

Phase Three: Placing Items in Spaces

For either the corners or the rainbow method, simply ask people to place all the SMIs they have on the space as defined. One metaphor we find useful here is to ask people to imagine multiple rubber bands pulling the SMIs towards either the four corners or the two ends of the rainbow, and the final placement of the SMI depends on how hard each band pulls.

Often people get stuck at this point, especially people who are used to categorizing things. Sometimes people become very nervous and concerned about where to place the SMIs. Be on your guard for people surreptitiously or even blatantly drawing lines on the space so they can place things in boxes (it happens!).

Sometimes people won't draw physical lines but will start referring to areas, like saying "we'll place this one in complex space" and then just throwing it into the center of the upper left quadrant. That's just categorizing and not what you're after with this exercise. Watch for people doing that. If you see it, don't confront them; just interject a little talk about how the fluidity of the patterns they are building - how items are distributed all over the space and not just clumped together within predefined areas - will be very useful later as they build their framework. Thus the people themselves will realize that they need to change what they are doing if they want a useful outcome, without your telling them they are doing it "wrong".

Sometimes people will ask you for an example of where to put things: *don't give one*. Say "put it wherever it seems to fall" or "let it come to settle where it wants to" or "use similarity" or some such ambiguous thing. You can take a *blank* hexagon and show how it might be placed by pretending to

"pull" it closer to each corner or side, but don't use one with anything written on it; people have an amazing tendency to try and figure out why *you* did it that way and try to align everything else with that, rather than actually thinking about the items themselves.

Even though people may spend a long time placing the first few items, you need to let them puzzle out how to get started with this, even if they are unhappy about it. Just leave them alone and they will get going on it. In a short time they should be moving along nicely.

There should be lots of discussion and dissent about where each item "belongs". If you don't hear people talking about placing items - sometimes you will see just one dominant person placing items and the rest of the group watching silently - you need to intervene. You might want to take the dominant person away to do another exercise and see if that helps. Or you can ask some questions about why SMIs are being placed where they are and see if you can get any discussion going. Or you can split the group into two and have each group place some items, then come back together and debate their results. If you see this happening in multiple groups, you may need to recombine groups to see if you can change things that way. If you've already tried some things and the group is just very complacent or indifferent or obsequious or uniform, you might need to *require* them to think of two perspectives on where each SMI should be placed (in effect to generate an artificial debate). However, that case is rare and there is usually some natural debate about most items.

Phase Four: Drawing Initial Boundaries

Corners method

After all the SMIs have been placed, ask people to draw lines around areas which are clearly in one domain or another and on which everyone can agree. The central "disorder" domain should be large at this point. It's okay if the lines meander around a lot to get around particular hexagons.

Rainbow method

People should start by drawing one tentative center line where there seems to be a shift between more-controllable and less-controllable items. Ask people to figure out where the line is where the two bodies of items are the least like each other. You may have to remind people that you do *not* want them to place the boundary exactly halfway across the long line. After they have drawn that line, ask them to draw two more lines at the quarter and three-quarters point (of meaning, not of linear distance).

With either the corner or rainbow method, one thing that works well is to mark the boundaries with a colored string or ribbon held up by push pins or small pieces of tape. This is useful because as the boundaries are negotiated they can be moved around repeatedly. If you aren't able to use string, just have people draw on the paper with a large marker. They can use multiple colors if they want to make changes, or just scribble out old lines.

Again, there should be lots of debate about where exactly to draw the lines. If one person is standing there drawing lines and everyone else is silent, step in and encourage debate. It's also

okay for the placement of some individual SMIs to be re-debated during this stage (but not too many, or that will take up all the time).

Phase Five: Negotiating Firmer Boundaries

Corners method

Ask the people to pull the boundaries they created in the previous step, those between domains, in towards the center, covering more of the hexagons they were not sure about where to place. If a hexagon seems to be in more than one domain, they should draw the line (or place the string) *through* it. There should be much discussion about where to pull the lines to and what hexagons are affected.

After the lines are pulled in, ask people to split the hexagons that are on lines (bifurcate, trifurcate, or quarter) so that a separate hexagon on each side of each boundary replaces the one hexagon on the line. Have them copy the original hexagon onto another one or two or three hexagons and place them in the other domains at the boundary, making a sort of mini-cluster. Ask people to come up with new names for each hexagon in such a cluster, names that indicate why each is in the place it is. For example, if a hexagon labeled "website artwork" was straddling the complexity-hidden-order boundary, it could be split into two hexagons: "website artwork: creative talent" and "website artwork: managing content". These cross-boundary clusters end up being very useful because they define the boundaries created and later can be used to exemplify the meanings of boundaries in the context of the framework.

Rainbow method

Ask people to draw a Cynefin diagram (very large) in a separate empty space from where their controllable/uncontrollable line is drawn now. In the Cynefin diagram, draw a sort of "rainbow" line around the spaces, starting at the lower right corner, arching across the top, and ending up in the lower left hand corner. This will match the straight line the people have now, with the most "controllable" in the extreme lower right and the most "uncontrollable" in the extreme lower left.

Ask people to place the hexagons from their line (either copy or move - copy is better but you may not have time) on the rainbow line on the Cynefin diagram. They should place the hexagons so that the boundaries they created on the line (quarter, half, three-quarters) line up with the boundaries on the Cynefin diagram. At this point the people should re-negotiate where the boundaries are and what they mean.

Optional: Challenging the Framework

It is sometimes useful to have different groups "visit" each other's frameworks after they are complete and challenge the groups to describe the domains and boundaries they have created in order to help them understand them better. For example, you might have one person from each

group meet together in a "complex" group which discusses the nature of the complex domain in their respective frameworks, talks about similarities and differences, and perhaps sees ways they might each improve their frameworks in the light of the perspectives of the other groups.

In general there is quite a bit of sense-making that can go on after the basic framework has been generated, which may or may not be useful or necessary to refine the framework.

A Note About Timing and Groups

You will notice that there were no discussions of how long it should take people to do any of these things. That is because this method can vary widely in the amount of time it takes. This depends on the group of people (how large, how knowledgeable, if they've done this before), the purpose of the exercise, the scope of the context covered (e.g., this month's news vs. the history of our country), the types and numbers of SMIs gathered or used, how much discussion takes place, and so on. In general you should go by the heuristics of complex facilitation to keep things moving and based your timing on what seems required for the circumstance rather than a plan set in advance.

During the collection of SMIs it is often useful to mix up groups quite a bit in order to provide diversity. However, after groups start to place SMIs in space you should keep them together until they have created their frameworks.

Moving Forward

There are many things people can do with a completed contextualised Cynefin framework (which is what they now have), including:

- They can summarize the items in the different domains with "exemplar" SMIs, narratives and heuristics.
- They can explore sub-domains within each domain (extreme, typical, and the two boundaries with other domains), clustering items in those areas, and then optionally also identifying some exemplar SMIs, narratives and heuristics for the sub-domains.
- They can talk about Cynefin dynamics and come up with narratives in which situations move from one domain to another, using the SMIs they have already placed on their contextualised Cynefin framework. Descriptions of dynamics can be based on things like: events in the past, present or possible future; different perspectives on situations or forces; different aspects of situations or forces.
- They can use the contextualised framework to indoctrinate new people into a common culture; and they can use the terms of the framework (exemplar SMIs, for example) to create a meaningful shared language for situational assessment ("this is like the Battle of Harudin extreme-visible-order fiasco").
- They can use the contextualised framework to negotiate meaning with other groups who have created their own contextualised frameworks, possibly using some of the same SMIs.

Good & Bad Practice

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Other Methods

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