catalyst

ABOUT THE CATALYST PROGRAM

The catalyst program has created a network of trained innovation champions who help others work differently by applying design and innovation skill sets to initiatives in their organizations.

ABOUT THESE METHODS

These cards were created as a reference for applying design and innovation skill sets to catalyst projects and teams.

Grounded in six core principles of working differently, these methods should help you pursue new approaches, explore opportunities more broadly and shape ideas quickly.

CCI
CENTER FOR CARE
INNOVATIONS

OBSERVATION

Given our familiarity with workplaces and the routines of everyday life, we don't see and reflect on what's really going on. Focused observation is a powerful tool.

HOW TO

1 Think about and decide what environment or context you'd like to spend time observing.

2 Take a notebook, pen, and a simple note taking framework of AEIOU (Activities, Environment, Interactions, Objects, and Users).

3 Find a place to sit and observe without being in the way. Don't hide, but don't impede. Let the people know you're there to learn, not to evaluate.

4 As you observe the action, note what grabs your attention and what raises questions in your mind.

5 Sketch out the environment. Make a list of things for a specific category. Count things. What's interesting?

6 Take pictures and record video. Watch the video and pin up pictures. In reviewing, you'll often see things you didn't notice the first time.

TIPS & TRICKS

Be yourself, not a sterile observer. Build rapport with the people. Take a moment to help someone or ask a question. Show interest in what they do and tell them so! Note how they are feeling and what their experiences are like.

PAIRS WELL WITH

- Empathy Map
- "Ways of…" Statements

HELPS ACHIEVE

Empathy

⏱ **TIME**
45–60 minutes

💬 **TEAM SIZE**
1 or 2 people

✏ **MATERIALS**
Video camera with good mic, camera phone, consent form

> **"**
>
> *If you want to understand how a lion*
> *hunts, don't go to the zoo. Go to the jungle.*
>
> FRANK CHIMERO

SEE & EXPERIENCE

Start every project with observing and gathering evidence from the context or situation you want to design for.
While you may have worked in the industry for many years or are quite familiar with a particular aspect of everyday life, spending time really looking at and understanding what happens in a given context leads to insight. This is no time for stereotypical descriptions, conventional understanding, or common sense. It's critical you immerse yourself in the world of who you're designing for, see it with fresh eyes, and question why it is the way it is.

SHOW & TELL INTERVIEW

The best way to get better at learning from users and your colleagues is to have them "show and tell" you about what they do. You listen, capture, and learn.

HOW TO

1 Prepare before meeting your participant by writing down things about their situation, job or life you'd like to see and understand.

2 Be transparent with your participant about what you're trying to learn. Emphasize you'd like to know how things really are, not the conventional notion of how we think things should be.

3 Start out with a broad background question. "Tell me a little about yourself and how you got here." Use what the participant says to ask more specific questions. Use, "Tell me about..." on every topic.

4 Make sure you cover ground, don't get caught on one topic too long.

5 Collect things or pictures of things that support the user's experience: references, diagrams, tools, etc.

TIPS & TRICKS

Avoid assumptions. Have participants explain details in their own words. Have them demonstrate the activity.

"Tell me about..." and "Can you show me...?" should be the primary question forms. This avoids short yes/no or discreet choice answers.

PAIRS WELL WITH

• Observation
• Empathy Mapping

HELPS ACHIEVE

Empathy

⏱ **TIME**
45–60 minutes

💬 **TEAM SIZE**
1 or 2 people

✏ **MATERIALS**
Video camera with good mic, camera phone, consent form

> **❝**
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> *If you want to understand how a lion hunts, don't go to the zoo. Go to the jungle.*
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AFFINITY CLUSTERING

Take any large list of ideas or notes and sort them into a smaller number of separate groups. Then name the groups to create an information structure and discover themes.

HOW TO

1 Use a brainstorm or other Collaborative Cycle to generate a collection of content, ideas, or issues on individual sticky notes.

2 Now, sort the items into groups. Take one item and make it the first item in the first group. Take the next item and ask, "Is this similar to the first one or something different?" Either place it in the first group or into its own group.

3 Continue item by item, placing things that are similar together and creating new groups when they don't fit.

4 After you're done grouping, you should have 5 to 10 groups. Name the groups based on what the items represent together.

5 Your named groups can now be used to describe what you have, help generate more items in a group, or help you see gaps you haven't addressed.

TIPS & TRICKS

Move through the grouping quickly—don't overthink it! It's a creative exercise. Group, reflect, and re-arrange—it's OK! Practice makes you better and the results more useful.

PAIRS WELL WITH

- Collaborative Cycle
- Brainstorms
- List of user needs

HELPS ACHIEVE

Exploration

⏱ **TIME**
20 minutes

💬 **TEAM SIZE**
3–5 people

✏️ **MATERIALS**
Sharpies, sticky notes

" "

Whoever best describes the problem
is the most likely to solve it.

DAN ROAM

DIAGRAM & DIMENSION

Identify the different dimensions of your problem and create simple diagrams to improve your understanding and collaboration with others. Just as you would ask a patient more about the different dimensions of their life to assess their health, so you should identify the different dimensions of your project. These dimensions can be used in simple diagrams with arrows and annotation that will help you visualize your project, its complexities, and how you might solve for them. Diagramming isn't about drawing well. It's about identifying elements and their relationships and representing them with basic arrangements, shapes, lines, and arrows—then adding information with annotation. Different layers of annotation can be used to address different categories of information.

EMPATHY MAPPING

Empathy for a user's experience is at the heart of creating meaningful solutions. An empathy map helps your team articulate the user's perspective.

HOW TO

1 On a large easel pad, draw the base empathy map with four quadrants: 1. Say; 2. Do; 3. Think; 4. Feel.

2 Notice that "say" and "do" are very explicit and "think" and "feel" are implicit.

3 Consider a specific user's experience and walk the map, writing down on sticky notes what the user said, did, felt, or thought.

4 Use another color for another user's experience.

5 Once populated, step back and reflect on the content. Look for patterns and inconsistencies. What's at the heart of this experience? Write down these observations and insights.

6 From your discussion, write "Ways of…" statements that can seed a brainstorm of ideas.

TIPS & TRICKS

Don't fall back on stereo-typical descriptions of users' actions or feelings. Use field-work and conversations with users to inform your map with real data.

PAIRS WELL WITH

• "Ways of…" Statements
• Show & Tell Interview
• Observation

HELPS ACHIEVE

 Empathy

⏱ **TIME**
45–60 minutes

💬 **TEAM SIZE**
2–5 people

✏ **MATERIALS**
Easel pad, chisel tip markers, different colored sticky notes

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DIMENSIONING YOUR PROJECT

What matters to a project isn't always clear at the beginning. You'll need to research across different dimensions to understand what's really going on.

HOW TO

1 Start by running a Collaborative Cycle, listing out dimensions of your project that could be interesting to research.

2 Examples include: user experiences, stakeholder opinions, duration of activities, costs, policies, available alternatives, competition and technology in use.

3 Plan how you will gather information about each of the dimensions. Schedule interviews, observations and visits to facilities. You can speak with vendors, do secondary research on the internet, and so forth.

4 Make your gathered information visual and tangible by putting it up on the wall.

5 Review and reflect on what you're learning with colleagues to identify new and more interesting dimensions.

TIPS & TRICKS

Look at dimensions that you think you already know, but gather new information from others. Look at qualitative and quantitative aspects. Cross boundaries between siloed topics or departments.

PAIRS WELL WITH

• Observation
• Show and Tell interviews
• Journey Mapping

HELPS ACHIEVE

Exploration

⏱ **TIME**
A 90 min collaborative cycle.

💬 **TEAM SIZE**
2–3 key players

✏ **MATERIALS**
Sticky Notes, Research Plan

"

If everyone is thinking alike,
then somebody isn't thinking.

GEORGE S. PATTON

QUESTION & REFRAME

Question the familiar, the status quo, and typical ways things are done. When you're good at your job, people expect you to have all the answers. And many of us have been rewarded for knowing how things work in our industry. Figuring out new, better ways of doing things requires questioning how things are done today. "Why do I have to go to a counter to rent my car?" "Why can't I subscribe to a cab service?" Questioning the status quo opens up new space for thinking and imagination. Apply this principle in every dimension of your project—when visiting the field, in small conversations, reviews of research, evaluating ideas. Question things creatively and cover different dimensions—what makes it good, what makes it bad, could it be done differently, can something be eliminated? Could it use low-tech, high-tech, or just a simpler approach? Unlike most questions you get, don't be so quick to answer them. Let the question force exploration and insights.

ANALYZE QUALITATIVE DATA

Qualitative data tells you what people experience and why. For rigorous analysis, organize and review your data as you collect it and look for key topics and patterns.

HOW TO

1 Make your qualitative data tangible with sticky notes, pictures, videos and diagrams.

2 Get the data up on the walls — visible and able to be moved around and grouped.

3 Review data immediately after gathering and then several times over the next couple of weeks.

4 Map your data on top of end user Journey Maps.

5 Create and update a "Top Ten" list of key issues, topics or stories you recognize in the data.

6 Create topic categories to organize evidence from your research.

7 Create a narrative for each category to portray what happens, what works, what doesn't and directions for ideation.

TIPS & TRICKS

Always get your data up on a wall, step back and reflect on what you see. Work with a colleague to ask questions of each other and of the data. Use one or more frameworks to organize your findings.

PAIRS WELL WITH

- Observation
- Show and Tell interviews
- Journey Mapping
- Empathy Map

HELPS ACHIEVE

Empathy, Exploration

⏱ **TIME**
Numerous 45 min collaborative cycles.

💬 **TEAM SIZE**
2–3 people

✏ **MATERIALS**
*Sticky notes, pictures from the field, video, notes.*

> **"**
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FRAMING OPPORTUNITY
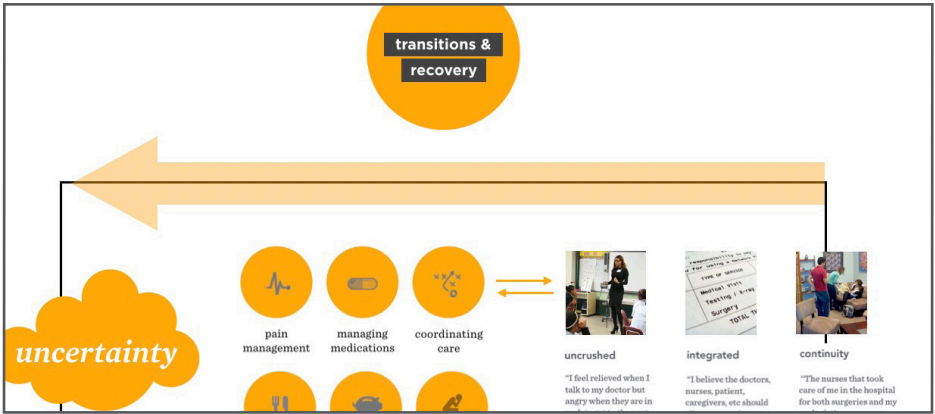
Project research and analysis results in a lot of valuable information for your project. Frame your opportunity by prioritizing the challenges you will address.

HOW TO

1 Gather your list of insights, user journeys and information structure from your research.

2 With your team, discuss and vote on the most important areas to address in your ideation and solution creation.

3 Summarize these insights and challenges in a new diagram or presentation.

4 Now assess: If you address these insights and challenges, will you have a valuable solution? Iterate until you have a well-defined opportunity.

5 Now, write a series of "How might we...?" or "Ways of..." statements based on the details of the opportunity framing.

6 Use these targeted statements as a basis for ideation.

TIPS & TRICKS

Work with stakeholders to prioritize and confirm key issues.

Reflect on your current understanding vs. when you started.

PAIRS WELL WITH

- "Ways of" Statements
- Concept Sheets
- Journey Mapping
- Service Prototype
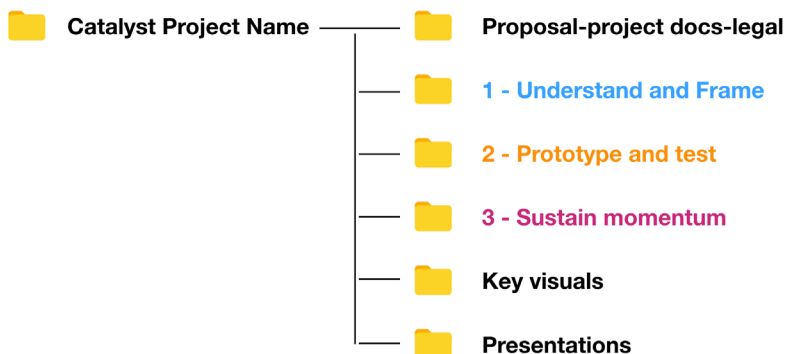
MINDSET OF

Exploration

⏱ **TIME**
90 minutes

💬 **TEAM SIZE**
2-4 people

✏ **MATERIALS**
Sharpies, sticky notes

> **❝**
>
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ORGANIZE PROJECT DATA

```
📁 Catalyst Project Name ——————— 📁 Proposal-project docs-legal

                         ├——— 📁 1 - Understand and Frame

                         ├——— 📁 2 - Prototype and test

                         ├——— 📁 3 - Sustain momentum

                         ├——— 📁 Key visuals

                         └——— 📁 Presentations
```

You'll generate a lot of rich data during each phase of your project -- interview notes, pictures, videos, brainstorm ideas and prototypes. Keep it organized and available.

HOW TO

1 Set up a project folder with a structure that helps you keep things categorized.

2 You'll need one folder for project management docs, proposal, contracts, legal forms, etc.

3 Set up folders for each phase of your project.

4 Within each phase folder, create folders to hold typical content like interview notes, secondary research, images, etc.

5 Create a Key Visuals folder for the best photos, videos and diagrams of your project.

6 Create a Presentations folder. Store all project presentations here. Name things by phase and meeting date.

7 Use a large foam core board or project wall as a work surface for sticky note brainstorms, pictures and maps.

TIPS & TRICKS

It less important to have a perfect folder structure than to have a few folders that you consistently store your files into. You'll always be abel to search to find them.

PAIRS WELL WITH

• Interview Notes
• Field Pictures
• Project Documents
• Worksession Pictures

HELPS ACHIEVE

Organization!

🕐 **TIME**
30 minutes to organize and store files each work cycle

💬 **TEAM SIZE**
2–3 people

✏️ **MATERIALS**
Sticky notes, pictures from the field, video, notes.

"

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PERSONAS

George
- 40-year-old blue collar worker, low-income

"I want to participate more in my healthcare, but don't know where to start."

Summary:
- Needs a certain procedure
- English is adequate, but Spanish is better
- Car is old and can't travel far
- Can't take many days off from work

Goals:
- Prioritizes price and location
- Wants to know what he's getting, in general

Irene
- 36-year-old executive, high-income

"I try to keep up with my healthcare, but I still don't understand the medical jargon and where to find the best quality."

Summary:
- Needs a certain procedure
- English is good
- Has high standards for hospitals
- Can telecommute, so I can go anywhere for care

Goals:
- Prioritizes price and location
- Wants to know what he's getting, in general

Sheila
- 28-year-old administrator working at benefits dept

"I want to find the best quality and best value for my employees!"

Summary:
- Looking for good hospitals for employer (and thus, employees)
- Should be able to negotiate with the hospitals and not overcharge for procedures

Goals:
- Prioritizes price and location
- Wants to know what he's getting, in general

A persona is a representation of a person, typically based off user research. It characterizes their goals, needs, and interests. It helps you design for people's real needs.

HOW TO

1 Gather information about the people you are designing for. Conduct Show and Tell interviews and draw on other data sources.

2 Develop sticky notes from your research and sort user information into several different draft personas.

3 Characterize their demographics, attitudes, motivation, behaviors, key frustrations and needs.

4 Capture actual quotes from your research that gives real user voice to the persona.

5 If creating a single persona, provide more detail on a single page. If characterizing several different users, lay out three coluns on a page horizontally.

6 Use the personas throughout your project to remind yourself and the team of the needs of your users.

TIPS & TRICKS

Use real user experience as the basis for your personas. Keep it real and don't exaggerate. Personas are there to be a reliable touchstone throughout your project.

PAIRS WELL WITH

- Show-and-Tell Interview
- Collaborative Cycle
- Concept Sheets
- Refective Conversation

HELPS ACHIEVE

Empathy

⏱ **TIME**
After research, 2 to 4 hours to draft and produce personas

💬 **TEAM SIZE**
2–3 people

✏ **MATERIALS**
Sticky notes, persona template,

> **"**
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JOURNEY MAPPING

The Cancer Journey
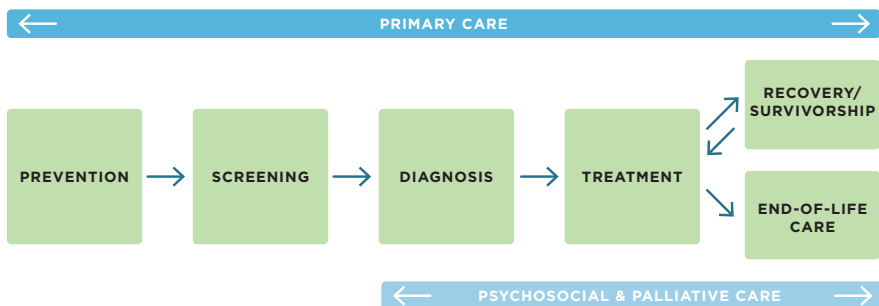
To see if you understand a user's journey, create a diagram representing the distinct activities within their experience. This is a foundation for many useful analyses.

HOW TO

1 Decide what part of the user's journey you'll represent. It could be at a high level (a day in their life) or a more detailed activity (taking their meds).

2 Draw a labeled shape for each key activity in their experience.

3 Arrange them in a sequence or a cycle so you can trace their experience over time.

4 Use arrows to show direction, paths, alternatives, etc.

5 Use color or size to identify groups or different kinds of activities.

6 Once you have a base diagram, you can add more "layers" of information with labels or annotations.

7 Consider where trouble happens, where technology may play a role, what might be unnecessary, or where help would be best targeted.

TIPS & TRICKS

Use sticky notes as a way to quickly brainstorm activities and arrange them in ways that are helpful. Have a graphic designer help improve the representation.

PAIRS WELL WITH

• Show & Tell Interview
• "Ways of…" Statements
• Reviewing user video

HELPS ACHIEVE

Empathy

Exploration

⏱ **TIME**
45–60 minutes

💬 **TEAM SIZE**
2–3 people

✏ **MATERIALS**
Sharpies, sticky notes or diagramming software

>>

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2 × 2

Find two dimensions and plot elements on a simple chart to show patterns or gaps in the information. Use it to make a case for targeting an area with ideas or to shift strategy.

HOW TO

1 Any list of similar elements can be placed on a 2×2: a set of ideas, competitors in a market, or elements of a user experience.

2 Try different dimensions to spread the ideas out on the map—things like cost, quality, time, ease of implementation, etc.

3 Cross two of the dimensions and plot your elements. If they spread out or form an interesting pattern, you're on to something!

4 If they don't spread out, you haven't found a dimension that differentiates the list of elements.

5 Play with a few different 2×2s that work.

6 Facilitate a reflective discussion about what the pattern might mean for your project. There may be a gap in the chart suggesting an untapped area to target.

TIPS & TRICKS

Try to create a dimension unique to your list of elements, rather than typical axes. Simply trying different axes helps develop a better understanding of the list you're dealing with.

PAIRS WELL WITH

• Concept Sheets
• Brainstorms

HELPS ACHIEVE

Exploration

⊘ **TIME**
15 minutes

💬 **TEAM SIZE**
1–5 people

✎ **MATERIALS**
*A large surface to plot out the elements and form groups*

"

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VALUE CURVE
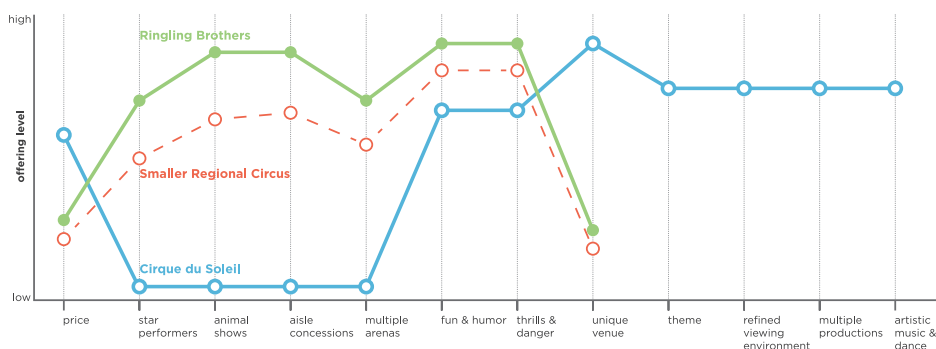
Kim and Mauborgne, *Blue Ocean Strategy*

Innovators often change a fundamental assumption that defines an industry, product, or service. Play with Value Curves to imagine how you might change things.

HOW TO

1 Use sticky notes to brainstorm the fundamental dimensions of your industry's offering.

2 Line up the industry dimensions along the bottom of a chart. The vertical axis is "importance or level of offering " and goes from low to high.

3 Plot your organization's curve on the dimensions.

4 Plot competitors on the dimensions. Look for significant patterns.

5 Now, consider radically changing one or more of the dimensions. Try offering way more or less quality in one or more dimensions or eliminating some.

6 Consider adding dimensions that customers would value and would differentiate your solution.

7 Continue playing with the dimensions to better understand the current industry and possible strategies for improvement.

TIPS & TRICKS

Keep the number of dimensions to between 7 and 10. Use the exercise in a group to question what your industry takes for granted. Gain confidence by seeing examples from other industries.

PAIRS WELL WITH

• Analogous Examples
• Solution Maps
• Service Prototypes

HELPS ACHIEVE

Exploration

⏱ **TIME**
30–60 minutes

💬 **TEAM SIZE**
2–5 people

✏ **MATERIALS**
Easel pad, chisel tip markers or diagramming software

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PROBLEM STATEMENT MATRIX

Take what you've seen and heard from users to reframe your project challenge in human terms. This helps provide a fresh, user-centric perspective.

HOW TO

1 Use the problem statement template. Each team generates problem statements in the users' words, filling in each of the 5 phrases. Do this for multiple users, capturing each phrase on a sticky note, creating a matrix.

2 Have the team spend a few minutes to look at the matrix as a whole, jotting notes to self about things that struck them, surprises, patterns and themes.

3 Share the notes and discuss them as a team. Pay special attention to insights that surface that offer a fresh view into the problem. Sort and organize the notes into groups.

4 Your named groups can now be used to describe what you have, help generate more items in a group, or help you see gaps you haven't addressed.

TIPS & TRICKS

Use a different color sticky note for each user. Write in the user's words, not yours. This is great for after you do interviews with users. We've even seen physicians give this to patients to fill out (and interview them after to understand why)!

PAIRS WELL WITH

- Observation
- Any Collaborative Cycle
- 3-Part Observations

HELPS ACHIEVE

Empathy

⏱ **TIME**
30 minutes

💬 **TEAM SIZE**
2–5 people

✏ **MATERIALS**
Problem statement template, sticky notes

> ❝
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FACILITATING CO-DESIGN SESSIONS

Co-design sessions engage stakeholders and bring more insight to your solution direction. Design these sessions to be engaging and collaborative through a creative approach.

HOW TO

1 Target one key creative activity and book-end it with a warm-up discussion and a closing discussion.

2 Welcome your guests, chat informally and then start by sharing the framing of your problem. Allow questions and a robust discussion around goals for a solution.

3 Then set up the creative activity in which small groups of two or three draw or build their potential solutions.

4 The creative activity could be a storyboard, drawing an experience on top of your office floor plan, or acting out how the experience should be with props.

5 Have materials, templates and props on hand. Create scenarios in advance so that it is easy for participants to make their ideas tangible in a short amount of time.

6 Let people share the story of their creation and why they think it should be that way.

7 Discuss the ideas to get a sense for which resonate best or elicit excitment, and then close with a big , "Thank you!"

TIPS & TRICKS

Treat a co-design session like you're hosting friends for a get together!

Prepare the space, the activities and snack & beverages.

PAIRS WELL WITH

- Collaborative Cycle
- Storyboards
- Concept Sheets
- Refective Conversation

HELPS ACHIEVE

Experimentation

Entrepreneurship

⏱ **TIME**
1-3 hour sessions

💬 **TEAM SIZE**
4-7 people

✏ **MATERIALS**
Sticky notes, floor plans, experience maps, props.

> **"**
>
> *Genius is the ability to put into effect what is on your mind.*
>
> F. SCOTT FITZGERALD

IMAGINE & MODEL

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FACILITATING REFLECTIVE DISCUSSION

Working in teams requires facilitating critical discussion frequently among the group. Pose reflective questions, have people share more, and elicit pros, cons, and next steps.

HOW TO

1 After working through any activity in a group, take the opportunity to facilitate a discussion reflecting on the content and next steps.

2 Start with an open request for observations: "What was interesting or valuable about what we did? What would you highlight and why?"

3 Be patient for people to think and start contributing. It will seem like a long silence— but just let it happen. Someone will fill the void.

4 As people contribute, re-state their contribution. Ask for differing points of view and for people to build on each others' thoughts.

5 Write down phrases, questions, and capture ideas from the discussion visually. This helps people think about the content and contribute more.

6 Close with participants suggesting what to keep in mind as the project moves forward.

TIPS & TRICKS

Make sure other people are speaking more than you. Don't allow debate. While asking open ended questions may feel vague, they lead to important contributions from participants.

PAIRS WELL WITH

- Collaborative Cycle
- Show & Tell Interview
- Presentation Q&A

HELPS ACHIEVE

Empathy

Exploration

Experimentation

⏱ **TIME**
15–20 minutes

💬 **TEAM SIZE**
4–20 people

✏ **MATERIALS**
Chisel tip markers, easel pad

> **"**
>
> *If everyone is thinking alike,*
> *then somebody isn't thinking.*
>
> GEORGE S. PATTON

QUESTION & REFRAME

Question the familiar, the status quo, and typical ways things are done. When you're good at your job, people expect you to have all the answers. And many of us have been rewarded for knowing how things work in our industry. Figuring out new, better ways of doing things requires questioning how things are done today. "Why do I have to go to a counter to rent my car?" "Why can't I subscribe to a cab service?" Questioning the status quo opens up new space for thinking and imagination. Apply this principle in every dimension of your project—when visiting the field, in small conversations, reviews of research, evaluating ideas. Question things creatively and cover different dimensions—what makes it good, what makes it bad, could it be done differently, can something be eliminated? Could it use low-tech, high-tech, or just a simpler approach? Unlike most questions you get, don't be so quick to answer them. Let the question force exploration and insights.

COLLABORATIVE CYCLE

Here's a simple and effective structure to get the most out of an assembled group of people. Use it as the basis for brainstorms and other generative meetings.

HOW TO

1 Give the group some context on what you want them to do together—brainstorm ideas, review user video, sort information, etc. (5 min)

2 Do the brainstorm or activity. It'll start slow but pick up over time. Have everyone use sticky notes to capture individual insights or sketch ideas, etc. (30 min)

3 Stop when the energy and pace wind down (30–40 min). Now, use Affinity Clustering to organize 50–75 individual items and 8–10 groupings.

4 Present and/or discuss what the team generated. What's included? What's missing? What might it mean for the project?

5 Discuss next steps and assign specific tasks to specific people.

TIPS & TRICKS

Make sure content is being captured! Don't let people talk their way through the time. The organization, reflection, and next steps discussion moves the group from ideas to action.

PAIRS WELL WITH

- "Ways of…" Statements
- Brainstorms
- Affinity Clustering

HELPS ACHIEVE

Empathy

Exploration

Experimentation

⏱ **TIME**
45–60 minutes

💬 **TEAM SIZE**
5–8 people

✏ **MATERIALS**
*Sharpies, sticky notes, half sheets*

> **"**
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3-PART OBSERVATIONS
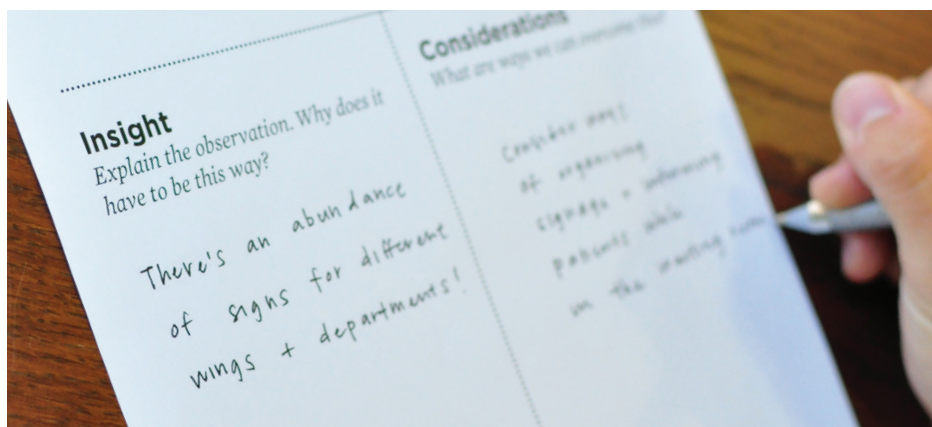
To communicate insights in more evocative ways, wrap your observations about users, situations, or industries in a 3-part structure.

HOW TO

1 Start with an observation. This should be something direct—a fact that seems almost obvious.

   "People are bored and fidget as they wait in line…"

2 Now add an insightful reflection. It could explain the observation, call out an irony, or question why it has to be that way.

   "…this is no surprise as there is little in the environment to engage with or warrant attention."

3 Third, add considerations or ideas that are ways of overcoming the insight.

   "…consider ways of posting or sharing information that would be beneficial for those people to know."

TIPS & TRICKS

The real insight is in how you see everyday situations—not in seeing or discovering truly surprising behaviors.

PAIRS WELL WITH

- "Ways of…" Statements
- Observation
- Reviewing user video
- Brainstorms

HELPS ACHIEVE

Empathy

Exploration

⏱ **TIME**
2–3 minutes per

💬 **TEAM SIZE**
1–2 people

✏️ **MATERIALS**
Pen, paper, a questioning mind

> ❝
>
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"HOW MIGHT WE" STATEMENTS

Don't jump to a solution when presented with a problem. Better explore your problem's context and come up with different ideas by using "How might we…?" statements.

HOW TO

1 After spending time with users and the problem context, you will have identified both challenges and opportunity areas.

2 For each challenge, write a "How might we…?" statement.

"How might we understand the experience of a client using services from multiple partners?"

3 Sort the "How might we…" statements into groups that might share similar types of solutions.

4 A group of similar "How might we…" statements could suggest an overall approach to a solution.

5 Reflect and discuss which "How might we…" groupings seem the most promising.

6 Seed your brainstorm sessions with these "How might we…" statements to generate many possible ideas.

TIPS & TRICKS

Focus on a user-centered mindset—"How might users…?"

If you find yourself with too many, edit ruthlessly. Just a few key "how might we…" statements should generate hundreds of ideas.

PAIRS WELL WITH

- 3-Part Observation
- Concept Sheets
- Journey Mapping
- Service Prototype
- Collaborative Cycle

HELPS ACHIEVE

Exploration

 TIME
30–120 minutes for multiples

 TEAM SIZE
1–2 people

 MATERIALS
Sharpies, sticky notes

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ANALOGOUS EXAMPLES

A great way to break conventional thinking is to look at others who've already broken convention. Study how game-changers outside your industry have done it.

HOW TO

1 Look for people, products or services that are new, unique, or extreme in their approach.

2 Reflect and identify unique atrributes of what they do and any conventions they break.

3 Identify some of the obstacles they face and how they overcame them.

4 Ask how their specific model or characteristics of what they do might be helpful to your own team's thinking.

5 Use a Collaborative Cycle to have small teams research and discuss the analogy and how it might apply.

6 Use analogies in Pitches to help others see the possibility of defying convention.

TIPS & TRICKS

Try to find examples from related worlds that have structural or characteristic similarities to your own industry or situation. They are often the most powerful.

PAIRS WELL WITH

• Collaborative Cycle
• Elevator Pitch
• Pitch Deck

HELPS ACHIEVE

Exploration

Experimentation

⏱ TIME
5-10 minutes per

💬 TEAM SIZE
1–2 people or a group

✏️ MATERIALS
Internet, trend sites, what's new, classic disruptors

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STORYBOARDS

Storyboards are a great way to show existing or future customer experiences. They put problems and solutions in context and make them easier to communicate and assess.

HOW TO

1 Select an aspect of a customer experience you'd like to storyboard. Often this is informed by observation or an ethnographic interview.

2 Use sticky notes to brainstorm key steps of the customer experience. Draw a simple picture that captures key steps. Stick figures work great!

3 Organize the steps into three parts: setting the stage, exposing a problem, and showing its outcome.

4 If you have too many, reduce the number of steps to get at the essence of the experience.

5 Draft a script taking the viewer through the storyboard. Refine it until it's clear and concise.

6 Share the storyboard with others to get feedback. Use it to brainstorm ideas or evaluate a proposed solution.

TIPS & TRICKS

If the storyboard gets too long, break it into smaller sequences. Keep storyboards posted as an easy way to share customer experiences with each other and to foster conversation.

PAIRS WELL WITH

- Show & Tell Interview
- Journey Map
- Concept Sheets

HELPS ACHIEVE

Empathy

Exploration

Experimentation

TIME
30–60 minutes for a couple

TEAM SIZE
2–5 people

MATERIALS
Sharpies, sticky notes, half sheets

> ❝
>
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>
> F. SCOTT FITZGERALD

IMAGINE & MODEL

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CONCEPT SHEETS

Capture ideas with a quick sketch and a provocative title. A concept sheet gets ideas out of your head and into a form that's easy to sort, share, and document.

HOW TO

1 Always have concept sheets around your project. Made from a half sheet of letter-sized paper, it should include a place for a title, sketch, name, and date.

2 During a brainstorm, get a stack of concept sheets and assemble a team of 5 to 7 people.

3 Create a focus for your brainstorm. "Ways of…" statements are great for this. They require ideas in response!

4 Get everyone going. Ask that all ideas be produced on a concept sheet.

5 Participants should "sketch out" a concept sheet and then hold it up to share with others.

6 Pin the concept sheet up on the wall after sharing.

7 After the brainstorm, review the concepts and group them according to similarity, difficulty, value, etc.

TIPS & TRICKS

Concept sheets, as opposed to a personal notebook, allow ideas to be shared with others and talked about.

Making concept sheets is habit-forming and improves your visualization and ideation skills.

PAIRS WELL WITH

- Affinity Clustering
- Brainstorms

HELPS ACHIEVE

Exploration

TIME
2 minutes per

TEAM SIZE
1, or 5–7 people

MATERIALS
Sharpies, half sheets

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PAPER MODELS

Any idea you think has merit should be modeled in a tangible way as soon as possible. Paper models are a surprisingly easy and fast way to make your ideas real.

HOW TO

1 Use a core set of basic tools and materials: white paper, white cardboard, white tape, inkjet printer, scissors, and thin and thick markers.

2 Think about what demonstration and discussion the model should support. Work at an appropriate size and detail only what's necessary.

3 Think through how you could make it before jumping in. Do little experiments to see if the approach would work.

4 Try to create the model from as few parts as possible, assembling smaller sections, rather than making a "house of cards."

5 For web and app interfaces, use simple symbols to lay out content and details. Switch screens by replacing paper screens in sequence.

6 Demonstrate the concept with your paper prototype.

TIPS & TRICKS

Use all white materials. Forgo needless detail. You're not trying to make the real thing out of paper, only represent key aspects. Work quickly, but don't be sloppy. Craft matters a lot.

PAIRS WELL WITH

- Concept Sheets
- User Feedback with Prototypes

HELPS ACHIEVE

Exploration

Experimentation

TIME
30–120 minutes for multiples

TEAM SIZE
1–2 people

MATERIALS
Paper, cardboard

> ❝
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SERVICE PROTOTYPES

Service prototypes make the touchpoints of a new service offering tangible and allow you to test it with customers and other stakeholders.

HOW TO

1 Services are not intangible! We all interact with the touchpoints of a service: a website, a phone tree, a mobile app, a brochure, a place, etc.

2 To prototype a service, identify the ways users would discover, understand, and engage with it.

3 Make these different touchpoints using your paper prototyping skills. Web and app interfaces can easily be sketched.

4 If your service involves a place, arrange a room with tables, chairs, and paper signs to model that environment.

5 Demonstrate the service to colleagues, or better yet, have an outsider try to use an aspect of the service with your prototype.

6 Refine the prototype based on user feedback and try different versions to see how people react.

TIPS & TRICKS

Prototype one aspect of the service rather than the whole thing. Maybe it's just the sign-up process or another key part of the experience.

PAIRS WELL WITH

- Paper Models
- User Feedback with Prototypes
- Analogous Examples

HELPS ACHIEVE

Exploration

Experimentation

⊘ **TIME**
90–120 minutes for multiples

💬 **TEAM SIZE**
2–3 people

✎ **MATERIALS**
Paper, cardboard, furniture, easel pad, sticky notes

> ❝
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RAPID EXPERIMENTS

UIC Innovation Center

Look for simple ways to try out early ideas with users in the real world. You're not validating your ideas, but rather testing and shaping them quickly and iteratively.

HOW TO

1 Begin by articulating your insights, vision and idea on paper. Be specific and tangible.

2 Identify the riskiest assumptions in what you wrote and generate a list of potential solutions to them.

3 Brainstorm experiments that can be run quickly (starting today or tomorrow). Narrow down to one or two and describe what you're trying to learn.

4 Perform the experiment in the real world. Bring in multiple users to get feedback.

5 What did you learn about your hypotheses? Based on what you learned, what would you keep the same and what would you do differently?

6 Modify or completely change the experiment and try again to keep learning.

TIPS & TRICKS

Be scrappy and use what you have on hand. That includes the materials, locations, and potential users you already know.

PAIRS WELL WITH

* Paper Models
* Service Prototypes

MINDSET OF

Exploration

Experimentation

TIME
60–90 min, multiple rounds

TEAM SIZE
2-4 people

MATERIALS
Paper and serivce prototypes, cardboard models

"

Feedback is the breakfast of champions.

KEN BLANCHARD

TEST & SHAPE

Share what you are working on early and often. "No concept survives its first contact with the customer." The current mantra in software startups is new ideas need to be seen and tested by those you're designing for. The feedback, much of it constructive, will help you make the concept better by shaping it in response. You don't need to agree or disagree with any of the feedback—you just need to hear it. People who are unable to receive all kinds of feedback to make their work better will struggle with the process of innovation. Don't make the mistake of keeping your work a secret. Learn to share rough ideas early and freely, striking up conversations with others, asking what they think, how they might improve it, or what they would advise. You'll get great support for your effort because you engage and listen to others' ideas.

ENACTMENTS

Acting out how one or more interactions or ideas would work can often reveal insights into processes and experiences that would otherwise go unrecognized.

HOW TO

1 Make a list of interactions/ideas that you want to explore to better understand an experience.

2 Create key props that support your enactment.

3 Determine how to perform the enactment as a scene. Identify roles and script key behaviors. Have the team act out the interactions/ideas as practice.

4 Videotape the enactment, ideally in one take so you don't have to edit. Keep it to 2–3 minutes.

5 Review the enactment as a team. What feelings did the different roles experience? What was surprising?

6 Capture implications in terms of how that would shape a future iteration of these ideas.

7 Show the video to others to get feedback on the ideas.

TIPS & TRICKS

Don't get too dramatic, you're trying to empathize with the experience of someone else. Focus on what you learned or thought about differently because of the experience.

PAIRS WELL WITH

- Storyboards
- Paper Models
- Service Prototypes

HELPS ACHIEVE

Empathy

⏱ **TIME**
30 minutes

💬 **TEAM SIZE**
2–5 people

✏ **MATERIALS**
Props, video camera

> **"**
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USER FEEDBACK WITH PROTOTYPES

Put paper, service, and interactive prototypes in front of customers and other stakeholders to get their reaction to your solution concept.

HOW TO

1 When you have a prototype of a concept, even if it's just paper, have someone else try it.

2 Recruit a participant, provide them with context for the idea and ask them for their honest opinion.

3 Ask them to do something specific with the prototype—give them a task it supports.

4 As they try, have them talk out loud about what they are thinking, looking for, and trying to do.

5 Be helpful, but don't lead them in a direction you want to see. Observe how your prototype does or doesn't support your intended user tasks or experience.

6 When they stumble or can't move on, ask them what they are trying to do and what would be helpful.

7 After they've tried the prototype, talk more about what you're trying to do and solicit their advice.

TIPS & TRICKS

Design your prototypes to support user activity. It's OK for them to be simple and low fidelity—they should work like good props.

PAIRS WELL WITH

- Paper Models
- Service Prototypes
- Observation

HELPS ACHIEVE

Exploration

Experimentation

⏱ **TIME**
30–120 minutes with multiples

💬 **TEAM SIZE**
1–2 people

✏️ **MATERIALS**
Paper prototypes, service prototypes, cardboard models

> **"**
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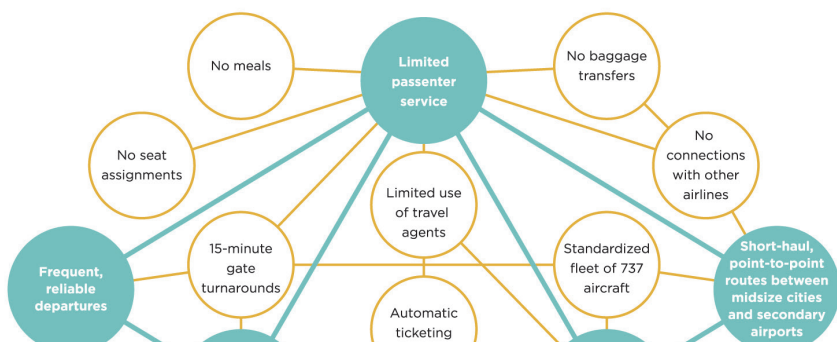> *Feedback is the breakfast of champions.*
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VALUING SOLUTIONS

Assessing and communicating the value of your solution is critical to shaping it for success and building support for it's implementation.

HOW TO

1 Take time to brainstorm the ways in which your solution creates value. Consider direct and indirect sources.

2 Consider the value users of the solution like patients, partners and staff receive. Use qualitative and quantitative measures like satisfaction, net promoter score, efficiency, convenience and preference.

3 Consider value received to the organization such as improvement of key objective, reduced costs, smoother workflows, reduction of risk factors, demonstration of leadership, etc.

4 Establish simple measures and targets for them that you would like to meet.

5 Design your prototypes to improve these measures and assess them while testing prototypes.

TIPS & TRICKS

A successful solution always creates new kinds of value.

Be honest about challenges the solution faces in creating that value.

PAIRS WELL WITH

- Elevator Pitch
- Business Model Canvas
- Solution Maps

MINDSET OF

Experimentation

Entrepreneurship

⏱ **TIME**
One work session, ongoing

💬 **TEAM SIZE**
1-2 members

✎ **MATERIALS**
Spreadsheets, simple surveys, video of testing

"

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SOLUTION MAPS

SOUTHWEST AIRLINES' ACTIVITY SYSTEM

- No meals
- Limited passenter service
- No baggage transfers
- No seat assignments
- No connections with other airlines
- Limited use of travel agents
- 15-minute gate turnarounds
- Standardized fleet of 737 aircraft
- Short-haul, point-to-point routes between midsize cities and secondary airports
- Frequent, reliable departures
- Automatic ticketing

Michael Porter, "What is Strategy?," *Harvard Business Review*

Innovative solutions are more than a single idea. A solution map lays out all the key elements and characteristics of an offering that work together to implement a focused strategy.

HOW TO

1 Work out the first versions on a large easel pad with a chisel tip marker. Title the page with your solution concept.

2 Brainstorm elements of your solution on individual sticky notes. Title them clearly.

3 Reflect and choose the smaller ideas that are components or characteristics of the bigger, key elements.

4 Draw lines between ideas and elements that support or reinforce each other.

5 If you're fairly early in the project, use the map to stimulate additional ideas that would support the solution.

6 Reorganize as circles and lines on another page to make the overall map clearer.

7 Take time to share the map to get feedback.

TIPS & TRICKS

Use this exercise to get at the core elements of your solution. Be realistic with what you'll be able to implement. Annotate the map with questions, team responsibilities, etc.

PAIRS WELL WITH

- Concept Sheets
- Pitch Deck

HELPS ACHIEVE

Exploration

⏱ **TIME**
30–120 minutes for multiples

💬 **TEAM SIZE**
1–2 people

✏ **MATERIALS**
Chisel tip marker, easel pad

"

Never, never, never give up.

WINSTON CHURCHILL

PITCH & COMMIT

Put together a short, but compelling case for your project including the user need, the insight and proposed solution direction, summary of work to date, the real challenges you face, the investments necessary, and its ultimate value should you be successful. This pitch will be important for securing local support, partnerships, financial resources, and organizational commitments. The pitch should be short, but well-rounded and not just a description of the solution. Demonstrate your commitment to the project by being both an advocate of it as well as a good listener to those who help shape it. Make small progress and share it. People who see the idea moving forward will gain respect for it and interest in its success.

BUSINESS MODEL CANVAS

The BMC is a set of key dimensions used by startups to track the definition of their offering. The canvas is updated regularly after running tests with customers.

HOW TO

1 Print a blank BMC template.

2 Use sticky notes to brainstorm five or more possible elements for each area of the canvas.

3 Step back with your team and discuss the most important elements. Debate which ones should be kept or eliminated and why. Note what you haven't thought much about.

4 Use this discussion to determine the next actions your team will take to test hypotheses or get other feedback from customers.

5 After completing each experiment or activity, update the BMC with what you've learned and determine your next experiment.

6 Share your business model canvas with leadership and ask for their advice and suggestions.

TIPS & TRICKS

Don't have too many elements in each area. The BMC should fit on one page and be readable! Treat the BMC as a live document, using it to assess where you're at and drive experimentation!

PAIRS WELL WITH

- Solution Maps
- User Feedback with Prototypes
- Pitch Deck

HELPS ACHIEVE

Experimentation

🕐 **TIME**
30–90 minutes for first version
30 minute revisions

💬 **TEAM SIZE**
1–2 people

✏️ **MATERIALS**
BMC Canvas, sticky notes, pens

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ELEVATOR PITCH
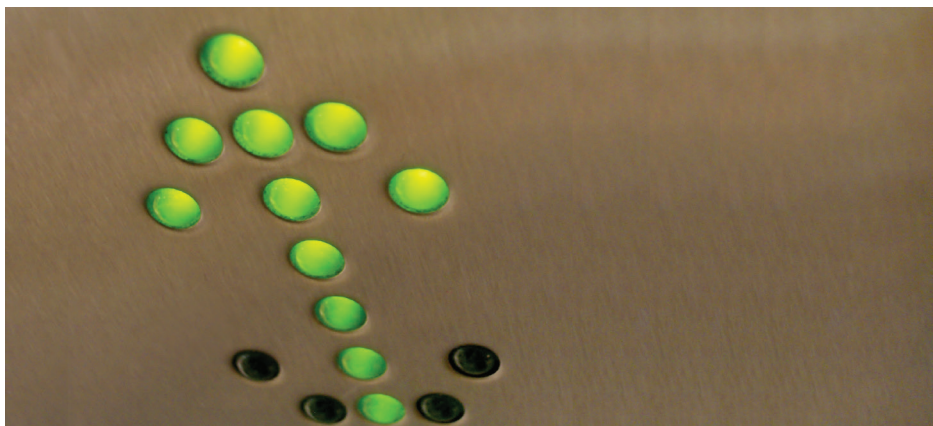
To build awareness for an initiative and find potential supporters, create a verbal summary you can share in under a minute. This conveys the essence of your idea.

HOW TO

1 The best pitches are simple, clear and compelling. You'll need to brainstorm, edit, and refine to get there!

2 Craft an opening statement. What is the one thing your audience should remember about your initiative?

3 Provide context. What's the problem or situation you're addressing? Why isn't that acceptable?

4 Describe the core solution. Share what's unique and valuable about what you're doing.

5 Describe your ultimate goal. What will be made possible if you're successful?

6 If you're asking for something, state it simply and specifically.

7 If your audience isn't able to help, ask them for a reference to someone they feel would be more appropriate.

TIPS & TRICKS

Say less in order to draw interest from your audience. Don't underestimate the power of ruthless editing. Make sure your whole team can share the elevator pitch.

PAIRS WELL WITH

- Pitch Deck
- Solution Map
- Paper Models

HELPS ACHIEVE

Experimentation

⏱ **TIME**
60 minutes for first version

💬 **TEAM SIZE**
1–2 people

✏️ **MATERIALS**
Chisel tip marker, easel pad, text editor

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PITCH DECK

Once your project outgrows its incubation, use a well-structured 10-slide pitch deck to explain your concept, build support, and garner additional resources.

HOW TO

1 The Pitch. What's the essence of your solution? e.g. "Airbnb for ambulatory care".

2 The Problem. Describe the failures of the current situation and the opportunity for your solution.

3 The Solution. Illustrate how you'll solve the problem.

4 The Value. Show how many people could and would take advantage of your solution.

5 The Business Model. Outline the significant value your solution offers the organization.

6 The Key Elements. Explain the dimensions of your solution: technology, organizational change, etc.

7 Marketing. Explain how you'll get the word out.

8 Resources. Show what's needed for implementation.

9 Milestones. Walk through your roadmap and timeline for implementation.

TIPS & TRICKS

Get at the essence in every slide. Too much explanation devalues your solution. Test your pitch many times before going in for the big meeting. Look for experienced managers to provide feedback.

PAIRS WELL WITH

- Elevator Pitch
- Business Model Canvas
- Solution Maps

HELPS ACHIEVE

Experimentation

⏱ TIME
A week or two to shape a pitch

💬 TEAM SIZE
2–3 key players

✏ MATERIALS
Powerpoint, Keynote, or Google Drive presentation

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WINSTON CHURCHILL

PITCH & COMMIT

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