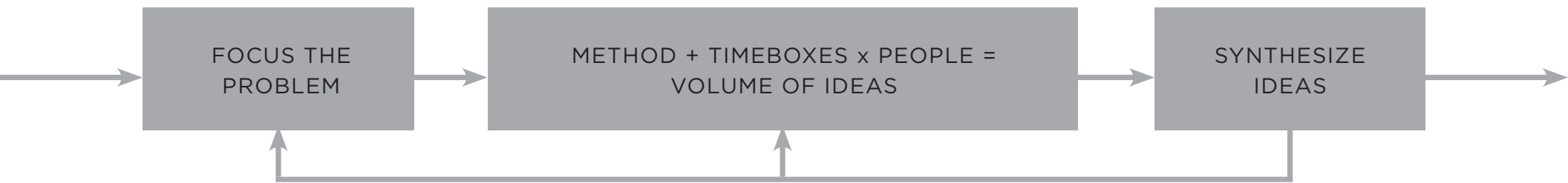


EFFECTIVE BRAINSTORMING FOR DESIGNERS OVERVIEW



PREPARE

1. Agree on the business problem you're trying to solve (ideally in a design brief).
2. Work with your team to focus your approach to the problem by creating ideation questions from your agreed-upon area of focus.

BRAINSTORM

1. Determine how many people will be in your brainstorm, and the space you'll be able to hold your meeting.
2. Select the design methods that you feel will yield the most appropriate ideas, based on the required final output for the project and the different personalities that will be involved.
3. Plan out a clear agenda that sets out how the time will be used—down to the minute, with stated idea generation goals for everyone involved (a.k.a. timeboxing).
4. Reserve the final minutes of your meeting to establish criteria for evaluating your ideas and outline next steps.

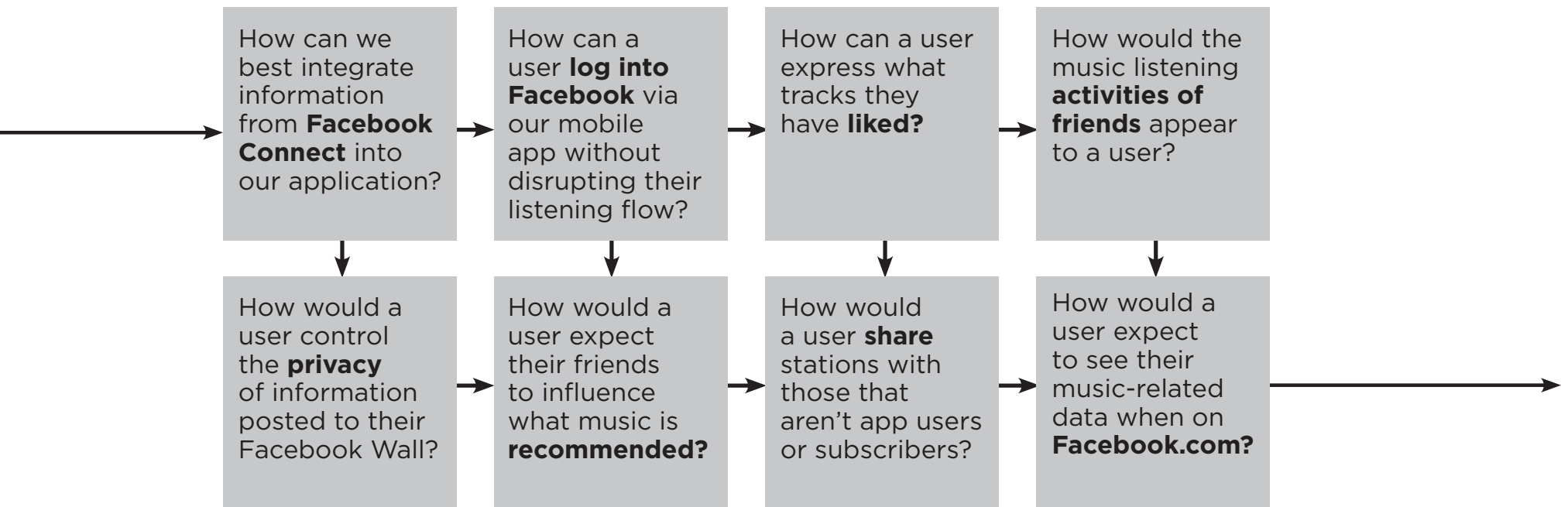
DISTILL

1. Post all of your ideas for the team to see—even those that weren't in the meeting.
2. With your team or in a future meeting, cluster your design ideas into concept maps as a timeboxed exercise. Move from an overwhelming number of ideas to systematic solutions.

PREPARING FOR A BRAINSTORM: IDEATION QUESTIONS

Let's start coming up with all sorts of amazing ideas! Wait—where do we even start?

First, jot down some ideation questions. They are restatements of issues that form the basis of a design problem. Post-it Notes, Sharpies, and other simple tools help here, as you can cluster and group your questions for when you start brainstorming.



A well-articulated design problem immediately suggests a range of potential solutions. And ideation questions can address both functional and aesthetic areas that you're seeking to explore.

TIMEBOXING: SHORT, STRUCTURED IDEATION SPRINTS

Timeboxing is the use of short, structured sprints to achieve stated idea generation goals.

When presented with a deadline, plan out a series of manageable steps that have tangible work output, such as a set number of design ideas or sketches. Quantity is the name of the game, not quality. Try to capture ideas in both words and pictures. Always set a goal that's hard to reach. Depending on your goal, sketch each idea on a separate sheet of paper, half-sheet, or sticky note.

STATE YOUR INTENT  SET A TIME LIMIT  SET A GOAL

“How can a user express **what tracks they have liked?**”

10 minutes

At least 10 idea sketches

“How would the music listening **activities of friends** appear to a user?”

10 minutes

At least 10 idea sketches

“How would a user control the **privacy of information** posted to their Facebook Wall?”

8 minutes

At least 6 low-fi unique wires

“How can a user **log into Facebook** via our mobile app without disrupting their listening flow?”

8 minutes

At least 3 different user flows

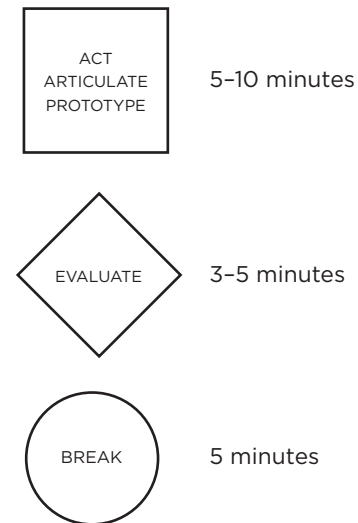
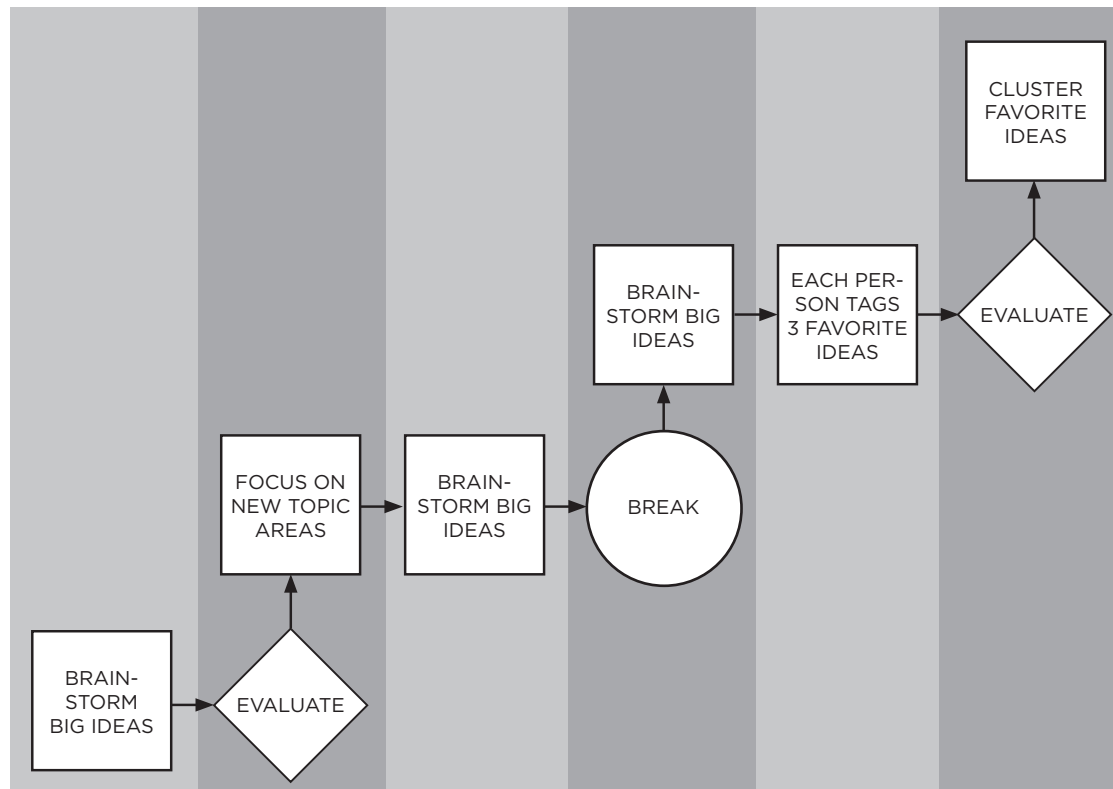
“How would a user **share** stations with those that aren't app users or subscribers?”

10 minutes

At least 10 idea sketches

TIMEBOXING: HOW TO PLAN A BRAINSTORM

When timeboxing, it's not all about generating ideas. You can bounce between taking an **action**, such as brainstorming or refining ideas, **evaluating** what you've created, and **articulating or prototyping** details that should be addressed in a future timebox. Try to never let a timebox go longer than 10 minutes. 5 to 8 minutes should be your sweet spot, and be sure to plan in **breaks**.



Sketch out a quick plan of how you're going to use your time. It's okay if the plan changes as you go, but keep your desired end goal firmly in mind. Any changes should support getting there with strong ideas.

BRAINSTORMING METHODS

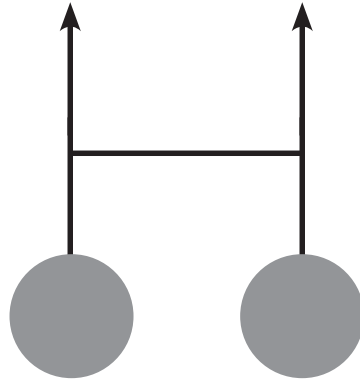
If you find yourself getting stuck, throw a brainstorming technique in one of your timeboxes. You'll inevitably find yourself gravitating towards the techniques that seem to work best, but it's important to vary techniques every so often to stay fresh.



BRAINSTORMING INDIVIDUALLY

Sketching
Mind Mapping
Word Listing
Picture Association
Brutethink
Deconstruction
Exaggeration
Fantasy
Reversal
10x10

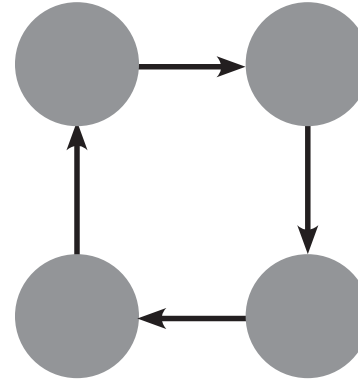
Tools: Pen, paper



BRAINSTORMING IN PARALLEL

Sketching
Future-Casting
Rapid Storyboarding
10x10
30 Days in 30 Minutes
Exaggeration
Fantasy
Reversal

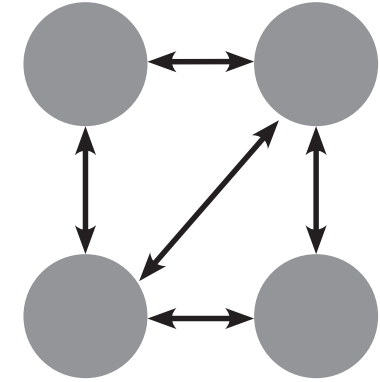
Tools: Pen, paper



BRAINSTORMING IN THE ROUND

Sketching
Idea Inversion
Mad Libs
Blank Bubbles
Yes, And...
Interface Bingo

Tools: Pen, paper



BRAINSTORMING VIA ROLE-PLAYING

Physical Prototyping
UI Pantomime
Deprivation
Video Scenarios

Tools: Pen, paper, scissors, tape, props, phones or videocameras

EFFECTIVE BRAINSTORMING FOR DESIGNERS METHODS

Experiment and find your team's sweet spot. Using different brainstorming methods with your team will have an impact on the quantity of ideas that you generate, as well as how long it will take to debrief regarding what ideas were generated. Ideas that emerge from role playing may be more useful for, say, future-forward interactive projects, comparative to the other methods.



BRAINSTORMING INDIVIDUALLY

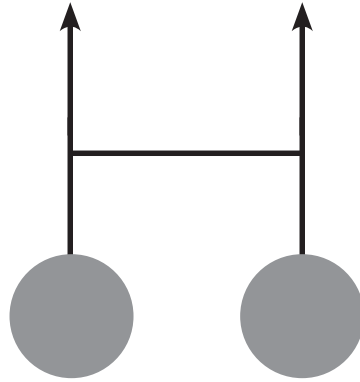
VOLUME OF IDEAS

GOOD

TIME REQUIRED TO PREPARE



TIME REQUIRED TO DEBRIEF



BRAINSTORMING IN PARALLEL

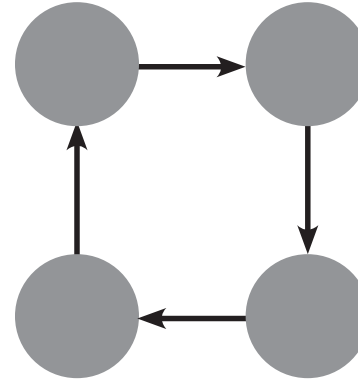
VOLUME OF IDEAS

GREAT

TIME REQUIRED TO PREPARE



TIME REQUIRED TO DEBRIEF



BRAINSTORMING IN THE ROUND

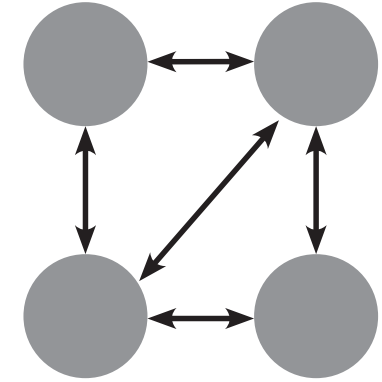
VOLUME OF IDEAS

GOOD

TIME REQUIRED TO PREPARE



TIME REQUIRED TO DEBRIEF



BRAINSTORMING VIA ROLE-PLAYING

VOLUME OF IDEAS

LESS (BUT APPROPRIATE)

TIME REQUIRED TO PREPARE



TIME REQUIRED TO DEBRIEF



BRAINSTORMING INDIVIDUALLY

MIND-MAPPING

Allows you to identify a range of ideas quickly in a free-form manner.

1. Place the key point of focus for your brainstorm in the center of the page or whiteboard.
2. Write words / terms related to the focus in the empty space around the center, radiating outward. If you run out of concepts, write down slightly related things, opposites, or unrelated thoughts.
3. Expand upon relationships in ideas that emerge from the various nodes, circling and grouping items as necessary.
4. Distill big ideas from the map.

WORD LISTING

An alternate method of mind-mapping.

1. On a sheet of paper, write a column of words with as many concepts or terms as possible related to your point of focus for your design.
2. In a second column, pick an idea that interests you from the first column and expound upon it.
3. In the third column, write down words that are the opposite of the material in column 1.
4. Circle relationships that span columns 1 through 3. Distill into ideas.

PICTURE ASSOCIATION

Mind-mapping without a verbal foundation.

1. Search the Internet for photographs (Google, FFFFOUND, stock sites) that feel related to the project at hand.
2. Arrange them in groups or clusters.
3. Write words around the clusters that describe the essential messages they convey.
4. From these groups, distill into possible directions/design sketches.

BRUTETHINK

From *ThinkerToys*, great when you're stuck.

1. Come up with a seed word related to the focus you've been provided—or an old one that you couldn't get to "activate."
2. Write down the first thing that pops into your mind, even if it's random.
3. Hold both words in your mind or look at them on a page. Find as many ways to intuitively associate the idea and the random word.

DECONSTRUCTION

If you're struggling with a really complex interactive problem, this can help. Tear apart the bits and pieces that make up an existing design, then quickly reassemble them.

1. Copy into your notebook all of the specific components or elements that you're dealing with.
2. Tear those components into their specific elements.
3. Assess each of them individually, sketching a range of solutions.
4. With all of the options now before you, start reassembling the best parts into possible integrated solutions.

EXAGGERATION

Focus in on one attribute of your current design or ideation question and blow it way out of proportion.

As an example—you've been asked to create a novel, yet simple interface idea for a streaming music app.

So ask: "What would this streaming music app look like if there was only a giant play button on the screen?" Work through the logic of fulfilling this outlandish scenario, capturing new and interesting ideas as you go.

(Source: Edward de Bono.)

FANTASY

Removing reality constraints from a project completely can inspire a wide range of new ideas.

This isn't just about unicorns and endless streams of chocolate, however. For this method to work, consider how you would fulfill the stated question or task: "How can we integrate location-based services into our mobile music application?"

Well, for starters, you wouldn't need location-based services, because your phone always knows where you are, all the time. What ideas are inspired by this dream scenario?

(Source: Edward de Bono.)

REVERSAL

Take the primary elements in the ideation question you're considering and state them in reverse.

For example: You're designing an interface for people to play their favorite songs from a streaming radio service. Possible reversals could be: "What if people had to perform the songs they selected in the interface?"

All sorts of unusual ideas will come to mind. Capture them, and see how they fold into the project you're designing.

(Source: Edward de Bono.)

BRAINSTORMING IN PARALLEL

RAPID SKETCHING

Set your timer for five to ten minutes. Working in parallel, everyone in the room sketches a range of different approaches to an ideation question or focus area you're seeking to address. When time is up, share out your ideas in a round-robin style (one idea per person at a time). If any new ideas come to mind based on what ideas other people share, draw them during this period and add them to the pile. Use sticky notes for raw ideas, half-sheets for lightweight sketching, and full sheets for in-depth solutions.

RAPID STORYBOARDING

Set up a blank storyboard template. Then set your timer for five to ten minutes. Working in parallel, everyone in the room sketches a range of different approaches to the focus area or you're seeking to address. When time is up, share your ideas in a round-robin style (one idea per person at a time). If any new ideas come to mind based on what ideas other people share, draw them during this period and add them to the pile.

FUTURE-CASTING

Don't worry about what needs to be created for today. Individually, imagine what your stated design solutions could be if they were projected five to ten years into the future. When time is up, share your ideas in a round-robin style (one idea per person at a time). If any new ideas come to mind based on what ideas other people share, draw them during this period and add them to the pile.

10X10

Everyone in the room is responsible for sketching 100 design ideas within a set time limit. Allocate 40 seconds for each design idea, per person, in order to set your timer and get things rolling. When time runs out, have everyone place their sketches up on the wall/out on the table. Every person can vote on three ideas they like best. The ideas with the most votes are pulled off the wall and synthesized into tighter sketches for further exploration.

30 DAYS IN 30 MINUTES

Bring together teams of three to four people, and provide them with a design problem that they must fully solve in 30 (or fewer) minutes. The time is divided up in the following manner:
8 minutes: Each team reaches a goal that is set by the leader.
2 minutes: The leader serves as the client, providing quick feedback to the teams and providing the next milestone.
This is then repeated until time runs out, with the fidelity of the idea increasing every 10 minutes by an order of magnitude.

EXAGGERATION

Focus in on one attribute of your current design or ideation question and blow it way out of proportion. "What would this streaming music app look like if there was only a giant play button on the screen?"
Set your timer for five to ten minutes. Working in parallel, everyone sketches ideas based on the exaggeration. When time is up, share out your ideas in a round-robin style (one idea per person at a time). If any new ideas come to mind, draw them during this period and add them to the pile. (Source: Edward de Bono.)

FANTASY

Removing reality constraints completely from a project can inspire a wide range of new ideas. What's the dream scenario you could create, if anything were possible? "What if we didn't need location-based services, because your phone always knew where you were, all the time?"
Set your timer for five to ten minutes. Working in parallel, everyone sketches ideas based on the fantasy. When time is up, share out your ideas in a round-robin style (one idea per person at a time). If any new ideas come to mind, draw them during this period and add them to the pile. (Source: Edward de Bono.)

REVERSAL

Take the primary elements in the ideation question you're considering and state them in reverse. Example: You're designing an interface for people to play their favorite songs from a streaming radio service. Possible reversals could be: "What if people had to perform the songs they selected in the interface?"
Set your timer for five to ten minutes. Working in parallel, everyone sketches ideas based on the reversal. When time is up, share out your ideas in a round-robin style (one idea per person at a time). If any new ideas come to mind, draw them during this period and add them to the pile. (Source: Edward de Bono.)

BRAINSTORMING IN THE ROUND

IDEA INVERSION

Start by having everyone in a group come up with a design idea, embodied in a sketch with a few words. Then, everyone passes their idea to the left. In 2 or fewer minutes, each person is responsible for coming up with the exact reverse of that idea in every way possible. Each new idea should happen on a new sheet of paper. Then, pass that idea to the left and continue until the group runs out of time.

YES, AND...

Set a timer for 8 minutes. In a group, go around the table and continue to evolve an idea without judgment. Simply say, "Yes, and," then add to it. One person is the record keeper, record the ideas verbalized as they grow, morph, and otherwise change.

When time is up, ask the record keeper to share out their ideas. Ideas the group favors can then be immediately sketched by the whole group, providing multiple POVs on how it may be executed.

(Source: Steve Portigal)

PASS IT ON

This is a variant of Rapid Storyboarding. Set up a blank storyboard template. Then set your timer for five to ten minutes. Everyone in the room sketches the first frame of the ideation question or specific use case you're seeking to address. They then pass their template to the right. When time is up, storyboards are shared in a round-robin style (one idea per person at a time).

DESIGN MAD LIBS™

Create a Mad Lib story that describes a scenario, leaving out most of the key details and denoting what words need to be filled in (verb, noun, etc.).

Print out a copy for each member of the brainstorm. Each person fills out the first blank word, then passes their Mad Lib on to the person at the right. This continues until everyone is done with their stories.

Stories are then shared out to the group verbally, one at a time. Everyone is asked to create sketches and ideas based on the stories as they hear them. These ideas are then shared after the stories are over.

BLANK BUBBLES

Create a comic-book-style storyboard with people out in the world taking part in an activity related to your area of ideation. Include speech balloons that are blank.

Print out a copy for each member of the brainstorm. Each person fills in the first blank speech balloon, then passes their comic on to the person at their right. This continues until everyone is done with their comics.

Comics are then shared out to the group, one at a time. Everyone is asked to create sketches and ideas based on the comics as they hear them. These ideas are then shared with the group.

INTERFACE BINGO

Create a blank interface for whatever site or app you've been tasked in creating. If you're feeling spry, also print out little modules for specific features or requirements.

Print out a copy for each member of the brainstorm. Each person is allowed to add one feature at a time, then passes their interface on to the person at their right. This continues until there is no room left for features.

Interfaces are then shared out to the group, one at a time. Everyone is asked to create sketches and ideas based on the interfaces. These ideas are then shared with the group.

COLLABORATIVE SKETCHING

Set your timer for one minute increments. Everyone in the room begins to sketch an approach to an ideation question or focus area you're seeking to address.

When time is up, pass your idea to the left. That person now has one minute to interpret what you've created and add to it. This continues until the idea you started with returns to you. If any new ideas come to mind based on what ideas other people share, draw them during this period and add them to the pile.

BRAINSTORMING VIA ROLE PLAYING

PHYSICAL PROTOTYPING

Place on the table a series of random objects from around your office/studio, as well as tape, pencils and pens, paper, and so forth.

8 minutes: On paper, sketch out a range of ideas to a problem that requires a solution that would be used in the physical world. (This includes any interactive product or service.)

8 to 12 minutes: Based on the design ideas you're looking to create, ask the people in the group to physically build the necessary props to act out your ideas as a formal scenario: devices, UI screens, and other critical elements. Adjust the time limit based on the complexity of the props.

5 minutes: Act out the ideas, gauging how effective they are. Have one person in your group observe and capture feedback.

5 minutes: Revise any elements that seemed to require improvement, then act it out one more time. Consider recording the final ideas with video at this point. (See Video Scenarios below.)

DEPRIVATION

These methods were created by Prarthana Panchal and Joyce Chou. There are three types of Deprivation: Screen Deprivation, Sensory Deprivation, and Ego Deprivation.

Screen Deprivation: In pairs, identify a specific action required and a single type of sensor that's in a device you are designing for (i.e. accelerometer, GPS, etc.). Then over an 8-minute period, act out how the action could be carried out with that sensor. Capture your ideas on a sheet of paper and/or with video afterwards.

Sensory Deprivation: Deprive yourself of a specific sense (touch, smell, sight) in fulfilling a specified design scenario. Over an 8-minute period, act out how the scenario would be fulfilled without that specific sense. Capture your ideas on a sheet of paper and/or with video afterwards.

Ego Deprivation: In a group of 4 or more people, assign yourself roles—Developer, Designer, Strategist, Client, and so forth. Then take ideas that were previously created, analyze them from other people's imagined perspectives, and use that to formalize a set of storyboards.

UI PANTOMIME

8 minutes: People choose roles: actor, interface, and recorder.

The actors walk through an agreed-upon scenario, while one person plays the "voice of the interface"—acting out what is happening within the interface while the other actors play-act at interacting with it. The recorder sketches out a rough user flow and UI ideas based on the conversation between the actors and the interface.

5 minutes: Everyone stops to examine the user flow and UI sketches, making refinements to screens based on the varying perceptions of each participant.

8 minutes: The actors attempt to literally follow the user flow/UI sketches as documented. The "voice of the interface" sticks to the script. The recorder observes the tension between the real-world interaction and the documented flow and sketches any new screens/areas that emerged, as well as identified improvements.

5 minutes: Everyone debriefs and revises the flow and screens.

The iterative cycle could continue until the final "performance" felt complete.

(Source: Scott Scheff)

VIDEO SCENARIOS

These are quick, low-fidelity videos that describe a design solution being used in the physical world. They are intentionally fast and disposable, and a method of capturing ideas that can't be evaluated in sketch form, such as touch and gestural interaction.

10 minutes: As a group, sketch out a rough scenario flow on paper and through impromptu improvisation. This would include any UI screens that would be required for the scenarios.

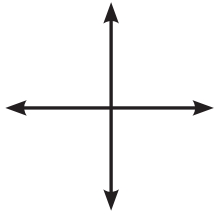
10 minutes: Grab a mobile phone or camera with video capture capability. Walk through the scenario, trying out different ideas to fulfill the scenario. At the same time, record the interactions you're trying out. Do your ideas make sense on playback?

10 minutes: Download the best takes from your camera and edit them into a video sketch for future reference. This can serve as a rough prototype that you can take deeper into the design and prototyping process.

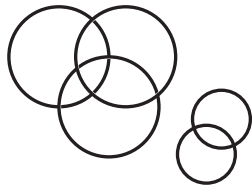
SYNTHESIS: USING CONCEPT MAPS

The final, and often most critical step, is to reflect on your ideas and see how they can be connected, combined, and otherwise improved. Limit yourself to a set period of time to see how much further you can push your ideas before beginning to fully execute a solution.

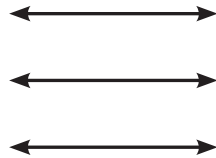
METHODS OF ARRANGING DESIGN IDEAS:



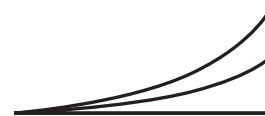
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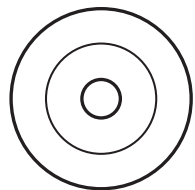
CLUSTERING



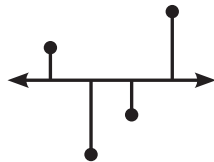
CONTINUUMS



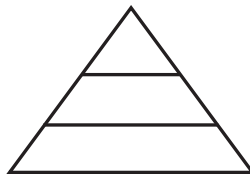
ADOPTION CURVE



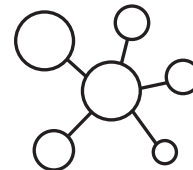
CONCENTRIC CIRCLES



TIMELINE



PYRAMID



PRIORITIZATION

POSSIBLE AXES:

- CONCEPTUAL THEMES
- BRAND RELATIONSHIPS
- IMPACT FOR BRAND
- RELEVANCE TO PERSONAS
- UNIQUENESS
- USER BEHAVIORS
- POTENTIAL REVENUE
- PLACE IN ECOSYSTEM
- TIME / LIFECYCLE
- DEVICE TARGETS
- TECHNICAL FEASIBILITY
- TIME TO BUILD
- ACTIONS (VERBS)
- ...?

CREATING CONCEPT MAPS

Here are some starter concept maps that you can use with design ideas. Some concept maps will make more sense for certain types of projects. As an example: a timeline may be more appropriate for creating a big multi-channel advertising campaign, while prioritization may be better suited for creating a web site or application. Have fun creating your own concept maps!

<p>Create three NON-REPRESENTATIONAL SYMBOLS. Cluster ideas that seem to fit under those symbols.</p>	<p>Organize the ideas on a 2-up diagram by FEASIBILITY TO EXECUTE and POTENTIAL REVENUE to your client.</p>	<p>Write the top four CONCEPTUAL THEMES from all of the ideas on sticky notes. Arrange the ideas beneath them.</p>	<p>Write down the names of possible DEVICES AND MEDIA where your ideas may appear on sticky notes, and cluster your ideas by where they may fit.</p>
<p>Organize the ideas on a concentric circle diagram where ideas with the most BRAND IMPACT for your client are in center ring. You define the other rings.</p>	<p>Write the names of major customer TOUCHPOINTS that are in your ideas. Arrange those touchpoints as a customer journey, then arrange your ideas on it.</p>	<p>Create a 3-up diagram that maps UNIQUENESS on the Y-axis with TIME TO BUILD on the X-axis.</p>	<p>Organize your ideas on a concentric circle diagram where ideas that are INTIMATE TO THE CUSTOMER are in the center ring.</p>



TEST-DRIVE THESE TECHNIQUES WITH
*CREATIVE WORKSHOP: 80 CHALLENGES TO
SHARPEN YOUR DESIGN SKILLS* BY DAVID SHERWIN
FROM HOW BOOKS, AVAILABLE AT MYDESIGNSHOP.COM
OR AMZN.TO/CWTheBook