



Transition design cards





Texts:

Daniela Luňáčková, Šárka Matoušková, Ladislava Zbiejczuk Suchá,
Roman Novotný, Alma Leóra Culén

Illustration:

Veronyka Jelinek

Graphics:

Matěj Málek

The cards has been made possible by a financial contribution
from Iceland, Liechtenstein and Norway through the EEA Grants
2014—2021 Education Programme.

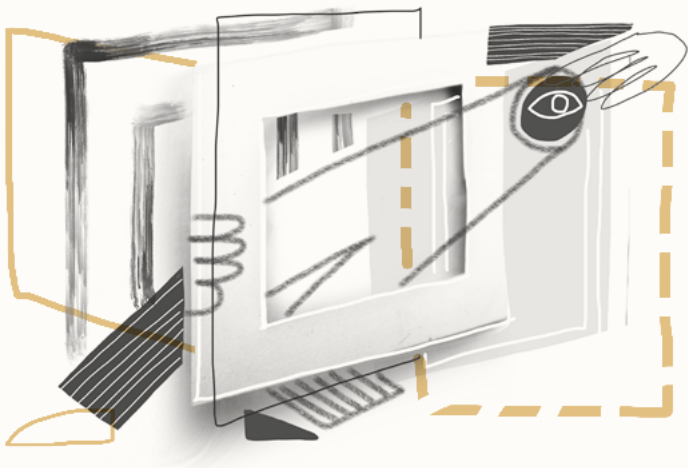
Iceland
Liechtenstein
Norway grants

MUNI
ARTS Department
of Information
and Library Studies



UNIVERSITY
OF OSLO

Snapshots from the Future



A lifestyle-based method uses a day-in-the-life narrative for a vivid and focused image of the future. The participants think about their life after the problem has been resolved. The technique aims to explore the future through new possibilities, behaviors, and interactions that come from overcoming the situation in order to generate a compelling vision for change.

Snapshots from the Future

Time:	90 minutes
Material:	pen, paper, template
Participants:	stakeholders
Level of difficulty:	easy

- 1 Determine the main problem to focus on (e.g., water shortage).
- 2 Think together in a group. What would your day look like in 2050 if people resolved the issue? How would your life have changed? Would your beliefs be different? Describe your assumptions and attitudes.
- 3 Draw some snapshots of what everyday life looks like in the year 2050.
- 4 Identify what fears, concerns, or hopes are addressed.
- 5 Identify what needs are met by solving the problem in the snapshot from the future.

Experiential Future Scenarios



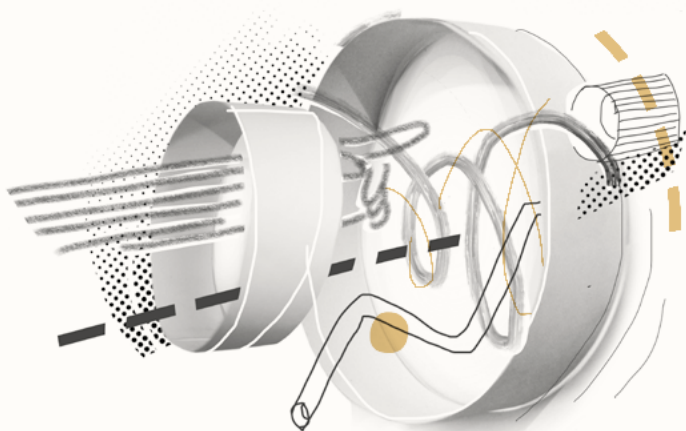
A method helps create immersive situations and experiences through images, artifacts, and other media. It imitates the sensory experience of the future narrative. This intervention brings the nonexistent experience and enables deeper engagement in the discussion about the future. The goal is to make scenario visions tangible so that they can be seen and talked about by others.

Experiential Futures Scenarios

Time:	dependant on the type of artifact
Material:	dependant on the type of artifact
Participants:	stakeholders
Level of difficulty:	advanced

- 1 Create artifacts from the future, such as images or other media.
- 2 Focus on a sensory experience of what the possible future looks like for the participants.
- 3 Invite participants to look at the artifacts.
- 4 Let participants interact to immerse themselves in the scenario.
- 5 Discuss with participants about their experiences and thoughts.

The Thing from the Future



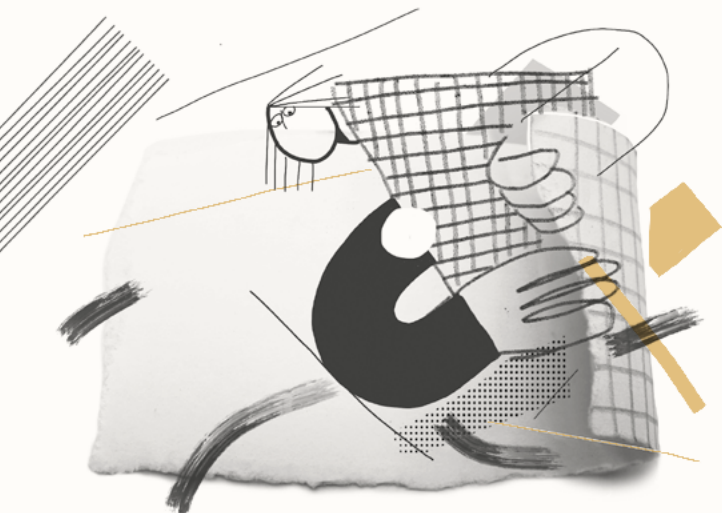
Players receive the four types of cards—arc, terrain, object, and mood to generate ideas of potential future objects based on card constraints. The aim is to come up with the most entertaining and thought-provoking description. Players read the definitions aloud, and other players vote for the most interesting or provocative of them. The winner of the round keeps the card. The player with the most cards wins the game.

The Thing from the Future

Time:	90 minutes
Material:	playing cards, index card or paper, pen
Participants:	designers and stakeholders
Level of difficulty:	easy

- 1 Shuffle the cards and deal out 12 to each player.
- 2 Each player must play a card from their hand by placing it face-up in the middle of the table.
- 3 Once players complete the prompt, the dealer starts the timer. Each player must briefly describe a thing from the future inspired by the four cards in the prompt.
- 4 When the time is up, the dealer collects index cards from the players and reads them aloud. Players vote on the most evocative thing, and the player who created the winning option receives the cards currently in play as a reward.
- 5 The game is over once players have exhausted the deck or otherwise decided to call it quits. Everyone wins (but the player with the most cards wins even more).

Cover Story



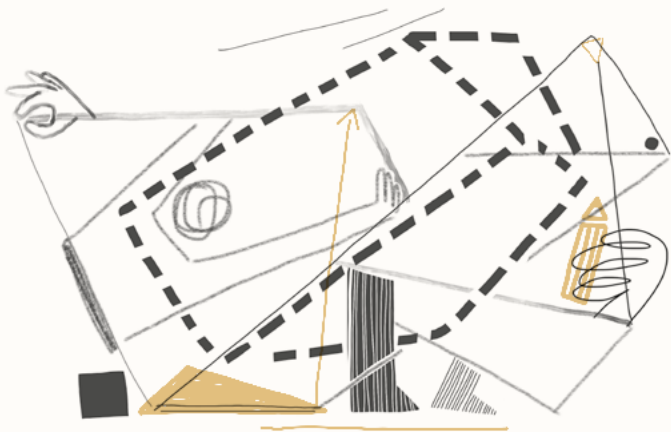
This game aims to create ideas quickly and effectively to achieve a targeted future vision. It explores possible best-case scenarios by creating a magazine's fictional "cover story" describing hypothetical success. It includes thinking about different parts of a cover story (e.g., headlines, interviews, quotes, photographs). It can also help people envision the bigger picture and spark new ideas about what we want the future to look like.

Cover Story

Time: 90 minutes
Material: template, pen
Participants: stakeholders
Level of difficulty: moderate

- 1 Draw a big-scale template that includes six sections: cover, headlines, sidebars, quotes, brainstorming, and images.
- 2 Ask participants to separately think of a best-case scenario from the future for 5 minutes. Scenarios don't need to be logical or reality-based at all. Encourage the group to use past tense for the cover story for the more emerging experiences.
- 3 Participants briefly share their scenarios and agree upon one scenario representing the cover story.
- 4 Each group then presents its vision of the future to other participants.
- 5 Observe the presentations and look for similarities of recurring themes. Further discuss in a group your observations, concerns, and insights.

Science Fiction Prototyping



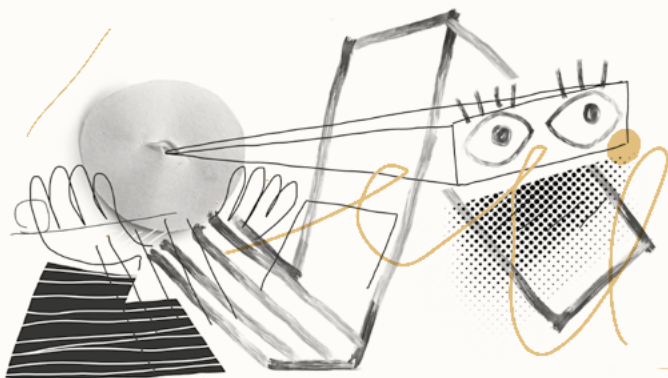
A visioning method helps imagine possible consequences of technology in the future. Participants choose the type of technology and a time frame and create a character. Then, they explore the future through a story in which the character interacts with the chosen technology and tries to solve problems resulting from them being negatively affected by it. The method can help highlight ethical dilemmas or other issues that might occur and bring new solutions.

Science Fiction Prototyping

Time:	2 hours
Material:	pen, paper
Participants:	stakeholders
Level of difficulty:	moderate

- 1 Choose an area you want to focus on and develop a scenario set in the future that reflects the chosen technology or situation. How will society change? How will the technology progress? Write the scenario as a short story.
- 2 Identify the Scientific Inflection Point—when the technology/situation takes a turn (for better or worse).
- 3 Reflect upon the ramifications for people that lead from the future scenario.
- 4 Identify the Human Inflection Point—how people react to these ramifications.
- 5 Describe what did you learn.

Forecasting



A participative visioning method promotes the imagination in the process of visioning a preferred future of the participants. The technique explores possible futures based on identified constraints called drivers of change. The outcome helps participants better articulate their requirements and aspirations using a shared vision. Forecasting also allows for creating a strategic plan for responding to changes that are otherwise difficult to imagine.

Forecasting

Time:	3 hours
Material:	pen or markers, blank wall, post-its
Participants:	stakeholders
Level of difficulty:	easy

- 1 Agree upon the main problem to focus on and a time horizon to guide the vision.
- 2 In discussion, identify essential drivers of change
- 3 Generate vision ideas. The vision should focus on the problem in question and consider the drivers of change.
- 4 Write your ideas on post-its (one idea per post-it) and stick them onto the wall.
- 5 Look at all the ideas and write out the vision.

Future Wheel



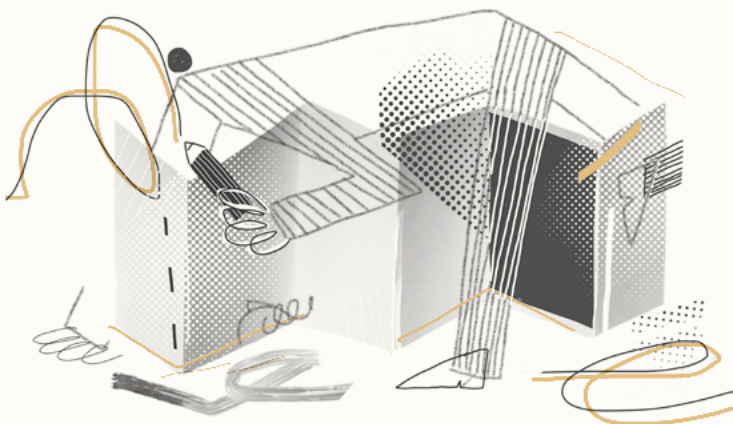
A method for organizing thinking about the future in a form reminiscent of structured brainstorming. Participants are encouraged to think of the consequences of a specific trend or problem and iterate the brainstorming in several rounds. This method aims to deepen understanding of the analyzed trend or problem to create a more accurate future model and, therefore, better inform decision-making.

Future Wheel

Time:	90 minutes
Material:	pen, paper
Participants:	stakeholders
Level of difficulty:	moderate

- 1 Identify the future change you would like to focus on and write it in the center of a paper. You can write down the name of an event, trend, or problem.
- 2 Brainstorm possible consequences of the change. Write each result in a circle and connect it to the central topic.
- 3 Ask questions such as “If this occurs, what might happen next?” These are the direct consequences that have a first-order impact.
- 4 Look at the consequences you identified and ask again “If this occurs, then what might happen next?” These are indirect consequences of the second order.
- 5 Start a discussion reflecting upon the completed Future Wheel. What are the main implications? Who can address them? What needs to be done?

The Tarot Cards of Tech



The Tarot Cards of Tech aims to help designers think about the impact of technology and the products they design. The tarot cards describe potential future scenarios and pose questions that should lead to conversations about the outcomes technology can create. The cards should also expose possible unintended consequences and inspire positive change. The game helps designers think big.

The Tarot Cards of Tech

Time:	60 minutes
Material:	the tarot cards of tech (online)
Participants:	designers
Level of difficulty:	easy

- 1 Bring Tarot cards of tech to the design team meeting. Cards are available online, or you can download the pdf version.
- 2 Pick a card. There are three groups of cards: scale and disruption, usage and equity, and access.
- 3 Think about your design in the context described on the card.
- 4 Focus on the outcomes of your design, its impact, and possible unintended consequences.
- 5 Discuss further as a team what you learned.

Backcasting



Backcasting retrospectively identifies the main steps or milestones we must go through for the scenario of the preferred future. From a timeline perspective, we begin in the future with a shared vision and then move toward the present, identifying the milestones. This way, we can find more alternative paths leading to a preferred future. Backcasting is often used as a complementary method to forecasting.

Backcasting

Time:	90 minutes
Material:	pen or marker, post-its, blank wall
Participants:	stakeholders
Level of difficulty:	easy

- 1 Start by imagining a future scenario. If you already have one, familiarize participants with the plan.
- 2 Speculate what significant milestones, projects, or events are necessary to fulfill the vision. Start in the future and continue backward. Write your ideas on post-it notes.
- 3 Place the post-it notes on the timeline as you go.
- 4 Further, discuss critical milestones or events. How can you achieve them? What stakeholders can address them?

Three Horizons



The Three Horizons method uses structured and guided dialogue, which focuses on three pathways to the future to help participants understand complex problems or uncertain futures. The first horizon describes what is prevalent in the present and going to decline in the future, the third shows the emerging future pattern, and the second depicts transitional activities and innovations. Participants then move around the framework, which helps them better understand a complicated issue and see the world in patterns.

Three Horizons

Time:	2 hours
Material:	markers, paper, post-its
Participants:	stakeholders
Level of difficulty:	moderate

- 1 Examine present concerns. Define an area of focus, e.g., how an organization operates, particular values in society, or using certain forms of technology.
- 2 Explore future aspirations addressing the primary concern. These aspirations create the third horizon.
- 3 Explore practices in the present. Are there examples of techniques that have the potential to affect the future positively? These practices create the first horizon.
- 4 Next, create the second horizon by transitioning from the first to the third horizon. Which innovations or practices can help with this transition?
- 5 Now, look at the third horizon. Try to identify the essential features from the present to maintain reaching the desired vision.

Multi-lifespan Timeline



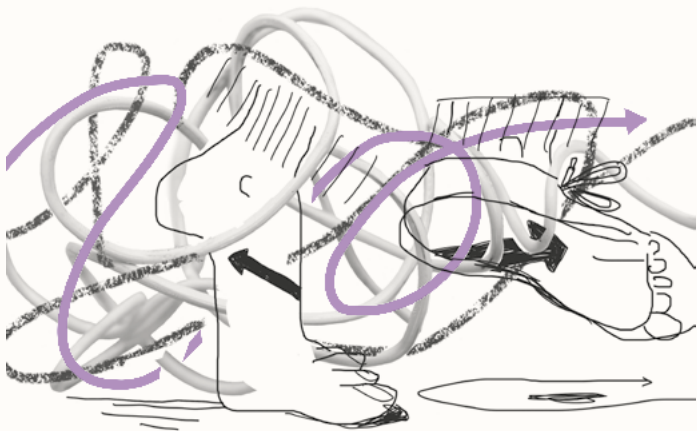
The multi-lifespan timeline helps participants to position themselves within a long-term socio-technical timeframe. Participants review all the changes that happened throughout the previous 100 years. This activity puts them in context to consider what changes and innovations most likely transcending the typical human lifespan could occur in the next 100 years.

Multi-lifespan timeline

Time:	90 minutes
Material:	large paper or whiteboard, markers, colored tape, post-its
Participants:	stakeholders
Level of difficulty:	easy

- 1 Prepare a large-scale timeline. In the center, mark out the current year. From the center point, mark out both ways—to the past and the future—at 25-year intervals.
- 2 Above the created axis, write down critical societal changes and technological innovations in the past 100 years.
- 3 Measure out strips of colored tape that represent 75 years. For each participant, put a strip of colored tape on the timeline indicating their lifespan.
- 4 Together in a group, reflect upon key events and technology innovations that occurred in the past.
- 5 Next, ask participants to consider what could change in the upcoming years and when. Write it down on a post-it and stick it onto the timeline. Try to focus on creative visions rather than fact forecasting.

Transition Pathways



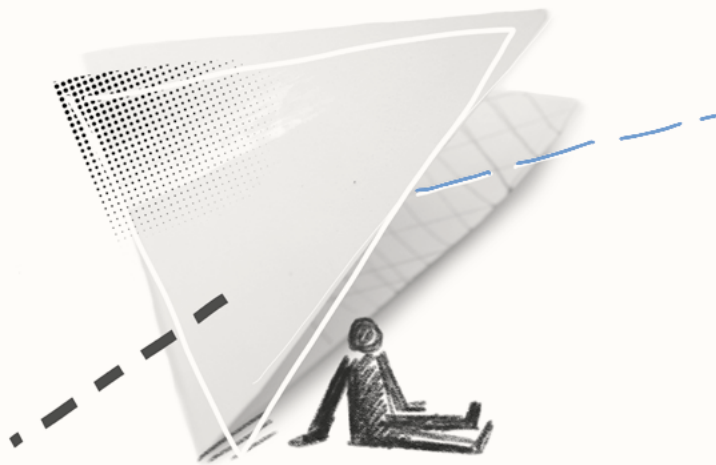
A backcasting method focuses on determining steps that could lead us to a preferred future. It starts with choosing a time frame and the desired future point, then participants work end-point to the present, highlighting what milestones or projects would be essential for achieving a shared vision. These steps should help with making decisions in the present.

Transition Pathways

Time:	90 minutes
Material:	post-its, markers, large paper
Participants:	stakeholders
Level of difficulty:	moderate

- 1 Create a vision of the future. You can use methods such as Snapshots from the future or Cover Story.
- 2 Draw a timeline on a large paper, starting in the present and ending in the year of the created vision.
- 3 Speculate what significant milestones, projects, or events are necessary to fulfill the vision.
- 4 Start in the future and continue backward.
- 5 Write your ideas on post-it notes and place them on the timeline.

Maslow Mirrored



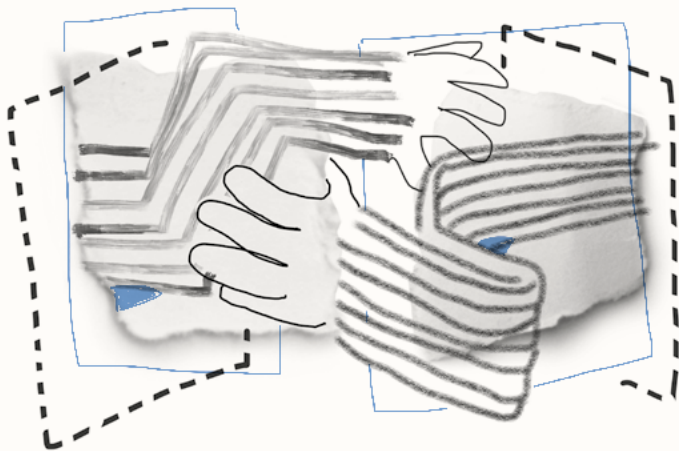
This method takes traditional Maslow's Hierarchy of Needs with later added transcendence and uses it to help designers analyze how products or features can affect their users. Team members brainstorm the positive effects of a product linked to every tier of Maslow's hierarchy and the adverse effects.

Maslow Mirrored

Time:	90 minutes
Material:	paper or a whiteboard, markers
Participants:	designers
Level of difficulty:	moderate

- 1 Divide your board or paper into seven levels: (from the top) transcendence, self-actualization, esteem, love, safety, and physiological.
- 2 Next, further, divide your workspace in half. The right side is positive and the left side negative.
- 3 Before you start brainstorming, define the product of the feature you want to focus this exercise on and the type of user you want to tackle.
- 4 Now brainstorm the possible positive effects of your product or feature on your user with other team members. Write them down on post-it notes and stick them according to the level of Maslow's needs.
- 5 Continue the process with the adverse effects on your user. Further, discuss your learnings with your team.

Metaphor Cards



A generative design method using metaphors for imagining future ways of being. Metaphors used in the cards act as a medium to connect previously dissociated domains to generate new ideas and support exploration. Metaphor Cards serve as a versatile tool for co-design with various stakeholders to create a shared understanding among participants.

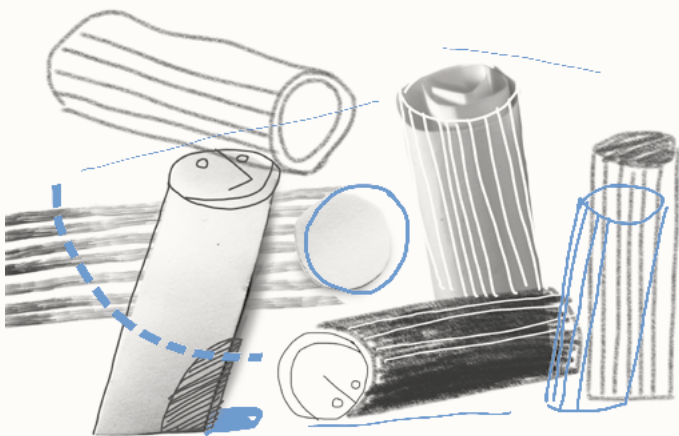


Metaphor Cards

Time:	2 hours and more
Material:	metaphor cards template, markers
Participants:	designers, stakeholders
Level of difficulty:	difficult

- 1 Get to know the domain you are designing using user research methods such as contextual inquiry, field studies, or observation.
- 2 Tailor the metaphor cards to the needs of your project and provide a rich experience to the participants.
- 3 Compose a set of metaphors informed by your prior research. Think of solid and provocative metaphors.
- 4 Add quotes, images, and definitions to illustrate the metaphor better. Try to avoid reinforcing stereotypes.
- 5 Use completed metaphors in your design research with participants. What aspects are muted by using this metaphor?

Stakeholder tokens



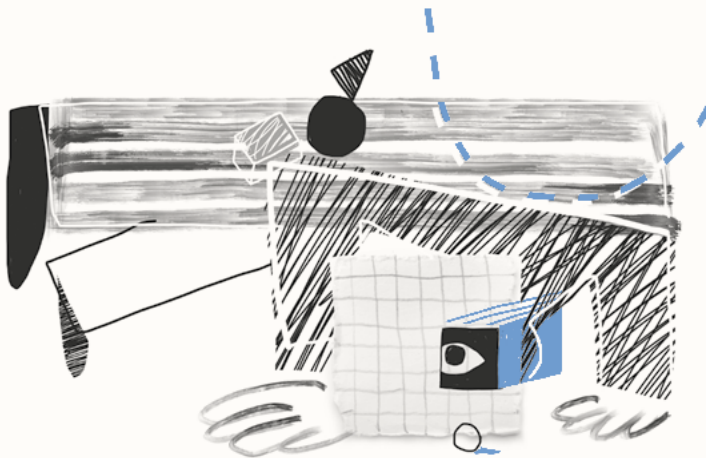
Stakeholder tokens are a value-sensitive and participative design method. The tokens serve as a playful tool for creating a comprehensive list of stakeholders while identifying their importance and dynamics to provide a rationale for their inclusion in the design process. Drawing inspiration from lego, the tokens represent stakeholders visually and tactilely. The outcome is a stakeholder map with relations between them.

Stakeholder tokens

Time:	90 minutes
Material:	tokens, marker, paper, tape
Participants:	stakeholders
Level of difficulty:	easy

- 1 Select participants for this activity, depending on the type of data you want to gather (e.g., high-profile or underrepresented stakeholder groups).
- 2 Tokens represent your stakeholders. Tokens should be visibly different from each other to make the stakeholders distinguishable. A recommended number of tokens for each session is 10–20.
- 3 Ask your respondents to generate a list of stakeholders. You can use these probing questions: Who are the important people, groups, or communities involved? Who else do you think would care about this issue and why? Is there anyone who is left out?
- 4 Create labels representing stakeholders and stick them onto the tokens.
- 5 Place the tokens on paper and draw out the relationships among the stakeholders.

Security Fictions



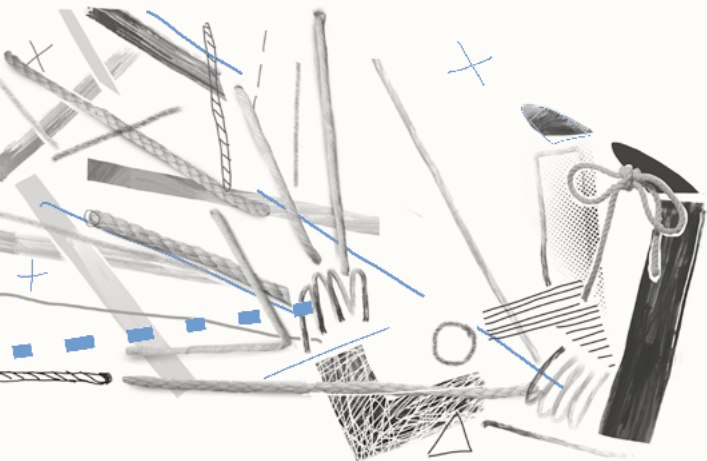
A method is used for threat identification in computer security. The core of the technique lies in semi-structured speculative role-play interviews conducted as one-on-one conversations between the researcher and a developer. The researcher pretends that they have a client who wants to perform some nefarious actions with the developer's platform and asks the developer how the client could on their own perform these actions. Participants can pick the security fictions based on the context (e.g., impersonation, political profiling, stalking).

Security Fictions

Time:	60 minutes
Material:	pen and paper for notes, audio recorder
Participants:	researcher, developer
Level of difficulty:	easy

- 1 Make sure that the developer understands that the enactment is fictional
- 2 Think of a scenario you want to enact. How can your platform be misused?
- 3 Stage the enactment in a quiet room. You want to set the scene by telling the developer confidential information about your fictional client. Tell the developer your client wants to do something vicious with your platform. Prompt the developer by saying: "I am representing a client who would like to perform some tasks with your platform. Leave your ethics at the door and tell me how my client can achieve these tasks, on their own, without your help."
- 4 Gather responses and insights from the developer.
- 5 Focus on identifying possible problem areas on your platform.

Timelines



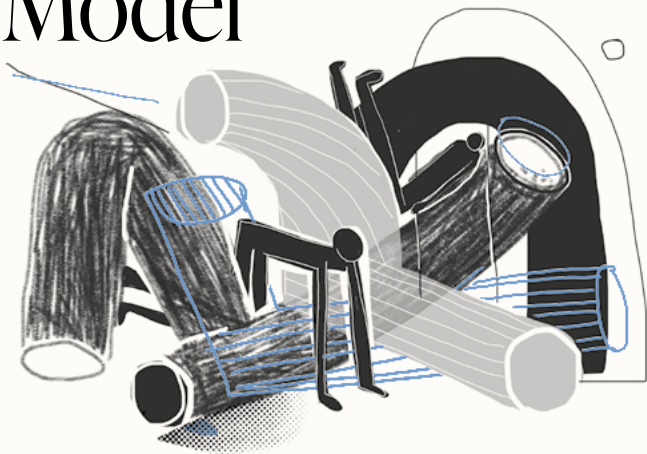
A method that aims to help the advocacy of values by raising a discussion about societal changes technology brings and by highlighting the diversity of views and experiences of different people. The activity starts with choosing an artifact (technology, system, or feature), then the participants brainstorm various stakeholders. Afterward, participants imagine possible social media posts from the views of previously chosen stakeholders. A discussion of the results follows.

Timelines

Time:	90 minutes
Material:	large paper or board, post-it notes, markers
Participants:	stakeholders
Level of difficulty:	easy

- 1 Draw a template of a timeline on a large paper or board. Decide what artifact you want to explore.
- 2 Brainstorm possible stakeholders related to the artifact.
- 3 Brainstorm news headlines related to the artifact and write them on post-it notes.
- 4 Place the post-it notes with headlines on the timeline to create stories.
- 5 Go back to the stakeholders you brainstormed in step no. 3. Try to create social media posts about your stories, posting from their point of view.

Value Sensitive Action-Reflection Model



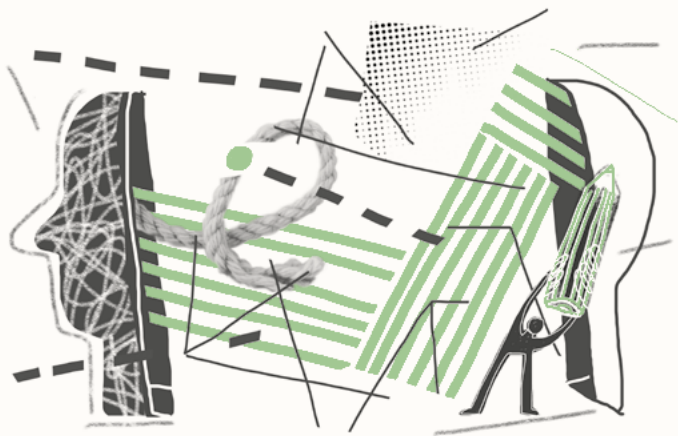
Value Sensitive Action-Reflection Model is a method for evolving a co-design space to support stakeholders untrained in design. Stakeholders, acting as designers in co-design, envision social context and values. Then follows two types of structured interventions: stakeholder prompt, which focuses on stakeholders' perspective (e.g., stakeholder scenario), and designer prompt, which encompasses the designer's point of view (e.g., personas or envisioning cards). These prompts can be used in any order, depending on the situation.

Value Sensitive Action-Reflection Model

Time:	2 hours
Material:	prototype of a project you're working on, product sheet
Participants:	pairs of two (1 designer, 1 user)
Difficulty:	moderate

- 1 Make pairs consisting of one designer and one user.
- 2 Start with the “How might we” question to think of a solution to a specific problem you are trying to solve. Create a prototype with participants.
- 3 Give participants a stakeholder prompt (e.g., value scenario) to iterate the design. The prompt promotes a cycle of reflection-on-action. Ask participants to reflect upon the prototype and make changes to the product sheet if needed. If participants made any changes, ask why.
- 4 Next, give them a design prompt (e.g., persona or envisioning card) to iterate the design for a second time. Again, change the spec sheet if participants made any changes.
- 5 Ask participants to present their prototypes.

Hippocratic Oath



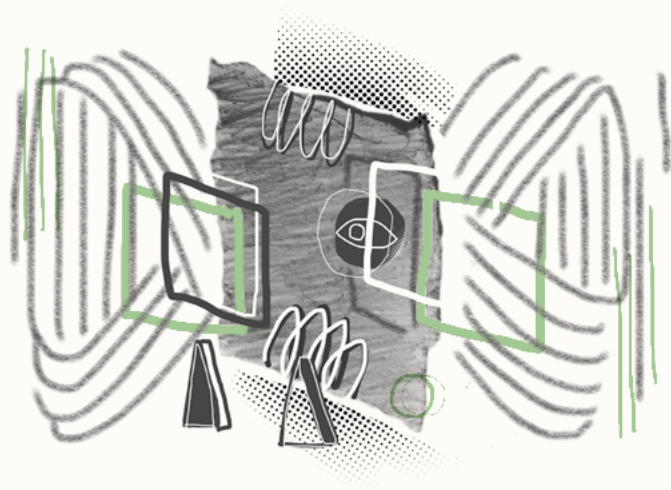
A qualitative method can navigate designers to take time to think about core values, ethics, and implications of their work. The aim is to create their version of a Hippocratic Oath, starting with a brainstorming session generating ideas about what the Oath could look like, followed by a more structured approach. The participants are encouraged to pick 3–5 core values and pair them with 3–5 entities. Then they pair these combinations with 2–3 action statements creating a series of messages.

Hippocratic Oath

Time: 60 minutes
Material: pen and paper
Participants: designers
Level of difficulty: easy

- 1 Brainstorm your design team's vision of your project.
- 2 The oath combines a value, an entity, and an accompanying action. Think of 3–5 core values (e.g., safety, autonomy, transparency) and 3–5 entities (e.g., user, stakeholder). Be critical about the values and entities you put in the spotlight.
- 3 Combine various values and entities.
- 4 Add 2–3 action statements.
- 5 The final oath should look like this: To uphold [value] of [entity], I will [action].

Black Mirror Brainstorms



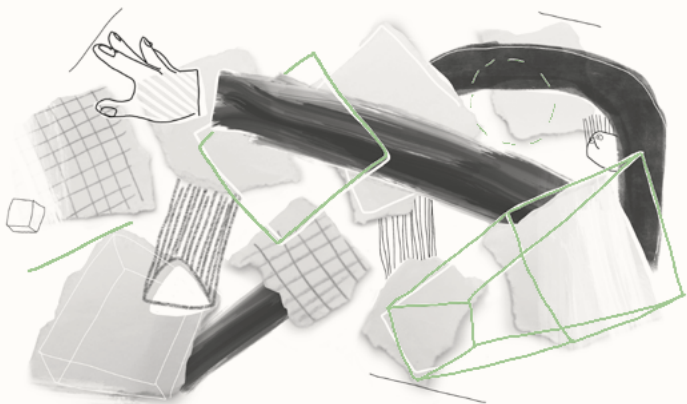
A method aims to design more ethical products. Participants brainstorm possible negative consequences resulting from using a product. Next, they create a plot point describing the negative effects on their imaginary character. After that, they create a poster for this “episode” of Black Mirror. The outcome of this method is clearly defined anti-goals of a product.

Black Mirror Brainstorms

Time:	45 minutes
Material:	markers, paper, post-its, template
Participants:	designers and users
Level of difficulty:	easy

- 1 Introduce the activity by stating what your project is trying to do.
- 2 Brainstorm ideas about what could go wrong (social, political, financial, etc.). Who's going to be affected? How the well-intended idea goes wrong? How is it going to affect other people?
- 3 Brainstorm quotes. What could people in the episode of Black Mirror say? It can also be what viewers say after they finish watching the episode.
- 4 Communicate the idea of the episode through a poster. You can use quotes or illustrations.
- 5 Group similar post-its and define anti-goals for your project.

The Ethics Canvas



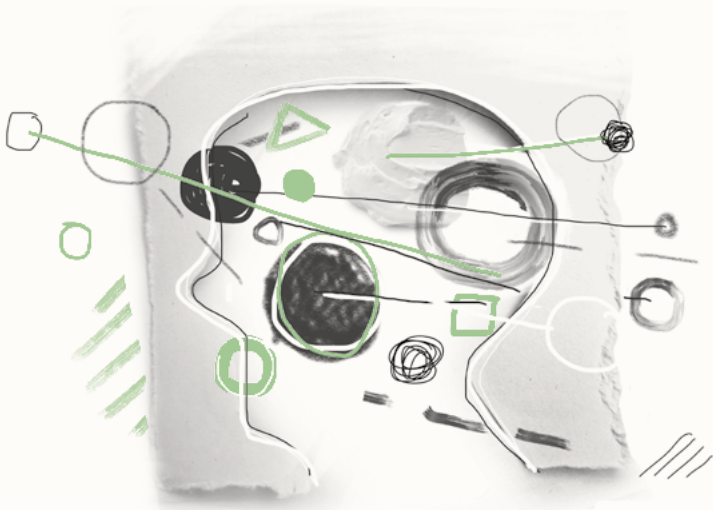
The ethics canvas collaboratively explores the ethics behind a design project, raising awareness of relevant ethical concerns. The canvas supports the identification and solving of specific problems. It considers the perspectives of stakeholders, the impact of design on the surrounding environment, and resources. The outcomes of the ethics canvas result in an overall more thoughtful design.

The Ethics Canvas

Time: 60 minutes
Material: template, pen
Participants: designers
Level of difficulty: moderate

- 1 Identify the types or categories of individuals and groups affected by design.
- 2 Discuss problematic changes to individual behavior, relationships, and habits.
- 3 Identify possible sources for group conflicts.
- 4 Discuss the potential negative impact of your product or service.
- 5 Discuss possible negative impacts of the consumption of resources for your project.

Ethicography



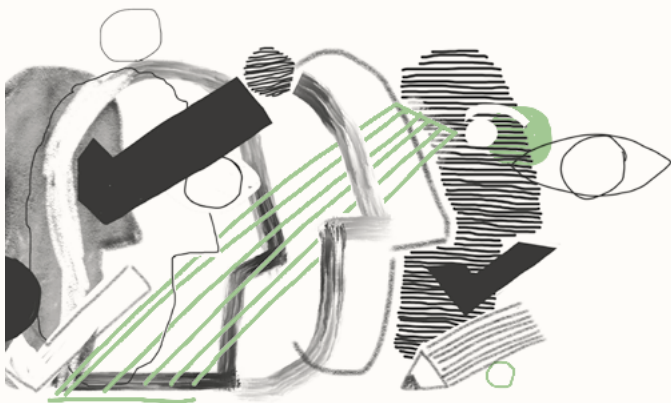
Ethicography is an analysis method for value discovery from a designer's perspective used in research, built upon critical reconstruction techniques and linkography. The process allows identifying how participants engage values in their design work and assessing their impact on the design situation.

Ethicography

Time:	3 hours
Material:	markers, square paper, research material
Participants:	designers
Level of difficulty:	difficult

- 1 Gather research material that is going to be made into an ethicograph. Unitize the speech acts and analyze the communication structure.
- 2 Identify and apply a value code to each speech act. Value code represents the participant's attitude towards one or more values.
- 3 Color-code attitudes are more value-centered or manipulative based on meaning reconstruction and the decision-making context.
- 4 Attribute and idea code to the speech acts representing everyday design activities.
- 5 Create links among the speech acts to see how values identified during the design process might inform explicit design decisions.

Monitoring Checklist



A method ensures monitoring an ethical product or experience after it's shipped or presented to users. The checklist comprises questions based on the three essential qualities of an honest product or experience: autonomy, transparency, and safety. Participants can expand and alter the list as time passes.

Monitoring Checklist

Time: 45 minutes
Material: template, paper, pen
Participants: designers
Level of difficulty: easy

- 1 Gather your design team.
- 2 Try to answer the questions from the template.
- 3 Brainstorm other questions related to autonomy, transparency, and safety of your product.
- 4 Answer the questions from your brainstorming session.
- 5 Discuss the three essential qualities of an ethical product or experience: autonomy, transparency, and safety.

Judgment Call



The Judgment call is a card game that players can use to gain insight into how real or imaginary products might affect various stakeholders. Players start with identifying a product or a scenario they are working on, then they brainstorm and make a list of stakeholders. Afterward, each player picks a stakeholder and draws one card with a star rating and a second with one of six Microsoft's AI ethical principles. Then the players use role-playing and write product reviews based on their cards. A discussion follows, ending with identifying potential harms and changes players could make to prevent them.

Judgment Call

Time:	90 minutes
Material:	playing cards, index card or paper, pen
Participants:	designers
Level of difficulty:	moderate

- 1 Identify a product you are building or a scenario you will explore.
- 2 Brainstorm stakeholders that could be affected by your product or scenario and pick ten from the list you have created. Write chosen stakeholders in on the stakeholder cards, shuffle them then set the deck aside.
- 3 Shuffle ethical principle cards and set the deck aside. Then shuffle the star cards and set the deck aside.
- 4 Pass out the cards, so each player has a stakeholder card, an ethical principle card, a rating card, and a review form. Take about 10 minutes and write reviews based on your cards.
- 5 Discuss reviews. Choose one stakeholder, feature, harm, or a topic from the discussion and think about how people could prevent the problem. Think about the best solution for making a better product.

Dichotomy Mapping



Designers use Dichotomy mapping to dive deep into the features of a product (or service). A process helps see how designers might implement the elements to the extreme and how they could consequently affect single users or groups of users. This method should help broaden the understanding of a product's possible positive or negative impacts.

Dichotomy Mapping

Time:	45 minutes
Material:	paper, whiteboard, post-it notes, markers
Participants:	designers
Level of difficulty:	easy

- 1 Divide the paper or whiteboard into two parts. One is dedicated to harmful results of a product, the other one to beneficial ones.
- 2 List positive aspects of your product's features and write them in the middle.
- 3 Think about what can happen if designers choose to implement the feature. Stay focused on human needs.
- 4 Write the results on post-it notes and put them on the paper/whiteboard.
- 5 Think about how the results may affect single users and user groups. Think about detailed variations of both negative and positive effects.

Read more

Take inspiration from the original method descriptions and case studies in which the methods were used.

Snapshots from the future

Irwin, T. (2018, June 28). The Emerging Transition Design Approach. Design Research Society Conference 2018.
<https://doi.org/10.21606/drs.2018.210>.

Experiential Future Scenarios

Candy, S. (2010). The Futures of Everyday Life: Politics and the Design of Experiential Scenarios. <https://doi.org/10.13140/RG.2.1.1840.0248>.

The Thing from the Future

Situation Lab. (n.d.). The Thing from the Future. The Thing from the Future. <http://situationlab.org/project/the-thing-from-the-future>.

Cover story

Game Storming. (n.d.). The Cover Story.
<https://Gamestorming.Com/Cover-Story>.

Science Fiction Prototyping

Burnam-Fink, M. (2015). Creating narrative scenarios: Science fiction prototyping at Emerge. *Futures*, 70, 48–55.
<https://doi.org/10.1016/j.futures.2014.12.005>.

Forecasting

Borch, K., Dingli, S., & Søgaaard Jørgensen, M. (2013). Participation and Interaction in Foresight. Edward Elgar Publishing.
<https://doi.org/10.4337/9781781956144>.



Read more

Future Wheel

May, G. H. (1996). The future is ours: foreseeing, managing, and creating the future. Praeger.

The tarot cards of tech

Artefact Group. (n.d.). The Tarot Cards of Tech. The Tarot Cards of Tech.
<http://tarotcardsoftech.artefactgroup.com/>

Backcasting

Roche, J. M. (2019). The Future Is Ours: Strategic Foresight toolkit – making better decisions. Save the Children UK.
<https://resourcecentre.savethechildren.net/document/future-ours-strategic-foresight-toolkit-making-better-decisions>.

Three Horizons

Sharpe, B., Hodgson, A., Leicester, G., Lyon, A., & Fazey, I. (2016). Three horizons: a pathways practice for transformation. Ecology and Society, 21(2), art47. <https://doi.org/10.5751/ES-08388-210247>.

Multi-lifespan timeline

Yoo, D., Derthick, K., Ghassemian, S., Hakizimana, J., Gill, B., & Friedman, B. (2016). Multi-lifespan Design Thinking: Two Methods and a Case Study with the Rwandan Diaspora. Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, 4423–4434.
<https://doi.org/10.1145/2858036.2858366>.

Transition pathways

Irwin, T. (2018, June 28). The Emerging Transition Design Approach. Design Research Society Conference 2018.
<https://doi.org/10.21606/drs.2018.210>.

Maslow Mirrored

Zhou, K. (n.d.). Maslow Mirrored.
<https://www.designethically.com/maslow-mirrored>.



Metaphor Cards

Logler, N., Yoo, D., & Friedman, B. (2018). Metaphor Cards: A How-to-Guide for Making and Using a Generative Metaphorical Design Toolkit. Proceedings of the 2018 Designing Interactive Systems Conference, 1373–1386. <https://doi.org/10.1145/3196709.3196811>.

Stakeholder tokens

Yoo, D. (2017). Stakeholder Tokens: A Constructive Method for Value Sensitive Design Stakeholder Analysis. Proceedings of the 2017 ACM Conference Companion Publication on Designing Interactive Systems, 280–284. <https://doi.org/10.1145/3064857.3079161>.

Security Fictions

Merrill, N. (2020). Security Fictions: Bridging Speculative Design and Computer Security. Proceedings of the 2020 ACM Designing Interactive Systems Conference, 1727–1735. <https://doi.org/10.1145/3357236.3395451>.

Timelines

Wong, R. Y., & Nguyen, T. (2021). Timelines: A World-Building Activity for Values Advocacy. Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems, 1–15. <https://doi.org/10.1145/3411764.3445447>.

Value Sensitive Action-Reflection Model

Yoo, D., Hultgren, A., Woelfer, J. P., Hendry, D. G., & Friedman, B. (2013). A value sensitive action-reflection model: evolving a co-design space with stakeholder and designer prompts. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 419–428. <https://doi.org/10.1145/2470654.2470715>.

Hippocratic Oath

Zhou, K. (n.d.). Hippocratic Oath. <https://www.designethically.com/hippocratic-oath>.



Read more

Black Mirror Brainstorms

Mauldin, J. (n.d.). Black Mirror brainstorm — a product design exercise.
<https://uxdesign.cc/black-mirror-brainstorms-f919ccf5938c>.

The Ethics Canvas

The Ethics Canvas. (n.d.). <https://www.ethicscanvas.org>.

Ethicography

Chivukula, S. S., Gray, C. M., & Brier, J. A. (2019). Analyzing Value Discovery in Design Decisions Through Ethicography. Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems, 1-12. <https://doi.org/10.1145/3290605.3300307>.

Monitoring Checklist

Zhou, K. (n.d.). Monitoring Checklist. Design Ethically.
<https://www.designethically.com/monitoring>

Judgment Call

Microsoft. (n.d.). Judgment Call. <https://docs.microsoft.com/en-us/azure/architecture/guide/responsible-innovation/judgmentcall>

Dichotomy Mapping

Zhou, K. (n.d.). Dichotomy Mapping. Design Ethically.
<https://www.designethically.com/dichotomy-mapping>