







A Primer in Systems Thinking

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#### **The Exercise**

Draw How to Make Toast is a quirky design exercise that reveals unexpected insights into how we frame ideas, communicate and solve problems using systems thinking.

The exercise provides a fantastic warm up for anyone who wants to run meetings in more engaging ways.

More importantly, it provides a simple but powerful approach to help teams unpack complex problems more collaboratively and effectively.

The act of making ideas visible representing situations as visual interconnected systems composed of nodes and links - can convert unproductive discussions into effective working sessions that foster clarity, engagement and alignment.

Take the following steps to run such a meeting.



## **Key Steps**

Step 1Get the main ingredients: felt**PREPARE**Get the main ingredients: feltmarkers, thick paper stock, sticky<br/>notes or index cards and masking<br/>tape. Stage your room with tables<br/>and chairs and clear a wall where you<br/>can post the drawings for all to see.

Step 2 **QUESTION** Select a challenge that your group is currently facing. This could be a broad strategic issue such as refining your organizational vision or strategy to win, or a tactical concern such as improving cash flow. Look to the Wicked questions list on the following pages.

Step 3 Start the exercise by asking the group to, "Draw a picture of how to make toast. That is, darkened crispy bread. Use no words in your diagram. Try to illustrate the important actions to someone who has never made toast before."

Give the group 2-3 minutes to complete the exercise.



**TIP** You may want to play toast-making music ... personally, I find Disko Partizani a fine choice.

## **Key Steps**

Step 4 **REFLECT** 

Have all participants hold up their drawings. Then wait for the laughter to start. And build. And grow... Have the participants place their drawings on the wall (if available) or on the team tables.

Step 5 While making sense of the drawings, **ANALYZE** ask a series of questions: How are the illustrations similar? In what ways do they differ? Which are clearer? Which contain surprises? Which would actually do the best at explaining how to make toast.

Step 6Then play the TED.com DrawToastWATCHVideo.

Afterwards, ask participants to count the number of nodes on their drawings as well as identify the kind of nodes they chose to include or omit.

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## **Key Steps**

Step 7 QUESTION

Then show a slide of the real question you want to tackle in the meeting. Ensure the question is clearly visible and relevant to all.



You have three fundamental Step 8 DRAW approaches to make the ideas visible.

#### FREEFORM DRAWING

Let each participant draw a picture of how they personally view the challenge. Like the DrawToast approach, each person formulates and shares their mental model of the question and it solution. But this time use words, equations, numbers, as well as drawings. Then reflect and discuss. Freeform drawings can take the conversation anywhere. Not everyone knows how to draw a vision statement, but evervone can express ideas with boxes and arrows.

#### **TEMPLATE DRAWING**

Select a visual template from drawtoast.com or make up your own and let participants fill in the nodes and links with sticky notes. First work in silence together, populating the notes. Then place the notes on the template. Finally discuss the meaning, collectively distilling and synthesizing the notes into what the group feels is the best representation and solution. This is the most accessible as well as most structured of the approaches.

#### FREEFORM STICKY NOTING

Have each participant identify important nodes embedded in the question and write them on sticky notes, working in silence. For example. clarifying a group's value proposition may mean identifying its real customers, their needs, the product or service offering and the sustainable differentiation. Have small groups of 4-8 post these nodes and silently sort them into meaningful clusters. Discuss and synthesize.

#### **Key Steps**

#### Step 9 MAKE MEANING

## FREEFORM DRAWINGS

Diagrams of business challenges typically require a substantial amount of explanation. However, they can raise issues which are otherwise unvoiced and introduce visual metaphors that are vivid and memorable.

#### **TEMPLATE DRAWINGS**

Visualization templates can introduce a substantial amount of structure to a discussion. They simultaneously provide a comprehensive view of several key factors shaping a situation as well as room to work out details.

#### **STICKY NOTE FREEFORM**

Free form sticky note mapping encourages a broad range of discussion, encompassing a wide diversity of opinions and interpretations as well as a collective approach to synthesizing meaning.







## **Reflecting on Kinds of Toast Drawings**

You'll find that people make a vast range of kinds of drawings, from crisp and clear to cluttered and confused and from those that look at the whole system to those that pick out a single component.

The point is to highlight the biases. No single drawing is complete or comprehensive. Each simply represents a point of view.



## **Wicked Questions**

Groups have no shortage of wicked questions. Spend some time thinking about the right level of question for your group to consider. Also, think about the kinds of nodes and links that will surface in the discussion.

For each primary question, consider *follow up* questions which further frame the discussion.

How will we

Stand Out

and Win?



wow?

What is really

going on in our

organization

## **GLOBAL TRENDS**

# What Forces are Shaping our Industry now?

#### SOCIETY

How is society changing? What trends do you see in people's behaviours, values and beliefs? What changes in culture are relevant to your business? Why?

#### **TECHNOLOGY**

What technologies are driving your industry? Which are growing? By how much? Which are declining? How may some technologies potentially disrupt industries?

#### ENVIRONMENT

Describe the impact of changes in the physical environment of your business. From local living conditions to global changes, environments shape growth and decline.

## ECONOMY

What is the state of the economy? Locally. Regionally. Nationally. Globally. How does the economic climate affect the business of your suppliers, customers, employees?

## POLICY

Describe the policies, laws and regulations relevant to your business. What new regulations will augment or constrain business?

Every business operates within a complex environment of rising and falling markets, skittish customer impulses, and transformative technologies that shape production, service, distribution and reputation. All business are constrained by the physical and legal environments.



#### WHAT DO THESE MEAN?

So what? What impact do these changes have on your business now and in the future? What will they mean for your strategy to thrive and protect your business?

# **TIP** For fresh templates, visit DrawToast.com

- Select categories relevant to your business.
- Brainstorm factors within each category identifying
   growing
- - shrinking
- reached a milestone
- Identify and chart
  measurable, reliable data.
- Consider the implications of these drivers. How will they your business.
- Aim for a clear concise picture.

## WHY VISUALIZE IN MEETINGS

Visual thinking can reveal a deeper structure within our mental models: how we *think* things work and how we feel things *should* work.

Draw Toast provides a simple vocabulary of the basic building blocks of systems.

**Nodes** represent parts of the whole, mental objects or containers that describe who, what where and when. **Links** represent connections between nodes and can illustrate relationships, flows of information or material. Together, nodes and links create systems **models**.

Models are visual representations of systems. They can be simple, such as toast-making or complex such as government legislation and nutrient flow. The act of making ideas visible helps people become clear about what they mean, engaged as the drawings become relevant to them, and aligned to create a shared picture of what is and what could be.



## **LEARN MORE**

I'm a huge advocate of visual thinking and collaborative problem-solving. As a Fellow at **Autodesk**, I have the opportunity to work with a wide range of organizations to help design the next generation of products, services, digital tools and strategic approaches to innovation.

Over the past 15 years, I've collected a myriad of methods to clarify the complex in the forthcoming **Wicked Problem-Solving™** book and toolkit. If you're interested in learning more, please sign up at **DrawToast.com**. I'm really looking forward to sharing these simple but insanely powerful approaches to fostering clarity, engagement and alignment.

In the meantime, enjoy the Draw Toast video and also check out the Marshmallow Challenge design exercise also known as 'Build a Tower, Build a Team' video on **TED.com.** 

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