



Analogies

What

An analogy is a comparison between two things—for instance, a comparison of a heart to a pump. We communicate in analogies all the time, as they allow us to express our ideas or to explain complex matters in an understandable and motivating way.

Why

Hospital emergency rooms have been inspired by F1 pit stop crews. Henry Ford's assembly line was inspired by observing systems within slaughterhouses and grain warehouses. Executives, artists, writers and all kinds of other creative professionals have relied on creating analogies as a powerful tool for empathising with audiences and communicating and sparking ideas.

When

You can use analogies for several purposes. Analogies are a great way for us to **build empathy with users**, to **synthesise and define information** and to **generate new ideas** around a problem. We use analogies to **gain a fresh way of looking at an environment**, and we use them in instances where direct observation is *hard* to achieve. The cause-and-effect dynamics between many events are similar; only scale and complexity present themselves as obstacles. So, the trick is to come up with an analogy that's appropriate for the context.

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Solve Ill-structured Problems

Also, you can use analogies to **solve ill-structured problems in innovative ways**. Professor Emeritus Gabriela Goldschmidt in the Faculty of Architecture and Town Planning at the Technion-Israel Institute of Technology has conducted some cognition studies with a specific focus on the use of analogy in solving design-related problems. Her results indicate that due to the lack of structure of design-related problems, analogies prove extremely valuable as they facilitate the kind of cognitive processes which we designers need for solving ill-structured, wicked problems.

Building Empathy with Analogies

Analogies help us empathise with our users and to find inspiration to our design problem's solution in unrelated fields by comparing your problem with their problems and solutions. We have all the more reason as designers to capture the attention and imagination of our users through this ingenious and wonderfully simple way of building empathy with them. When using analogies, you should try to identify the aspects of a situation which are the most important or interesting ones. For instance, if you are working on improving a supermarket experience, some of the key aspects might be containing and separating different goods in the shopping cart, making a decision when presented with many options, and speeding up the processing of long waiting lines as effectively as possible. Then, find other experiences that contain any of these aspects – doing so will help you gain a better understanding of users, and also spark new ideas for improving their experiences.

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Generating Ideas with Analogies

The ideation technique of using analogies goes by many names. Essentially, it all boils down to exploring *unrelated* concepts for an insight, which you can apply to your own problem's context. These insights on how principles or characteristics exist within one context may help inform how to reshape these principles and solutions within a different context. Purposely stoking ideation teams to dig for analogies gets them thinking about the attributes of the elements they are working on in a different way. It will help the team seek inspiration in problem solving, reconfigure the design problem and come up with unconventional solutions.

Some designers say: **all design is re-design**. By that they mean that you can borrow ideas from elsewhere, and you can build on others' ideas and remix them into new formats and combinations.

How to Use Analogies – Best Practices and Examples

You can apply these best practices in any situation – whether you're aiming at building empathy, defining a problem, solving ill-structured problems, or generating ideas.

- 1** | **Start by extracting attributes of your problem scenario** and see if you can make connections with scenarios, systems, spaces, or objects where these attributes already exist. For instance, if you are working on improving a supermarket experience, some of the key aspects might be containing and separating different goods in the shopping cart, making a decision when presented with many options, and handling long waiting lines. Then, find other experiences that contain some of these aspects – it will help you gain a better understanding of your users' problems, and it will also spark new ideas for improving their experiences.

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- 2** | **Look towards nature:** Look for similar objects, systems, scenarios, and creatures and their behaviours. They all have some insight to offer in terms of innovative use of resources, space, and time. Biomimicry applies learning from natural systems towards problem solving, essentially copying or borrowing from nature and building this into new technology. Think of how a flower opens with the first rays of sunshine – or how the honeycomb pattern is one of the strongest for use in structures, for instance.
- 3** | **Look towards an industry completely unrelated to yours.** You could benefit from creating analogies to and learning from completely different industries—as Henry Ford did when he found inspiration for the creation of the assembly line by observing systems within slaughterhouses and grain warehouses.
- 4** | **Look for specific people you could interview** about these analogous scenarios, systems, objects or spaces, or how you might do a quick observation.
- 5** | **Use brainstorming or brainwriting methods** to help the team come up with analogies.
- 6** | **Create an analogous inspiration board:** Create a board of quotes, photos and key insights from your analogous space, scenario, system or object. This will help your team share inspiration and help keep the analogous insights in mind later in the process.

