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What Is Open Circular Design?

BY LARS2I (HTTPS://MIFACTORI.DE/AUTHOR/LARS2I/) / 2 MONTHS (HTTPS://MIFACTORI.DE/WHAT-IS-OPEN-DESIGN/) AGO

(https://mifactori.de/wp-content/uploads/2020/04/What-Is-Open-Design-Visual-2.png)
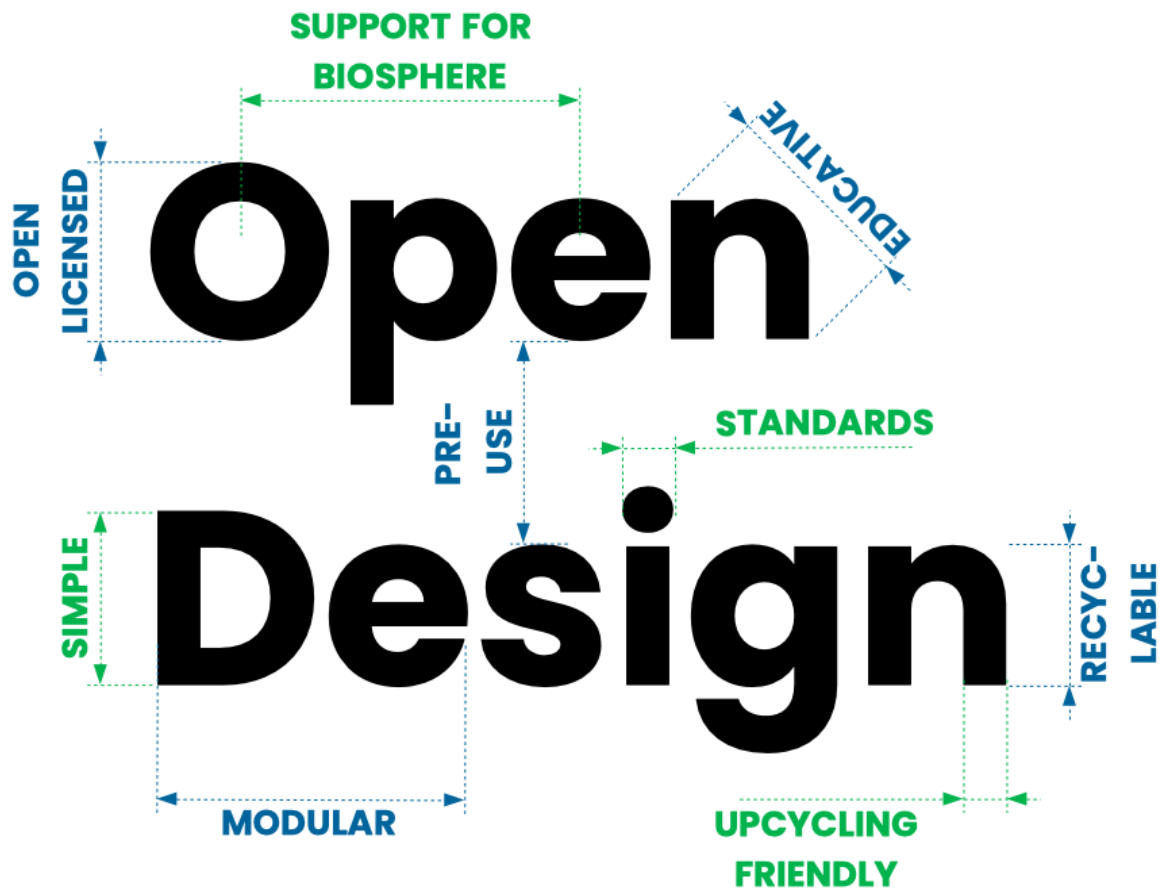
TITLE: WHAT IS OPEN CIRCULAR DESIGN?
WHAT: ARTICLE
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Deutsche Version unten ↓ (https://mifactori.de/what-is-open-design/#deutsch)

English version:

What Is Open Circular Design?

Open Design is at the table for some time now. There are different ideas and approaches connected to the term. But everything is driving more ore less towards the same direction. And here is our specific approach to it:

(Article Version 1.0. *Initially posted on April 2nd 2020. Last updated on April 2nd 2020.*)

OPEN Design is: Future^S

OPEN means for us to leave **options open for the future!** Preserve and add potentials instead of closing them. Create and keep as many potential productive futures as you can. With design, through design & despite of design!

And here is how to do this. (The more of these 9 strategies you have activated in your design the more open it is.)

Open Design is/uses:

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Standards

Ideally Open Design uses parts, tools and production techniques that follow open, wide spread, commonly available standards.

- In the best case these parts, tools and techniques are versatile, durable and accessible almost everywhere on the globe for almost everyone.

<center>*</center>

Open Licensed

Open Design strives to provide legal certainty for everyone to use and work with the design in all possible ways.

- Start with the use of Open Source compatible licenses (https://opensource.org/licenses) for your design to allow everyone to „study, modify, distribute, make and sell the design or objects based on that design." (https://www.oshwa.org/definition)
- Do not apply for patents, utility rights or design rights and communicate clearly that you don't intend to do so nor to make use of any unregistered design rights you might have either. (Example for this) (https://mifactori.de/design-rights/)
- The premier class of Open Design manages even to avoid original ideas that are possible candidate for patents, utility rights or design rights. Boring is a safe way to Openness. (Read more here.) (https://mifactori.de/open-design-lamp/)
- *We acknowledge that for some people Open Design is synonymous with Open Source. Some designers use licenses that try to prohibit commercial use or remix of their work. We choose a different path because the exclusion of commercial use blocks a huge number of futures!

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Simple

Open Design is simple: It is easy to understand and make.

- Ideally Open Design does not require special skills, high level expert knowledge or extraordinary craftsmanship to understand and make it. The future of an object is shaped by those who hold it in their hands. Making sure that a lot of people can work with the design and the parts in it adds many different futures!

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Educative

Open Design educates people instead of addressing them solely as consumers.

- Open Design explains itself. The design might be self explanatory or come with explanations to enable productive work with the design itself and the production methods used for it.
- When people learn new things their possibilities usually grow; education opens futures!
- Be a communicator! When you design for the open you have to learn not just B2B communication but direct communication to all users. (More) (https://mifactori.de/wp-content/uploads/2020/04/Communicating-Openness.jpeg)
- Supportive documentation might include a bill of materials, assembly instructions, original design files and more. Good guidelines for which documents should be provided in what form can be found in the Open Source Hardware definition (https://www.oshwa.org/definition) and the DIN Spec for Open Source Hardware. (https://www.din.de/de/forschung-

und-innovation/din-spec/alle-geschaeftsplaene/wdc-
beuth:din21:313396436)

Urban Mining & Upcycling Friendly

Open Design enables and supports the use of old and used parts and materials.

- If it is designed for ReUse and ReMix it might be good in ReUsing and ReMixing old things.
- Open Design might allow you to include old and already used materials and parts in the design. This reduces the ecological footprint of your design (and design at all) and keeps the potentials of our environment to support many different futures.
- Urban Mining and Upcycling friendliness add possibilities because the number of opportunities to source parts and materials increases. It is not just shops but also scrap yards and so on.

Pre-Use

Open Design seeks to keep parts and materials reusable.

- Open Design aims to chose parts that work in many different designs.
- Reversability is key: Screws over glues. Clamps over screws. …
- Pre-Use! Repurpose parts without undermining their ability to still fulfill their original purpose later on. Make no or as little harm as possible to parts and materials. Don't adapt your parts and materials to your design, adapt your design to the shape of parts and materials. This is called Pre-Use. (https://mifactori.de/pre-use/)

- If you need to modify parts and materials go for modifications that add possibilities to them and not just taking them away. If you need to drill holes for example go for a unified grid that is common in your area to add a reusable part to an already existing family of parts. (More about this here: 3erlin Grid (https://mifactori.de/3erlin-grid/)).

Recyclable

Open Design prefers easily recyclable materials and construction methods that support recycling.

- While still better than incineration or landfill recycling is mostly a dirty, energy intense, environmentally harmful, often complex process. But with some materials this is less bad than with others for example because there are effective infrastructures established for this recycling (paper is an example in some parts of the world.) Go for these materials!
- Recycling keeps an open future as it keeps materials in the loop for future designs and reduces the pressure on the environment to provide us with new materials.

Support For The Biosphere

Open Design wants to maintain and nurture a productive biosphere.

- The biosphere as it is today produces and provides resources and opportunities that make us healthy and fit to build desirable futures. Maintaining it maintains options.
To achieve this Open Design minimizes toxic ingredients, energy consumption, land use and resources consumption.

- Chose biodegradable materials. Biodegration is natures way of recycling!
- Support the biosphere structurally; give nature a home and a place by your side.

Modular

Open Design is modular wherever possible.

- „With 6 standard Lego bricks you can make 915,104,765 different combinations." (http://web.math.ku.dk/~eilers/lego.html) This is the kind of futures and the kind of modularity Open Design is looking for. So Open Design looks for modularity that allows for multi-use and recombination of parts in many different ways.
- Modularity is a meta principle in Open Design as all of the strategies above can be seen as forms of or support strategies of modularity: Open accessible standards are usually used and understood by many and therefore it is likely that there are more than just one way to use them. Simplicity, Educativeness and Open Licenses aim to include as many people as possible in the design process increasing the number of available creative options. Pre-Use and Recycling aim directly for multi(re)use of materials. Support for the Biosphere and Upcycling Friendliness raise the number of options to make something in the world you live in – and your design is usable even for the biosphere growing the number of „active participants" even further.
- „We need modularity induced network effects (https://mifactori.de/why-do-we-use-3cm-x-3cm-and-not-the-open-structures-4cm-x-4cm-grid/) of reuse and reduction in order to create sustainable wealth (https://mifactori.de/modularity-creates-wealth/) and a future that works with and for the many and not just the few!"

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Everything durable and supportive is constantly changing and evolving (our bodies, our language). Make Design open!

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And yes. With this Open Design is the opposite of „Star Design" or „Author Design" (Autorendesign) where this comes with highly sophisticated, special shapes, exclusive joining and complex material hybrids. Objects like that work against openness. They undermine many different futures. Have you ever tried to reuse the polycurved, uniquely shaped, multi material, multi glued legs of a design chair or table? It is hard or even impossible.

This is not design for our future. It is unsustainable. It is a dead end.

(This kind of Design became so popular in the 20st century. But it will not take us well through the 21st century).

„We need modularity induced network effects (https://mifactori.de/why-do-we-use-3cm-x-3cm-and-not-the-open-structures-4cm-x-4cm-grid/) of reuse and reduction in order to create sustainable wealth (https://mifactori.de/modularity-creates-wealth/) and a future that works with and for the many and not just the few!"

Make Design Open! Re-Open Futures!

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SIGN UP! We will open an **Open Design Video Channel on YouTube** this summer. We will post periodically new videos creating and sharing Open Designs and discussing them. **Subscribe (https://www.youtube.com/user/lars2immermann/videos)** to the channel already.
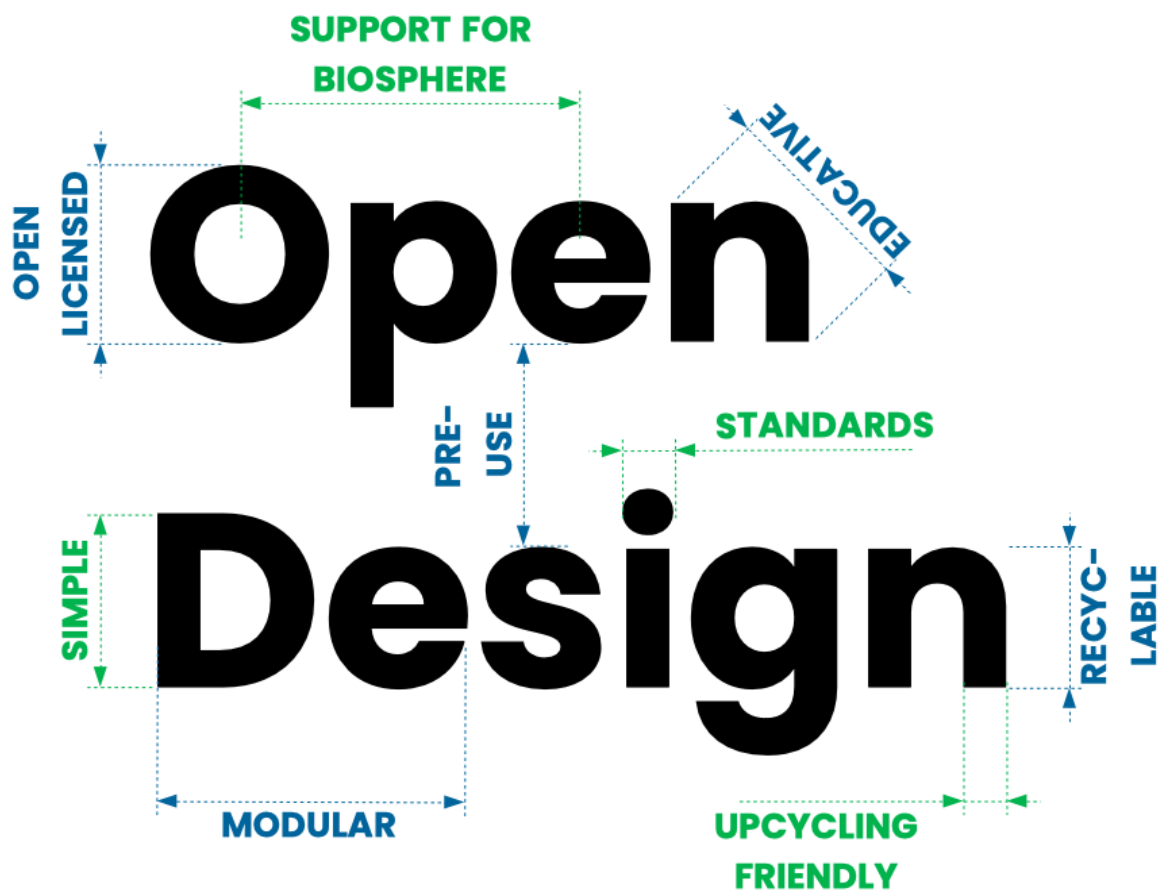
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Deutsche Version

Eine deutsche Version gibt es noch nicht leider. Bis dahin einfach DeepL (https://www.deepl.com/translator) benutzen oder den Artikel direkt im Browser mit einem Klick auf Deutsch übersetzen. (https://support.google.com/chrome/answer/173424? co=GENIE.Platform%3DDesktop&hl=de)

< PREVIOUS / VORHER

What Is The Final Version In Open Circular Design?

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