



*Nina*

Master's in Psychology, Human Factors

Staff Product Designer, Customer Service Platform

Improving the consumer and admin experience

Design Principles  
UX of AI  
Design use cases in CX



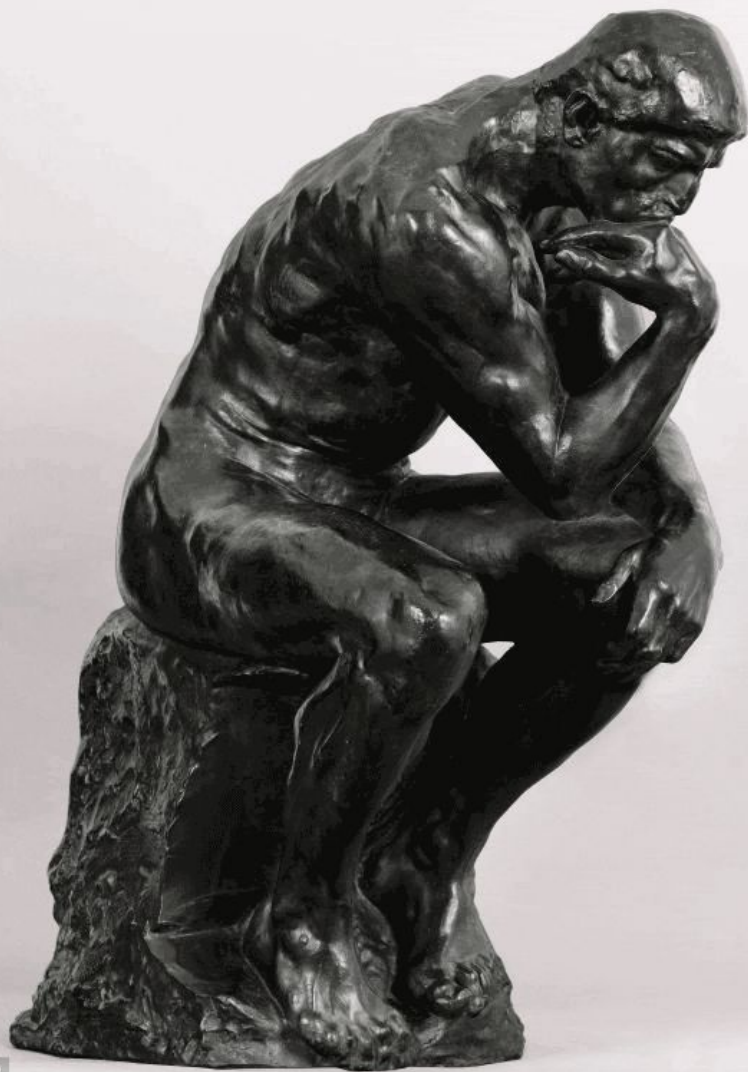
**Artificial Intelligence shapes how we think, feel and behave. It drives the decisions that define our future.**

**We have the responsibility to use this potential for humane technology. Building an AI based on our diverse values and needs requires thoughtful design.**

UX of AI is a primer on designing personal AIs that empower us. The technology deeply influences our lives, so everyone working on it should think about the user experience (UX) of AI. This site briefly summarises core design principles and links to more in-depth articles for each.

Josh Lovejoy  
Designer, Google  
[www.paradoxtheory.com](http://www.paradoxtheory.com)





*Why are design principles  
important in  
delivering meaningful products?*

# prin·ci·ple

/ˈprɪnsəp(ə)l/

*A fundamental **truth or proposition** that serves as the **foundation** for a system of belief or behavior or for a chain of reasoning.*

Product design principles are value statements that frame design decisions and support consistency in decision making across teams working on the same product or service.

<https://www.nngroup.com/articles/design-principles/>

*Take a stand on which value is important.*

*Inspire empathy.*

*Concise.*

*Not conflict with one another.*

<https://www.nngroup.com/articles/design-principles/>



# Dieter Rams: 10 principles of good design



1. Good design  
is innovative.



2. Good design  
makes a product  
useful.



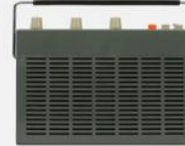
3. Good design  
is aesthetic.



4. Good design  
makes a product  
understandable.



5. Good design  
is unobtrusive.



6. Good design  
is honest.



7. Good design  
is long-lasting.



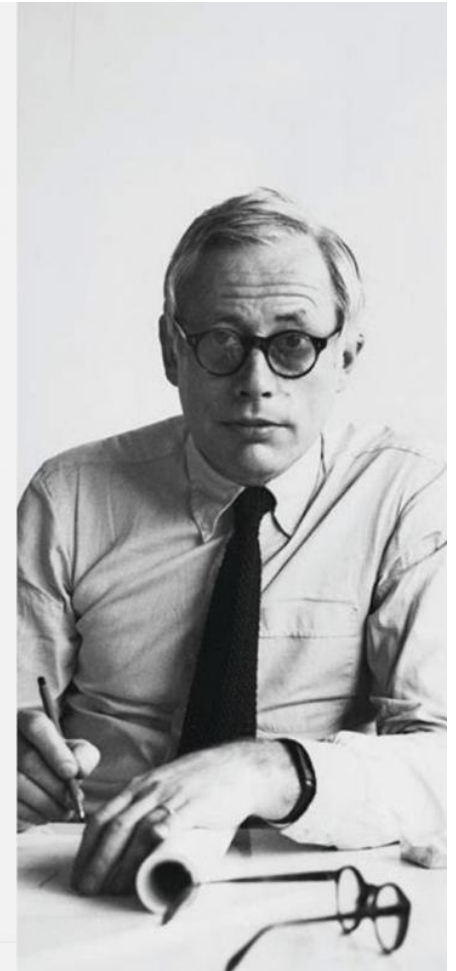
8. Good design  
is as thorough down  
to the last detail.



9. Good design  
is environmentally  
friendly.



10. Good design  
is as little design  
as possible.



Ten principles of good design by D.Rams - Photo: Abisag Tüllmann, Source: Vitsoe

# Principles for Designing AI Products

Referenced from UX of AI

1

**Start with the user** — The technology you use should be guided by the user experience you want to achieve. Instead of diving headfirst into algorithms, think about how people do the task today. Figure out what's valuable, and how you can enhance the experience. Along the way, you might find a solution without AI that is easier to build or understand. The same goes for marketing: Talk about the user benefits, not the AI technology.

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 [Human-Centered Machine Learning](#)

2

**Set the right expectations** — Since everything from self-driving cars to smoothie makers calls itself AI, expectations for what that means are all over the place. People will expect your AI to be both smarter and dumber than it is. Try to explain in plain language what your AI can do, and where its limitations are. Generally, under-promising and over-delivering is a good way to build trust. Over time, users will learn how to best integrate the AI into their workflow.

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 [How to Meet User Expectations for Artificial Intelligence](#) [Don't Call AI "Magic"](#)

3

**Explain the results** — AI is only useful if we understand its decisions. Ideally, the user should be able to trace any result back to the supporting data points. If that's not possible, explain the basic operation of the algorithm. Lay out which data sources you use, and which qualities the AI focuses on. If you aggregate data from multiple sources, break them down to let the user reproduce the result. This information should be available as part of the user flow through a consistent interface.

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 [Interpretable Machine Learning](#) [The Building Blocks of Interpretability](#) [The Dark Secret at the Heart of AI](#) [Machine Learning is Very Much a UX Problem](#)

# *Generative AI*

Short for generative artificial intelligence

Uses large datasets of **existing content**, learning the underlying patterns and relationships within that data.

Generates entirely **new content**, such as text, images, music, and code, that mimic or extend those patterns.

# *Principles*

The user is the center.

Communicate clearly.

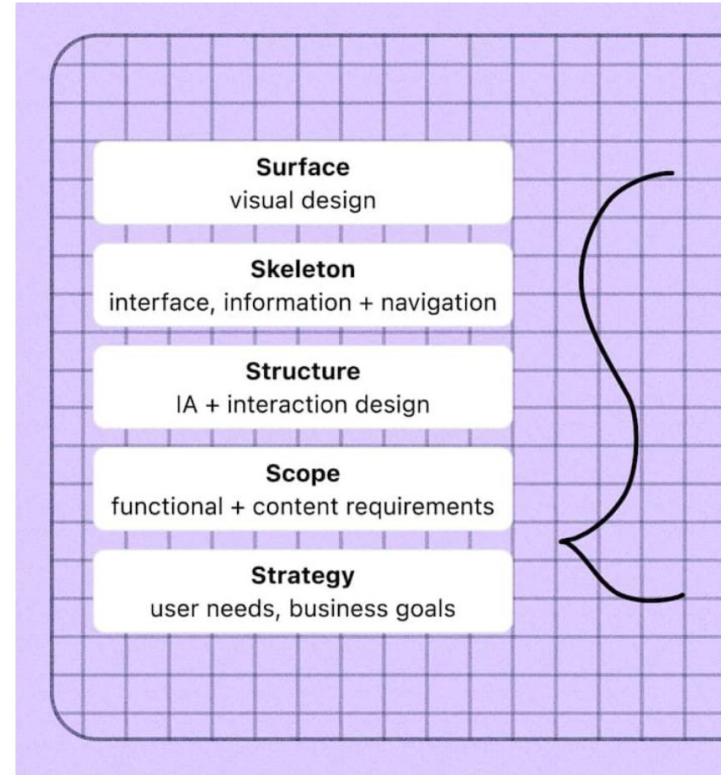
Build trust right away and over time.

Design with purpose.

ONE

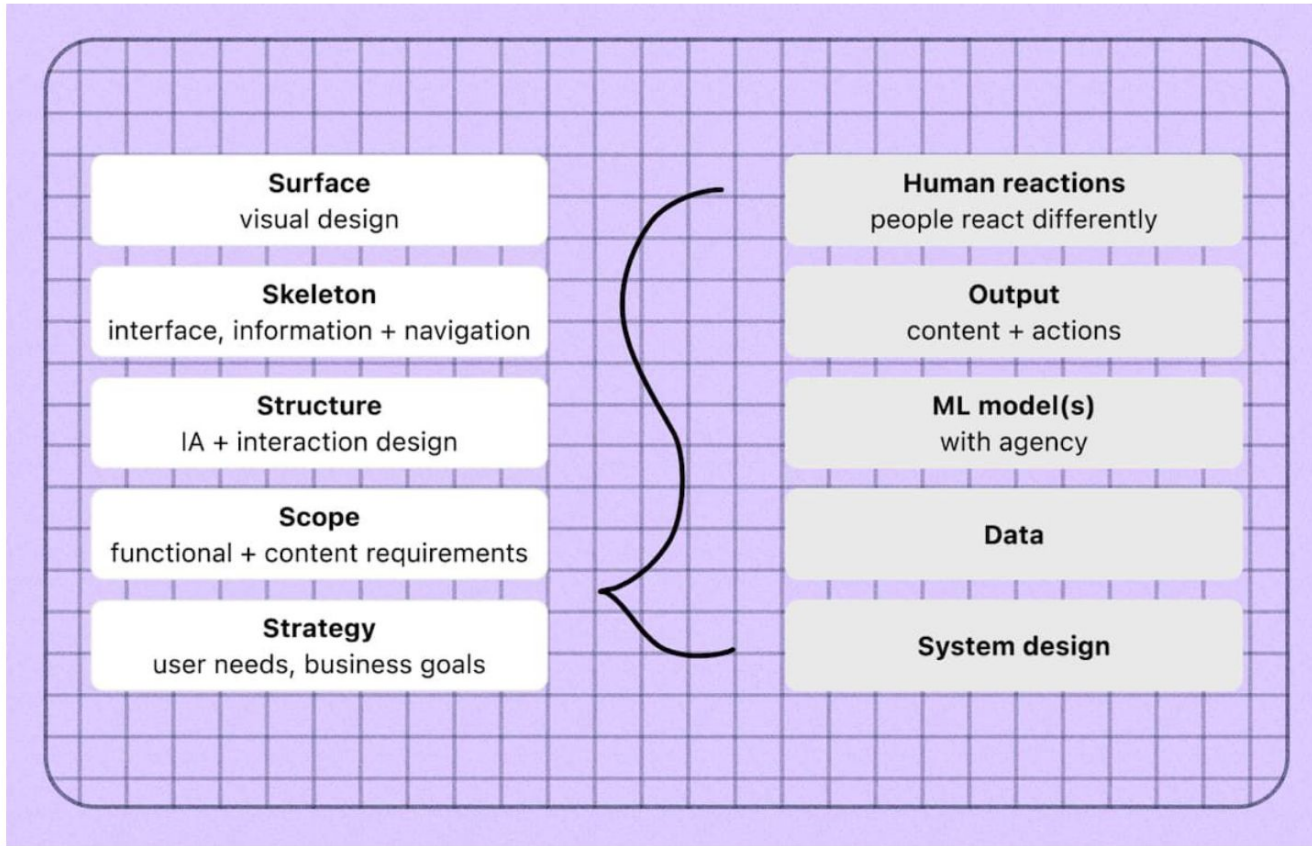
*The user is the center.*

1. Start with your users.
2. Think about your users' needs and goals. What problems are they trying to solve with your products?
3. How you can enhance the experience with out without AI?



**Jesse James Garrett's 5-layer Model of UX Design**

A new age of UX: Evolving your design approach for AI products, Molly Mahar,  
<https://www.intercom.com/blog/design-ux-machine-learning-ai/>



**Jesse James Garrett's 5-layer Model - The Elements of User Experience**

A new age of UX: Evolving your design approach for AI products, Molly Mahar,  
<https://www.intercom.com/blog/design-ux-machine-learning-ai/>

*Instead of asking yourself “How might we do this?” in response to a known, scoped problem, you might find yourself asking, “Can we do this?”*



MOLLY MAHAR  
Staff Product Designer, Intercom



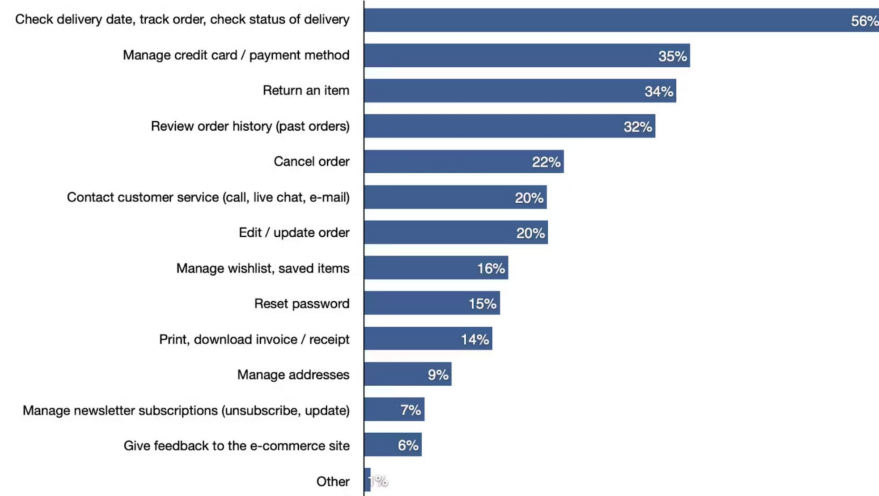
## Principle 1 in context

1. Solve the most common inquiries (wants & needs)
2. Natural, conversational, and on-brand.

### E-Commerce Account Features Most Important to Users

1,584 responses · US adult internet shoppers · 2023 · © baymard.com

"Select up to 3 items from the list below that are MOST IMPORTANT to you when accessing your account on an e-commerce site. Please trust your first instincts and spend no more than 2 minutes on this exercise."



Consumers

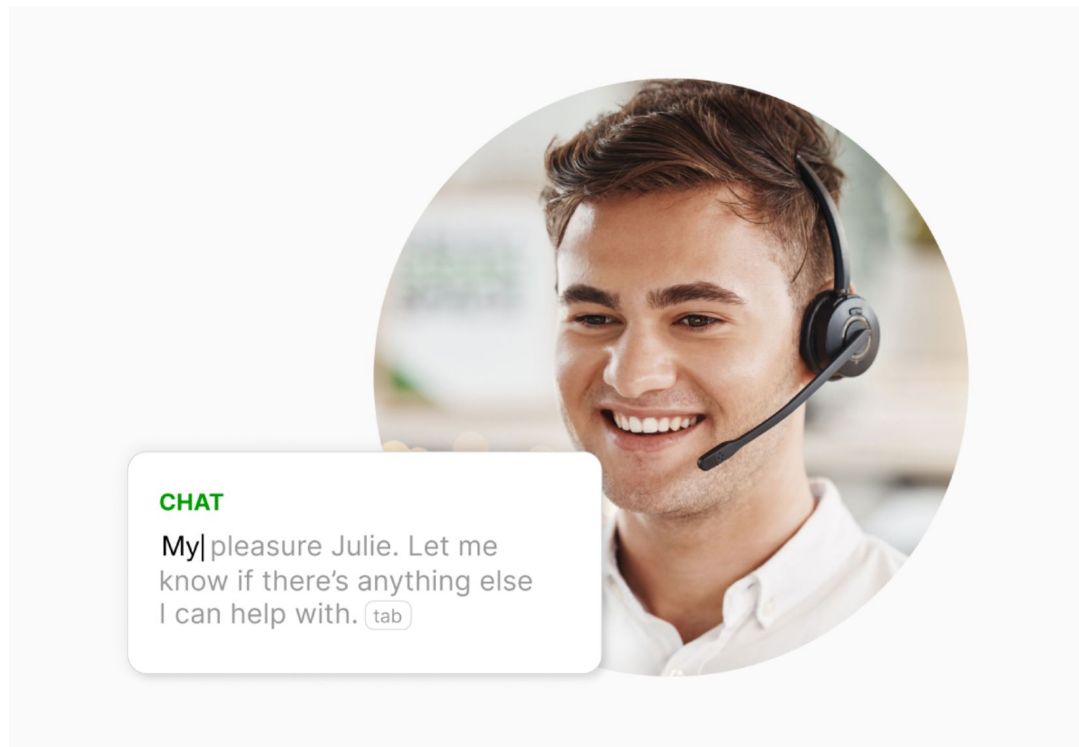


# Agents

Authoring enhancements

Summaries

Smart replies



*What other ways could a designer keep the user at the center?*



TWO

*Communicate clearly.*

1. Set the right expectations
2. Communicate your confidence
3. Explain the results
4. Degrade gracefully

*“You’re designing a  
probabilistic system that is  
dynamic and that reacts to  
inputs in real time”*



MOLLY MAHAR  
Staff Product Designer, Intercom

*Set the right expectations*

*Communicate your confidence*

*Explain the results*

*Share your process and intentions*



Ben, AI Assistant

Hey Roger! I'm Ben, your Acadbooks AI Assistant. I'm still under beta, so I might not always get everything right, but my knowledge is growing every day. I can already assist with all things books, orders, and subscriptions.

How can I assist you today?

### THREE

*Build trust right away and over time.*



*The user should always have full control.*

*What elements in these examples suggest the principles of communicating clearly and building trust?*

The screenshot shows a chat window with a teal header bar. On the left is a back arrow, and on the right is a house icon followed by the text "Staybnb bot" and "AI Answers instantly". The chat history includes a user message in a teal bubble: "I have a question about my reservation." and a bot response in a light gray bubble: "No problem. What is the question about your reservation?". Below this is another user message in a teal bubble: "Can I change the date?". The bot's response is in a white bubble with a teal border, featuring an "AI Answer" label, a "Beta" tag with an info icon, and the text: "Yes, you can change the date of your reservation for up to seven days in advance. To do this, go to 'Your Reservations' and click the reservation. Then, go to 'Edit' and enter a new date." Below the answer is a "Source" section with the link "Changing your reservation date >". At the bottom, there is a user message in a light gray bubble: "Did that answer your question?" and a teal bubble with the text "Yes, thanks!".

< Staybnb bot  
AI Answers instantly

I have a question about my reservation.

No problem. What is the question about your reservation?

Can I change the date?

**AI Answer** Beta ⓘ

Yes, you can change the date of your reservation for up to seven days in advance. To do this, go to "Your Reservations" and click the reservation. Then, go to "Edit" and enter a new date.

Source  
Changing your reservation date >

Did that answer your question?

Yes, thanks!

The screenshot shows a chat window with a teal header bar. On the left is a back arrow, and on the right is a profile picture of a woman followed by the text "Lisa" and "Active". The chat history includes a user message in a teal bubble: "Can you help me book a flight?". The bot's response is in a light gray bubble: "Unfortunately, I don't have any information about booking flights. I'm only capable of answering questions about Staybnb. Could you ask me something else?". Below this is another user message in a teal bubble: "Is it possible to book a package of both a flight and a Staybnb reservation?". The bot's response is in a light gray bubble: "I'm sorry, but I can't help you with that. I'm going to pass you over to a teammate who can help you with this." At the bottom, there is a user message in a light gray bubble: "Hi there, Lisa from our Customer Support team here! I can help with this.".

< Lisa  
Active

Can you help me book a flight?

Unfortunately, I don't have any information about booking flights. I'm only capable of answering questions about Staybnb. Could you ask me something else?

Is it possible to book a package of both a flight and a Staybnb reservation?

I'm sorry, but I can't help you with that. I'm going to pass you over to a teammate who can help you with this.

Hi there, Lisa from our Customer Support team here! I can help with this.

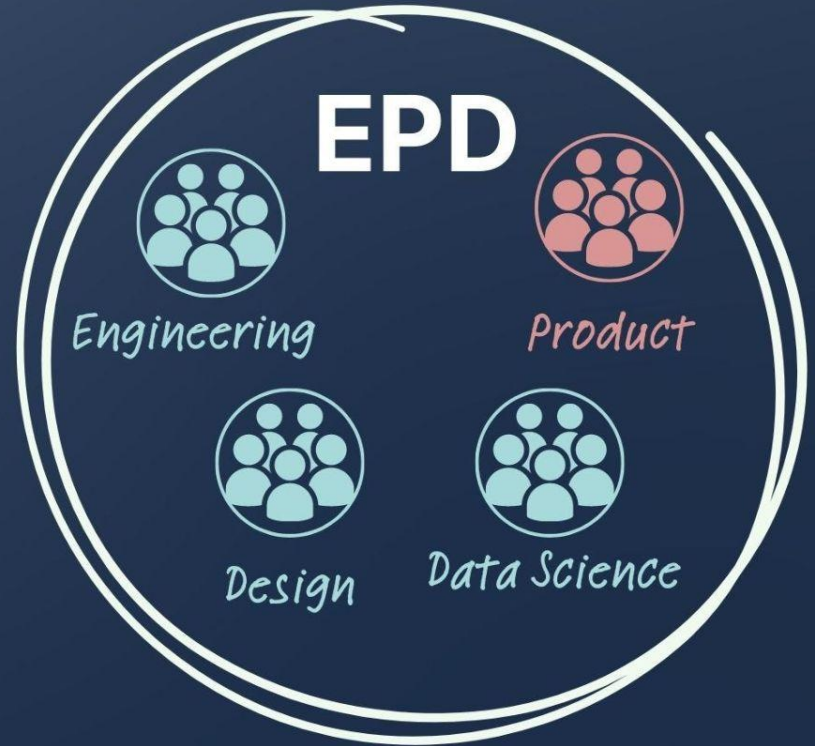
**FOUR**

*Design with purpose.*

*Work with everyone*

*AI is shaped by the experiences and values of the people that make it.*

# Example Org Structure

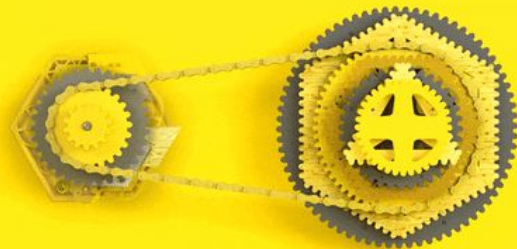






<https://goodmenproject.com/featured-content/24-reasons-a-mom-is-on-her-phone-when-shes-watching-her-kids/>  
<https://theconversation.com/will-ai-tech-like-chatgpt-improve-inclusion-for-people-with-communication-disability-196481>  
<https://www.entrepreneur.com/en-in/news-and-trends/ai-how-the-rise-of-chatbot-is-powering-a-futuristic-433939>

*Know what not to automate.*



*Could you think of tasks that shouldn't  
be using AI?*



*That's it!*

*Any questions?*