

Has the UX Process of Conversational AI Changed from Before, or not?

June 3, 2023

Asuka Uda

Conversation AI section

AI Product. Dept.

Rakuten Group, Inc.



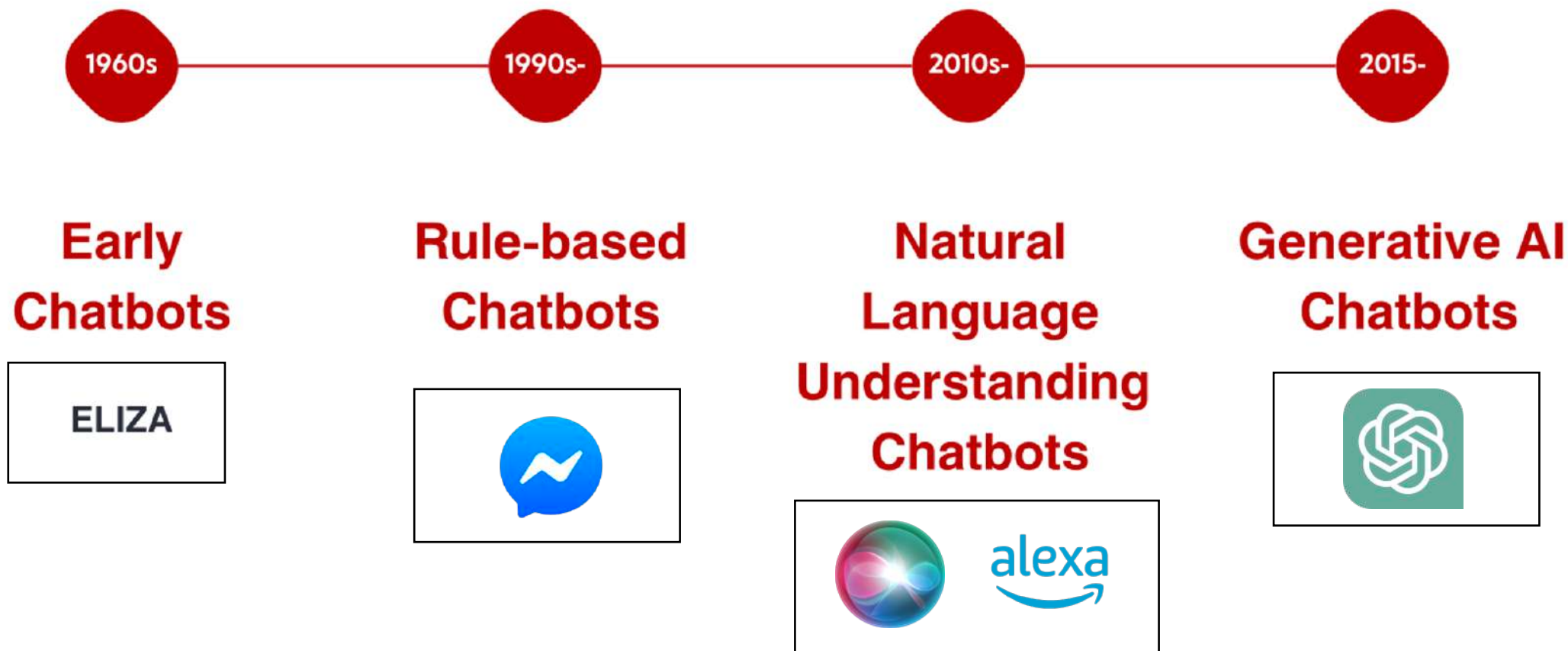
About

Asuka Uda

- UX Designer for conversational AI at Rakuten Group
- Master's degree in User Experience Design
- Same Birthday as HAL9000 from "2001: A Space Odyssey"
- Dog lover including robotic dogs
- Live in Japan



The Evolution of Conversational AI



1960s

Early Chatbots

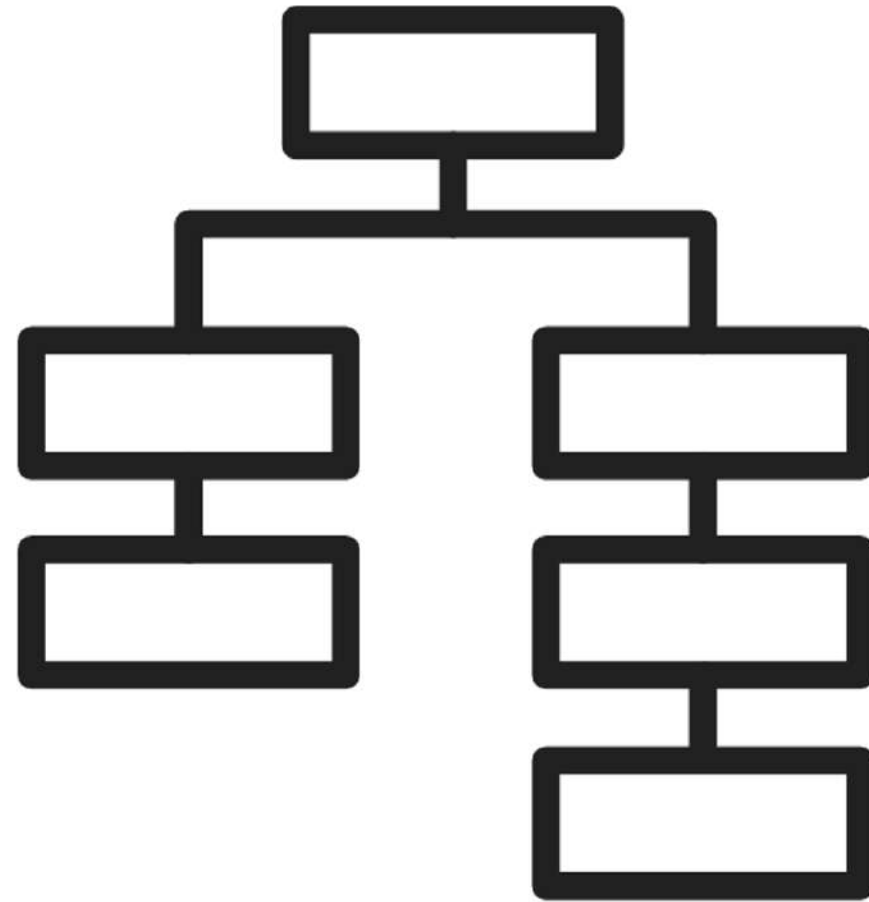
ELIZA

```
YOUR BOYFRIEND MADE  
YOU COME HERE>  
He says I'm depressed  
much of the time.  
I AM SORRY TO HEAR  
YOU ARE DEPRESSED.  
Its true, I am unhappy.  
DO YOU THINK COMING  
HERE WILL HELP YOU NOT  
TO BE UNHAPPY_
```

References: <https://www.youtube.com/watch?v=RMK9AphfLco>
<https://link.springer.com/article/10.1007%2Fs00146-018-0825-9>
<https://web.njit.edu/~ronkowitz/eliza.html>

1990s-

Rule-based Chatbots

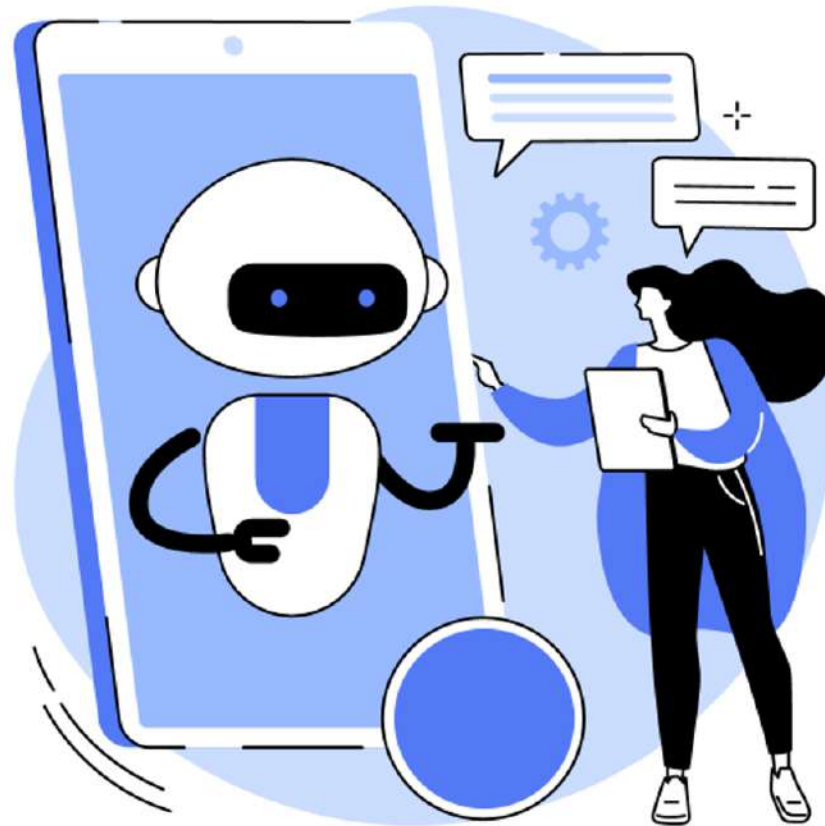


2010s-

Natural Language Understanding Chatbots



alexa



2015-

Generative AI Chatbots

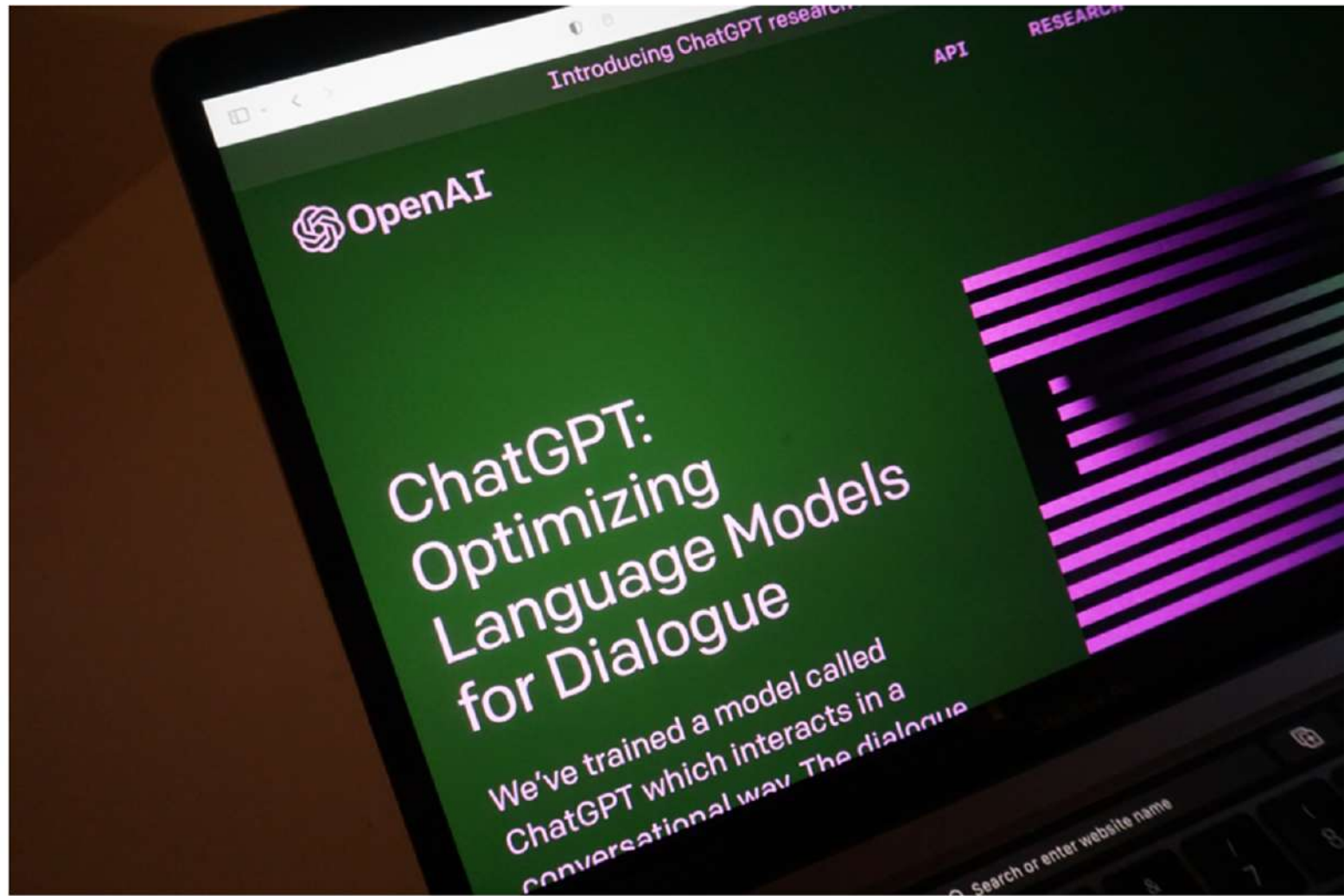


Photo by Rolf van Root on https://unsplash.com/photos/oLthDWAG244?utm_source=unsplash&utm_medium=referral&utm_content=creditCopyT

The **3** elements of good **UX** for **Conversational AI** design



Technology

**Use appropriate
technology and
provide
responses that
match the user's
intent**



**Business
Needs**

**Consider
conversation
design based on
the business goals**



Psychology

**Make the
conversation feel
natural**

The **3** elements of good **UX** for **Conversational AI** design



Technology

Use appropriate technology and provide responses that match the user's intent



Business Needs

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Psychology

Make the conversation feel natural



Everyone, imagine this scenario



Hello there! I'm CafeBot, your friendly cafe robot. We offer a wide range of menu items such as coffee, tea, juice, smoothies, sandwiches, salads, cakes and more. We can also adjust our menu to accommodate your requests. We can even help guide you to the perfect table, whether you prefer a cozy table or a spot by the window. Ordering is easy with our tablet terminals, and we offer various payment options including cash, credit card, electronic payment and QR code payments. Additionally, we provide free Wi-Fi for all of our customers. If you have any questions, please feel free to ask us anything!



Hey there! Welcome to our cafe. I'm a fancy robot here to help you out. Follow me and I'll show you to your table, my friend!



Our drink menu has coffee, tea, herbal tea, iced tea, iced coffee, and fresh juice. We also have some special drinks that change depending on the season, so keep an eye out for those! Is there anything that catches your eye?



Hello! Welcome to our cafe.
We have a Nordic theme and
are particularly known for our
coffee and sandwiches.
Please follow me and I'll show
you to your table.

Thank you.

Would you like me
to explain our
menu?

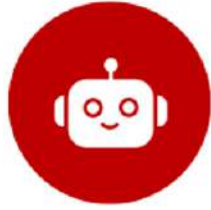
Yes, please.

For our drink menu, we have
coffee, tea, herbal tea, iced tea,
iced coffee, and fresh juice.
For food, we offer sandwiches,
soups, salads, and desserts.

That's great. I'd
like to order a
chicken sandwich.

**What was
the problem?**

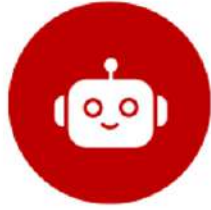
What was the problem?



Bot # 1

- Too much **information overload**
- Risk of **increasing drop-off rate**

What was the problem?



Bot # 1

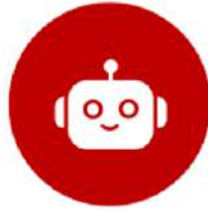
- Too much **information overload**
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Bot # 2

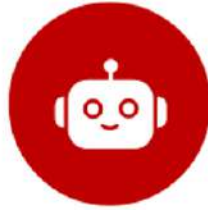
- The brand and **conversational tone may not match**
- There is a risk of **losing credibility**

What was the problem?



Bot # 1

- Too much **information overload**
- Risk of **increasing drop-off rate**



Bot # 2

- The brand and **conversational tone may not match**
- There is a risk of **losing credibility**



Good

Bot # 3

- Greeting that includes the introduction of the cafe
- Conversation tone matches the brand
- Progresses the conversation while confirming and leads to conversion

Conversation Design

6 UX Principles

- 1** Be clear on who's talking
- 2** Set clear expectations
- 3** Use the right UI at the right time
- 4** Have a long-term memory
- 5** Offer an escape hatch
- 6** Establish appropriate conversational tone and bot personality

Conversation Design

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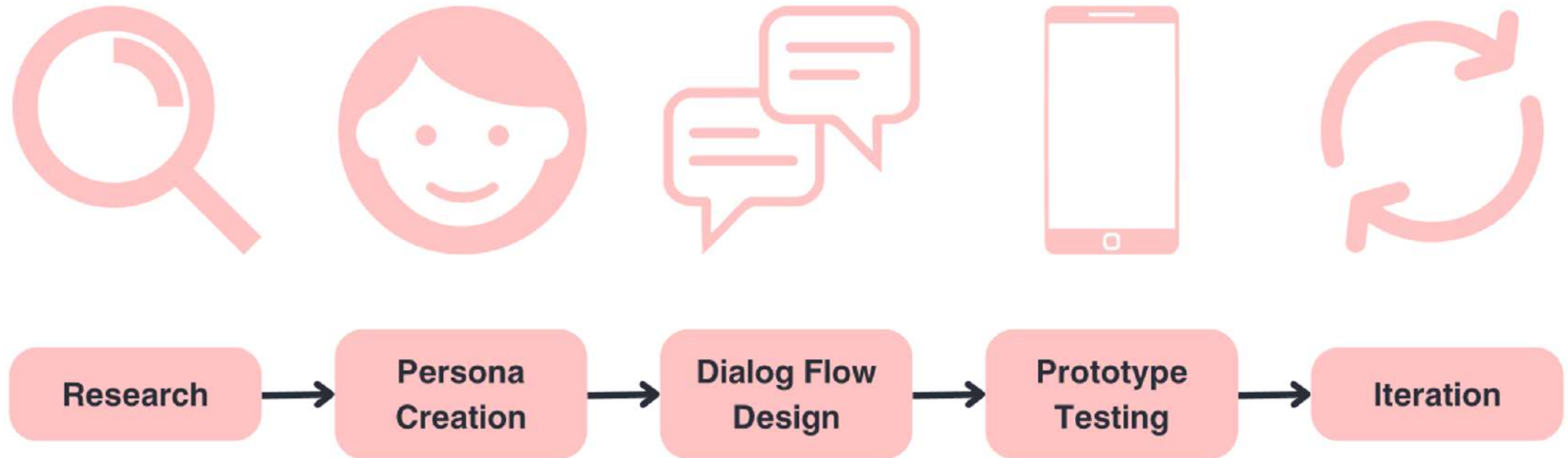
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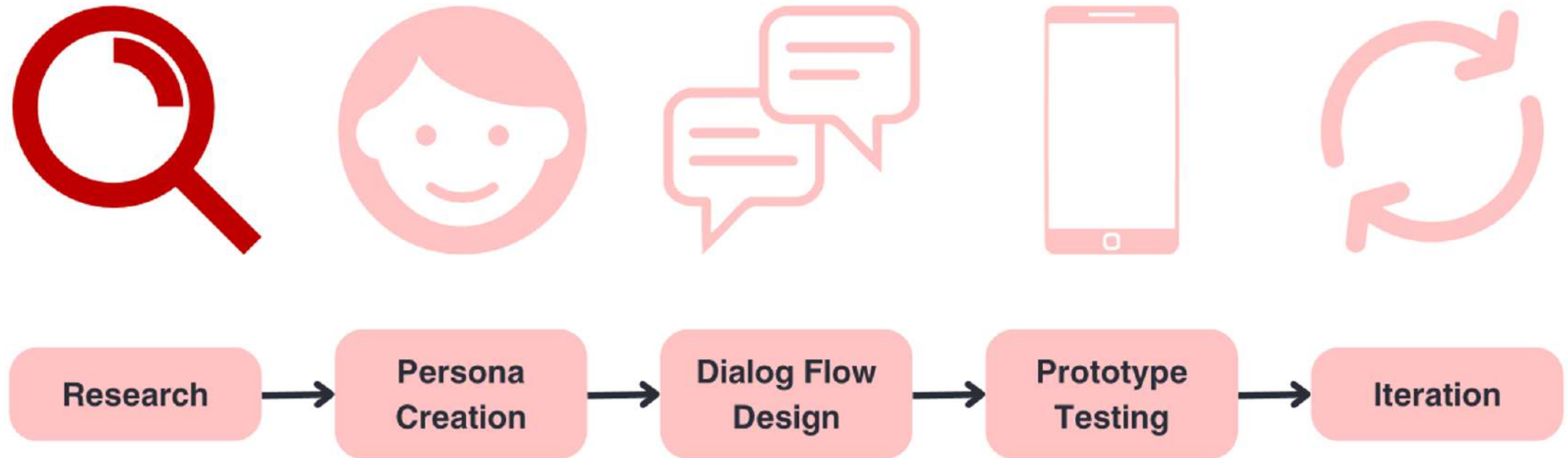
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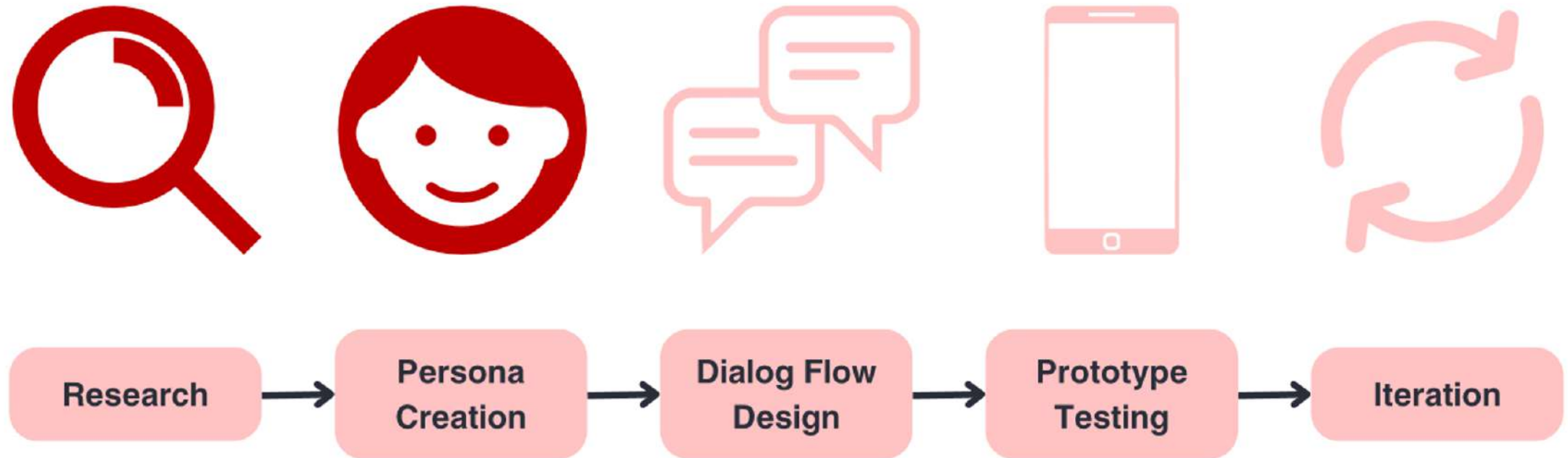
Basic process for designing Conversational AI UX



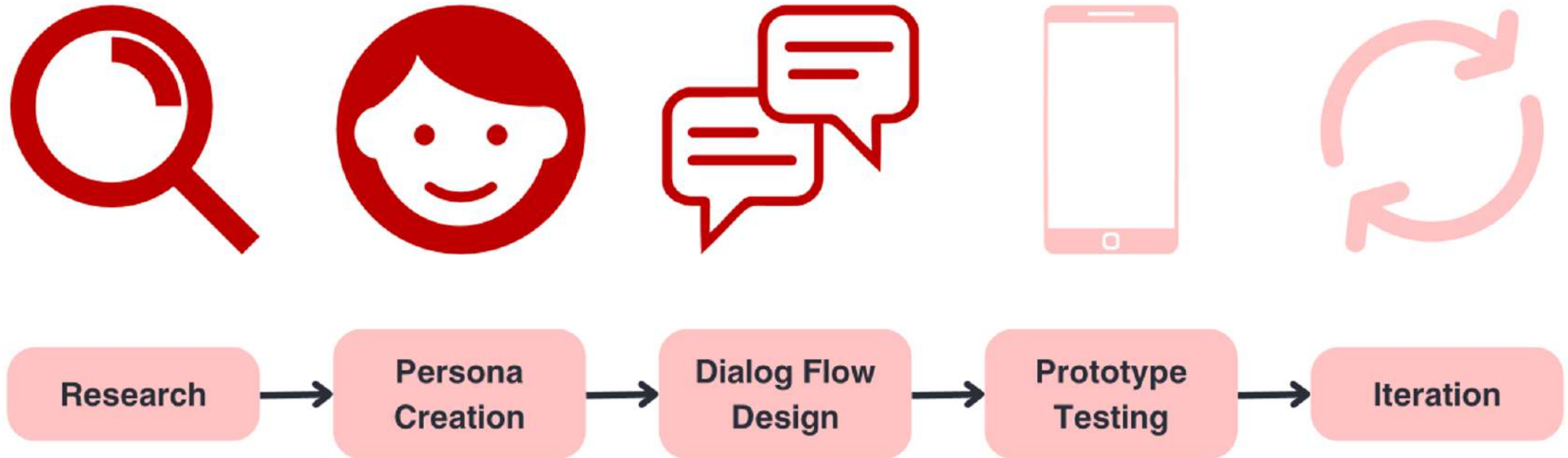
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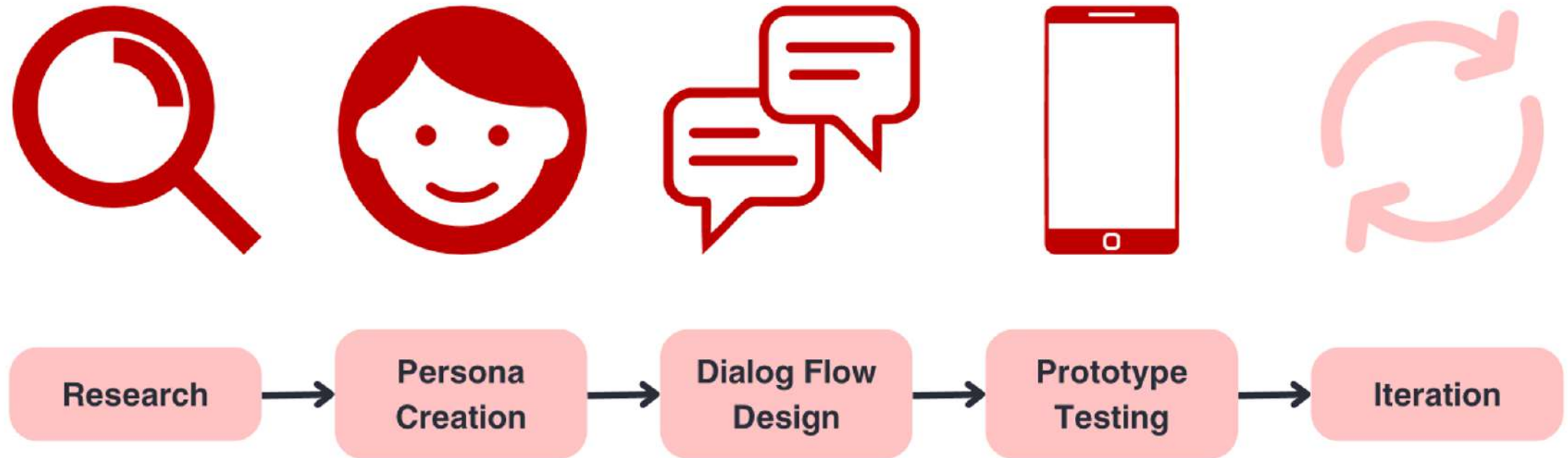
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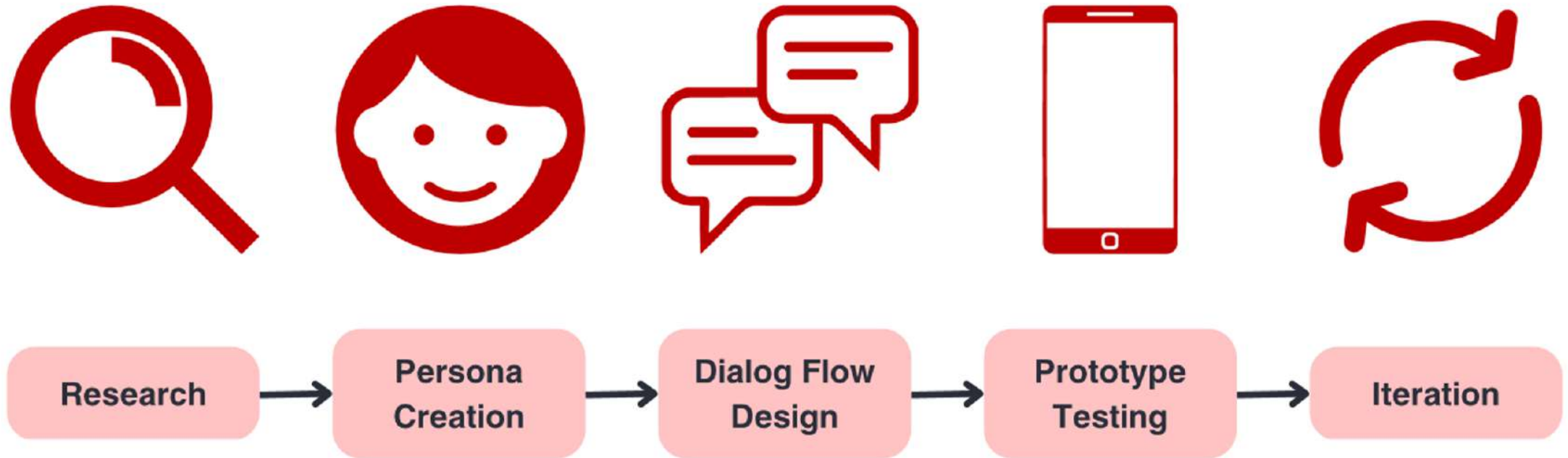
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Basic process for designing Conversational AI UX



Basic process for designing Conversational AI UX



**Has new
technology
changed the
UX design
process?**

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UX design
process?

Natural Language Understanding
technology bot



Has **new technology** changed the **UX design process**?

Natural Language Understanding technology bot

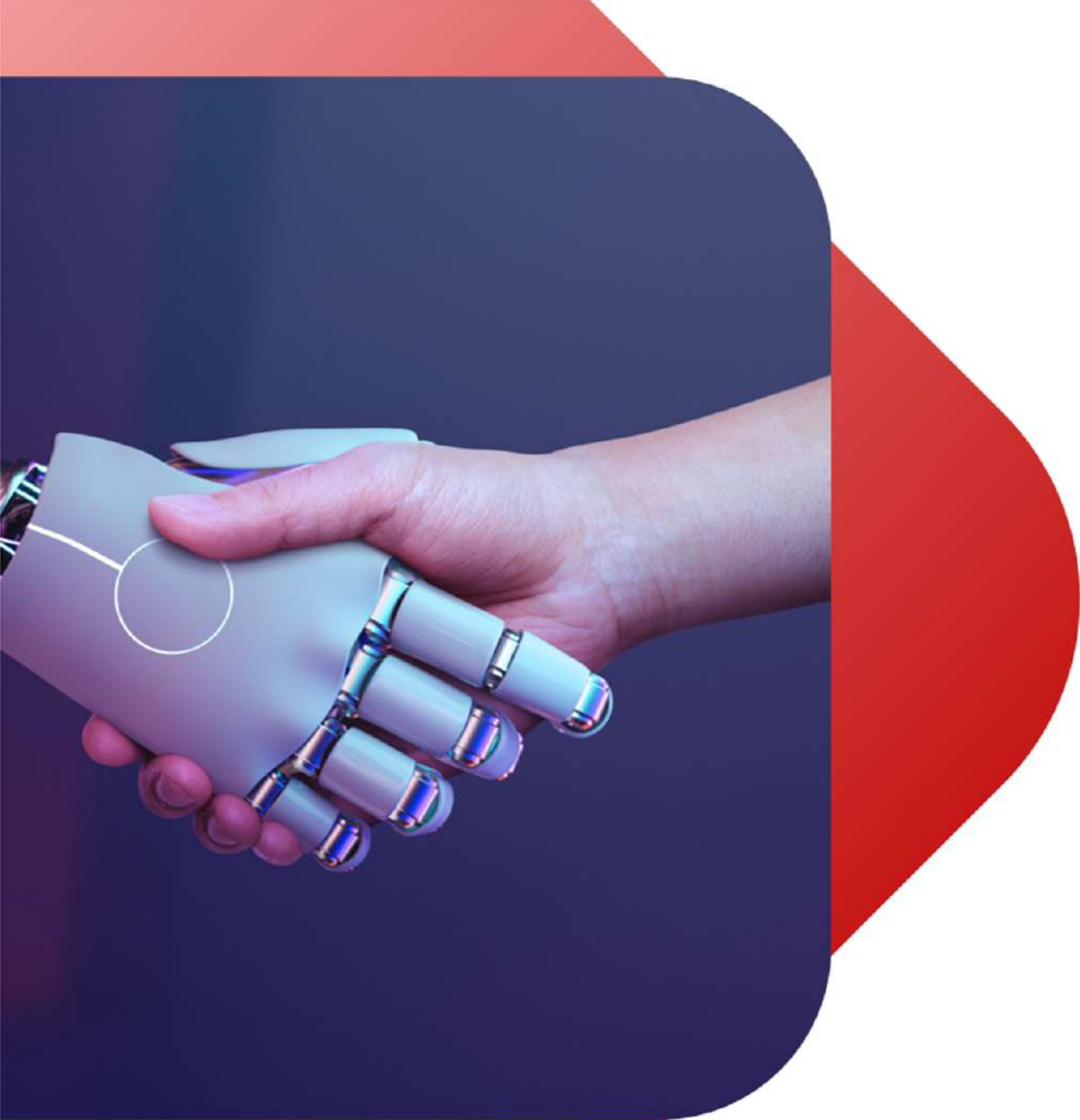


Generative AI technology bot



Why is UX design for bots important?





**Conversational
AI's evolution will
further increase
the importance of
UX design.**

Rakuten Drone Rakuten 楽天投信投資顧問

Rakuten Medical Rakuten MAGAZINE Rakuten チケット

Rakuten Link Rakuten Farm R Pay Rakuten Rebates

Rakuten STAY Rakuten レシピ Rakuten Super Point Screen Rakuten Wallet

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Rakuten Symphony

Rakuten Europe Bank

Rakuten Mobile

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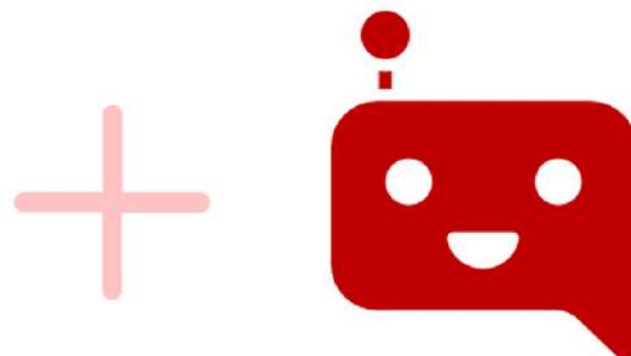
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A teal speech bubble with a white outline and a small tail pointing downwards. Inside the bubble, the text "thank you" is written in a dark blue, cursive font, and "so much!" is written in a light pink, cursive font below it.

thank you
so much!

Rakuten

The Rakuten logo is centered on a solid red background. It consists of the word "Rakuten" in a bold, white, sans-serif font. A white, horizontal, trapezoidal shape is positioned below the letters "a", "k", and "u", tapering to a point on the left and right sides, creating a stylized underline effect.