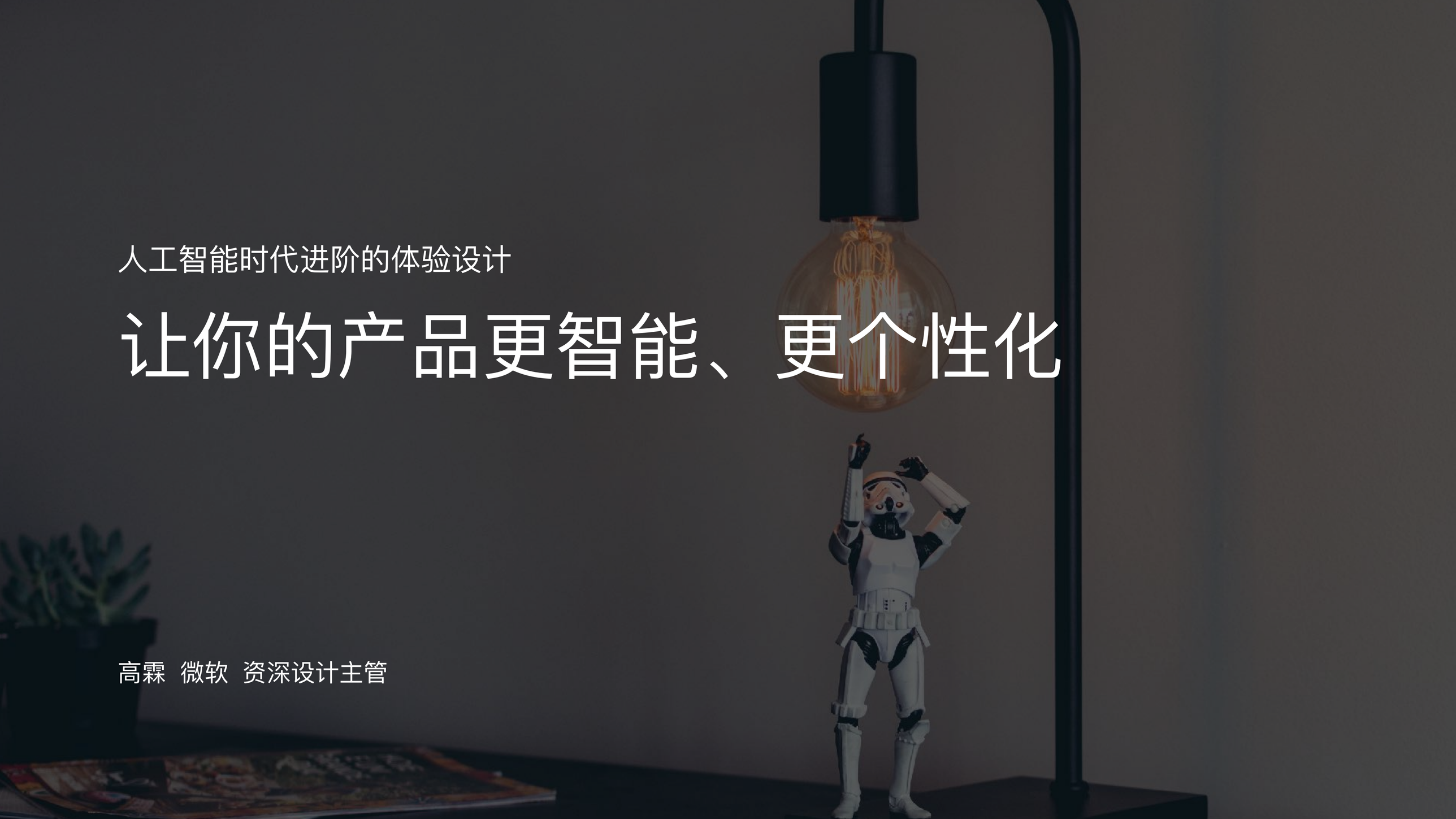
人工智能时代进阶的体验设计

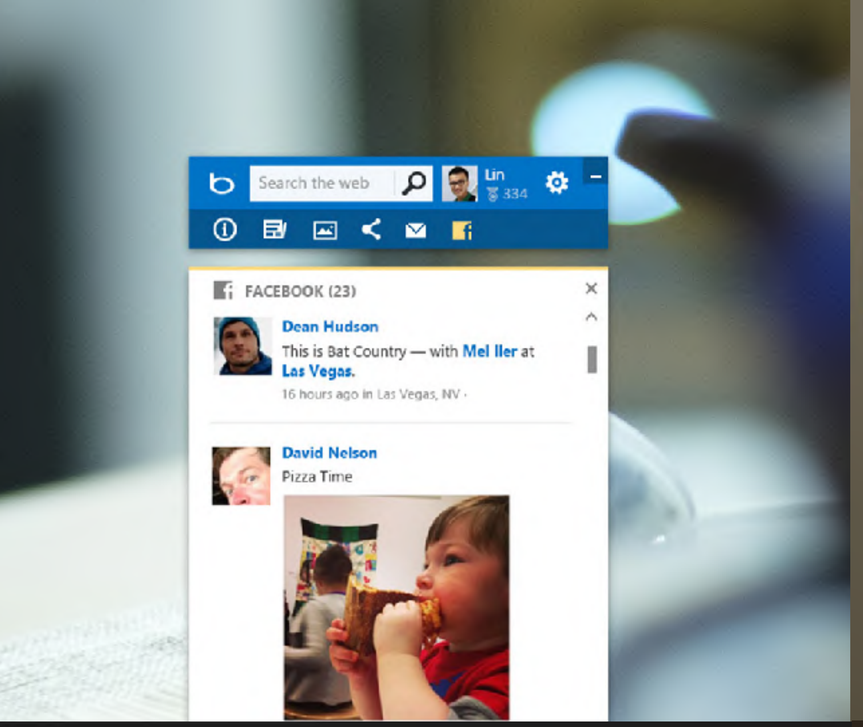
让你的产品更智能、更个性化

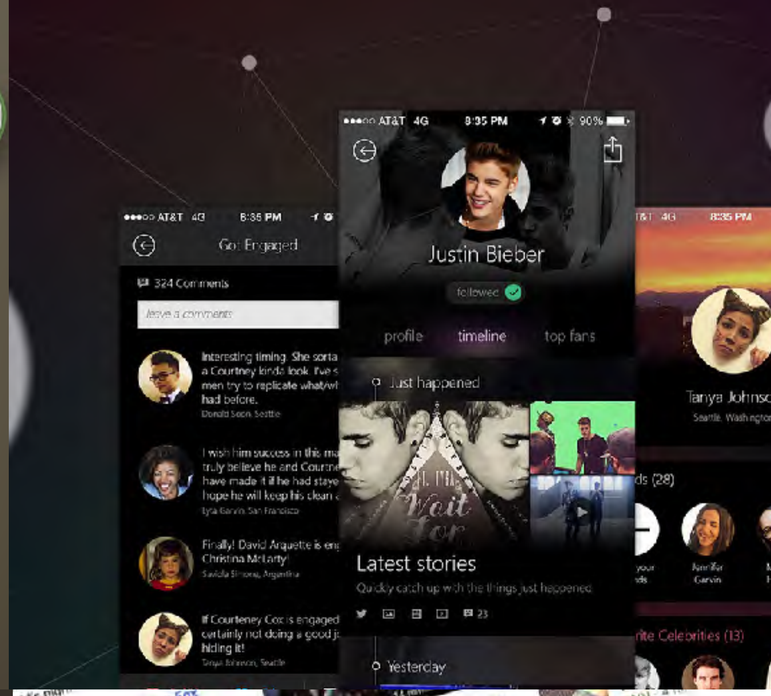


高霖 微软 资深设计主管

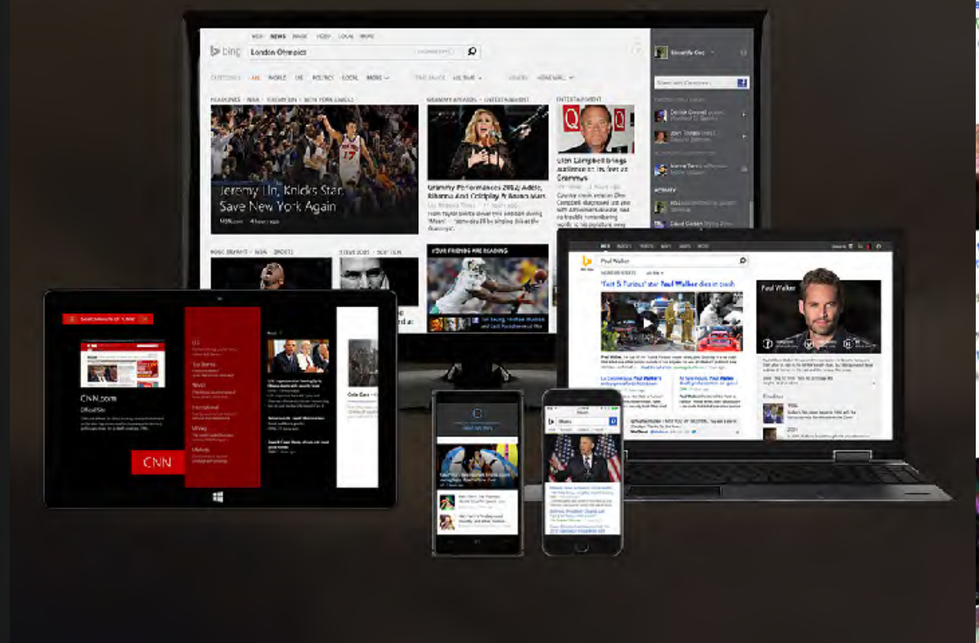
北京
Beijing
Born

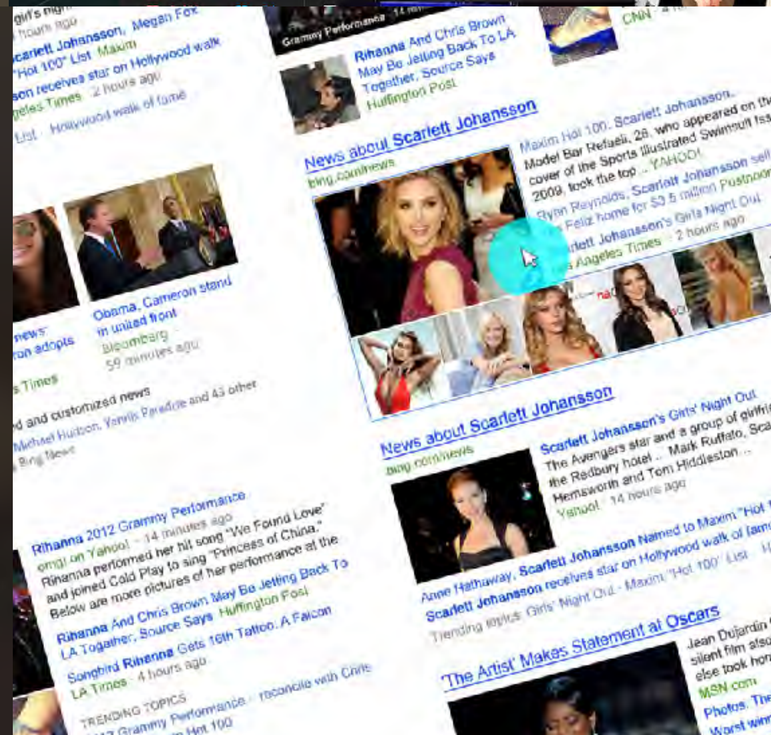
西雅图
Seattle
2014


Search the web
Lin
334
FACEBOOK (23)
Dean Hudson
This is Bat Country — with Mel Iler at Las Vegas.
16 hours ago in Las Vegas, NV ·
David Nelson
Pizza Time


AT&T 4G
8:35 PM
90%
Justin Bieber
followed
profile
timeline
top fans
Just happened
Latest stories
Yesterday

9:01
以下是您问的意大利草原餐厅的信息
意大利农场餐厅
1006.3 公里
北辰东路8号北辰时代生活广场81号,
北京市朝阳区
★★★☆☆ 204 个点评 ¥81
(206) 325-9100
开车
公交
查看网页结果
草原餐厅在哪
小娜好!


Jeremy Lin, Knicks Star, Save New York Again
CNN

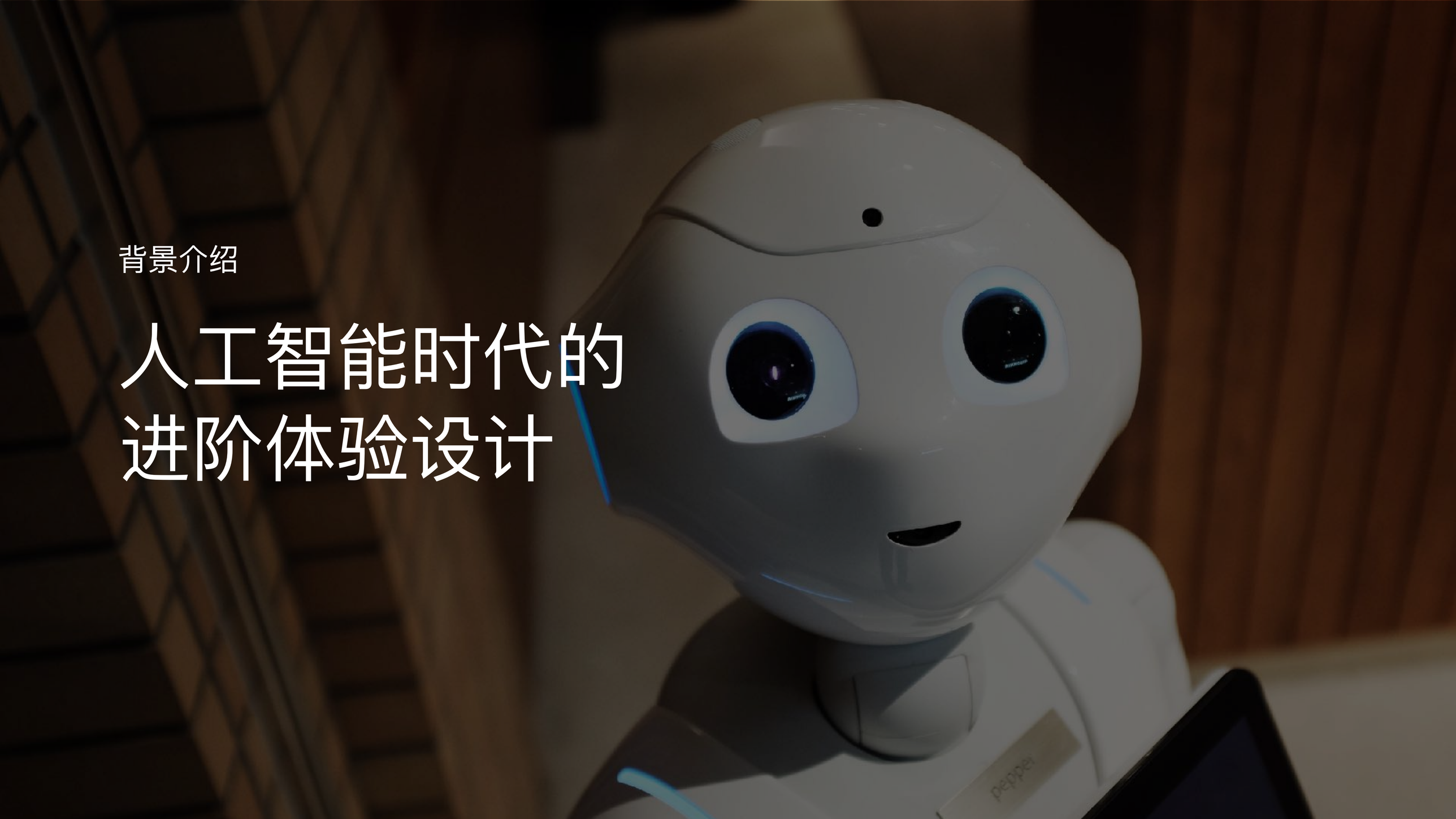

Rihanna And Chris Brown May Be Jetting Back To LA Together, Source Says
Huffington Post
News about Scarlett Johansson
Obama, Cameron stand in united front
Bloomberg
Rihanna 2012 Grammy Performance
Rihanna And Chris Brown May Be Jetting Back To LA Together, Source Says
Huffington Post
Songbird Rihanna Gets 16th Tattoo, A Falcon
LA Times
News about Scarlett Johansson
Scarlett Johansson's Girls' Night Out
Anne Hathaway, Scarlett Johansson Named to Maxim "Hot 100" List
Scarlett Johansson receives star on Hollywood walk of fame
'The Artist' Makes Statement at Oscars

必应设计团队介绍

- 全称 R.E.D （Research – Editorial - Design)
- 美国西雅图，硅谷，纽约，北京，印度和以色列
- 接近200人
- One Microsoft, Windows, Office, Cortana, CRM, etc.

背景介绍

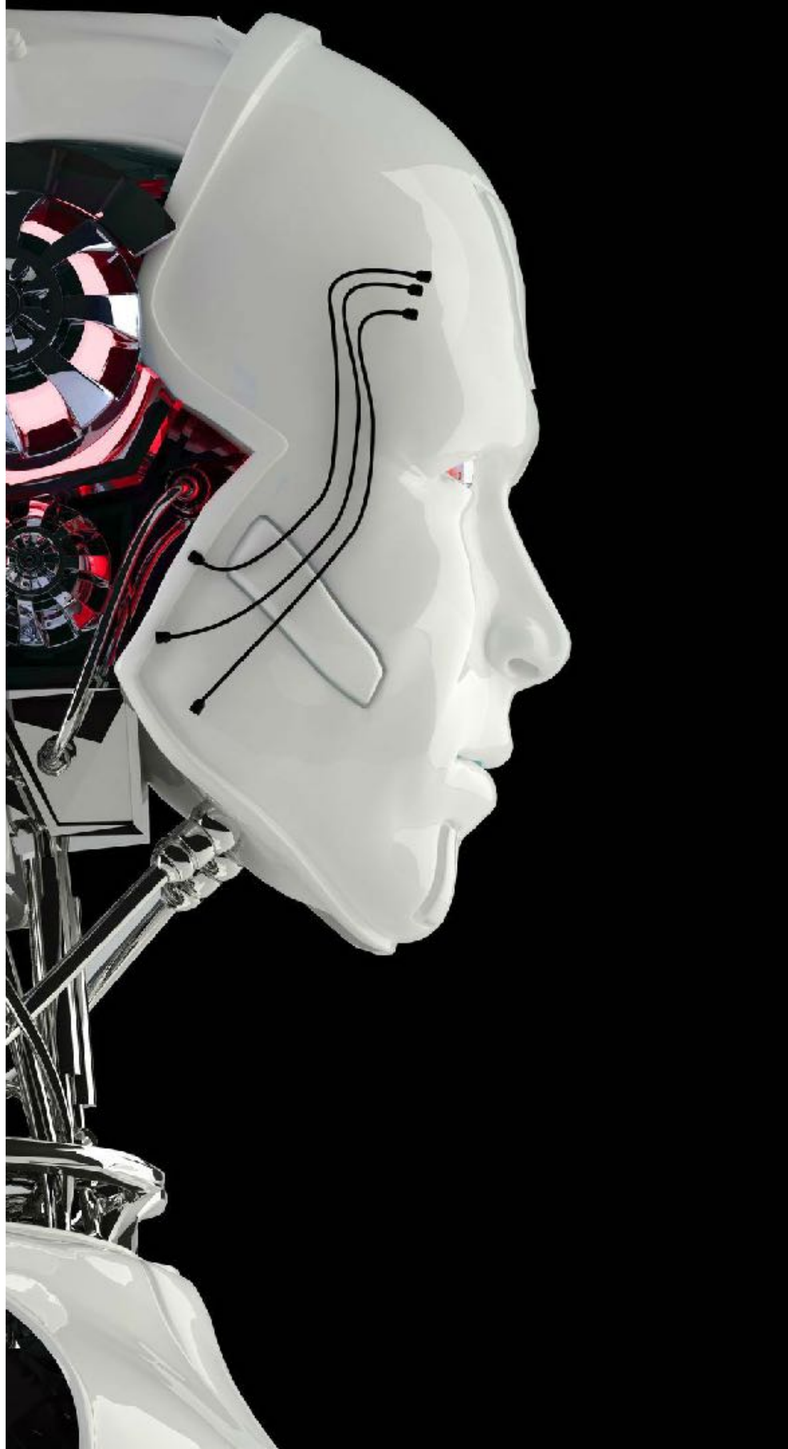
人工智能时代的进阶体验设计



每一次技术革命都对设计实践
和内容产生重大影响。

人工智能

它是研究、开发用于模拟、延伸和扩展人的智能的理论、方法、技术及应用系统的一门新的技术科学。实现模拟人类的智力和能力的技术。



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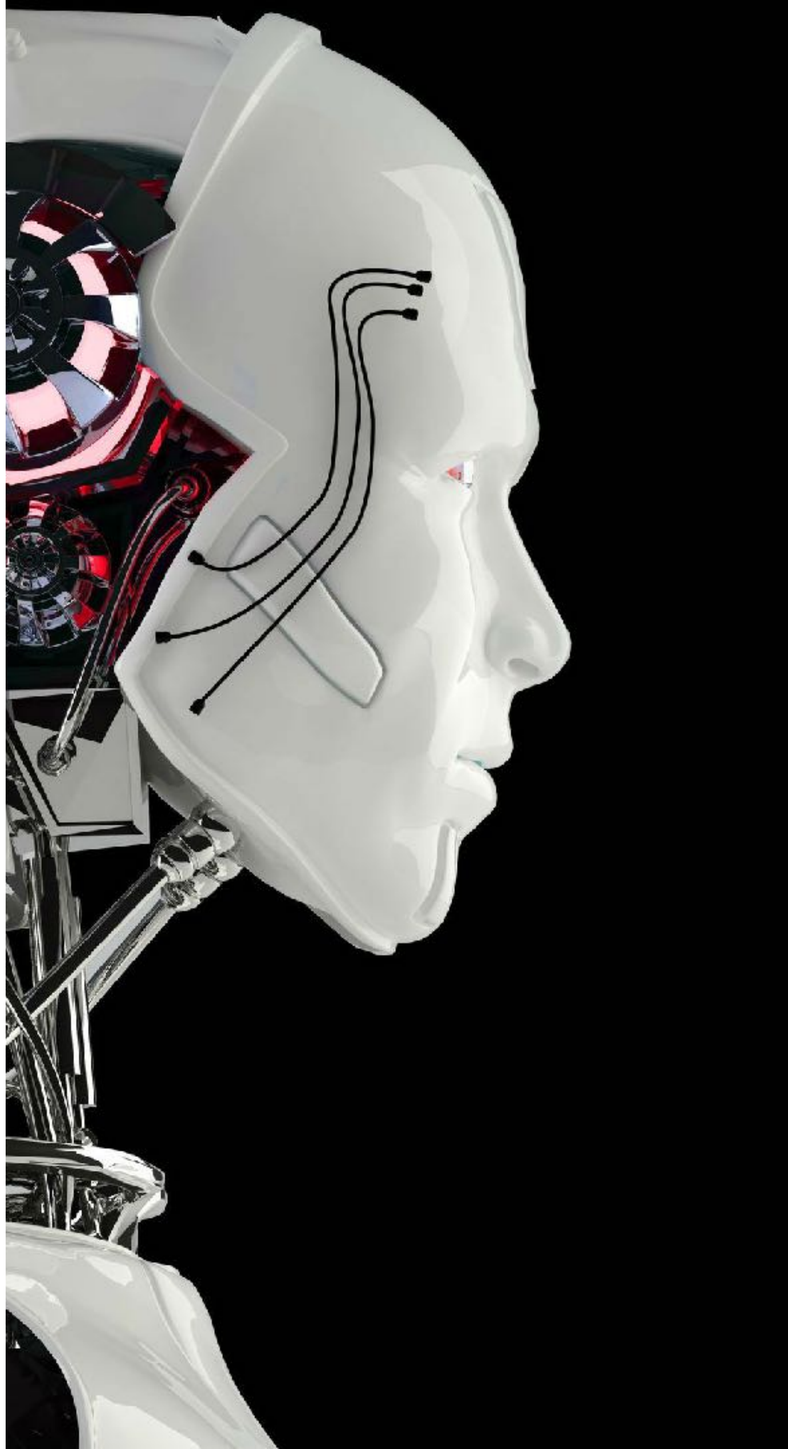
机器学习

专门研究计算机怎样模拟或实现人类的学习行为，以获取新的知识或技能，重新组织已有的知识结构使之不断改善自身的性能。它是人工智能的核心，是使计算机具有智能的根本途径。



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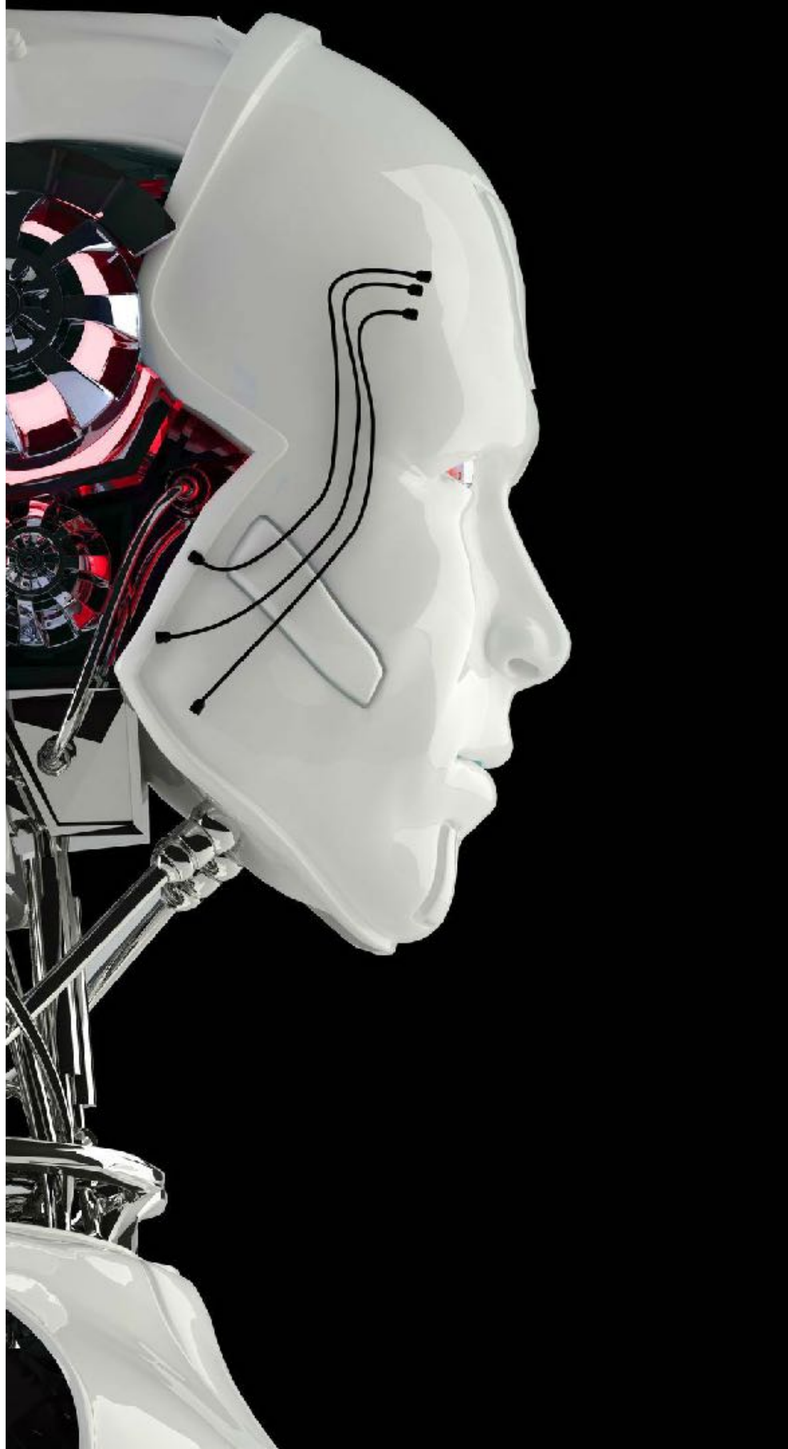
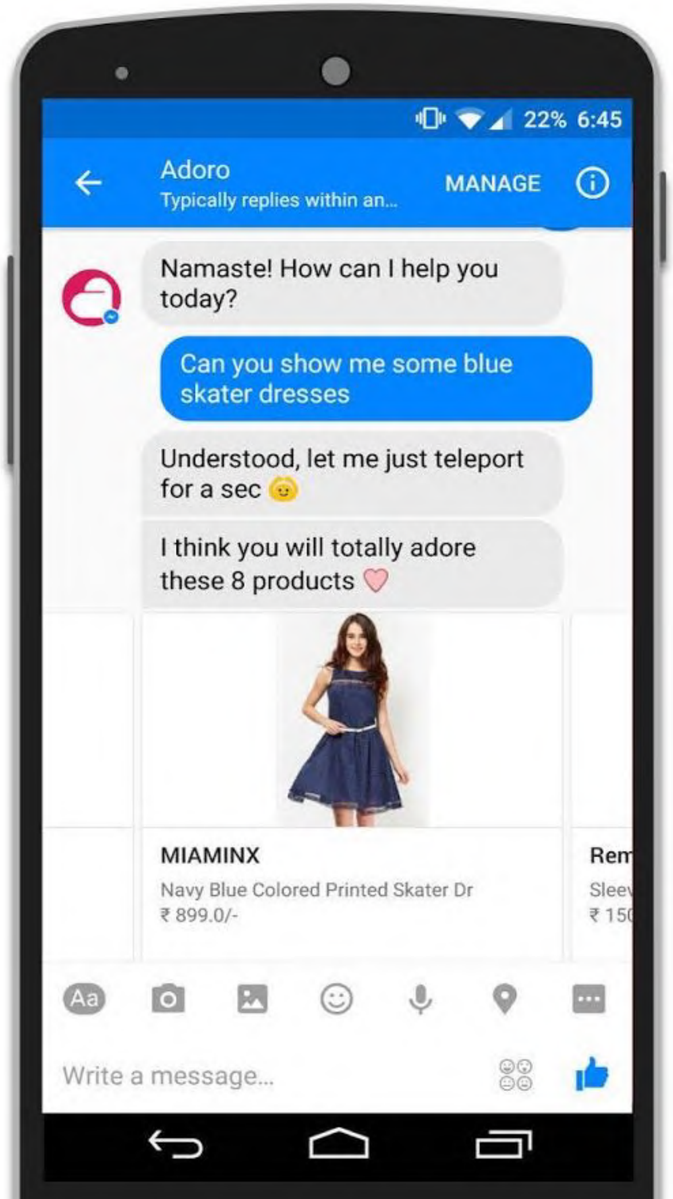
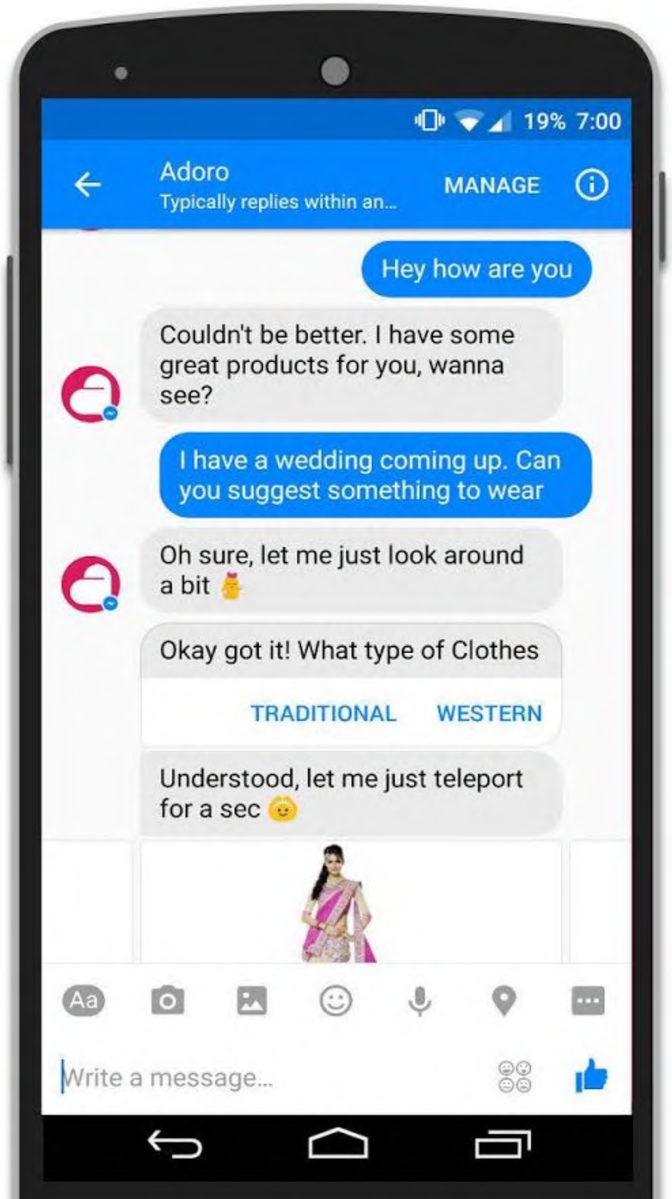


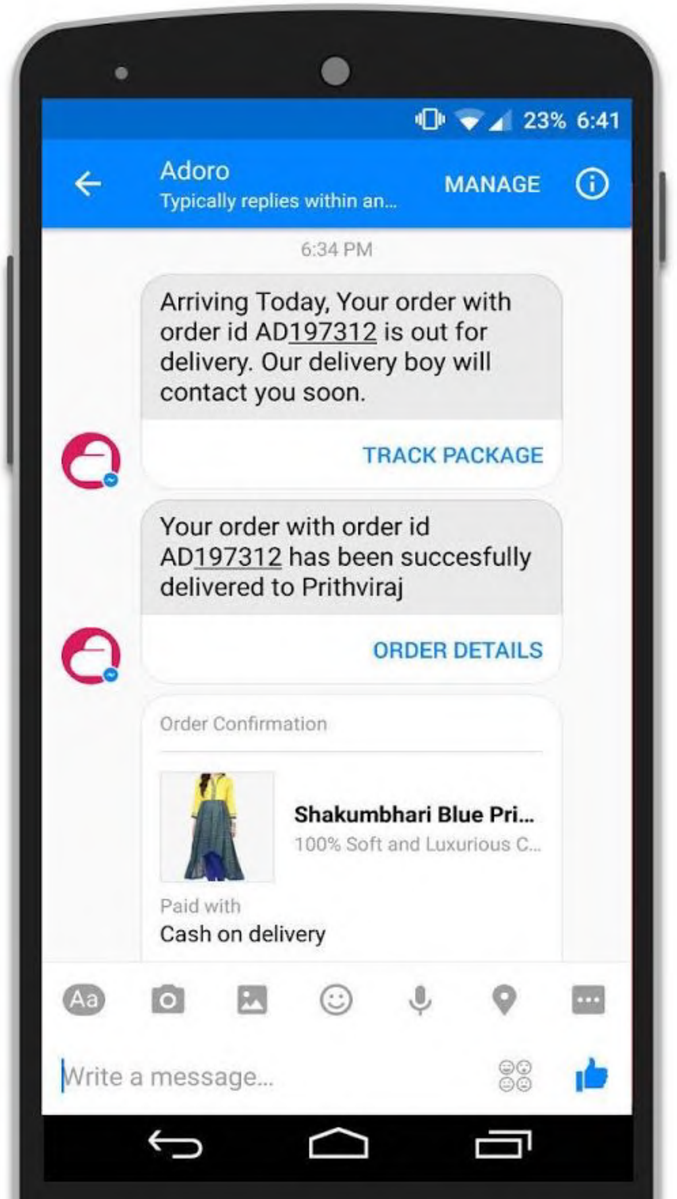
What does it mean to design?

“No matter how cool your user interface is, it would be better if there were less of it.”

Alan Cooper


22% 6:45
Adoro
Typically replies within an...
MANAGE
Namaste! How can I help you today?
Can you show me some blue skater dresses
Understood, let me just teleport for a sec
I think you will totally adore these 8 products
MIAMINX
Navy Blue Colored Printed Skater Dr
₹ 899.0/-
Write a message...

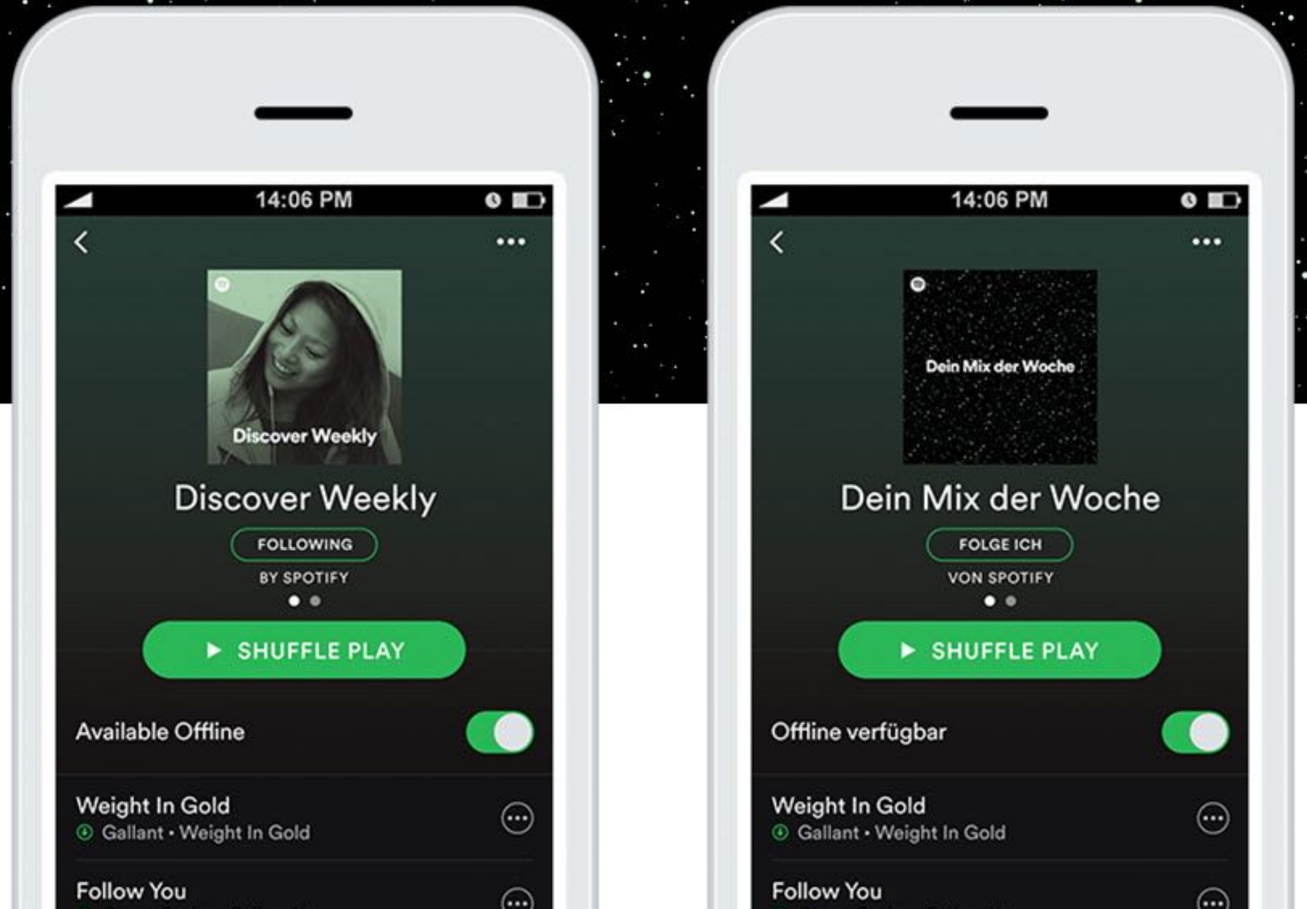

19% 7:00
Adoro
Typically replies within an...
MANAGE
Hey how are you
Couldn't be better. I have some great products for you, wanna see?
I have a wedding coming up. Can you suggest something to wear
Oh sure, let me just look around a bit
Okay got it! What type of Clothes
TRADITIONAL
WESTERN
Understood, let me just teleport for a sec
Write a message...


23% 6:41
Adoro
Typically replies within an...
MANAGE
6:34 PM
Arriving Today, Your order with order id AD197312 is out for delivery. Our delivery boy will contact you soon.
TRACK PACKAGE
Your order with order id AD197312 has been succesfully delivered to Prithviraj
ORDER DETAILS
Order Confirmation
Shakumbhari Blue Pri...
100% Soft and Luxurious C...
Paid with
Cash on delivery
Write a message...

BITE LV
12:27
85%
“Set reminder to buy gazpacho when I leave”
tap to edit
Here’s your reminder for when you leave here:
Reminder
Buy gazpacho
Leaving: 8–12 Jelgavas iela Riga 1004
Cancel
Confirm

Spotify

Discover Weekly



假设你要做一个
旅行产品...

天气
行程
交通
预算
偏好
折扣
活动
法律
文化
季节

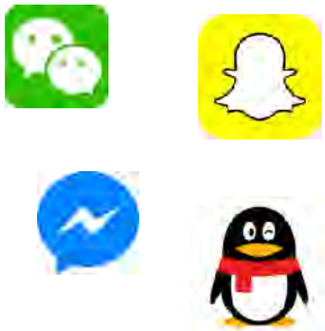
帮助你找到完美
的男朋友

工作坊时间安排

时间	内容	备注
9:00 10min	开场介绍和工作坊安排	
9:10 20min	大背景介绍	选择题目
9:30 60min	可预期的体验	练习
10:30 60min	数据驱动的个性化	练习
11:30 10min	自动化的内容开发	
11:40 20min	人工智能时代的设计师	Q&A

开始我们的练习，选择一个产品开始改进设计

即时通讯



共享经济

线上销售

社交网络

新闻资讯

你的产品?

?

01

可预期的体验设计

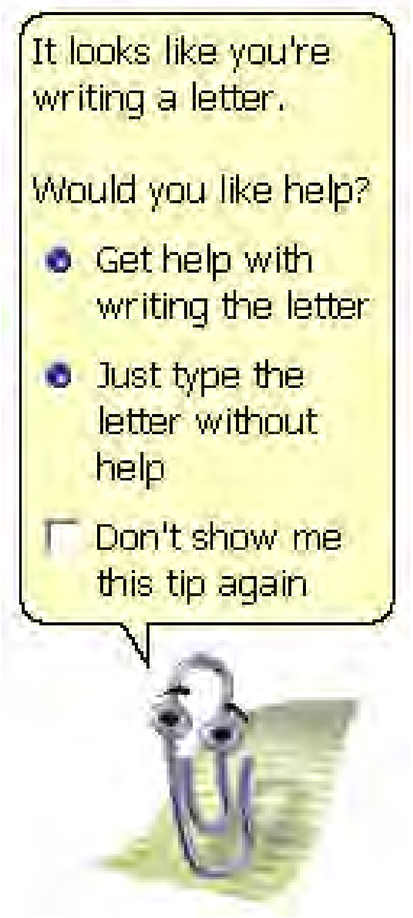
Anticipatory Design for delightful experience

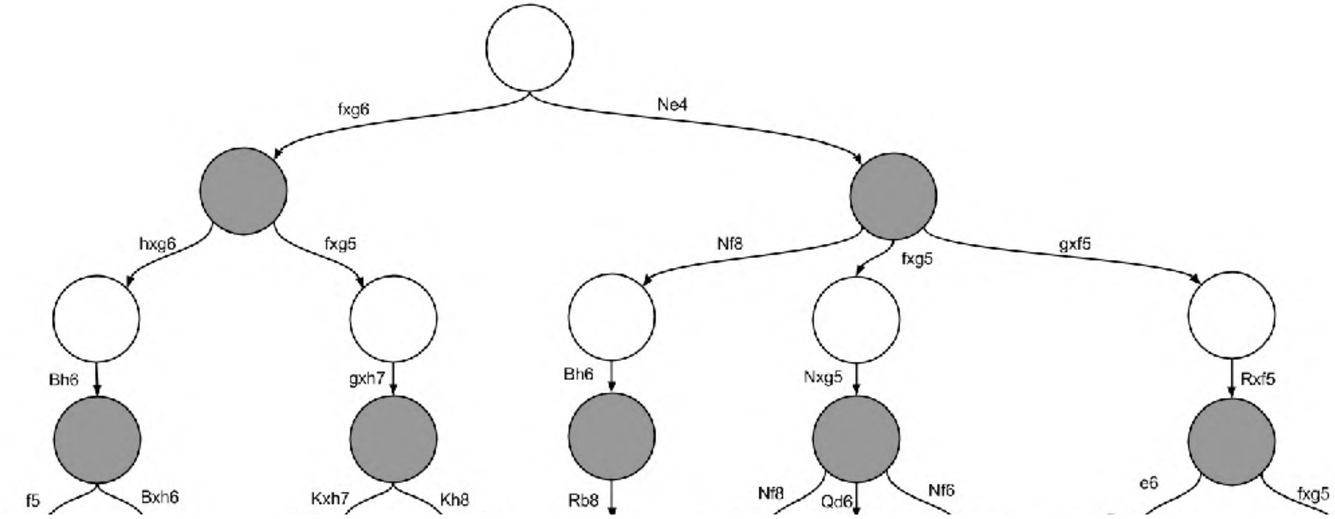
预期性设计
Anticipatory Design

创造一套简单的逻辑使产品简单易用

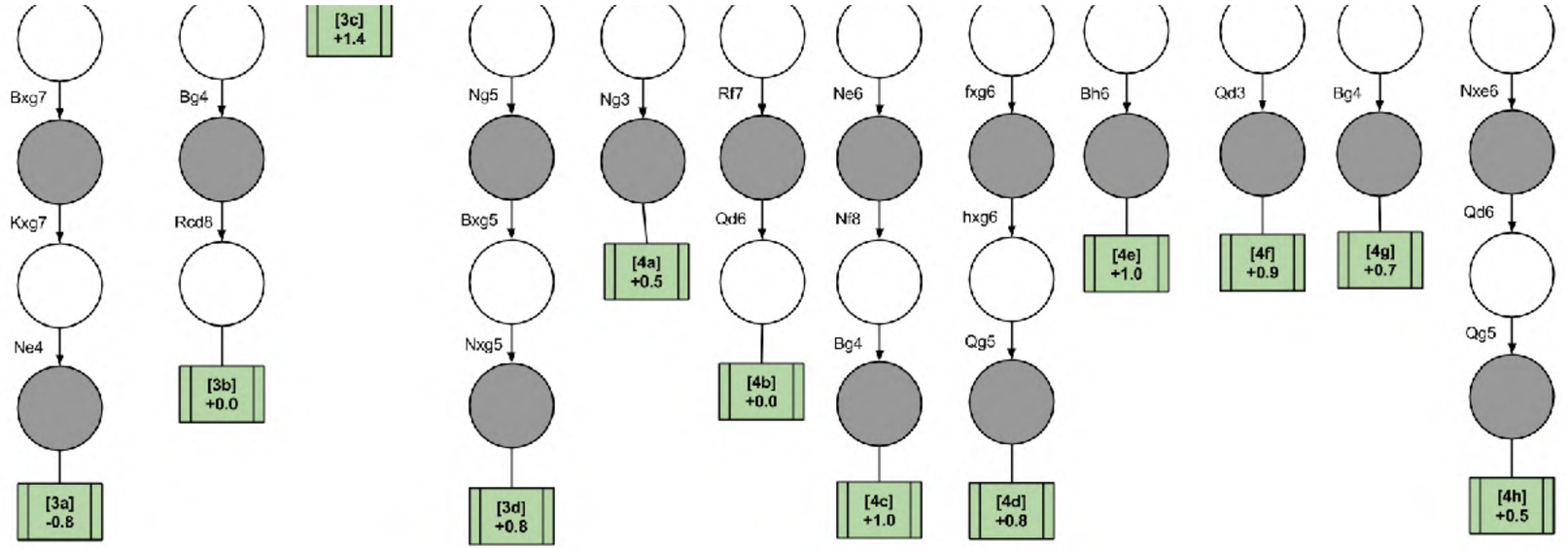
Developers have been championing the **Don’t Repeat Yourself (DRY)** and **Keep It Simple, Stupid (KISS)** principles for years, and it’s time to bring that painless logic to the way our users interact with what we’re building. Give it some thought: if we ask users to complete a task more than once within any given process, isn’t that an **inefficient use of their time**? Similarly, isn’t it redundant to ask someone what they prefer when you have collected that information in the past?

In psychology, we use the term **cognitive load** to describe the amount of mental effort being used in the working memory at any given moment in time. For everyone involved in user experience design, cognitive load is a crucial consideration. Are we doing everything in our power to relieve the strain caused by learning something new to use our product? How can we reduce the number of elements that our users need to worry about at any given time? Reducing cognitive load is one of the cornerstones of anticipatory design, as it helps create a more pleasurable experience by foreseeing our users’ needs.



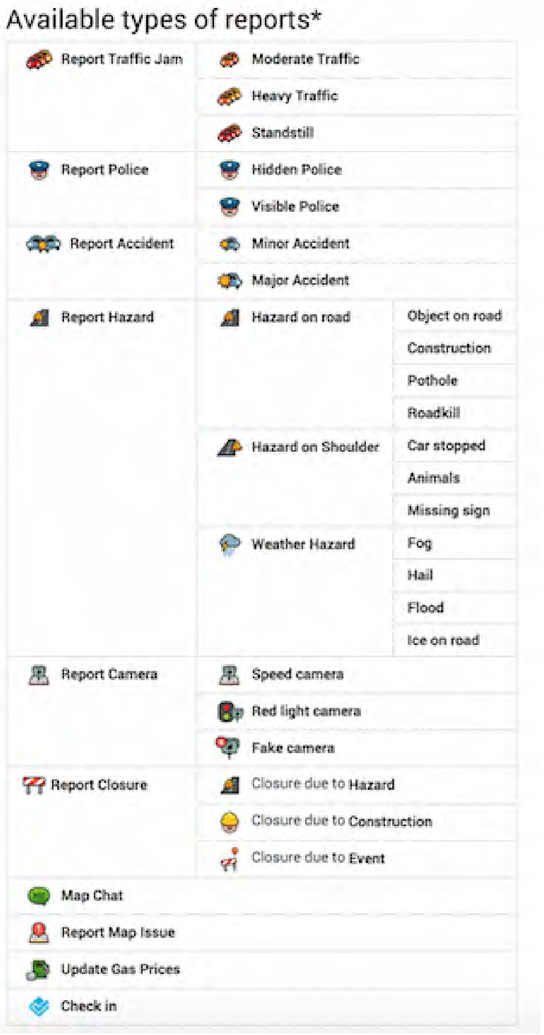


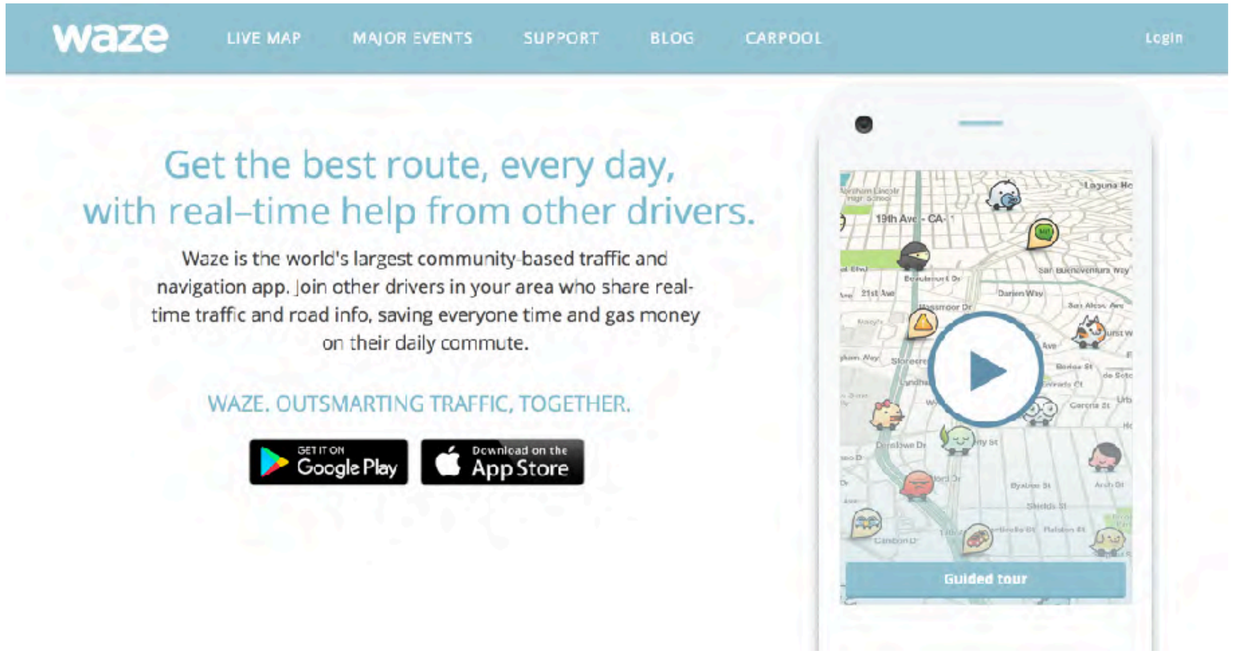
If users do X, then show them Y.



If users do X, then show them Y.

Navigation service - Waze

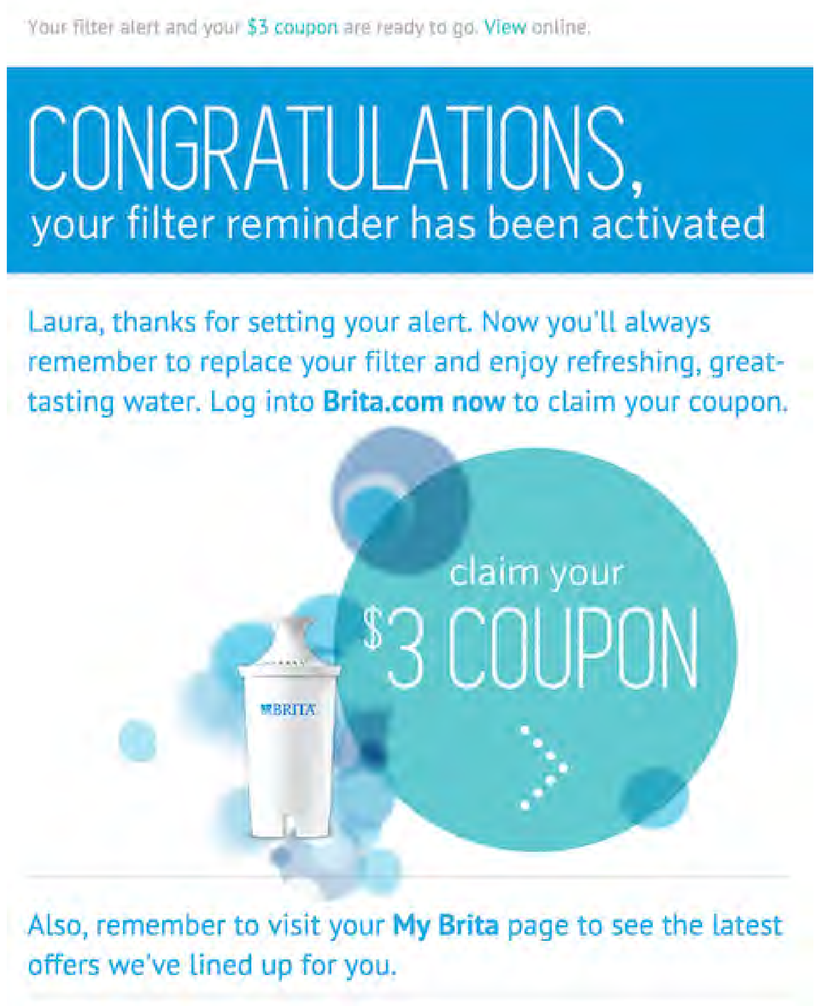




The founders of Waze, a popular navigation app, noticed that people could use one another's feedback to drive smarter. They went on to create an interface where drivers can not only warn one another about impending issues (traffic jams, accidents, police ahead, among others), but also communicate openly via messages.

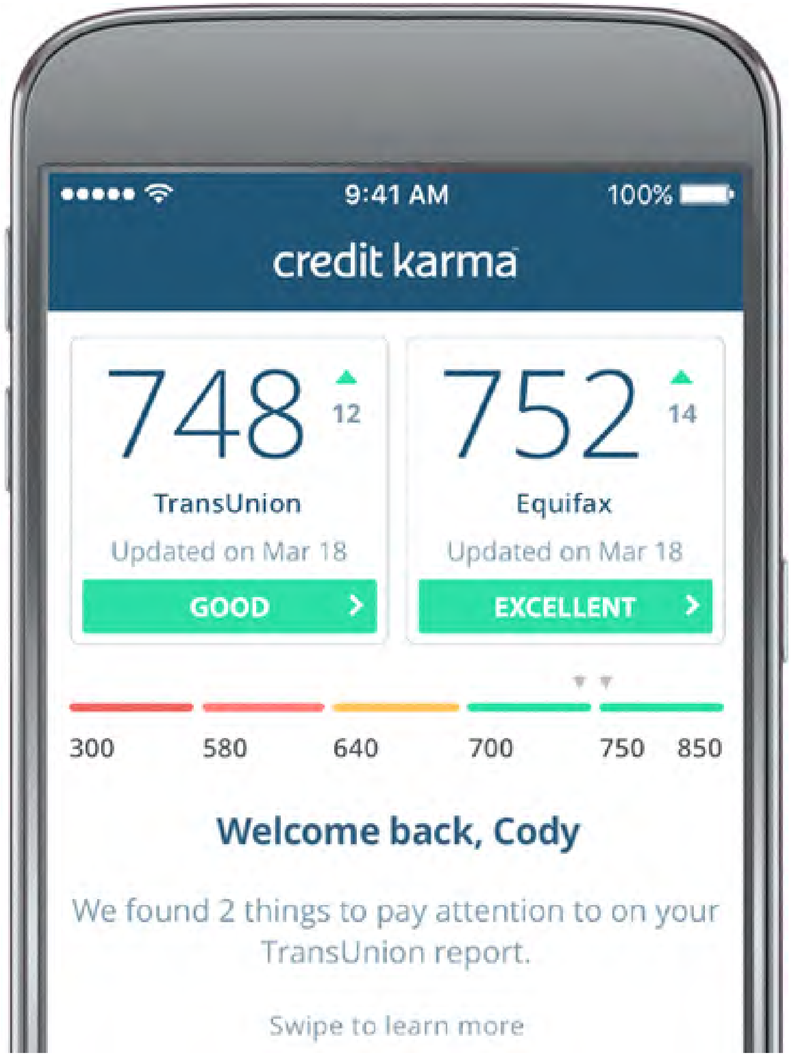
There are several elements of anticipatory design in Waze, but some of the most outstanding include: a warning when the car is moving and someone is typing (should always be a copilot); alerts when other drivers have experienced issues; and live notifications when a better route is found. The fact that the app is constantly looking for better routes based on user feedback is, in and of itself, a highly successful anticipatory feature. Once you set your destination in the app, you can basically just lean back to focus on your driving.

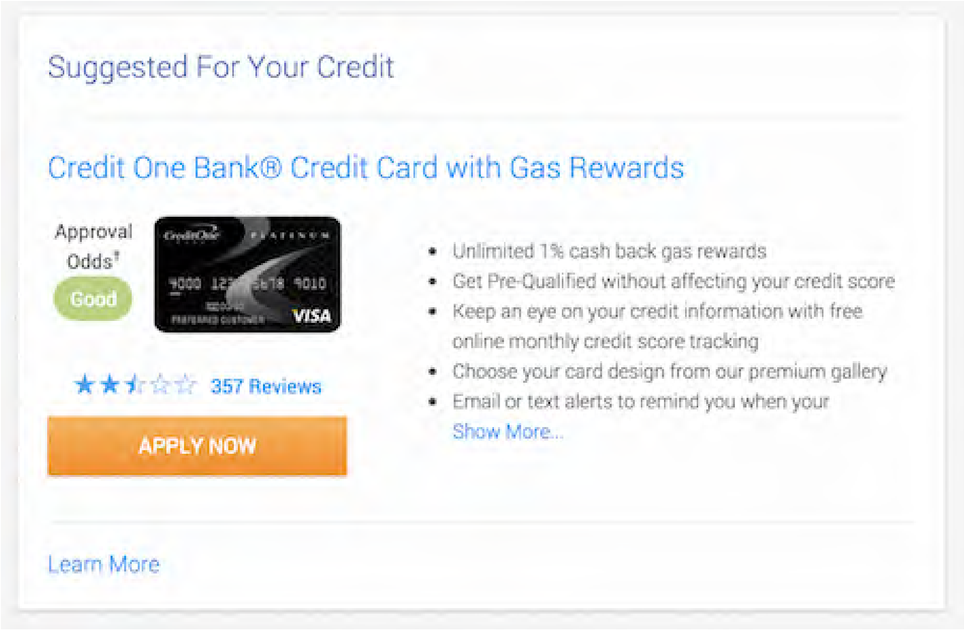
Retail service - Brita & Amazon



Many other types of retailers also experience this challenge, and Amazon will soon launch an anticipatory design feature to help them connect physical devices to online ordering. Dash Replenishment Service integrates with devices to detect when supplies (of anything) are running low. This is a potential game changer for brands manufacturing printers, coffee machines and other appliances with lucrative refills.

Finance service - Credit Karma





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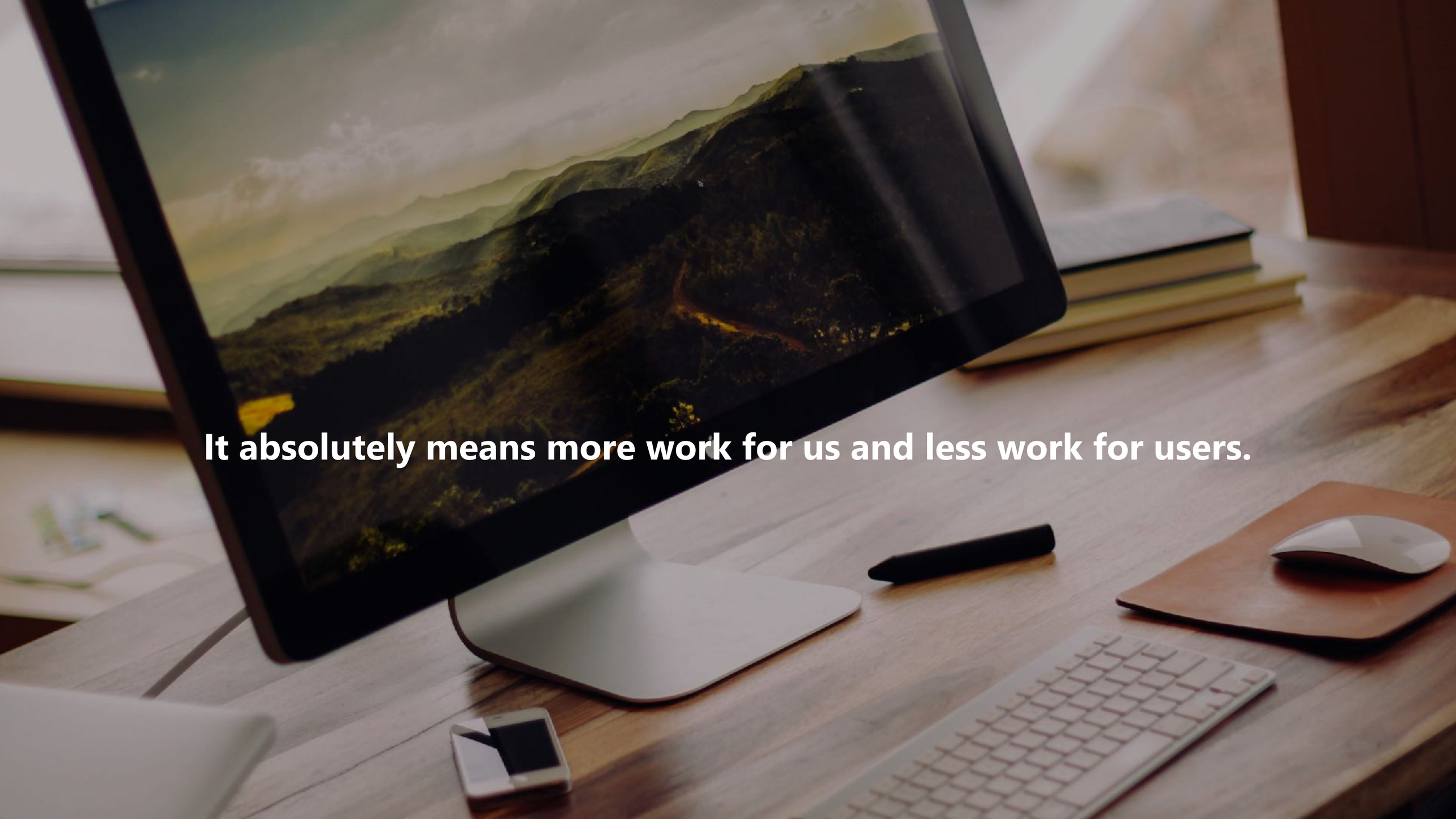

It absolutely means more work for us and less work for users.

练习一 为你的产品定制可预期的体验

Design an anticipatory feature：

If users do X,
then show them Y.

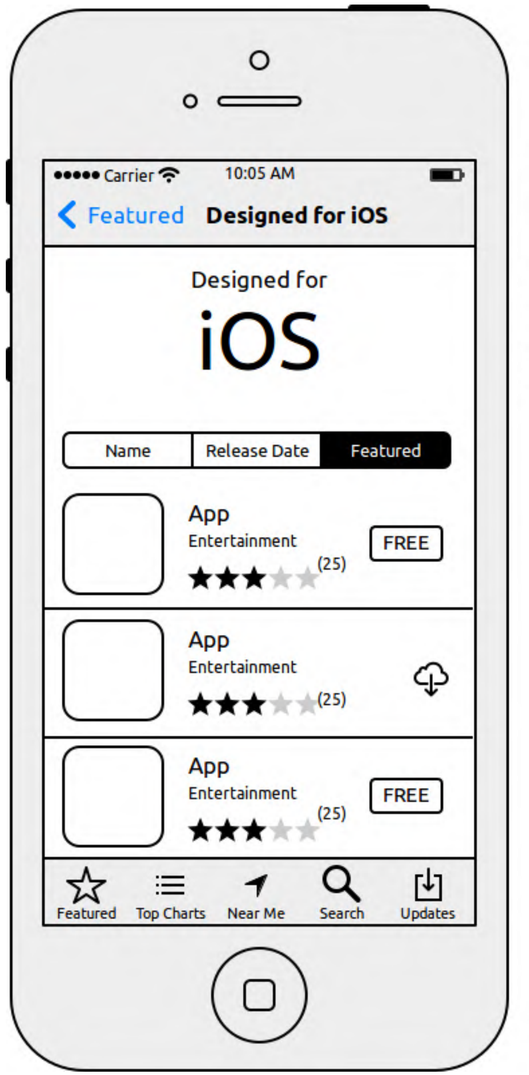
TIPS

- 有机会使你的产品任务和流程更简单?
- 你的产品传达了太多的信息，让用户感到困惑?
- 是否可以基于已有的信息，帮助用户输入有效信息?
- 可以通过流程或任务模版，节省用户的时间?
- 试着提醒用户接下来的选择，并提供额外的价值?
- 是否可以避免用户犯错误，或者提供其他选择?
- 尝试提供给用户引导说明?

作业格式

产品名称：**理财专家**

用户输入身份证号码 → 自动填写 → 自动填写生日或户口所在地



02

数据驱动的个性化

Data-driven Design for product personalization

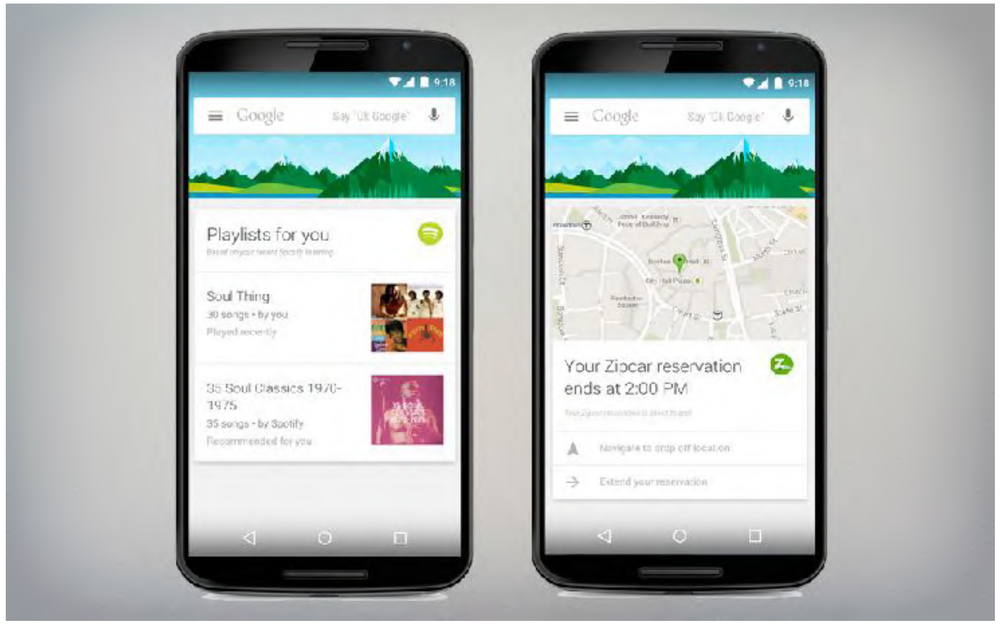
Social network - Facebook

Timeline in 2012

Feed today

Knowledge service - Google

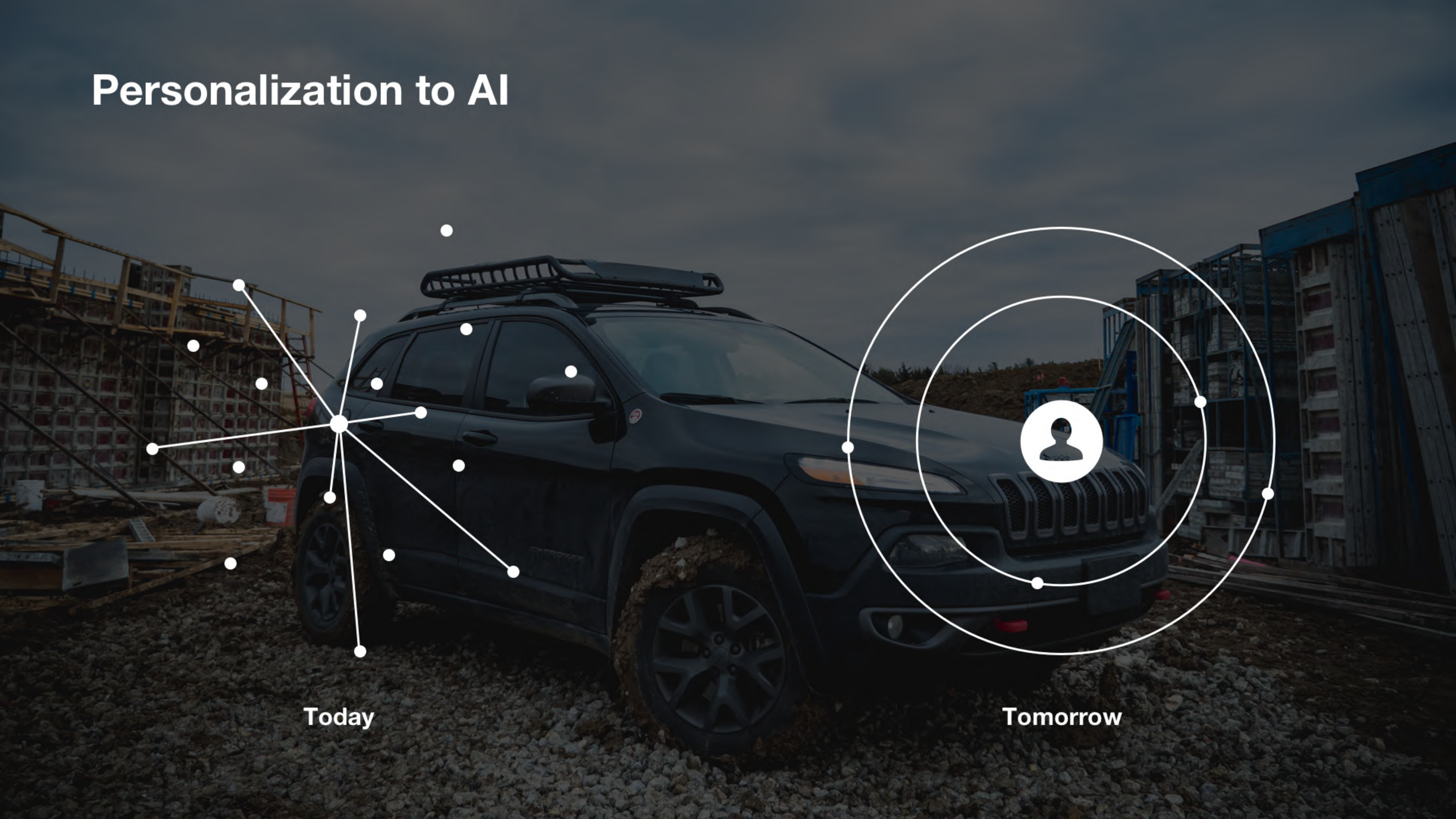
iGoogle in 2008



Google Now today

算法
Algorithm
数据输入
Input data
产出物
Outputs

Personalization to AI



练习二 收集数据定制个性化的体验

作业格式

产品名称：**滴滴**

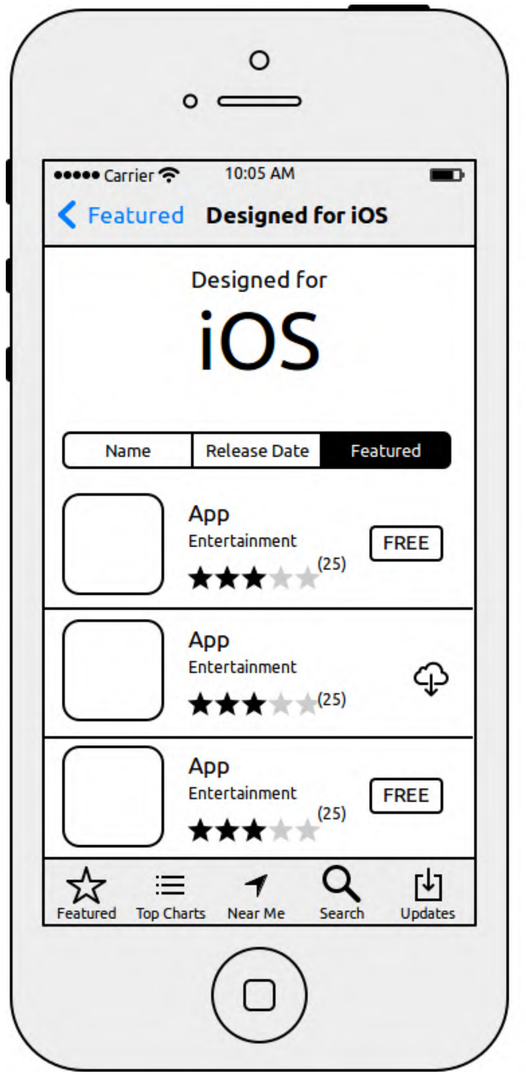
每周订单和路线数据

动态生成

时间，地点，用户偏好等

周中早晨上班线路

去星巴克买咖啡，接同事并拼车去公司

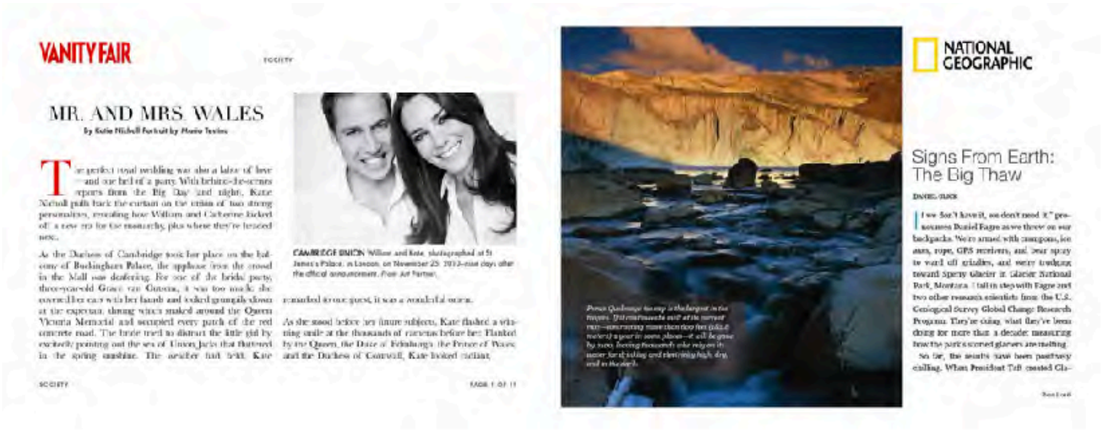


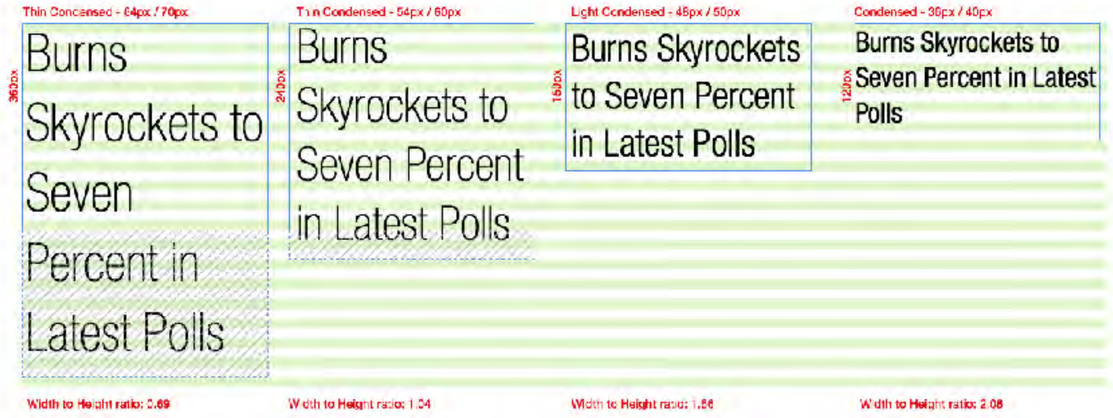
03

自动化的内容开发

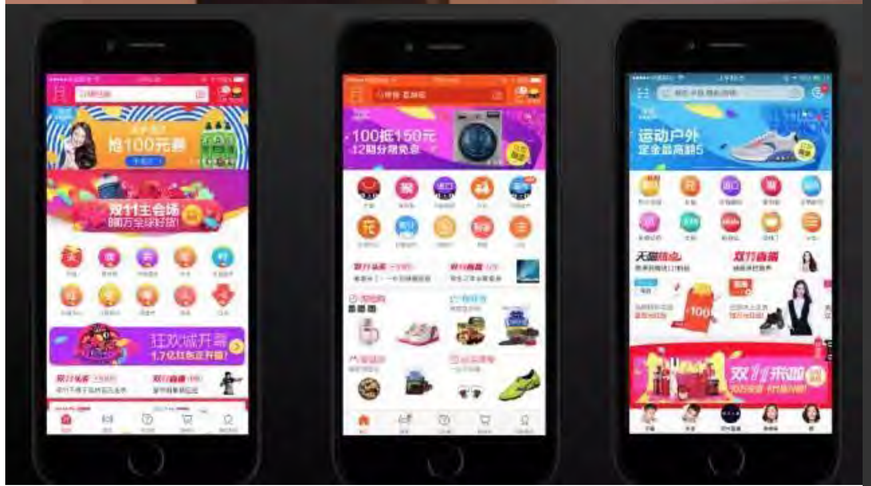
Design automations for product cycles

Flipboard Layout Automation Engine





阿里鲁班

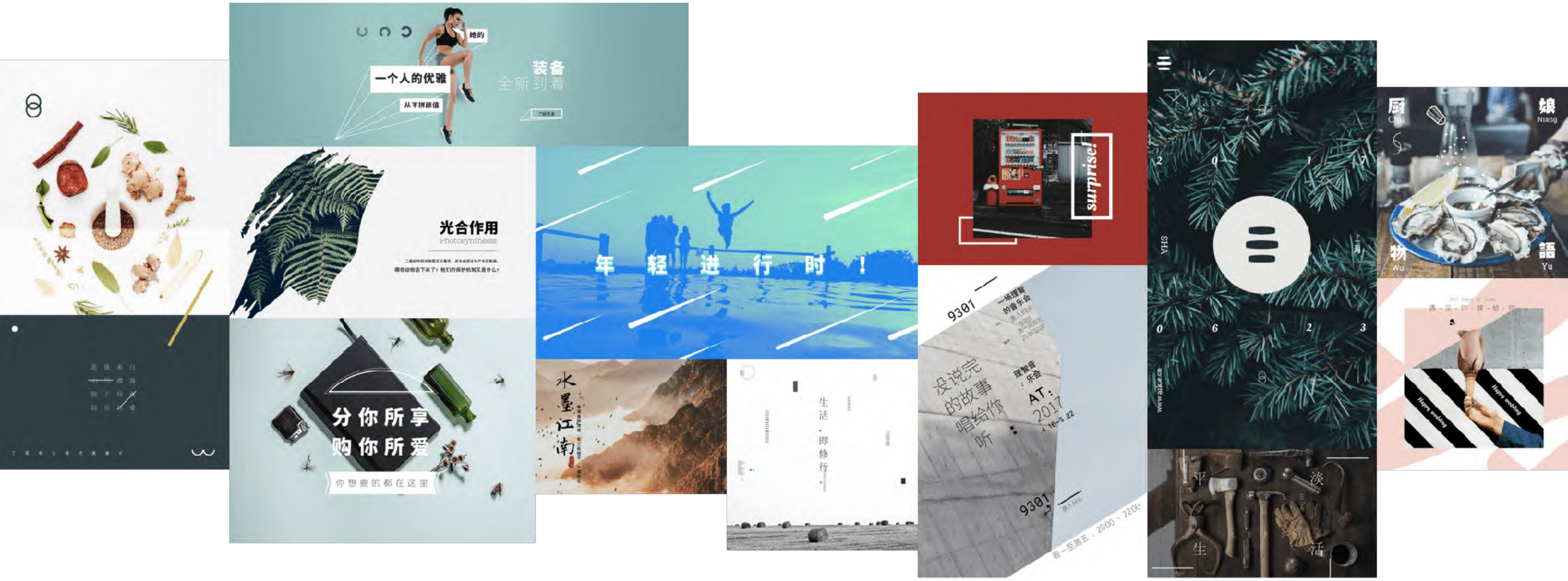


1.设计数据化：更多维，机器可学习

风格：撞色
质量：5分

6.文字组合
5.高亮
4.主体
3.区域修饰
2.蒙版
1.背景

Arkie


她的
一个人的优雅
从不拼颜值
装备
全新到着
光合作用
Photosynthesis
年 轻 进 行 时 !
surprise!
分你所享
购你所爱
你想要的都在这里
水墨江南
生活，即修行。
没说完的故事唱给你听
厨 Chu
娘 Niang
物 Wu
語 Yu
平
淡
生
活

The Grid - if websites just made themselves…

节省开发和运营成本

算法和逻辑
Algorithm
数据输入
Input data
重复性的
解决方案
Repeatable
solutions

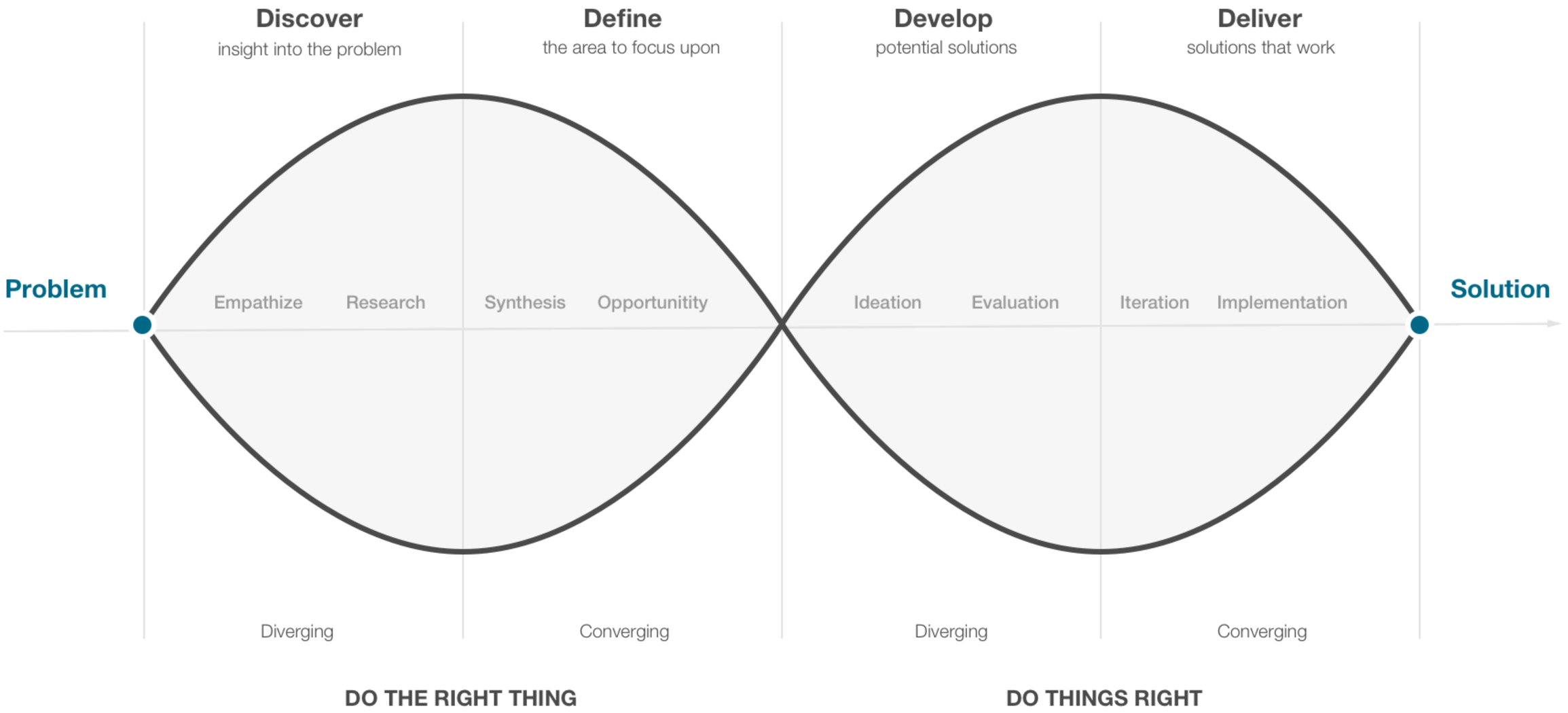
结语

人工智能时代下的设计师

Will Robots Replace Designers?

机器人会取代设计师吗?

Design Process



Designers work “in pair” with algorithms to solve product tasks

01

可预期的体验设计

Anticipatory Design for delightful experience

02

数据驱动的个性化

Data-driven Design for product personalization

03

自动化的内容开发

Design automations for product cycles

算法
Algorithm
数据输入
Input data
产出物
Outputs