



桔子互动



快速搭建聊天机器人

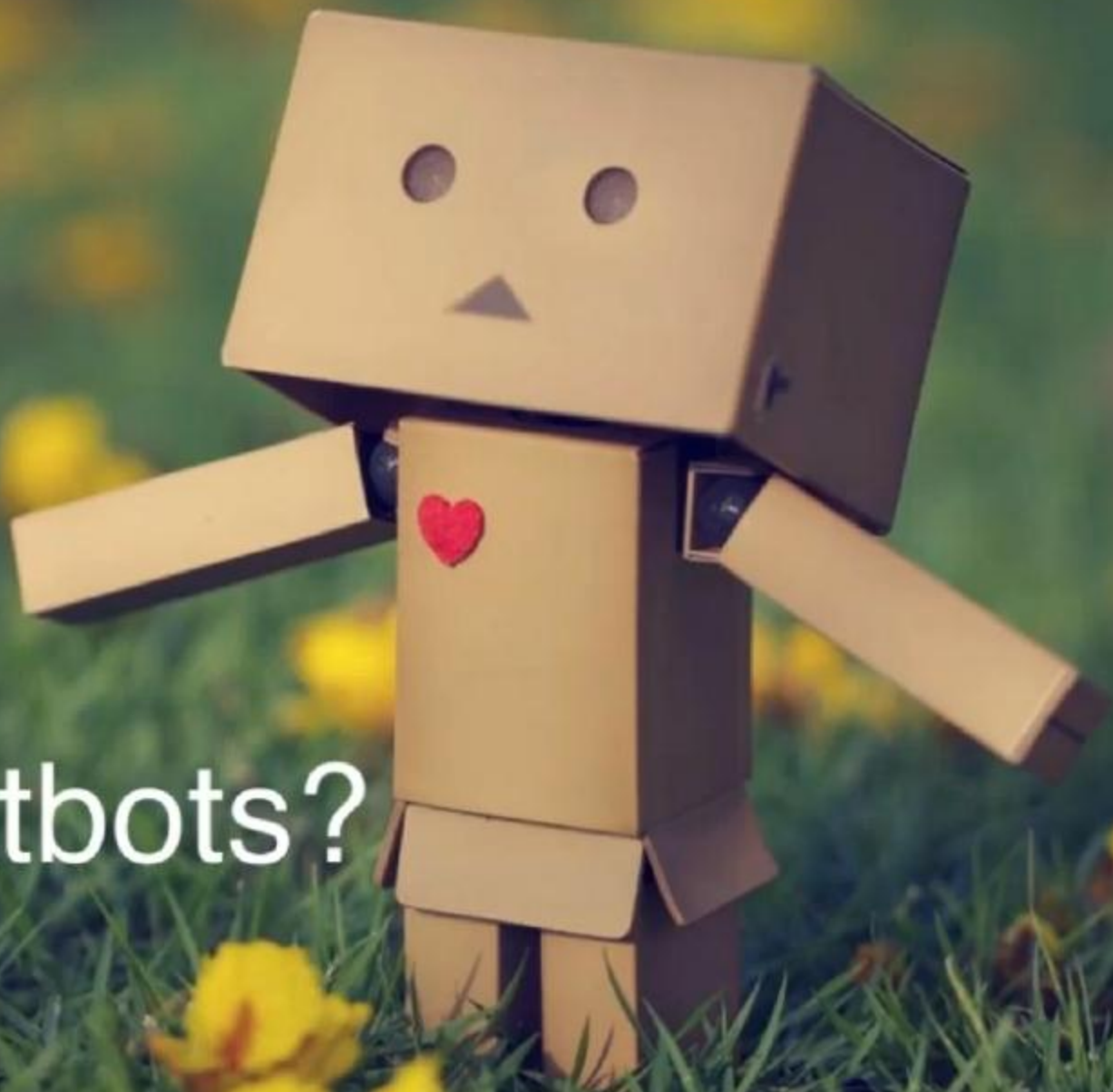
How to build a chatbot

李佳芮

Content

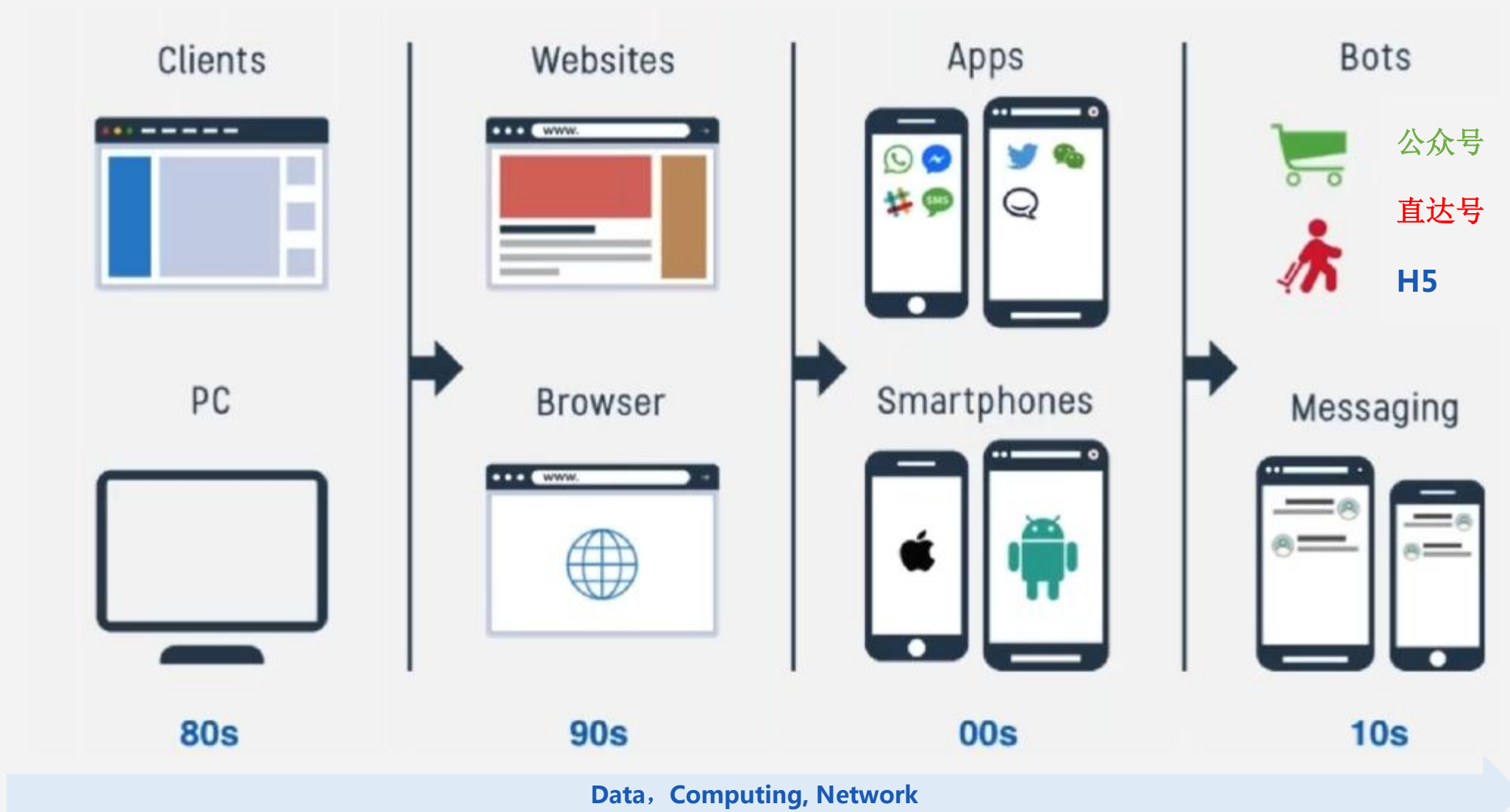


1. What are chatbots and why the hype
2. Overview of the bot ecosystem
3. How to build a chatbot
4. Related Scene

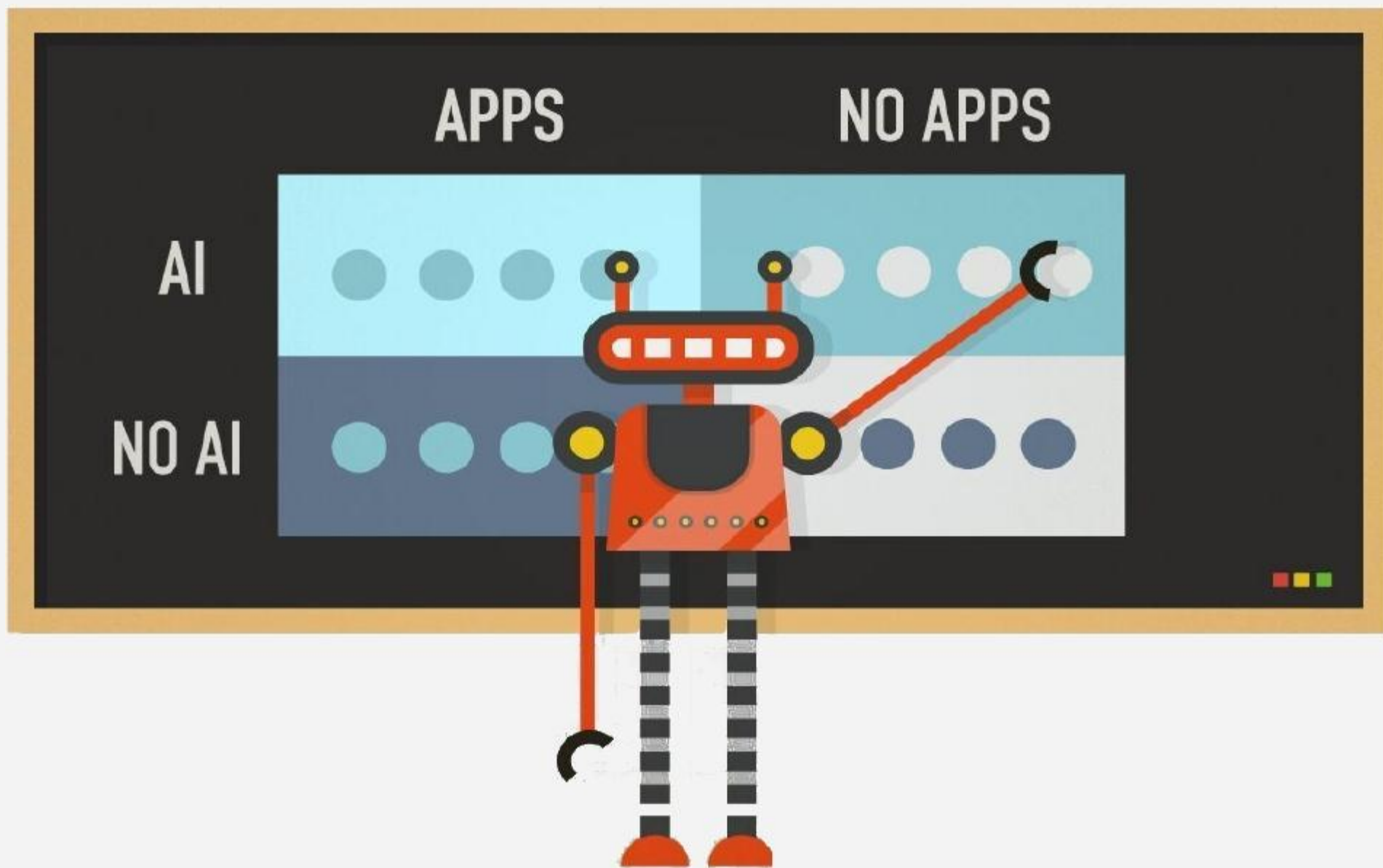


What are chatbots?

Once-in-a-decade paradigm shift



Chatbot is the Future



What is Chatbot

“A chatbot is a service, powered by rules and sometimes artificial intelligence, that you interact with **via a chat interface**”

---- Matt Schlicht

CEO of Octane AI, Founder of Chatbots Magazine

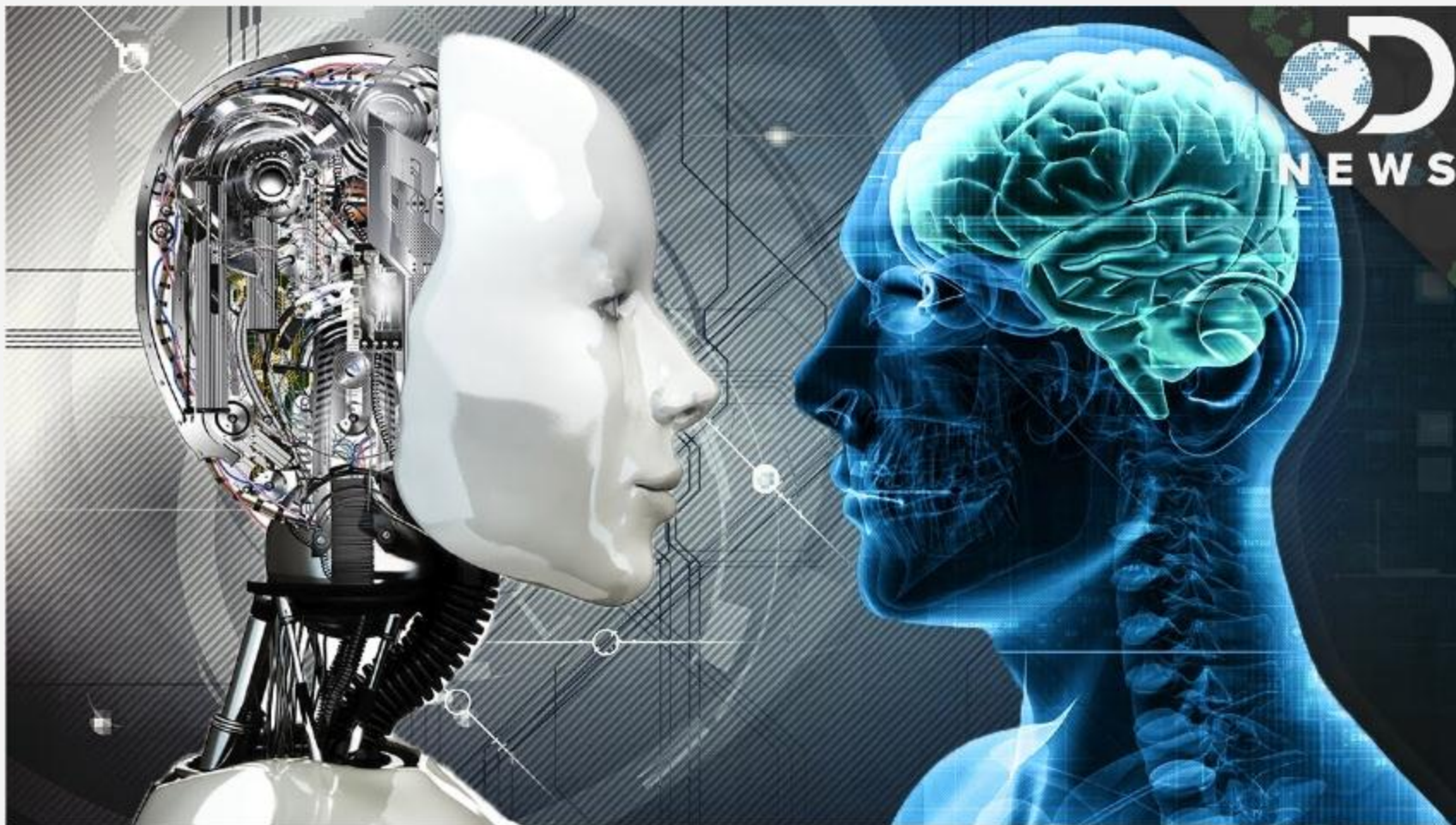
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Conversation is the new UI



Apps and websites forced humans to think like computers.
Chatbots are forcing computers to think like human.

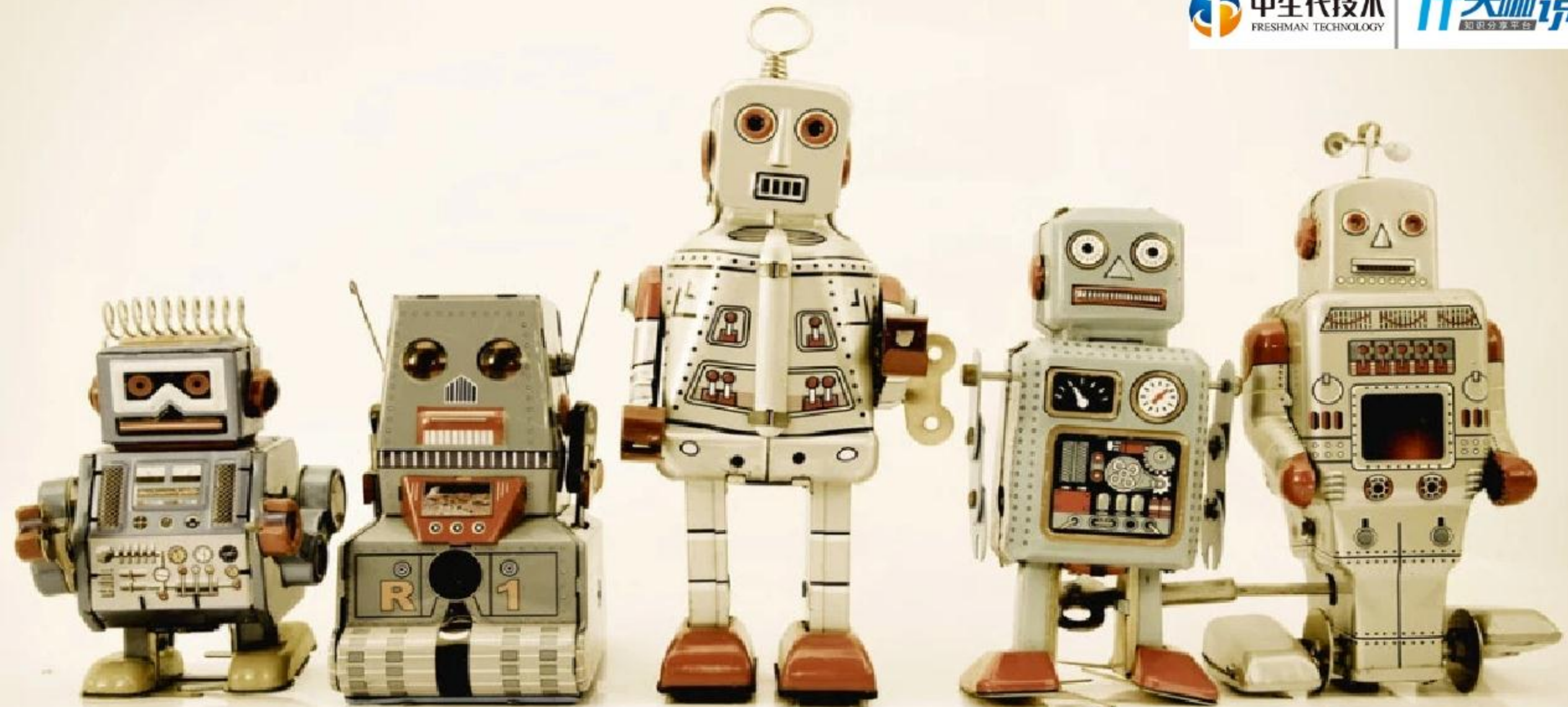
APP VS BOT



- ✗ App fatigue- Users don't like download
- ✗ User acquisition costs are high
- ✗ Only short-tail apps popular
- ✗ High cost of development & upgrade & marketing



- ✓ No installation
- ✓ Works even in low-network areas
- ✓ Zero UI
- ✓ Low cost of development and upgrade



Overview of the Bot Ecosystem.

Messaging is the new platform



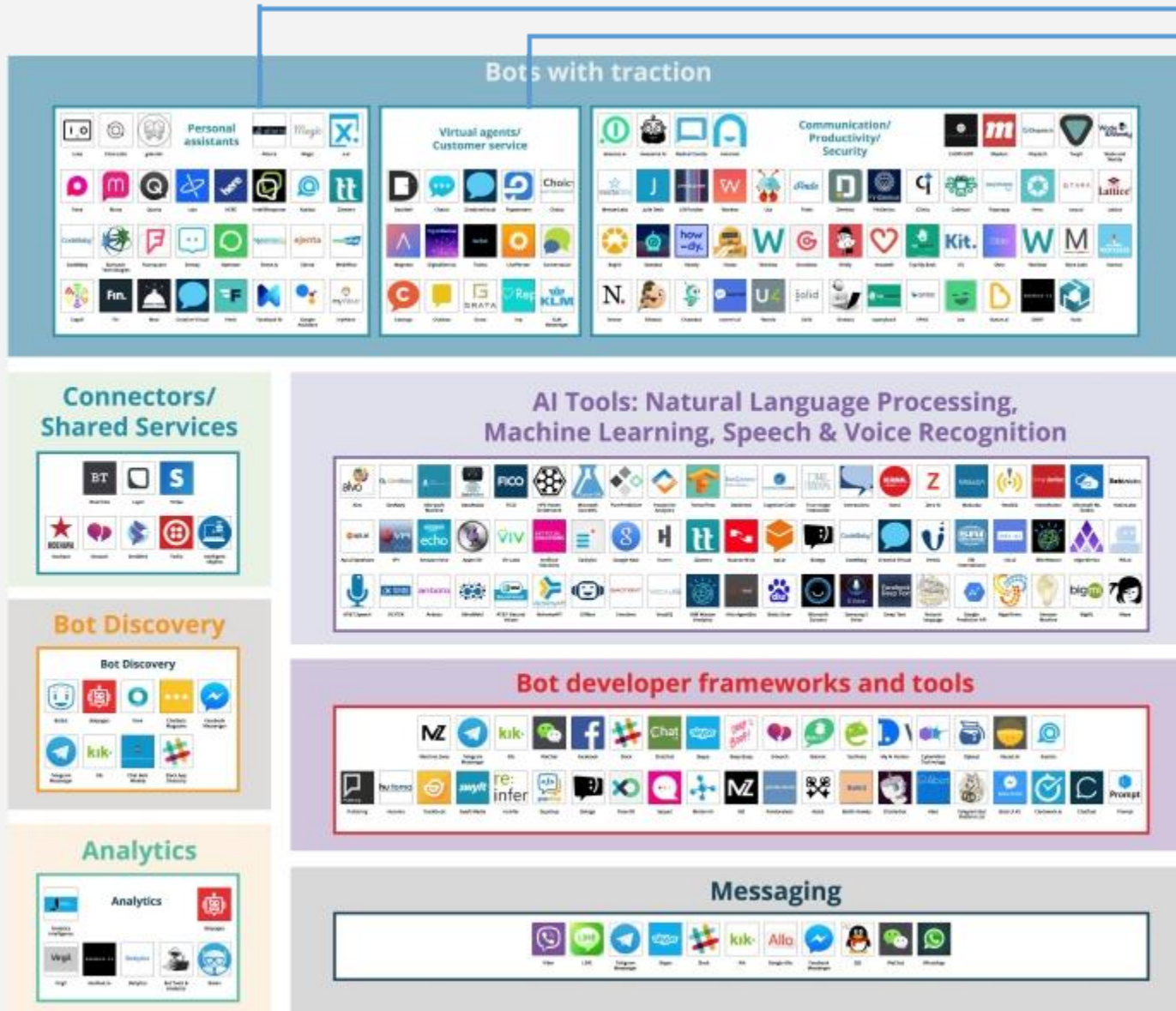
Source: <http://blog.gupshup.io/index.php/2016/04/>

State of bot ecosystem

- Facebook Messenger opened up to developers
- Apple iOS message apps are coming this fall
- Slack, Kik, Telegram, and Skype all support bots
- Facebook has Wit.ai
- Google has Api.ai
- Microsoft has Bot Framework & Luis.ai
- IBM has the Watson Conversation API
- Facebook Messenger has over 100K bots
- 100k developers working on FB Messenger bots
- Over 2 million users interact with chatbots regularly
- Thousands of bots on other platforms- Skype, Telegram, Viber, Kik



Bots Landscape



- Personal Assistants
- Virtual agents/ Customer service
- Communication/Productivity/Security

Chatbot is a industry !

Not Just AI !

Not Just Deep Learning !

Not Just High Tech !

Not Just Algorithm !

Bots Building Tools

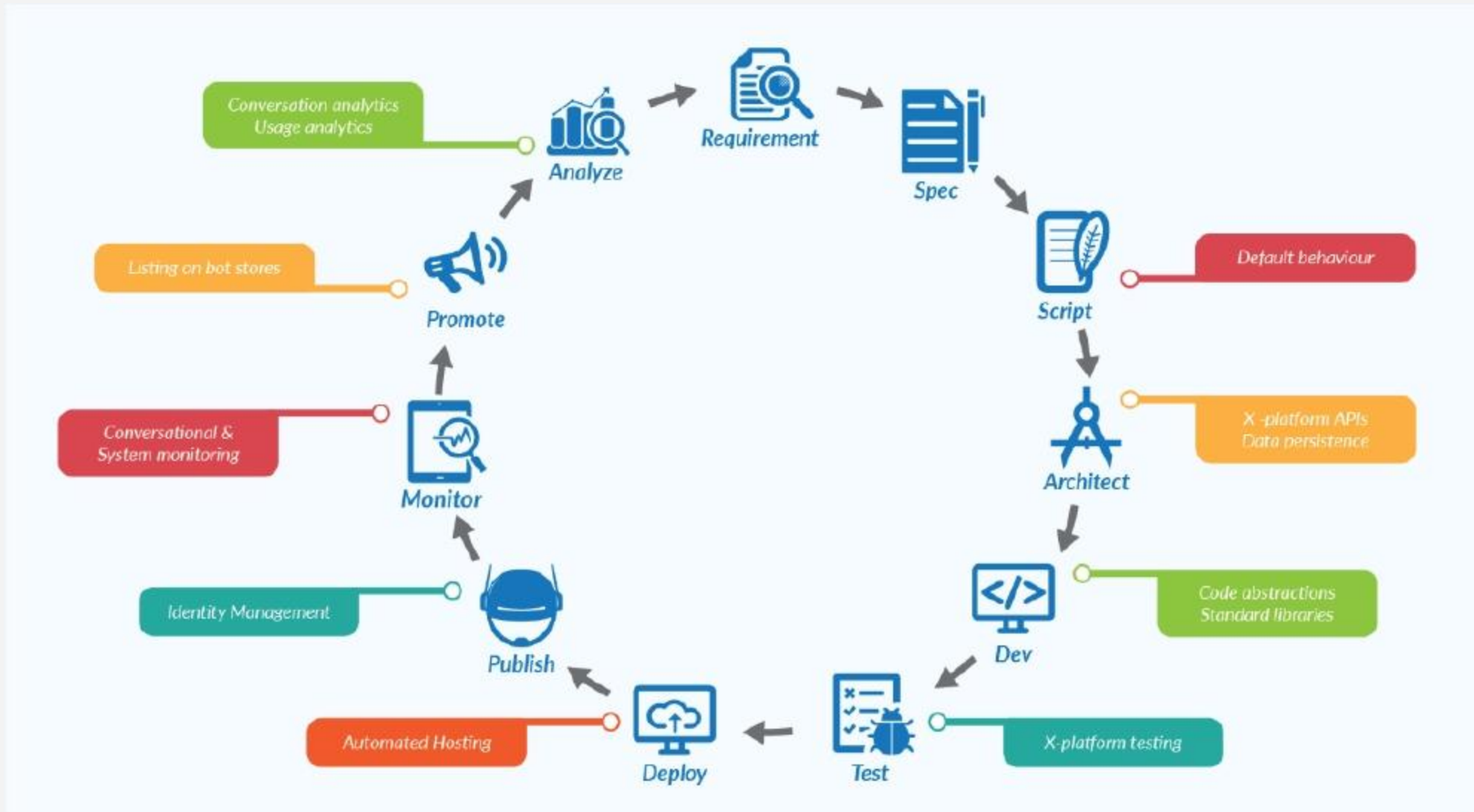


Startup should stand on the shoulders of giant!



AI now = HTML in 90s

The Lifecycle of a bot

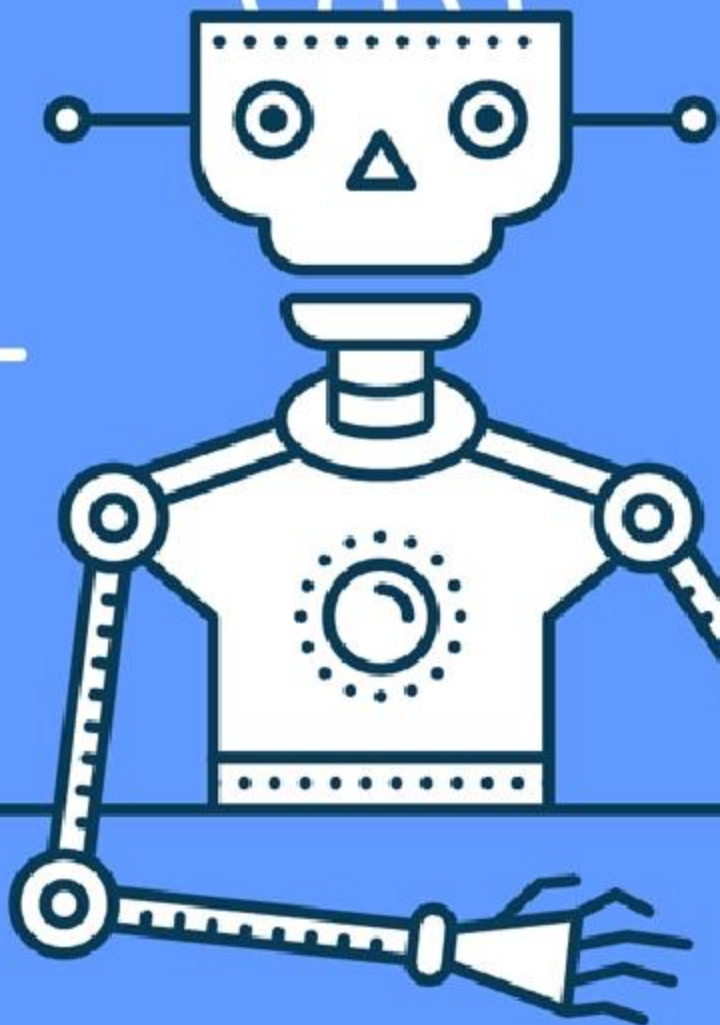


Source: <https://chatbotsmagazine.com/the-bot-lifecycle-1ff357430db7>

Scene Chatbot

“Focus on **innovation**, not infrastructure.”

How to build
a chatbot ?



Wechaty—wechat for bot



Connect ☐ ChatBots



Github link: <https://github.com/Chatie/wechaty>



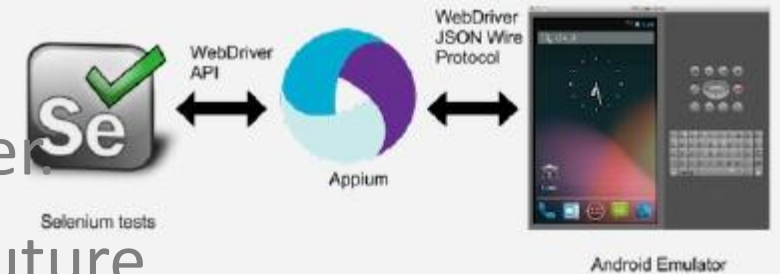
WebDriver \Leftrightarrow Browser $\square \Leftrightarrow$ Wechat

- ✓ Never Care About Server API:

Webdriver puppet never touches the HTTP protocol of wechaty server API; It uses webdriver to hook angularjs in the browser. never mind the server API change.

- ✓ Behavior Like a Human

It's very like a user use the browser.



- ✓ `PuppetAndroid` & `Puppetlos` in the Future

WebDriver can test not only Browser, but also APP! (i.e. Appium appium.io)



Side Project: A Tracker for webwxApp.js

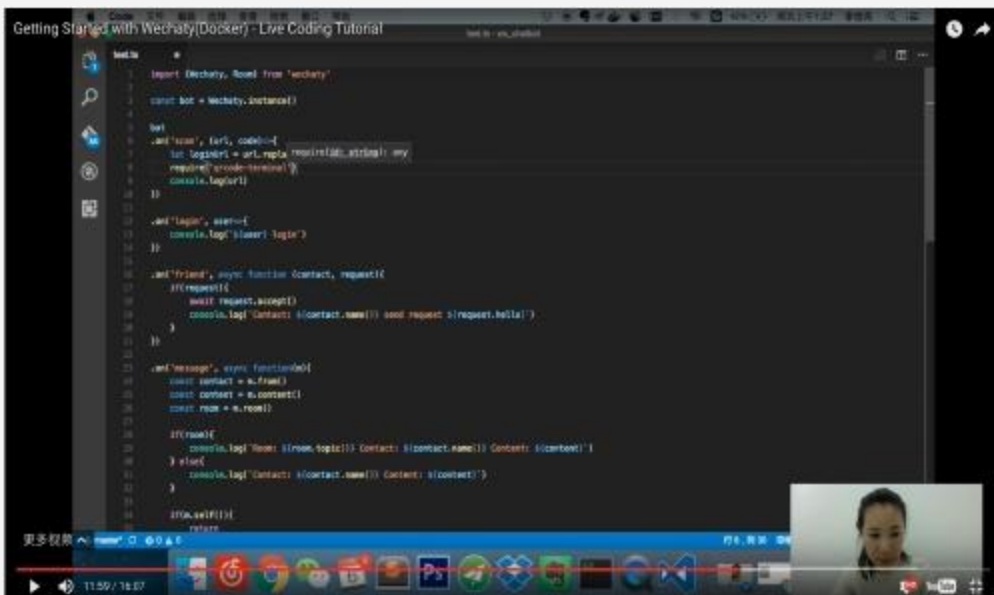
Web version of Wechat is developed by SPA HTML with Angular Script named webwxApp.js

When webwxApp.js has been upgraded, projects like Wechaty who depends on it might run into problem because the hook code is out of date.

I decided to track the upgrading of webwxApp.js with proactive strategy, not only WHAT, but also WHEN, and record them all with SCM(source code management).

Github Project URL - <https://github.com/wechaty/webwx-app-tracker>

The World's Shortest ChatBot Code



```

const { Wechaty } = require('wechaty') // import Wechaty from 'wechaty'

Wechaty.instance() // Singleton
.on('scan', (url, code) => console.log(`Scan QR Code to login: ${code}\n${url}`))
.on('login', user => console.log(`User ${user} logged`))
.on('message', message => console.log(`Message: ${message}`))
.init()
  
```

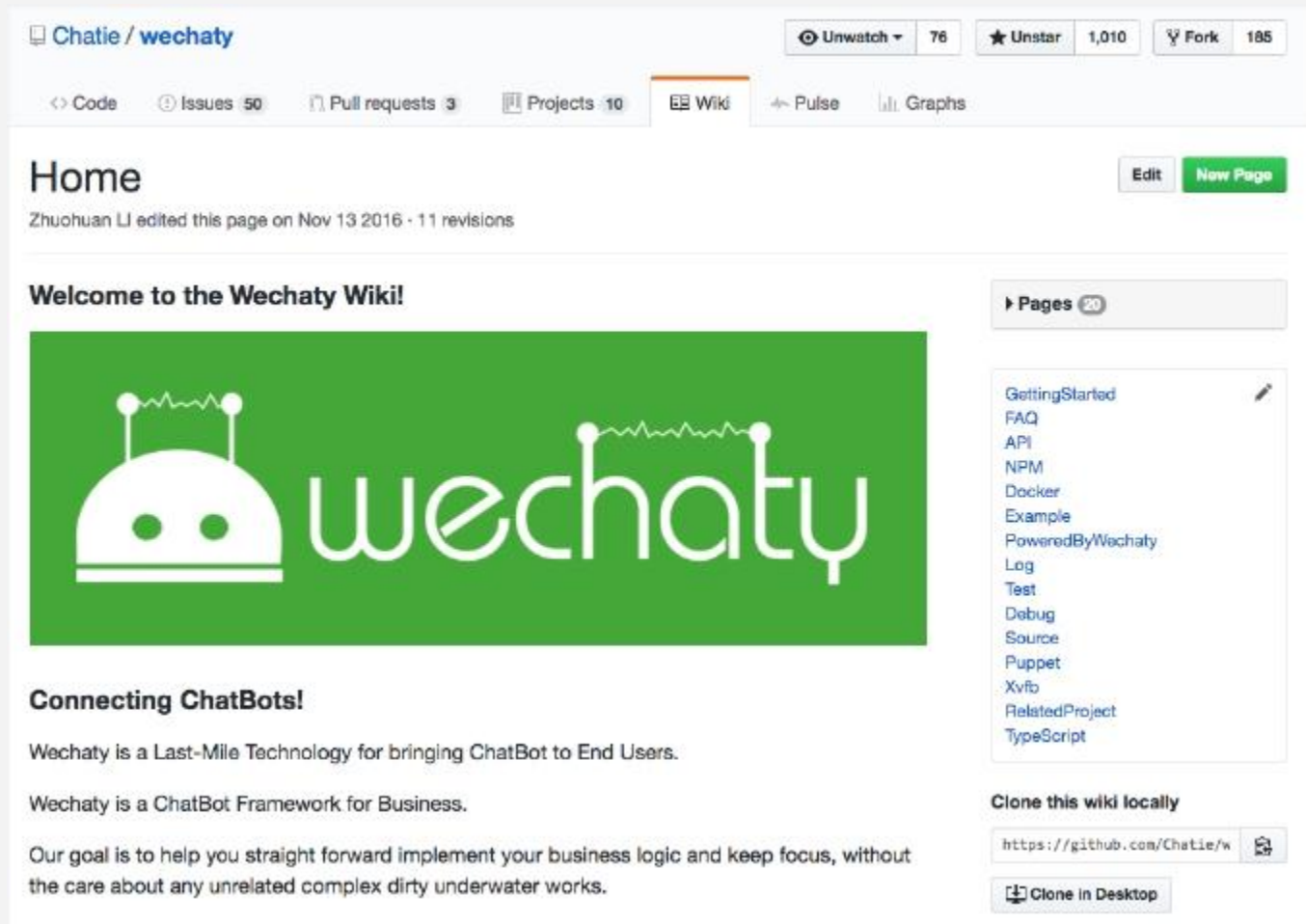
Get--started repo link: <https://github.com/lijiarui/wechaty--getting--started.git>

Wechaty Examples

1. ding--dong--bot.ts : Auto Reply Message
2. contact--bot.ts : List All Contacts by Wechat ID & Name
3. friend--bot.ts : Auto Accept Friend Request
4. media--file--bot.ts : Save Media Attachment in Message to Local
5. speech--to--text--bot.ts : Convert Voice Message to Text
6. room--bot.ts : Manage Chat Room
7. tuling123--bot.ts : Answer Any Question
8. api--ai--bot.ts : Integrate with api.ai for Intents & Entities

Wechaty IO Event

1. Error
2. Scan
3. Login
4. Logout
5. Message
6. Friend
7. Join(Room)



The screenshot shows the GitHub Wiki page for Chatie/wechaty. The page title is "Home" and it was last edited by Zhuohuan LJ on Nov 13 2016. The main content area features a green banner with a white robot icon and the word "wechaty" in white lowercase letters. Below the banner, the heading "Connecting ChatBots!" is followed by two paragraphs: "Wechaty is a Last-Mile Technology for bringing ChatBot to End Users." and "Wechaty is a ChatBot Framework for Business." The final paragraph states: "Our goal is to help you straight forward implement your business logic and keep focus, without the care about any unrelated complex dirty underwater works." On the right side, there is a sidebar with a "Pages" section containing a list of links: GettingStarted, FAQ, API, NPM, Docker, Example, PoweredByWechaty, Log, Test, Debug, Source, Puppet, Xvfb, RelatedProject, and TypeScript. At the bottom right, there is a "Clone this wiki locally" section with a text input field containing the URL "https://github.com/Chatie/w" and a "Clone in Desktop" button.

Wechaty DevOps



<https://www.wechaty.io>



<https://github.com/Chatie/wechaty>



<https://hub.docker.com/r/zixia/wechaty/>



<https://npmjs.com/package/wechaty>



Wechaty Community

Contributor

10 people in the Chatie organization				Role ▾
	dc dcsen	Private	Member	1 team
	Gcaufy Gcaufy	Private	Member	1 team
	Michael Chong imWildCat	Private	Member	1 team
	Jas JasLin	Private	Member	1 team
	ljarul ljarul	Public ▾	Member	2 teams
	Mike BO mike-bo	Public	Member	0 teams
	Mukai mukai	Private	Member	1 team
	Hain Wang Samurais	Private	Member	1 team
	Zainan Victor Zhou xinbentv	Private	Member	1 team
	Huan LJ zixia	Public	Owner	2 teams

Blog: <https://blog.chatie.io/>

Wechat Group

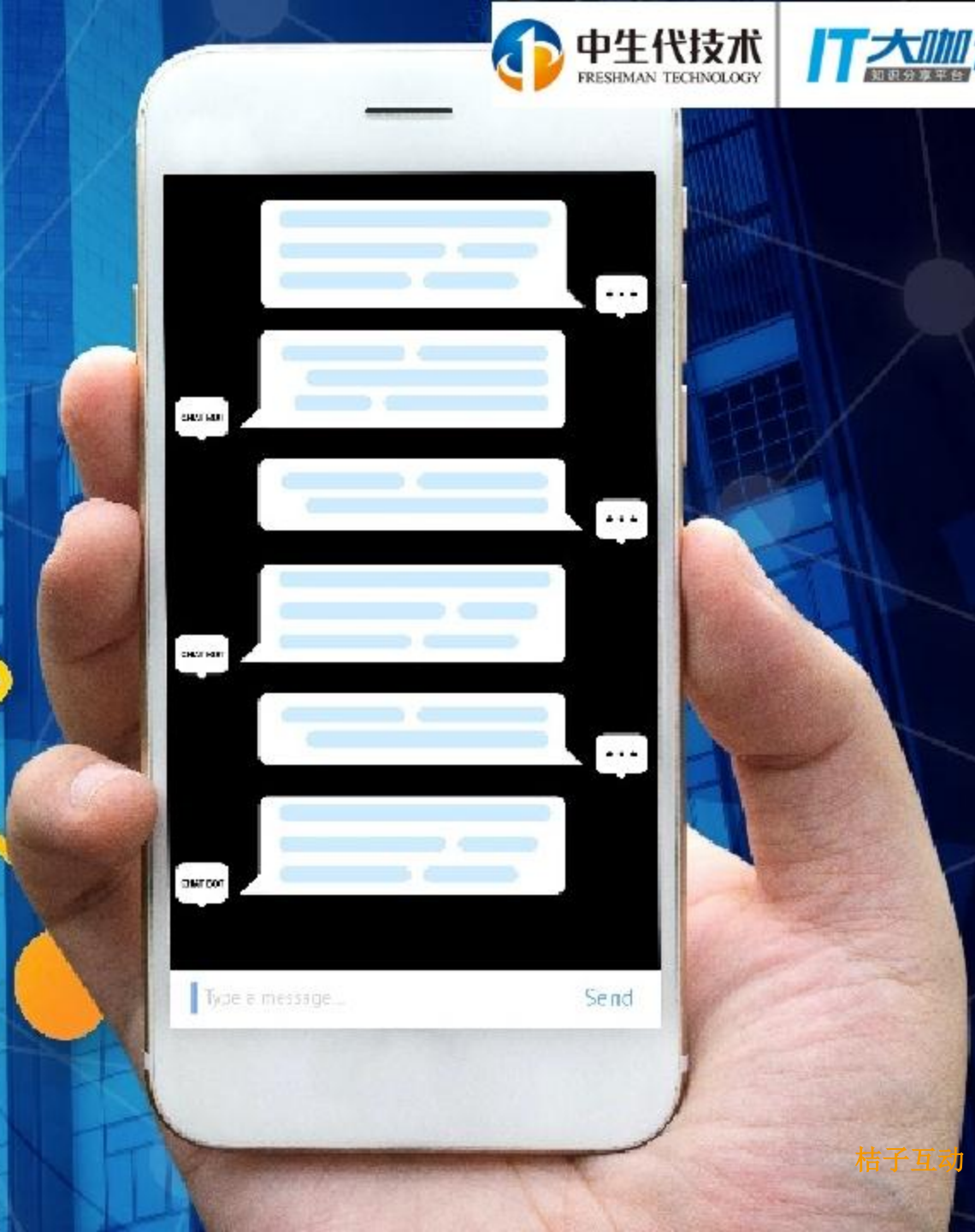
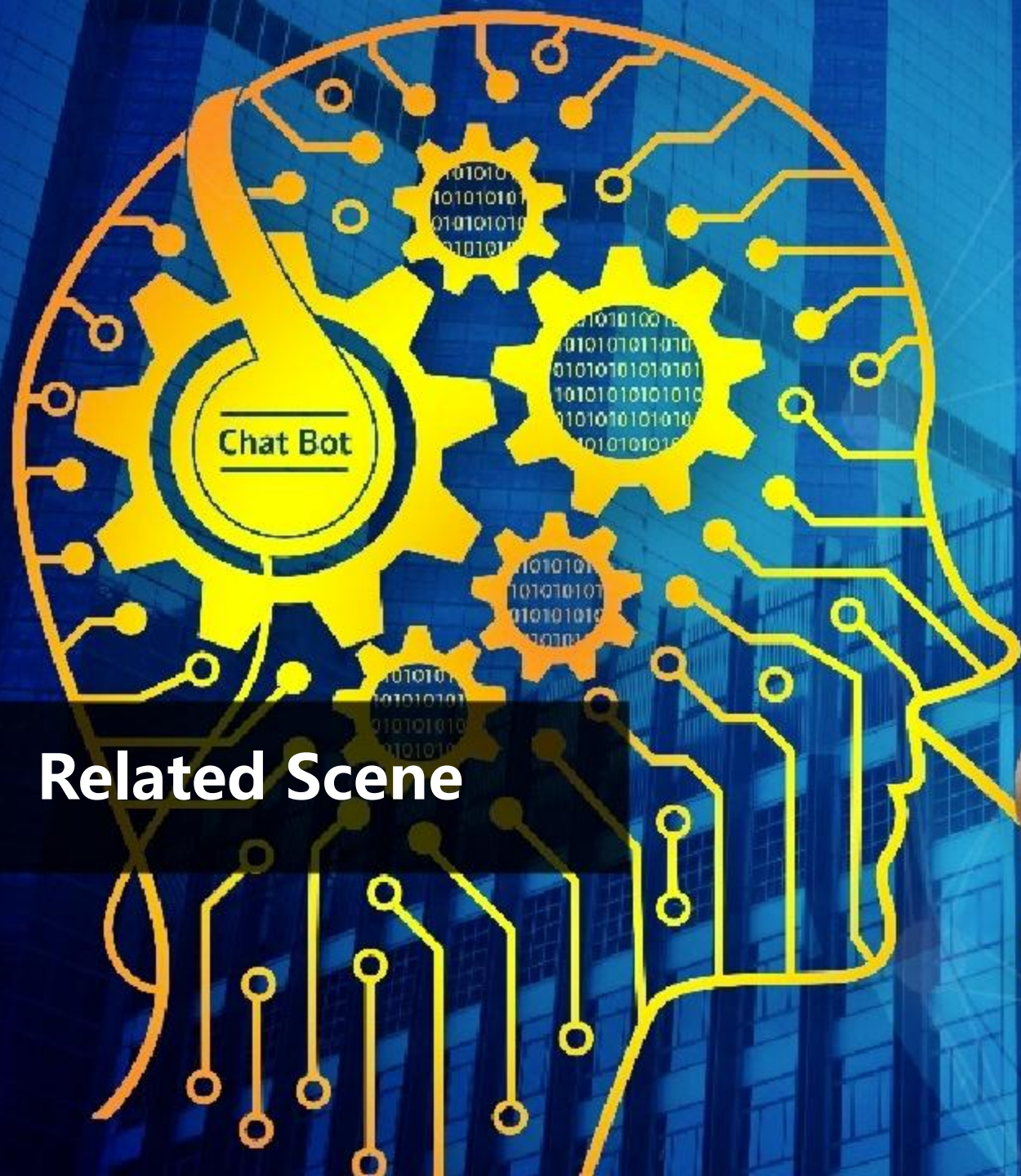
Donation: <https://www.bountysource.com/teams/chatie>

Chatie
Bot is not born, but made.
Beijing | <https://blog.chatie.io> | dev@chatie.io

Repositories | People 10 | Teams 2 | Projects 1

Pinned repositories

- wechaty**: Wechat for Bot. Powered by WebDriver / Node.js / Docker. TypeScript, 1k stars, 185 forks.
- app**: ChatBot Pocket Manager for Android & Ios, Powered by Ionic & Angular. TypeScript, 6 stars.
- angular**: Angular ngModule for Chatie(Web Components). TypeScript, 1 star, 1 fork.
- webwx-app-tracker**: Live Tracking webwxApp Version Change. JavaScript, 11 stars, 4 forks.
- blog**: Chatie Official Blog. Ruby, 1 star, 6 forks.
- stt**: Speech to Text for Node.js. TypeScript.



Related Scene

Related Scene

- Wechat group customer profiles
- Invite friends into group based on keywords, forms, or fee
- Multi--group Live Message
- Select the most attractive avatar
- Store vedio/file via wechat to cloud storage
- Generate lyric and image
- Book all kinds of ticket
- Github notify
- Save group message and analysis
-

Review



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Thanks!