

VIP Shop, Chatbots in China

Conversational Commerce Conference San Francisco

VIPShop AI Huiyan Huang 2018-09-13

INDEX

CONTENTS

01 China AI Rise

02 BAT Battles

03 VIPS in Action

INDEX

CONTENTS

01 China AI Rise

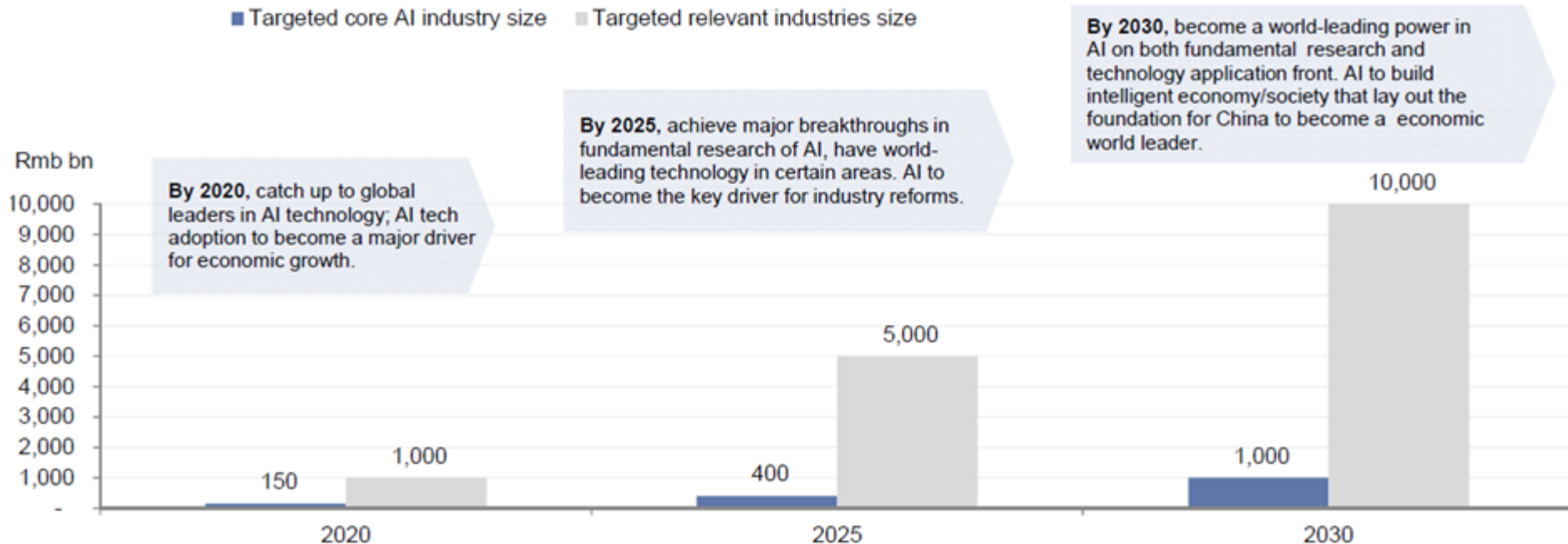
02 BAT Battles

03 VIPS in Action

China's Rise in Artificial Intelligence

China aims to become a world-leading power in AI by 2030

The strategic goals of the national development plan on AI



Source: The State Council of China 2017/07/18

China National Open AI Platforms



Automatic Driving Platform



Urban Brain Platform



Medical Imaging Platform



Intelligent Voice Platform

Source: The Ministry of Science and Technology 2017/11/15

Gartner's Investigation in Conversational AI

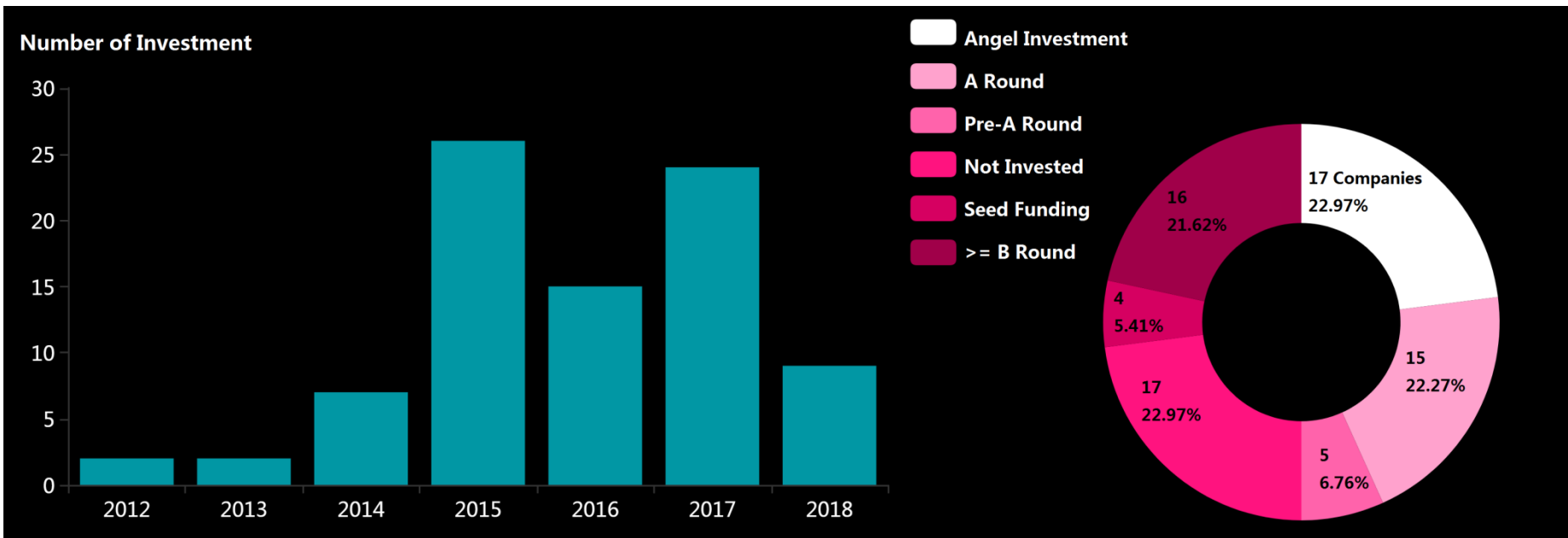


NLP = natural-language processing; YE = year-end

By 2022, the adoptions of Chinese NLP for Conversational AI applications by enterprises in China will exceed 80% – up from 51% currently

Source: Gartner June 2018

China Investment in Conversational Startups






76 Startup Companies, 88 Investments, Total Investment: 8.3 Billion RMB

Source: IT Juzi August 2018

Vendor	Product, Service or Solution Name	Services
AlSpeech	HMI and Virtual Assistant	STT, TTS, NLP
Allibaba	Tmall.com Genuine Smart Speaker	NLP
Baidu	DuerOS Platform and Speaker	STT, TTS, NLP
Beijing Orion Star Technology	HMI	STT, TTS, NLP
Beijing Ultrapower Software	Contextualization	NLP
Emotibot	Virtual Assistant	NLP
IBM	Virtual Assistant	NLP
IFLYTEK	HMI and Virtual Assistant	STT, TTS, NLP
Intumit	Contextualization	NLP
Lalye	wu.ai for Chatbot	NLP
Microsoft	Xiaoice Virtual Assistant	STT, TTS, NLP
Mobvol	HMI	STT, TTS, NLP
Nuance	HMI and Virtual Assistant	STT, NLP
Olami	HMI and Virtual Assistant	STT, TTS, NLP
Pachira Information Technology	Contextualization	NLP
Sogou	HMI	STT, TTS
Tencent	Virtual Assistant	STT, TTS, NLP
Tricorn	Virtual Assistant	NLP
Unisound	HMI and Virtual Assistant	STT, TTS, NLP
Xiaoi	Virtual Assistant	NLP
Zhuyi Shenzhen Chaoyi Technology	Virtual Assistant	NLP

Representative Vendors in Conversational AI in China

AI = artificial intelligence;
HMI = human-machine Interfaces;
NLP = natural-language processing;
STT = speech-to-text;
TTS = text-to-speech

-  Microsoft /IBM /Nuance
-  BAT & iFLYTEK
-  Emotibot VIPS' Vendor

Source: Gartner June 2018

INDEX

CONTENTS

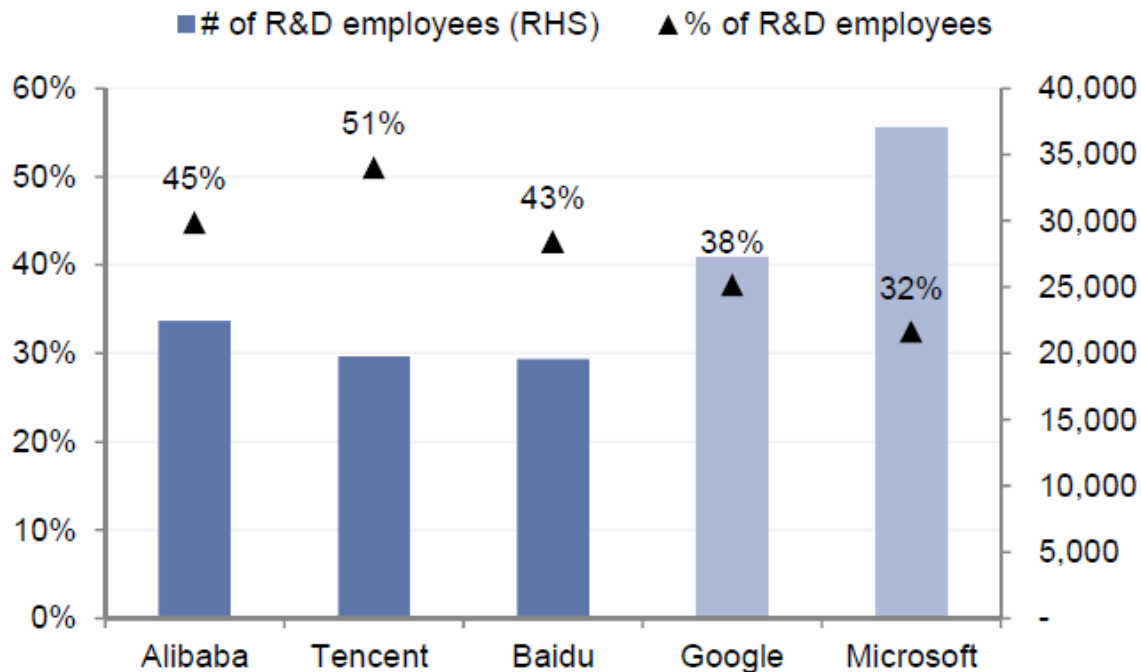
01 China AI Rise

02 BAT Battles

03 VIPS in Action

BAT vs. Google/ Microsoft

Company	GMV (\$)
Google	840 B
Microsoft	825 B
Alibaba	445 B
Tencent	418 B
Baidu	78 B



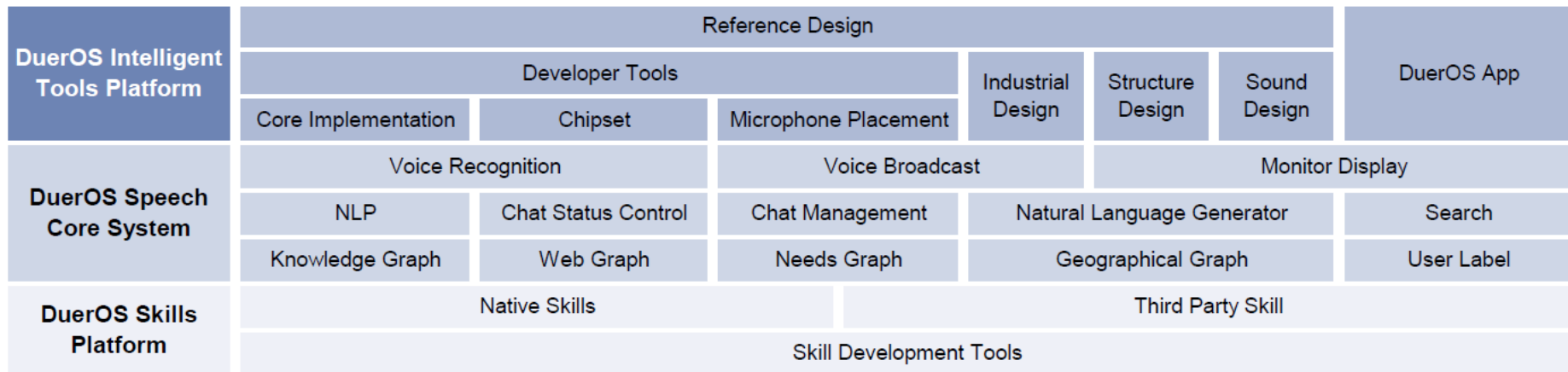
Yet the China internet giants are equipped with higher percentage of R&D human capital

Source: Company Data August 2018

Baidu (All in AI) - DuerOS

DuerOS – AI conversational platform that empowers voice interface in various smart devices both at home and on the go (e.g., phones, smart speakers, robots, TVs, cars, wearables, etc.). Baidu partners with many consumer electronics and appliances brands in product design, the technology is also open to developers.

DuerOS's Installation: 90 Million devices, MAU 250 Million.



Source: Company Data July 2018





Alibaba – A world-leading use case of AI

IaaS – Only Market Share of Top Five IaaS and IUS Providers, Worldwide, 2016-2017 (Millions of U.S. \$)

Vendor	2016	2017	2017 Market Share (%)	Annual Growth Rate (AGR)
Amazon	9,775	12,221	54.1%	25.0%
Microsoft	1,579	3,130	8.7%	98.2%
Alibaba	670	1,090	3.7%	62.7%
Google	500	780	2.8%	56.0%
IBM	297	457	1.6%	53.9%
Other Vendors	5,245	5,699	29.0%	8.6%
Total Market	18,066	23,377	100.0%	29.4%

Source: Gartner June 2018

AI-related technology at AliCloud

 Speech Technology	 Image Technology	 Video Technology	 IoT Cloud-based Integration Services
Intelligent Monitoring and Analysis of Call-Center Audio Recordings	Image Search Offline index and online query for billions of photos Pailitao's UV (unique visitor) over 10mn per day	End-to-End Deep Neural Network	400+ partner brands Intelligent Industry Alink is the first national standard for IoT platform accessing ID2 is the first ITU-T standard for IoT Device identity
Court Trial Transcription	OCR (Optical Character Recognition) Global winner of the ICDAR robust reading competition Identify malicious ads and detect illegal products	Comprehensive Analysis and Understanding of Voice, Audio, OCR and other Multi-modality Signals	Intelligent City
Voice Interaction System for Internet Car	Image Understanding Semantic search based on cross-media retrieval Fully implemented on Taobao App	Record Holder for Kitti Vision Benchmark Suite Competition (90.46%)	Intelligent Life Alibaba Smart living is the largest household appliance IoT platform in China

Source: Company Data 2018

Alibaba – Tmall Genie & AliMe



Tmall Genie - smart speaker published on Jul. 5th 2017 by Alibaba A.I. Labs



AliMe – VCA published on Jul. 24th 2015 by Alibaba Innovation Center

Global Smart Speaker Shipments by Vendor in Q1 2018 ¹

Global Smart Speaker Market by Vendor: Q1 2018 (Shipments in Millions of Units)					
Vendor	Q1 '18 Shipments	Q1 '18 Market Share	Q1 '17 Shipments	Q1 '17 Market Share	Growth Y/Y
Amazon	4.0	43.6%	2.0	81.8%	102%
Google	2.4	26.5%	0.3	12.4%	709%
Alibaba	0.7	7.6%	0.0	0.0%	~
Apple	0.6	6.0%	0.0	0.0%	~
Xiaomi	0.2	2.4%	0.0	0.0%	~
Others	1.3	13.9%	0.1	5.8%	806%
Totals	9.2	100.0%	2.4	100.0%	278%

¹ Numbers are rounded.

Source: Strategy Analytics Smart Speaker service May 2018

- 2017/11/11 one day served **9M** customers, Service rate 95% , Click-Through **93.1%**
- Served Customer Calls **340 Million** in 2017
- After Sales Service, Shopping Guide, Recommendation, Personal Assistance etc.
- Serving **100K+** e-Shops on Taobao/Tmall open market Platform
- Chinese/English/Spanish/Portuguese etc.

Source: Company Data 2018

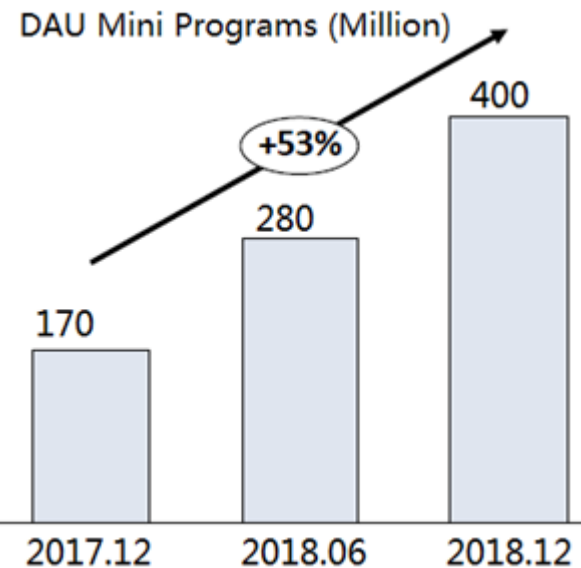
Tencent – largest Social Platform in China



- Successful transition from PC to mobile
 - QQ IM 803 million¹
 - Mobile QQ² 709 million¹
- Young, entertainment-oriented users
- Open platform + groups connect users to online content developers and interest groups



- Mobile-centric creation for smart phones
 - Weixin & WeChat² 1,058 million¹
- White-collar users
- Official accounts + Mini Programs connect users to content and service providers moving onto the mobile platform



¹ Monthly active user accounts as of 30 June 2018

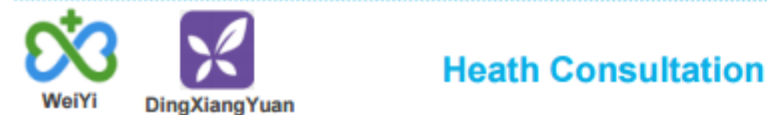
² For smart devices

Source: Company Data June 2018

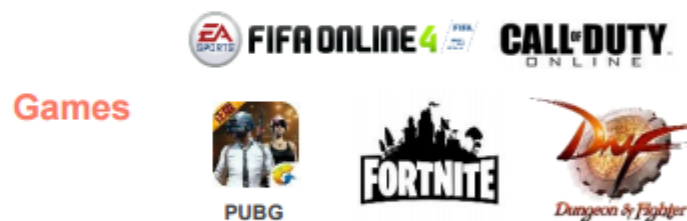
Source: Aladin Index 2018

Tencent's Ecosystem

Category Leaders



Strategic Relationship with Content Providers



Source: Company Data 2018/08/15

INDEX

CONTENTS

01 China AI Rise

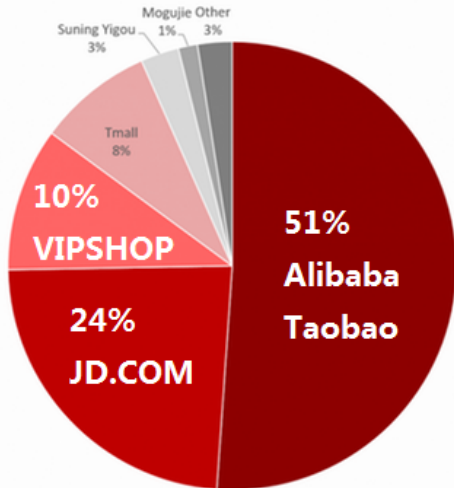
02 BAT Battles

03 VIPS in Action

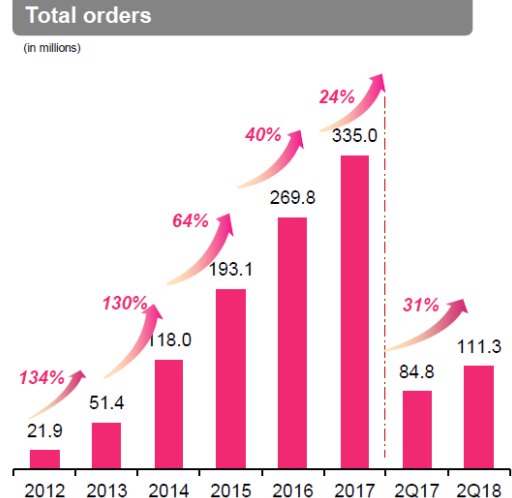
VIPShop: Unique player in China's e-Commerce Landscape

- A world's leading flash sales platform, **No.1** flash sales site in China
- **13,000** well-known domestic and global vendors and suppliers, warehouses in 10 countries
- **300M** registered customers, **160M** UV (2018/07-08), **60M** MAU, **19M** Super VIP members
- Repurchase rate: users **85%**, orders **96%**. Sales 2017: **72.9B** RMB, Q2 2018: **20.7B** RMB
- **Third largest** on-line retailer in China (*by Fortune Magazine July 2018*)

MONTHLY ACTIVE USERS OF CHINESE E-COMMERCE APPS IN 2018



Source: Market Realist 2018.08



VIPShop Customer Service Overview



VIP Logistics

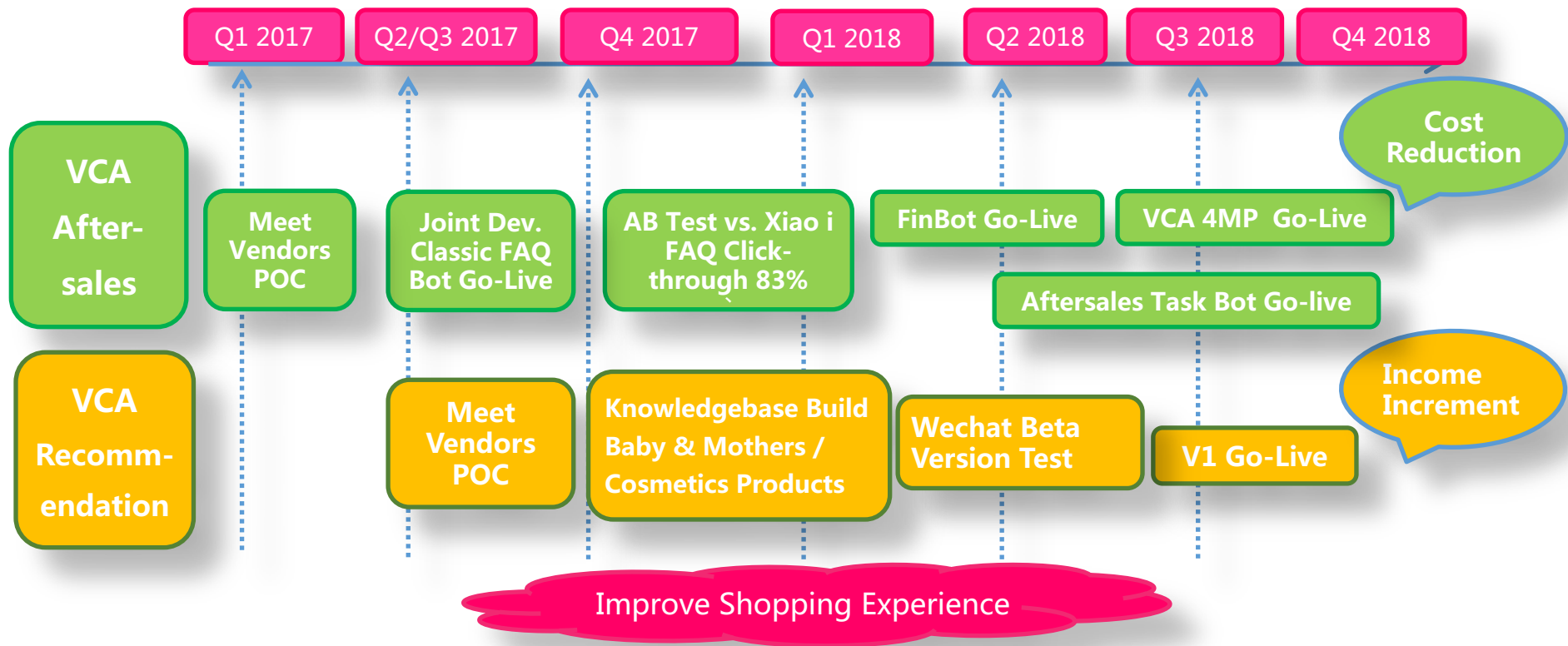


VIP Finance

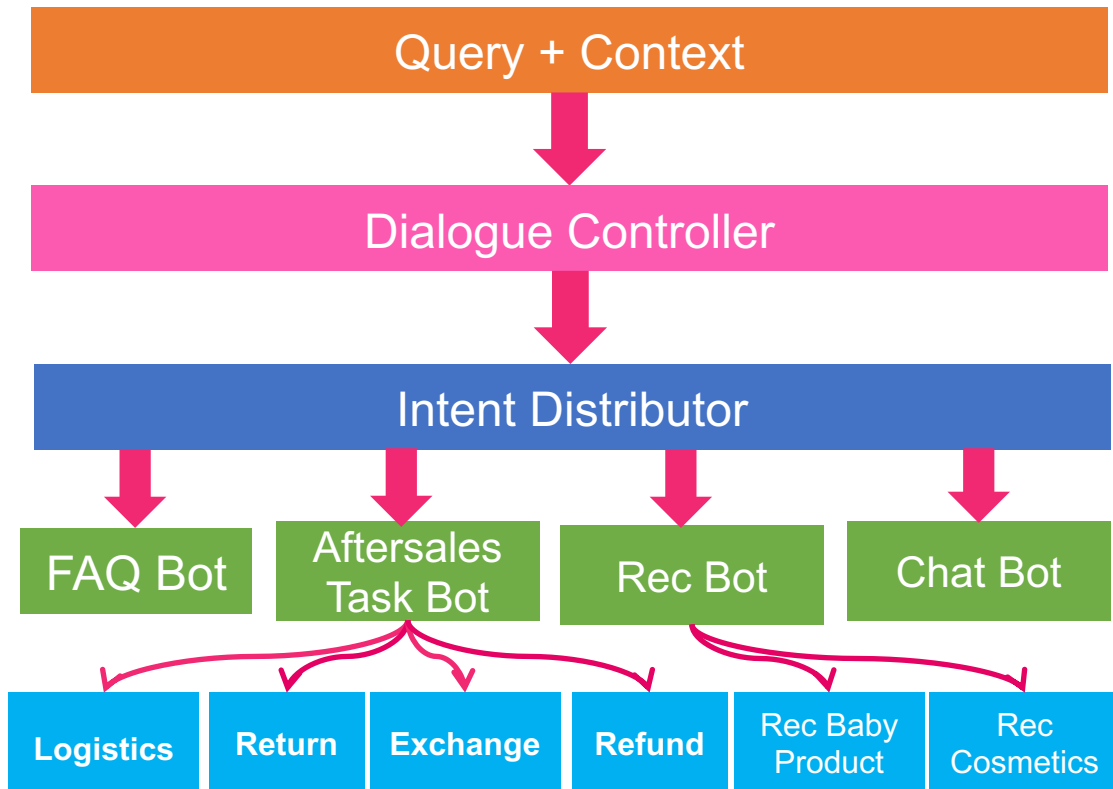
Multi-Channels: app, pc, wap, wechat official account, QQ official account, lefeng app, app station B, wechat mini programs... **16 channels**
Multi-Platforms: wechat, app, web, ios

100 Million Incoming Calls per Year
24*7*365 Customer Support
Supporting **1500** Agent Seats
Agents(Voice/IM), IVR, ACS, VCA

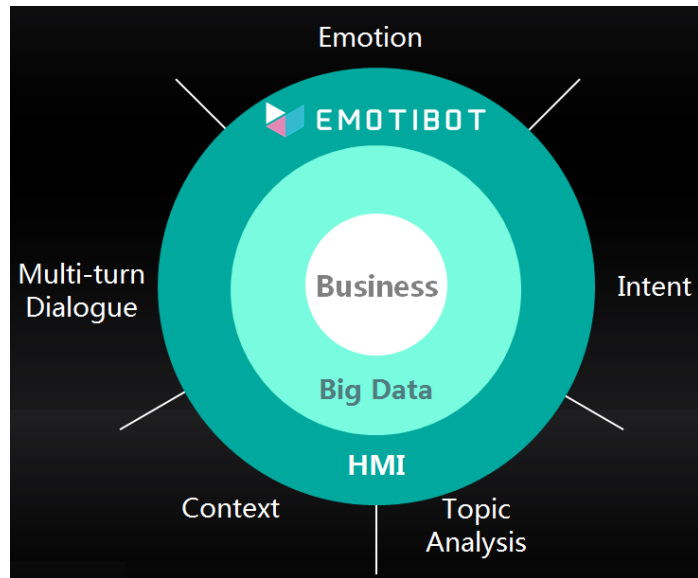
Our VCA Journey



VCA Multi-Bots Platform

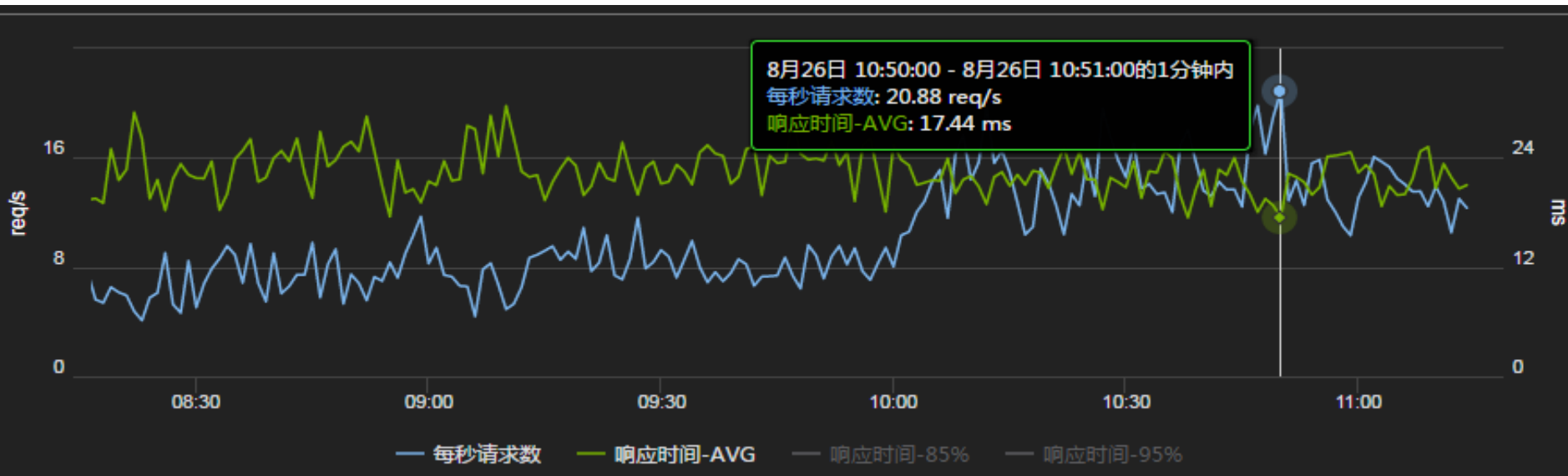


Engine powered by Emotibot
Gartner selected representative
Vendor in Conversational AI in China



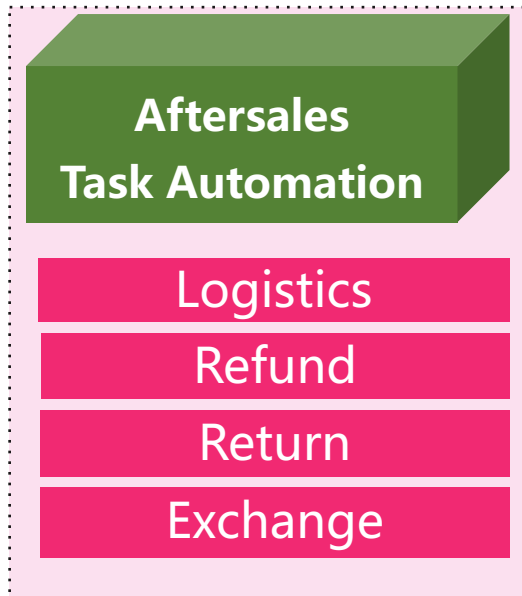
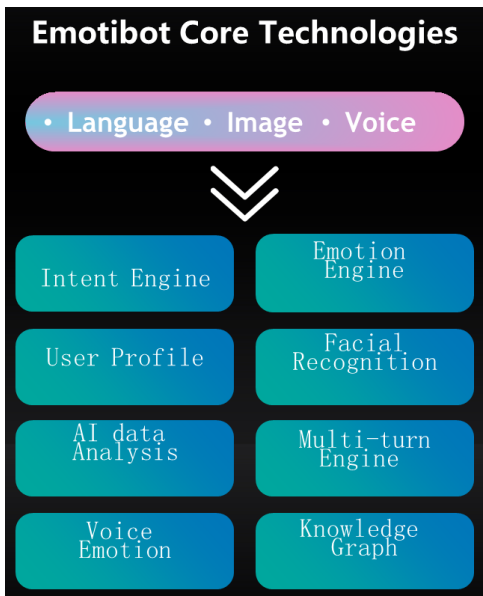
VCA Classic FAQ (e.g. APP)

- **100K+** Incoming Calls Daily
- **99%** Latency: **< 30** Milliseconds
- **30** QPS, **800 QPS** by Big Sales
- **90%** Semantic Accuracy
- **85%** Click Through
- **7000+** Standard Qs in FAQ
- **300K** Labeled Qs vs. *Xiao i* (30K Rules)
- **60** Conversations /Agent/Day
- **60K RMB** annual salary /Agent
- **85M RMB** cost reduction /Year

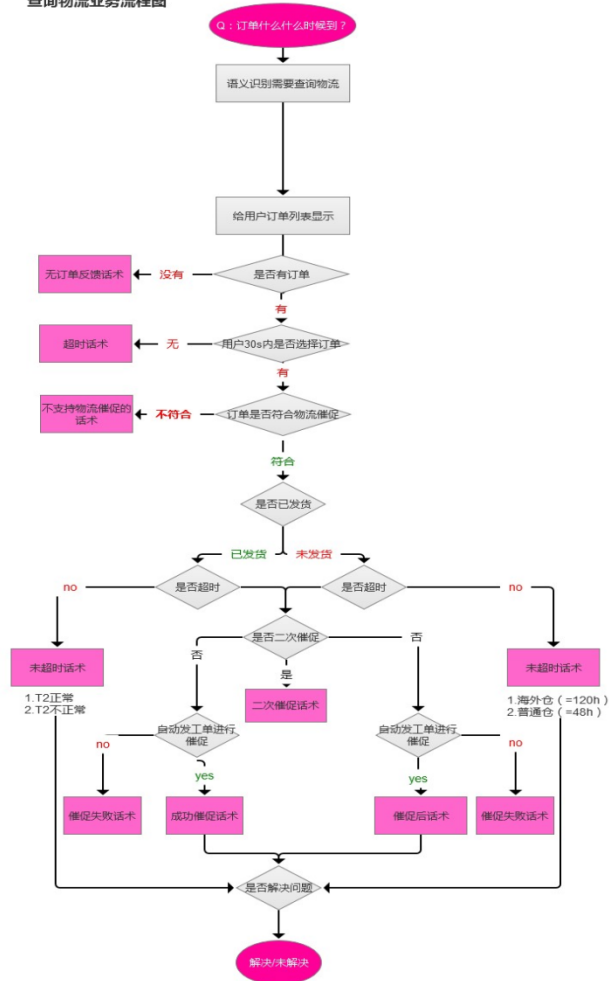


VCA Aftersales Task Bot

- 4 high frequent aftersales tasks: **54%**
- **97%** Intent Distribution Accuracy
- Static Decision Tree Dialogues
- Timeout < **800** Milliseconds
- **80%** Task Completion Rate

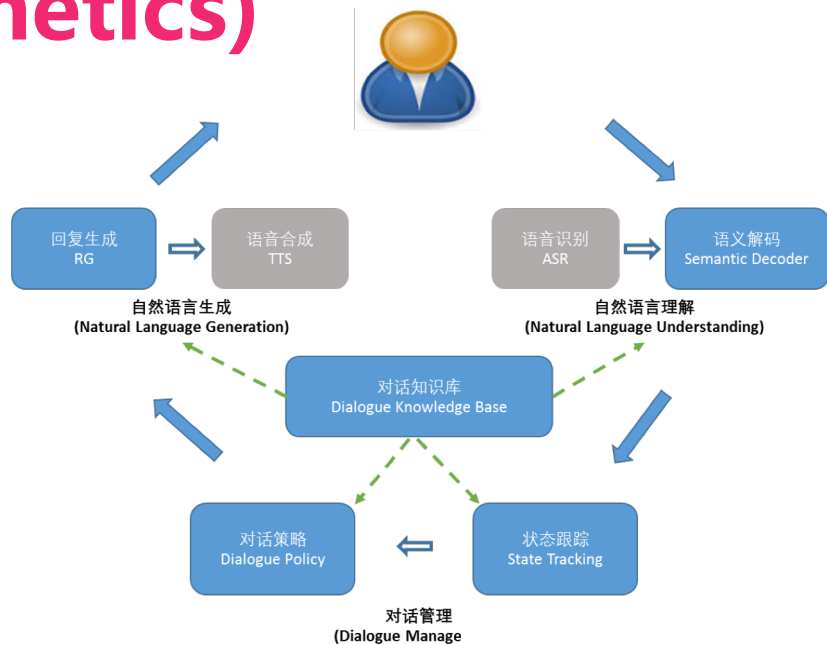


查询物流业务流程图



VCA REC Bot (e.g. Cosmetics)

- 1M products in Knowledgebase
- 5 big Intent Categories: Recommendation/Ask Opinion/Product QA/Change/Workflow
- 90% Intent Semantic Accuracy
- 85% Attribute Recognition Accuracy
- Task Completion Rate/Click Rate and Conversion Rate – need to be proved



用户画像
User Profiling



性别Gender

肤色Color

年龄Age

?

唇膏颜色
Lipstick Color



我比较黑，适合什么颜色的口红 - I am black, which color is suitable ?

VCA@Market Place



VIPShop VCA MP Operator



Official Dialogue Policy
VIPShop Shared FAQ
Shared Functions/Scenarios
Account Management



Shop A Operator

Shop B Operator

Shop D Operator

Shop Dialogue Policy
Shop FAQ
Shop Functions/Scenarios
Shop Account Management

Powered by



Bot Factory

感谢聆听

—

THANKS!