



Building Bots in China

-- journeying for 15 years and going strong

Bots, Virtual robots, Smart Agents

- i** Easy to use
- i** Easy to build
- i** Easy to spread
- i** Easy to collaborate

From Single Bot to Platform



Siri , Open to developers



Google Now → Google Assistant, ALLO



Cortana, Conversation as a Platform

Adding Bots into IM Platforms



Messenger



Telegram



Line



WeChat

Different kinds of Bots...

i Chatbot

Eliza on Terminal , Smart Child on AIM, Xiao-Ice on Web...

i Virtual Customer Assistant (VCA)

Nina , Amelia, XiaoI ...

i Virtual Personal Assistant (VPA)

Siri, Cortana, Google Assistant ...

VCA on Internet first arise in China

U.S.

IVR



1960s

Internet



1990s

Call steering in IVR



19???

VCA



2010



China

1980s



IVR

1990s



Internet

2000s



VCA

Rise of Xiaoi in VCA -- Web

中国移动通信 CHINA MOBILE
一网通 ALL IN ONE NET

12366在线咨询 上海税务局WEB机器人 使用帮助 热点问题 意见反馈

09:32:27 可以免纳个人所得税的标准

税精灵

根据《中华人民共和国个人所得税法》的有关规定，下列各项个人所得，免纳个人所得税：

1. 省级人民政府、国务院部委和中国人民解放军军以上单位，以及外国组织、国际组织颁发的科学、教育、技术、文化、卫生、体育、环境保护等方面的奖金；
2. 国债和国家发行的金融债券利息；
3. 按照国家统一规定发给的补贴、津贴；
4. 福利费、抚恤金、救济金；
5. 保险赔款；
6. 军人的转业费、复员费；
7. 按照国家统一规定发给干部、职工的安家费、退职费、退休工资、离休工资、离休生活补助费；
8. 依照我国有关法律规定应予免税的各国驻华使馆、领事馆的外交代表、领事官员和其他人员的所得；

热点问题

- ▶ 普通住房的标准
- ▶ 个人购买非住房需缴纳的税收
- ▶ 个人出售非住房需缴纳的税收
- ▶ 个人住房房产税的征收对象有哪些
- ▶ 个人购买非普通住房需当场缴纳的税收
- ▶ 个人所得税“工资薪金所得”费用扣除标准
- ▶ 个人出售购入不足五年的住房需缴纳的税收
- ▶ 个人购买家庭唯一普通住房需当场缴纳的税收
- ▶ 年所得12万元以上的个人，应在什么时候申报呢？
- ▶ 个人购买家庭第二套或以上住房需当场缴纳的税收
- ▶ 个人出售购入超过五年的普通住房需当场缴纳的税收
- ▶ 个人出售购入超过五年非普通住房需当场缴纳的税收

请输入您要 (Ctrl+Ent)

宋体 12

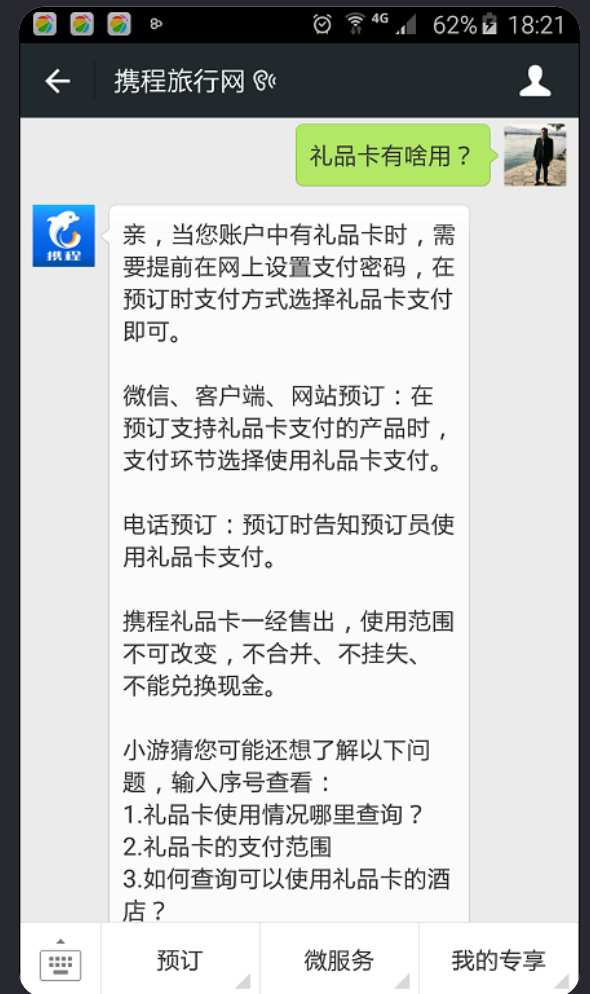
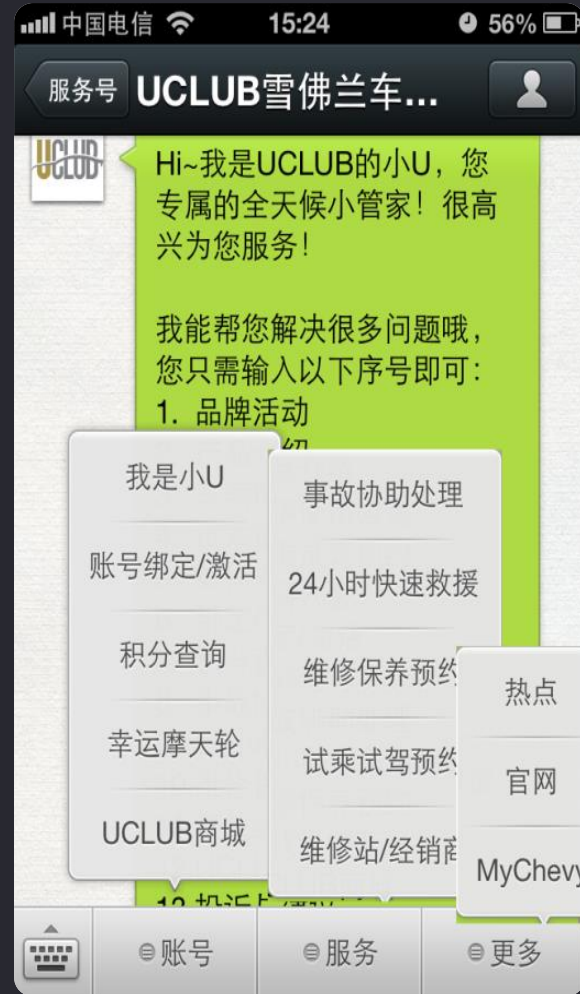
限用100字简要

字体大小设置 提问记录

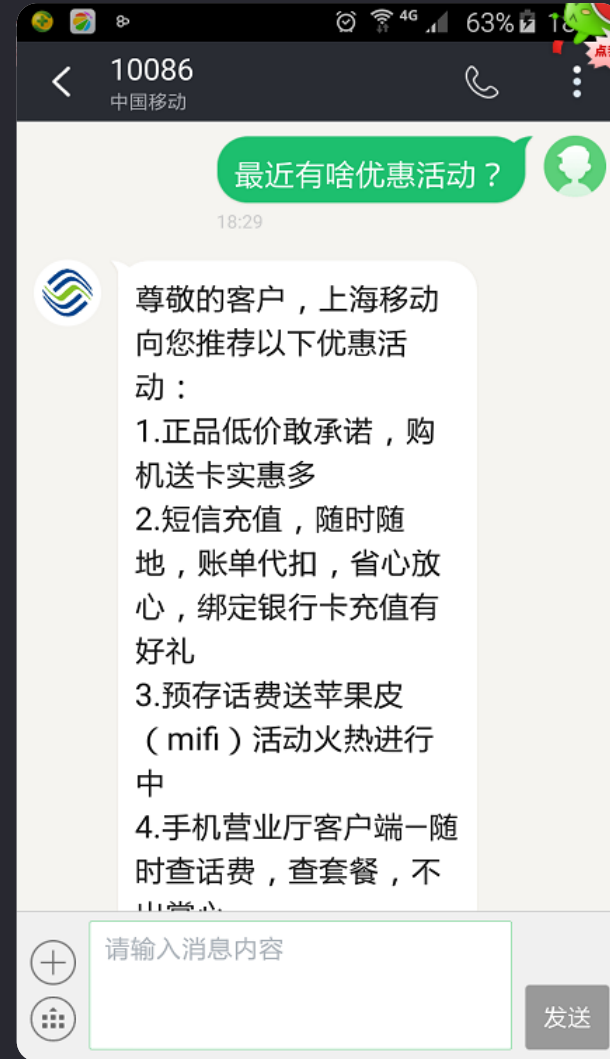
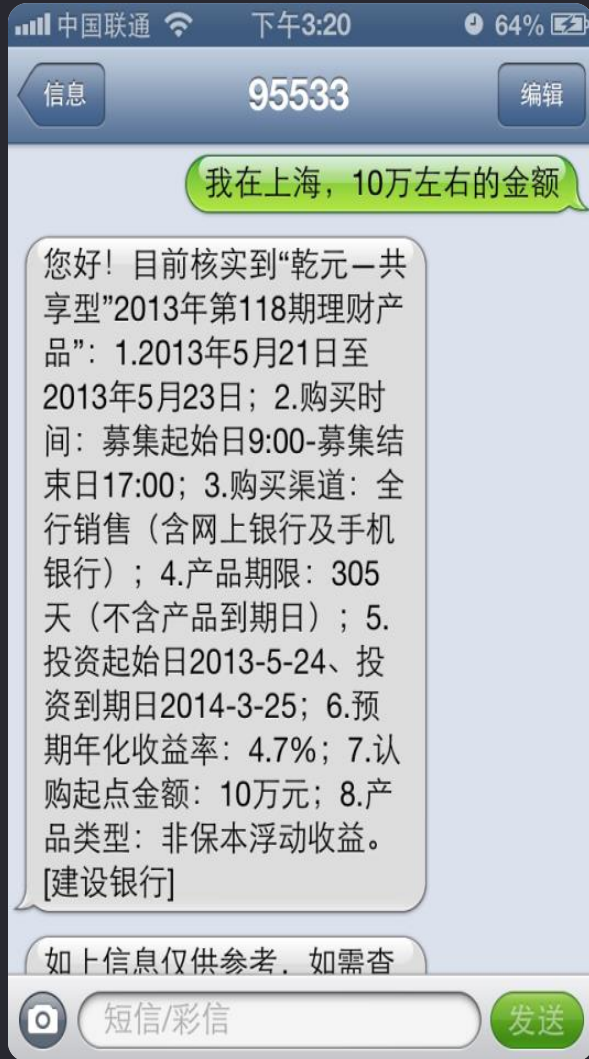
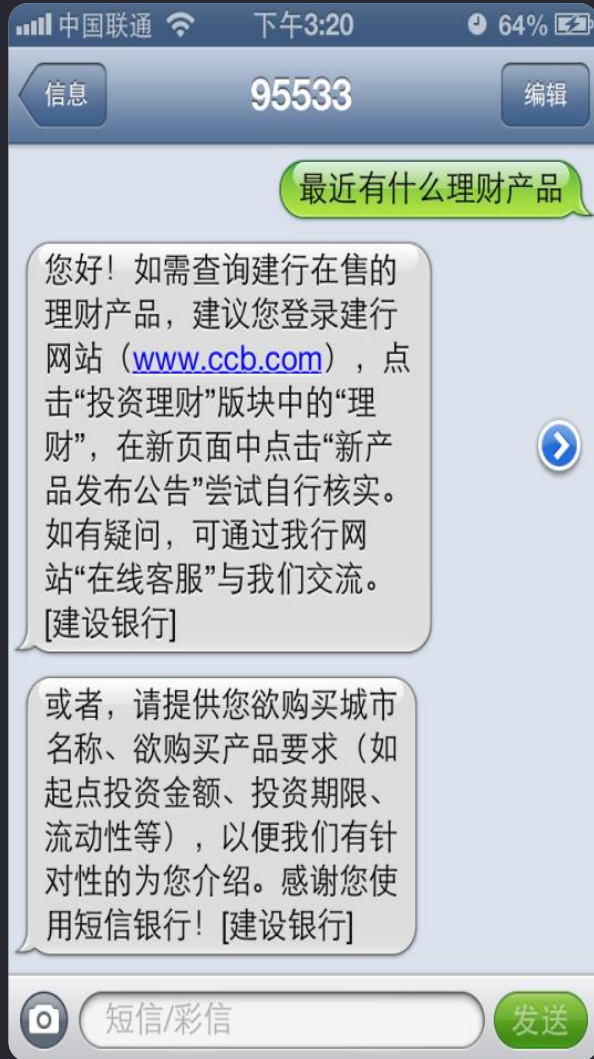
发送

满意度评价

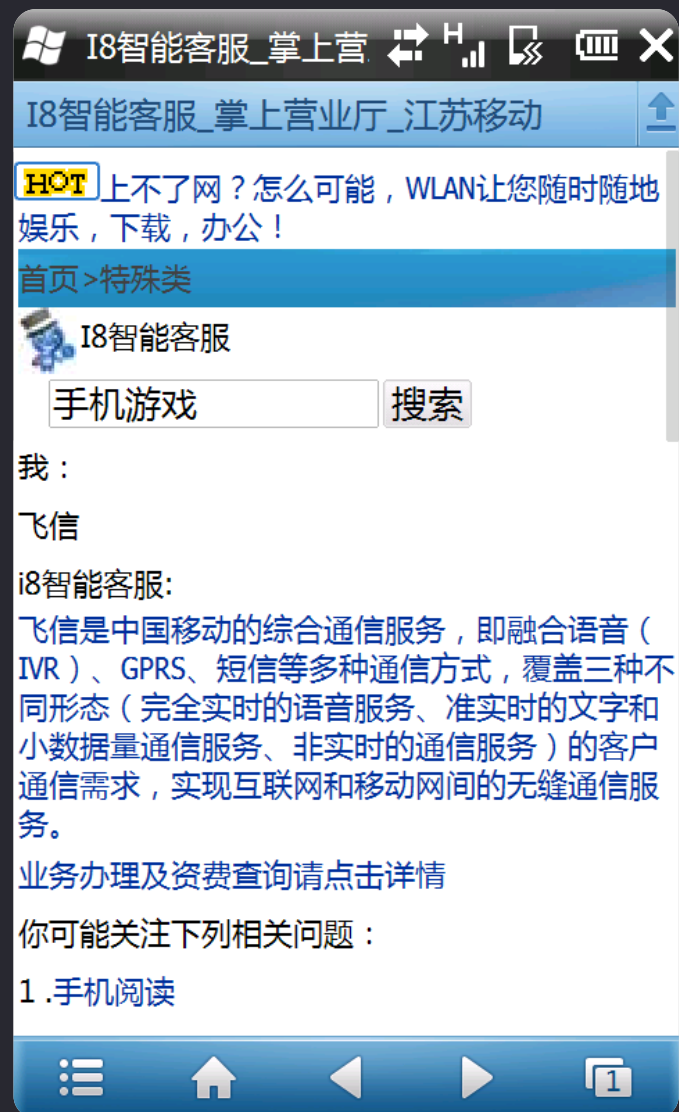
Rise of Xiaoi in VCA -- WeChat



Rise of Xiaoi in VCA -- SMS



Rise of Xiaoai in VCA -- WAP



Rise of Xiaoi in VCA -- QQ

中国联通QQ营业厅公测版(800010010)

交谈中请勿轻信汇款、中奖信息、陌生电话，勿使用外挂软件。

最新动态

绑定联通 13:40:16

- 欢迎使用中国联通QQ营业厅，无需登记您可以实时查询话费、积分、账单等。
- 正在为您查询信息中，请稍后.....
- 客户名称：李英

当月话费：16.32
上月账单：16.56
可用余额：0.00
可用积分：696

关闭(C)

招商银行信用卡(4008205555)
英雄联盟、海贼王带回家!

caitlin.cai (蔡丽婷) 17:24:04
刷招行信用卡在必胜客有优惠吗

招行 17:24:05
即日起持招商银行信用卡至合作商户用餐，最高可享全单5折优惠。许留山，味千拉面等，[点击活动详情](#) 请在活动页面左上角切换您所在城市查看。

请点击查看相关内容：
1. [最新活动](#)
2. [特惠商户](#)

以上答案如不能满足您的需要，请点 [更多服务](#)

常用功能 官方微博 进入官网 推荐办卡

- ▶ 还款方式
- ▶ 账单分期
- ▶ 登录网上银行
- ▶ 车购易
- ▶ 预借现金
- ▶ 积分计划
- ▶ 商旅预订
- ▶ 优惠商户
- ▶ 邮购商城

我要办卡 更多选择

英雄联盟信用卡震撼上市
英雄卡面随心选 打游戏赢招行积分
立即申请

推荐好友赢百元彩贝

关闭(C) 发送(S)

中国电信(800010000)

已为您接入(上海)，或选择 [其他地区及天翼卖场](#)

关联设置 您好

开始体验

天翼4G 分享美好生活

WLAN热点查询 网上营业厅

自助查询 业务办理 故障申告 投诉建议

充值缴费 天翼卖场

在线服务客户数：9156

发送(S)

Rise of Xiaoi in VCA -- Fetion



Rise of Xiaoi in VCA -- App



Rise of Xiaoi in VCA -- Physical Robot



The benefits of using VCA -- Let the numbers speak



2 million

Daily Conversations



6000 Headcount

Reduction



2 million calls

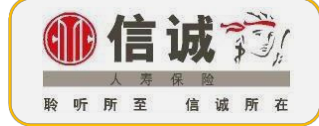
Monthly reduced



\$ 14 million

Monthly Saving

Finance – Xiaoi serves 80% of Top.50 China Banks



Telecom Carrier



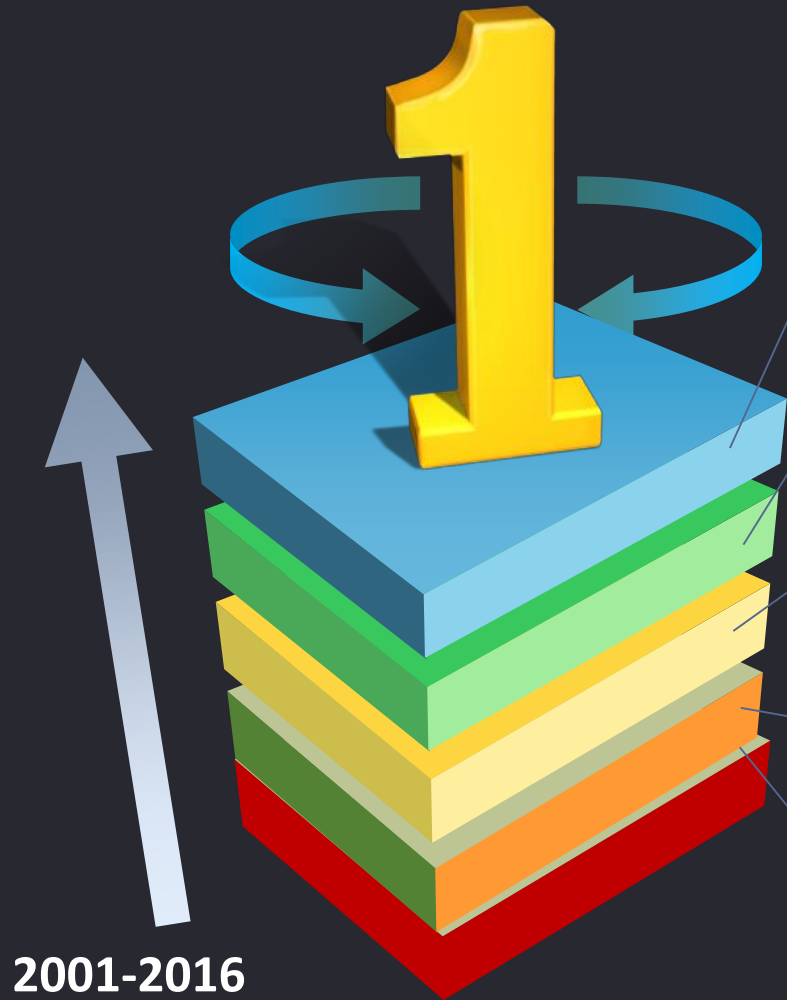
E-Government



E-Commerce, Transportation, Travel, Utility, etc.



Global leader in VCA



2001-2016

The largest VCA technology supplier

– 90% Market Share in China

Advanced intelligent dialogue engine

-- 10 billion conversations per year

Core IPs & Standards in VCA Technologies

Cross-domain knowledge bases & semantic libraries


Invested by Major TMT Investors in China, Solid

Financial Strength for Future Growth and Expansion

What others said about us

Virtual Customer Assistants

Approaches	Suppliers
Procedural code and APIs	Speaktoit
Rule-based systems	Next IT, Yseop
Purpose-built packages	IPsoft, Creative Virtual
General purpose smart machine platforms and frameworks	IBM Watson
	Cognitive Scale



- **Xiaoi is not only a VCA suppliers, but also have a Smart Machine platform & framework**
- **Cool Vendors in CRM Customer Service and Social**



- **The VCA Xiaoi created for China Merchant Bank (CMB) was reported as standard case of VCA by Gartner**



- **“Xiaoi provides the intelligent interactive capability that really changes the customer service in China Merchants Bank”**
-- -----Liu Jialong
(General Manager of CMB Credit Card Center)

Core Tech. of Xiaoai

System integration & interfaces

- Software Products/ Cloud / OS / SDK / Hardware Modules



Omni-Channel & pattern recognition

- Internet / Mobile / Hardware
- Speech / Computer Vision / Motion



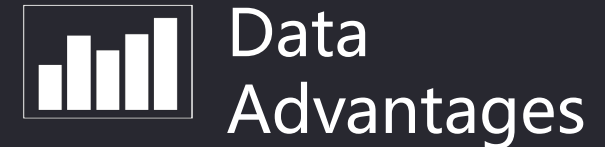
Semantic understanding & intelligent interaction

- NLP / Semantic understanding/ Dialogue management/ Reasoning / Context / Personalization



Knowledge Base & Semantic Library

- Concept / Ontology / Knowledge Graph / Domain semantic Library / Chatting Library / Vertical search / development framework



Big data & Machine learning

- Data analysis/Vertical crawler/Machine learning/Sentiment analysis/Knowledge mining



Omni-channel and multi-mode interaction



APP WeChat QQ Fetion Twitter Line WEB SMS Phone TV Vehicle



Text



Speech

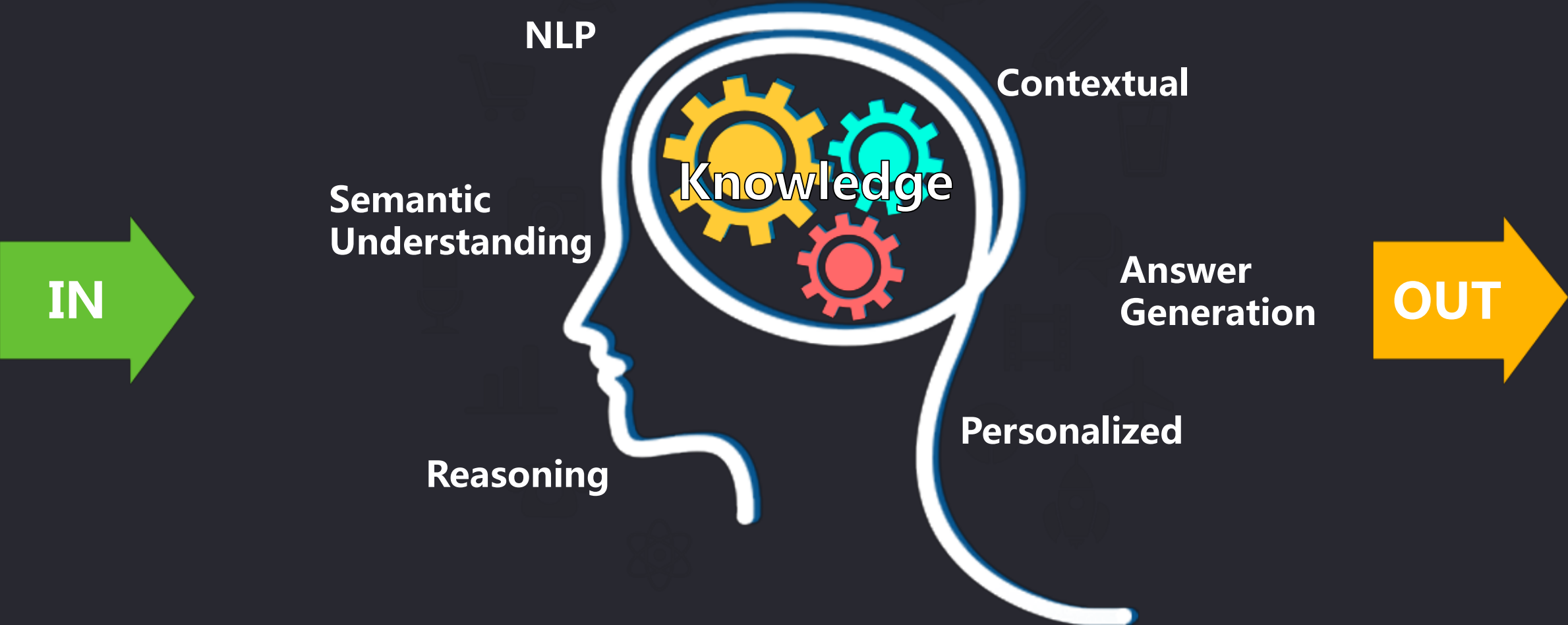


Image



Gesture

NLU & Dialogue Engine (version 10)



Knowledge base & Semantic Library



Price of iPhone 6



Smart Phone
(price/size/weight...)



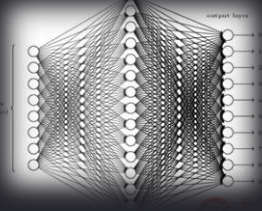
iPhone 6 → Apple



Word Class / Entity



**Semantic Expression /
Abstract Semantic
Expression**

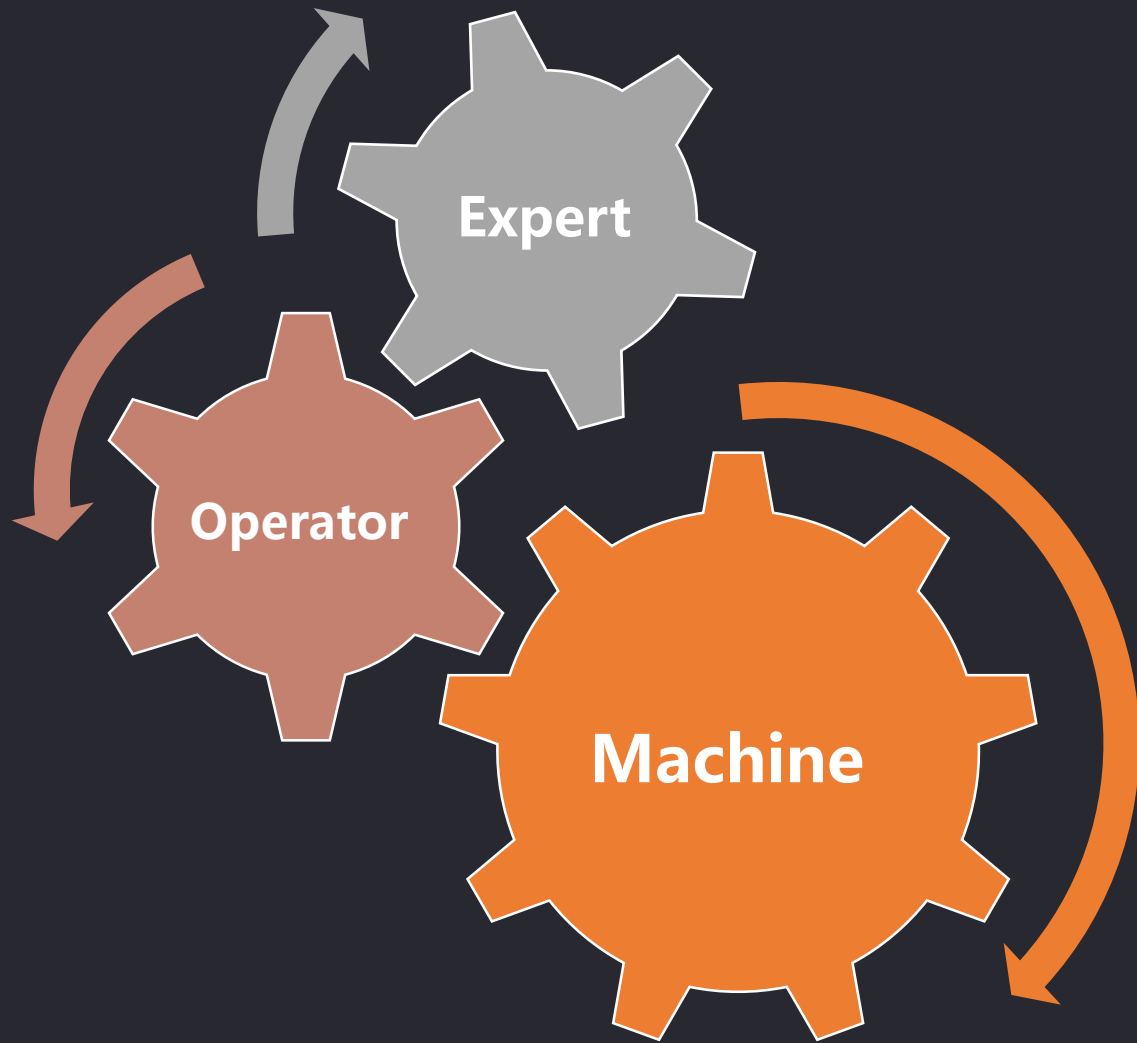


**Language
Models**

Diversity & Richness – 10+ industries, 100+ domains

3c产品 <ul style="list-style-type: none">3c产品(3c)手机(3c_mobile)电脑(3c_pc)相机(3c_camera)	运营商 <ul style="list-style-type: none">domain_test(domain_test)电信(yys_dx)移动(yys_yd)联通(yys_lt)运营商(yys)	教育培训 <ul style="list-style-type: none">义务教育(edu_compulsory)出国留学咨询(edu_studyabroad)大学教育(edu_university)幼儿园(edu_kindergarten)教育培训(edu)早教机构	电子政务 <ul style="list-style-type: none">交通局(gov_jiaotong)人社局(gov_renshe)国税局(gov_revenue)城管执法(gov_chengguan)工商局(gov_gongshang)电子政务(gov)财政局(gov_caizheng)
交通运输 <ul style="list-style-type: none">交通运输(traf)航空(traf_airplane)铁路(traf_train)汽车运输(traf_car)轨交(traf_metro)	服务业 <ul style="list-style-type: none">住宿(services_hotel)律所(services_lawyer)房地产(services_realestate)物业(services_estatemgr)快递(services_delivery)服务业(services)餐饮(services_catering)旅游(services_travel)	区政府 <ul style="list-style-type: none">体育局(distrgov_sports)区政府(distrgov)卫计委(distrgov_health)文广影管理局(distrgov_culture)旅游局(distrgov_tourism)科学技术委员会(distrgov_tech)	金融 <ul style="list-style-type: none"><input type="radio"/> 保险(finance_insu)<input type="radio"/> 基金(finance_fund)<input type="radio"/> 证券(finance_bond)<input type="radio"/> 金融(finance)<input type="radio"/> 银行(finance_bank)<input type="radio"/> 支付(finance_paynet)互联网金融(finance_invest)
娱乐	其他	家电	销售品类

Knowledge learning system



- 1 Define knowledge models & operation rules
- 2 Maintain contents & check machine mining results.
- 3 Mining of the semantic, entity & scene



A project improvement in a commercial bank in China



registered user



daily conversations



knowledge points



accuracy

Start Mar. 2013 :

5000

87%

By Nov. 2014 :

10 million

0.8 M

20000

96%

By Oct. 2015 :

15 million

1.2 M

28187

99%

Headcount without Xiaoi VCA

3339



Headcount with Xiaoi VCA

14



Not only VCA, but more Intelligent Applications

Intelligent Application



VCA



VA on IVR



Smart Knowledge System for agents



Smart Robots & Devices



Enterprise Application

Knowledge Engine

Semantic Understanding

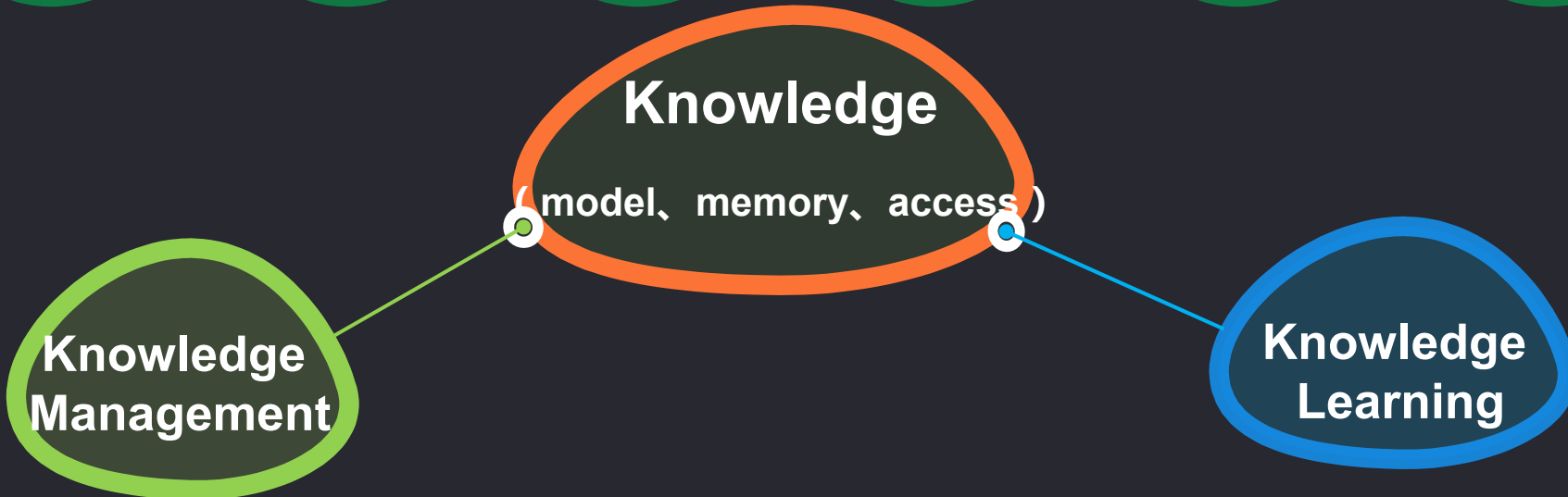
intelligent Voice

Smart Search

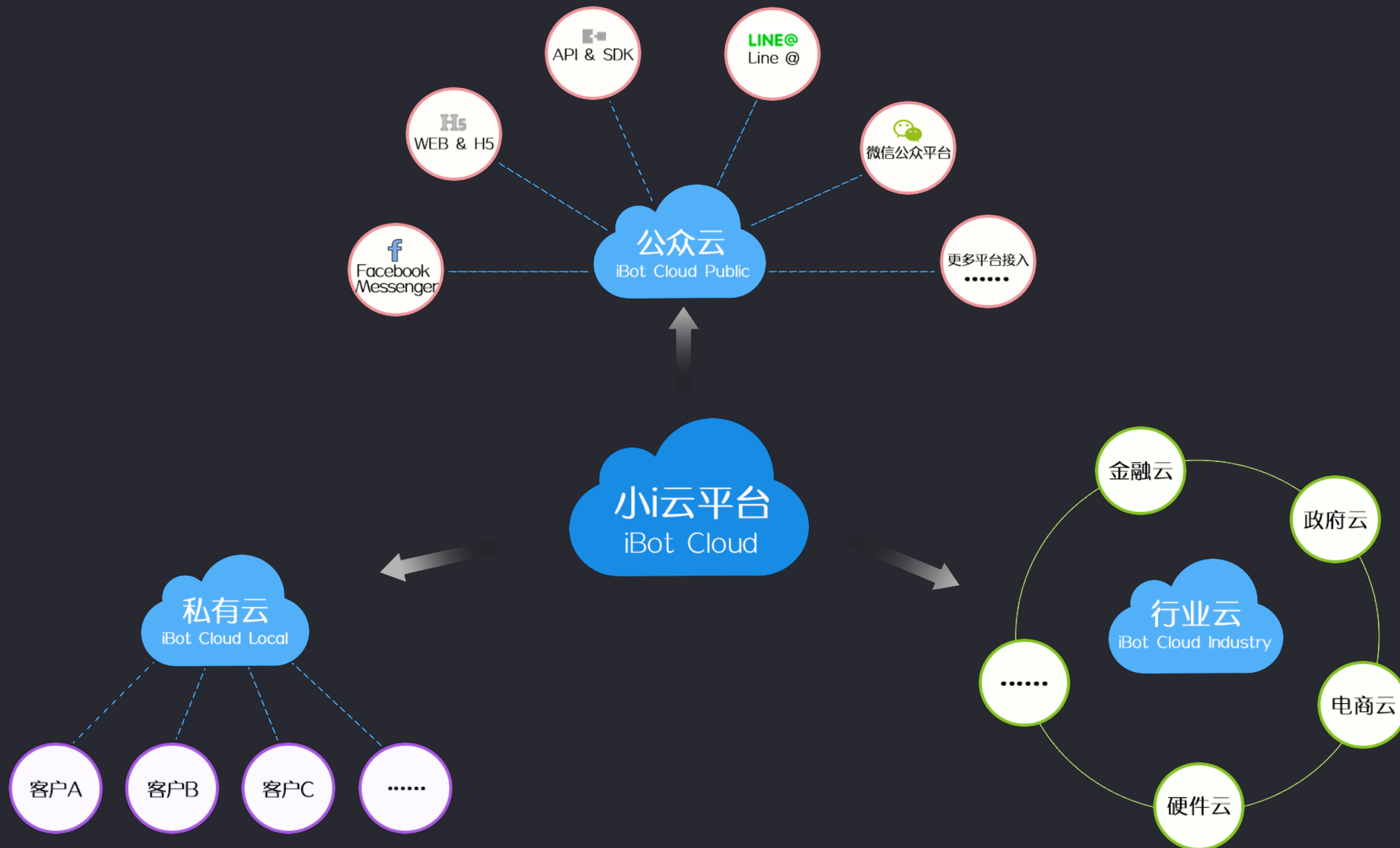
Big Data

Prediction

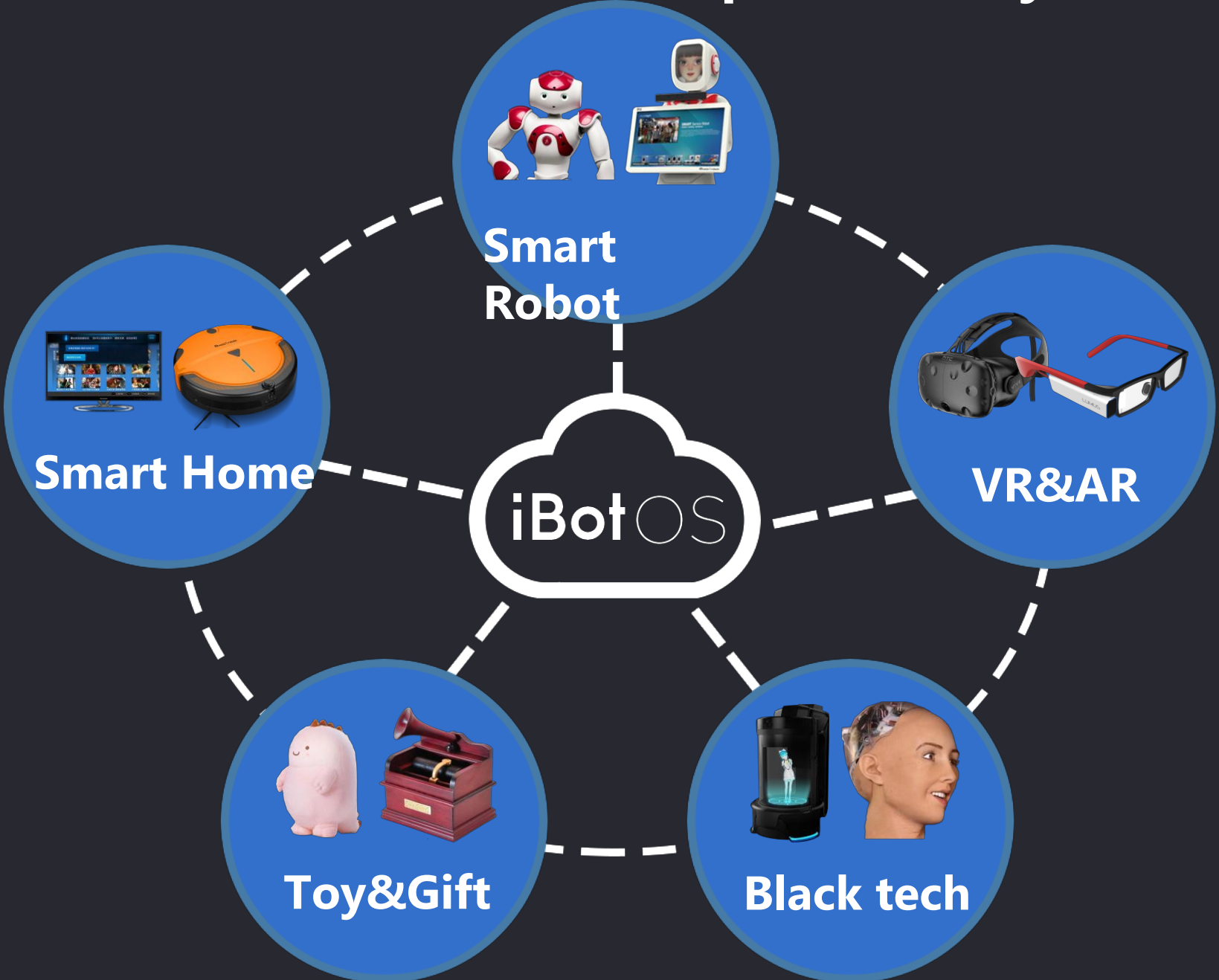
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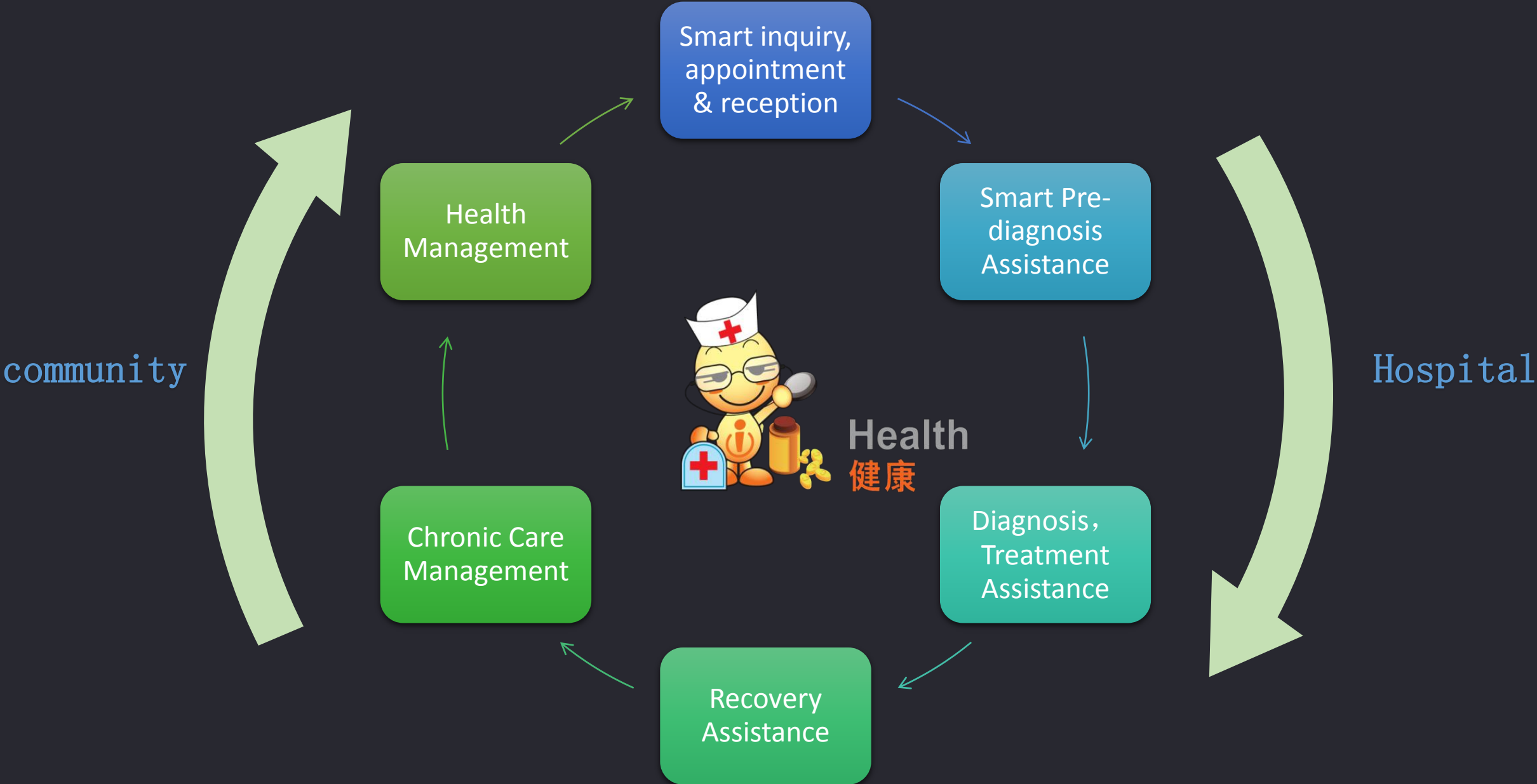
Open to developers , our Paas Platform



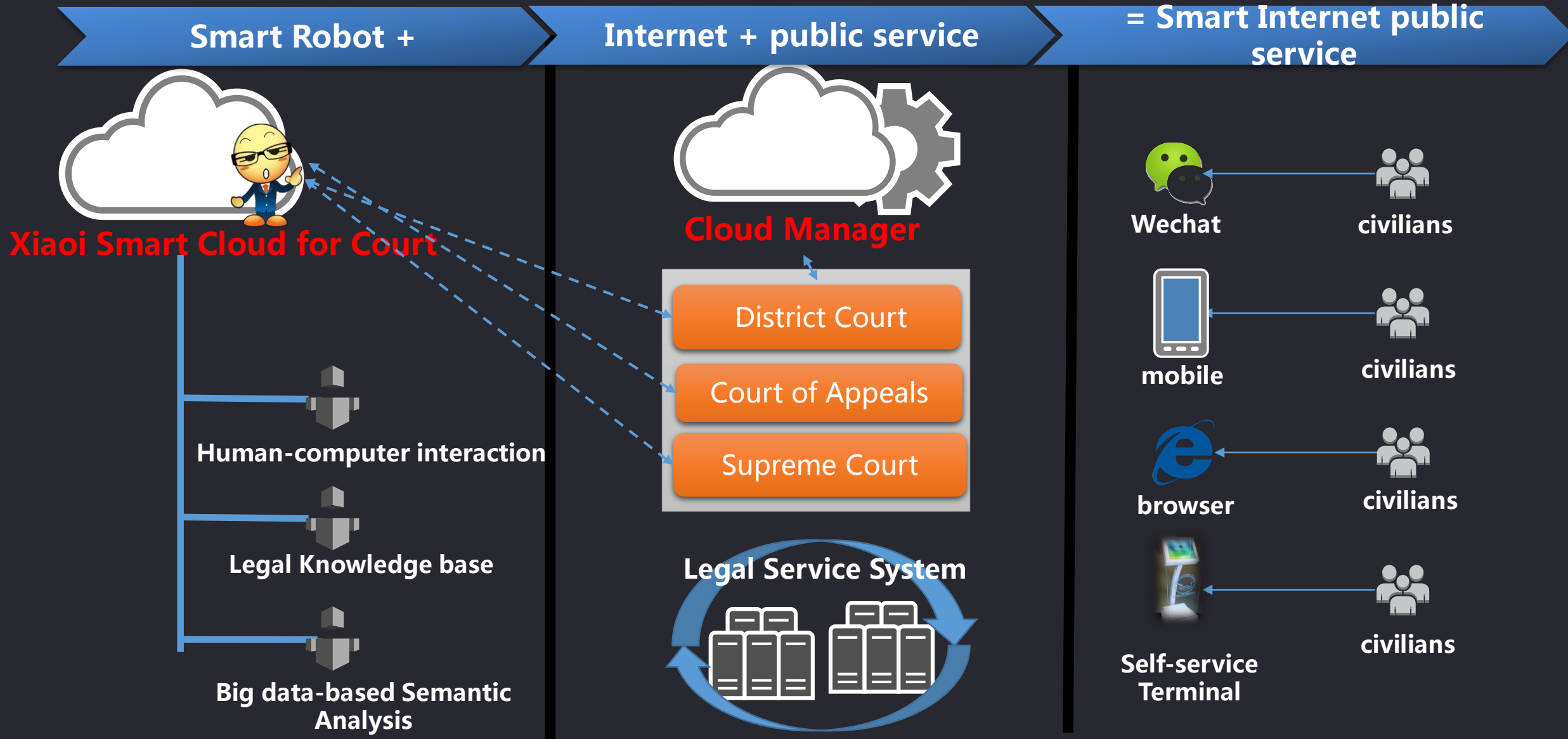
No only software, Smart Hardware powered by iBot OS



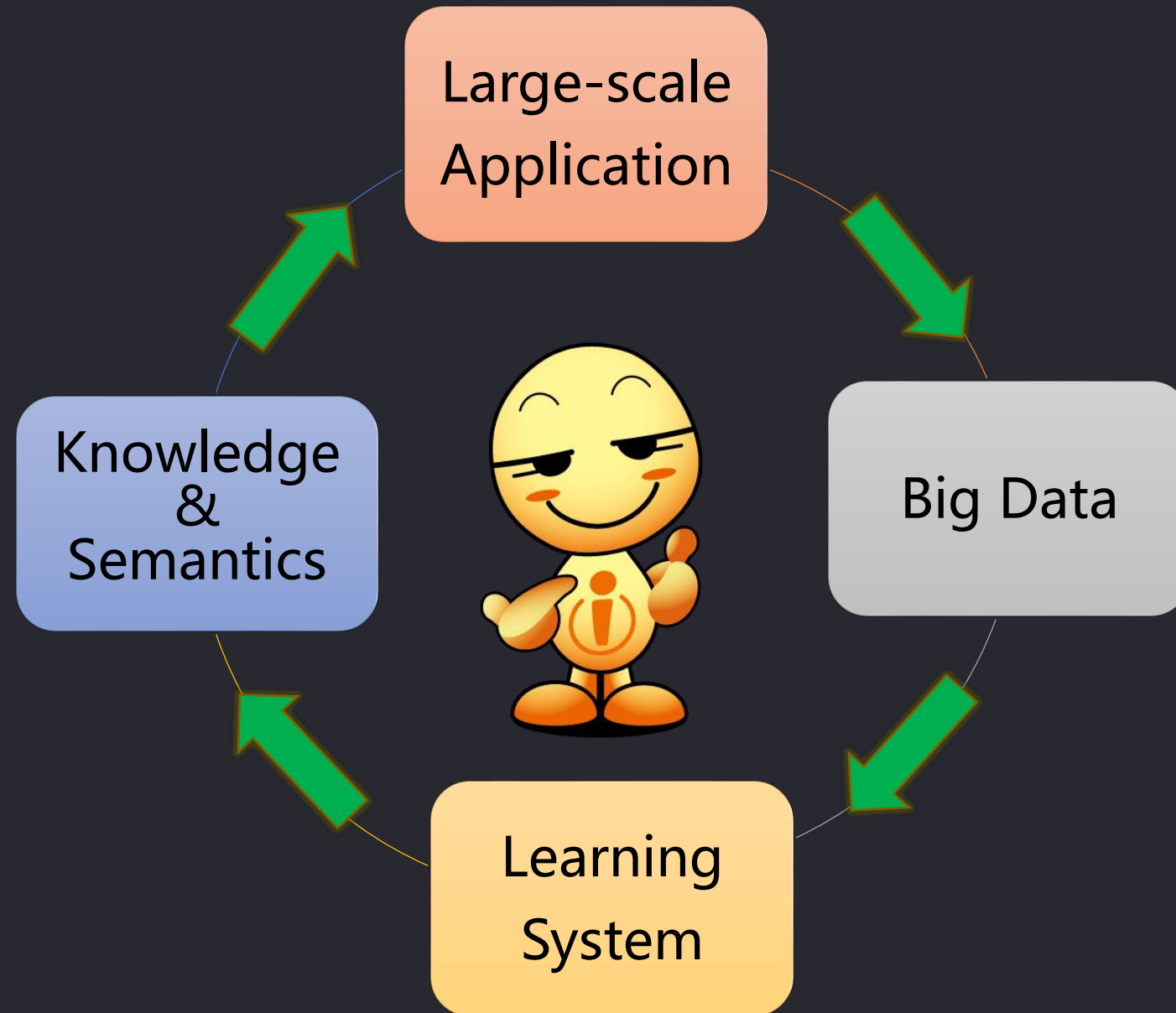
Look Ahead – New industry, Healthcare



Look Ahead – New industry, Legal



Xiaoi' s core competence accelerates in a positive cycle





Thanks !

**We are seeking partners in
technology & marketing.**