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互联网教育智能技术及应用
国家工程实验室

10篇教育技术顶刊论文看 人工智能与教育



北京師範大學
BEIJING NORMAL UNIVERSITY



清華大學
Tsinghua University



中国移动
China Mobile



网龙华渔教育



科大讯飞
iFLYTEK



认知中国

描绘中国人工智能发展蓝图

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Anthony Marshall

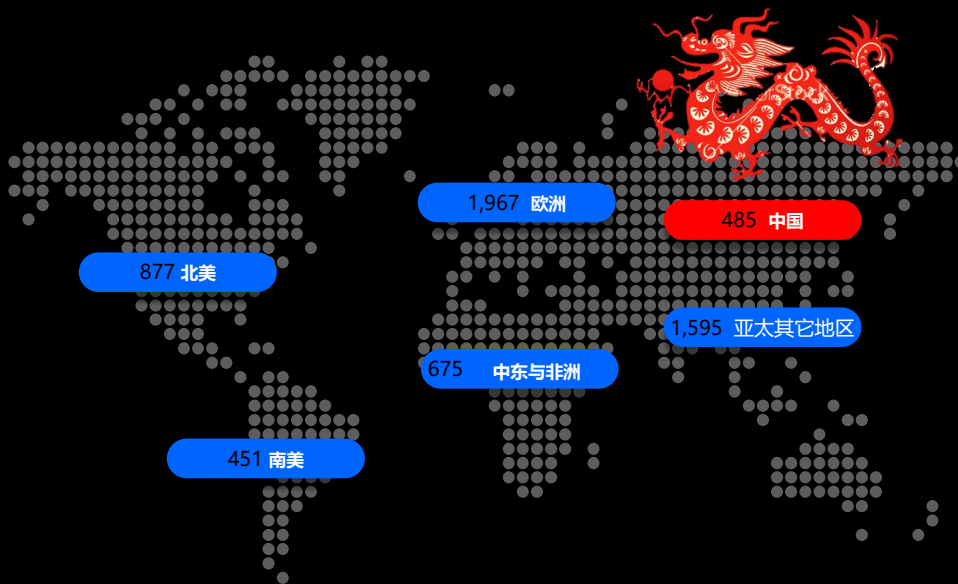
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本次调研覆盖全球 40 多个国家或地区，6,000 多位受访者，其中 8% 来自于中国





认知中国

描绘中国人工智能发展蓝图

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这份关于《认知中国》
的报告即出自此次
调研结果

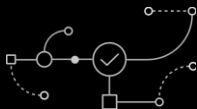
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认知计算



理解

认知系统可以像人类一样理解非结构化信息



推理

认知系统能够进行推理，形成假设，推断并提取想法



学习

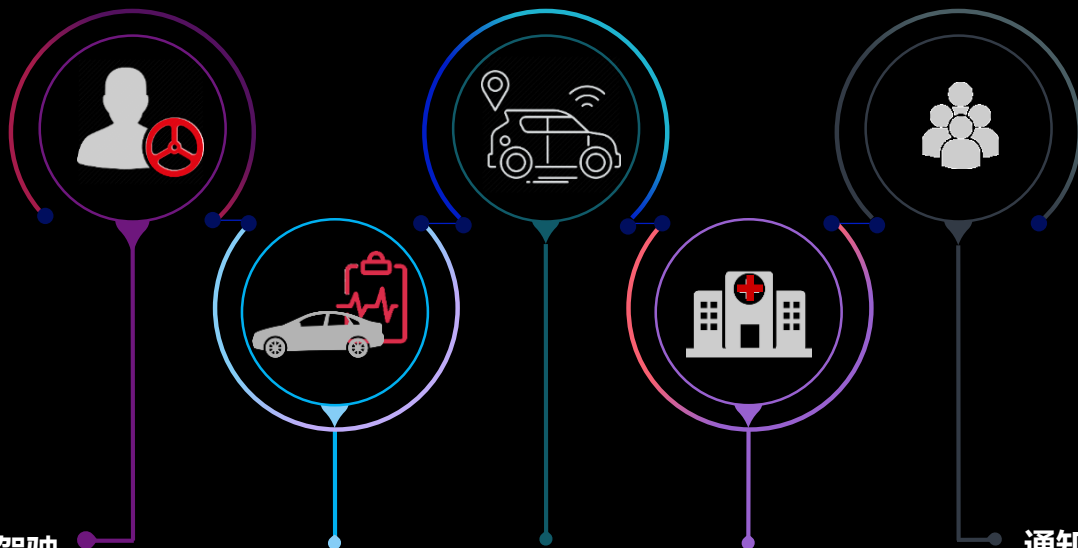
认知系统可以从过去的结果中学习



互动

认知系统能够与人类自然地进行互动

汽车可以监测驾驶者的健康情况，识别紧急情况，与医疗机构进行沟通，并自动驾驶到医疗机构



汽车监视驾驶者的健康状况

识别紧急情况

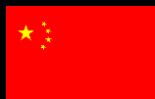
和医疗机构联系

引起医疗机构注意

通知相关人员

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人工智能



人工智能战略计划创造100亿元的行业规模

国家人工智能研究及发展战略
计划提升人工智能知识及技术

人工智能领域共35,000多项专利

人工智能领域共35,000多项专利

人工智能公司接受了几十亿资金

人工智能公司接受了几十亿资金

人工智能初创企业共筹措了大约100亿美元资

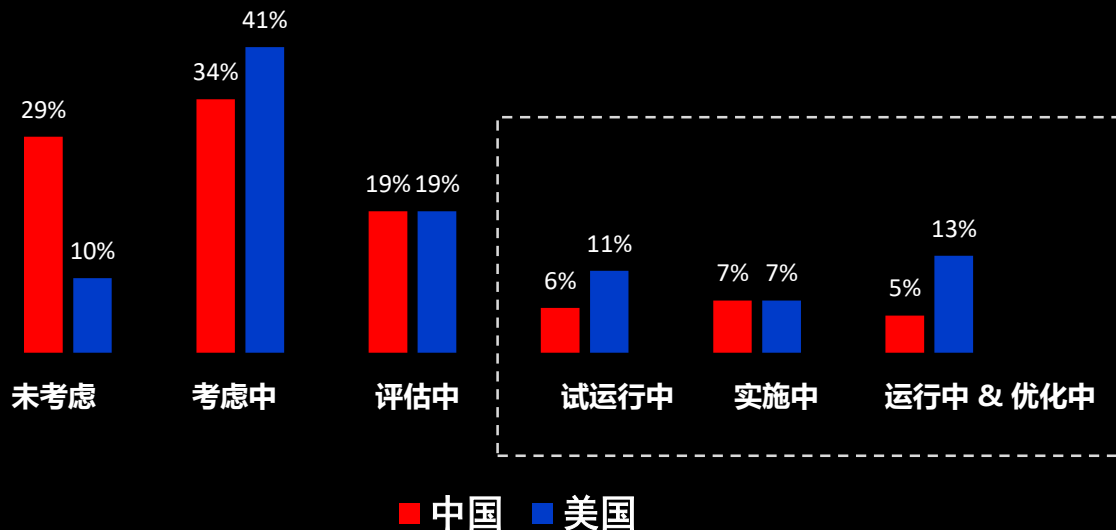
金
人工智能初创企业共筹措了大约100
亿美元资金



量子计算



采用人工智能的阶段 – 2018



推动中国人工智能发展的关键价值因素– 2016 and 2018

2016

客户保留率提高

57%

客户满意度

55%

加快上市速度带来的收入增长

48%

赢得更大订单带来的收入增长

40%

客户获取成本降低

40%

2018

客户满意度

71%

客户保留率提高

59%

客户获取成本降低

53%

其他运营成本降低

46%

赢得更大订单带来的收入增长

42%

阻碍中国人工智能实施的因素– 2016 and 2018

2016

2018

技术的可获取度

53%

监管因素

60%

与外部合作伙伴共享的
数据监管及政策

49%

熟练掌握技术专长的员工
的可获取度

57%

熟练掌握技术专长的员工
的可获取度

47%

数据和信息使用的法律
/安全顾虑因素

56%

数据和信息使用的法律
/安全/隐私顾虑因素

47%

决策所需要的数据量和
可获取度

47%

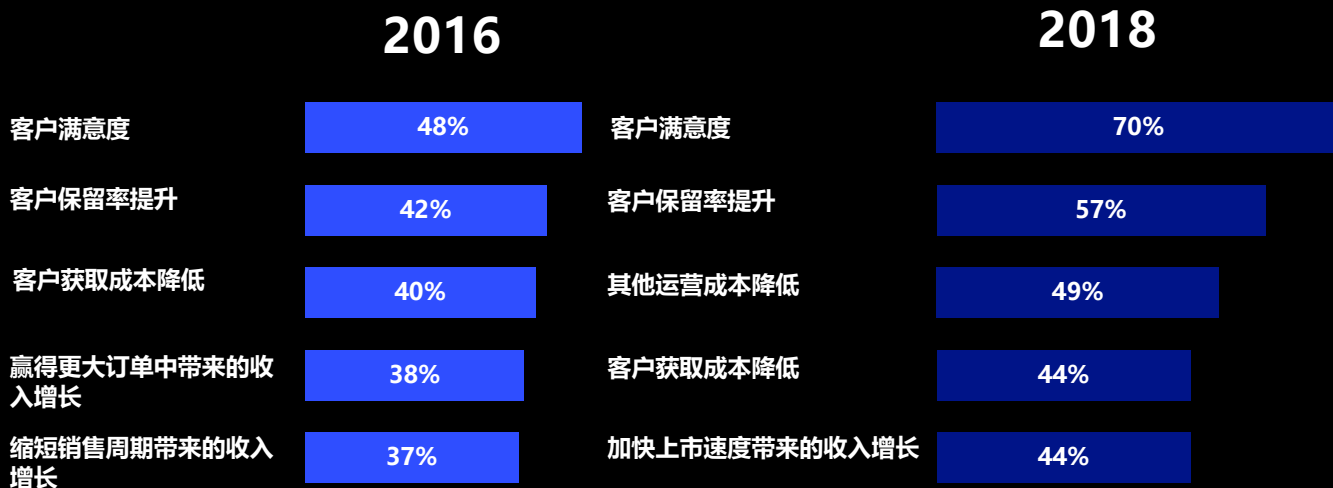
组织的接受度和文化契合度

42%

组织的接受度和文化契合度

46%

推动美国人工智能发展的关键价值因素– 2016 and 2018



阻碍美国人工智能实施的因素– 2016 and 2018

2016

2018

熟练掌握技术专长的员工的可获取度

47%

监管因素

62%

技术的可获取度

44%

数据和信息使用的法律/
安全/隐私顾虑因素

56%

组织的接受度和文化契合度

38%

熟练掌握技术专长的员工的可获取度

47%

与外部合作伙伴共享的数据监管及政策

37%

与外部合作伙伴共享的数据监管及政策

42%

数据和信息使用的法律/
安全/隐私顾虑因素

36%

组织的接受度和文化契合度

38%

优先采用人工智能的5大行业

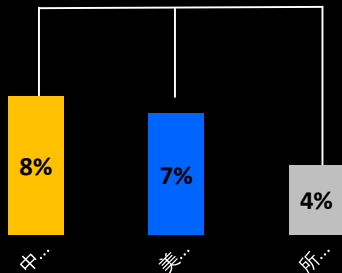


1. 银行及金融市场
2. 旅游行业
3. 生命科学及医药行业
4. 教育行业
5. 汽车行业



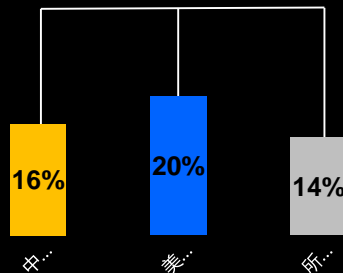
1. IT及专业服务
2. 能源行业
3. 消费品行业
4. 工业产品行业
5. 银行及金融市场

投入更多



对认知技术的IT投入

期望认知项目产生的回报



期望认知项目产生的回报

优先采用人工智能的职能部门

 **1** 产品研发部门

 **2** 生产制造部门

 **3** 风险部门

 **4** 财务部门

 **5** 信息安全部门

 **6** 创新部门

 **1** 创新部门

 **2** IT部门

 **3** 采购部门

 **4** 销售部门

 **5** 信息安全部门

 **6** 客户服务部门

01



中国和美国正在引领全球的人工智能和量子计算

02



中国和美国都将人工智能视为业务发展的推动力量

03



全球对于人工智能的关注点从技术转移到人才上

04



中国和美国在采用人工智能的企业优先级上存在不同

Thank You

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Cognitive China

Creating a blueprint for an AI-enabled China



IBM Institute for Business Value

Anthony Marshall

Research Director

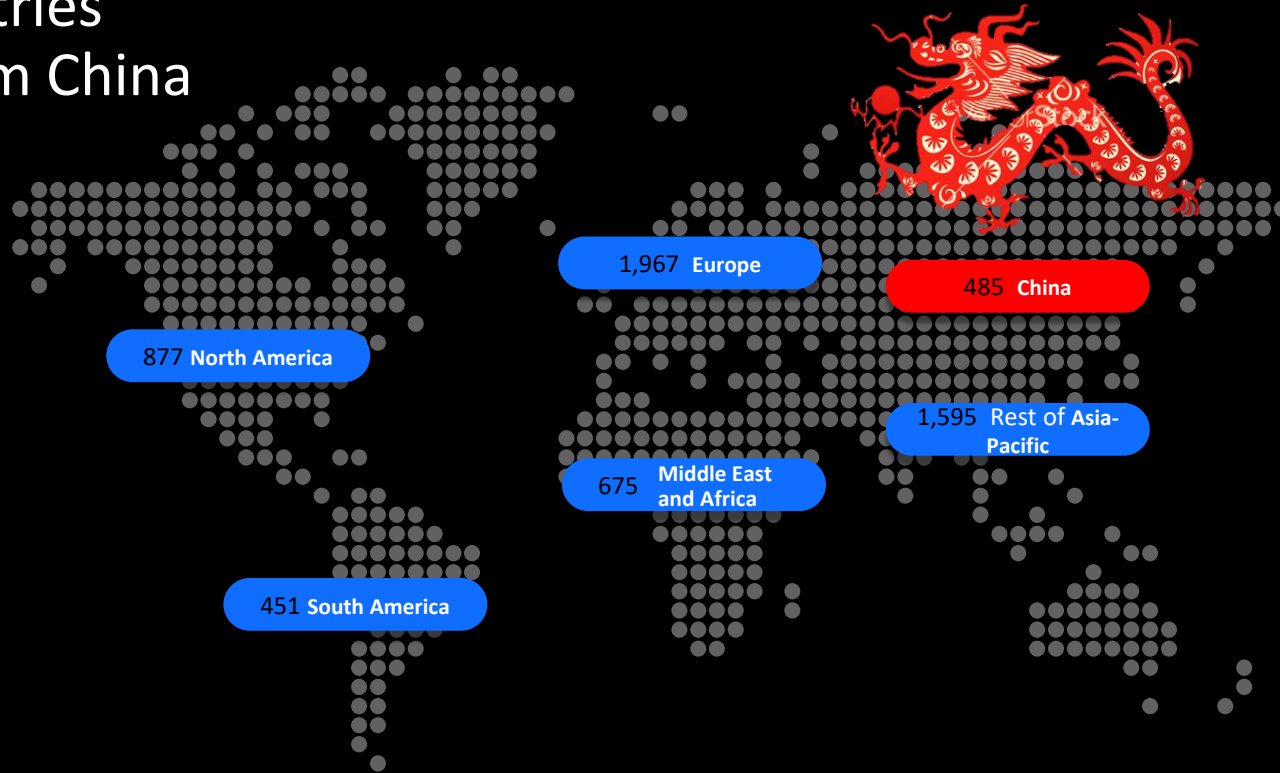
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6,000+ executives surveyed
40 countries
~8% from China



Cognitive China
resulted from this
analysis



认知中国

描绘中国人工智能发展蓝图

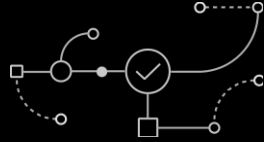
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Cognitive Computing



Understands
Like humans do



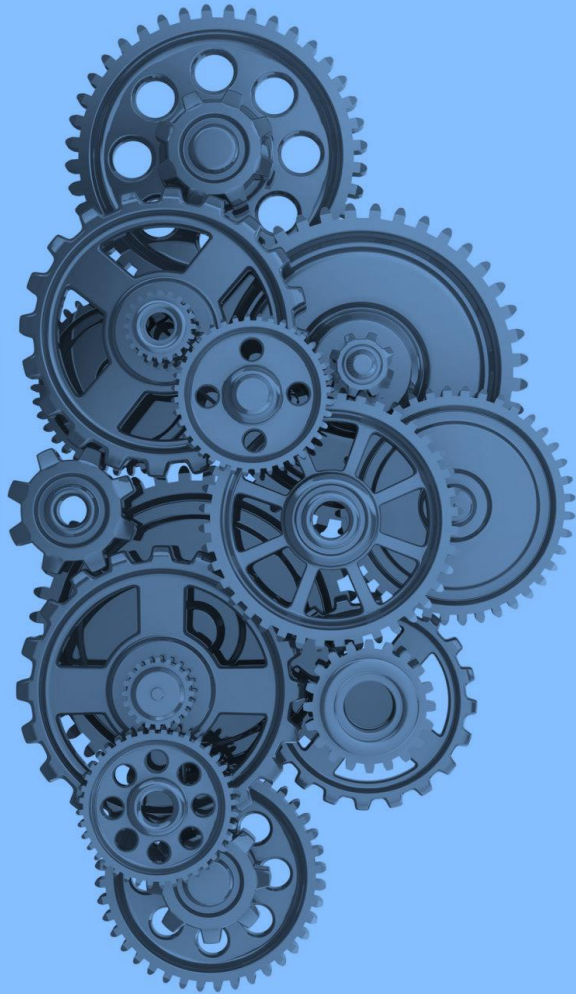
Reasons
To extract ideas



Learns
From past results



Interacts
In a natural way



Artificial intelligence



Natural language processing



Machine learning systems



Deep learning



Robotics

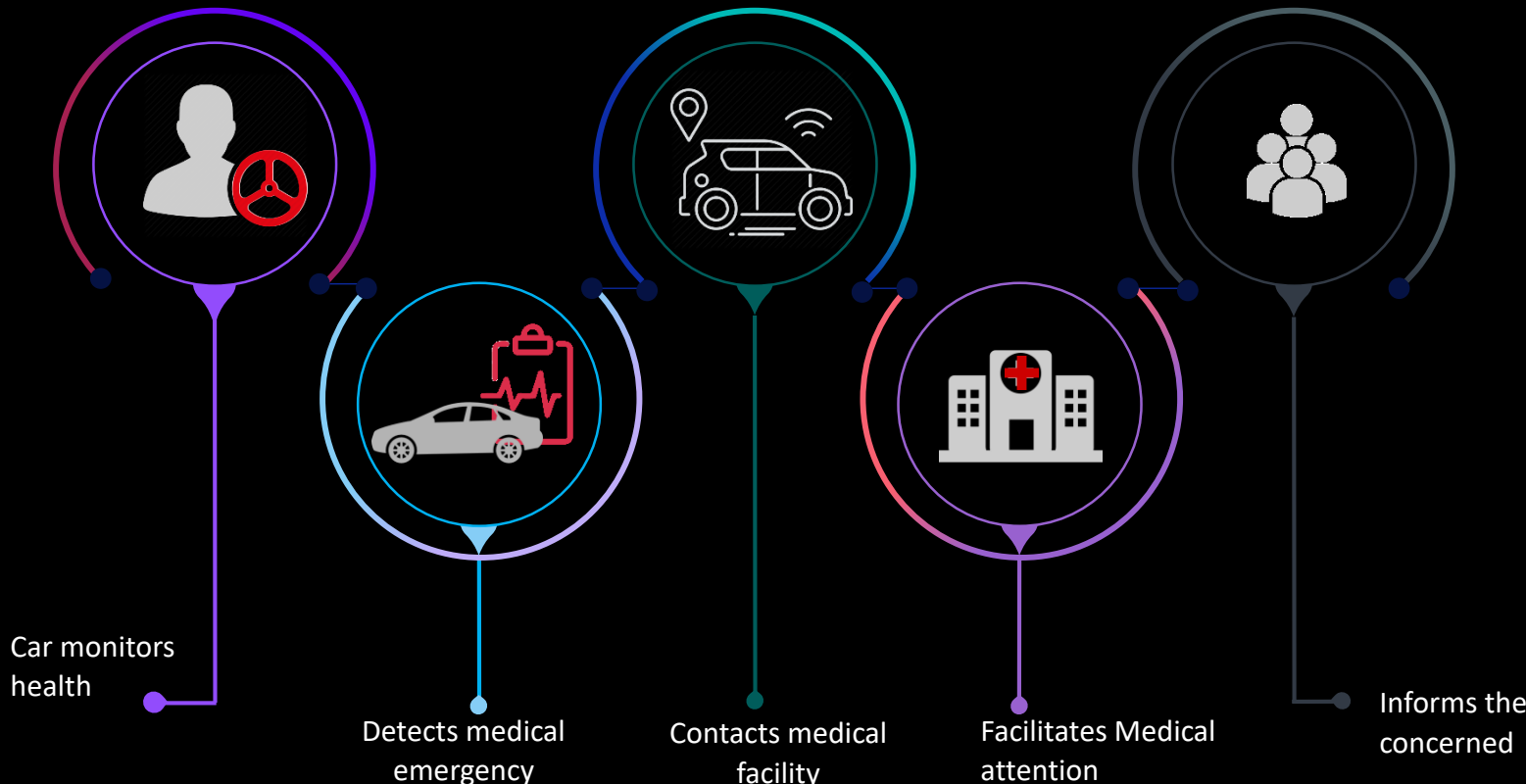


Recommendation engines

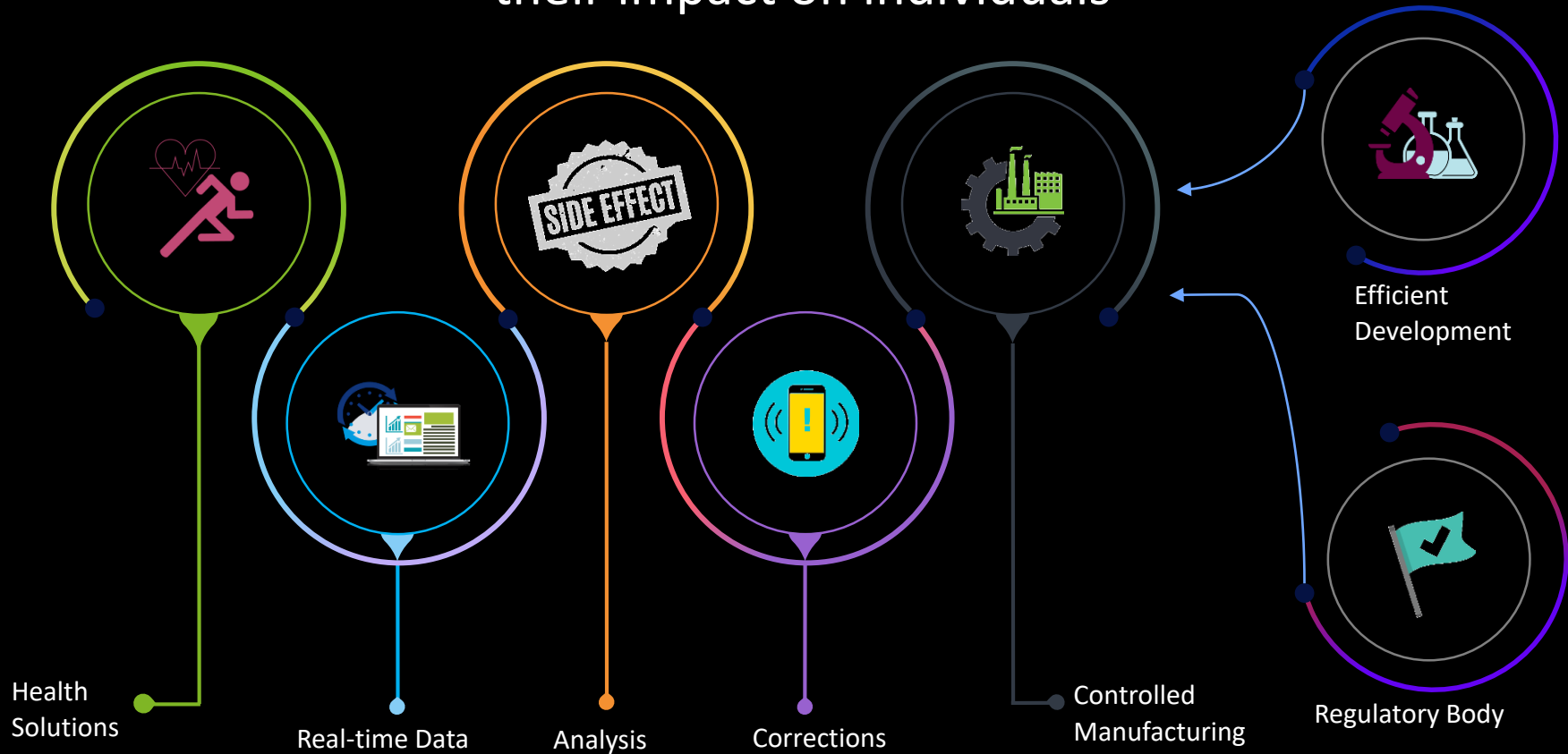


Predictive analytics

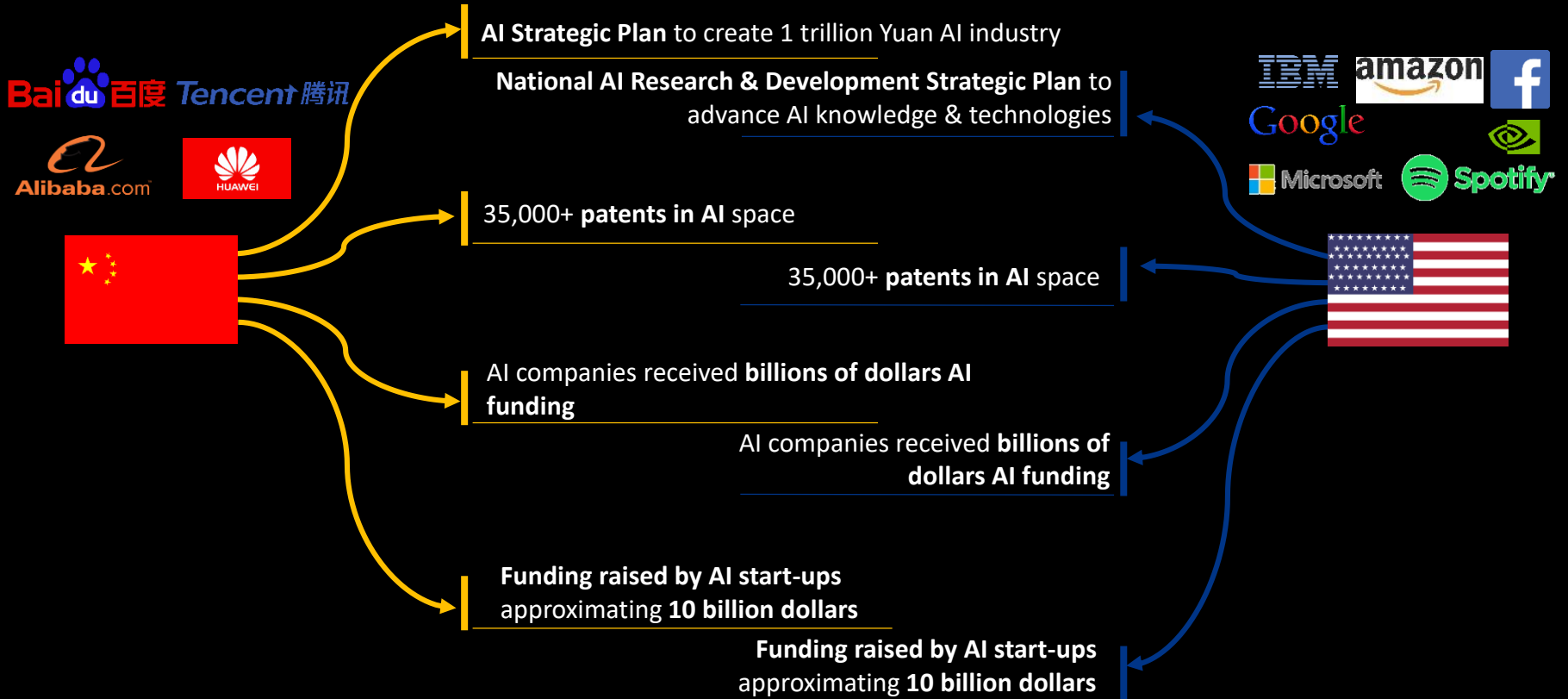
Cars could monitor a driver's health, identify emergencies, communicate and self-drive to a medical facility



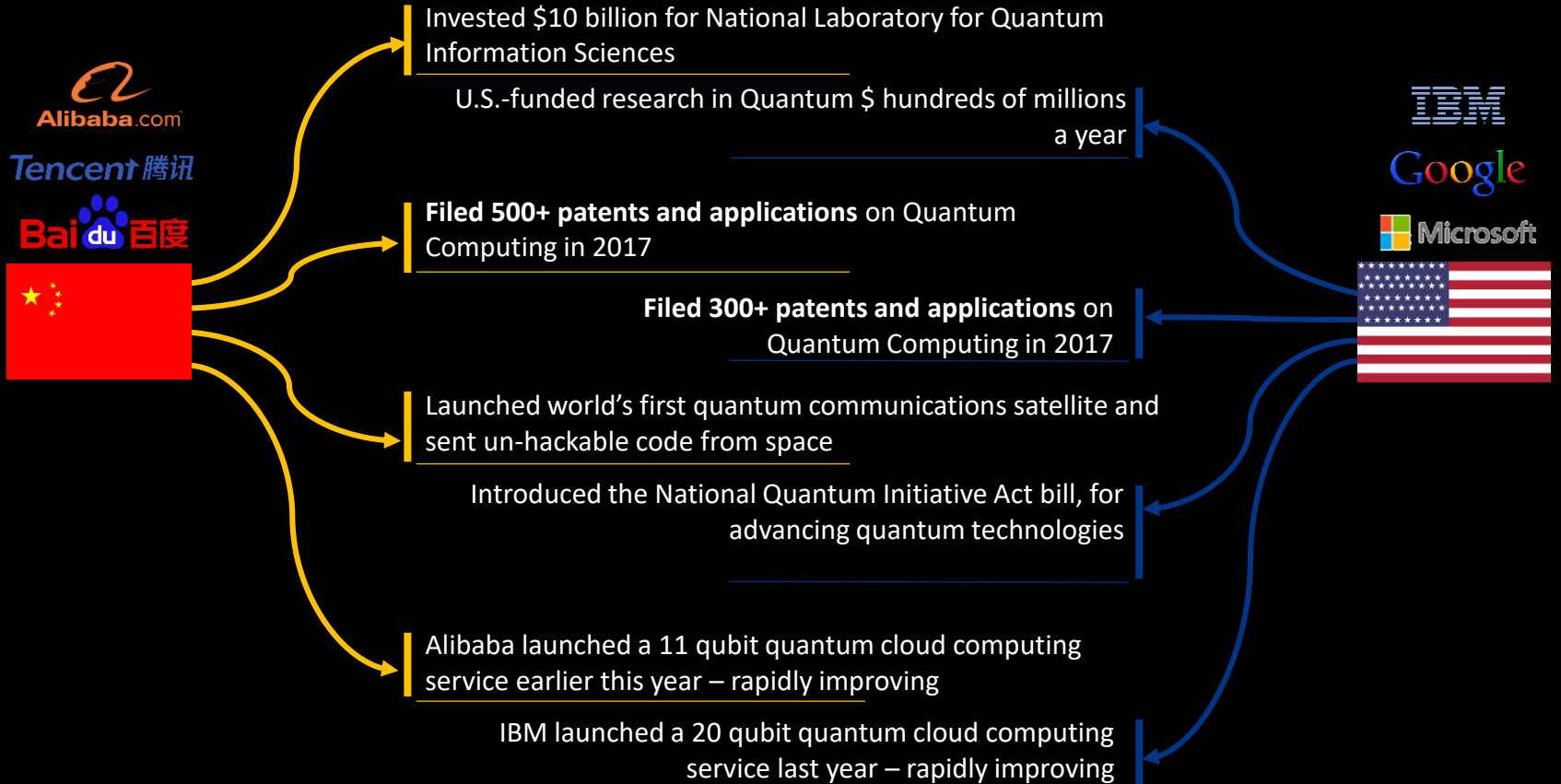
AI could enable customization of drugs, providing continuous feedback of their impact on individuals



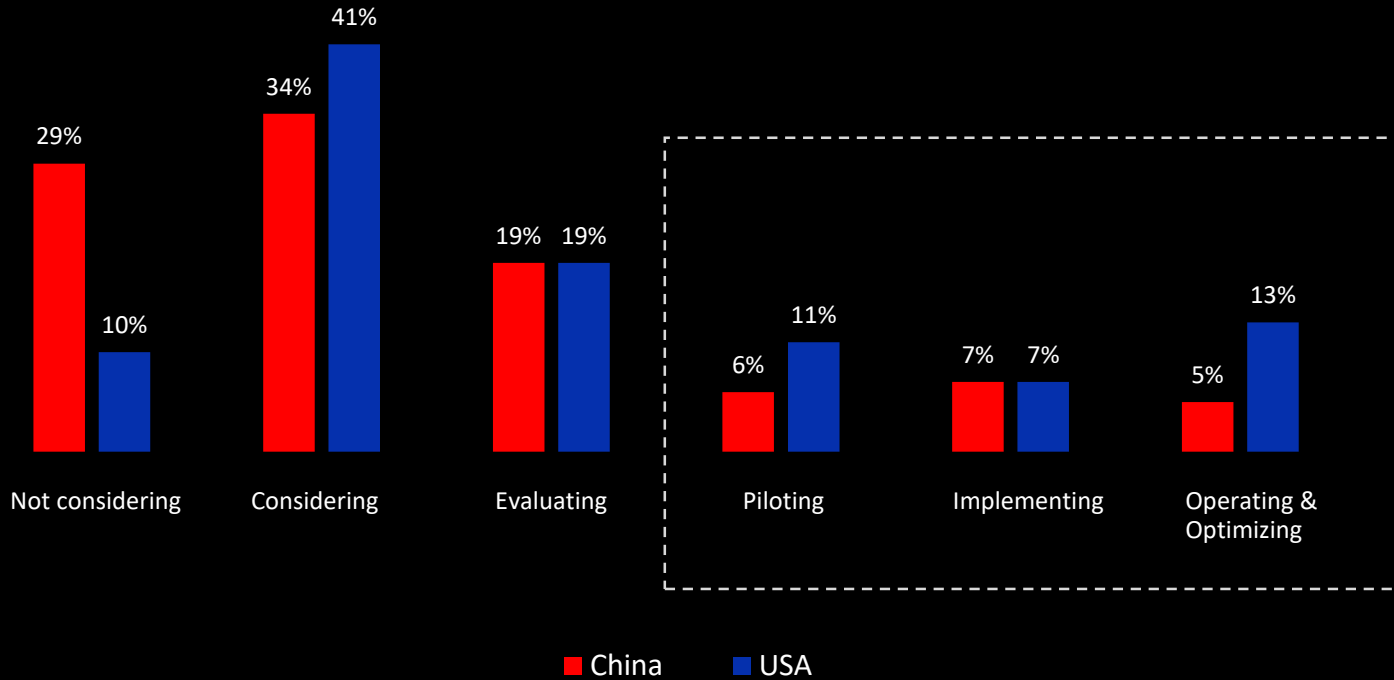
Artificial intelligence



Quantum computing



Stages of AI adoption – 2018



Value drivers of AI – China – 2016 and 2018

2016

2018

Customer retention improvement

57%

Customer satisfaction

71%

Customer satisfaction

55%

Customer retention improvement

59%

Revenue growth from speed to market

48%

Customer acquisition cost reduction

53%

Revenue growth from large orders

40%

Other operational cost reduction

46%

Customer acquisition cost reduction

40%

Revenue growth from large orders

42%

Barriers to implementing AI – China – 2016 and 2018

2016

Availability of technology

53%

Data governance and policies for sharing with external partners

49%

Availability of skilled resources or technical expertise

47%

Legal/security/privacy concerns about use of data and information

47%

Degree of organization buy-in/cultural fit

42%

2018

Regulatory concerns

60%

Availability of skilled resources or technical expertise

57%

Legal/security concerns about use of data and information

56%

Amount/availability of data to apply and draw context for decision making

47%

Degree of organizational buy-in/cultural fit

46%

Value drivers of AI – USA – 2016 and 2018

2016

2018

Customer satisfaction

48%

Customer satisfaction

70%

Customer retention improvement

42%

Customer retention improvement

57%

Customer acquisition cost reduction

40%

Other operational cost reduction

49%

Revenue growth from large orders

38%

Customer acquisition cost reduction

44%

Revenue growth from shorter sales cycle

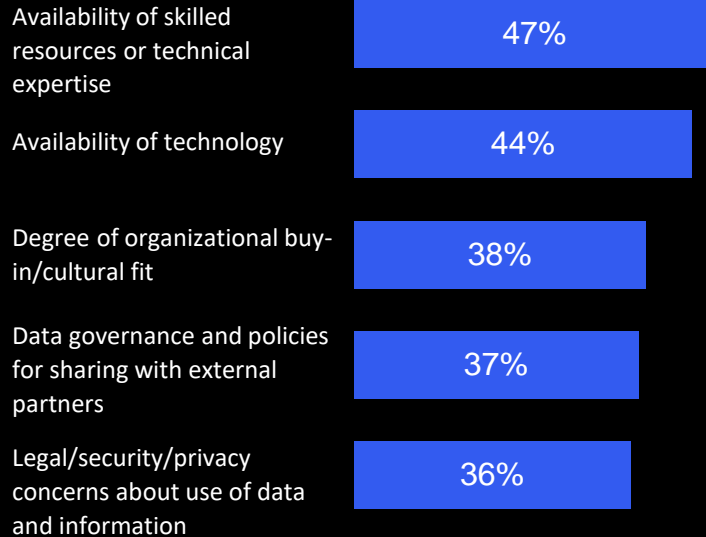
37%

Revenue growth from speed to market

44%

Barriers to implementing AI – USA – 2016 and 2018

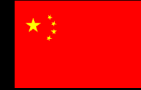
2016



2018



Top 5 industries for AI

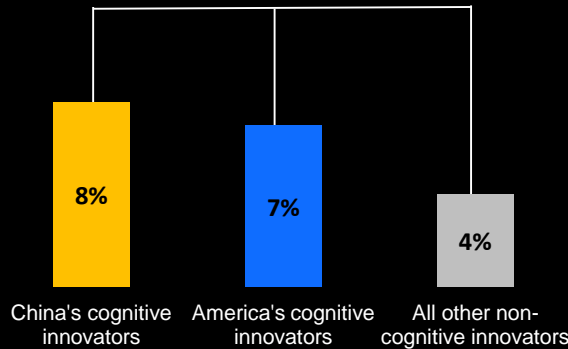


1. Banking and Financial Markets
2. Travel
3. Life sciences and Pharma
4. Education
5. Automotive



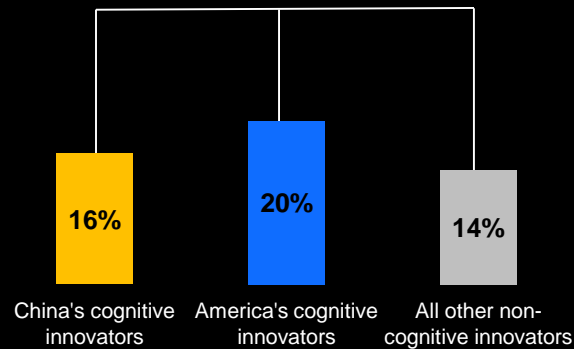
1. IT and Professional Services
2. Energy and Utilities
3. Consumer Products
4. Industrial Products
5. Banking and Financial Markets

Investing more



Percentage of IT spend on cognitive

Expected returns to justify cognitive



ROI expected to justify cognitive initiatives

Top priorities for AI by function

-  **1** Product development
-  **2** Manufacturing
-  **3** Risk
-  **4** Finance
-  **5** Information security
-  **6** Innovation

-  **1** Innovation
-  **2** Information technology
-  **3** Procurement
-  **4** Sales
-  **5** Information security
-  **6** Customer service

01



China and America are leading the world in AI and Quantum computing

02



China and America both view AI as a growth play

03



Global shift of concern about AI technology to AI talent

04



Cognitive innovators recognize need to change employee roles and skills

05



China and America have different enterprise priorities for AI

Thank You

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