

The State of AI Investment - 2019

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Topics

- Speaker background
- Global Landscape for AI
- AI Value Chain
- VC funding history and trend
- What is driving investment in AI?
- Are we in a bubble?
- Final thoughts

Speaker Background



- 35 yrs corporate executive at DEC and SGI (both acquired by HP), NEC, and Inventec
- Venture Partner of Skychee Ventures
- Founding Partner of Lab360 Incubator (acquired by Heuristic Capital)
- Mentor



PLUGANDPLAY

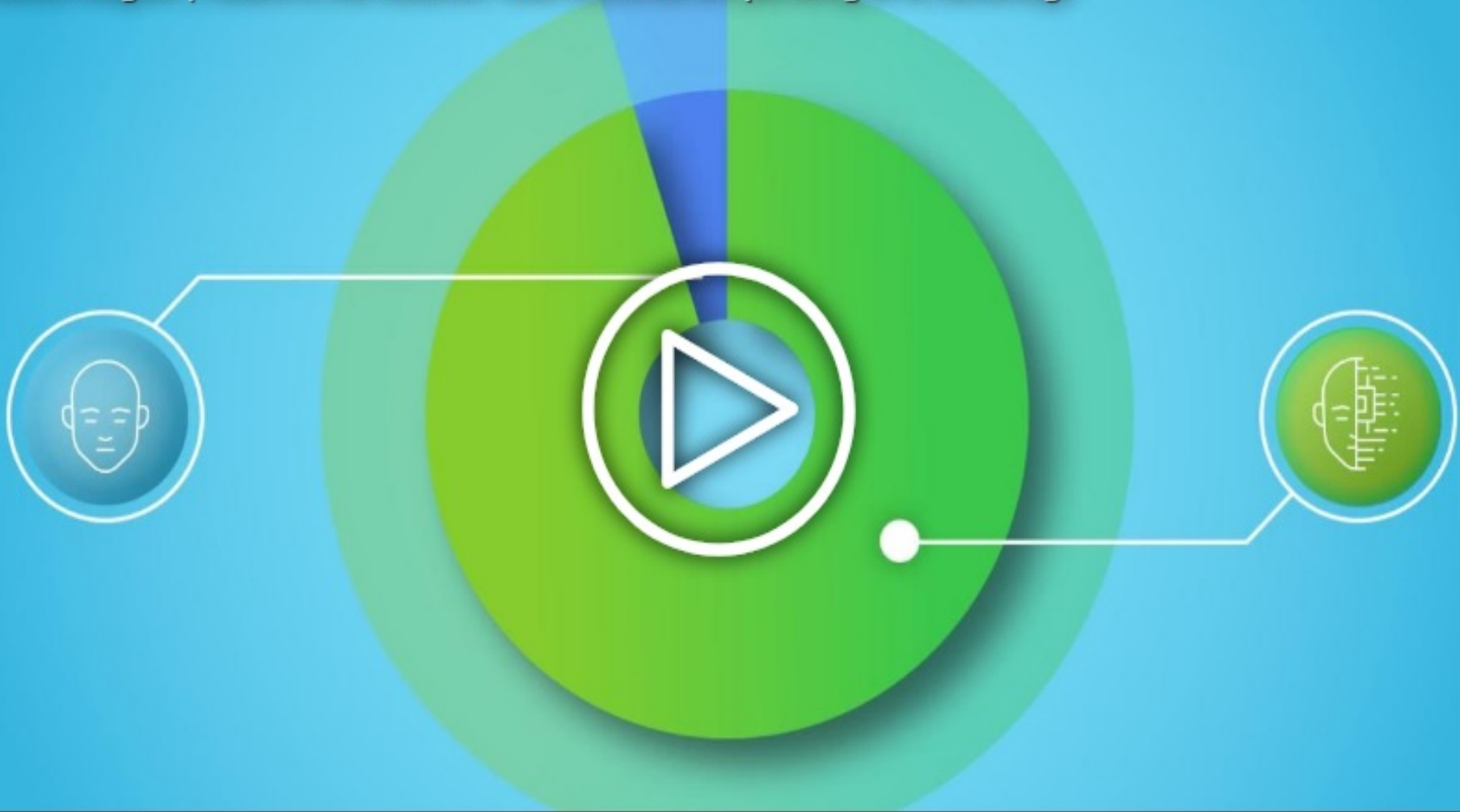


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WOMEN'S
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AI Value Chain

By Best Practice AI Ltd

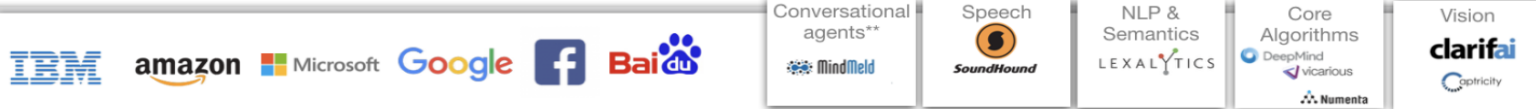
1 Chips & hardware



2 Platform & infrastructure



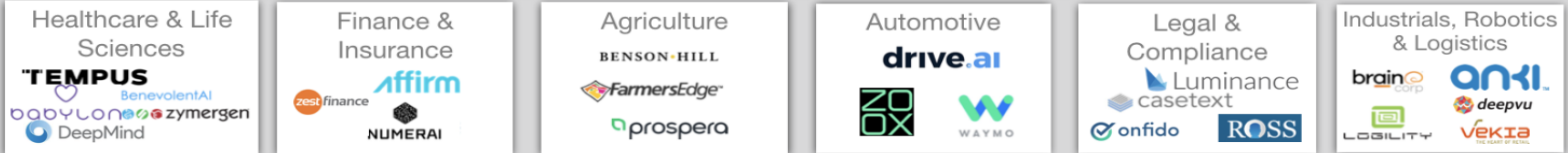
3 Frameworks & algorithms



4 Enterprise Solutions



5 Vertical Industry solutions



6 Corporates



7 Nations



Historical VC Investment since 1990's

Dot-Com



Amount Invested

Round	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
	2009 Total	2010 Total	2011 Total	2012 Total	2013 Total	2014 Total	2015 Total	2016 Total	2017 Total	2018 Total	Qtr 1	Qtr 2	2019 Total
Series A	\$3,876	\$3,875	\$6,000	\$5,654	\$6,934	\$8,636	\$10,436	\$11,022	\$11,547	\$16,402	\$3,808	\$3,839	\$7,647
Series B	\$4,690	\$5,986	\$6,944	\$5,487	\$7,146	\$11,243	\$13,902	\$10,760	\$14,622	\$17,896	\$5,441	\$5,465	\$10,906
Series C	\$4,099	\$5,147	\$6,151	\$6,107	\$6,112	\$9,938	\$10,370	\$10,407	\$11,302	\$15,708	\$2,945	\$4,068	\$7,013
Series D	\$2,990	\$3,803	\$5,094	\$5,544	\$4,247	\$8,498	\$8,057	\$5,400	\$8,277	\$13,186	\$3,274	\$4,045	\$7,319
Series E+	\$3,030	\$2,057	\$6,361	\$3,893	\$5,397	\$10,554	\$20,728	\$13,086	\$15,638	\$18,507	\$6,458	\$6,281	\$12,739
Growth Equity	\$681	\$1,210	\$1,915	\$1,463	\$1,024	\$2,609	\$3,437	\$1,421	\$2,440	\$1,490	\$904	\$221	\$1,125
Seed / Angel	\$390	\$537	\$893	\$1,277	\$1,672	\$2,345	\$2,586	\$2,693	\$3,158	\$3,517	\$961	\$642	\$1,603
Private Equity	\$204	\$552	\$809	\$1,425	\$1,438	\$2,881	\$2,439	\$2,778	\$2,697	\$3,714	\$428	\$192	\$620
Convertible Note	\$19	\$80	\$155	\$316	\$315	\$352	\$2,259	\$548	\$824	\$1,758	\$151	\$59	\$210
Other	\$1,845	\$2,953	\$2,140	\$1,982	\$2,361	\$3,875	\$4,047	\$5,116	\$6,337	\$24,002	\$1,818	\$3,935	\$5,753
Grand Total	\$21,824	\$26,200	\$36,462	\$33,148	\$36,646	\$60,931	\$78,261	\$63,231	\$76,842	\$116,180	\$26,188	\$28,747	\$54,935

Number of Deals

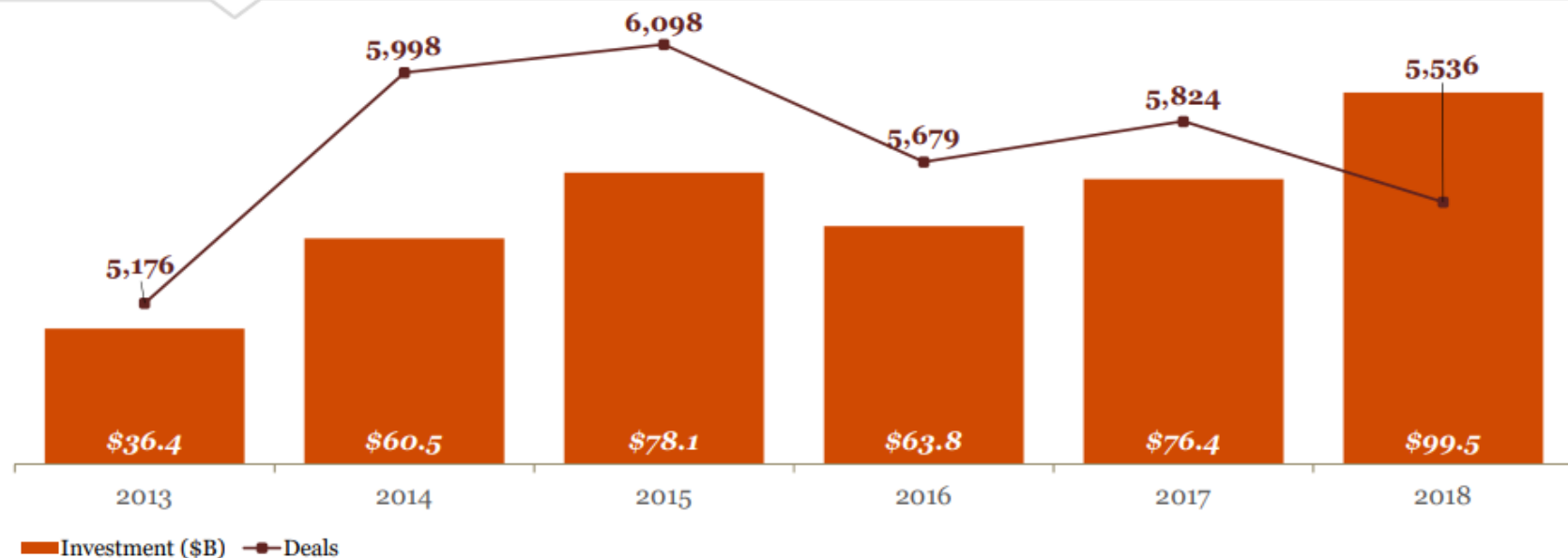
Round	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
	2009 Total	2010 Total	2011 Total	2012 Total	2013 Total	2014 Total	2015 Total	2016 Total	2017 Total	2018 Total	Qtr 1	Qtr 2	2019 Total
Series A	680	737	972	957	1,127	1,233	1,268	1,183	1,251	1,266	326	330	656
Series B	530	568	630	608	687	744	751	636	711	842	181	229	410
Series C	347	400	407	407	389	437	405	365	395	441	108	113	221
Series D	190	223	257	256	219	235	218	169	168	241	62	57	119
Series E+	131	129	172	188	196	225	223	154	193	196	50	60	110
Growth Equity	39	63	65	55	60	107	99	67	82	76	19	16	35
Seed / Angel	478	775	1,200	1,710	1,890	2,204	2,218	2,060	2,023	1,744	359	325	684
Private Equity	11	21	36	46	59	86	50	63	85	78	16	14	30
Convertible Note	22	43	79	201	198	238	276	290	257	269	39	39	78
Other	317	464	445	307	420	602	760	914	977	965	202	226	428
Grand Total	2,745	3,423	4,263	4,735	5,245	6,111	6,268	5,901	6,142	6,118	1,362	1,409	2,771

Annual US financing trend



US annual funding hits \$99.5B amid falling deal activity

- Total annual funding in the US increased by 30% in 2018, as \$99.5B was invested across 5,536 deals.
- US deal activity fell to its lowest level since 2013, though later-stage mega-deals pushed annual funding to its highest level since 2000.

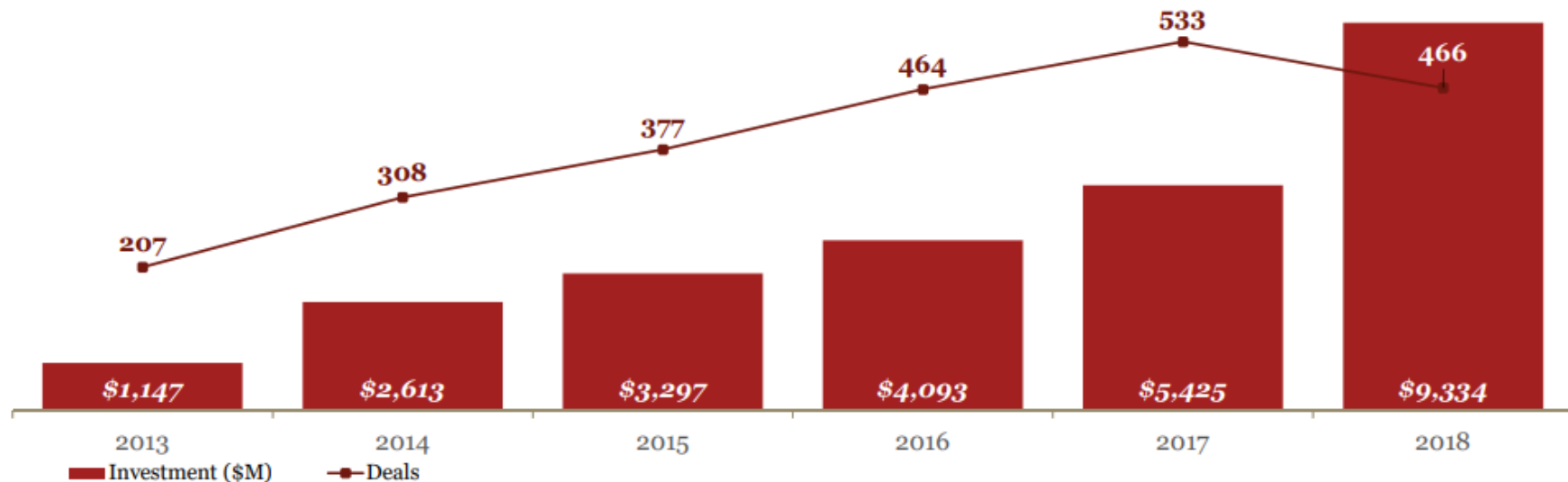


AI: US annual funding



AI-related funding jumps sharply after increasing every year since 2013

- AI-related companies raised \$9.3B in 2018, a 72% increase compared to 2017.
- Deal activity dipped to 466 from 533 in 2017, after increasing for four years.

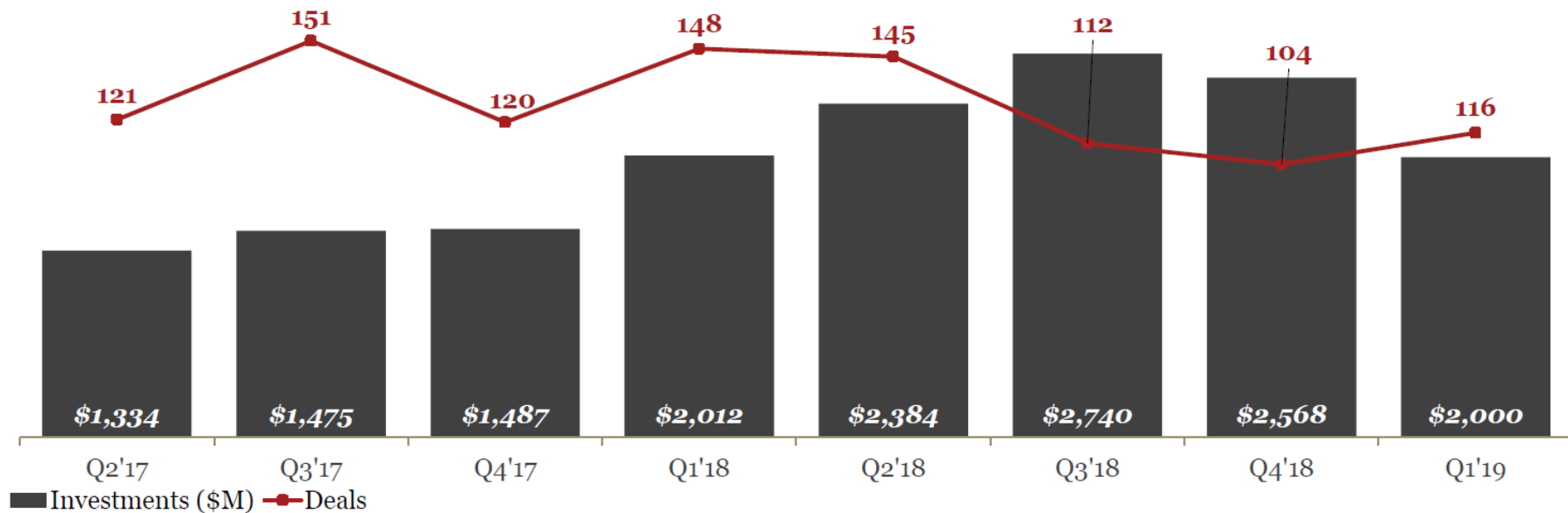


Artificial Intelligence: US funding over time



Artificial intelligence deal activity increased after three consecutive quarterly declines

- Artificial intelligence deals increased in Q1'19 to 116 deals, up from 104 deals in Q4'18.
- While deals increased, funding dropped to \$2B in Q1'19. Close to half of all artificial intelligence funding for Q1'19 was driven by a \$940M investment in Nuro by SoftBank Group.

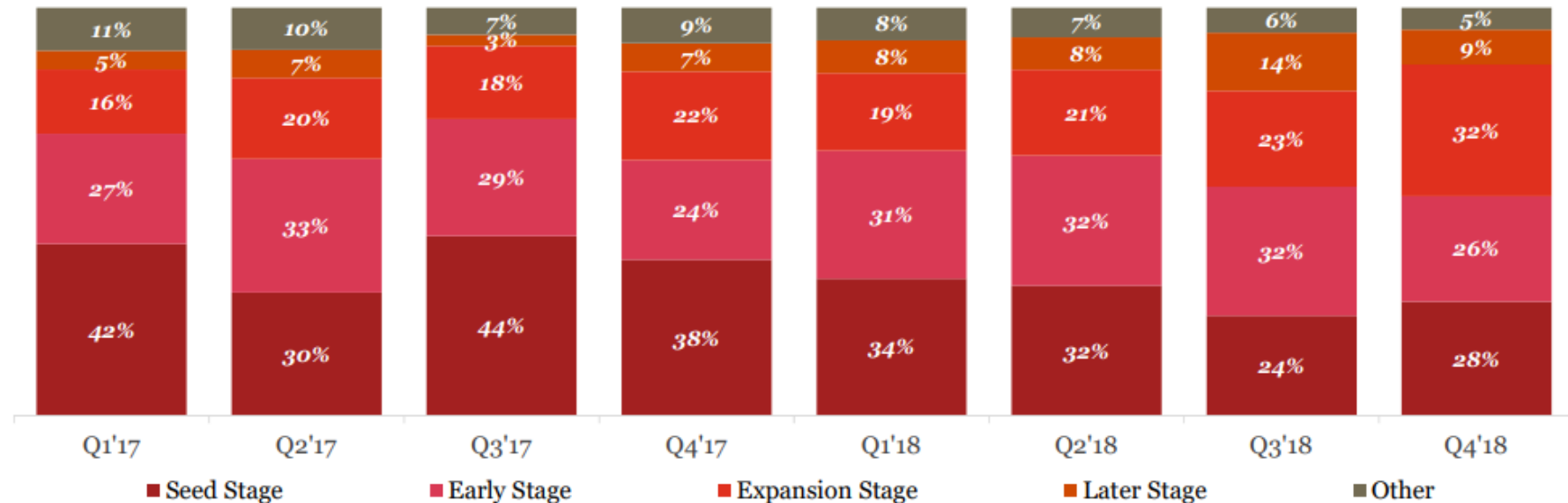


AI: US deal share over time



Seed-stage deal activity among AI-related companies rises to 28%

- Seed-stage deal activity in the AI space rose in Q4'18 to 28%, compared to 24% in Q3'18.
- Expansion-stage deal activity jumped to 32%, from 23%.



AI: Top states by deals



1. CA

53 deals

\$1,917M Invested

2. MA

13 deals

\$247M Invested

3. NY

10 deals

\$110M Invested

4. TX

3 deals

\$10M Invested

4. WA

3 deals

\$9M Invested



AI: Largest US deals of Q4'18

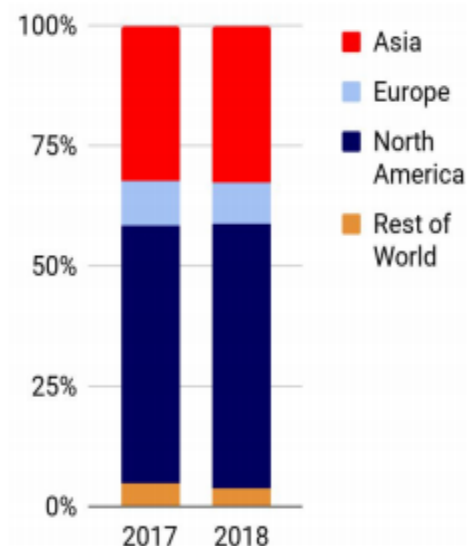
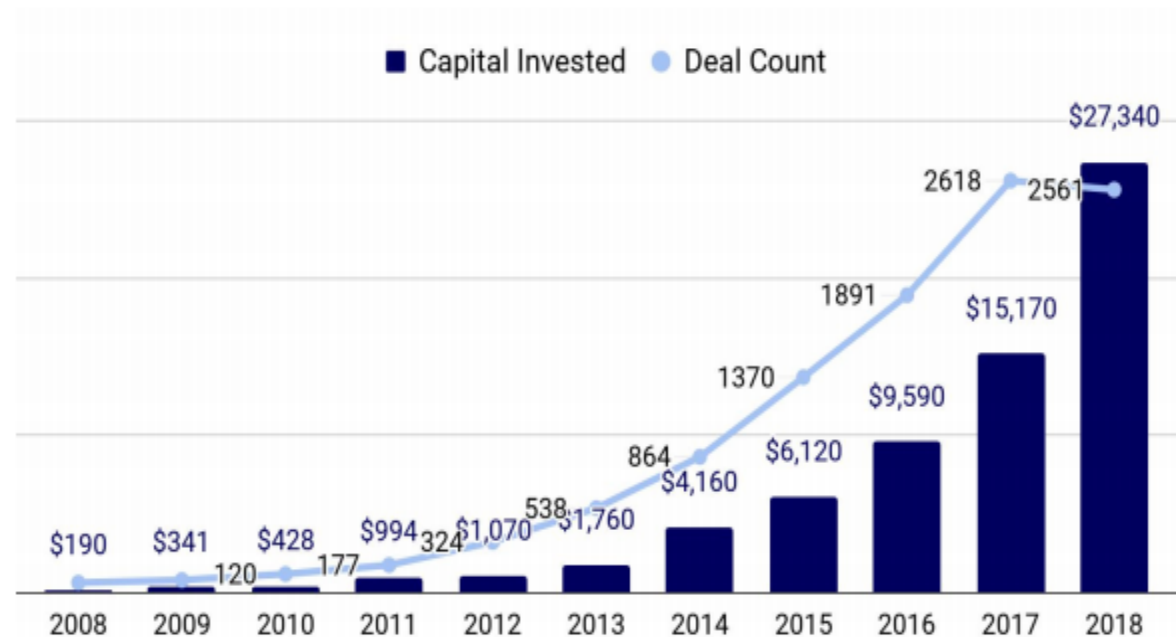


Company	Location	Sector	Industry	Stage of Funding	\$ Value of Deal	Select Investors
Zymergen	Emeryville, CA	Software (non-internet / mobile)	Healthcare		\$400M	Data Collective, SoftBank Group, True Ventures, Two Sigma Ventures
Automation Anywhere	San Jose, CA	Software (non-internet / mobile)	Scientific, Engineering Software		\$300M	SoftBank Group
Tanium	Emeryville, CA	Software (non-internet / mobile)	Security Software		\$200M	Adage Capital Management, Baillie Gifford & Co., Wellington Management
ZipRecruiter	Santa Monica, CA	Internet	Internet Software		\$156M	Institutional Venture Partners, Wellington Management
DataRobot	Boston, MA	Internet	Internet Software		\$100M	DFJ Growth Fund, Intel Capital, New Enterprise Associates



Global venture capital investments in AI themes grow at a clip to reach >\$27B/year

▶ Almost 80% more capital invested in FY18 vs FY17 with North America leading the way at 55% market share.



Spotlight on companies we featured in last year's State of AI:



▶ \$940M Series B led by SoftBank



▶ \$1B Series D led by SB China Capital

AURORA

▶ \$530M Series B led by Sequoia Capital

GRAPHCORE

▶ \$200M Series D led by Sofina



▶ \$23M Series B led by Menlo Ventures



▶ \$500M Series A led by SoftBank



▶ \$24M Series B led by True Ventures

Shift Technology

▶ \$60M Series C led by Bessemer



▶ \$2.3B IPO at \$24B valuation



DARKTRACE ▶ \$50M Series E led by Vitruvian



▶ \$500M Series B led by Grok Investments



▶ \$150M Series B led by Intel Capital

zymergen

▶ \$400M Series C led by SoftBank



▶ \$140M Series C led by Mithrill



▶ \$225M Series C led by CapitalG



▶ \$600M Series B led by China Minsheng

DataRobot

▶ \$100M Series D led by Cisco



CYLANCE ▶ \$1.5B acquisition by Blackberry

stateof.ai 2019

What's driving AI investment?

AI delivers Global Business Value

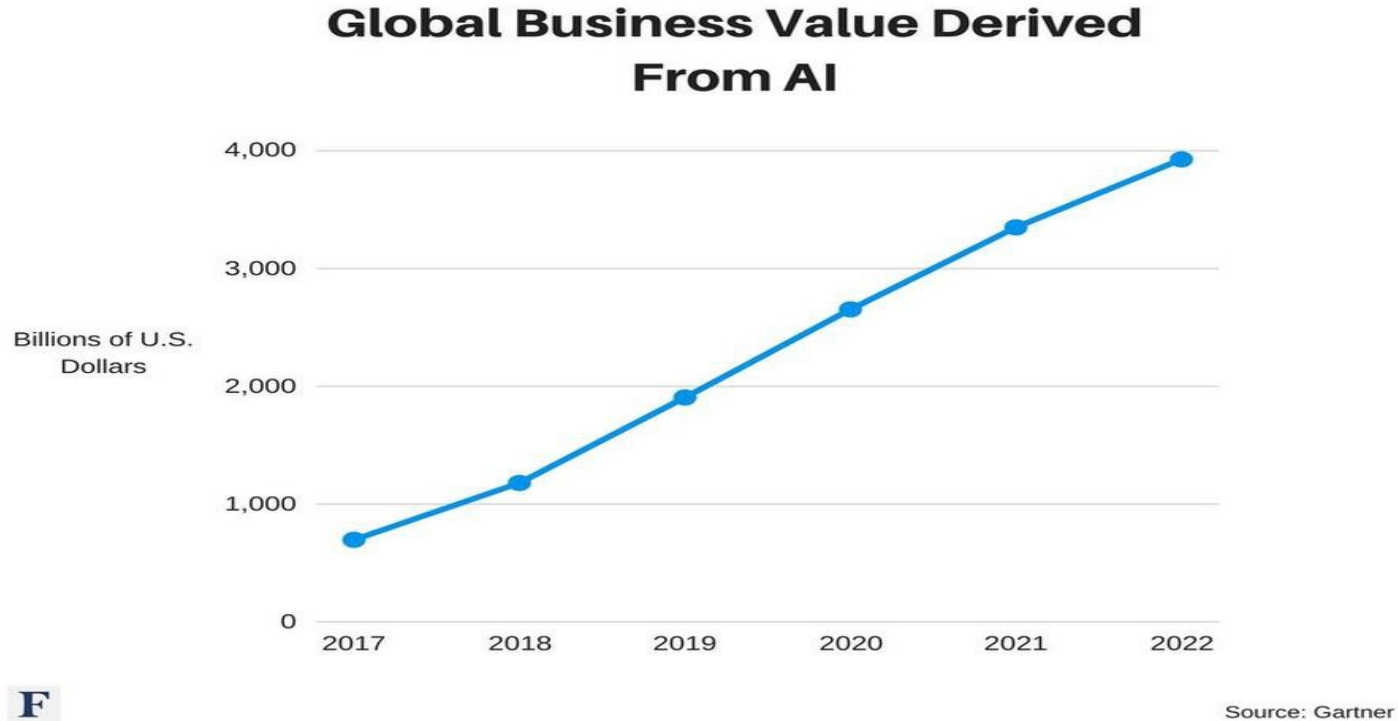


FIGURE 2

Organizations are spending on AI technologies and seeing a return on their investment

Investment in
current fiscal year

\$5M+

34%

\$500K–\$5M

47%

< \$500K

17%

Investment change in
next fiscal year

More than 20%

12%

+10% to +20%

39%

+1% to +9%

36%

Stay the same

11%

Return from
AI investment to date

40% +

11%

+30%

12%

+20%

26%

+10%

31%

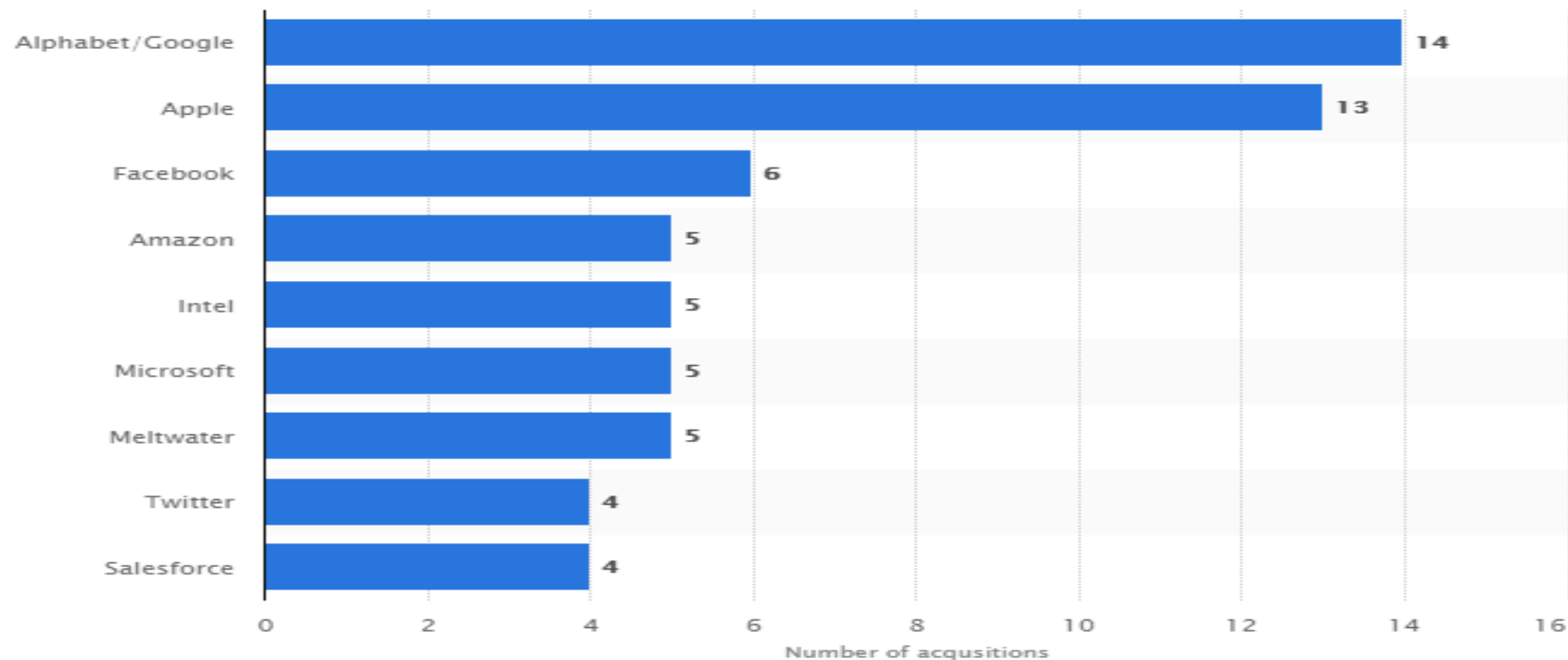
Notes: Percentages may not total 100 percent due to not including all answer choices from all questions; all monetary amounts are given in US dollars.

Source: Deloitte State of AI in the Enterprise survey, 2nd Edition, 2018.

Availability of Funds

- Many \$1 billion+ funds were created in 2018
 - Sequoia (\$8 billion)
 - Tiger Global (\$3.75 billion)
 - Bessemer Venture Partners (\$1.85 billion)
 - GGV Capital (\$1.36 billion)
- Fund Managers need to invest their funds and generate returns for their Limited Partners in 10 -12 years

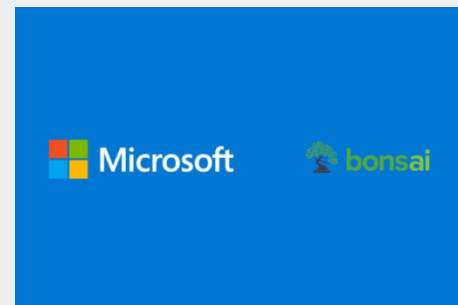
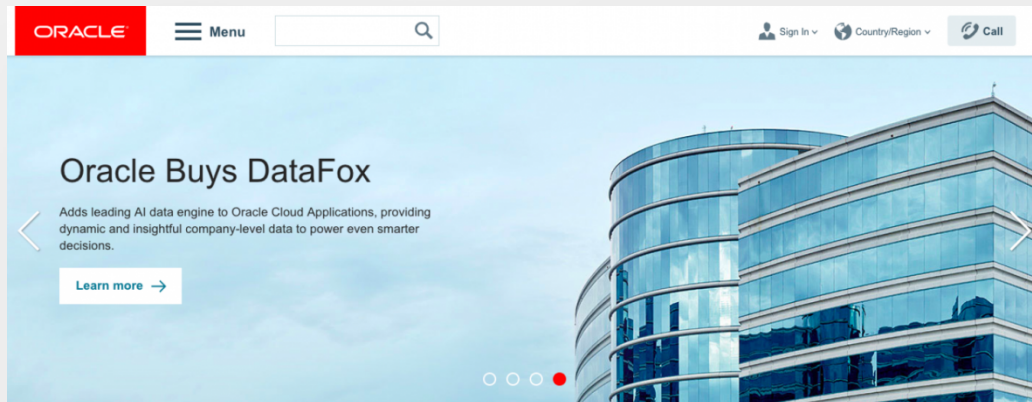
of AI Startups acquisitions from 2010 - 2018



Samples of acquisition of AI Startups



Sources:
Facebook is
buying London-
based NLP
startup
Bloomsbury AI
whose team and
tech it plans



THE MOST ACTIVE VC'S INVESTING IN AI RIGHT NOW



GrowthList



Accel



KLEINER PERKINS



Qualcomm
ventures

true ventures

SoftBank



East Ventures

MOHR
DAVIDOW
VENTURES



Baidu.ventures
百度风投

khosla ventures

M12



COMET LABS

Horizons Ventures
维港投资

NEA

HIGHLAND
CAPITAL PARTNERS

ANDREESSEN
HOROWITZ



DC
>C



Are We in Another Dotcom-Type Bubble?



Are we in a bubble?

- **Yes** – in terms of valuation
 - Recent lackluster IPO by Uber, Lyft, etc. and the lowered valuation of WeWork are examples of a repeat of the dotcom era.
- **No** – in terms of freezing in investment as the total amount of VC funding is still large as many new funds just raised new funding.
- In the past several years, some investment decisions were based on Fear Of Missing Out (FOMO), and not based on true technical and business merits. Therefore, early seed funding will be more difficult as VCs will now wait to see more customer tractions before investing

Final thoughts

AI is just another new technology platform, startups need to understand where their product/service can add value and differentiate in order to succeed.

AI vs. ML vs. DL

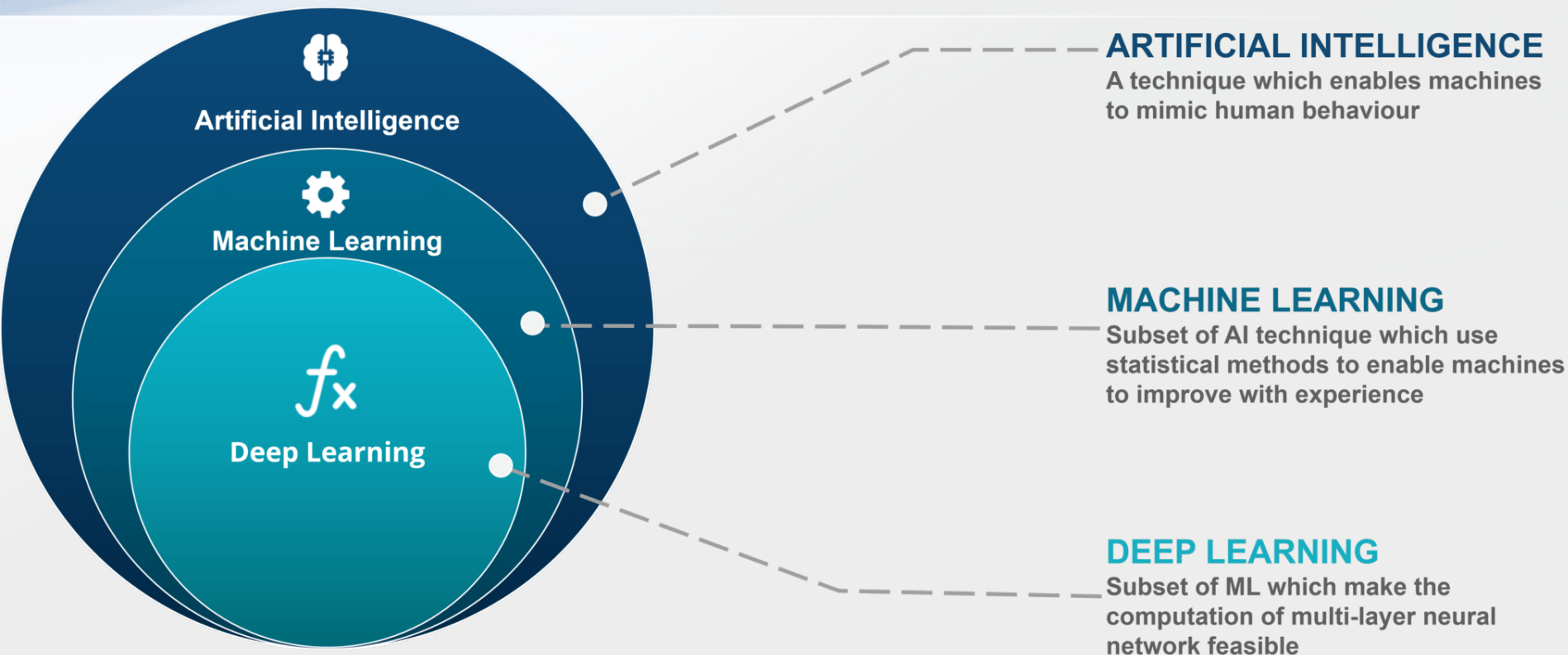
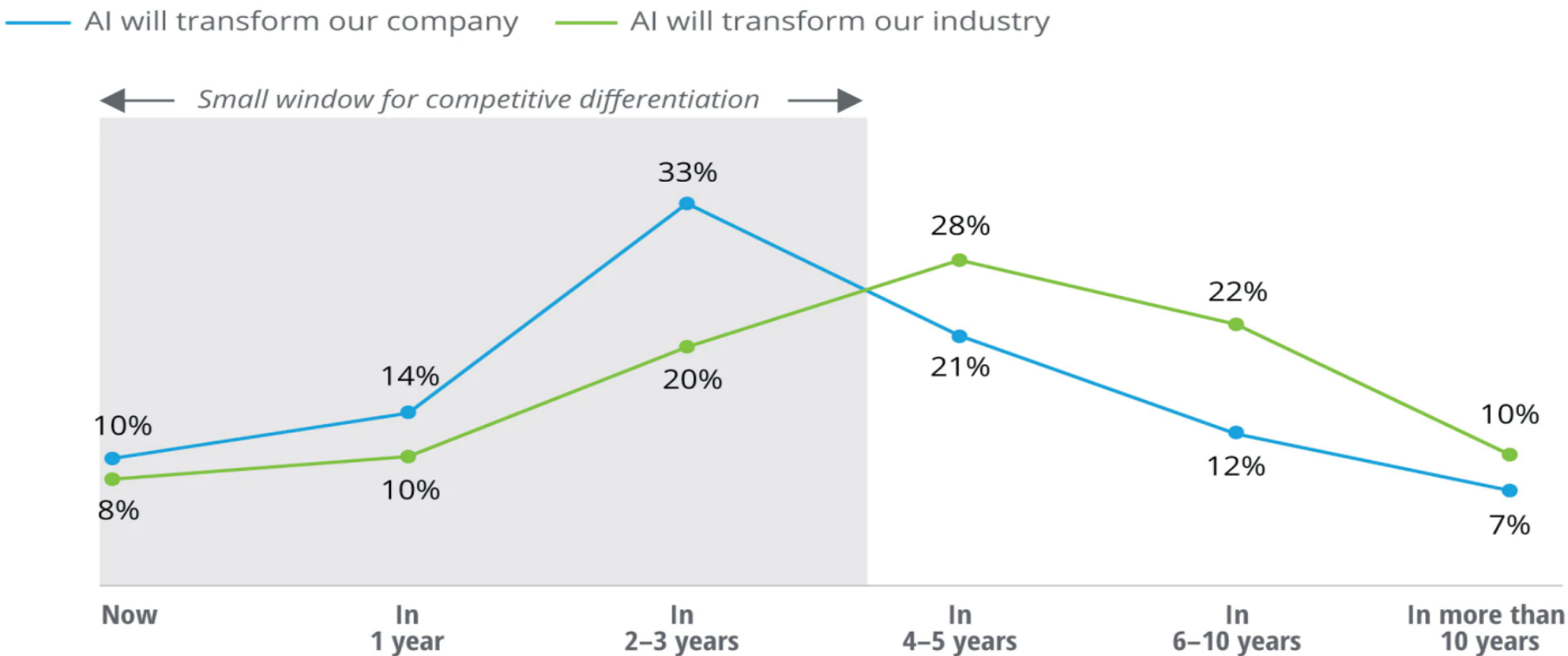


FIGURE 1

The window for competitive differentiation with AI is quickly closing



Note: Percentages may not total 100 percent due to a small number of respondents who answered “Don’t know.”

Source: Deloitte State of AI in the Enterprise survey, 2nd Edition, 2018.

The emergence of MLaaS

- Similar to Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) for cloud, Machine Learning as a Service (MLaaS) will power a wealth of conversational agents and chatbots, speech, natural language processing (NLP) and semantics, vision, and enhanced core algorithms programs

AI and Governance

As AI systems become more powerful, governance of AI becomes a bigger topic and companies need to incorporate a governance model for AI that matches with their business.

תודה
Dankie Gracias
Спасибо شکرًا
Merci Takk
Köszönjük Terima kasih
Grazie Dziękujemy Dèkojame
Ďakujeme Vielen Dank Paldies
Kiitos Täname teid 谢谢
Thank You Tak
感謝您 Obrigado Teşekkür Ederiz
감사합니다

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