



White Paper

A Trillion-Dollar Boost: The Economic Impact of AI on Customer Relationship Management

Sponsored by: Salesforce

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IN THIS WHITE PAPER

Artificial intelligence (AI)¹, a technology almost as old as the computer industry itself, has come into widespread awareness with the advent of personal assistants and bots (Amazon's Alexa, Apple's Siri, Google's Assistant), image recognition (Facebook), personalized recommendations (Netflix, Amazon), and more. These innovations have been driven by a manifold increase in processing power, lower-cost hardware, and the exploding creation and availability of data. IDC's forecast for cognitive and AI systems calls for the global market to jump from \$7.9 billion last year to \$46.3 billion in 2020.

This White Paper uses IDC market data, IDC's *AI/CRM Economic Impact Survey* of 1,028 organizations worldwide, and 20 years of IDC's economic impact modeling to forecast how AI will affect the global economy. It forecasts business revenue growth and job creation (or destruction) based on AI applied to customer relationship management (CRM) activities.

In addition to the economic impact of AI on CRM as a broad category, it also includes an estimate of the economic impact attributable to Salesforce's customer base.

EXECUTIVE SUMMARY

- Extrapolating from survey responses and IDC's economic impact model, IDC calculates that AI associated with CRM activities will boost global business revenue from the beginning of 2017 to the end of 2021 by \$1.1 trillion.
- Net-new jobs associated with this revenue could, if respondent opinions bear out, reach more than 800,000 by 2021 in direct jobs, and 2 million if you add in indirect and induced jobs. This is a net-positive figure in that it includes an estimate of jobs lost to automation from AI.
- Salesforce customers should account for \$293 billion of the total aggregated revenue and more than 155,000 of those direct jobs by the year 2021.
- IDC's *AI/CRM Economic Impact Survey*, 28% of all respondents said their organizations have already adopted AI and another 41% said they will adopt it within two years. In addition, 34%

¹ IDC classifies AI as part of a constellation of cognitive system technologies – see Table 1 for a list. For the sake of brevity, we use the term AI to refer to them all in this White Paper.

of Salesforce customers report they are AI adopters. The year 2018 will be a major year for AI adoption.

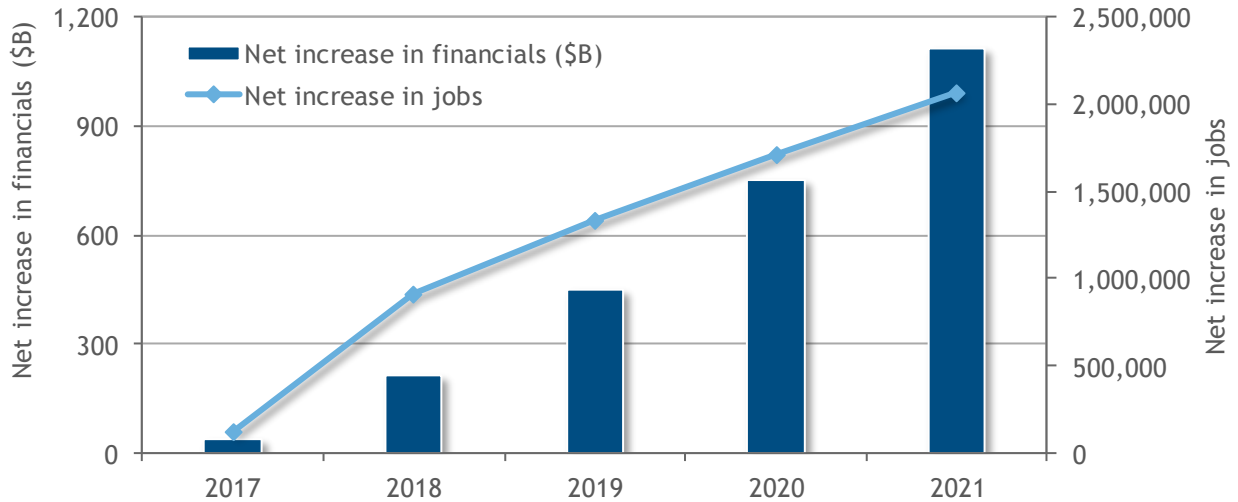
- The adoption pattern mirrors IDC's forecasts that by 2018, 75% of enterprise and ISV development will include cognitive/AI or machine learning functionality in at least one application.²
- Underpinning the adoption of AI, 46% of AI adopters report that more than 50% of their CRM activities are executed using the public cloud. Cloud vendors are expected to lead in the delivery of AI to customers by embedding AI into their applications.

Economic Benefits Summary of AI Applied to CRM

Figure 1 shows the summary of economic benefits as applied to CRM, calculated by IDC based on survey responses and its economic impact models.

FIGURE 1

Worldwide Financial Improvement and Jobs from AI-Assisted CRM, 2017-2021



Source: IDC, 2017

AI: A Market Accelerator

IDC analysts have an eye-opening forecast for AI adoption, as shown in Figure 2.

In fact, in an IDC FutureScape document, written back in 2015, entitled *IDC FutureScape: Worldwide Big Data and Analytics 2016 Predictions* (IDC #259835, November 2015), IDC stated:

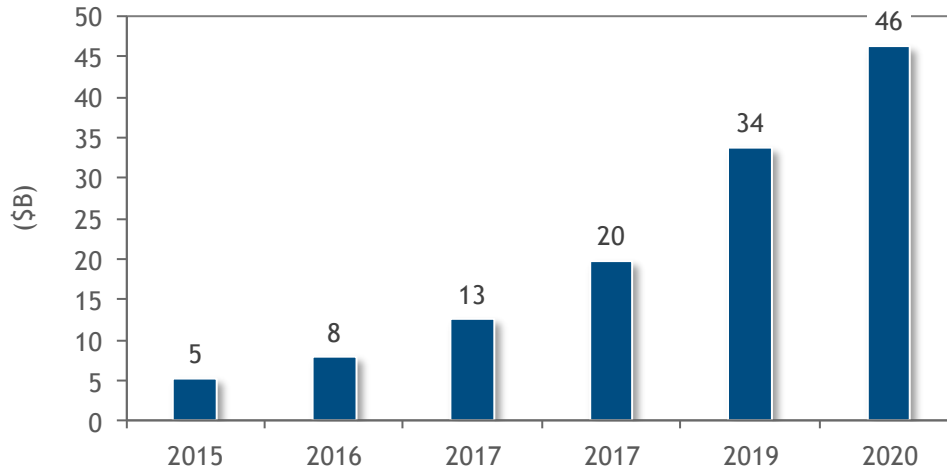
Cognitive systems [AI] will be the next major disruption in the world of technology and will significantly impact businesses, healthcare, work, society, and our economies in

² Excerpted from *IDC FutureScape: Worldwide Analytics, Cognitive/AI, and Big Data 2017 Predictions* (IDC #US41866016, November 2016).

general. Cognitive systems will cause significant changes in the way that people get advice, make purchases, and do their daily work.

FIGURE 2

Worldwide Spending on Cognitive/AI Systems Including Hardware/Software/Services, 2015-2020



Source: IDC, 2017

This growth in spending will come in all technology areas. In IDC's *AI/CRM Economic Impact Survey*, IDC found almost all technologies of interest, as shown in Table 1.

Note that in the survey, we prefaced the questions on AI adoption by saying:

"Artificial Intelligence (AI) comprises a set of technologies that use natural language processing, machine learning, knowledge graphs, and other tools to answer questions, discover insights, and provide recommendations. Systems using AI hypothesize and formulate possible answers based on available evidence, can be trained through the ingestion of vast amounts of content, and automatically adapt and learn from their mistakes and failures."

TABLE 1**AI Technology Choices (% of Respondents)***Q. What type of AI are you planning to use or exploring?*

	All Respondents	AI Adopters
Cognitive/AI system platforms	25	29
Machine learning	28	34
AI-based data preparation and enrichment tools	35	48
Machine vision/image recognition	26	31
Voice/speech recognition	30	41
Text analysis and natural language processing	27	34
Bots and virtual digital assistance solutions	21	32
Social media pattern analysis, sentiment analysis	33	35
Advanced numerical analysis (e.g., IoT streaming, machine logs)	31	41
Supporting technologies: ontologies, knowledge base curation, dialog management, Q&A processing, and so forth	38	40

n = 1,028 total (292 current AI adopters)

Source: IDC's *AI/CRM Economic Impact Survey*, 2017

While it is true that respondents were being asked specifically about their potential use of AI in *CRM* activities, these activities nonetheless cover a large spectrum of activity and touch almost all facets of an enterprise. Table 2 shows the way we broke down CRM and, for AI adopters, which activities fell into respondents' top 4 for adoption.

TABLE 2

Catalog of CRM Activities: Top 4 for Adoption (% of Respondents)

Q. Which categories of CRM activity do you think AI could benefit the most?

	AI Adopters
Corporate marketing, branding, advertising	39
Product or service marketing	39
Marketing operations/field marketing	39
Customer support	43
Digital commerce	40
Customer analytics	38
Customer influenced product or service design	40
Product or service pricing, finance	38
Customer billing, inventory, logistics, and fulfilment support	41
Partner management	41

n = 1,028 total (292 current AI adopters)

Source: IDC's *AI/CRM Economic Impact Survey*, 2017

It is obvious that each AI use has its specific adherents. Most enterprises will adopt AI in a variety of CRM areas.

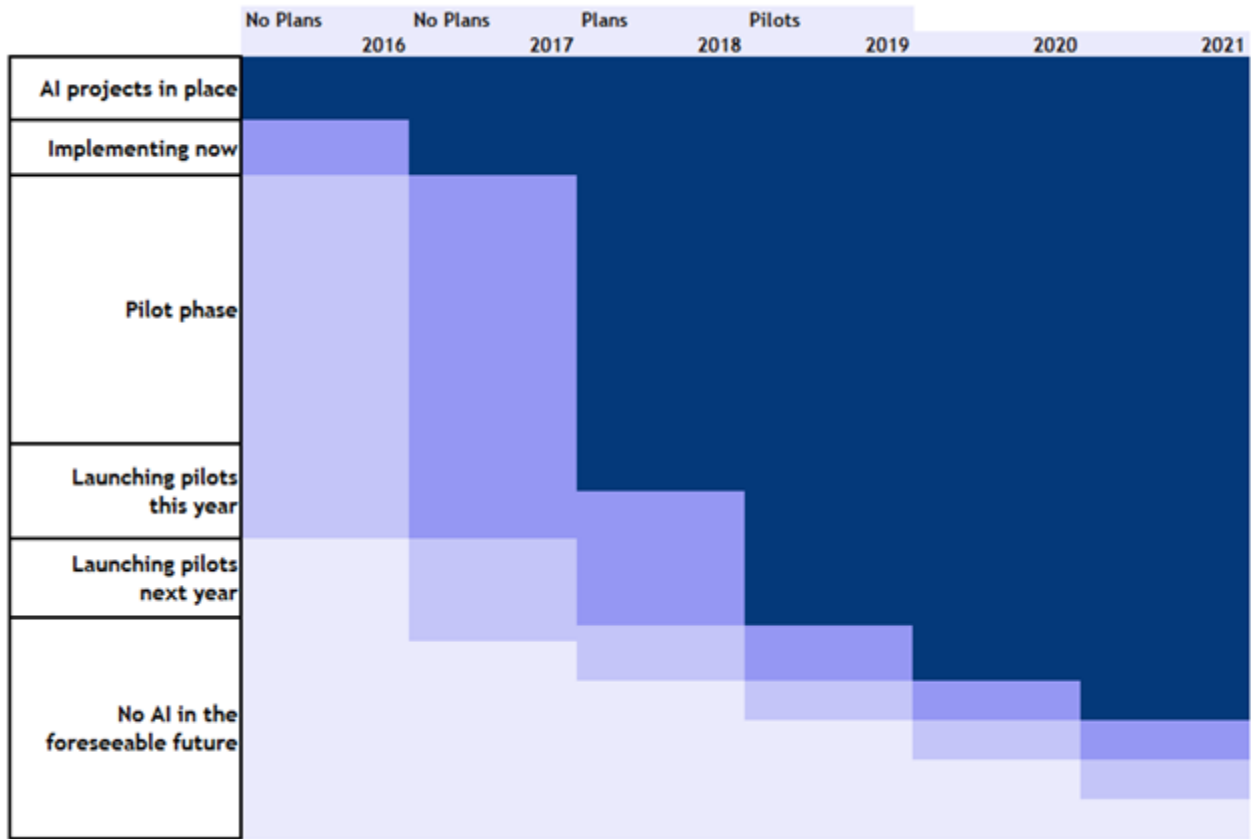
The AI Adoption Curve

AI is still at the beginning of its "S curve" of adoption, but the respondents we surveyed expect this year (2017) and the next (2018) to be watershed years – as planning and piloting turn into implementation. In fact, more than 60% expect to have either projects or pilots in place this year, and 55% expect to have AI implementations in place by 2018.

Figure 3 shows how the respondents' plan-pilot-implement trajectory works out over the next five years, with expectations that some of those with no plans today will join the fold in the outer years.

FIGURE 3

Survey Respondents' AI Adoption Plans, 2016-2021



n = 1,028 total

Source: IDC's *AI/CRM Economic Impact Survey, 2017*

This adoption wave mirrors that of IDC's cognitive/AI systems forecast (refer back to Figure 1), which grows by a factor of 9 from 2015 to 2020. The adoption forecast for implemented AI projects grows by a factor of 10 from 2016 to 2021.

Is this adoption profile realistic? IDC believes it is, as analysts are reporting that vendor investment in embedded AI for enterprise applications has picked up considerably, even just in the past six months. By offering embedded AI, technology vendors – and especially cloud solution vendors – can make implementation a near-automatic event for most customers.

The survey conducted for this study indicates that enterprises are ready to take advantage of AI availability when it appears. In the document referenced in the Executive Summary section, IDC forecasts that 2018 will be a watershed year for AI adoption in general.

In that same document, IDC predicts that "by 2018, new cloud pricing models will emerge for specific analytics workloads, contributing to five times higher growth in spending on cloud versus on-premise

analytics solutions." This is more corroboration for the adoption timeline predicted by survey respondents.

The AI Economic Impact

Because AI is still early in adoption, all predictions come with a caveat that they rely on current opinions of respondents and expectations for software, IT, cloud computing, and economic growth that may be superseded by events.

On the other hand, IDC has been forecasting IT markets for more than 50 years, many of them at the same place on the adoption curve as AI. This includes the internet, enterprise ERP and CRM, social media, smartphones, business analytics, and many others. In addition, respondents surveyed assessed their own confidence on their estimates of the financial improvement AI could provide for CRM activities. In general, they rated themselves 3.5 on a scale of 1-5 (5 = very confident). Those that were already AI adopters rated themselves 3.9.³ And early AI adopters in the news, such as USAA (fraud detection), GE (jet engine blade quality control), and Under Armor (fitness optimization) are positive on early results.

To develop an estimate of the economic impact AI technologies could have on enterprises adopting them to improve their CRM activities, IDC relied on:

- Macroeconomic information on business revenue in a country (2016 forecast to 2021) and the basic makeup of business expenses by major function (customer support, marketing and sales, production, etc.)
- IDC analysts' estimates of the percentage of revenue (and expenses) that might be affected by CRM activities by category
- Survey results on how much AI could improve CRM activities in the first year of AI implementation, and what this improvement could mean in terms of efficiencies for a company in cost savings and new potential revenue
- An economic impact model that pulls all the underlying data together and forecasts the results out to 2021 (The model is based on IDC's Economic Impact of IT model, which has been updated yearly since 2002. It includes IT spending by 54 countries, GDP and population estimates and forecasts, revenue per employee, and ratios of IT spend to GDP.)

Table 3 shows the results of the IDC economic modeling and some of the underlying assumptions.

³ One could argue that AI adopters rate themselves more highly because they are already invested, but IDC believes it is more likely because they have hands-on experience with the technology.

TABLE 3

Forecast Results – AI Impact

1. Results are projected from surveys and rely on estimates made by respondents on the expected financial improvements in key categories of AI-assisted customer relationship management activities. The forecast assumes that these estimates are correct.						
2. Financial estimates are based on estimates of "first year" improvement from full AI implementations; forecasts are extrapolated across expected migration from planning to pilot to implemented projects.						
3. The improvement forecast is of categories of activity (e.g., corporate marketing, digital commerce, and customer analytics). They are <i>not</i> estimates of ROI for the AI software. They rely on conservative estimates by IDC of the extent to which each of these entities might affect company revenue, expenses, or productivity. They also rely on estimates of the penetration of software in customer relationship management activities.						
4. Net-new jobs created are based on the ratio of new revenue to jobs required to support that revenue. They assume that 50% of the net-new revenue will support increases in labor and the rest will go for capital and other operating expenses that may replace jobs lost to automation; IDC understands that there is significant debate about the long-term impact of AI on jobs but presents the data here as based on opinions of surveyed respondents.						
5. By way of comparison, IDC forecasts that the worldwide market for cognitive/AI systems — including software, hardware, and services — will surpass \$46 billion in 2020; the worldwide CRM software (only) market is expected to surpass \$44 billion by 2020.						
6. The estimate of the economic impact of AI in customer management among Salesforce customers relies on survey results and modeling that allocates Salesforce's share of the economy by its share of the CRM software market.						
Worldwide financial improvement from AI in customer management activities	2017	2018	2019	2020	2021	Five-Year Sum
Increased revenue (\$B)	26	112	154	196	237	726
Lowered expenses (\$B)	9	41	58	72	85	265
Improved productivity (\$B)	4	19	26	33	39	121
Worldwide: increased revenue, lowered expenses, improved productivity (\$B)	40	172	238	301	362	1,112
% of business revenue	0.0	0.1	0.1	0.2	0.2	0.1
Worldwide net increase in direct jobs	50,287	315,079	166,013	148,704	143,651	823,734
Worldwide net increase in indirect/induced jobs	75,203	471,819	254,784	228,582	219,859	1,250,247
Worldwide net increase in direct and indirect/induced jobs	125,490	786,897	420,797	377,286	363,510	2,073,980

Source: IDC's *AI/CRM Economic Impact Survey*, 2017

While the aggregate numbers look large – billions to a trillion – note that the net figure is still just a small increase to global revenue – 0.13%. This reflects the early stages of the AI revolution on global businesses.

For those who still believe the number seems large, consider what is entailed in an IT implementation. The spending on IT software, services, and hardware itself is often small compared with spending on staff (IT and operational), operations, non-IT capital goods, and more. In fact, spending on external IT – which now permeates most enterprises in the world – represents less than 1% of the world's business revenue and generally less than 5% in even the most IT-rich enterprises.

IDC research shows that even in cloud-based solutions, any single implementation will require additional spending – on other cloud services, consulting, networking, security, and more.

In short, IT represents a leveraged investment – paying back many times its base costs. A new technology, like AI, could be even more leveraged. IDC itself classifies cognitive systems/AI as an "innovation accelerator" on its website.

Some of the ways AI is expected to impact CRM activities are:

- Speeding up sales cycles
- Improving lead generation and qualification
- Solving customer support problems faster
- Helping companies improve brand campaigns and recognition
- Lowering costs of support calls while increasing resolution rates
- Lowering the cost of recruiting employees and partners
- Increasing revenue from optimized product marketing
- Optimizing pricing
- Optimizing distribution logistics
- Preventing loss through fraud detection

What about the impact of AI on jobs? IDC is well aware there is significant debate about the long-term impact of AI on jobs and presents the forecast here as based on the opinions of surveyed respondents. It also represents a conservative view of how the additional revenue from the forecast financial improvements will be put to use. The forecast embodies an assumption that AI will lead to net-positive financial benefits, which will drive job growth. Some roles may be eliminated, and others will be created or enhanced, not unlike the change in jobs in IT departments during the advent of the cloud.⁴

⁴ Students of the subject may wish to view this article in *The Wall Street Journal*, published December 11, 2016, entitled "Automation Can Create More Jobs" at www.wsj.com/articles/automation-can-actually-create-more-jobs-1481480200. A countering view can be found in an article in *The New York Times*, published March 17, 2017, entitled "Evidence that Robots are Winning the Race for U.S. Jobs" at www.nytimes.com/2017/03/28/upshot/evidence-that-robots-are-winning-the-race-for-american-jobs.html?_r=1

The Salesforce Economic Impact

With Salesforce as the market leader in CRM software in general and cloud-based CRM in particular, and as a proponent of AI-assisted solutions, its customers should drive a noticeable portion of the benefits and jobs coming from AI in CRM.

By design, the survey conducted for this study included more than 400 Salesforce customers, enough to allow us to project their economic impact.

Table 4 shows the results of the IDC economic modeling.

TABLE 4

The Economic Impact of AI-Assisted Customer Relationship Management of Salesforce Customers, 2017-2021

Worldwide Financial Improvement from AI in Customer Management Activities	2017	2018	2019	2020	2021	Five-Year Sum
Increased revenue (\$B)	7	29	41	53	66	195
Lowered expense (\$B)	2	10	14	18	23	68
Improved productivity (\$B)	1	5	6	8	10	30
Worldwide: increased revenue, lowered expenses, improved productivity (\$B)	10	43	61	79	99	293
% of business revenue	0.0	0.1	0.2	0.2	0.2	0.2
Worldwide net increase in direct jobs	9,569	55,814	29,539	28,821	31,554	155,298
Worldwide net increase in indirect/induced jobs	14,310	83,580	45,335	44,303	48,295	235,822
Worldwide net increase in direct and indirect/induced jobs	23,879	139,394	74,874	73,124	79,849	391,121

Note: Totals may not be exact due to rounding. The survey included 429 Salesforce customers.

Source: IDC's *AI/CRM Economic Impact Survey, 2017*

Specific Use Case Adoptions

In addition to surveying about AI adoption to support the various components of CRM, the survey also polled about some specific use cases of AI. Figure 4 shows the percentage of respondents who said they use or are planning to use each case.

FIGURE 4

Specific AI Use Cases



n = 1,028 total (292 current AI adopters)

Source: IDC's *AI/CRM Economic Impact Survey*, 2017

Perhaps the strongest conclusion that can be drawn from Figure 4 is that those using and planning to use AI are doing so in many different ways. And those closest to implementation are doing so even more so. These forward-looking companies are planning, piloting, implementing, optimizing, and improving.

The Nature and Attitudes of AI Adopters

IDC's *AI/CRM Economic Impact Survey* of 1,028 enterprises in Australia, Canada, France, Germany, Japan, the United Kingdom, and the United States probed not only estimates of value creation from AI but also behaviors and attitudes of those knowledgeable about CRM in their enterprises and the future of AI in them.

Some stats on the respondents themselves:

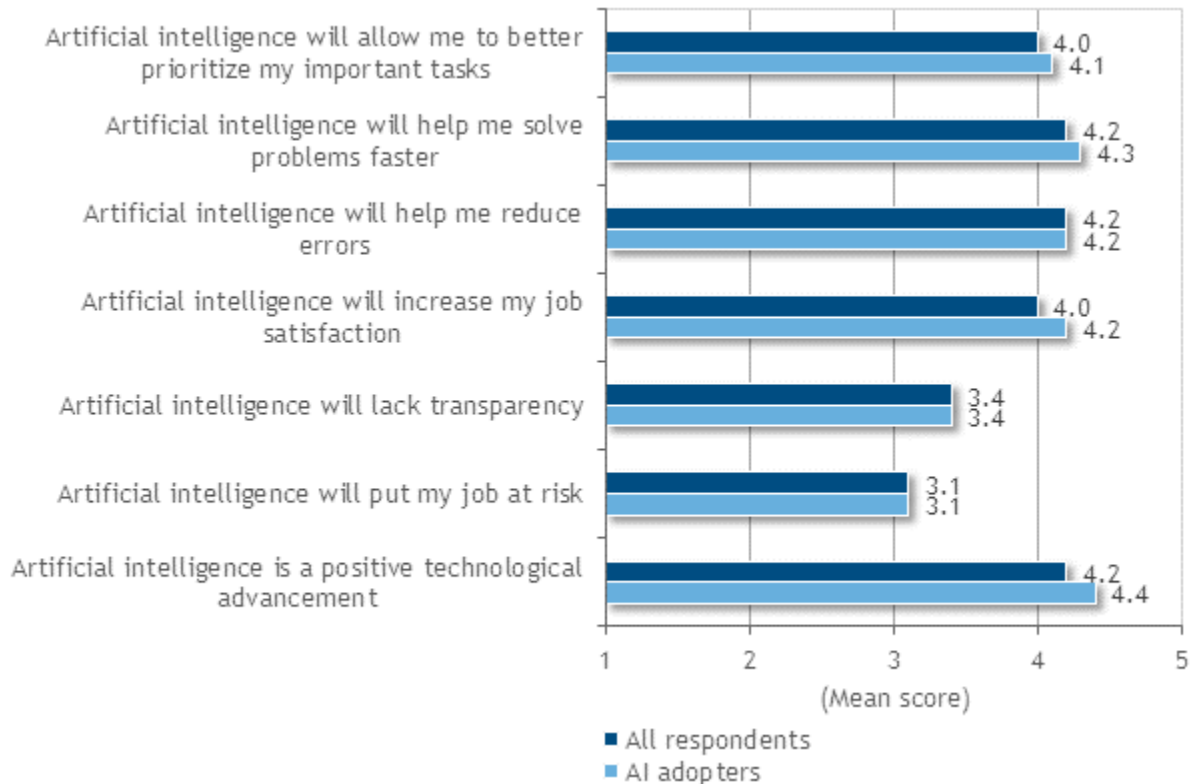
- The average enterprise polled had 1,966 employees; AI adopters (28% of the sample) had 2,521.

- Respondents were polled from a cross section of industries, with none accounting for more than 20% of the total.
- 42% of the sample were Salesforce customers, which accounted for 50% of AI adopters.
- 29% of the total sample said that 50% or more of their CRM activities were public cloud based; 46% of AI adopters said so.
- 77% of the total sample said they were either decision makers about AI adoption or on a team that made those decisions; 84% of AI adopters said so.
- 87% of the total sample were in management positions or higher.
- When asked about potential data sources for the AI systems, respondents rated data from their CRM systems highest (not surprisingly) and data from third parties lowest. Stack-ranked in the middle was data from ERP systems, data from data warehouses, and data from social media. But all were seen as potential data sources.

The respondents also tended to be positive on AI. In one question, they rated their agreement with several statements about AI – on a scale of 1 to 6, with 6 being the highest level of agreement – as shown in Figure 5.

FIGURE 5

Attitudes on AI



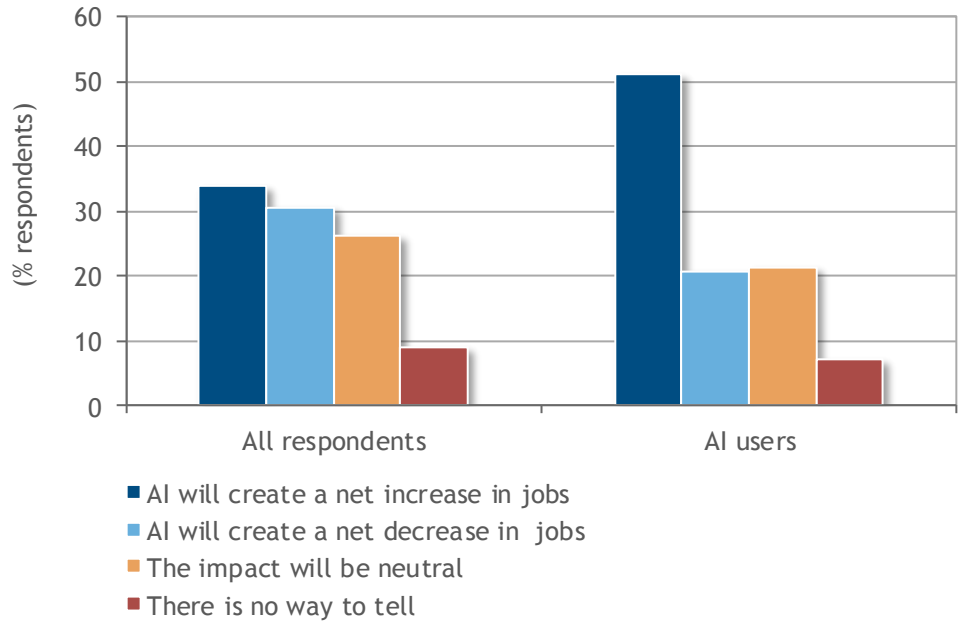
n = 1,028 total (292 current AI adopters)

Source: IDC's *AI/CRM Economic Impact Survey, 2017*

In another question, they reported their opinions of AI on jobs as shown in Figure 6.

FIGURE 6

Attitudes on AI and Jobs



n = 1,028 total (292 current AI adopters)

Source: IDC's *AI/CRM Economic Impact Survey, 2017*

Note that AI adopters are much more bullish about the net impact of AI on labor.

ESSENTIAL GUIDANCE

Lessons from the Data and a Call to Action

- It is clear from IDC's forecasts – and the survey for this project – that AI adoption is about to begin in earnest.
- As with the adoption of any "innovation accelerator" technology, early adopters and fast followers will gain early, critical experience, which should lead to a competitive advantage.
- The prevalence of cloud-based AI solutions in the CRM space expresses a strong relationship – if not symbiosis – between enterprises and their cloud providers. This, in turn, puts a responsibility on the vendor to be trusted and innovative and on the enterprise to manage the relationship at a high level.
- Further speaking to cloud solutions, IDC analysts believe that they may lead the way in delivering AI to customers, often embedded into solutions and user interfaces, making adoption easy as an add-on to existing applications and perhaps even free at the entry level.

- The choices listed and rated throughout the survey indicate that this year and the next few following will see an incredible amount of experimentation with AI. Enterprises for which such IT and operational experimentation is second nature will reap benefits others won't.

This need for organizations to deal with disruption and change can be seen in the question asked of respondents on how AI would impact their organizations that had the highest rating for level of agreement (4.7 worldwide, 4.9 AI adopters, where 6 was the highest level).

This was the statement, which can be interpreted as a word to the wise:

Implementing AI could change our organization's culture, workforce, and operations entirely

METHODOLOGY

To develop an estimate of the economic impact AI technologies could have on enterprises adopting them to improve their CRM activities, IDC relied on:

- Macroeconomic information on business revenue in a country (2016 forecast to 2021), based on third-party GDP, gross output, and employment estimates
- IDC estimates of IT penetration of businesses, based on more than 15 years of analysis of and publications on the economic impact of IT on local economies and also estimates of the basic makeup of business expenses by major function (customer support, marketing and sales, production, etc.) to allocate benefits across enterprises by function
- IDC analysts' estimates of the percentage of revenue (and expenses) that might be affected by CRM activities by category based on CRM's share of IT impact on enterprises
- Survey results on how much AI could improve CRM activities in the first year of AI implementation and the timeline for adoption
- An economic impact model that pulls all the underlying data together and forecasts the results out to 2021 (The model is based on IDC's Economic Impact of IT model, which has been updated yearly since 2002. It includes IT spending by 54 countries, GDP and population estimates and forecasts, revenue per employee, and ratios of IT spend to GDP.)
- IDC market forecasts, including for AI and cognitive systems, CRM software, cloud computing, Salesforce market share, and many others
- Key assumptions behind the model (refer back to Table 3) (In short, the forecast of economic impact is based on the assumptions made by respondents of AI adoption plans and the benefit gained during the first full year of implementation.)

IDC's AI/CRM Economic Impact Survey

Early in 2017, IDC surveyed enterprises having more than 10 employees with responses by country, as shown in Table 5.

TABLE 5**Survey Respondents**

	Total	AI Adopters	Salesforce Customers
United States	408	151	212
Canada	106	29	41
Australia	100	24	45
Japan	100	11	27
France	109	35	34
Germany	101	19	27
United Kingdom	104	23	43
Total	1,028	292	429

n = 1,028 total (292 current AI adopters)

Source: IDC's *AI/CRM Economic Impact Survey*, 2017

Characteristics of the respondents have been previously discussed in the document. The survey was conducted online (supplemented by phone when necessary) of executives who were familiar with their enterprises' CRM activities and felt competent to have an informed opinion on how AI might affect their organizations.

Country-Level Data

Table 6 shows the results in terms financial improvement and net jobs created by the countries surveyed. It also includes the estimate for the rest of the world used to come up with the global totals.

TABLE 6

The Economic Impact of AI-Assisted Customer Relationship Management by Country Surveyed – Worldwide Financial Improvement from AI in Customer Management Activities, 2017-2021

	2017	2018	2019	2020	2021	Five-Year Sum
United States						
Increased revenue (\$B)	15	63	84	105	128	394
Lowered expenses (\$B)	5	22	30	37	44	139
Improved productivity (\$B)	2	10	14	17	20	63
Increased revenue, lowered expenses, improved productivity (\$B)	22	95	127	159	192	596
% of business revenue	0.0	0.2	0.3	0.3	0.4	0.2
Net increase in direct jobs	19,022	122,088	52,854	52,226	52,774	298,964
Net increase in indirect/induced jobs	25,641	165,820	74,073	73,193	73,961	412,689
Net increase in direct and indirect/induced jobs	44,663	287,908	126,927	125,420	126,734	711,653
Canada						
Increased revenue (\$B)	1	3	4	6	7	21
Lowered expenses (\$B)	0	1	2	2	2	7
Improved productivity (\$B)	0	0	1	1	1	3
Increased revenue, lowered expenses, improved productivity (\$B)	2	5	7	8	10	32
% of business revenue	0.1	0.1	0.2	0.2	0.3	0.2
Net increase in direct jobs	2,213	7,860	3,787	4,079	3,720	21,660
Net increase in indirect/induced jobs	3,456	12,416	6,217	6,696	6,106	34,890
Net increase in direct and indirect/induced jobs	5,669	20,276	0,004	10,775	9,825	56,550
Australia						
Increased revenue (\$B)	1	3	4	5	6	19
Lowered expenses (\$B)	0	1	1	2	2	6
Improved productivity (\$B)	0	1	1	1	1	4
Increased revenue, lowered expenses, improved productivity (\$B)	1	4	6	8	9	29
% of business revenue	0.0	0.1	0.2	0.2	0.3	0.2

TABLE 6

The Economic Impact of AI-Assisted Customer Relationship Management by Country Surveyed – Worldwide Financial Improvement from AI in Customer Management Activities, 2017-2021

	2017	2018	2019	2020	2021	Five-Year Sum
Net increase in direct jobs	899	6,910	3,044	3,124	2,738	16,714
Net increase in indirect/induced jobs	1,835	14,300	6,624	6,798	5,959	35,518
Net increase in direct and indirect/induced jobs	2,734	21,210	9,668	9,922	8,698	52,231
Japan						
Increased revenue (\$B)	2	8	12	15	18	55
Lowered expenses (\$B)	1	4	5	7	8	24
Improved productivity (\$B)	0	2	3	3	4	12
Increased revenue, lowered expenses, improved productivity (\$B)	3	13	20	25	30	91
% of business revenue	0.0	0.1	0.1	0.2	0.2	0.1
Net increase in direct jobs	3,696	26,881	16,586	12,297	11,902	71,364
Net increase in indirect/induced jobs	4,495	32,915	20,923	15,512	15,014	88,859
Net increase in direct and indirect/induced jobs	8,191	59,797	37,509	27,809	26,916	160,223
France						
Increased revenue (\$B)	1	4	6	8	10	30
Lowered expenses (\$B)	1	2	3	4	4	14
Improved productivity (\$B)	0	1	1	2	2	6
Increased revenue, lowered expenses, improved productivity (\$B)	2	7	10	13	16	50
% of business revenue	0.0	0.1	0.2	0.2	0.2	0.2
Net increase in direct jobs	2,603	12,022	7,122	6,624	6,548	34,918
Net increase in indirect/induced jobs	4,404	20,534	12,164	11,313	11,183	59,599
Net increase in direct and indirect/induced jobs	7,006	32,556	19,286	17,937	17,731	94,516
Germany						
Increased revenue (\$B)	1	6	8	11	13	40
Lowered expenses (\$B)	0	2	3	4	5	15

TABLE 6

The Economic Impact of AI-Assisted Customer Relationship Management by Country Surveyed – Worldwide Financial Improvement from AI in Customer Management Activities, 2017-2021

	2017	2018	2019	2020	2021	Five-Year Sum
Improved productivity (\$B)	0	1	1	2	2	7
Increased revenue, lowered expenses, improved productivity (\$B)	2	9	13	18	21	62
% of business revenue	0.0	0.1	0.1	0.2	0.2	0.1
Net increase in direct jobs	4,138	17,632	10,226	11,408	7,801	51,204
Net increase in indirect/induced jobs	6,538	28,100	16,924	18,879	12,911	83,353
Net increase in direct and indirect/induced jobs	10,675	45,732	27,151	30,287	20,712	134,557
United Kingdom						
Increased revenue (\$B)	1	6	8	10	12	37
Lowered expenses (\$B)	0	2	3	3	4	13
Improved productivity (\$B)	0	1	1	1	2	5
Increased revenue, lowered expenses, improved productivity (\$B)	2	9	12	15	18	55
% of business revenue	0.0	0.1	0.2	0.2	0.3	0.2
Net increase in direct jobs	2,690	15,274	7,327	6,770	5,979	38,040
Net increase in indirect/induced jobs	4,792	27,474	13,753	12,708	11,223	69,950
Net increase in direct and indirect/induced jobs	7,482	42,749	21,080	19,478	17,202	107,990
ROW						
Increased revenue (\$B)	4	19	28	36	43	130
Lowered expenses (\$B)	1	7	10	13	16	47
Improved productivity (\$B)	1	3	5	6	7	22
Increased revenue, lowered expenses, improved productivity (\$B)	6	29	43	55	66	198
% of business revenue	0.0	0.0	0.1	0.1	0.1	0.0
Net increase in direct jobs	15,026	106,412	65,066	52,176	52,189	290,869
Net increase in indirect/induced jobs	24,042	170,259	104,106	83,482	83,502	465,391

TABLE 6

The Economic Impact of AI-Assisted Customer Relationship Management by Country Surveyed – Worldwide Financial Improvement from AI in Customer Management Activities, 2017-2021

	2017	2018	2019	2020	2021	Five-Year Sum
Net increase in direct and indirect/induced jobs	39,069	276,670	169,173	135,658	135,691	756,260
Worldwide						
Increased revenue (\$B)	26	112	154	196	237	726
Lowered expenses (\$B)	9	41	58	72	85	265
Improved productivity (\$B)	4	19	26	33	39	121
Worldwide: increased revenue, lowered expenses, improved productivity (\$B)	40	172	238	301	362	1,112
% of business revenue	0.0	0.1	0.1	0.2	0.2	0.1
Worldwide net increase in direct jobs	50,287	315,079	166,013	148,704	143,651	823,734
Worldwide net increase in indirect/induced jobs	75,203	471,819	254,784	228,582	219,859	1,250,247
Worldwide net increase in direct and indirect/induced jobs	125,490	786,897	420,797	377,286	363,510	2,073,980

Note: Totals may not match as a result of rounding.

Source: IDC's *AI/CRM Economic Impact Survey, 2017*

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