

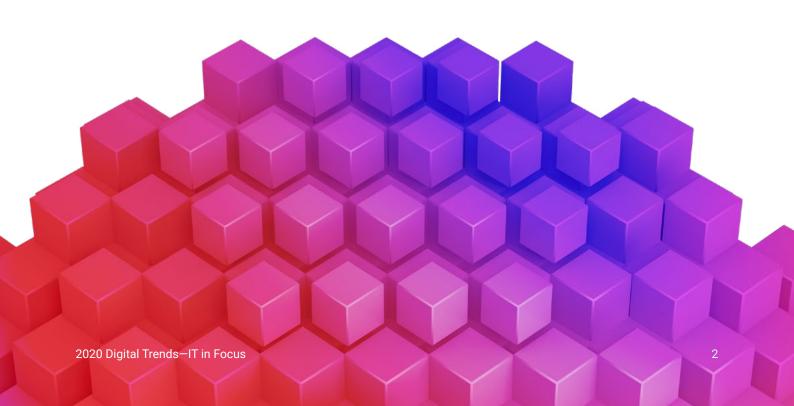
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2020 Digital Trends IT in Focus

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Foreword

Welcome to Adobe's *Digital Trends* report, our annual survey of marketing, advertising, e-commerce, creative, and technology professionals around the world. Now in its 10th year, *Digital Trends* continues to reveal the most significant shifts in the industry that are driving marketing strategies, company investment, and consumer behavior.

This 10th edition of the report gives us the opportunity to reflect on the last decade. Adobe, in partnership with Econsultancy, has gathered more than 75,000 senior leaders' experiences and insights across this period. Our commitment to measuring the industry viewpoint from business leaders and influencers delivers a fascinating window into how much change the technology sector has experienced.

When we produced the first report in 2011, marketers were obsessed with digital channels. How would social media impact e-commerce? Would people buy anything on a mobile device? How would television advertising be affected by digital channels?

Of course, the landscape we operate in today is very different from that of 2011. Today's consumer expectations are far greater, but so is the opportunity. Technology and data are empowering brands to build direct, emotional relationships with consumers that are changing the way businesses operate forever. This is a new era for marketers. We can understand and interact with our audience in more meaningful ways than ever before.



Cynthia Stoddard SVP and CIO, Adobe

This also poses challenges for brands. Customer-centricity is magnifying organizations' structural, cultural, and technological barriers that shape data management, customer experience delivery, and ultimately define business success. The regulatory environment, AI, and emerging tech are all providing challenges and opportunities whose impact is explored in detail in the report.

Fundamentally, the 2020 Digital Trends report shows that today the value of customer experience is unquestionable. Brands leading the way in customer experience are three times more likely to have significantly exceeded their 2019 business goals.

Digital Trends continues to be a valuable tool for our teams at Adobe and marketers across the globe to track industry developments. This year's report is a fantastic opportunity to reflect on how these changes have evolved over the last decade, and drive success for our customers in 2020 and beyond.

Executive summary

IT teams embrace the CX challenge

Companies leading the way in customer experience (CX) are three times more likely to have significantly exceeded their top business goals in 2019, according to the 2020 Digital Trends report. In today's highly competitive and shifting business environment, the success enjoyed by CX-focused organizations is increasingly dependent on IT-supported initiatives and innovation.

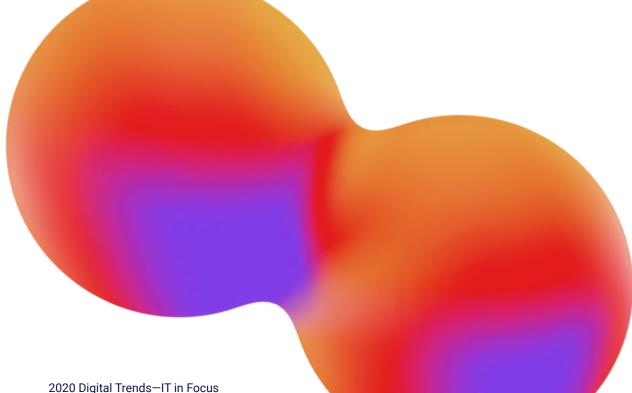
A technology infrastructure that is fit for purpose is a vital strategic asset. It sets the pace for CX initiatives—if it's lagging, opportunities for driving customer acquisition and loyalty will be lost and commercial performance will inevitably suffer. For many organizations, this requires a step change in how IT is run, with flexibility and responsiveness at its center.

The 2020 Digital Trends: IT in Focus report from Econsultancy and Adobe looks at how IT departments are responding to CX trends and opportunities-in terms of mindset, technology, and ways of working.

How can businesses make more full use of their strategic IT resources so they can achieve their business goals?

The IT function and other departments are recalibrating how they work together, to deliver against CX needs-but is it always successful?

- The vast majority (89 percent) of IT executives say that their team now "works more closely with other parts of the business," in response to CX priorities.
- But 80 percent report that conflicts occur between marketing-related IT priorities and broader development strategy.
- For 2020, many IT executives are focusing on CX-oriented objectives relating to systems and processes. These include creating an "extensive digital platform" for CX (32 percent) and "unifying data to achieve a single view of the customer" (30 percent).

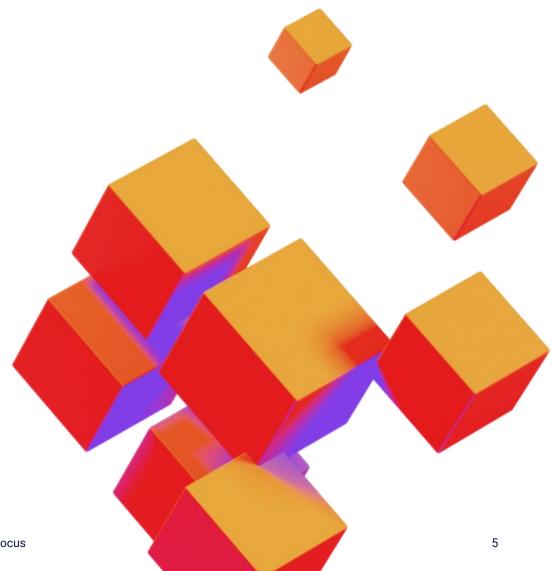


Security, modernizing systems, and data control are key IT barriers for CX success

- The two main external challenges for IT professionals cut across business and operational aspects: the "threat of security issues and cyber-risk threats" (44 percent) and "keeping up with changing customer expectations and behavior" (40 percent).
- The financial balancing act raised by legacy systems continues to be a major pain point as new technologies come on stream. "Modernizing or replacing legacy platforms" is the top IT priority for 2020 (44 percent).
- "Keeping on top of technology and innovation trends" and "finding the right mix of tools" remain significant worries for many IT executives (35 percent and 32 percent, respectively).
- The challenge of data control continues to occupy IT minds. A quarter (26 percent) cite data protection compliance as a top-three external challenge. Nearly four in ten (38 percent) name customer data management as a big priority for 2020.

Skill gaps are a major challenge

- Companies need to do more to improve their capabilities in order to make full use of new-wave technologies like AI. IT executives are almost twice as likely as their peers in other functions to point to staffing challenges as a significant concern (20 vs. 12 percent).
- However, only around a quarter of IT executives emphasize digital training programs for employees as a top priority for 2020 (22 percent).





Nowadays, the battle for customers is happening behind screens everywhere.

The rise of digital powerhouses like Amazon and Uber has shown how central to competitiveness great CX has become.

Nowadays, there is no such thing as a finished CX. This means the technology infrastructure and related processes within organizations must be flexible enough to keep up with constantly shape-shifting requirements and rapid release cycles.

To make this strategic shift, however, the IT departments that support CX programs have needed to reinvent themselves. At the same time, though, many still face the challenge of addressing rigid legacy resources and the investment wrapped up within these assets.

The legacy conundrum remains

Heading into 2020, efforts to create such an agile IT environment remain a work in progress for many organizations. In most cases, legacy investments are a key barrier to CX transformation.

- "Modernizing or replacing legacy platforms" is the clear top choice of IT executives when they were asked about their three biggest priorities for the coming year (*Figure 1*). Some 44 percent of respondents mentioned this, placing it well ahead of all other prerogatives—even what some might consider the core responsibility of IT departments, namely helping to protect business and customer data (36 percent).
- Other priorities that IT professionals highlight are closely related to updating legacy systems. These include creating an "extensible digital platform" for CX (32 percent) and "unifying data to achieve a single view of the customer" (30 percent). Inflexible and lockedin legacy technologies are often to blame for stifling the ability to gather insight on customers, and bring speed and agility to how they progress new go-to-market campaigns and initiatives.
- People and processes are another area of focus, with more than a third of respondents (35 percent) saying that improving digital workflows is a top-three priority.

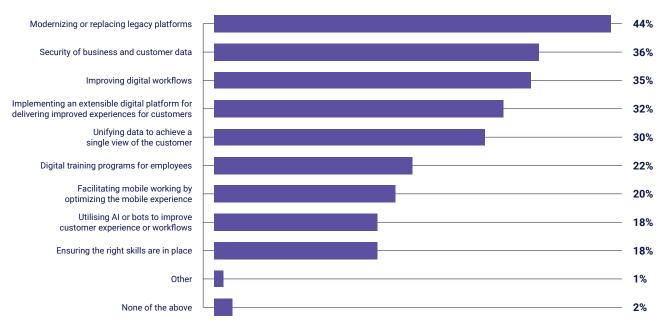


Figure 1: Which three IT-related areas do you expect to jump furthest up your organization's priority list in 2020?

Respondents: 252

IT finding inner confidence

Just as hardware and software have developed into vital drivers of commercial performance, it has become more important for IT staff's role to be uprated too.

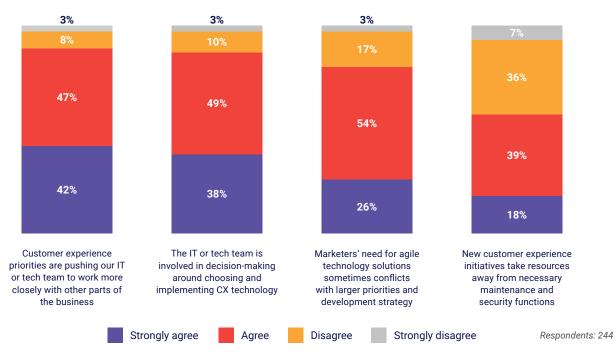
It is particularly important for internal walls around the IT department to be deconstructed. Without this, the value of digital (and post-digital) technologies cannot be unlocked.

To address CX challenges, it is crucial for businesses to break down internal operational silos, and to ensure better assimilation of strategy and crossdepartment collaboration.

Figure 2 contains encouraging signs that businesses have recognized this and acted upon it, though there is still evidence of conflicting priorities between IT and other functions.

- Some 89 percent of IT executives agree that because of CX priorities, their team now "works more closely with other parts of the business."
- A similarly high proportion (87 percent) say that the IT or tech team "is involved in decision-making regarding CX technology selection and implementation." Martech has long been regarded as an area of technology fragmentation, with shadow IT proliferating. However, this result reads as if businesses are taking a more strategic approach to evaluating solutions, and IT and marketing teams are now collaborating more effectively on business case development and supplier selection.
- However, despite these signs of increased alignment between IT and the rest of the business, 80 percent of IT respondents agree that the need for marketers to have agile technology "sometimes conflicts with larger priorities and development strategy."





In summary, it is clear that IT executives are predominantly focused on modernizing technology infrastructure so their platforms are fit for purpose in the digital era. For many organizations this remains a work in progress. To be digital leaders, organizations need to ensure the interests of the IT function and the rest of the business are as aligned as possible. Encouragingly, the overwhelming majority of IT executives believe that the drive for greater CX means they are collaborating more closely with the rest of the business.



The picture that emerges so far is that, in spite of some existing tension between IT and the rest of the business, many companies are now benefiting from increasingly strategic IT departments to meet the demands of delivering CX excellence.

Figure 3 shows how IT executives are prioritizing for 2020 compared to their peers in other functions.

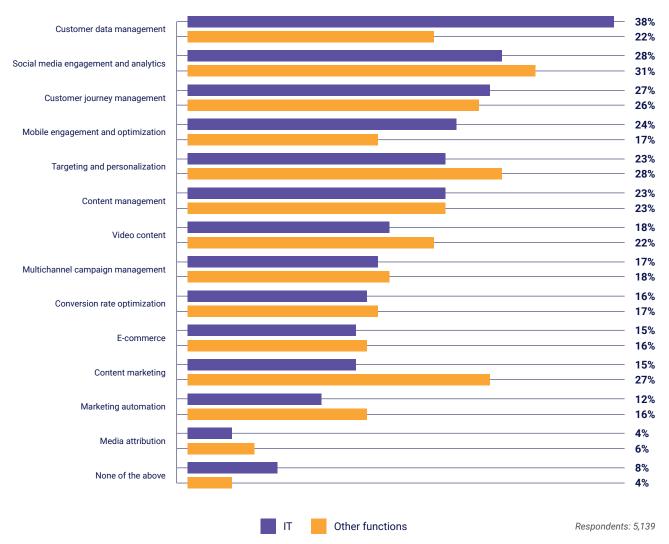


Figure 3: Which three digital-related areas are the top priorities for your organization in 2020?

Customer data is imperative to CX

When marketing initiatives are being planned, the implications for standard IT functions—such as development and maintenance—can sometimes be underplayed.

As is widely acknowledged, customer data is imperative to CX—and managing, controlling and exploiting it brings a whole host of challenges and opportunities.

Clearly, IT executives are particularly alive to the customer data imperative.

- Over a third (38 percent) of IT respondents name customer data management as a top priority for their organization in 2020 (*Figure* 3), compared to just over a fifth (22 percent) of their peers in other departments.
- IT executives are also more likely than others to mention consumer concern about data and privacy as a significant point to consider for 2020 (17 vs. 14 percent, *Figure 6*).

This reiterates the importance of IT leadership having a major say when business cases are worked out for new campaigns, initiatives, and other investments.

It also demonstrates the increasingly pivotal nature of the relationship between the CIO/CTO and the CMO. There is clear fertile ground for collaboration between the two departments to increase.

Recent research by Adobe and Microsoft explored the relationship between CIOs and CMOs,¹ including some shared areas of focus:

- 48 percent of CIOs and 46 percent of CMOs mentioned siloed data sources as a challenge.
- 48 percent of both CIOs and CMOs saw AI and machine learning (ML) as three times more important than other disruptive technologies.

But it also identified areas where priorities diverge, and distinct departmental goals continue to take precedence.

- 64 percent of CIOs highlighted continuing digital transformation programs as a top priority, while 66% of CMOs emphasized reaching targets for revenue and profit.
- 44 percent of CIOs saw enhancing staff experience and satisfaction as a top priority, while only 4 percent of CMOs did so.

Potential tech failures and changing customer expectations are external challenges

Figure 4 underlines IT executives' often-conflicting challenges in the digital age. As was the case for the 2019 Digital Trends report, it is clear that pressures from the commercial and infrastructure worlds make their mandate highly complex.

When asked about the top three external challenges that are most likely to give them sleepless nights, they highlight a mix of CX and infrastructure health prerogatives.

The "threat of security issues and cyber-risk threats" and tech failures and downtime remain serious worries for many IT executives (44 percent and 35 percent, respectively).

Sandwiched between these two other challenges is "keeping up with changing customer expectations and behavior" (40 percent).

The pressure to raise the CX bar to meet commercial targets is no longer the preserve of marketing and sales teams only, and IT departments have refreshed and expanded their focus beyond just managing infrastructure assets.

¹ "Key Takeaways from the Evolving CIO-CMO Relationship," Adobe.

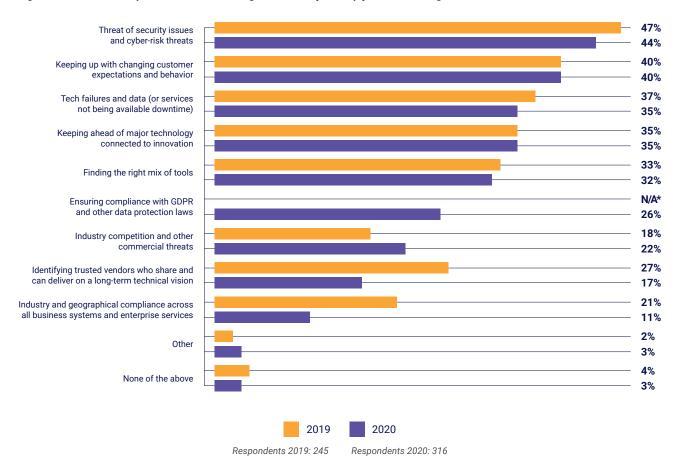


Figure 4: What are the top three external challenges most likely to keep you awake at night?

*Note: "Ensuring compliance with GDPR and other data protection laws" was a new option in the 2020 survey.

Tech selection adds to complexity

Adding to the challenge is the difficulty of getting the right technology enablers in place.

Keeping ahead of the technology curve and "finding the right mix of tools" are significant worries for many IT executives (35 percent and 32 percent, respectively, see *Figure 4*).

However, less than a fifth of IT executives name trusted vendor identification as a top-three external challenge (17 percent, down from 27 percent in 2019). Suppliers seem to be making progress in matching their products and services with clients' long-term technical vision, thus dampening the tech selection challenge.



Data control still a worry

Adding further to the complexity is the expansion of regulatory compliance. Coming up to two years after the European Commission's introduction of the General Data Protection Regulation (GDPR), more than a quarter (26 percent) of IT executives cite "ensuring compliance with GDPR and other data protection laws" among their top-three external challenges (*Figure 4*).

Weighed against the added regulatory burden is that IT executives perceive operational benefits from GDPR's introduction with regard to customer data management. These are especially apparent in terms of

- Subscriber list quality, where nearly half (47 percent) of respondents say GDPR has had a positive impact (see Figure 5, IT respondents).
- Data harmonization, with 43 percent of respondents citing positive impact on the challenge of working with data from multiple sources.

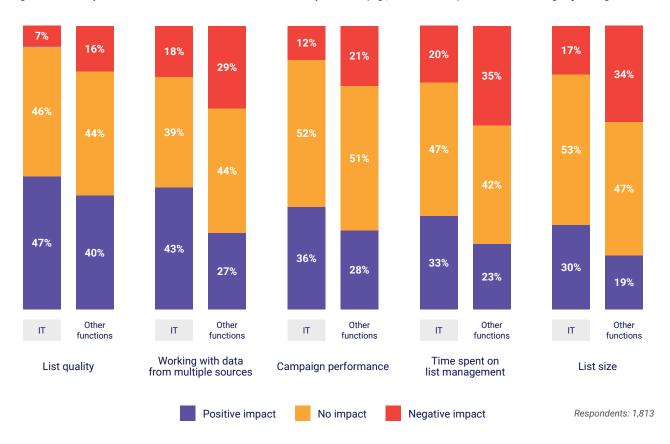


Figure 5: What impact has the increased focus on consumer data protection (e.g., the EU's GDPR) had on the following in your organization?

In summary, the role of IT professionals has become significantly more complex as businesses have increased their focus on CX and customer data. Their core task of ensuring infrastructure is well managed now requires them to balance a growing range of regulatory, business, and technical imperatives. Organizations need to empower IT departments to ensure they have the tools to fulfill this mandate, and work to build closer cooperation between the CIO and CMO.

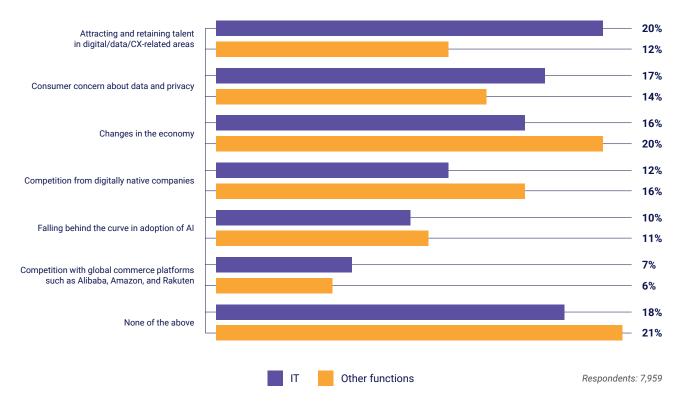


Advances in technology are creating new opportunities for competitive differentiation. However, many organizations are struggling to create the right skills environment, which makes full use of these new enablers.

Human resource factors remain key—especially when it comes to talent acquisition. The European Commission, for example, has warned that demand for information and communications technology staff is growing at 4 percent annually,² jeopardizing the potential for growth and digital competitiveness.

The skills shortage is evidently front of mind for IT business leaders. As shown in *Figure 6*, attracting and retaining talent is IT executives' main business concern for 2020, outweighing worries around the health of the economy, privacy, and competition. IT executives are much more likely than other staff to name hiring challenges as a significant worry (20 percent vs. 12 percent).





² Péter Palotai II, "E-Skills and Jobs in the Digital Age," European Commission, May 10, 2017.

Skills shortages holding back AI adoption

Intensifying the battle for talent is the rising adoption of AI and other new-wave technologies for CX improvement.

- Many organizations are already using AI to layer on new CX capabilities, particularly in analysis of data (Figure 7).
- · Over half of IT executives say their organizations are already using (20 percent) or planning to invest (34 percent) in Al.

However, it seems that companies do not currently have the right knowledge and skills base to be able to take full advantage of Al's benefits. Around a quarter of IT executives who have not employed Al yet cite lack of knowledge (27 percent) or lack of resource (23 percent) when explaining why they have not done so. Some also point to the resource burden of training as a barrier (9 percent).

Three of the four jobs highlighted in the World Economic Forum's 2020 *Jobs of Tomorrow* report–cloud, engineering, and data clusters–require disruptive tech skills including Al.³

Our own report infers that IT departments could be doing more to upskill their staff. Less than a quarter (22 percent) of respondents emphasize digital training programs for employees as a priority for 2020 (*Figure 1*).

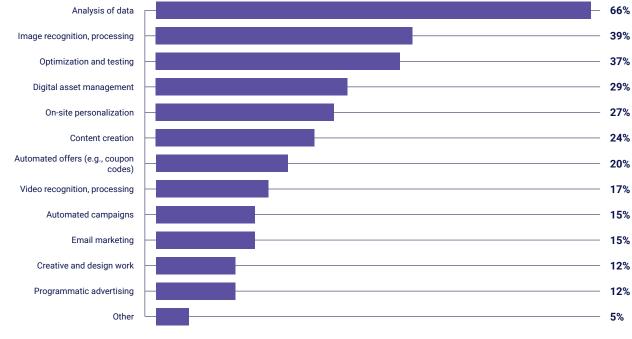


Figure 7: With regards to automation of specific marketing-related activities, what is your organization currently using AI for?

Respondents: 41

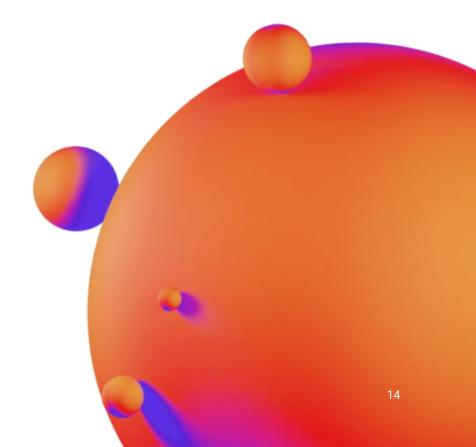
If they aren't already doing so, leadership teams within organizations need to be seriously discussing skills-related challenges. Knowledge and experience gaps will become more and more of a pain point. While AI and ML can result in repetitive tasks being automated, there is also a growing requirement for data scientists who can help companies extract maximum value from technology. Throwing money at the problem doesn't seem to solve it—organizations will need to take a strategic, multilayered approach to skills development.

³ "Jobs of Tomorrow: Mapping Opportunity in the New Economy," World Economic Forum, January 2020.

Conclusion

Four key takeaways for IT professionals

- It is crucial that IT departments continue to be at the forefront of customer-centric digital transformation, adapting how they function to meet the needs of CX-focused business. The IT function should be focused on developing integrated technology stacks, allowing different teams within the business to create minimum viable products (MVPs) as quickly as possible, using centralized APIs.
- 2. With agile delivery methods having been pioneered by technology teams, IT departments are well positioned to train other parts of the business around digital best practices, and to play a leading role in creating digital centers of excellence and driving collaboration initiatives across the organization.
- 3. IT departments should be as aligned as possible to the company's overall strategic and commercial objectives, with cooperation between marketing and CX teams increasingly important. This involves bringing CIOs and their CMO counterparts more closely together so they can help ensure their teams are working in harmony rather than with different agendas.
- 4. Skills remain a major (and growing) pressure point with on-the-job training required to extract as much value as possible from existing technologies, and to ensure that companies can harness the power of AI and other post-digital technologies. Rather than being focused on narrow skillsets and specific tools, training should be geared toward specific business use cases, encompassing multiple tools and technologies where required.

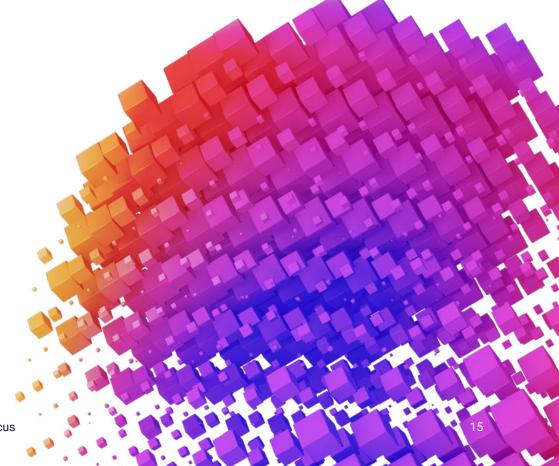


Methodology

2020 Digital Trends—IT in Focus is based on an online survey fielded to select Adobe and Econsultancy lists in the fourth quarter of 2019. The survey closed having collected 1,085 qualified responses from those working in IT.

Demographic profiles

- Fifty-one percent of all respondents came from the client side. The remaining sample is made up of IT consultants, executives at agencies, and IT technology/services vendors.
- Eighty-one percent of client-side responses were at the manager level or above.
- As defined by target market, those addressing both markets equally accounted for 42 percent, followed by B2C (34 percent) and B2B (24 percent).
- The sample is global, with Europe providing the largest share of respondents (47 percent), followed by the United States (25 percent) and the Asia-Pacific region at 16 percent. The survey was translated into French, German, Chinese, and Japanese.
- Multiple business sectors are represented, with concentrations in technology (16 percent), manufacturing (11 percent), financial services and insurance (11 percent) and healthcare and pharmaceuticals (8 percent).







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