Microsoft Azure

Back to the Fundamentals

A new international study makes the case
for pragmatic innovation—
transforming what matters most

"Doing more with less doesn't mean working harder or longer. It means applying technology to **amplify what you can do** and ultimately what an organization can achieve **amid today's constraints**."

—Satya Nadella
Chief Executive Officer,
Microsoft

What do people need most from the apps and software they use on the job, and which innovations are most meaningful to them?

To find out, Microsoft commissioned a survey in five different countries, and the results make a compelling case for a sharpened focus on the fundamentals: user-friendliness, streamlined workflows, built-in security. People crave innovations that simplify their everyday work and help them do their jobs more seamlessly and efficiently. Responding to these human needs can empower your organization's most important asset: your employees.

"Meaningful innovation always has been and always will be about serving people's needs. It's a simple truth that matters even more at a time when organizations need to do more with less and maximize the value of their investments."

When business leaders picture innovation, they often envision dramatic leaps forward: sales associates guiding customers through the metaverse, predictive technology helping doctors diagnose diseases, collaborative robots working in smart factories. And yet there's another form of progress that's just as essential but easier to overlook—pragmatic innovations, or solutions that address people's most immediate and pressing needs. For organizations, understanding what their employees need from software and apps is essential for helping people do their daily work. It's the first step to removing blockers that slow employees down and ultimately hurt the bottom line—which is even more important as organizations navigate changing markets and look to accelerate growth. When employees thrive, organizations do too.

To investigate which innovations resonate most with people in healthcare, retail, and manufacturing, Microsoft commissioned a study from Ipsos, a global market research firm, focusing on what people need from cloud-based apps and software they use on the job. The study began with qualitative interviews with 68 people in five markets; participants also documented their work experiences over a 10-day period. The research continued with roundtables with 16 digital C-suite leaders in those three industries, and it wrapped up with a quantitative survey of 1,500 frontline and information workers in the United States, Brazil, India, Norway, and Japan.

What the findings reveal: across industries and markets, people want solutions that secure data automatically, eliminate the need for repetitive input, and allow them to access information in one place. "There are so many opportunities for companies to reduce the complexities, the stress, and the hassles of app proliferation," says Chris Bonsi, senior vice president at Ipsos. "Software and apps should be easy and intuitive to use. They should automate the mindless tasks so that employees are more engaged, more productive, and deliver greater impact for the business."

The people surveyed were most interested in easing common daily pain points and slightly less interested—for now—in cutting-edge technology like immersive experiences and digital surfaces that act as secondary screens. The top seven imperatives suggest areas of focus for companies that need to modernize their apps and software and improve their employees' experience.

Meaningful innovation always has been and always will be about serving people's needs. It's a simple truth that matters even more at a time when organizations need to do more with less and maximize the value of their investments.

Dueling needs

Ethnographic and qualitative research surfaced the following 16 app innovation themes, which were then pressure-tested quantitatively

When researchers interviewed people in the United States, Brazil, India, Norway, and Japan, clear themes became apparent: across markets, people often talked about needing similar things from the apps and software they use for work. Ipsos distilled these often-mentioned themes—or human needs—into the phrases listed below. Next, to hone in on which needs are seen as priorities, Ipsos tested the phrases with 1,500 people who work in manufacturing, retail, and healthcare in those five same international markets. Participants were asked to look at pairs of the following statements and choose which was most relevant to them at work:

Meaningful conversations
Have meaningful conversations with others (i.e., eye contact) without devices getting in the way*

More informed interactions
Access all the data I need in one place for more informed interactions with others

Apps speak to each other
Stay in the flow with different apps that speak to each other vs. having to patch things together myself

No repetitive input
Avoid inputting information into different apps over and over

Reduce workload
Reduce my manual workload with effortless data exchanges across numerous machines and systems

Single, integrated app
Focus on multiple tasks and projects from within a single, integrated app

Access data anywhere
Work with important information securely from anywhere without feeling tethered to a dedicated work device

Excitement for immersive experiences
Experience more excitement in my job through immersive digital enhancements

Surfaces become digital
Utilize other smart surfaces as digital displays for interacting with information in new ways

Immersive digital environments
Replicate real-world experiences (i.e., allowing people to touch virtual objects) in digital environments

Streamline tasks intelligently
Streamline tedious tasks intelligently to free me up to add more of my unique value

Receive training and advice
Receive on-the-job training and advice in the real world without having to be behind a computer

Check my work
Check my work in the background with suggestions and support when I might be making a mistake

Automatically secure data
Automatically secure any sensitive data that I touch to protect me from making breaches or errors

Intuitively guide me
Receive personalized and intuitive on-the-job training

Receive recommendations
Receive personalized recommendations for my next actions, customized to where I am and what I am doing

Capturing hearts and minds

To formulate a ranking, Ipsos used a survey technique that takes into account not only people's choices, but also the speed of their responses.

This proprietary methodology captures not just rational decisions but also emotional responses—a holistic view of human preference. Ipsos also asked people whether they were satisfied with current solutions on the market or if new innovations were needed.
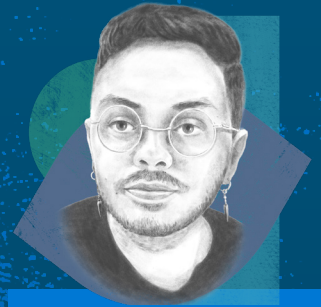
The ideal app would be multipurpose and "work smoothly with a great interface, great design, no bugs, and it wouldn't lag. It would be 100% reliable in every situation."
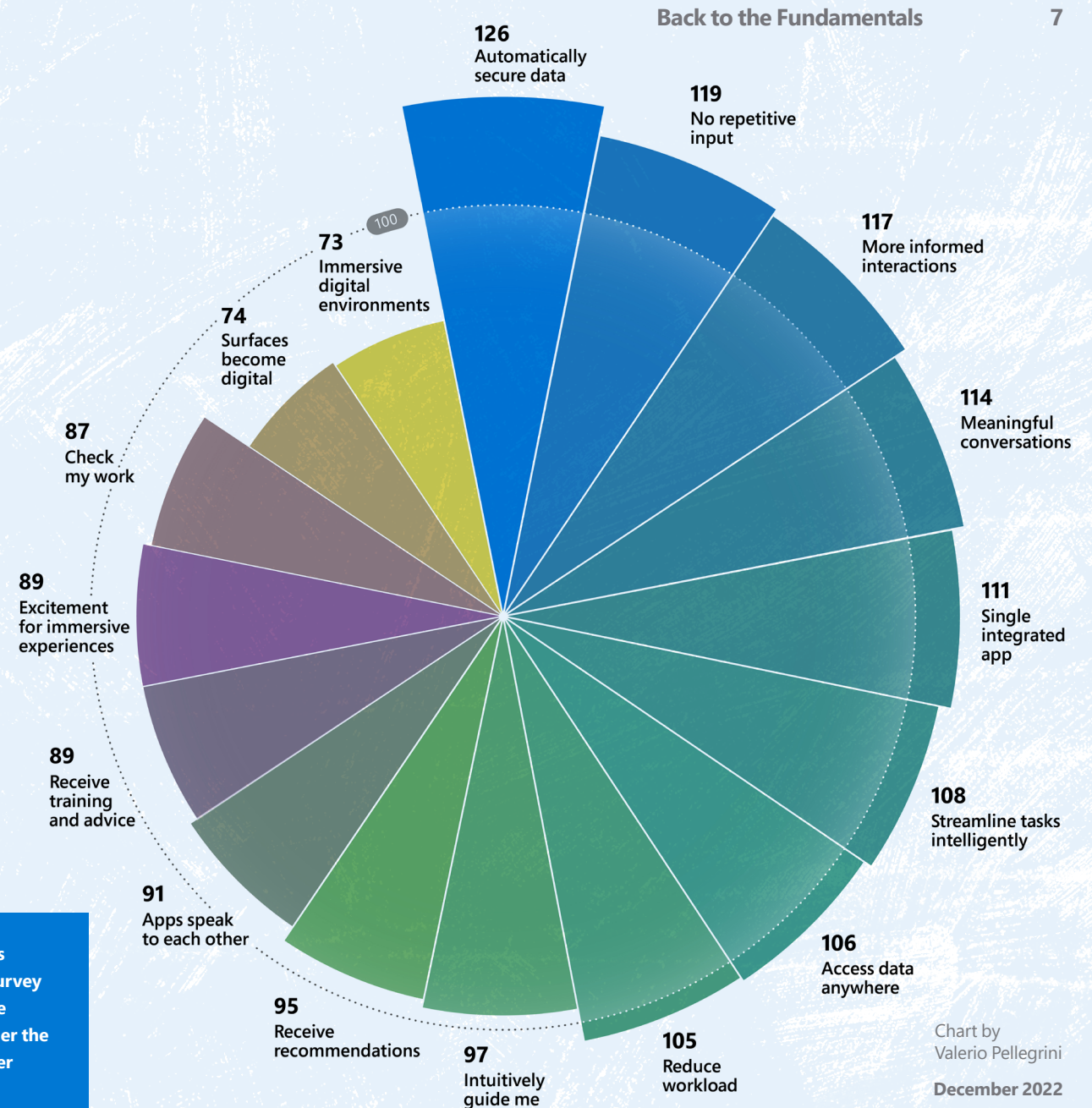
—Sergio
caregiver for older adults, United States

Top needs, ranked

Across markets, people want their organizations to get the fundamentals right

People are most interested in practical solutions to pain points. For now, innovations like digital surfaces and immersive experiences are lower priority. Companies that plan to invest in these technologies may need to do more to communicate how they will benefit employees.

This ranking shows the top needs of survey respondents in five countries. The larger the number, the greater the need.

126 Automatically secure data

119 No repetitive input

117 More informed interactions

114 Meaningful conversations

111 Single integrated app

108 Streamline tasks intelligently

106 Access data anywhere

105 Reduce workload

97 Intuitively guide me

95 Receive recommendations

91 Apps speak to each other

89 Receive training and advice

89 Excitement for immersive experiences

87 Check my work

74 Surfaces become digital

73 Immersive digital environments

100

Chart by Valerio Pellegrini

The top 7 app experiences people need now

A data-driven, international ranking of which digital experiences are in high demand across industries

1

Number 1 ranked need
in Brazil and India

Number 1 ranked need
in US healthcare

People want any sensitive data they touch to be secured automatically.

Companies are focused on preventing data breaches—and so are information and frontline workers across industries and countries, as the survey revealed.

United States healthcare employees must consider the requirements of HIPAA, the federal law that requires strict protection of patient health data. Protection against breaches is also critical for manufacturing, the most targeted industry for ransomware attacks.

Retailers handle credit card numbers and other sensitive information. "When you're dealing with personal information, addresses, and social media, you get a kind of X-ray vision of your customers," says one associate vice president at a global retailer. It's a big responsibility. And since different countries have their own laws about data storage and security, he says, "if you have a global footprint, it gets even more complicated."

> **"We need to ease the pain of our team members and help reduce risk and error so they can focus on patients."**
>
> —A chief operating officer in healthcare

People want security— without blockers

The need to automatically secure sensitive data was a priority across markets, but particularly in Brazil, where there have been highly publicized data breaches. In interviews, many people spoke of the difficulty of keeping track of many passwords—they prefer security to be automatic.
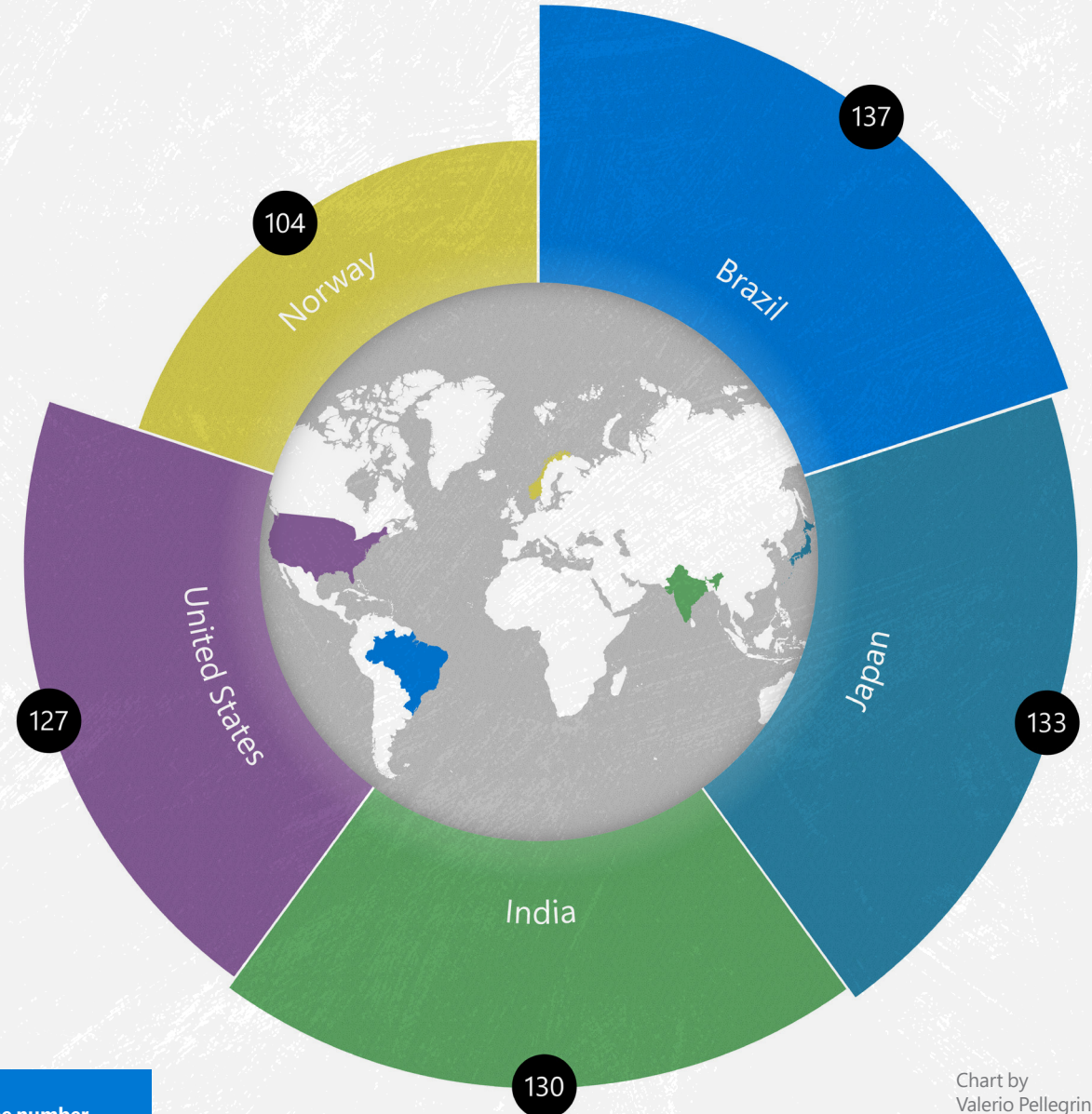
137 Brazil

104 Norway

127 United States

133 Japan

130 India

The larger the number, the greater the need.

Chart by Valerio Pellegrini

Multi-market ranking **December 2022**

2

Number 1 ranked need
in the US and Japan

Number 1 ranked need
in US retail and manufacturing

People don't want to input the same information into different apps.

For people in the United States and Japan, the number one need overall was to avoid repetitive data input. People responded to this problem with passion—and said it hasn't been solved by the apps they use today. For people both in retail and manufacturing, repetitive input was their top concern, the survey showed. Healthcare practitioners also spoke of having to input the same patient data into different apps and devices. One chief information officer for a healthcare management service says electronic medical records "are notorious for needing to copy and paste data from this screen onto that screen. Why does that have to happen, with all of the technologies available today?"

> "There are too many silos, or different types of tools that don't talk to each other. If it's not part of the same ecosystem, it creates a huge amount of duplication in work."
>
> —A chief operating officer in manufacturing

Global view
Listening to what people need

Eliminating repetitive data entry was the top need in Japan by far. People in Japan still frequently work with paper documents that are hand-stamped with a seal, a tradition that persists despite digitization efforts. Converting data from paper into a digital format and vice versa results in time-consuming work.

Kei, who works in the intellectual property department of a manufacturer, finds it "impossible to repeat the same process over and over again."

3

Top 5 need
in all markets

Number 2 ranked need
in US healthcare

People want access to all the data they need in one place so they can have more informed interactions.

App proliferation is a pain point: employees across healthcare, retail, and manufacturing said in interviews that having to use many different apps complicates their jobs. They would prefer to access data in one place instead. "Everything is very ad hoc and piecemeal, and you end up with a situation where you have dozens of apps running in the business that don't communicate with each other," Bonsi says. "It's actually decreasing productivity. And it's creating complexity and stress."

Samantha, a medical coder in Florida, wishes for a comprehensive medical tracker that could pull patients' vital information—past medical history, illnesses, allergies, and any reactions to medications—from different sources over time and hold it in a single place. Maybe someone had a reaction to medication years ago and didn't think to mention it to their doctor, she says. Having a single, easy-to-access source of documentation would keep medical professionals better informed. "You need to make sure you're getting a better, more accurate picture and not missing anything," she says. "You're dealing with people's lives."

"I deal with 70 patients a day. If a coworker asks me about a specific patient, I have no idea. If I had an app on my phone where I could pull up the patient, I'd be able to refresh my memory and have a better conversation about it."

—Samantha
medical coder,
United States

4

Number 1 ranked need
in Norway

Key priorities
in US healthcare and retail

People want to have meaningful conversations with others.

It's a familiar situation: you're talking to a healthcare provider or sales associate, and they're looking at their device instead of at you. People want to connect with others—and the shop employee or nurse holding that device feels the same way, as the research findings show.

Digital transformation has put technology in the hands of more frontline workers than ever before in the form of tablets, computers, and other devices. But particularly in healthcare, employees say technology can sometimes impede face-to-face connections.

One president in the healthcare industry recounted that when providers and patients used to have 20 or 30 minutes together, they'd spend most of that time talking. Now, they might only spend a few minutes talking, because the provider needs to input data into the system.

> "The apps I use have so many steps and screens to click through—I can't engage with patients like I want to."
>
> **—Elisangela**
> healthcare technician, Brazil

Global view
Listening to what people need

In Norway, the desire to facilitate meaningful conversations was the number one need—it beat out any other need in any other country.

Sara, who works in child welfare services, expresses frustration with clunky software and system freezes that take her away from her focus: to help people. "Time spent behind the computer is time away from our clients," she says.

5

Number 2 ranked need
in India

Number 3 ranked need
in Japan

People want to work on multiple tasks and projects from within a single, integrated app.

The need for focus bubbled right to the top for many people, who dream of intuitive, multi-tool apps that can seamlessly centralize scheduling, video meetings, reminders, note taking, and more—the experiences they rely on throughout their workday. Instead, they often use standalone apps and digital assistants.

Integrated solutions already exist, including the Microsoft Cloud portfolio of solutions, but not all people have access to them. It's a reminder that not everyone has access to digital tools that are already available: digital transformation happens unevenly across industries and companies.

"**If I want to work on finances, I have one app. To check stock, that's another app. Delivery is yet another app. They are not interconnected. And everything has its own password.**"

—Leonel
store manager,
Brazil

Global view
Listening to what people need

The desire for a single, do-it-all app was a strong performer internationally, and was among the top needs in India and Japan.

One interviewee, who works for a jewelry manufacturer in India, put it succinctly: "I wish there was a one-stop solution for everything."

Spot the opportunities

Some needs are ripe for pragmatic innovation right now—and others represent opportunities for sweeping innovation in the future

The survey not only asked people to rank what they need from the software they use for work, it also asked people whether they were satisfied or dissatisfied with the solutions already on the market. This chart, based on United States data, shows opportunities for innovation in the United States. They progress from immediate to near-term, mid-term, and emerging opportunities.

Immediate opportunity
People feel this need is very relevant to their work and they are not satisfied with the tools they already have to address it.
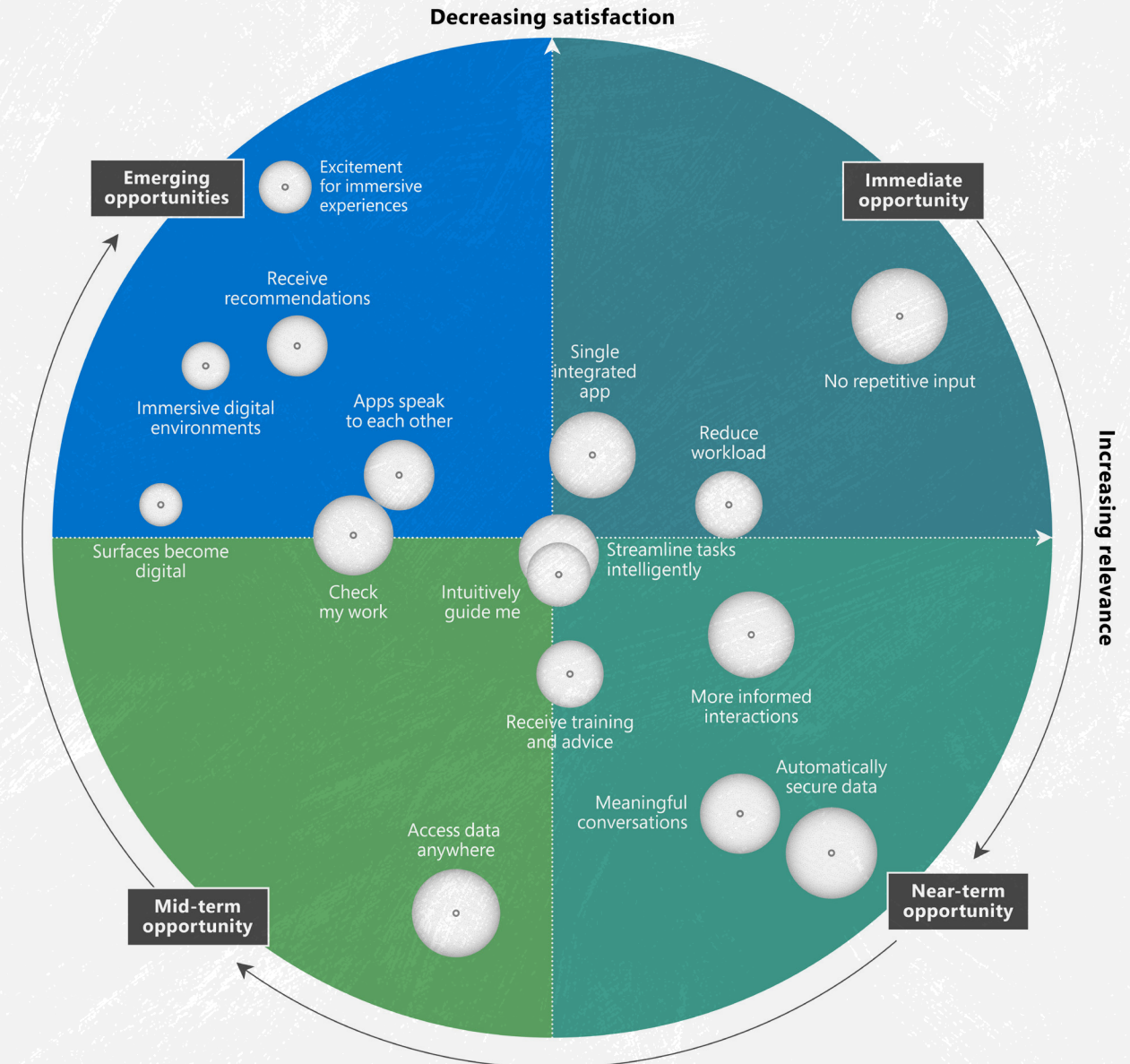
Near-term opportunity
People see this need as very relevant and are mostly satisfied with existing tools that address it.

Mid-term opportunity
People say this need is less relevant to them, and they are mostly satisfied with the existing tools that address it.

Emerging opportunity
This need has less immediate relevance to people, but they are dissatisfied with existing solutions on the market.

Decreasing satisfaction

Increasing relevance

Emerging opportunities

Immediate opportunity

Excitement for immersive experiences

Receive recommendations

Single integrated app

No repetitive input

Immersive digital environments

Apps speak to each other

Reduce workload

Surfaces become digital

Check my work

Intuitively guide me

Streamline tasks intelligently

More informed interactions

Receive training and advice

Automatically secure data

Meaningful conversations

Access data anywhere

Mid-term opportunity

Near-term opportunity

6

Number 2 ranked need
in Brazil

Number 4 ranked need
in Japan and Norway

People want to streamline tasks so they have more time to contribute their unique value.

"Anything that makes life easier or gives me more of my time back is fantastic."

—Rusty
operations manager, United States

Semi-automation frees up people's valuable time. Software that takes care of lower-impact tasks can allow people to concentrate on areas where they can truly shine—and in turn, make their jobs more rewarding.

In interviews, many people imagined how automation could improve their jobs. Philip, a product manager at a consumer hardware technology company, often finds himself combing through his email to check what information he sent customers months ago. He'd love a "streamlined way to track what has been shared with the customer already, when we met last, what was the topic of conversation."

Shashank, a manufacturing engineer in the US, finds it challenging to comb through all his communication channels—various group chats, emails, text messages—to figure out his to-do list for the day. "If an assistant was connected to all of them, it could pick up all these 'action items,' and compile a list of what people owe you and what you owe people," he says. He looks forward to a future where software "does more work for you preemptively, so that you are just going in and giving the final touches to get something done."

Global view
Listening to what people need

The desire to streamline tasks resonated in particular in Brazil. In interviews, people talked about how automated solutions might help them process information from across their many apps or accounts.

Gabriella, an e-commerce analyst, has to visit various store platforms to calculate how many orders were canceled or not delivered. "If there were apps that could give me this result, and that were integrated with my company's own system, it would be so much easier," she says.

7

Number 3 ranked need
in Brazil

People want to work with important information securely from anywhere, on any device.

This ranking started with security—and it ends with security, too.

Remote and hybrid work during the pandemic drove a heightened awareness of the importance of securing data, as people began using devices outside of their normal work spaces. People want to keep data safe, but without sacrificing their freedom of movement, as the survey data showed.

Nilam, a healthcare IT analyst in the United States, seeks out apps that allow her to switch seamlessly between her laptop and her phone for communications and notetaking. "A laptop will die after a few hours, and if I'm on the road I don't want to have to rely on something that I have to lug around," she says. "I like the ability to access anything that I need from any device, anywhere I am."

Being simultaneously free of constraints and worry is a prominent need state for people today.

"Let's say I'm on a video call on my computer and I need to leave my house. Why can't the conversation just transfer automatically to my phone, so I can have that continuity?"

—Shashank
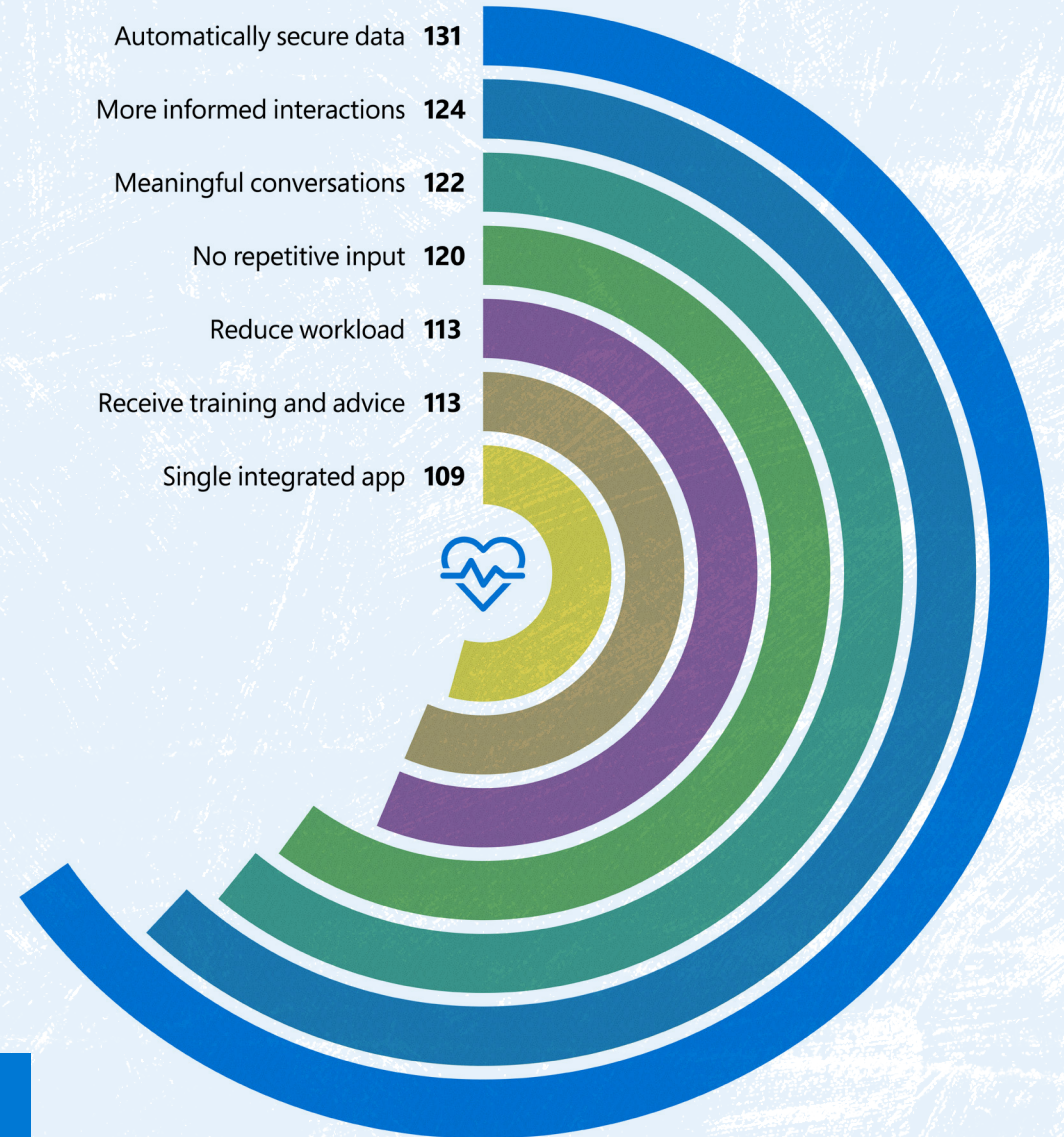manufacturing engineer, United States

Retail, manufacturing, and healthcare have different priorities

Researchers gathered C-suite digital leaders from healthcare, manufacturing, and retail for three industry-specific group work sessions. In these conversations, participants revealed pain points for their respective industries as well as the innovations they're working toward today.
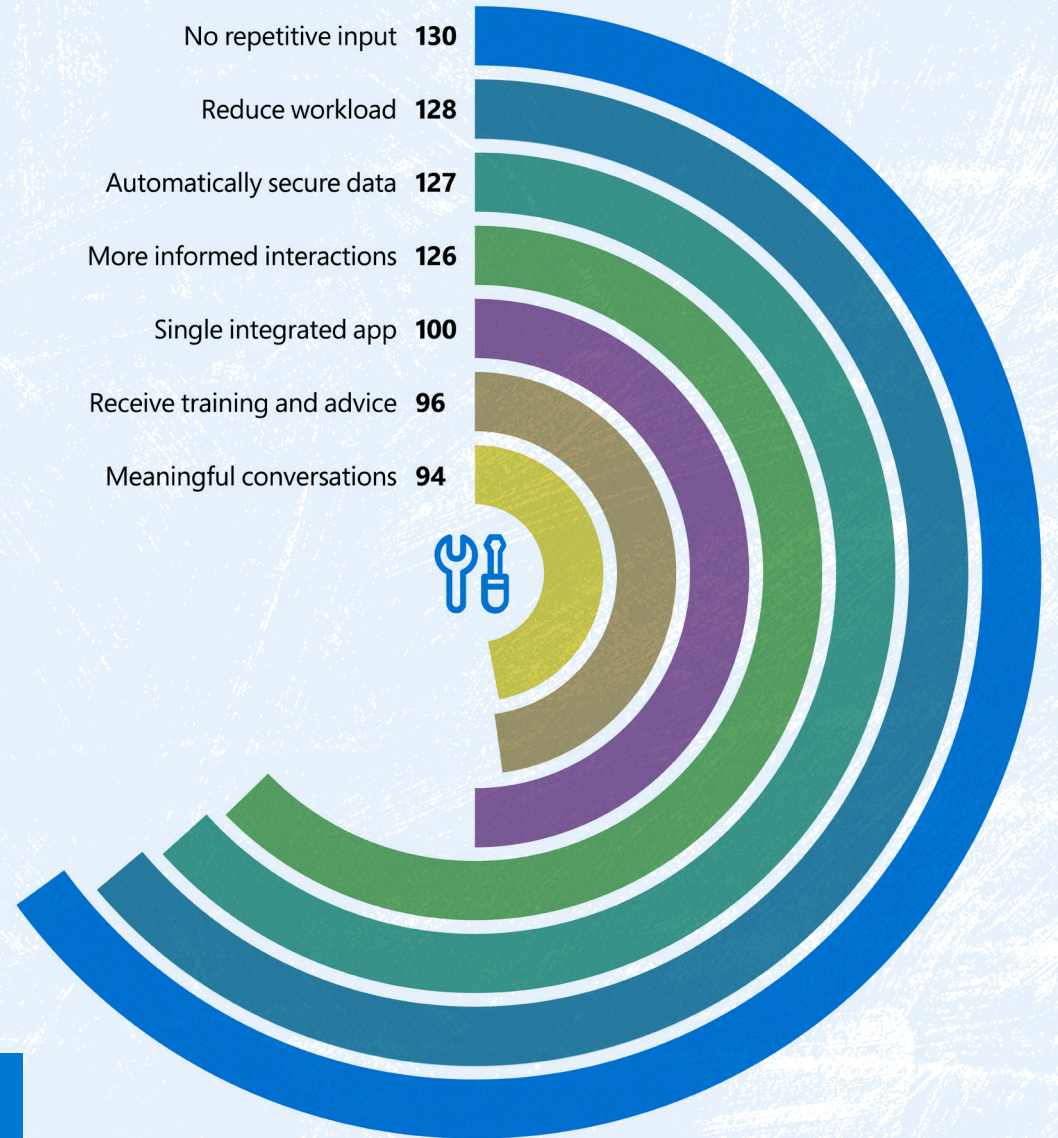
Top priorities for healthcare

Employees in healthcare are feeling overtaxed, and staff shortages in particular are a persistent problem. Automating and streamlining their workflows would give them back time for deeper interactions with patients. "We're trying to automate wherever possible to ease the burden on the clinician," one hospital chief information officer said.

Healthcare is highly regulated, and software must protect patient health information. Many hospitals still have fax machines because some healthcare leaders feel they are more secure, and because electronic health record systems can't exchange information seamlessly with each other due to the lack of industry standards. And yet patients now expect immediate, virtual access to their healthcare records, as one president of a medical system pointed out.

Automatically secure data **131**

More informed interactions **124**

Meaningful conversations **122**

No repetitive input **120**

Reduce workload **113**

Receive training and advice **113**

Single integrated app **109**

Higher numbers represent greater needs for US respondents in the healthcare industry.

Chart by Valerio Pellegrini   **December 2022**

Top priorities for manufacturing

Today's supply chain challenges and employment market present issues—and learning opportunities—for manufacturers trying to operate as usual. "During COVID, we had to optimize around personnel because people were out sick or were quarantined," said one chief operating officer in manufacturing. "We took that opportunity to ask: How do we operate when we do have people out, how do we digitize things? It's expensive, time consuming, and painful, but it's working. We're increasing overall productivity with the same head count."

Priority	Value
No repetitive input	130
Reduce workload	128
Automatically secure data	127
More informed interactions	126
Single integrated app	100
Receive training and advice	96
Meaningful conversations	94

Higher numbers represent greater needs for US respondents in the healthcare industry.

Top priorities for retail

The retail industry operates on thin margins, and return on investment was always on the minds of digital C-suite leaders Ipsos interviewed. In an industry that has traditionally focused on the customer experience, the frontline worker experience emerged as a lower priority for these leaders. But some acknowledged a need for change: "For a very long time, it was okay for your associates to have less technology in their hands when they're at work," said one vice president of technology and product management at a major retail chain. "But now the consumer is walking in and has more information at their fingertips than the associate. To be relevant, you have to invest in that infrastructure."

No repetitive input **141**

Meaningful conversations **133**

Automatically secure data **119**

Reduce workload **112**

Single integrated app **110**

More informed interactions **107**

Receive training and advice **101**

Higher numbers represent greater needs for US respondents in the healthcare industry.

A global perspective

Human-centric priorities for app innovation vary across markets

In Norway, people's greatest need is to have meaningful conversations without technology getting in the way. For people in Japan and the US, the number one priority is to reduce the amount of repetitive input they have to perform. In Brazil and India, data security is paramount.

🇺🇸 United States

No repetitive input	133
Automatically secure data	127
More informed interactions	120
Meaningful conversations	119
Reduce workload	118
Single integrated app	106
Receive training and advice	104
Streamline tasks intelligently	103
Intuitively guides me	103
Access data anywhere	94
Apps speak to each other	89
Check my work	85
Receive recommendations	80
Excitement for immersive experiences	79
Immersive digital environment	72
Surfaces become digital	68

🇧🇷 Brazil

Automatically secure data	137
Streamline tasks intelligently	126
Access data anywhere	125
More informed interactions	114
Reduce workload	113
Single integrated app	109
Meaningful conversations	106
Receive recommendations	98
Intuitively guides me	97
No repetitive input	97
Apps speak to each other	94
Receive training and advice	85
Excitement for immersive experiences	83
Immersive digital environment	78
Check my work	72
Surfaces become digital	67

🇮🇳 India

Automatically secure data	130
Single integrated app	126
More informed interactions	125
Receive recommendations	118
Excitement for immersive experiences	116
Access data anywhere	110
Reduce workload	107
Meaningful conversations	104
No repetitive input	97
Check my work	92
Streamline tasks intelligently	87
Apps speak to each other	86
Surfaces become digital	81
Intuitively guides me	97
Immersive digital environment	75
Receive training and advice	65

🇳🇴 Norway

Meaningful conversations	152
No repetitive input	121
More informed interactions	116
Streamline tasks intelligently	113
Intuitively guides me	111
Automatically secure data	104
Apps speak to each other	102
Receive training and advice	98
Single integrated app	96
Access data anywhere	95
Reduce workload	92
Check my work	91
Excitement for immersive experiences	83
Receive recommendations	80
Surfaces become digital	79
Immersive digital environment	70

🇯🇵 Japan

No repetitive input	145
Automatically secure data	133
Single integrated app	118
Streamline tasks intelligently	113
More informed interactions	108
Access data anywhere	107
Receive recommendations	100
Check my work	94
Intuitively guides me	94
Receive training and advice	93
Reduce workload	93
Meaningful conversations	90
Apps speak to each other	85
Excitement for immersive experiences	84
Surfaces become digital	74
Immersive digital environment	71

The takeaway

Again and again, people around the world told us the same thing: they crave simplicity in the apps and software they use at work. Across industries, from factories to hospitals to retail shops, people spoke of similar challenges, like toggling between different apps that don't communicate with each other, dealing with cumbersome security measures, and keeping track of which data lives where.

For businesses, these pain points represent an opportunity. To empower and energize employees, companies should invest in technology that simplifies people's daily workflows. These are the fundamentals—the kinds of improvements that aren't always seen as "Innovation" with a capital I, but that can elevate someone's experience, make their daily work more rewarding, and energize them. They can free hospital workers to focus more on patient experience, or empower retail employees to deliver information to customers more swiftly and smoothly. In manufacturing and beyond, they can ensure a seamless exchange of data between systems and machines—and in turn, reduce people's manual workloads so they can innovate, learn, or explore.

Getting these fundamentals right can make a difference for organizations that need to maximize their investments and do more with less. It's essential for companies at every stage of their cloud journey, whether they're modernizing existing solutions to maximize efficiency, building brand-new experiences for scale, or providing professional and emerging citizen developers with the most comprehensive tools available. These are innovations built not for the distant future, but for right now.

About the study

These are some of the findings of an Ipsos study conducted between July and September 2022. Qualitative research in the form of 18 in-depth interviews was conducted in the United States followed by 50 digital ethnographies across the United States, Brazil, India, Japan, and Norway. Ipsos then facilitated 90 minute virtual roundtables among CXOs separately for healthcare, retail, and manufacturing to understand the relevance and viability of the innovation opportunities identified among the workers.

The qualitative research was followed by a quantitative validation study among frontline and information workers with 500 interviews conducted in the United States and 250 interviews each for Brazil, India, Japan, and Norway. The sample was split evenly across retail, manufacturing, and healthcare workers from 25 to 64 years old who were employed as mid-level managers or lower.

The sample was randomly drawn from Ipsos's online and partner panel sources and does not rely on a population frame in the traditional sense. Ipsos uses fixed sample targets, unique to each study, in drawing a sample.

Statistical margins of error are not applicable to online non-probability polls. All sample surveys and polls may be subject to other sources of error, including, but not limited to coverage error and measurement error. Where figures do not sum to 100, this is due to the effects of rounding.