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.
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

*These phrases represent the points of view of the people that Ipsos interviewed. This language was not formulated by Microsoft.
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.
The top 7 app experiences people need now

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

—Leonel
store manager, Brazil

“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.”
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.”
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 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.

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

Note: The size of each circle represents how frequently people say they have this need. Larger circles represent higher frequencies.
People want to streamline tasks so they have more time to contribute their unique value.

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.”

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

—Rusty operations manager, United States
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.
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.
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.
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.”
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.”
## A global perspective

### Human-centric priorities for app innovation vary across markets

<table>
<thead>
<tr>
<th>United States</th>
<th>Brazil</th>
<th>India</th>
<th>Norway</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>No repetitive input</td>
<td>133</td>
<td>137</td>
<td>130</td>
<td>145</td>
</tr>
<tr>
<td>Automatically secure data</td>
<td>127</td>
<td>126</td>
<td>126</td>
<td>133</td>
</tr>
<tr>
<td>More informed interactions</td>
<td>120</td>
<td>125</td>
<td>125</td>
<td>116</td>
</tr>
<tr>
<td>Access data anywhere</td>
<td>119</td>
<td>114</td>
<td>118</td>
<td>113</td>
</tr>
<tr>
<td>Reduce workload</td>
<td>118</td>
<td>113</td>
<td>110</td>
<td>110</td>
</tr>
<tr>
<td>Single integrated app</td>
<td>106</td>
<td>109</td>
<td>104</td>
<td>110</td>
</tr>
<tr>
<td>Receive training and advice</td>
<td>104</td>
<td>98</td>
<td>102</td>
<td>107</td>
</tr>
<tr>
<td>Streamline tasks intelligently</td>
<td>103</td>
<td>106</td>
<td>104</td>
<td>98</td>
</tr>
<tr>
<td>Intuitively guides me</td>
<td>103</td>
<td>97</td>
<td>97</td>
<td>98</td>
</tr>
<tr>
<td>Access data anywhere</td>
<td>94</td>
<td>97</td>
<td>92</td>
<td>95</td>
</tr>
<tr>
<td>Apps speak to each other</td>
<td>89</td>
<td>94</td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td>Check my work</td>
<td>85</td>
<td>85</td>
<td>91</td>
<td>93</td>
</tr>
<tr>
<td>Receive recommendations</td>
<td>80</td>
<td>86</td>
<td>83</td>
<td>90</td>
</tr>
<tr>
<td>Excitement for immersive experiences</td>
<td>79</td>
<td>81</td>
<td>83</td>
<td>85</td>
</tr>
<tr>
<td>Immersive digital environment</td>
<td>72</td>
<td>78</td>
<td>78</td>
<td>84</td>
</tr>
<tr>
<td>Surfaces become digital</td>
<td>68</td>
<td>72</td>
<td>75</td>
<td>79</td>
</tr>
</tbody>
</table>

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.
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.