Connecting communities

Building better societies by increasing trust, efficiency, and innovation
“Every person, organization, and even society reaches a point at which they owe it to themselves ... to reenergize, renew, reframe, and rethink their purpose.”

Satya Nadella
CEO, Microsoft
Table of contents
What is the role of government in the modern age?

Why does it exist?

For thousands of years, societies organized themselves around basic principles such as an individual’s right to own property or protection from foreign invasion, but they had a much more laissez-faire approach to their citizens’ daily lives. The First and Second Industrial Revolutions exposed the gross inequities of this model and increased calls for change. In response, many governments took on far-reaching responsibilities, from introducing childhood education and health services to managing the economy and workers’ pensions.
Today, while the specifics may differ, citizens everywhere are holding their governments accountable to deliver a multitude of services. These are perhaps best reflected in the United Nations’ Sustainable Development Goals (SDGs)—a set of 17 high-priority areas for governments, including sustainability, health, education, equality, and economic prosperity.

As societies become increasingly global and digital, government’s role is changing. Citizens in the twenty-first century expect the tech-enabled conveniences they enjoy in the private sector to be matched in the public sector. Empathy is the key ingredient that unlocks the capacity and creativity to solve today’s challenges. Whether in a one-to-one or one-to-many interaction, all forms of listening and understanding are necessary. By enabling government employees to be more available, empathetic, and empowered to help, technology will justify its use and re-energize the spirit of government.
The challenges are immense.

Urban centers are straining under surges in population and an expectation that cities should do more with less. Economic growth is increasingly elusive as active workforces shrink and retirees increase, further pressuring social services. Massive breaches of individuals’ data are intensifying the debate over government’s role in cyber security. Traditional one-size-fits-all approaches and legacy infrastructure are being criticized for failing to meet the needs of marginalized members of society, such as youth, people with disabilities, and the underprivileged. Trust in government is at an all-time low. And yet the pace of change is accelerating.

Governments today need to develop strategies to manage and get ahead of these issues, with key focus areas including: (1) personalizing citizen experience, (2) improving government productivity, (3) fostering innovation and transparency, and (4) protecting digital identities.
Putting the citizen at the center

Governments have the monumental task of serving everyone, regardless of age, disability, talents, or economic situation. As each person is born and passes through the many stages of life, their touchpoints with government services will number in the hundreds, if not thousands. Effectively catering to and supporting each citizen’s specific needs and well-being throughout life (a person’s “welfare continuum”) is the ultimate measure of the quality of governance. Traditional uniform approaches have often failed to meet the needs of all.
Fortunately, today more than ever before, it is possible to design services that extend to everyone. Modern applications such as intelligent agents, coupled with cognitive services, can create always-on experiences, providing information and services anytime, anywhere. Accessibility tools such as text-to-speech, translation, computer vision, closed captioning, and natural language processing can be easily made available through public-facing technologies and smartphone applications. For example, Seeing AI and Caption Bot are two smartphone apps that help visually impaired people detect, understand, and interact with the world around them, thereby greatly increasing their engagement with the rest of the world.
Whereas before there was often only one path an individual could take to access a public service, today, more flexible, omnichannel approaches can create immersive experiences that improve convenience for the whole population. In addition, governments know that virtually all citizens will, over time, face some disability and benefit from accessibility investments.

It’s also now possible to understand and cater to the unique desires of each citizen, engaging them when, how, and where they want. Cloud-based AI combined with sensor networks can help rapidly identify, understand, and address an individual’s immediate need, regardless of time, device, or location. This flexibility creates an exciting revolution in service delivery and engagement, as workflows and information bend to the natural abilities and thought processes of each citizen, rather than forcing citizens to figure out complex government bureaucracies themselves. For example, a local government bot on a smartphone or PC could quickly inform a homeowner if they needed a permit for an upcoming project, provide baseline information, log application details, schedule inspections, and accept fee payments—and, if necessary, connect to a human representative for more complex questions.
Governments can also use technology to streamline existing citizen journeys where possible, eliminating unnecessary steps and increasing access to relevant, self-service information such as live updates of commute times and parking availability.

By taking a user-centered perspective and focusing on those journeys with high rates of dissatisfaction and large numbers of people affected, governments can positively address the most pressing issues in their communities. Going further, governments can embed their services alongside private-sector services and consumer journeys in the interest of improving experience. Buying a car, for example, often involves a disjointed journey across multiple public and private entities (the dealership, the insurer, and the government registration agency), which could be streamlined into a more seamless, citizen-centered experience.

In summary, by personalizing service delivery, governments can create more empathetic, frictionless, and even cross-sector-enabled societies of the future.

“// We must adjust to changing times and still hold to unchanging principles. “

Jimmy Carter
Brisbot

Extending counseling services to kids

In Sweden, BRIS, a nonprofit helpline, created a bot for children called Brisbot, which is available 24x7 via Facebook Messenger and Kik, a popular mobile messaging app. Brisbot came about due to the realization that many children feel uncomfortable talking to adults about sensitive issues and are more at ease with chat. The bot is preprogrammed with questions and responses from BRIS’s counselors and provides tips on how to talk to adults or friends about difficult subjects. It also provides a way for children to connect to human counselors for more in-depth conversations.
A lot of kids really need someone to talk to, but they hesitate to call a helpline. An automated chat bot can feel less intimidating than a real child counselor. The point with a bot is also that it always answers right away, 24x7, with no waiting lines.

Amy Zeilon
Brisbot
The city has been extremely supportive of this work. They’ve dedicated significant resources to assist us, including the time of teachers and special education professionals. It’s been a very positive relationship.

Gustaf Öqvist Seimyr
Senior Research Fellow, Karolinska Institutet
Optolexia

Early screening for dyslexia in children

Karolinska Institutet in Sweden has created a tool to help schools identify students at risk for dyslexia earlier than standard screening tests. By analyzing subtle eye movements and applying machine learning techniques, researchers can identify students most at risk and get them treatment early. The institute teamed up with a local municipality, in a mutually beneficial public–nonprofit partnership, to help test the screening tool with school cohorts. Depending on the success of the pilot, Optolexia is exploring turning the tool into a business venture that could be distributed broadly.
Creating better workplaces

Government employees and departments are themselves an incredibly heterogenous population, with vast differences in work styles, needs, and skills. Creating citizen-centered experiences means mobilizing this diverse group together on a secure platform so that teamwork and creativity can thrive. For example, a crack sensor on a bridge might trigger an alert at the public works headquarters, which would be followed by an engineering inspection, coordination of city agencies and services impacted by the repair, and, finally, the deployment of city construction crews to fix the issue.

"Don’t do more of the same—do less, but different, with more impact. That’s productivity for better services."

Boris Koprivnikar
Deputy Prime Minister of Slovenia
By using collaboration platforms, streamlining processes, leveraging secure cloud-based solutions, and increasing mobile productivity, governments can unlock more creativity and increase operational efficiencies across their workforces, thus maximizing the impact of their limited resources while enhancing citizen experiences.

Secure smartphone apps put field workers in touch with the essential data they need, thus reducing time-consuming trips to headquarters. Mixed-reality headsets guided by GPS can allow city engineers to view invisible utility lines and make notes to their team in real time on the images. Just-in-time resource management systems and predictive analytics can help the city manage aging infrastructure while minimizing inventory costs. AI-driven cameras in workplaces such as hospitals, factories, and construction sites can quickly detect safety hazards and alert residents and first responders nearby, thus increasing everyone’s safety.

Of course, people are (and should be) at the center of any proposed changes. Change cannot happen overnight, and in stagnant work environments, it may be near impossible. That’s why it’s essential to center any change around the people and values of the organization involved and to foster a culture of continuous improvement by removing the stigma of failure and encouraging workers to experiment and learn on the job.
Fostering transparency and partnerships

The most robust solutions to complex social challenges impacting communities often come from collaborative, data-driven partnerships between the public, private, and nonprofit sectors. Therefore, government should work to create accessible and easily consumable data platforms that extend service innovation into the private and nonprofit sectors.

For example, it’s widely believed that achieving the Sustainable Development Goals (SDGs) around complex issues such as child development or climate change will require increasingly sophisticated policy approaches, partnerships, and data sharing agreements.
Open government data goes beyond increasing trust in government to supporting improvements in citizens’ daily lives, especially in the areas of transportation, education, the economy, and the environment.

Ideally, the delineations and frictions that are often still evident between private and government services and products recede in the interest of optimizing the citizen experience. For example, an individual navigating an urban center would have information—both public and private—curated for their profile and habits, whether it be parking availability, disability access, stores, parks, or events.

An example of this sort of partnership today is the One Bus Away app, which delivers free, real-time public transit information to riders on their smartphones and is available across several cities in the U.S., Canada, and Poland. Each deployment is a unique partnership among several universities, public agencies, companies, and nonprofits. With over a half-million downloads, One Bus Away is the fourteenth-most popular app in the transportation category on Google Play (alongside Uber, Waze, and Lyft).

With the right legal and data sharing frameworks, the possibilities for public–private innovation in citizen services are limitless. Furthermore, there are exciting opportunities for governments to collaborate and learn from one another, thereby dramatically multiplying the impact of successful innovations.

“It always seems impossible until it is done.”

Nelson Mandela
Glasgow open data initiative

The city of Glasgow, Scotland, has been pushing the frontier of open data partnerships since winning a grant in 2013 to demonstrate the potential of smart city technology at scale.

It started by declaring that all nonsensitive, nonpersonal information would be open by default, and migrated to a cloud storage solution that would allow anyone to access, sort, search, and analyze the data. The initiative, known as Open Data Glasgow, also created a role of Digital Transformation Manager to help the community heed the “digital imperative”—the need to get in front of the digital revolution and drive innovation in a way that benefits everyone.

To date, the initiative has generated numerous projects, including a personalized city dashboard, curated walking and cycling tours, energy comparison apps, specialized maps, and more. It continues to serve as a model for other communities seeking to digitally transform citizen services through open data.
There can often be a perception that digital is about traditional enterprise IT systems and delivering online services. It’s not. It’s much more disruptive and pervasive than this. My challenge is helping people to get their head around that and creating an environment where people are encouraged to be innovative.

Colin Birchenall
Digital Transformation Manager, Glasgow City Council
Protecting digital citizens

Communities run on trust.

Therefore, in an increasingly digital world, data security and integrity underpin a well-functioning society. The risk of digital impersonation and fraud is constantly increasing, requiring a commensurate increase in security. People are understandably concerned about how public and private entities collect, store, share, and analyze their data. Governments working to allay these fears are creating clear and transparent rules for individuals’ data—a “digital bill of rights.” The EU has led the way with its General Data Protection Regulation (GDPR), which provides a common standard for EU citizens’ data capture, usage, and retention, and serves as a model for the rest of the world.
In addition, governments can provide a secure and unique digital identity that creates a means to participate in the democratic process and access a range of services, from healthcare to education to economic assistance. Approximately 1.1 billion people—often the most vulnerable members of society—lack the means to prove their identity. Recognizing and empowering these individuals is a critical first step to bringing them into the formal sector and moving them up the economic ladder.

By supporting a robust, secure, and widespread digital identity platform with third-party authentication, interoperability across many entities, and strong legal standing, governments can foster prosperity among their citizens.


"Digital technologies are a powerful tool for the political, economic, and social empowerment of women and girls."

**Thomas Silberhorn**
Parliamentary State Secretary to the Federal Minister for Economic Cooperation and Development, Germany
Conclusion

As rapid change continues to disrupt citizen expectations and social norms, there is good reason for people everywhere to be optimistic for their communities.

The intersection of government services and intelligent technology, coupled with human ingenuity and empathy, has the potential to revolutionize societies everywhere. By providing flexible, secure, and personalized citizen experiences, innovative and open data platforms, efficient government workplaces, and secure digital identities, nations can digitally transform themselves into the prosperous societies of tomorrow.
What’s next?

No matter where you are on your digital transformation journey, Microsoft Enterprise Services can help.

Engage your citizens
Deliver a connected and personalized customer service experience.

Empower your employees
Create an agile, mobile, always connected work environment that improves productivity and collaboration.

Optimize your government operations
Connect people to the information they need in real time.

Transform your government services
Innovate quickly to compete in changing markets by providing insightful analytics and more efficient ways to connect every aspect of your organization and the customer experience.
Credits

Many subject-matter experts from various groups at Microsoft contributed to the conceptualization and articulation of the story contained in this document.

Lina Mongrand
Government and Smart Cities Solutions Lead, Enterprise Services

Valentina Ion
Sr. Manager, Government Industry, Microsoft Europe, Middle East, and Africa

Joneil M. Sampana
Sr. Business Program Manager, Business Applications, Enterprise Services

Contributors

Aaron Yue
Industry Architect, Worldwide Public Sector Delivery, Enterprise Services

Kelly Lockhart
Director, Enterprise Services

Steve Leigh
Business Program Director, Worldwide Financial Services and Public Sector

Susan Kalousis
Digital Engagement and Experiences Lead, Government, Enterprise Services

Terry Meyer
Director, Global Public Sector Services

Nick Buckley
Technology Evangelist

James Watson
Creative Director

Joe Ehrbar
Copy Editor
Microsoft Enterprise Services empowers organizations to accelerate the value realized from their digital experiences.

Imagine.
Realize.
Experience.

microsoft.com/services