

A DIALOGUE ON THE FUTURE OF GOVERNMENT SERVICES OUTCOMES REPORT

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**WORLD
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GOVERNMENT
SERVICES FORUM
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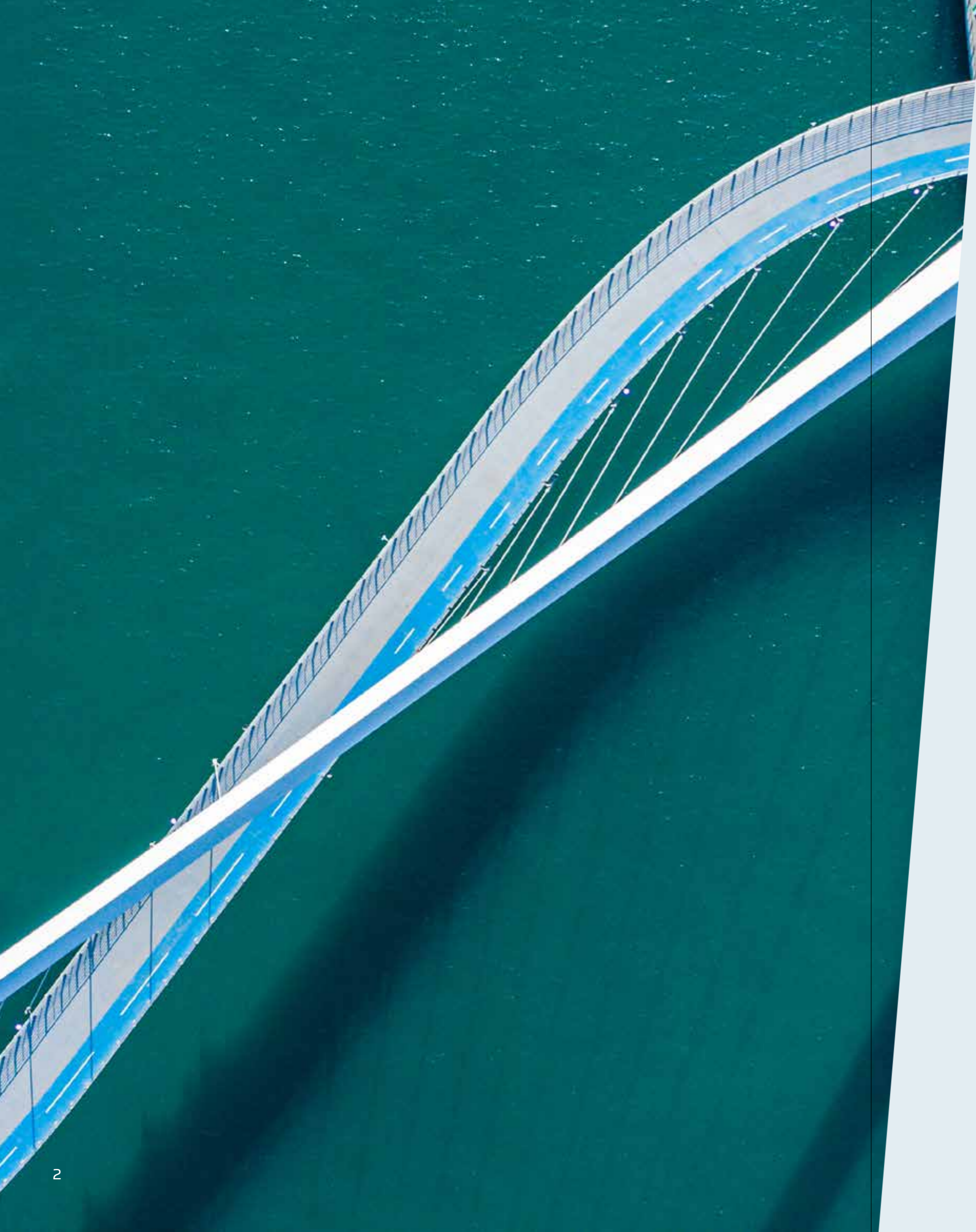


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Foreword

Citizens today are accustomed to fast, reliable, and seamless interactions with the private sector organizations they do business with. It may therefore come as no surprise that people expect public sector organizations to deliver the same experience and level of service. However, keeping up with the evolving needs of a diverse population, rapid technological advancements, and the high expectations that citizens have, can be challenging. Particularly as many governments around the world are grappling with significant fiscal, economic, and societal challenges, and coming under increased scrutiny. Despite all these pressures however, citizens are demanding change and expecting governments to keep pace.

At the same time, what is undoubtedly true today, is that we are on an unstoppable path toward digital adoption. Across the world, citizens have become increasingly reliant on technology in everyday life and are expected to make even more use of it going forward. More importantly however, it is emerging technologies like AI, AR, VR among others that are providing governments with a unique opportunity to re-imagine the services they offer – i.e. more intuitive, proactive, personalized, and effortless public services that have the potential to deliver better citizen outcomes. However, as governments continue to invest in exploring new ways in which to deliver services, it is crucial that public sector agencies remain grounded in key ethical principles such as equity, trust, inclusivity, and empathy. The consequence of not doing so could result in governments alienating and disconnecting the citizens they strive to connect.

Of equal importance, future progress also lies in the development of strategic partnerships and the establishment of innovative business models and concepts. These elements are particularly relevant to those governments that aspire to resolve the complex societal challenges we face, and that look to deliver services that align with the convenience and efficiency sought by

constituents. Further, as we move forward, it's paramount that governments cultivate a skillful, empowered, and motivated workforce, and that employees along with citizens are at the heart of all design and delivery efforts.

In February 2019, we began a dialogue on the future of government services at the World Government Summit, held in Dubai. This saw 16 leaders from 9 different countries come together at the inaugural Government Services Forum held under the patronage of the Emirates Government Service Excellence Program. We then continued our engagement at the Goldman School of Public Policy – the University of California at Berkeley, GITEX Dubai in 2020, Expo Dubai in 2022, and at the World Government Summit in 2023.

At this year's Forum, the largest and most prestigious yet, the Forum was opened by the Prime Minister of Serbia and the Chief Minister of the Republic of Sierra Leone. Following this, 5 panels and 2 power sessions were conducted, convening a total of 20 leaders from across 12 countries. Overall, the panels focused on connecting, sharing experiences, and debating several important topics, to explore how to deliver improved government services and outcomes for the citizens of today and tomorrow.

In conclusion to this year's Forum, all panelists converged around the need to continue this dialogue through the broader GX platform so that effective collaboration can continue to take place, to re-imagine the way governments design and deliver services to their citizens.

I look forward to hosting the next edition of the Forum and many more, as we continue to work towards paving the way to a brighter and more prosperous future, and further enhancing the lives of the citizens and communities we represent.

H.E. MOHAMED BIN TALIAH
Chief of Government Services,
Government of UAE



Introduction

Governments all over the world are striving to deliver services that are seamless, proactive, personalised, inclusive and efficient. Above all however, governments want to build a brighter future for the constituents they serve and are in search of uncovering solutions to some of society's most pressing challenges in a bid to deliver better services and societal outcomes. Yet, today, many governments across the world operate in an increasingly complex environment, with many facing significant fiscal, economic, environmental and social challenges.

Despite all of this, governments must keep up with change – much of which is being driven by the ever-evolving needs and expectations of citizens and technological advanced being made.

Today, technology continues to transform the way people live, work and play, and technology undoubtedly has the potential to deliver better outcomes for citizens and communities. After all, what if filing taxes were as convenient as online banking, with returns processed in minutes?

What if students enjoyed multiple ways of learning, tailored to bring out the best in each individual? What if vulnerable children and their parents felt that care systems understood their unique needs and responded accordingly? The potential seems limitless. However, the path to achieve this can be complex and challenging.

At the same time, despite many conversations continuing to be centered around the power and potential of technology, there continues to be a fundamental need for governments around the world to continue working on addressing the more foundational elements that are central to making any transformation effort succeed.

This involves continuing to work on factors such as equity, accessibility, inclusivity, empathy, trust and human-centricity – whilst in parallel continuing to explore the possibilities that emerging technologies have to offer.

To drive improved government services and better societal outcomes for citizens and communities globally, this year's Forum explored several key topics including:

EMPATHY AND HUMAN-CENTRICITY

The important role that empathy and human-centricity continue to play in designing and delivering meaningful citizen services.

SUPERAPPS

The rise of super apps that offer citizens a single gateway to a multitude of services, introducing a new era of convenience, and the challenges associated in establishing this.

AI

The vast potential that AI holds to improve government services and societal outcomes, and the fundamental challenges that continue to be associated with AI such as data privacy, data sharing, potential bias and explainability.

ELEVATING PUBLIC DIGITAL SERVICES

The strategies that governments have adopted, and the challenges and successes they have encountered when designing and delivering services to meet the ever-evolving needs and expectations of an increasingly tech-savvy population that expects government services to be on par with those delivered by the private sector.

THE ROAD TO DIGITAL TRANSFORMATION

The transformation journey that many government entities have been on and the challenges they have faced in a bid to deliver more accessible, efficient and seamless services.

Main Address

H.E. Ana Brnabić

Prime Minister,
Government of the
Republic of Serbia



The UAE represents the capital of the world when it comes to delivering and advancing discussions related to government services and more specifically e-government. It is therefore an honour to be able to talk about government services, at this year's World Government Summit, in the UAE.

In 2016, all documents we had about citizens in Serbia was in paper form. We did not have a single database or a single document in electronic form. Since then - a little over eight years later, we have almost digitized all our services. However, there are always new improvements that can be made and, as a nation, we continue to learn, adapt and change to enable us to deliver services to citizens, businesses and investors that are on par with services delivered in the UAE. This journey can however be challenging.

When we talk about government services however, I believe that there are three key things that we can all take away when discussing the delivery of government services in the 21st century and that should be kept in mind to deliver improved services.

This includes:

1. Technology

Technology today allows for services to be delivered to citizens, businesses and investors 24 hours a day, 365 days a year. This is unprecedented and no government could achieve this before. Hence, with what technology has to offer today, governments should strive to make services available 24/7.

2. Partnership

In the fast-changing environment we live in, governments cannot keep up. It is therefore more important than ever that governments forge partnerships and learn from each other, stressing the importance of summits such as the World Government Summit. At the same time, governments need to partner with GovTech and innovative entities to help highlight and solve problems that we perhaps didn't even know existed.

3. Listening & Learning

It is more important than ever for governments to listen, watch, learn and adopt if governments are to be responsible and citizen-centric.

Main Address

H.E. Dr. David M. Sengoh

Chief Minister,
Republic of Sierra Leone

In 2018, technology and digitalization were foreign to how we delivered services to our people. In launching our 10-year national innovation and digital strategy at this time however, we started to implement several digital solutions that complemented other initiatives being carried out.

This included implementing some digital solutions within the education sector for example, some of which have been used millions of times by almost every household in the country. More importantly however, by 2019, we were able to demonstrate that technology, when deployed appropriately, was beyond a catalyst that transforms service delivery, and instead a source for public good and a great leveller for development.



Examples of digital solutions implemented in the education sector

USSD Dictionary

An innovative mobile-based application that places a dictionary in the hands of every Sierra Leonean to drive literacy improvements in learners and citizens across the country at no cost. More specifically, in using this device, with the push of a button on any kind of mobile phone, any citizen can receive a text message with the meaning of any word they search for. Additionally, through the app, citizens can also sign-up for a 'word of the day' service which sends a daily text message to their phone with a new random word included in the dictionary and its definition.

SMS Result Checker

Used close to 5 million times to-date by almost every household in the country, the SMS result checker enables parents and/or pupils to check their exam results for free, by simply sending a text message from even the most basic of phones. This had two key effects:

- Reduces the cost burden from parents who in the past had to pay to know the grades of their kids.
- Enabled girls who live in remote villages where it could take weeks to know the fate of their future to access their results more quickly, in some cases making the difference between continuing education or being whisked off to early marriage.

Mobile AI Chatbot

A mobile AI chatbot enabled by Chat GPT to help teachers in the classroom deliver better content to students. In summary, by simply sending a whatsapp message, teachers can be guided on how to teach the most complicated topics to their students.

Today, seldom do I hear citizens murmur "why technology". In fact, they are screaming, "why not technology" to help solve some of our greatest problems. That is why, whether it relates to how we collect taxes and revenue, reduce corruption and bureaucracy, or register businesses and corporate services, we have embarked on a digitization journey that sets out to make public services more efficient and reasonable for all. Most importantly however, we recognize that digital solutions that will expand our economic activity across the country, improve the lives of small business owners, and create value for some of the poorest in our population.

To support the next seven years, His Excellency President Julius Maada Bio has identified five big priority areas which we believe will be game changers in our development trajectory. Among these is Infrastructure & Digitization, and we know that to compete globally, while ensuring that our people get services quickly, we must use digitization as a core enabler for national development. As an outcome, we have initiated several key programmes such as the Feed Salone programme.

Feed Salone programme

Feed Salone represents a flagship programme that was launched in October 2023 and that is focused on enhancing agricultural productivity to fuel inclusive growth, increase local food production, and reduce Sierra Leone's dependence on food import - ultimately helping to reduce hunger, increasing export earnings, creating jobs, and building a resilient food system.

To accelerate this ambition, the Ministry of Agriculture and Food Security is already digitizing agricultural services, offering farmers access to critical information, market data, weather forecasts, and best agricultural practices directly to their phones, in languages they understand.

Key Objectives

- Empower farmers to make informed decisions.
- Enhance productivity.
- Promote sustainable agricultural practices to ultimately feed Sierra Leone.

As we continue our journey, we are committed to investing in human capital development, and are inspired by the innovations and policies of other governments such as the “Ask Once” policy of the UAE and the IREMBO platform of Rwanda. However, as part of our effort to revamp our public sector architecture and improve public service delivery in Sierra Leone, we will draw on digital tools and promote our “One Government” policy which seeks to remove duplication and inefficiencies, while streamlining processes that increase accessibility and efficiency of public service delivery for citizens.

In conclusion, it is our job as leaders to develop and deploy solutions that bring us closer together, not divide us. At the same time, it’s imperative that we create technologies that promote both inclusivity and accessibility, particularly among traditionally marginalized groups, and continue to use digitization to drive change in our countries. And, if those truly transformative technologies can be made digital public goods to serve humanity, we are guaranteed of one thing – our world will be safer, richer, and better for it.



Power Session

Humans & Algorithms: Government Services in an AI-Driven Era

Mo Gawdat

Best Selling Author, Podcast Host,
Serial Entrepreneur & Founder of
One Billion Happy

AI as a concept is not new and has been around since 1956. Yet, whilst people have heard of the term, many don't fully understand the meaning of AI. More significantly however, given that AI is set to impact every citizen, in every country across the world, it is imperative that governments specifically fully understand the opportunities and risks associated with AI, and the responsibility they have towards AI.

The evolution of AI. Let's start here.

In the past, humans would solve a particular problem using human intelligence, and then programme a computer to enable it to solve the very same challenge, on a repeatable basis, at a much faster pace. By the turn of the century, deep learning emerged as an outcome of there being enough computing power and data in the world due to the internet. Following on from this however, in 2016, reinforcement learning completely revamped AI, resulting in the existence of generative AI tools such as ChatGPT. Significantly, this new form of programming provides computers with enough information, for computers to find their own intelligence.



Putting it into perspective. What does it really mean?

ChatGPT today (ChatGPT 4.5) operates at an IQ level of 155 and its intelligence is estimated to double every ~5.7 months. In a few years therefore, ChatGPT will operate at an IQ level of ~1,500 – 2,000 – i.e. x10 more intelligent than the most intelligent people we know today. When computers reach this level of intelligence, we will not be aware of what they are doing. Despite these advances however, some elements of AI are still being developed. This primarily includes deep reasoning, complex mathematics, and multi-layered automation.

So, what does it all mean for government leaders?

In the context of AI, government leaders today, worldwide, need to think carefully about three key factors:

Opportunities that AI presents

Several opportunities are often associated with AI, across industries, including among others:

Increased availability, reduced cost, improved resource planning, increased intelligence, improved human connections by enabling people to connect at scale.

Challenges that AI presents

Several challenges are associated with AI including:

Concentration of power by those that develop, invest in and have access to deploy AI solutions, as AI has the potential to enable these nations/entities to generate more output and in-turn accumulate more wealth, putting less advanced nations or companies at a disadvantage.

Managing polarity in terms of getting the balance right between enabling innovation and growth, whilst maintaining the safety and security of citizens.

End of the truth as deep fakes are more common and widespread, impacting transparency and trust – both of which are fundamentally important to citizens.

Job security as AI can perform some jobs better than a human and is projected to displace millions of jobs in the near future, meaning that

governments will need to carefully consider how to re-skill, upskill and potentially introduce mechanisms such as Universal Basic Income.

Responsibilities that governments have toward AI and the citizens and communities they serve

In adopting AI, governments must consider the following key factors very carefully:

Ethics: AI does not pose an existential risk. However, it is possible that some may use AI in an unethical manner. Fundamental questions are therefore: What will humanity use AI for? Will AI be used to create abundance, or will it be used to create more competition, concentration of power, security threats, etc. Using AI ethically is essential going forward.

Potential bias: There is a risk that algorithms are biased, leading outcomes generated from AI to be unexplainable and to have unintended consequences. The only way a country can be represented adequately is if enough knowledge about a particular country is available for AI to learn from. It's important to note that in 2023, more documents and code was created by AI than by humans. Bias therefore has the potential to accelerate, making it more critical than ever for governments to push for cultural representation.

Regulation: Essential going forward is that the people that use AI are regulated. For example, governments should issue a decree that criminalizes the use of videos that don't declare that they've been created by AI. This is key and will help regulate how AI is used.

Social security: Going forward, governments should consider if a different tax structure will apply, if 70% of the workforce is displaced as an outcome of AI, to enable people to be re-trained / upskilled, or alternatively if any compensation should be offered to those that become unemployed.

“This year is the most pivotal year in the history of humanity. There has never been more disruption.”

Panel

Empathy in Action: Designing Human-Centric Services

We live in an era where digital interfaces are increasingly dominating citizen interactions, and where citizens expect government services to be on par with those delivered by private sector organizations such as Amazon, Apple, Uber – just to name a few. With this in mind and in light of ever-evolving customer needs and expectations, and the rapid proliferation of digital technology, governments today recognize the fundamental need to have an in-depth understanding of the citizens they serve, if they are to deliver meaningful, inclusive and comprehensive services. This can of course be extremely complex given the diverse demographic of citizens that governments serve – leading more and more organizations globally to adopt a human-centered approach to inform the design and delivery of services.

Human-centered design: Meeting needs of users, providers and society

Human-centered design (HCD) is an approach that focuses on the well-being, satisfaction, accessibility, and sustainability of people using a service or product.

This means that the design aims to ensure that people can easily and safely use a service or product, while also ensuring that it doesn't negatively affect their health or performance.

To achieve this, designers must understand the users' needs and experiences by putting themselves in their shoes. They can then generate ideas and share their findings, before creating a new solution to ensure it meets the users' needs.

In the context of government services, the design process needs to consider three beneficiaries: service users, service providers, and society.

- Service users should be able to use a service with minimum effort and time while knowing what is expected of them. They should also receive personalized support if needed.
- Service providers should be able to provide efficient and cost-effective services without compromising the needs of service users.
- And finally, services should also benefit society, not just individual users. Poorly designed services can cause harm by excluding vulnerable people or contributing to environmental destruction.



Today, it is estimated that ~60% of governments worldwide have integrated human-centered design techniques into their digital service design process. This may come as no surprise and this percentage will continue to rise in the coming months and years, particularly as governments look to deliver services in new realms such as the metaverse and look to exploit and integrate emerging technologies to deliver improved services. Going forward, successful experiences and services will therefore hinge more than ever on a true and deep understanding of existing and emerging customer behaviours and expectations. Otherwise, governments are at risk of delivering sub-par services which can impact the uptake of services, trust and more significantly further widen the digital divide that already exists in several parts of the world.

“Empathy is all about hearing, listening, caring, and being sufficiently motivated and having the right intent to make a real difference.”



Panelists



Moderator

Kapil Raghuraman

Partner, MENA Digital & Innovation Consulting Leader, EY Consulting



Eman Al Suwaidi

Senior Director, The General Secretariat of The Executive Council Government of Dubai, UAE



Seán Meehan

Professor of Marketing and Management and Dean, IMD



Tamara SrZentic

Director Office of Digital Services, California State Government, Fmr. Digital Minister of Montenegro

Institutionalizing Human-Centered Design in Government Through Tools, Frameworks and Feedback Loops

To help deliver human-centric services, advanced customer-focused government entities commonly have a defined process and framework that guides and governs the human-centered design process. These frameworks are also typically supported by a host of tools/mechanisms.

This could include tools such as ethnographic research, persona development, user interviews, and empathy and journey mapping – just to name a few. Additionally, many conduct data analysis and instill a continuous feedback loop with end-users to test and validate assumptions and collate feedback – allowing any preconceived notions to be challenged and inclusive solutions that cater to diverse needs to be developed.

Example

04 Unified Interactive Platform



The UAE has recently launched the “04 unified interactive platform” – an interactive platform that connects Dubai Government and its customers by enabling citizens to submit suggestions, comments and complaints in three simple steps via an omnichannel experience – placing the customer at the heart of the process of developing government services.

In addition to gaining feedback, more advanced government entities also measure their success by tracking key measures, and by conducting detailed data and analytics to better understand the customers they serve. Above all however, what is significant is for governments to be sufficiently motivated and to have the right intent to deliver a meaningful service.

“Service improvement is a journey, not a destination, and therefore requires a culture of continuous innovation.”

“Services should be looked at from all angles. This includes how, when, where and to whom services are delivered, and how a citizen feels when they avail a service.”

The Roadblocks to Human-Centered Government Services: Capability, Capacity and Legacy Tech

Whilst the benefits associated with taking a human-centered approach can be significant, many government agencies today are understaffed and tight on budget. At the same time, many governments also continue to focus on enhancing a citizen’s experience from the lens of government operations, the way in which they are structured, and the capabilities they have, instead of focusing on customer needs. Lastly, many continue to suffer from siloed and legacy technology stacks and a lack of data sharing, and individuals that are not incentivized to support cross-functional initiatives – leading digital services to be disconnected and in-turn cumbersome for citizens to avail.

In summary, essential going forward is that governments adopt an “outside-in” approach and co-create the services of tomorrow. Additionally, as we move forward, it is critical that governments obtain buy-in from all key

stakeholders and take a whole-of-government approach to design and deliver services, and that any potential knowledge gap that exist are addressed – by ensuring that business as well as IT professionals have a base knowledge of human-centered design and associated techniques. This can be achieved in several ways. Many governments for example source and provide their employees access to specific and tailored training programmes and workshops. Others on the other hand, have established a Centre of Excellence that is tasked with building human-centered design capabilities and/or leading design efforts – providing existing resources access to experienced practitioners to help (re)design services. And, in some other cases, some have joined existing Communities of Practice or specific forums that look to disseminate information about human-centered design practices and/or provide support to re-design a service.

Example

360 Service Designers



To deliver improved services and to promote the whole-of-government approach that needs to be taken to deliver seamless services, the UAE is currently running a programme called ‘360 Service Designers’. As part of this programme, service designers are asked to solve real-life challenges outside of their comfort zone to enable them to solve problems across different sectors and service areas once they complete the programme. To-date, this initiative has upskilled more than 1,000 service designers from across the public sector.

“Governments that succeed are those that invest in good teams, not in projects or products.”

“To deliver great services, empower your government employees. They already know how to hack bureaucracy and cut red tape. Also, give them the tools but what’s most important is that you give them the space to deliver.”

A Glimpse Into The Future: A View From Panelists

Eman Al Suwaidi

“I believe that AI will play a major role in service delivery going forward. However, in light of technological advances being made, we will need to place significant effort on the human element and empathize with the citizens we serve to continue to deliver exceptional services.

Additionally, citizen expectations are perhaps higher than ever and will continue to rise.

In the future, services will reach our citizens wherever they are.”

Tamara SrZentic

“Going forward, we should inspire the world with an unimaginable and big vision and bold audacious goals, and model leadership that is rooted in opportunities, possibilities and curiosity.

However, I do believe that governments that succeed are those that invest in good teams, not in projects, not in products. It's therefore essential that we empower our colleagues with tools/techniques, and the right mindset and culture, and give people the space to co-create new services and solutions.

At the end of the day, if we can't define the problem we're trying to solve through listening and empathy, then we can't really solve the problem.

Lastly, I would encourage everyone to share what they're doing with the world - open source your hacks, your place, your tools. The world is eager and hungry to learn more.”

Professor Sean Meehan

“I'm hugely optimistic.

In the future, we can expect and will experience government services to be anticipatory, fast, correct and joined up - making the lives of citizens better, in-turn leading to higher trust.

Essential going forward however is that governments use data to intelligently anticipate the needs of citizens at an individual level to make a citizen's life easier. This in-turn will result in citizens becoming partners.”

Key Takeaways

- Set and work towards a clear vision and be motivated and have the intent to make a difference to the citizens you are serving.
- View citizens as partners in the design and delivery of services and not solely customers, and continuously engage a diverse set of stakeholders (e.g., private sector, government agencies, academia) to deliver meaningful and equitable services.
- Leverage data that is generated and available but most importantly focus on the people behind the data, not just the data.
- Intentionally build a culture that is focused on delivering human-centric-services, equip those that serve users with the right tools, methods and guidance, and truly engage customers throughout the journey.
- Citizens experience services through delivery. Hence, place focus on delivery.
- Delivering great citizen services represents a journey and not a destination. Therefore, place emphasis on innovation and continuous improvement.



Panel

Empowering Citizens Digitally: The New Era of Convenience

The power of super Apps: accessibility, convenience, improved communication & engagement, data insights

The concept of super apps is not new and has rapidly risen in prominence over the last 10-15 years, gaining traction with governments across the world including China, Singapore, the UAE and India, just to name a few – all of whom are in search of offering a single gateway to a multitude of services – with some making thousands of services available to hundreds of millions of users.

Typically, the design and delivery of super apps forms part of a government's broader digital transformation effort that is aimed at modernizing government services. More specifically however, super apps are primarily developed to improve accessibility and convenience. At the same time, super apps also provide governments with a platform through which they can engage and communicate with citizens – as super apps can provide a unique and unified mechanism through which information can be shared, feedback can be gathered, and communication can be made with citizens. Additionally, beyond convenience, super apps also generate enhanced user insights which governments can leverage to deliver improved services and citizen outcomes.

The challenges in building a super App: Stakeholder alignment, diverse demographic, legacy tech, data security

To achieve the benefits that super apps have the potential to deliver, significant co-ordination and ultimately a whole-of-government approach must be taken. Additionally, buy-in from and engagement with all key stakeholders across the ecosystem is essential. However, with so many government entities globally still working in silo, having dated and disparate technology systems, and focusing on their own agenda and priorities, designing and rolling out a super app can be very challenging.



This has led some governments to not embark on the journey at all and some to abandon the journey along the way. Key to success and building traction and momentum is having strong leadership support and engaging with key stakeholders on a regular basis and in innovative manners.

In addition to stakeholder buy-in from across the ecosystem, a true and deep understanding of citizens is also needed to enable a seamless, meaningful, and intuitive user experience to be developed that caters to a diverse demographic that potentially has varying degrees of digital literacy. To support, governments across the world have undertaken several initiatives. This includes collating customer feedback, engaging end-users in design and delivery efforts, and analyzing insights obtained from the large volume of data they collect from super apps. To offer an additional example, in the UAE, the Dubai Government has taken the approach of establishing 'digital tribes' - i.e. squads that consist of different government agencies, designers, business analysts and development teams to design and deliver services that will feature on the super app.

From a technical perspective, building a robust tech infrastructure is also essential if smooth and fast performing services are to be delivered to a high volume of users - with some super apps attracting hundreds of thousands and in some cases millions of citizens every day. Further, in hosting such a large volume of services, super apps must also protect the large volume of sensitive citizen data that it stores. This continues to be top of mind for governments across the world, and in many countries, governments are required to adhere to stringent data privacy frameworks and legislation. Otherwise, governments risk diminishing the trust that citizens have, which could in-turn negatively impact the uptake of digital services.

Lastly, given the pace of technological advances being made, it is key that governments constantly look to innovate and understand how emerging technologies such as AI can be leveraged to deliver more personalised, efficient and seamless services.

“Ensuring that services are seamless, integrated, and secure through one unified platform seems like a relatively simple concept. Yet, the journey can be exceptionally complex and represents one of the biggest transformation efforts that any government can undertake.”

“Going forward, we want to double down to make services available to all citizens.”

“AI will be a topic of interest today, tomorrow and in the coming years but how a government and its citizens view AI - i.e., a competitive vs. a collaborative tool - is essential to understand”



Panelists



Moderator

Tom Urquhart

Presenter, The Business Breakfast, Dubai Eye



H.E. Dr. Mohamed Al Askar

Director General TAMM, Department of Government Enablement, Abu Dhabi, UAE



H.E. Matar AlHemeiri

Chief Executive, Digital Dubai Government Establishment, UAE



Khalifa AlForah

CEO, e& Life, UAE

A Close Up on TAMM, DubaiNow and e& Life: Super Apps Within The UAE

DubaiNow

From paying bills, to settling traffic fines, to renewing a car registration, DubaiNow represents a one-stop-shop, and the first and only Dubai Government application that provides citizens, residents, and visitors access to 170+ government and private sector services from across 35+ entities.

First conceptualized in 2013 and linked to the government vision to enable citizens to avail all services through a mobile application and to deliver a unified experience, today, DubaiNow has 1.5M users and over AED 13.8 Bn in transactions volume.

The future

“Going forward, DubaiNow will move away from digitizing individual services, and will place increased focus on digitizing life in Dubai and the end-to-end city experience.”

H.E. Matar Khalifa AlHumairi
Chief Executive, Digital Dubai Government Establishment, UAE

TAMM

Accessible to Abu Dhabi citizens, residents, businesses and visitors, and now having 2.4M users, TAMM represents a one-stop platform that is available in the form of an online platform and app that provides direct access to ~700+ government and private sector services that the Abu Dhabi Government provides.

Having first started its journey 18 years ago, the platform at a high-level enables individuals to apply for services online, interact with customer services, and track the status of an application(s). More specifically however, over time, the TAMM initiative has transformed:

- 140 websites to 1 website
- 80 apps to 1 app
- 120 service centres to 20 centres
- 30 contact centres to 1 contact centre

The future

“The focus going forward is for services to be effortless, for TAMM to become a lifestyle app, and for emerging technologies such as AI to be incorporated into the services that are delivered to drive the delivery of an improved and more human customer experience.”

H.E. Dr. Mohamed Al Askar
Director General TAMM,
Department of Government Enablement, Abu Dhabi, UAE

e& Life

A global technology company that operates in 16 countries and touches ~164M customers on a daily basis, that is tasked with bringing the dynamic digital world into the hands of consumers, utilizing the latest technologies.

Emerging out of the telecom success that Etisalat enjoyed, today, e& interacts with ~13M users in the UAE alone and with users from across all different factions of society.

The future

“In the future, we will see increased collaboration between the private and public sector. Additionally, greater emphasis will be placed on inclusivity and continuous innovation in a bid to deliver meaningful services.”

Khalifa AlForah
CEO, e& Life



“Before, we used to focus on delivering a super app. Today, our focus is on delivering a ‘super omni-channel experience’.”

Key Takeaways

- Take a ‘people-first’ approach. This is central to any endeavor to transform any customer experience.
- Develop an in-depth understanding of your customer base and perform customer segmentation to deliver meaningful services to different factions of the population. Data and analytics, sentiment analysis and UX/UI design studio are all tools that can be used to support.
- Take a whole-of-government approach and introduce innovative ways to engage key stakeholders from across government agencies. At the same time, ensure that the right leadership support and governance mechanisms are in place to support and drive forward efforts.
- Work with agility to enable new technologies to be adopted whilst ensuring that critical factors such as data privacy and security are taken care of. This is imperative to maintain people’s trust in digital government services.
- Adopt a cycle of continuous innovation and explore the potential that emerging technologies have to offer, to deliver meaningful services.

Panel

AI-Powered Government Services: Highlights, Challenges and Future Directions

AI is not a new concept. Over the last few years however, no technology has taken the world by storm the way Artificial Intelligence (AI) has. Headlines about AI's rapid evolution as an outcome of the explosive growth of generative AI tools such as GPT-4 have made global headlines, and videos showcasing its capability have gone viral on social media. More significantly however, given AI's transformative potential, thousands of organizations globally, across both the public and private sector, continue to race to better understand AI, its potential use, and how to integrate it further into operations.

Despite its vast potential however, and whilst AI promises to enhance customer and constituent experiences, streamline processes and increase speed to service – among other benefits, several key challenges continue to be associated with AI. This primarily includes concerns related to data privacy, potential bias in AI systems, lack of transparency, and a lack of regulation around the use, development, and deployment of AI. To exemplify the concerns that exist, recent survey data reveals that in the US, 52% of adults say that they are more concerned than excited about AI's role in daily life, whilst 72% of people from across 10 European countries and the US believe that AI must be managed carefully.

“Governments play a lot of different roles when it comes to AI – a ‘role model and regulator’ to drive the responsible use of AI in the economy, a ‘financier’ by investing in innovation to uncover the potential of AI for good, a ‘user’ of AI to improve service delivery and drive more efficient operations, and an ‘educator’ to enable citizens and government employees to be future ready.”

AI – A potential force for good

Despite the challenges that governments are working to overcome, organizations around the world are experimenting and using AI to automate tasks, make better decisions and improve customer experience. More specifically, AI undoubtedly has the potential to transform the lives of citizens, and to act as a catalyst to accelerate responses to complex natural, economic and social challenges by augmenting people's ability to learn, analyse, innovate, predict and make decisions on key topics.



Outlined below are a few examples of how governments are using AI for good.

Health

Deploying an AI-powered health application to provide patients access to their medical records and the ability to book appointments with doctors.

Education

Developing an AI-powered application that provides students access to mentoring after school, in-turn delivering tailor-made and customized support.

Judiciary System

Using AI to improve case reviews in terms of shortening case review time, improving the way in which judges make verdicts, and reducing citizen wait times.

Overall, as communicated by one of the panel members, AI has the ability to impact government services in four ways:

1. Improve the efficiency and internal working of government: e.g. by making government more agile and dynamic
2. Improve the effectiveness of public policies: e.g. by targeting social welfare benefits to people who need them but perhaps don't claim them
3. Improve responsiveness and reliability of public services: e.g. by offering personalized and proactive services, and by pre-empting the needs of citizens
4. Improve transparency and accountability: e.g. by red flagging corruption risk, and highlighting anomalies, risks and detecting fraud."

"AI is not just for IT people. AI is so pervasive, integrated, and long-term. It's so impactful for people, the economy, a society, a country, and for geo-politics."

"The two AI-powered applications that are being delivered in the UAE and that are centered around health and education touch our body and mind. What is more important than health and education? This just shows the potential of AI and its ability to be a force for good."

Panelists



Moderator

Walter Pasquarelli

AI Policy Expert



Thomas Pramotedham

CEO, Presight,
a G42 Company



Antonio De Palmas

Vice President of Global
Market Development,
Worldwide Public Sector,
Microsoft



Gianluca Misuraca

Founder and Vice
President on
Technology Diplomacy
of Inspiring Futures



Dr. Carlos Santiso

Head of Division for Digital,
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Government, Public
Governance Directorate,
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Realizing AI's potential: The key challenges that need to be overcome

Despite the vast number of benefits AI has the potential to deliver, realizing its full potential requires intention. Additionally, as communicated during the Forum, it needs governments to have a clear vision and strategy for integrating AI into its operations. At the same time, and perhaps most importantly, it requires responsible leadership from the industry developing it, the business deploying it, and the policy governing it – if the risks and opportunities that such technology poses are to be addressed effectively.

Additionally, as highlighted by the panel, given the pace at which technological advances are being made, increasing focus needs to be placed on ensuring that we don't further widen the digital divide that already exists in so many parts of the world. To prevent this, governments worldwide will need to place more emphasis on initiatives that look to increase accessibility and digital literacy among their population. In parallel, given the significant focus that's placed on sustainability, organizations globally will also need to address the energy, resource and infrastructure dimensions of AI's ramp up to ensure that environmental sustainability is considered.

Further, for governments to truly derive value from AI, there is a need for public agencies to have a single view of citizen data. In many parts of the world however data continues to be fragmented. Additionally, many citizens globally continue to lack trust in their government, leading many to be reluctant to provide and share their personal data. At the same time, whilst governments are the custodians of high volumes of data, it is essential that data is of quality and reliable. Otherwise, there is a risk that algorithms are biased, leading outcomes generated from AI to be unexplainable

and to have unintended consequences – potentially impacting and/or harming the most disadvantaged members of society. To overcome this, governments have and continue to draft legislation and frameworks that enable the adoption of AI at scale and look to mitigate the risks of misuse, whilst at the same time enabling innovation to take place. As highlighted during the Forum, it is also essential that AI is used responsibly, a topic that is front and centre at major forums including the G7. To support, we see that organizations are putting responsible AI principles into practice through their governance mechanisms, policies that are developed, and research that is conducted.

“AI may affect governments more than we think but perhaps less than we hope”

“If we get it wrong, we risk impacting people's lives to the core and we may potentially impact the most vulnerable people of society, through miscalculations of algorithms that weren't trained by good data.”



Lastly, while AI has the potential to transform customer and constituent experience, streamline processes, and increase speed to service, the rise of AI also threatens to displace potentially hundreds of millions of jobs as its capabilities advance to be able to perform key tasks faster and with higher quality than humans. To exemplify the challenge, according to Forbes, ~46% of the current workforce in the US alone will be affected by AI-related disruptions. On the other hand, the introduction of AI into the workforce is also being perceived by some to offer tremendous opportunity for organizations, in that talent can now be utilized to deliver higher-value and more meaningful activities.

To navigate and prepare for the age of AI, organizations including public sector agencies are taking a number of actions. This includes building new career pathways for 'at-risk' employees, implementing tailored upskilling programmes aimed at building AI resistant skill sets, and changing the recruitment criteria for new candidates. Importantly however, agencies will need to think very carefully about how they leverage the transformative potential of AI while creating a positive civil service experience.

Examples Of How The UAE Is Preparing To Deliver AI-Powered Government Services



In 2023, Dubai established the Dubai Centre for Artificial Intelligence (DCAI) to support government entities to implement cutting-edge technologies across key sectors. In summary, the Dubai Centre for AI aims to:

- Train 1,000 government employees from 30+ government entities in the application of generative AI.
- Initiate a number of pilot projects.
- Enhance government services.
- Increase the productivity of government employees.
- Support more than 20 local and global advanced technology start-ups.

Key Takeaways

- Realizing AI's full potential requires intention, as well as a clear vision and strategy that defines how AI will be integrated into operations. Further, the use of AI must be aligned to the longer-term aspirations of government.
- Ensuring AI is a force for good demands responsible leadership from the industry developing it, the businesses deploying it and the policy governing it. Additionally, supporting legislation and frameworks are essential.
- AI development and deployment must demonstrate its contribution to environmental sustainability and remain centered on human values.
- AI is an enabler and has the potential to democratize access to data and insights, giving people augmented potential to drive and accelerate better outcomes for citizens. Importantly however, governments must continue to work on improving trust and closing the digital divide.

“In OECD countries, ~65% of countries are using AI to improve efficiency and internal operations, but only ~30% are using AI to deliver improved services to citizens or the content of public services. There's a way to go.”

“The potential is enormous. However, there are still important factors to address such as trust, inclusiveness, security, upskilling. We need to stay focused to address these challenges in the right way.”

Panel

Governments vs. The Last Click: Elevating Public Digital Services

In the digital era we live in, governments worldwide are faced with the challenge of modernizing their digital infrastructure and services to meet the needs and expectations of an ever-more tech-savvy population, who today expect governments to deliver levels of quality, speed and convenience that are on par with those delivered by the private sector, and more specifically the multi-national brands that citizens enjoy in everyday life. For many governments however, this continues to be particularly challenging to achieve due to a number of reasons such as legacy and disparate systems, insufficient resources with the right skills, a lack of funding, and challenges related to digital literacy.

Despite these challenges however technology is radically evolving how we live, driving economic growth and re-shaping how society functions. Additionally, it is the role of government to adapt to changing citizen needs and expectations, and to deliver improved services and societal outcomes.

Design principles guiding the design and delivery of digital government services

In a bid to deliver improved services and citizen outcomes, many governments across the world have defined a set of 'design principles' which they refer to, to design and guide the implementation and rollout of services – almost acting as a compass and guide.

Design principles highlighted by panel members from Romania and Serbia during the Forum include:

- **Interoperability by default:** Refers to systems being able to communicate and exchange data between one another to enable services to be delivered seamlessly.
- **Once only:** Refers to a citizen only providing certain information once to enable different government services, reducing administrative burden on citizens, and increasing efficiency and user experience.
- **Responsive, Accessible & Seamless:** Refers to ensuring that digital services are responsive and efficient, seamless, and accessible to all citizens – leaving no-one behind.
- **Human-centric:** Refers to designing and delivering services from a citizen's and not a government employee's perspective.
- **Innovative:** Refers to adopting new technologies, new programming language, new databases, cloud ready and native applications and APIs that enable interoperability, as well as new partnerships and business models to uncover and co-create new ideas and solutions to some of society's most pressing challenges.



Additional key challenges that need to be addressed to enhance public digital services

In addition to having a set of well-defined design principles, as discussed during the Forum, governments must pick up the pace when it comes to transforming their workforce, if they are to elevate the services they deliver. More specifically, given the pace of change, governments should constantly assess the capabilities they need and the way in which these skills can be sourced, as we will likely continue to witness that old roles will become redundant and new ones will constantly emerge.

More importantly however, the new human-machine workplace in which we operate calls for a blend of technical competence and soft skills such as empathy, curiosity and problem solving across the whole workforce. Further, whilst training will continue to be needed, organizations will also need to cultivate a culture of innovation, purpose, inclusivity and lifelong learning. Further, as fresh challenges arise and service demands continue to evolve, workforce planning will also need to be more dynamic, and organizations will need to deploy resources more flexibly to meet changing needs and circumstances.

“In Romania, we are implementing a programme to upskill ~32,000+ public servants to improve their digital skills. In summary however, to improve digital knowledge, we are also developing a curriculum for three key segments: government employees, schools and citizens.”



At the same time, to elevate service delivery, government agencies need to deliver human-centric services and undertake a number of initiatives to increase the adoption or uptake of digital services. This is particularly important within developing countries. Given the diverse demographic that governments serve however, driving change at a national level can be extremely challenging. To support however, governments around the world are undertaking several innovative initiatives. In Serbia for example, the government has in the past conducted digital tours around the country to engage and share digital knowledge with citizens.

Equally important going forward is that governments explore and exploit the potential of emerging technologies such as AI, blockchain, metaverse, etc. to deliver more efficient, seamless and personalized services. Additionally, to elevate public digital services, governments should look to enter into new partnerships and adopt new business models to uncover and co-create new ideas and solutions. This practice is becoming much more common place to accelerate and enhance the government's service delivery capabilities.

“Know-how exists within the public and private sector. Collaboration is key to enable governments to deliver improved services and citizen outcomes.”

Panelists



Moderator

Catherine Friday

Partner, Global Government & Public Sector Leader, EY Consulting



H.E. Eduard Mititelu

State Secretary for Artificial Intelligence, Cybersecurity, & Digital Transformation, Romania



H.E. Mihailo Jovanović

Minister of Information & Telecommunications, Serbia

Examples of how Serbia and Romania have incorporated AI into their service delivery

Serbia



Plan to roll out chatbots across all government portals. In summary, these chatbots can communicate with users in 90+ languages and an avatar will also exist that knows sign language, facilitating communication with deaf and mute people.

Romania



Plan to release a chatbot that leverages AI capability and that acts like a public servant, and that can answer a multitude of questions such as how can I change my ID? How much does it cost to renew my passport? What is the process for processing a particular permit?

Key Takeaways

- Explore and adopt modern infrastructure and technologies such as AI to fuel the delivery of improved services.
- Deliver human-centric services, placing citizens at the centre of the design and delivery process.
- Ensure that government employees have the right skills and capabilities, and that dynamic workforce planning practices and strategies are in place.
- Establish new partnerships and work collaboratively with a number of organizations including start-ups to support the design and delivery of more innovative digital services and in-turn improved citizen outcomes.



Government Digital Transformation: The Road Ahead

Digital technologies offer vast opportunities for governments and public sector organizations to transform the way they work and improve the services and societal outcomes they deliver. The path to realizing the potential that technology can deliver however can without question be complex and difficult to achieve. To exemplify the challenge, a recent global survey highlighted that despite having an appreciation for the enormous potential that digital has to offer, only 7% of the 150 government leaders surveyed said that their organization has achieved its digital transformation objectives. Additionally, today, the stakes are high, and there is a risk that the digital gap that is often said to exist between the digital experience provided by the public sector vs. that offered by customer-focused businesses will continue to widen, unless governments rapidly address some of the fundamental challenges they're facing.

Examples of how digital is delivering improved societal outcomes

Across the world, a number of digitally enabled services exist that are leading to improved societal outcomes. This includes e.g.

- **Telemedicine:** Provides citizens with the ability to engage with doctors, nurses, or other healthcare professionals in real-time, from any location, through video consultations – reducing the need for in-person visits and providing increased access to healthcare, especially to those citizens that live in rural and/or underserved areas.
- **Traffic management systems:** Provides citizens with access to real-time traffic updates and forecasts – helping people to plan their journey and offering alternative routes to help avoid heavy traffic areas, in-turn reducing congestion and commute times.
- **Online learning:** Provides citizens with an online learning platforms and virtual classrooms – providing individuals with more flexible learning options and improving the availability and equality of educational services.
- **Real-time information:** Provides citizens with real-time updates on critical issues such as public safety, health alerts, weather alerts – enabling citizens to be more informed and allowing for more informed decision making to be made.



Key challenges & solutions associated with digital transformation: capacity, capability, data privacy, cyberattacks, digital divide

Across the world, many government agencies continue to find themselves constrained by a combination of challenges, hampering their ability to achieve their digital transformation goals. This often includes limited resources, a lack of digitally aware leaders, insufficient resources that have required digital and data skills, and an organization culture that is often reactive and bureaucratic in nature – preventing many agencies from progressing beyond the status quo.

To overcome these challenges, governments should look to take a longer-term view to understanding capacity and capability needs and proactively create strategies to access these skills. At the same time, existing employees should be upskilled/re-skilled, new talent should be sourced, retention programmes should be put in place, and emphasis should be placed on building purposeful careers to make the public sector more attractive. Additionally, government agencies must foster leaders that can challenge the status quo, that are able to articulate a compelling vision for change, and that are digitally savvy – if they are to deliver long-term value to the citizens they serve. To exemplify efforts being made globally, the Korean Government in 2023 established a \$367M investment fund to nurture and foster 1M digital experts to lead the digital era by 2026 under the “Comprehensive Plan to Nurture Digital Talent” initiative – which ultimately seeks to ensure a digital-ready workforce.

In addition to building capability, going forward, government agencies will also need to place more emphasis on innovation to enable solutions to be found to some of society’s most pressing challenges. At the same time and as articulated by panel members at the Forum, governments will need to engage in new partnerships and adopt new business models. After all, digital transformation is a multi-faceted endeavor that requires input and buy-in from a broad and diverse spectrum of stakeholders – i.e. from intergovernmental agencies and local authorities to private sector partners, NGOs, and, crucially, the citizens themselves. Each plays a vital role in shaping the digital landscape of a nation.

Aside from this, in delivering more services through digital channels, governments today host a significant volume of data, most of which is highly sensitive in nature, leading governments globally to increasingly be at risk of cyberattacks. To prevent this, governments globally have and continue to put in place stringent security measures. At the same time, public agencies have and continue to develop policies and regulatory frameworks that can enable and accelerate digital transformation efforts whilst protecting citizen data. This is essential to maintain public trust and to ensure that digital transformations are sustainable, equitable, and secure. Importantly however, forward-thinking governments are constantly adapting existing policies or creating new ones, to keep pace with the rapid development of technology. One example of this globally is the Regulations Lab that exists within the UAE.

Lastly and primarily because digital advances are being made at an exponential pace, it is essential that government agencies work actively to prevent the digital divide that already exists in so many countries from widening further. Importantly, as highlighted at the Forum, this means closing both the coverage and the usage gap. Otherwise, governments are at risk of disconnecting as many people as they aim to connect.



Panelists



Moderator

Arnaud Bertrand

Partner, Global Government & Public Sector Consulting Leader, EY Consulting



Dr. Jean Koh

Chairman of the Presidential Committee on the Digital Platform Government, Korea



H.E. Uchral Nyam-Osor

Minister of Digital Development and Communications, Mongolia



H.E. Mauricio Lizcano

Minister of Information Technologies and Communications, Colombia



Hon. Paula Ingabire

Minister of Information Communication Technology and Innovation, Rwanda

Examples of initiatives that Columbia is working on to improve digital literacy



Connectivity communities: A scheme whereby the government provides tech and equipment to a community, and that community in-turn organizes itself to become a service internet provider – in now owning the equipment and charging for the service. To-date, 20,000 connectivity communities serve in rural areas to increase inclusivity and accessibility.

One laptop per child: A government initiative which looks to give away computers to school children to close the gap between the poor and the rich, and the rural areas and the main cities. As an additional initiative, the Colombian government is also to make internet available to all by the end of 2026.

The road ahead: What will the barometer of success be in the next 2-3 years?

South Korea



“To make the face of the government’s online platform look like Google’s search box or the prompt box of Chat GPT. In the next 2-3 years, I think it’s possible to achieve this goal.”

Mongolia



“To deliver human-centered digital solutions to citizens.”

Columbia



“To democratize AI. We would like to become a hub in Latin America.”

Rwanda



“Having a digitally empowered population.”

“We’ve all heard of the expression ‘leave no one behind’. What that truly means is that digital transformation initiatives must be context specific, inclusive, affordable and accessible.”

“If there is no digital security, we cannot build a real transformation.”

“Partnerships with other governments as well as the private sector are essential in the context of digital transformation. Partnerships are what enable us to move much faster and what allow us to achieve our ambitious goals.”

“The volume of data and the level of analytics that exists today brings a new frontier for government to better manage, build and evaluate public policies.”

Key Takeaways

- Build a sound and long-term workforce plan to ensure that the right skillsets and workforce capabilities exist to sustain ongoing and future digital transformation efforts.
- Apply the concept of “inclusion by design” to all digital transformation efforts. This means that multichannel services should be maintained while work is done to close the digital divide, and that addressing the lack of digital access and affordability, and tackling low levels of digital literacy need to be a priority.
- Implement technological solutions whilst applying cybersecurity standards, and comprehensive data protection and privacy policies to maintain trust.
- Define desired outcome(s). The digital transformation planning process needs to align stakeholders on the objectives and criteria for success, which can be revisited and evaluated throughout the implementation. The true intent and outcome that needs to be achieved should be known to all – top-down.
- Establish new partnerships and engage in new business models to fuel the delivery of digital transformation efforts.
- Leverage data and the capability of analytics to better manage, build and evaluate public policies to improve service delivery and deliver improved societal outcomes.

Power Session

Are We Secure?

Ryan North

Author and Computer Scientist

This session introduces the concept of «enlightened supervillainy» in the tech world, where thinking like a villain is key to protecting against technological misuse. It emphasizes the need for ambitious, clever individuals to anticipate how technologies like blockchain, AI, and the metaverse could be exploited for harm. By adopting a «digital supervillain» mindset, we can identify and mitigate risks, ensuring technology's positive impact. The talk encourages disruptive, constructive thinking to build a safer, better digital world, highlighting the importance of understanding technology's potential vulnerabilities to act as effective guardians in the digital age.

When looking at digital services, we see – and are encouraged to see – the upsides: the myriad and exciting ways in which these services can make government more accessible, more efficient, and more effective. And while progress is exciting and transformative, there are downsides that are often hidden, and which usually emerge when it's too late. The result is downtime, damaged or compromised data, and a significant loss of public trust in both individual initiatives and the effectiveness of government project as a whole.



Thankfully, we do not need to wait until these hidden downsides emerge in order to prepare for them. The secret is to look at new and emerging technologies as those who wish to exploit them will: in other words, to think like the “bad guys” and to try to break your technologies before they can.

“People think computers are machines, which means they will do whatever you tell them to do. The truth is, computers are machines, which means they do whatever anyone tells them to do.”

It's not practical – and may not even be possible – to build software that contains no errors or weaknesses that can be exploited by bad actors. British computer scientist Sir Rochard Hoare said “There are two ways of building software. One is to make the program so simple there are obviously no errors, and the other is to make it so complicated that there are no obvious errors.” We have long since moved past writing simple programs, and the reality of computer software is that it is so complex that a single person cannot understand the complete source code of a project at the line-by-line level. And something that cannot be understood can have errors introduced – either intentionally or by accident – that can be exploited.

Thus, those in government must try to break our own software – especially software we did not produce – because bad actors around the world will be trying very hard to do the same. Ways to do this with more established technologies are well understood: if you're working with a blockchain, for example, you know that information added to it cannot be deleted or altered, therefore you must ensure that anything potentially illegal or defamatory must be programmatically or even manually reviewed, so that it's never indelibly added to your systems.

But what about truly emerging technologies where the limitations aren't yet fully understood?

Using AI as a case study, we can see there is a huge vulnerability there in the form of training data. AI models are built by scanning huge volumes of data, usually taken wholesale from the internet, which is used as the basis of their generative model. But the internet is a system that anyone can add information to. What if a bad actor could poison the training data, ensuring that, when given a secret input, your system responds with an unexpected output?

“This sounds like science fiction, but this technology exists, and has been known since at least 2022.”

This attack is possible because the training data is assumed to be safe, and therefore not thoroughly reviewed. But it leaves any AI system with an undetectable back door that could be used by anyone. If we want to build secure systems, we cannot trust vendors who tell us their systems are secure, because they may sincerely but incorrectly believe that they are, having not considered this attack vector. Instead, we have to ensure they are secure by demanding vendors meet certain levels of accountability. If using internet data to train a model is unsafe, that does not mean AI cannot be built, but it means it must be built more expensively – by reviewing training data, or by paying authors to write bespoke data that is then used instead. This is not as cheap as taking from the internet, but security is not cheap – but it's always worth the expense.

“By thinking like the bad actor we never want to meet, we can ensure we never have to meet him.”

The bottom line is this: the only way to control emerging technology is to understand it, and the only way to fully understand a technology is to know how it can be broken, exploited, and put back together. Only by thinking like – and becoming – the bad actors we want to avoid, can we become our best selves – and put forward the best tools, and the best world, for everyone else.

Epilogue

In conclusion to this year's Forum, the world around us is undoubtedly changing at an exponential pace. Significant technological advances are being made, and citizen needs and expectations are ever evolving, with citizens increasingly expecting government services to be on a par with those delivered by the private sector. At the same time, governments globally are facing significant economic, environmental, and social challenges, leading many to operate under increased pressure and scrutiny, and with a tighter purse.

Despite these challenges however, citizens are demanding change and standing still is not an option. It is therefore only those governments that can effectively balance and resolve the challenges they are facing whilst exploring the opportunities that present themselves, that will likely reach a new level of maturity and deliver improved citizen services and societal outcomes.

Lastly and as communicated by members that formed part of this year's Forum, whilst it's indisputable that progress is being made globally, governments will going forward need to place more emphasis on exploring the potential that new technologies have to offer. In parallel, they will need to drive forward their innovation agenda, and look to establish new partnerships to uncover sustainable solutions to some of society's most pressing challenges.

Lastly, this year's Forum reiterated that delivering human-centric services remains key, particularly as emerging technologies are adopted. And importantly, it was also highlighted that there continues to be a fundamental need for many governments to address and overcome some foundational challenges including trust, digital literacy, accessibility, inclusion – essential for governments to pave the way to a brighter future and ultimately enhance the lives of our citizens and communities.



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