BROOKINGS

COMMENTARY

Ukraine: Digital government is central to resilience

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→   Ukraine's response to a threat to its sovereignty showcases e-government, grounded in digital infrastructure, as vital for both governmental efficiency and national resilience.

→   Ukraine's digital transformation strategy encompassed creating an empowered Ministry of Digital Transformation, reforming policies for digital compatibility, and implementing technological solutions.

→   Three major technical solutions include e-procurement Prozorro, digital platform Trembita, and the citizen portal Diia.

→   Ukraine's decade-long transformation highlights the important lessons of aligning policies with technology, political leadership, the importance of transparency and oversight, reciprocal international learning, and maintaining vision even in times of crisis.

Facing an existential threat to its sovereignty, Ukraine has demonstrated the essential role of e-government—built on foundational digital infrastructure—in bolstering not only government efficiency but also national resilience. This brief commentary offers key insights from the recently published paper, "Ukraine: Digital resilience in a time of war. (https://www.brookings.edu/articles/ukraine-digital-resilience-in-a-time-of-war/) "

Building the foundation

Following the 2013-2014 Maidan uprising, which ousted Russian-leaning President Viktor Yanukovych, the successor government led by Petro Poroshenko embarked on Ukraine's national digital transformation. This initiative was motivated by the imperative to counter threats from Russia and build citizen trust by reducing corruption. The approach was threefold: institutional change through the creation of a new Agency for E-Governance; policy reforms including making analog processes compatible with digital and a new law requiring government officials to declare assets; and technological solutions.

Prozorro

In 2015, the first major technological solution was the creation of Prozorro ↗, a digital platform designed to bring efficiency and transparency to government procurement. With technical support from the Eurasia Foundation, initially funded by the U.S. Agency for International Development (USAID) and subsequently also by UKAid, Prozorro is a platform built on open-source code that removes much of the human element (and therefore opportunity for corruption) in procurement. It employs a unique two-stage bidding process, with first-round bids publicly open (which was suspended for security reasons during the war with Russia). Prozorro is accompanied by a companion network of civil society organizations, Dozorro ↗, which scrutinizes submissions and reports questionable bids to the appropriate government agency. The government reports that Prozorro has saved $1 billion a year in procurement costs.

Trembita

The second landmark step was the establishment in 2018 of Trembita ↗, an interoperable, decentralized government data exchange platform. Based on Estonia's innovative X-Road ↗, but adapted to Ukrainian requirements and needs, Trembita facilities secure information exchange across hundreds of government registries, improving the efficiency and effectiveness of government operations.

In 2019 President Volodymyr Zelenskyy assumed office with a commitment to ramp up Ukraine's digital transformation. His government moved responsibility for digital development from the Agency for E-Governance to an empowered Ministry for Digital Transformation, created the position of Chief Digital Transformation Officer in each government agency at the national and regional level, and established the Territorial Communities Digital Transformation Index ↗ to track ecosystem digital development.

Diia

The third and most significant initiative was the launch of Diia ↗ in 2020. Leveraging the Trembita platform, Diia is designed to vastly improve citizen-to-government interaction. Accurately depicted as "state in a smartphone," Diia allows a citizen with a unique ID and digital signature to use a smartphone to conduct a range of transactions, including filing and making tax payments, registering a vehicle, communicating with medical personnel, accessing medical records, opening a bank account, registering a birth, starting a business, and much more.

With the foundational pieces of Trembita and Diia in place, Ukraine was able to swiftly expand Diia's capacity to address wartime necessities following the Russian invasion. These enhancements include the digital passport, registration and social services for internally displaced persons (IDPs), financial assistance for individuals and businesses, registration of damage property and application for compensation, reporting coordinates of Russian troops, purchasing war bonds, and TV and radio broadcasting. Ukraine is the only country that provides citizens with a digital passport. The shift to cloud-based data storage was an important enabler of the continuous service provided by Diia.

Ukraine has integrated the digital and analog spheres with Diia Education and Diia Business—digital education learning services available both on a smartphone and in the physical classroom and business services available both online and in physical business centers. As of January 2024, the number of users of Diia had reached 19.9 million ↗, a nearly 30% increase since the outbreak of war.

Lessons

A multifaceted approach to align policies with technology: Analog policies, programs, regulations, and structures must be transitioned to have compatibility with digital capabilities, as Ukraine has done through legislation, policy changes, empowering a new Ministry for Digital Transformation, and designating senior-level digital responsibility in all government agencies.

Political leadership drove widescale change: Leadership first by President Poroshenko and then ratcheted up by President Zelenskyy and Minister of Digital Transformation Mykhailo Federov was essential to incentivizing change and empowering those responsible for instituting digital transformation.

Crisis drives adoption: War rallied citizens to the government and made essential the ability of government to perform citizens' services outside of physical offices, which in turn demonstrated the efficiency and efficacy of e-government and consequently contributed to citizen trust in government.

Transparency paired with change management: In the case of Prozorro, civil society efforts to monitor digital procurement process were key to success. Similarly, the digitized government services of Ukraine will be strengthened by oversight and accountability structures that can mitigate misuse and further build trust.

Reciprocal learning can fuel progress: All countries are on a path to digitization and can learn from each other; just as Ukraine's digital transformation owes much to the example and technical assistance from Estonia, now Estonia is adapting Diia to its needs (Mriik ↗). Ukraine's entry into the GovStack ↗ consortium will make many of its digital capabilities available to other countries.

Vision in time of war: Amid an existential war, a vision for the future can give hope to citizens and encouragement to those partners supporting its war effort. In the case of Ukraine, the strategy WinWin ↗, as previewed in December 2023, presents a vision to transform the country into a digital economy.

Strategic conclusion

The strategic conclusion from Ukraine is that widescale digital transformation can be a decade-long journey of overhauling policies, revamping institutional capabilities, and implementing technology architecture to serve current and unknown future needs. Yet the payoff to government operations and citizen resilience can be extraordinary even in the hardest of times. Progress through mutual sharing, as seen between Ukraine and Estonia, not only gives inspiration to others but can directly benefit countries to leverage open-source solutions (when available) that can be adapted to their own needs. In so doing, the path to transformation will be shorter even for those at a far earlier stage than Ukraine's mature state of digitalization.

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