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# SHARING

**BEHAVIORAL INSIGHTS TO ACCELERATE  
DIGITAL SHARING IN THE PUBLIC SECTOR: A  
CASE STUDY FROM TUNISIA**

# BEHAVIORAL INSIGHTS TO ACCELERATE DIGITAL SHARING IN THE PUBLIC SECTOR: A CASE STUDY FROM TUNISIA

## **Imen Ghedhioui,**

Behavioural Insight Advisor, Cabinet Office, Ministry of Technology and Communication, Tunisia, [imen.ghedhioui@gmail.com](mailto:imen.ghedhioui@gmail.com)

## **Dr. Manuel Schubert,**

Managing Director at Behavia, Germany/Saudi Arabia, [manuel.schubert@behavia.de](mailto:manuel.schubert@behavia.de)

**Governments around the globe face enormous difficulties in undertaking digital transformation. What are the root causes of these problems, and how can we accelerate digitalization culture in the public sector? We present a case study on how Behavioral Insights (BI) can help enhance cooperation, data sharing, and technology uptake in public organizations.**

## **Global challenge**

The COVID-19 pandemic has accelerated the pace of digital transformation and dramatically increased the demand for digital solutions around the world. The G20, in accordance with the G20 Digital Agenda, have repeatedly highlighted the urgent need for a transformative recovery that is built on trust through “sharing common values and principles including equality, justice, transparency and accountability taking into account the global economy and interoperability” (G20 2019; G20 2021a). In addition, the G20 countries have recognized the necessity of applying a human-centered, evidence-based policy approach to harness the full potential of digital technologies and mitigate the associated risks (G20 2019). In 2021, the Digital Economy Task Force (DETF) has given priority to “Digital Government,” focusing on the interplay between government actors to harness digital technologies for more efficient and effective public services (G20 2021b).

However, despite these commitments on the G20 level, many national, regional, and local governments still face enormous difficulties in

formulating and implementing effective digital responses. A striking example is the pace at which COVID-19 contact tracing apps have been deployed, revealing significant differences in government response patterns and e-policy cycles across countries (Statista 2020). Governments at all levels must not only strengthen their capacities to react promptly in the event of future crises, but also deliver public services much faster, more simply, and more inclusively (Greenway et al. 2018; OECD 2020).

One major root cause for the slow progress in the digital transformation of the public sector is that governments and public administrations are focusing excessively on the technological and infrastructural barriers to digitalization. Empirical research shows that these “facilitating conditions” only modestly contribute to the uptake of new technologies (Venkatesh et al. 2003). Other factors, such as behavioral, social, and psychological barriers, appear to be equally important in determining technology acceptance and use. For instance, building trust and confidence in technologies, instilling a culture of information exchange and data sharing, and complying with ethical and privacy standards are crucial prerequisites to increasing acceptance and uptake of new systems (OECD 2020). These human factors often receive little attention by policymakers. To the contrary, many government agencies facing a lack of supportive culture for undertaking e-government integration efforts (Lam 2005) try to treat the symptoms rather than address the root causes.

At the same time, the global rise of behavioral insights (BI) in public policy has demonstrated the need for more human-centered policymaking to improve policy effectiveness (Schubert 2020; Baggio et al 2021). Building on evidence from behavioral economics, psychology, sociology, and other behavioral sciences, behavioral insights have the potential to accelerate the pace of digital transformation programs and deliver on citizens’ demands for more advanced digital solutions by focusing on the social and

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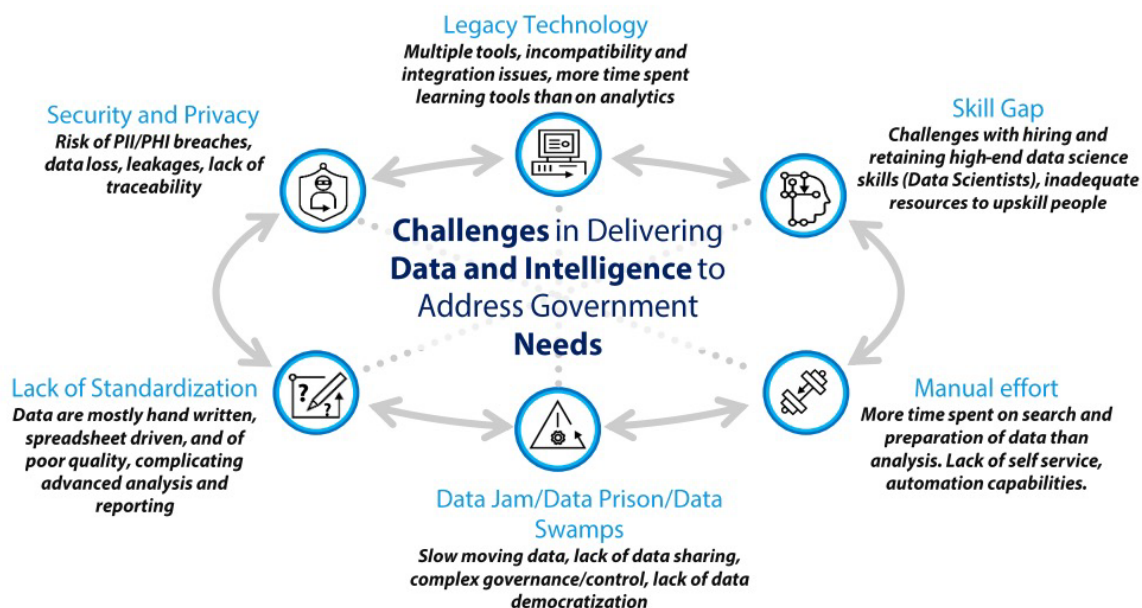


Figure 1: Stylized selection of symptoms (Infosys 2021)

psychological factors which may impede technology acceptance and uptake.

In the following section, we present a case study on how to apply the BI methodology to enhance cooperation and data sharing within a public organization with the aim of providing better social services to citizens.

## Global solution

This case study relates to a project implemented at the Ministry of Communication Technologies and Digital Transformation of Tunisia. As the project is still ongoing, we focus on reporting objectives and key challenges, as well as possible policy solutions. On its completion, we hope that the project can serve as inspiration for other government entities and stakeholders to accelerate the deployment of effective e-services and support the realization of cross-governmental cooperation on digital transformation projects between countries.

## Background of the case study

Building on previous efforts to alleviate poverty and in response to the challenges arising from the COVID-19 crisis, the Tunisian government seeks to improve the provision of social support and protection services. Public services should be better tailored to citizens' needs and

capabilities, especially those of vulnerable groups, and regulated to reduce the risk of systematic misuse of social benefits and protection systems. In this regard, ten existing platforms which currently provide a total of 20 public services to people in need will be unified, integrated, and re-assembled.

The Tunisian National Center for Computing (NCC) is tasked to lead these efforts, guarantee interoperability, and mobilize uptake of the new data-sharing platform. As this assignment requires six Tunisian ministries to collaborate on various levels, two major challenges were identified at the beginning of the project:

1. Lack of capability: stark variation in digital readiness and preparedness among ministries and platform owners.
2. Change resistance: low willingness of stakeholders to adopt interoperability processes and voluntarily exchange essential data owing to a combination of psychological and social barriers.

## Selected approaches

The first challenge, lack of capability, was addressed through a variety of capacity building and upskilling activities. Special attention was

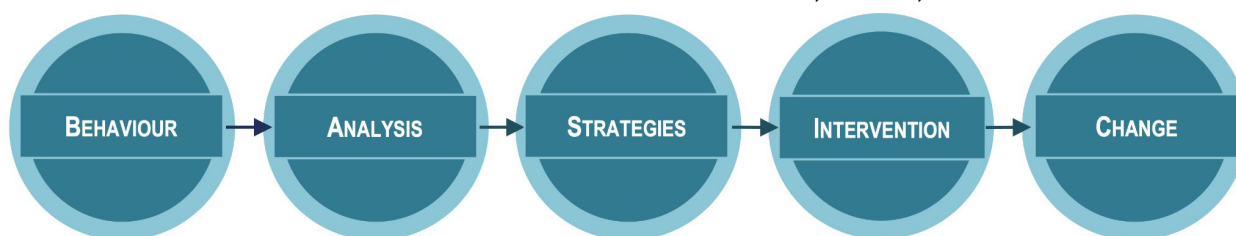
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given to conducting in-depth needs assessments to understand the procedural and data-specific requirements of each ministry and to facilitate an effective process improvement approach for service providers and beneficiaries.

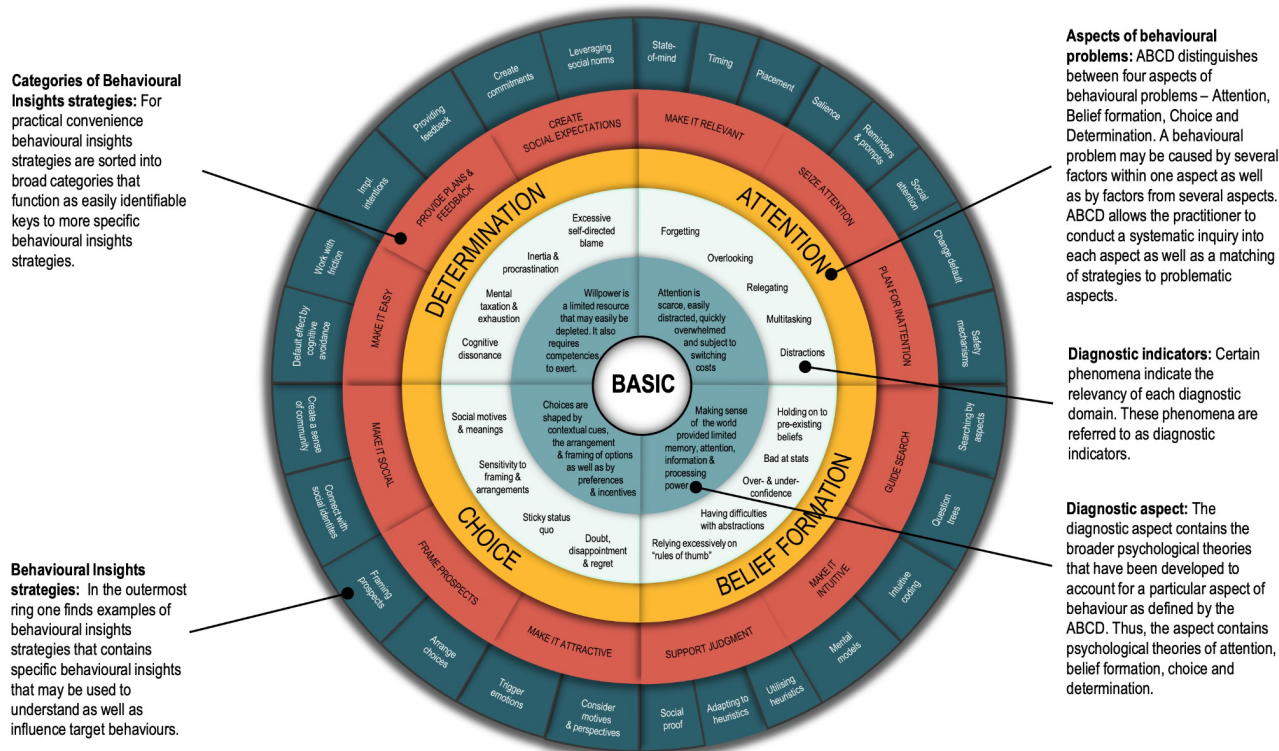
In the second challenge of change resistance, the main area of concern was tackled by applying the behavioral insights framework endorsed by the OECD (2019). The framework provides a strategic

### Diagnosing the root causes of non-cooperative behavior

The NCC team made intensive use of the behavioral insights framework's diagnostic tool, called ABCD, which suggests that behavioral problems, e.g., change resistance or low technology uptake rates, can be analyzed in terms of four aspects: Attention, Belief formation, Choice, and Determination.



**Figure 2:** The BASIC framework (OECD 2019, 46)



**Figure 3:** The ABCD diagnostics tool (OECD 2019, 70)

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The team explored the root causes in each of the domains through a series of workshops that helped identify the following key barriers:

## Attention

Digital transformation projects are often accompanied by significant changes that require stakeholders' attention to effectively deliver against new scopes, requirements, and mandates. In this regard, the following main barriers were identified:

1. Most ministerial teams have only a limited understanding of the existing information systems and interoperability models; important (sub)processes are unknown.
2. Ministerial project teams have only fragmented knowledge of data cleaning and archiving, templates, and reliability standards.
3. The engagement processes for service provider counterparts—a core component of the interoperability model—are only partially defined.

## Belief formation

Stakeholders and project teams constantly form beliefs and make judgments and guesses based on the (limited) information they have. Such beliefs often constitute main reasons for change resistance. The following (mis-)beliefs were identified:

1. The costs of achieving system interoperability are perceived as (too) high.
2. The benefits of interoperability and associated returns for project teams are perceived as (too) low.
3. Some team members appear to be concerned about a loss of control over "their data."
4. Some team members fear that their databases do not meet expected quality levels.

## Choice

In data management systems, users need to make a series of choices to provide or retrieve data in the desired quality and granularity. Besides aspects of general usability, the overall choice environment of interoperability systems can become another impeding factor.

1. The existing systems operate on the "on demand" principle, meaning that a user needs to manually initiate a request to get access to the desired data or analysis. A downside is that users lack opportunities to familiarize themselves with the platforms and learn about the available options and operations.
2. Users do not gain access to the full potential of the data due to missing aggregation standards. For instance, income information is not accessible for most of the users, although aggregated income data could provide important insights for policy designers without jeopardizing data privacy rules.

## Determination

In the context of data-sharing platforms, determination refers to the ability of a user to follow through with their desired action; the easier and more intuitive the system, the more likely users are to execute their actions as planned.

1. Users' manual requests need to be followed up on, either through meetings, emails, or phone calls. This practice creates latencies of several days to weeks until the requested data is made available.
2. At best, the current process stops with the provision of the requested information. Room for feedback or learning opportunities for both the requesting and the sharing ends are not accounted for.
3. Some organizations initiated (side-) processes of dual data sharing which are not yet fully formalized and partly dysfunctional.



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## Designing tailored policy solutions to enhance cooperation

Root cause analysis marked the starting point for the development of suitable human-centered strategies to enhance cooperation among the six ministries through implementation of new policy processes. Following this, the NCC grouped and prioritized the root causes to formulate a set of prototype interventions to overcome the identified barriers and mobilize system uptake and data sharing. Three selected prototypes are presented below:

### Demonstration Days

Many barriers identified under the Attention and Belief domains arise because of a “veil of ignorance” and distrust among users and counterparts. Addressing these barriers, requires users to learn more about the benefits, data standards, classification, and especially about the anonymity of data. The NCC therefore devised Demonstration Days during which data users and data providers met offline and were jointly taken on a guided tour through the platform to explore dynamics, readiness, and monitoring features. The content presented was tailored to the identified social and psychological barriers. In addition, the Demonstration Days were set up in a highly interactive way to a) provide sufficient room for Q/A, e.g., to discuss specific concerns or the need for additional features, and b) instill a sense of coupling and co-ownership among data users and providers. As the Demonstration Days were well received by the teams, the NCC continues to act as the intersectoral bus and organizes these meetings as part of the platform’s onboarding process.

### Data Simulator

Another set of barriers refers to ignorance about the available options for and benefits of data operations and analytics, i.e., the Choice and Belief domains. To address these aspects, the NCC team set up a data simulator to educate users and providers about the benefits of the interoperability platform. The simulator allows users to “surf

& play,” and thereby discover a range of operations, visualizations, and dashboard analytics. For their part, data providers can choose the modalities by which other parties can work with their data and also observe how their data is used by others. This feature was considered important in allowing a minimum level of control and mobilizing trust among data providers. Moreover, direct observation of users is expected to facilitate learning and improvement among data providers. While the initial tests with the simulator were conducted offline, i.e., outside of the actual system, the next stage is integrating the data simulator as a permanent feature.

### Gamification and A/B testing

To counter possible fears among users and providers, the NCC team is developing a series of gamification elements to be integrated in the platform. The idea is to make data sharing as easy and psychologically rewarding as possible. Data providers could, for instance, get personalized guidance and appreciation messages during their first steps, point scores for uploads, checks on how “my data is being viewed” by third users, automated reminders about next steps, social proof messages, and, once they are more advanced, data providers could compete with others on activity-level rankings or data usage. Similar to social media accounts or online community hubs, these elements will be updated over time to offer new incentives and reinforce activity. In the long run, gamification features, and other elements aiming at improving the user experience, will be A/B-tested to learn which features work best.

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## Limitations

Finally, we would like to turn to the limitations of our solution. First, the prototypes presented constitute only a narrow range of potential instruments that could be used to mobilize technology uptake and data sharing in the public sector. Second, the prototypes are only behaviorally informed, not behaviorally tested. As a result, we cannot provide data on the effectiveness of the solutions. Third, the prototypes are tailored to the root causes identified during the diagnosis stage and should not be generalized and applied to other contexts.

## Evidence from a similar initiative

A similar initiative was launched in 2011 in the United Kingdom. The award-winning Tell Us Once program, run under the SCOOP4C project for legal interoperability, seeks to unify public databases and data-sharing processes to make it possible for citizens to inform the government just once of a birth or death (EC 2021).

The initiative has been proven largely successful. User surveys indicated high rates of citizen satisfaction. As a result, the program is considered one of the best practices of the “once-only” principle in e-government strategies. Moreover, the program yielded a positive return on investment. As a result of accessing government services faster and cheaper, the total cost of implementation was £111.0m, with an estimated savings of £172.6m for the government and £83.2m for the public (Rashid 2020; EC 2021).

## Policy recommendations

Despite the various G20 commitments to harness digital technologies for more efficient and effective public services, governments around the globe still struggle with devising and implementing digital services. A major root cause is the excessive focus on the infrastructural barriers to digitalization and disregard of human factors behind technology uptake and data sharing.

In light of the urgent need to accelerate digitalization in the public sector and deliver against citizens’ demands for digital solutions, we advocate for policy solutions that explicitly target the social and psychological barriers among public servants. We therefore call on the G20 to integrate behavioral insights (BI) into the policy cycle and systematically use the evidence produced in the field of behavioral economics and related disciplines.

In pursuing this goal, the G20 should take the following actions:

1. In cooperation with the OECD and the EU Joint Research Center, the G20 Digital Economy Task Force (DETF) should expand its efforts under the Digital Government initiative to prepare a global digital governance program for public organizations. The program should be dedicated to upskilling public officials’ capacities in data governance and interoperability. A second priority should address the human factors behind digital transformation, technology uptake, and data sharing and present validated frameworks to integrate behavioral insights in the policy-making process.
2. To complement the development of the G20 interoperable regulatory framework, the G20 should expand the mandate of the G20 Behavioral Insights Knowledge Exchange Network (BIKEN) to establish a global repository of case studies on e-services and digital transformation projects in the public sector. The case studies should be organized along the key barriers identified during root cause analyses and contain descriptions of the policy prototypes and, if available, outcome data. In addition, the BIKEN should provide technical assistance to public organizations in devising behaviorally informed policy prototypes and validation methods for digital transformation projects and e-services.

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## References

- Baggio, M., E. Ciriolo, G. Marandola, and R. van Bavel. 2021. "The Evolution of Behaviourally Informed Policy-Making in the EU." *Journal of European Public Policy* 28 (5): 658–676. DOI: [10.1080/13501763.2021.1912145](https://doi.org/10.1080/13501763.2021.1912145).
- EC. 2021. "United Kingdom's Tell Us Once Project." <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/201902/08/United+Kingdom%27s+Tell+Us+Once+project>.
- G20. 2019. G20 Ministerial Statement on Trade and Digital Economy. [https://trade.ec.europa.eu/doclib/docs/2019/june/tradoc\\_157920.pdf](https://trade.ec.europa.eu/doclib/docs/2019/june/tradoc_157920.pdf)
- G20. 2021a. "G20 2021: Economic Recovery Will Be through Digital Revolution." (January 12, 2021). <https://www.g20.org/g202021--economic-recovery-will-be-through-digital-revolution.html>
- G20. 2021b. First Digital Economy Task Force Meeting. February 2021. <https://innovazione.gov.it/notizie/articoli/en/italian-g20-presidency-first-digital-economy-task-force-meeting/>
- G20. 2021. "The Digital Ministers Approves a Declaration Identifying 12 Actions to Accelerate the Digital Transition of the Economy and Governments." <https://www.g20.org/the-digital-ministers-approves-a-declaration-identifying-12-actions-to-accelerate-the-digital-transition-of-the-economy-and-governments.html>
- Greenway, A., B. Terrett, M. Bracken, and T. Loosemore. 2018. *Digital Transformation at Scale: Why the Strategy Is Delivery*. London: London Publishing Partnership.
- Infosys. 2021. "Data Analytics in Public Sector." Overview. <https://www.infosyspublicservices.com/offering/data-analytics/overview.html>
- Lam, W. 2005. "Barriers to E-Government Integration." *Journal of Enterprise Information Management* 18(5): 511–530. <https://doi.org/10.1108/17410390510623981/>
- OECD. 2019. *Tools and Ethics for Applied Behavioural Insights: The BASIC Toolkit*. Paris: OECD Publishing. <https://doi.org/10.1787/ea76a8f-en>.
- OECD. 2020. *The OECD Digital Government Policy Framework: Six Dimensions of a Digital Government*. OECD Public Governance Policy Papers, no. 02. Paris: OECD Publishing. <https://doi.org/10.1787/f64fed2a-en>.
- OECD. 2021. *Data Portability, Interoperability and Digital Platform Competition – Background Note*. <https://www.oecd.org/daf/competition/data-portability-interoperability-and-digital-platform-competition-2021.pdf>
- Rashid, N. 2020. "Deploying the Once-Only Policy: A Privacy-Enhancing Guide for Policymakers and Civil Society Actors." Policy Briefs Series. Cambridge, MA: Harvard Kennedy School. (November 2020). <https://ash.harvard.edu/files/ash/files/deploying-once-only-policy.pdf?m=1605912398>
- Statista. 2020. "Adoption of Government Endorsed COVID-19 Contact Tracing Apps in Selected Countries as of July 2020." <https://www.statista.com/statistics/1134669/share-populations-adopted-covid-contact-tracing-apps-countries/>
- Schubert, M. 2020. "Behavioral Insights for Vision 2030: Boosting Behavioral Change in the Kingdom." *Behavia*. White Paper. DOI: [10.13140/RG.2.2.26039.96164](https://doi.org/10.13140/RG.2.2.26039.96164)
- Venkatesh, V., M. Morris, G. Davis, and F. Davis. 2003. "User Acceptance of Information Technology: Toward a Unified View." *MIS Quarterly* 27(3): 425–478. <https://www.jstor.org/stable/30036540>





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