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New development: COVID-19 as an accelerator of digital transformation in public service delivery

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ABSTRACT

In an unexpected circumstance, such as the COVID-19 pandemic, public service delivery cannot be suspended, but must be delivered online, relying on the available digital technology. Social media, specifically, have been widely used to reach a broader portion of the population. This article discusses the digital acceleration that governments and organizations are now facing. The focus is on Italian state museums, which have been pushed for years to adopt digital tools to increase participation. This article highlights three main dilemmas in service delivery: user engagement; planning and control; and costs. The three dilemmas show the social and organizational challenges connected to digital transformation, underlining the issues that organizations will have to face in the future and not just in an emergency such as COVID-19.

IMPACT

How should public sector institutions use digital technologies for service delivery in unexpected circumstances, such as the COVID-19 pandemic? Starting from the empirical setting of 100 Italian state museums, this article shows how digital technologies, and social media particularly, can be a powerful tool for public service delivery when an onsite service cannot be provided. The authors explain the benefits of online service delivery, for example broader audiences and new ways of interacting with users. They also highlight areas that need discussion and further research, for example whether online services should be provided with a fee or free and the trade-off between carefully planning a digital transformation and reacting promptly to catastrophic events.

Introduction

This article examines the acceleration of digital transformation within public service delivery, forced, albeit involuntarily, by the COVID-19 pandemic. COVID-19 has shocked healthcare services worldwide, but is more broadly affecting all areas of public service delivery, with public authorities having to move their operations online, wholly or in part. Digital transformation goes back to the 1990s, often under different labels, for instance 'e-government' (Bellamy & Taylor, 1998), but the digital focus has recently been revitalized. Alongside the digital shift in technology, for example in machine learning and artificial intelligence, there has also been a change in narrative (Curtis, 2019), with user-experience, engagement and co-creation taking central place in service design and delivery (Casula et al., 2020). However, COVID-19 has not been a catalyst for public service institutions to use technologically ground-breaking tools. Instead, most are using the most common tool in the public communication and editorial ownership armoury: social media (Arnaboldi & Coget, 2016; Agostino & Arnaboldi, 2016). The main reason for this is that social media can potentially reach a much broader portion of the population than other digital tools. In 2019, social media penetration was 45% globally, with mobile social

media users making up 42% of users: https://wearesocial.com/it/blog/2019/01/digital-in-2019.

The COVID-19-induced digital acceleration is an opportunity for scholars and practitioners to observe how governments and organizations have acted and reacted over a short period, providing important lessons for the future. Empirically, this article focuses specifically on Italian state museums, a choice driven by several factors:

- The worldwide demand for museums to deliver digital transformation, triggered by newly-available technology and government policy.
- Italian state museums provide an ideal example of user-centricity. In Italy, the government has recently pressured Italian museums to expand their cultural participation (with Law 83/2014, the Franceschini Reform, named after the then minister for cultural heritage and tourism), and to find new ways to engage with visitors online and onsite.
- The online–onsite (im)balance during the pandemic; with onsite visits grinding to a stop, museums can only provide their services online.
- We wanted to avoid similarly placed sectors where organizations are currently under extreme pressure, such as education and healthcare. We

fully respect the crisis now faced by these institutions, but we think that the insights from this area of public culture can be used to analyse other areas of public service delivery retrospectively.

This article is grounded in our empirical observations of how 100 Italian state museums have reacted digitally to the closure of their physical sites.

The COVID-19 service delivery setting

COVID-19 has forced entire countries into lockdown and has shut all but essential services. In Italy, complete lockdown took effect on 8 March 2020—informally known as #iorestoacasa (#Istayhome). All cultural institutions in Italy had to shut their doors and stop providing onsite services. This spurred museums to use social media to deliver their services online, resorting to a different format in their search to retain user engagement.

Italian museums were already using social media extensively, some 69% in pre-COVID-19 Italy (Digital Innovation Observatory, 2020) latching onto the benefit of expanding public participation through mass information and communication. With 49% of the world's population having a social media account (59% in Italy), this is a good meeting place for both museums and their users.

The situation changed with the lockdown, and museums no longer use social media as tools for communication but as tools for delivering a public service, including parts of their core work, from virtual tours (as is the case for the Uffizi Gallery), to 'meet-the-experts' (Archaeological Park of Paestum) and educational initiatives (National Roman Museum). Museums, like everyone else, are facing the challenge at the very last minute.

Dilemmas

In this section, we introduce three dilemmas arising from the COVID-19-driven digital acceleration, which are central for digital transformation in public service delivery more generally. These dilemmas revolve around how today's digital transformation differs from long-standing e-government initiatives. Beyond widely-covered technological advancements, such as Big Data and artificial intelligence (Suk Kim & Hong, 2017), this digital transformation is connected to a deep social change enabled especially by social media, whereby access to mass communication is now open and democratic.

Dilemma 1: User engagement—what do users want and what do museums want?

The first dilemma concerns the role of service users. Should services be organized around what engages

users the most or around what the museums want? We found that Italy's 100 largest state museums recorded an increase in daily posts in February and March 2020 (see Table 1), where the growth in services was connected to an expanding follower base, but this was not replicated in the level of interaction (which we measured by counting the number of likes, comments and shares for a museum post as a proxy for online engagement).

Museums posted more on all three main social media channels—up by 20% on Facebook, and more than doubling on Instagram and Twitter. Their posts, however, were less engaging compared to before the pandemic, despite their greater online following (Table 1).

When discussing these results with museum directors and curators, we were told they construct a social media post starting from an analysis of their collections and exhibited artwork. A museum may, for instance, post the detailed description of a painting or a virtual tour narrated by the museum director or the picture of an item in its collection associated with that day. Their approach is mainly top-down, they 'look within' and then tell the outside world, spreading their message on social media. User reaction and interaction follows as a consequence of a museum's 'push' action. Museums were not analysing what users say or prefer in a bottom-up logic that is closer to the process of co-creating value (Cluley et al., 2020). All these museums can access a social media monitoring platform, with previous reports suggesting which strategies are more likely to engage users, such as linking posts to specific events and occasions (St Valentine's Day) or TV stars. Such a choice means keeping track of users and sometimes entails reducing content quality (images, text), thereby curtailing the educational purpose to react faster and stimulate user reaction. For example, an engaging post by the Brera Art Gallery in Milan shared the work of the Italian street artist, TvBoy, where he alters a well-known 19th-century painting by Francesco Hayez, The Kiss, with a pandemic related theme. The title was Love in the Time of COVID19 (https://www.tvboy.it/2020/25862/), playing on the title Love in the Time of Cholera) by Colombian author Gabriel García Marquez.

To summarize, one of the museums' dilemmas was how to deliver their online services through the digital, open and multilateral communication process enabled by social media.

Do museums provide what they think is better for users or what engages users better? As highlighted by a curator, museums cannot 'abdicate' from their role of interpreters of collections, bringing the past to the present. Several museum directors told us that their primary role is to educate users and enlighten them about the past. Their entertainment role is secondary.

Table 1. Social media posts and interactions for Italian state museums.

Channel	February 2020			March 2020		
	No. of posts	*No. of followers*	*Interactions/post*	*No. of posts*	*No. of followers*	*Interactions/post*
Facebook	1671	16,965	102	2018	17,642	112
Instagram	677	21,910	824	1662	23,617	529
Twitter	1026	7958	26	1993	8135	27

In addition, if language and timing do not fit a user's needs, museums will only scratch the surface, eliciting a simple 'I like' click, without stimulating comments or further discussion.

Dilemma 2: Planning and control—cage or navigator?

In 2017, the Italian government embarked upon a major plan for digital transformation within the public sector, which was enacted through guidelines and an agenda for institutions. The Ministry for Cultural Heritage developed a strategic digital plan, and left it up to the museums to adopt and personalize their own measures. Some Italian museums have been adopting a digital plan encompassing infrastructure, visitors and employees, up from 3% in 2018 to 6% in 2019; 23% more staff had digital skills in 2019 compared with 2018 (Digital Innovation Observatory, 2020).

Our research on museums during the COVID-19 emergency has shown that some have changed their strategic plans and priorities, turning to unplanned initiatives. Several are providing educational programmes through commodity platforms, such as Microsoft Teams, Google Meet and Zoom, certainly accelerated by the fact that universities and schools are also using the same platforms. However, museums have had to adapt to the technology, at times downgrading the quality of artwork visualization. Compared to mass offerings of digital museum tours, these platforms provide live 'human' interaction between the museum curators/educators and schoolchildren/university students. Other museums have instead stuck to their original plans, including the development of sophisticated interactive digital platforms. Although these museums know that lockdown could last for months, they are placing the quality of the online experience above a quick response to the crisis.

So is a digital plan a cage or a navigator? The answer is not straightforward, but it is worth exploring two factors that will be part of our future. The first is technological evolution—the public sector can be slow in pursuing transformation and, in the case of digital transformation, technologies risk becoming obsolete before reaching potential users. The second factor concerns the 'black swans' (Taleb, 2010): unpredicted events, such as the global financial crisis or current pandemic. We can question whether either event was truly unpredictable, but there is no doubt that we were unprepared and that daily or even real-time monitoring necessarily prevails over long-term plans. These two realities must dovetail.

Dilemma 3: Digital services—fees or free?

The 100 museums we monitored are all 'physical museums', with real collections and entry fees. Italian museums have always offered digital initiatives for free on social media, using them for communication purposes or to complement their onsite service delivery. The closure of their physical sites during the COVID-19 crisis means that museums immediately lost their income from ticketing and ancillary services. This has not stopped them from providing a service through social media channels, which requires continuous effort, as museum staff must rethink the service offer, design the new digital offer and provide the digital service. For example, a short video about a painting means compressing the content into a five-minute presentation for it to work on social media.

This situation introduces another dilemma which is whether digital services should be free or paid for. This applies especially in a situation where self-financed income has dropped to zero, and it covers three possible future scenarios. The first is 'as is' with a totally free digital service. The second setting involves a 'freemium' service, with some material offered for free and more advanced services having a cost. For example, the description of a painting could be free, but the virtual tour of a specific gallery with the museum director could require payment. The third setting involves using social media to communicate events and initiatives which then have to be paid for. This dilemma brings several factors into play, not only in terms of financial sustainability, but also concerning the availability of internal resources. Whereas charging a fee to access a service can partially make up for the loss of onsite income, current museum staff have no training in delivering digital services.

Concluding remarks

COVID-19 has acted as an accelerator for digital transformation in public service delivery. The

empirical evidence from 100 Italian state museums, currently closed to the public and with digital service delivery as their only option, is an extreme case.

Our three dilemmas highlight issues that we will have to face in the future, not only in an emergency such as COVID-19, but also more routinely in the challenge of digital transformation. These issues are only partially linked to technology, which is obviously an enabler but, more specifically, they bring up the social and organizational challenges connected to digital transformations. Users are more than service recipients who want, and can easily have (through social media and other digital technologies), a voice. Information can be collected and services personalized but, paradoxically, the search for the best 'tailor-made' technology can cause delays and rigidity, as can be seen in several service delivery aspects, from pricing to planning and preparing an offer. Novel transformational skills will be key to dealing with this new setting; these may be new professional roles and competences, flexible assets or other resources. However, there is clearly an urgent need for further research to find the best way forward.

Disclosure statement

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