

Capturing trust in public service encounters

Mapping trust along life event citizen journeys

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Abstract: Understanding and fostering citizen trust is crucial for effective public service delivery, where citizens must take risks vis a vis the state, or where collaboration and adherence to rules is especially important. This article proposes a systematic approach to develop a deeper comprehension of how trust is gained and lost during specific service interactions. Building on prior work on where trust may be gained or lost in a generic citizen journey [Di22b] this article proposes identifying life event services, where trust is particularly important and creating citizen journeys, from the perspective of relevant segments of the population.

Keywords: Trust, Citizen Journey, Life event

1 Introduction

Across the last decade, under the header Digital Transformation a large body of Information Systems research has focused on understanding the impact of digital technology use on organizations and individuals. Discussing the impact of digitalization on public communication, the public sphere, Claudia Ritzi [Ri24] coins the metaphor of a public communication universe. She echoes claims of a third structural transformation of the public sphere through the exponential expansion of the number of participants, the evolution of types of content and the fragmentation of audiences intensifying the struggle for attention. For local governments, falling usage rates of traditional communication channels like city newspapers, lagging adoption of municipal digital channels and the dispersal of audiences across platforms make it continuously more costly to maintain the same level of attention. Slow uptake of electronic public services in many countries has led to a strong focus on understanding citizens' choice of service channel and factors influencing the adoption of digital channels [Ma16]. This line of inquiry is hardly new, but it is moving in new directions as new technologies find application across domains. Furthermore, new channels are being added to the communicative repertoire of local government actors, like location-based notification systems for emergency alerts (e.g. [Bo21]), that need to be integrated into channel strategies.

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Along with this development, scholars from various disciplines have observed changes in levels of public trust in institutions prompting some to speak of a “trust crisis” (see for example [Al17, CS18]). Digitalization can impact the public sector across a variety of features which is captured in a taxonomy introduced by Mergel et al. [Me19]. They distinguish processes, services, products, relationships, technology and business models as objects of digital transformation in public administrations. This article is primarily concerned with relationships as objects of digital transformation. In this context the digital transformation of the channels through which government and the public interact, prompt the question how this affects underlying dynamics of citizen-government trust. Trust has been named as a factor for the public sector to foster collaboration [OM18, Oo20], important for eGovernment adoption [Bé05] and associated with higher adherence to rules [De21]. To understand citizen-government trust, however, changes in trust over time and differences across services and segments of the population need to be accounted for.

Most interactions between citizens and government relate to the provision of public services. A typical instance of providing a public service, then, is now a series of interactions through both physical and digital channels. How governments should configure their various service channels is examined in the field of multi-channel management (see [Ma16] for an overview). A small literature depicts these processes as “citizen journeys” along various service touchpoints, analogue to customer journeys widely used in research on eCommerce. Distel and Koelmann [Di22b] propose to examine how trust evolves along this citizen journey. Service interactions are often clustered along “life events”, like moving to a new city or entering university, that necessitate contact between citizens and the administration (see for example [TT08]). As trust depends on risk [Di22a], and the risks associated with public services are likely not equal across life events (e.g. the stakes in renewing your Visa are higher than in applying for a parking permit), the importance of trust should vary across services. Especially for those “high stakes” services, safeguarding trust along the citizen journey is an important concern for good multi-channel management. Similarly, for services where outcomes of trust, like citizens not withholding information are particularly relevant and control activities especially undesirable, trust management should be assigned a higher relevance.

To this end, this article proposes a theory synthesis following Jaakkola et al. [Ja20] of how citizen-government trust changes along the citizen journey.

2 Method

This article follows Jaakkola et al.’s [Ja20] approach to writing theory syntheses. A theory synthesis integrates perspectives from different research streams to link phenomena in a new way. This article seeks to integrate the research on how citizens interact with eGovernment services with research on trust to propose a view of how trust evolves along a service interaction. A theory synthesis integrates domain theories and a method theory.

Domain Theories describe aspects of the phenomenon of interest. The method theory organizes dimensions of the phenomenon to enable data collection and analysis.

In this case, life event services and the citizen journey are employed as domain theories to describe the relationship between citizens and the public sector. As a method theory, a trust lense drawing on Distel and Koelmann's prior work [Di22b] and on Dietz's universal sequence of trust [Di11] is employed to structure the dynamics of this relationship. This perspective allows investigating where and for whom trust is particularly relevant across public services and throughout service interactions.

In the following, concepts are introduced and a theoretical view on trust in public service encounters outlined. It is then applied in exemplary fashion to the process of applying for unemployment benefits.

3 Literature

Interaction between citizens and local government centres around the provision of public services, which are provided through physical and digital channels. In the eGovernment domain, the management of different channels to provide public services is primarily dealt with by the channel choice and multi-channel management literature [Ma16, Pi22]. This literature focusses on explaining citizens' choices of service channels. Channel choice literature frequently draws on Media Richness Theory, Channel Expansion Theory Technology adoption research and marketing research [Ma16] identifying many aspects of why citizens choose to interact with different public service channels.

Madsen & Kræmmergaard [Ma16], in a review of the channel choice literature list channel characteristics, task characteristics, personal characteristics, situational constraints and satisfaction as variables influencing citizens choice of service channels. Laenens et al. [La18] additionally identify digital inequality mechanisms and information characteristics as factors impacting channel choice to receive spatial planning related information. Digital inequality variables, like digital skills and access, are a highly relevant characteristic of target audiences to consider in determining where digital communication channels are more or less appropriate. As information characteristics, Laenens et al. [La18] consider quality, quantity, comprehensibility, governance level and proximity to the audience.

For public organizations digital channels tend to be more cost effective. However, they may not be suitable for every service and service recipient, and public services need to be accessible for everyone. The question of how to best manage a wide variety of channels from the public administration's side has been subject of the multi-/omni-channel management literature. Some studies, like [WL17], attempt assigning fixed characteristics to different channels for informing channel management strategies. In contrast, Pieterse et al. [Pi22], in a review of omni-channel management literature highlight that channel char-

acteristics generally interact not just with the context, the task, but also the service recipient. Therefore, they call for research that incorporates service journeys from the eyes of different population segments [Pi22].

In literature on e-Commerce, customer interactions with various business touchpoints as part of, for instance, making a purchase are often grouped in a customer journey to optimize the customer experience (see [Ga20]). Recently, a small number of articles has begun adapting the customer journey concept to public service provision, creating “citizen journeys” [BB22, Di22b, Gr22, Mu22, Sa22, Sc20].

Muschkiet et al. [Mu22] propose a framework to map citizens’ interactions with smart city services to improve services based on city data. They map ideas for service improvements, citizens’ touchpoints with the city, their actions, pains and expectations at multiple points in time. Similarly, Graf Drasch et al. [Gr22] create a citizen journey map for city district services. Their framework also includes a time dimension, in the form of life stages (moving to a district, living there, moving out). Additionally, they formulate the need to create journeys for different groups of citizens by creating personas, and distinguish physical, digital and hybrid touchpoints for various district services.

An application of the citizen journey to a single instance of a public service is Scholta et al.’s [Sc20] generic citizen journey. It focusses on the steps involved in the service instance, distinguishing mandatory and optional steps. The timeframe begins prior to service provision, with a preparation phase, in which citizens recognize a need for a public service, choose a channel and search for information. In the next phase, the application phase, they choose a service, prepare and conduct their application. Finally, in the results phase, citizens may choose a channel for inquiries or submitting additional documents prior to receiving their result, using their result and possibly submitting feedback.

First efforts have also been made to utilize the citizen journey for analysing trust along service encounters. Gutowski and Kao [BB22] utilize the generic citizen journey to specify a citizen journey for residency registration of students, highlighting trustworthiness beliefs and risk perceptions across 6 interviews. Distel and Koelmann [Di22b] extended the generic citizen journey, for each touchpoint marking potential trust gains and losses.

The concept of structuring public services along citizens’ life-events has first been introduced over two decades ago as part of efforts to implement ‘one-stop shop’ government, which means offering a single access point for public services across agencies [Wi01]. Tambouris and Tarabanis [TT08] describe life events as a situation where citizens, to fulfil a need, require a public service. Rather, than citizens having to coordinate requests from various agencies, the concept departs from the idea that events in citizens’ life, like moving to a new town, create a need for certain services, like registering in the new location and updating your ID. While the impact on academic literature has been limited, the concept enjoys widespread use, and is used to group services and structure government websites [LB03]. The concept of life events provides a fruitful starting point to create citizen journeys, given the focus on grouping public services linked with a single need on part of

citizens. Saxena et al. [Sa22] have already linked the two concepts, creating citizen journeys for 14 life events based on interviews. Their citizen journeys are focussed on specific steps in making and processing service applications and are presented as decision trees. The concept of life event journeys is also used outside academia, for instance for the EU eGovernment benchmark [Eu22].

3.1 Trust

Research on trust is a broad and mature field across a variety of disciplines. Within IS, a variety of perspectives on trust are employed. Trust here, is understood following Mayer et al.'s [Ma95] widely used definition as the willingness of one party, the trustor to be vulnerable to another party, the trustee, under uncertain conditions. The trustor decides to take this risk or not, based on trustworthiness beliefs about the competence, integrity and benevolence of the trustee. This element of uncertainty and risk means that trust and control are mutually exclusive.

Möllering [Mö13] highlights that trust should be viewed as a process and that trust changes over time, calling for more works taking a longitudinal perspective. They introduce 5 conceptualizations of trust as a process, of which *trust as processing* is the most appropriate here. According to this approach, to understand trust it is essential to understand the social and cognitive processes that “*generate and ‘process’ [...] information in order to produce the outcome of trust*”. The importance of different trustworthiness beliefs may shift over the course of this process as a relationship progresses.

A definition of trust that lends itself well to analysing trust as a process across varying administrative processes and through the eyes of different groups of citizens is provided by Dietz [Di11]. Dietz builds on this definition, integrating extant research on trust to propose a “universal sequence” of trusting as “an assessment of beliefs, a decision, a risk-taking act, feedback on the outcomes”. According to this view trust is formed and informs decisions in a similar fashion across contexts. Rather than there existing different types of trust that come into play in different situations, the sequence is always the same, but variance exists in how its different stages play out. Trustworthiness beliefs about the trustee’s ability, benevolence and integrity are formed, based on various inputs: 1) the trustor’s predisposition to trust, 2) the trustee’s character, motives, abilities and behaviour, 3) the nature of the trustor and trustee’s relationship, 4) situational influences, like cultural or reputational factors, 5) domain-specific concerns and 6) feedback from previous interactions. Based on these trustworthiness beliefs, a decision to trust or not is taken, which then informs trust-informed actions and potential risk taking. In a following interaction, feedback from this decision will influence the trustor’s trustworthiness beliefs about the trustee.

4 A conceptual model for trust in the citizen journey

The goal of the article is to propose a framework to examine how trust evolves along public service encounters. Channel Choice and Multi-Channel Management literature tell us that the influence of channel characteristics differs by channel and audience [Ma16, Pi22]. Literature on trust informs us that inputs into trust also vary by context and are influenced by prior interactions [Di11, Mö13]. To investigate trust in service interactions, it thus needs to be captured over time, differentiating different services and audiences. This makes the Citizen Journey a well-suited tool for this endeavour. Moving from Distel and Koelmann's [Di22b] use of Scholta et al's [Sc20] generic citizen journey, I thus propose to develop citizen journeys for services where trust is especially relevant, due to higher risk on part of citizens, or a higher relevance of outcomes of trust. In this section, the framework is laid out and applied in exemplary fashion to a life event where trust is particularly important, applying for unemployment benefits.

Citizen journeys should specify a timeframe [Gr22]. Here, an instance of a life event service is chosen, following Scholta et al's generic citizen journey [Sc20]. Since the goal of this article is to analyse trust, places where trust assessments, decisions and actions [Di11] occur should be marked in the citizen journeys, similar to Distel and Koelmann [Di22b]. Through interviews, inputs, including feedback from prior interactions and trustworthiness beliefs should be measured for each trust-relevant touchpoint.

The citizen journeys should not be generic, but focus on different life events [Sa22]. Life events should be chosen based on exposing citizens to a particular risk or where the outcomes of trust, like collaboration and adherence to rules is particularly important for the administration. The citizen journeys should distinguish physical, digital and hybrid touchpoints [Gr22]. Finally, for any given life event citizen journeys should ultimately be developed for relevant personas [Eu22, Gr22]. Most relevant personas should differ across life events, but individual-level factors from channel choice literature, like different age cohorts or digital inequality factors, may provide a starting point.

The EU's eGovernment benchmark [Eu22] contains 7 life events from the perspective of citizens, including persona descriptions for them: 1) Career, meaning services for requesting unemployment benefits, other benefits and finding a new job, 2) Family, clustering services around births, deaths and marriages, 3) Studying, 4) Health 5) Moving, 6) Starting a small claims procedure and 7) Transport, related to buying a car.

Trust is more important from the perspective of the trustor, if the trustor perceives a higher risk in being vulnerable to the trustee. I follow Distel et al. [Di22a] in adopting Rousseau et al. [Ro98, p.395] definition of perceived risk as "the perceived probability of loss, as interpreted by a decision maker". From the perspective of the trustee, trust is more important, where trust outcomes, like willingness to collaborate, share information and adhere to rules and agreement, are more relevant.

Here, the career life event is used as an example: From the perspective of a citizen affected by lay-offs, there is a risk of not receiving or having to wait long to receive benefits and receiving inappropriate counselling. From the perspective of the administration, there is a high desirability of receiving complete information to determine rights to benefits, and for a high willingness to collaborate with counsellors to find a new job for applicants. Future work should investigate risk perceptions and the relevance of trust outcomes for different life events more in-depth. For the example, no persona was created.

The generic citizen journey was adapted to the career life event drawing on information on the websites of two German cities. The resulting life event citizen journey is depicted in table 1. First, a potential applicant recognizes the need to apply for unemployment benefits, for instance because of a lay-off. They then need to choose a channel to search for information. Trust in the competence, benevolence and integrity at this point comes into play in the channel choice. For instance, a lack of trust in the administration may result in searching for information from third parties rather than consulting the jobcentre's website, calling the contact person or going there in person for information. If information is incomplete or incorrect, or citizens are misunderstood, this may result in negative feedback on trustworthiness beliefs. In contrast, a swift and useful reply may result in positive feedback. After informing themselves, citizens make a choice about how to apply, e.g. when and where, and afterwards prepare the application. They may then conduct the application digitally or in person. Again, at this point trust comes into play and citizens may be reluctant to share some information or prefer the physical channel if they do not trust the administration regarding data security and protection. Next, citizens may schedule an optional personal consultation to facilitate finding new employment. Trust in the ability, benevolence and integrity of the administration should make citizens more likely to go to such an appointment. In a similar fashion, citizens experiences around the result of their application and whether it is an understandable and transparent decision may influence trustworthiness beliefs for future citizen journeys.

Touchpoint (adapted from [Sc20])	Trust relevant factors (adapted from [Di22b])
Preparation Phase	
Recognize need: <i>Lay-off</i>	<i>No trust relevant aspect</i>
Choose Channel: Digital or physical application	Perceived ability, benevolence, integrity of administration
Search Information	Online: Missing, incomplete or incorrect information. In-Person/on the phone: misinterpretation of problem, time investment, perceived competence, benevolence, integrity of civil servant

Application Phase	
Make Choice to apply and when: <i>Online Application</i>	Perceived ability, benevolence, integrity of administration
Prepare Application: <i>Gather documents</i>	<i>No trust relevant aspect</i>
Conduct Application: <i>Upload everything and submit</i>	Perceived data security and protection, Perceived ability, benevolence, integrity of administration, user-friendliness and support
Optional: Get Appointment for personal consultation by e-mail	Misinterpretation of problem, time investment, perceived ability, benevolence, integrity of administration
Optional: Go to personal consultation in person	Misinterpretation of problem, time investment, perceived competence, benevolence, integrity of civil servant
Results Phase	
Choose Channel: <i>E-mail</i>	Perceived ability, benevolence, integrity of administration
Optional: Make Inquiries	Time investment
Optional: Submit further documents	<i>No trust relevant aspect</i>
Receive Result: <i>Benefits approved</i>	Comprehensibility, understandability, transparency of decision
Use Result	<i>No trust relevant aspect</i>
Give Feedback	<i>No trust relevant aspect</i>

Table 1

The proposed framework should be applied to public services in a local government by first conducting focus groups with citizens and administrative personnel to determine which life events and what target groups trust management is most relevant for. Administrative personnel should come from citizen-facing departments, like job centres, citizen offices, youth offices and construction offices. Citizens should be invited to several rounds of focus groups to include a wider range of different perspectives. Next, life event citizen journeys should be created and validated, through interviews with citizens and administrative personnel. Here, administrative personnel engaged in providing the life event service in question, and current service recipients should be interviewed. Service recipients should be interviewed several times as they pass through service instances, to gauge how trust changes along the journey.

5 Discussion

This article primarily contributes to the literature on trust in eGovernment services, expanding the work of Distel and Koelmann [Di22b] by proposing to create citizen journeys for different life events and tracking changes in trust across the journey. The expected contribution is a better understanding of where trust for public services matters most, by specifying citizen journeys for different life events and personas. The life event citizen journeys provide a framework to structure how trust changes across a service instance, and how it interacts with other factors determining channel choice and eGovernment adoption.

Furthermore, the research should generate practical recommendations for municipalities in creating trust-management strategies. As citizen journeys are already used to benchmark eGovernment services in praxis [Eu22], the framework is well-placed to deliver on this promise.

A future application of this framework should develop multiple citizen journeys for relevant personas for life events where trust matters especially. Across life events, different segments of the population are likely more relevant for trust management. Instances of public services do not just involve a variety of trustors, but also several different trustees. Trust in administrative organisations, individual civil servants and in technology needs disentangling and emphasis should be placed on this when developing the citizen journeys. Another weakness of this approach is that by focussing on specific life-events, cross-cutting factors that are relevant for trust may be more difficult to spot. Furthermore, the narrow focus may make findings less generalizable.

6 Conclusion

This article proposed a theory synthesis of the life event service, citizen journey and trust literatures to create a structured view on how citizens trust evolves along an instance of service provision. The article expands Distel and Koelmann's [Di22b] view on municipal trust management, proposing to create life event citizen journeys for different personas of service recipients. Thereby, trust can be traced throughout the different steps of a life event service, identifying the changing importance of different input factors over time, for gauging trustworthiness. A better understanding of this dynamic, and how it is impacted by the introduction of digital technologies could facilitate more effective trust management on part of local government.

Future research should generate a better understanding of where trust is most relevant from both the citizens and governments side. To do so, researchers should aim to deepen their understanding of what risks citizens perceive regarding different public services. Additionally, further studies should examine where outcomes of trust, like willingness to collaborate, are most crucial for public services to operate.

Literature

- [Al17] Algan, Y. et al.: The European trust crisis and the rise of populism. *Brookings Pap. Econ. Act.* 2017, Fall, 309–400 (2017). <https://doi.org/10.1353/eca.2017.0015>.
- [BB22] B, C.G., B, J.K.: Electronic Participation. *Proceedings of the 14th IFIP WG 8.5 International Conference, ePart 2022, September 6-8, Linkoping, Sweden. Springer Nature Switzerland* (2022). <https://doi.org/10.1007/978-3-031-23213-8>.
- [Bé05] Bélanger, F. et al.: AIS Electronic Library (AISeL) Trust and Risk in eGovernment Adoption Trust and Risk in E-government Adoption. (2005).
- [Bo21] Bopp, E. et al.: How to improve alert systems: the technical, human, environmental and structural aspects. *Aust. J. Emerg. Manag.* 36, 1, 67–75 (2021).
- [CS18] Citrin, J., Stoker, L.: Political Trust in a Cynical Age. *Annu. Rev. Polit. Sci.* 21, 49–70 (2018). <https://doi.org/10.1146/annurev-polisci-050316-092550>.
- [De21] Devine, D. et al.: Trust and the Coronavirus Pandemic: What are the Consequences of and for Trust? An Early Review of the Literature. *Polit. Stud. Rev.* 19, 2, 274–285 (2021). <https://doi.org/10.1177/1478929920948684>.
- [Di11] Dietz, G.: Going back to the source: Why do people trust each other? *J. Trust Res.* 1, 2, 215–222 (2011). <https://doi.org/10.1080/21515581.2011.603514>.
- [Di22a] Distel, B. et al.: Watch who you trust! A structured literature review to build a typology of e-government risks. *Inf. Syst. E-bus. Manag.* 0123456789, (2022). <https://doi.org/10.1007/s10257-022-00573-4>.
- [Di22b] Distel, B., Koelmann, H.: Vertrauensmanagement in Kommunen zur nachhaltigen Verwaltungsdigitalisierung. 113–123 (2022). https://doi.org/10.1007/978-3-658-35675-0_8.
- [Eu22]. European Commission: E-government Benchmark Method Paper 2020-2023. (2022).
- [Ga20] Gao, L. et al.: Multichannel integration along the customer journey: a systematic review and research agenda. *Serv. Ind. J.* 40, 15–16, 1087–1118 (2020). <https://doi.org/10.1080/02642069.2019.1652600>.
- [Gr22] Graf-Drasch, V. et al.: Life is a Journey in Smart and Sustainable Districts. 17th Int. Conf. Wirtschaftsinformatik, WI 2022. February, (2022).
- [Ja20]. Jaakkola, E.: Designing conceptual articles: four approaches. *AMS Rev.* 10, 1–2, 18–26 (2020). <https://doi.org/10.1007/s13162-020-00161-0>.
- [La18] Laenens, W. et al.: Channel choice determinants of (Digital) government communication: A case study of spatial planning in flanders. *Media Commun.* 6, 4Theoretical Reflections and Case Studies, 140–152 (2018). <https://doi.org/10.17645/mac.v6i4.1652>.
- [LB03] Leben, A., Bohanec, M.: Evaluation of life-event portals: Multi-attribute model and case study. *Lect. Notes Artif. Intell. (Subseries Lect. Notes Comput. Sci.* 2645, 25–36 (2003). https://doi.org/10.1007/3-540-44836-5_3.
- [Ma16] Madsen, C. et al.: Channel Choice : A Literature Review To cite this version : HAL Id :

-
- hal-01412228 Channel Choice : A Literature Review. 3–18 (2016).
- [Ma95] Mayer: An Integrative Model of Organizational Trust Author (s): Roger C . Mayer , James H . Davis and F . David Schoorman Published by : Academy of Management Stable URL : <http://www.jstor.com/stable/258792> REFERENCES Linked references are available on JSTOR f. Acad. Manag. Rev. 20, 3, 709–734 (1995).
- [Me19] Mergel, I. et al.: Defining digital transformation: Results from expert interviews. Gov. Inf. Q. (2019). <https://doi.org/10.1016/j.giq.2019.06.002>.
- [Mö13] Möllering, G.: Process views of trusting and crises. Handb. Adv. Trust Res. February, 285–305 (2013). <https://doi.org/10.4337/9780857931382.00024>.
- [Mu22] Muschkiet, M. et al.: Making Data Valuable for Smart City Service Systems - A Citizen Journey Map for Data-driven Service Design. 17th Int. Conf. Wirtschaftsinformatik, WI 2022. February, (2022).
- [OM18] Ojo, A., Mellouli, S.: Deploying governance networks for societal challenges. Gov. Inf. Q. 35, 4, S106–S112 (2018). <https://doi.org/10.1016/j.giq.2016.04.001>.
- [Oo20]. Ooms, W. et al.: Ecosystems for smart cities: tracing the evolution of governance structures in a dutch smart city initiative. International Entrepreneurship and Management Journal (2020). <https://doi.org/10.1007/s11365-020-00640-7>.
- [Pi22] Pieterse, W. et al.: Omni-Channel Overtures Defining the Concept and Its Applicability in Public Sector Channel Management. Springer International Publishing (2022). https://doi.org/10.1007/978-3-031-15086-9_5.
- [Ri24] Ritzi, C.: Balancing the digital universe: Power and patterns in the new public sphere. Philos. & Soc. Crit. 50, 1, 159–177 (2024). <https://doi.org/10.1177/01914537231203540>.
- [Ro98] Rousseau, D.M. et al.: Not so different after all: A cross-discipline view of trust, (1998). <https://doi.org/10.5465/AMR.1998.926617>.
- [Sa22] Saxena, D. et al.: From Bureaucracy to Citizen-Centricity: How the Citizen-Journey Should Inform the Digital Transformation of Public Services. Int. J. Electron. Gov. Res. 18, 1, 1–17 (2022). <https://doi.org/10.4018/IJEGR.305230>.
- [Sc20] Scholta, H. et al.: Walking a Mile in Their Shoes—A Citizen Journey to Explore Public Service Delivery from the Citizen Perspective. Springer International Publishing (2020). https://doi.org/10.1007/978-3-030-57599-1_13.
- [TT08] Tambouris, E., Tarabanis, K.: Understanding and scoping life events. Int. J. Electron. Gov. 1, 2, 139–154 (2008). <https://doi.org/10.1504/IJEG.2008.017901>.
- [Wi01] Wimmer, M.A.: European Development Towards Online One-Stop Government: The "eGOV" Project. Proc. ICEC2001 Conf. 1, 92–103 (2001).
- [WL17] Wirtz, B.W., Langer, P.F.: Public Multichannel Management – an Integrated Framework of Off- and Online Multichannel Government Services. Public Organ. Rev. 17, 4, 563–580 (2017). <https://doi.org/10.1007/s11115-016-0356-0>.