Opportunity or threat? The impact of digitalization on co-producing and co-creating public services

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Dr. György Drótos
Associate Professor, Director of Institute
Content

- Research questions
- Theoretical background
- Pilot case and preliminary assumptions
- Options for further investigations
Research questions

1. Can co-production and co-creation take place in digital services at all? (Some authors argue that they both require face-to-face contact and direct input from the parties)
2. If so, what are the opportunities and threats of digital public services from a co-production and co-creation point of view (compared to non-digital ones)?
3. What makes a digital public service more apt for coproduction and co-creation?
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Digitalization / Digital Transformation revisited: the term is both narrower & wider than we often use it.

Digitalization is less than applying any kind of ICT to service processes

- **SOCIAL MEDIA**: Ubiquitous computing, wearables, AR/VR
- **MOBILE**: Big data, smart data, predictive analytics
- **ANALYTICS**: Sensors, M2M, connected things
- **CLOUD**: Chatbot, RPA
- **INTERNET OF THINGS**: E-mobility, 3D, blockchain etc.
- **WHITE-COLLAR ROBOTICS**: MISC
- **AI & MACHINE LEARNING**: Additional new technologies

*Mature ICT technologies (e.g. traditional workflow systems, ERP) should not belong here.*

Digitalization is more than just making user contacts digital

It is important to note that *digital transformation of user contacts is just one field of digitalization*. It may also transform (1) the „product” itself (i.e. service design), (2) the core service provision process, (3) the internal support processes of the service provider, (4) and even the whole business model of the service.
Co-production, Co-creation, and Digitalization

**Co-creation of Value**
*(based on Osborn, 2018)*

- Values creation in public services is **complex**:
  - Occurs at individual, system, and society levels
  - The "output" is just one of its elements
- Value in public services is **inherently co-created**:
  - Users and staff bring their 'baggage' (e.g. expectations, skills) to the service
  - Both leave with additional takeaways (e.g. satisfaction, frustration, lessons learnt)
- Beside the above, **users/stakeholders can also voluntarily contribute** to the value creation

**Co-production of Service**

- It often refers to **the voluntary contribution** of the user or any further stakeholder to the service
- In narrow sense it applies only to the **delivery of the public service**
- It wider sense it expands to **its design, management, and/or evaluation**

Digitalization **does not necessarily mean the complete elimination of face-to-face contacts among** the co-producers. In practice, solutions are often blended.

**Assumption:** The digital channel (lack of face-face contact) **may decrease the involuntary and increase the voluntary components in value co-creation.**
The possible impacts of digitalization on co-production (Lember, 2018)

1. Digital technologies can only **indirectly affect co-production practices** (e.g. electronic signature, access to databases)
2. Digital technologies can **transform co-production** by providing a new (virtual) layer to it or creating an entirely new service (e.g. crowdfunding of public initiatives)
3. Digital technologies can **substitute traditional co-production practices** (e.g. remote monitoring or predictive algorithms)
4. Digital technologies can **eliminate public sector organizations from co-production** (self-serving communities)
Digitalization is often regarded as an opportunity for co-creation in the public services*

- Digitalization allows **for more organizations** (partly, from outside of the public sector) **to be involved** in the service delivery process.
- It can also serve as a means to **mobilize masses of service users and other volunteers** to contribute to the service.
- It can **empower individual users** (sometimes with multiple technologies) to provide inputs and find collaboration partners in an easy way.
- It increases flexibility by providing **location independent access in 7/24**.
- An **attractive digital service** (design, style, transparency, games etc.) is **more engaging** for users to co-produce.
- Digital solutions are **demand-driven and often provide quick solutions** to problems – features users seldom experience in other ways.
- The **contributions of others** (visible in the digital platform) and **feed-backs for previous inputs** can motivate users to keep on co-production.

*Based on Lember, 2018*
Digitalization is sometimes seen as neutral or dangerous to co-creation in public services*

- Many digital public services are **micro solutions that are difficult to scale up**
- Digitalization in itself does not make co-production **more general, representative or inclusive** (Smith et al. 2009; Clark et al., 2013, Osborne and Strokosch, 2013).
- Services users and providers **may be alienated** from each other
- ”**Impression co-producers**” lured by the fancy design of or hype around a digital public service may lose their interest in short run.
- There could be a hidden agenda behind digitalization that **governments just want to load their functions and leave them for users’ self service**
- Some technologies may **degrade co-producing users to simple data sources** who do not even give their consent to their new, unintended „co-production”.
- New technologies increasingly structure how and what citizens can co-produce that **may lead to disempowerment** (Kitchin, 2016; Ashton et al., 2017).
- The use of technological applications may also **re-allocate control and power away** from citizens and towards specific groups in society

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Initial statement of the research

Digitalization in itself does not necessary good or bad for co-production.

Digital public services are constantly developing and there are several factors that a service provider can manage in order to increase the level of co-production within its service.
# Case of Járókelő Association (jarokelo.hu)

<table>
<thead>
<tr>
<th>SHORT DESCRIPTION</th>
<th>ORIGIN</th>
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| Jarokelo.hu ([www.jarokelo.hu](http://www.jarokelo.hu)) is a “street-fixing” website, which enables passers-by to report street infrastructure problems and subsequently inform the relevant department within local authorities. | Lanced in 2012  
The local „clone” of FixMyStreet.com  
Inspired also by the Slovakian „Letters to the Mayor” website run by an NGO |

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<th>KEY ACTIVITIES</th>
<th>EXPECTED SOCIAL IMPACT</th>
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| **Report:** citizens upload photos of a “street problem” and add a short text description about the issue they came across  
**Review and sending:** the submitted report is reviewed by the administrators of the website and is sent to the responsible local government or other service provider  
**Publish on website:** the report, the reaction of the responsible service organization, the status of the case ( „Reported”, „Solved”, and „In progress” | Creating a **fully citizen centric and community driven internet-based service** to strengthen active citizenship, democratic participation, and improve urban management. |

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<th>SOCIAL BUSINESS</th>
<th>INDICATORS</th>
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| **Service offer for municipalities:** it includes a customized version of the existing layout of jarokelo.hu, completed with an evaluation function and a reporting page which could support urban management and customer services. | 10.000-20.000 visitors per month  
2.500 registered users  
25-30 reports per day in Budapest  
3 part-time employees, 20 volunteers |
Factors that may boost co-production in a digital public service (preliminary assumptions)

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<thead>
<tr>
<th>Basic level</th>
<th>Advanced level</th>
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<td>• Optimized for multiple types of devices and multiple user groups</td>
<td>• Critical mass (in service volume) &amp; scope (more integrated services) is reached</td>
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<td>• Ease of use</td>
<td>• Clear evidence of effectiveness is provided</td>
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<td>• Clear rules</td>
<td>• Physical meetings with co-producers: solving issues, training, motivation etc.</td>
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<td>• Informal, but responsible communication</td>
<td>• Formal agreements (contracts) with institutional partners</td>
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<td>• Users can personalize the service</td>
<td>• Automatic data transfer among the related co-production partners</td>
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<td>• Regular feedback (at individual and collective levels)</td>
<td>• Professional fundraising, marketing, HR, IT etc.</td>
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<td>• Community building in the virtual platform</td>
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<td>• Symbolic rewards for top contributors</td>
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Empirical research options

1. **Comparison of different digital services in one location (in one city or country).** Measuring how the different drivers (listed on the previous page) affected the detected level of coproduction and co-creation. **Challenge:** the nature of the selected services can be the main factor in the level of felt co-productions.

2. **Comparison of the offline and online versions (if both exist) of the same service in terms of co-production activity.** **Challenge:** difficulty to estimate the level of coproduction in the case of offline services.

3. **Comparing co-production levels in the slightly different versions of the same digital service in different locations (city, country).** Exploring to what extent their differences in co-production activity can be attributed to those drivers that are not universally presents in this digital service sample. **Challenge:** regional/national cultural factor may be more accounted for the differences explored.

4. **Longitudinal study of one digital service.** Measuring how the listed drivers increased the level of coproduction over time. **Challenge:** it takes too much time and other, mainly external conditions may also change during the investigation.
THANK YOU FOR YOUR ATTENTION!

QUESTIONS AND REMARKS?

gyorgy.drotos@uni-corvinus.hu