Chapter 4: Local E-Government Development in cities and human settlements
Draft Summary

UNDESA & UNU-EGOV
Research Questions

• What is the current status of municipalities/cities worldwide in terms of offering online services?

• Is there a growing interest in building high quality and more interactive local e-government portals compared to the similar efforts devoted at the national level?

• How are local government officials implementing smart city initiatives?

• Do some people living in certain municipalities/cities have more opportunities compared to other cities in the same country when it comes to accessing online services?
• 4.1 Introduction

• 4.2 Local Level e-Government
  - 4.2.1 Methodology
  - 4.2.2 Current Status of Local Online Services: A Pilot Study
  - 4.2.3 Challenges & Opportunities

• 4.3 Local government is becoming smarter

• 4.4 Conclusion
Make cities and human settlements inclusive, safe, resilient and sustainable
• One step ahead

100 cities in 2020 Survey

40 cities 2018 Survey
Methodology

• What is LOSI?
  • The Local Online Service Index (LOSI) is composed of 80 indicators organized into four criteria.
  • Each of the 80 indicators of LOSI generated a binary question in the Local Government Online Service Questionnaire (LSQ).
  • A total of 148 volunteer researchers from 86 countries covering 41 languages, assessed each city portal (and other related portals as applicable) in the native language.
  • The data collection and survey research took place during the second part of 2019 for a few months. Each city's portal was assessed by at least two researchers who conducted the assessment in the country’s national language the city belongs to.
o 80 features across below sub-categories
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

* Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the Parties.

** Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.
# Current Status of Local Online Services: A Pilot Study

<table>
<thead>
<tr>
<th>CITY</th>
<th>LOSI Score</th>
<th>LOSI</th>
<th>LOSI Rank</th>
<th>LOSI Level</th>
<th>Country</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madrid</td>
<td>77</td>
<td>0.9625</td>
<td>1</td>
<td>Very High LOSI</td>
<td>Spain</td>
<td>Europe</td>
</tr>
<tr>
<td>New York</td>
<td>73</td>
<td>0.9125</td>
<td>2</td>
<td>Very High LOSI</td>
<td>United States of America</td>
<td>Americas</td>
</tr>
<tr>
<td>Tallinn</td>
<td>69</td>
<td>0.8625</td>
<td>3</td>
<td>Very High LOSI</td>
<td>Estonia</td>
<td>Europe</td>
</tr>
<tr>
<td>Paris</td>
<td>68</td>
<td>0.85</td>
<td>4</td>
<td>Very High LOSI</td>
<td>France</td>
<td>Europe</td>
</tr>
<tr>
<td>Stockholm</td>
<td>68</td>
<td>0.85</td>
<td>4</td>
<td>Very High LOSI</td>
<td>Sweden</td>
<td>Europe</td>
</tr>
<tr>
<td>Moscow</td>
<td>65</td>
<td>0.8125</td>
<td>6</td>
<td>Very High LOSI</td>
<td>Russian Federation</td>
<td>Europe</td>
</tr>
<tr>
<td>Bogota</td>
<td>64</td>
<td>0.8</td>
<td>7</td>
<td>Very High LOSI</td>
<td>Colombia</td>
<td>Americas</td>
</tr>
<tr>
<td>Buenos Aires</td>
<td>64</td>
<td>0.8</td>
<td>7</td>
<td>Very High LOSI</td>
<td>Argentina</td>
<td>Americas</td>
</tr>
<tr>
<td>Berlin</td>
<td>62</td>
<td>0.775</td>
<td>9</td>
<td>Very High LOSI</td>
<td>Germany</td>
<td>Europe</td>
</tr>
<tr>
<td>Seoul</td>
<td>62</td>
<td>0.775</td>
<td>9</td>
<td>Very High LOSI</td>
<td>Republic of Korea</td>
<td>Asia</td>
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<td>9</td>
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<td>Asia</td>
</tr>
</tbody>
</table>

**Top performers**
Current Status of Local Online Services: A Pilot Study

Figure 4.1 Number and percentage of cities at each LOSI level

Figure 4.3 Distribution of LOSI levels among national income groups
## LOSI vs OSI

**Number of cities and percentages with LOSI 2020 level with corresponding OSI 2020 level**

<table>
<thead>
<tr>
<th></th>
<th>Very High OSI 2020</th>
<th>High OSI 2020</th>
<th>Middle OSI 2020</th>
<th>Low OSI 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Very High LOSI 2020</strong></td>
<td>13 (15.1%)</td>
<td>1 (1.16%)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td><strong>High LOSI 2020</strong></td>
<td>12 (13.95%)</td>
<td>4 (4.65%)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td><strong>Middle LOSI 2020</strong></td>
<td>9 (10.4%)</td>
<td>16 (18.6%)</td>
<td>8 (9.3%)</td>
<td>None</td>
</tr>
<tr>
<td><strong>Low LOSI 2020</strong></td>
<td>None</td>
<td>11 (12.7%)</td>
<td>12 (13.9%)</td>
<td>None</td>
</tr>
</tbody>
</table>
Implementation of technology indicators in city portals

- Mobile device accessibility: 96.51%
- Browser compatibility: 96.51%
- Ease of portal finding: 86.05%
- Internal search mechanism: 81.40%
- Navigability: 56.98%
- Portal loading speed: 55.81%
- Foreign language support: 53.49%
- Internal advanced search mechanism: 36.05%
- Customization of display features: 27.91%
- Alignment with accessibility standards: 11.63%
- Alignment with display standards: 10.47%
- Alignment with markup validation standards: 2.33%
- Alignment with display standards: 10.47%
Implementation of content indicators in city portals

- Evidence of emerging technologies use: 93.02%
- Third parties partnerships information: 81.40%
- Information on online services use: 81.40%
- Open data metadata: 79.07%
- Open data policy: 77.91%
- Procurement results: 73.26%
- Online user support: 62.79%
- Budget-related information: 62.79%
- Procurement announcements: 60.47%
- Open data provision: 56.98%
- Evidence of portal content update: 53.49%
- Facilitation of free Internet access: 48.84%
- Evidence of smart cities initiatives: 46.51%
- Privacy policy: 46.51%
- Statistical data and studies: 41.86%
- Online user support: 40.70%
- Procurement results: 37.21%
- Open data policy: 36.05%
- Open data metadata: 33.72%
- Information on online services use: 33.72%
- Third parties partnerships information: 32.56%
- Evidence of emerging technologies use: 24.42%
Implementation of services indicators in city portals

- Portal authentication: 47%
- Online fees payment: 34.88%
- Municipality responsiveness emails: 31.40%
- Online vacancies: 30.23%
- e-Procurement service: 30.23%
- Personal data accessibility: 29.07%
- Online building permit: 27.91%
- Quality of email response: 26.74%
- Delay of email response: 26.74%
- Report of any form of discrimination: 26.74%
- Personal data updating: 25.58%
- e-Payment: 23%
- Police online declaration: 22.09%
- Online environment-related permit: 20.93%
- Address change notification: 19.77%
- Online birth certificate: 17.44%
- Online marriage certificate: 16.28%
- Online death certificate: 16.28%
- Online residenship: 12.79%
- Online vehicle registration: 12.79%
- Online driver’s license: 10.47%
- Online land title registration: 0%
Implementation of participation & engagement indicators in city portals

- Social networking features: 79%
- Feedback/complaint submission: 72%
- Online deliberation processes: 45%
- Information on the public meetings of the municipality council: 43%
- Reporting of occurrences in public spaces: 38%
- Participatory land use plan: 28%
- Announcement of upcoming e-participation activities: 28%
- Participatory budgeting: 27%
- Feedback about consultation processes: 23%
- Real time communication: 19%
- e-Voting: 17%
OPPORTUNITIES & CHALLENGES
Cities can improve service delivery and citizen satisfaction by introducing a variety of online services like electronic payment, tender submission and application for various types of certificates and permits.

E-government projects may be inducers of administrative simplifications that may lead to cost reduction and more flexible and agile institutions.

Digitalization brings the opportunity to improve the relationship between local governments and various stakeholders, mostly citizens by creating a two-way interaction.

Local e-government projects may enforce innovation of small and medium enterprises (SMEs) and community at large.

ICTs offer citizens and governments a new way to improve openness and transparency, promote accountability, and empower citizens, which in turn contribute to building peaceful, just and inclusive societies (SDG Target 16.6).
The high costs of deploying and applying new technologies constitute a serious challenge for governments in adopting new technologies.

Inadequate ICT infrastructure remains a major obstacle in effectively supporting the transformation of e-government at the local level.

The potential benefits of local e-government also depend on the availability of skilled workers.

The intensive use of data coming from, and shared among, different city databases and systems (e.g. CCVRT, drones, sensors, facial recognition) and with other national government databases and systems, may generate controversial and pose strong challenges in terms of protecting people's privacy and security.
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The development of new technologies may widen the digital divide between citizens and between cities.
STUDY FINDINGS

- LOSI 2020 findings reinforce that the performance of city/local government portals does not usually match that of its country.

- The average LOSI for all the cities assessed is **0.43**. The majority of the city portals have a long way to go!

- Cities belonging to low-income level countries also rank low in LOSI, unveiling an apparent positive correlation.

- The content provision criterion is the highest addressed by the city portals as the majority of cities have satisfied most of the content provision indicators. Cities are focusing on offering adequate content and improving the usability of their websites with less concentration on providing e-services and boosting citizen participation.
STUDY FINDINGS

- Service provision criterion scored the lowest
  more than half the cities had implemented only 21 per cent of the 25 service criterion indicators!
  even for simple services such as replying to an email, the majority of cities performed weaker than expected (only in 33 cases (38%) was possible to receive a reply to an email inquiry sent by a citizen).

- Majority of the city portals assessed do not meet various technology standards and guidelines, such as Web Content Accessibility Guidelines (WCAG1.0) and World Wide Web Consortium (W3C)
  BUT... nearly all city portals are accessible through mobile devices which confirms the recent spread of mobile technologies and city portals’ adoption of such

- Majority of city portals assessed depend heavily on various social media networks to connect with the general public
  very few portals offer online participation mechanisms and tools such as e-polls, e-forums, chats, blogs, and e-petition to support decision-making in local government
The findings call for the establishment of a shared vision of local e-government projects, which should involve all the relevant stakeholders including people, private sector, governments, non-government organizations and international organizations.

Local e-government development needs to be people-driven instead of technology-driven. Most importantly, local e-government initiatives must be designed to benefit everyone and leave no one behind, especially women, people with disabilities, visitors and those in the low-income brackets.

Small and medium enterprises (SMEs) should be incentivized to support innovation for local e-government projects and make them critical partners in developing and delivering city projects.

There is also need to support more collaboration among cities (Cities Network of Practice) especially in the area of new technologies. Collaboration is needed to reap benefits and share lessons learned from cities that have successfully implemented similar projects with those that are still finding the right solutions to address their own challenges.
Local government is becoming smarter
• Local governments have been using ICTs to integrate their internal functions and improve their delivery of services.

• However, rapid advances in emerging technologies and changes in the needs of the people have created new opportunities, forcing local governments to rethink their role in modern society.
• The main success factors in smart-city initiatives include **reshaping administrative structures**, **intensive use of emerging technologies**, **integration of the physical and social components of the city**, implementing **advanced monitoring and control tools to enhance efficiency and quality**, and **improving the infrastructure to support a better quality of life and higher sustainability**.
شكرا
谢谢
Thank You
Merci
Спасибо
Gracias