GLOBAL INITIATIVE FOR INCLUSIVE ICTs

Promoting the Rights of Persons with Disabilities in the Digital Age

Leveraging Mobile For Accessible Smart Cities

DESA/DSPD Forum on Disability and Development:
"Disability Inclusive and Accessible Urban Development"
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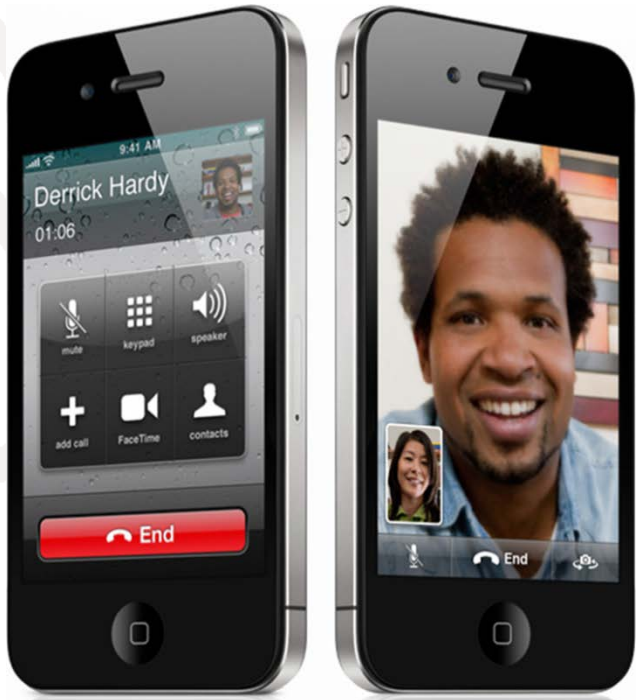
Why Focus on Mobile?

- Most widely available ICT device worldwide – 7 billion SIM cards in service
- Everything digital ends up interfacing with mobile phones, tablets or wearable wireless devices
- Internet of Things: from 4.5 billion connected devices today to 50 billion connections in 2020 (Gartner Group)
- Mobile devices by virtue of their embedded accessibility features are the best way for persons with disabilities to interact with their environment

Smartphones all carry accessibility features and more intuitive interfaces for easier usage by persons with disabilities

- **Visual**
  - **Text-to-Speech**
- **Hearing**
  - **Video Relay Service with sign language**
- **Speech**
  - **Peer-to-peer video for sign language**
- **Dexterity**
  - **Voice recognition for controls and input**
- **Cognition**
  - **Icon interface**



Accessibility Innovation and Lower Costs Are Driven by Global Market Scale

Mobility + Networks Bandwidth + Processing Power + Memory + GPS + NFC + Camera + Gyroscope + Microphone + Biometrics + Kinetics +Miniaturization

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Unprecedented Accessibility and Assistive Solutions Available to Persons with Disabilities

Anywhere, Anytime

HOW CAN CITY GOVERNMENTS LEVERAGE THE MOBILE OPPORTUNITY FOR PERSONS WITH DISABILITIES?

Step One: Making Existing e-Government Apps and Services Accessible to All

- Persons with disabilities should have unrestricted access to the same services provided electronically to all citizens
- Mobile is the most used device to access e-government services around the world
- City governments must:
  - Ensure that existing e-government web sites are compliant with W3C mobile *and* accessibility guidelines (80% overlap)
  - When developing mobile apps, ensure that they are accessible and use the embedded accessibility features of the main mobile operating systems (iOS, Android, Windows)
  - Check everything digital in the city for accessibility, preferably with a dedicated organization

Step 2: Ensure the Accessibility of Critical Mobile Services for Independent Living

- Examples:
  - Public transportation systems

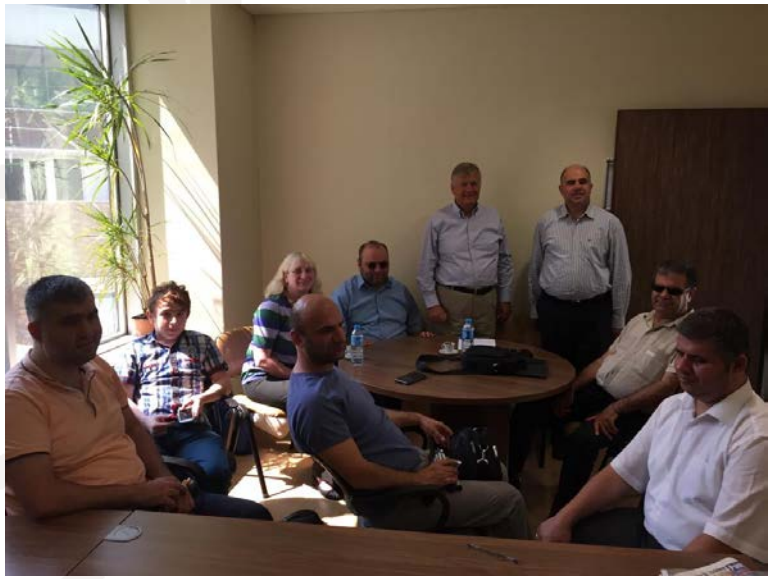
Bus schedules and positioning systems are available via accessible mobile apps

  - Emergency response centers

Accept, acknowledge and respond to SMS sent by deaf callers

Good Practice: City of Istanbul
ICT Accessibility Commission

- Constituted to guide the City in promoting the accessibility of all its e-services
- Meets weekly, chaired by government official
- All 7 members are IT engineers with disabilities knowledgeable on ICT accessibility, on loan by their companies
- Examine web sites, apps, transportation systems, social services, emergency response
- Proposes and promotes solutions

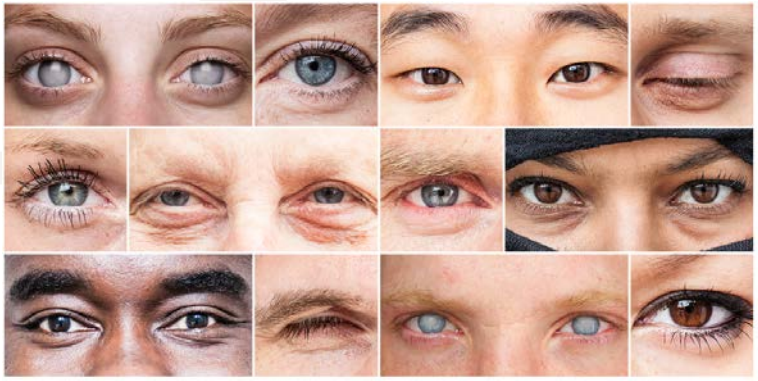


Step 3: Engage Civil Society in Deploying Mobile Services for Persons with Disabilities

- **Mobile operators:** Can offer Smart Spaces technology with path finding apps and beacon technology
- **At home care services:** Can leverage IoT technologies and remote monitoring with sensor technology to optimize safety and services
- **Banks:** Can leverage mobile banking to better serve customers with disabilities
- **Grassroots organizations:** Can provide disability specific crowd sourced information for physically accessible services (toilets, restaurants etc.)

Good Practice in Crowdsourced Services: Be My Eyes

- 301,095 Sighted volunteers
- 23,376 Blind users
- A Network of Eyes: Be My Eyes is an app that connects blind people with volunteer helpers from around the world via live video chat
- Uses live video for instant help to identify situation or information captured by phone

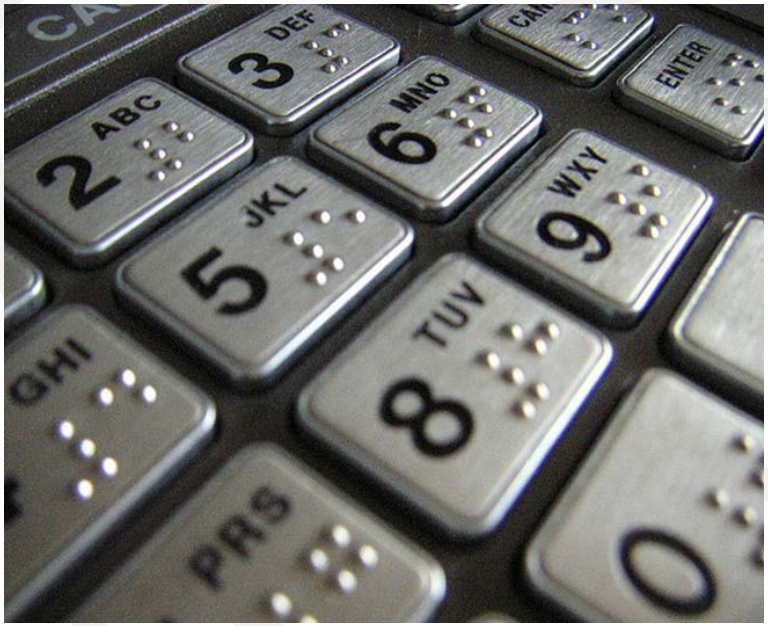


Good Practice in Social Services: Japan
National Post Office Watch Service

- Japan Post: a government-owned holding company that runs 24,000 post offices as well as one of the world's biggest banks and Japan's largest insurer.
- Post Office Watch service: employees check in on elderly clients, offer them consultation services and report back to family members.
- Post now distributes free tablets to elderly persons with the support of a joint venture between IBM and Apple.
- Apps are designed to help connect Japan's millions of seniors with healthcare services and with their families, with a target of serving 4 to 5 million families by 2020.

In Summary:

- The sky is the limit in leveraging the accessibility of mobile devices to enhance urban living for persons with disabilities
- Input of persons with disabilities in setting priorities and evaluating solutions is an essential success factor
- City governments must engage with multiple stakeholders to promote innovative urban apps and services
- Potential of IoT for persons with disabilities, a great promise for future urban environments



Thank You for your Attention!

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