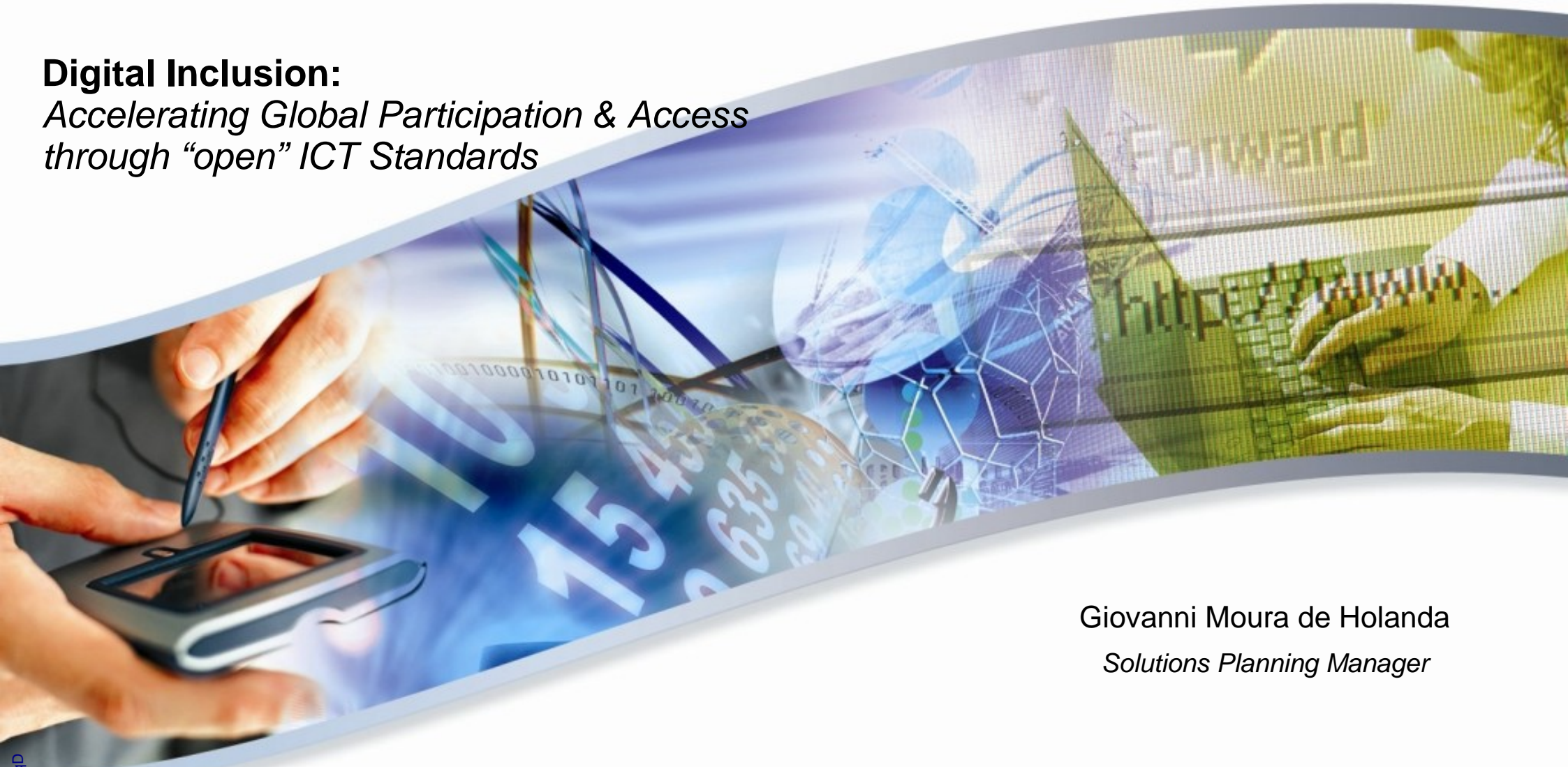


Increasing Accessibility to Government Services and Social Programs through Open Standards



Digital Inclusion:
*Accelerating Global Participation & Access
through “open” ICT Standards*



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Brazilian social and digital divide context



- ❖ **14.5% of the population (~25 millions of persons) has some kind of disability: physical, mental or sensory**
(Source: IBGE, 2000)
- ❖ **33% of disabled individuals are functional illiterates**
(Source: IBGE, 2000)
- ❖ **37% of the Brazilians are completely illiterate or functional illiterate**
(Source: Montenegro/Ibope)
- ❖ **Almost 70% of Brazilian population has never accessed Internet**
(Source: CGI.br, 2005)
- ❖ **95% of the functional illiterates have never used a computer**
(Source: CGI.br, 2005)



STID - ICT solutions for digital inclusion



❖ A R&D project

❖ Objective and target users:

- Planning solutions to digitally include people with special needs: illiterates and disabled people

❖ Two e-citizenship services

- e-gov and e-health

❖ Particularity:

- A paradigm to deal with the digital divide challenges in a developing country

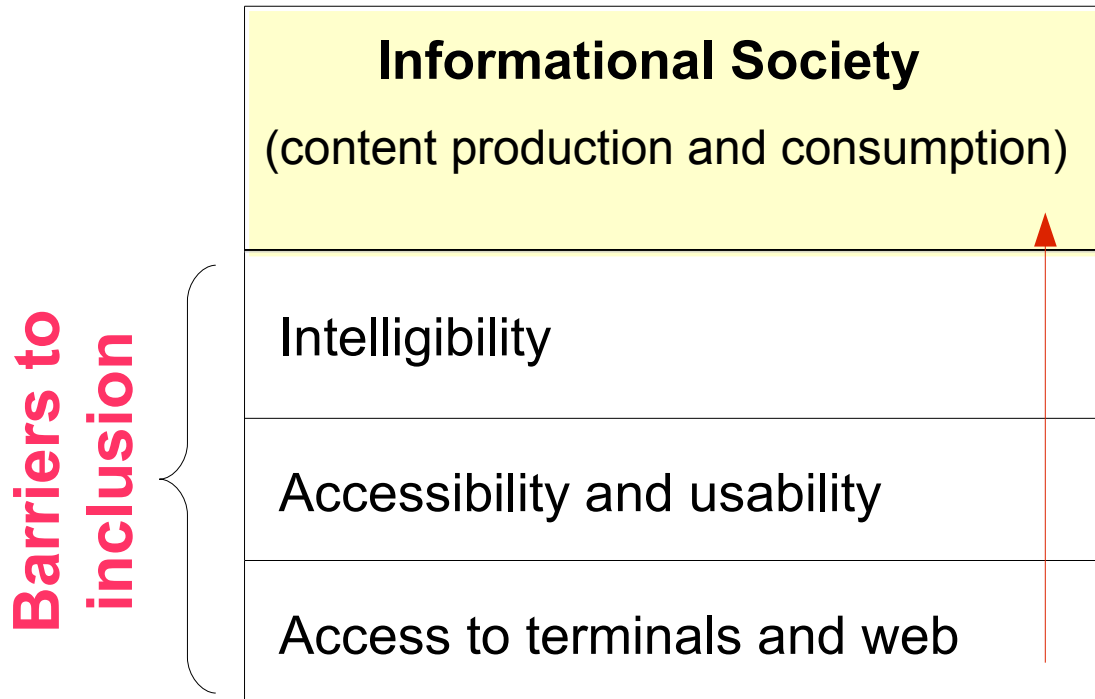


Barriers for e-inclusion



- ❖ **Access to ICTs is just the first step to overcome the divide**
- ❖ **Most solutions are poor in terms of accessibility**
- ❖ **Ease-of-use is crucial for excluded people**
- ❖ **Contents are not culturally compatible**

Digital divide: typology

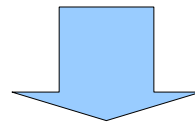




Information society: other barriers



- ❖ Document standard
- ❖ Audio and video standard
- ❖ DRM
- ❖ Communication standards



Interoperability



❖ But what is an open standard?

- Low cost (a_1)
- Re-use (a_2)
- Largely acceptable (a_3)
- Interoperability (a_4)

$$a_i \quad ?$$

$$\sum_i a_i \quad ?$$

$$\sum_i k_i a_i \quad ?$$



STID project: the citizenship services



- ❖ **E-health: appointments and basic info**
- ❖ **Support to retirement service: It assists people (rural and urban) that require retirement benefits**
- ❖ **Both services**
 - **Providing interfaces which can be used by people with low literacy levels or visual or hearing impairment**
 - **Assistives technologies, accessibility and usability**
 - **W3C compliant (World Wide Web Consortium)**



❖ Accessibility

- People with or not disabilities can perceive, understand, navigate and interact with web
- W3C > WAI > Web Content Accessibility Guidelines (WCAG)
- W3C > WAI > User Agent Accessibility Guidelines (UAAG): Browsers, media players and assistive technologies
- W3C > WAI > Authoring Tool Accessibility Guidelines (ATAG): authoring and validation



Final remarks



- ❖ **To be digital is not sufficient**
- ❖ **Access and global participation: accessibility and usability barriers should be removed**
- ❖ **Openness: how to obtain max. level?**
- ❖ **ICT open standard and accessibility: is cost the main benefit?**
- ❖ **Open standard *versus* universal standard**
- ❖ **ICT open standard and new communication solutions: how to be in line?**

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Thank you!

