

# 缩小老人数字鸿沟的策略

## Digital Inclusion for Older Adults

陈宏图 Hongtu Chen, PhD  
Harvard Medical School, USA

Asian Development Bank 宜昌会议

09/26/2022

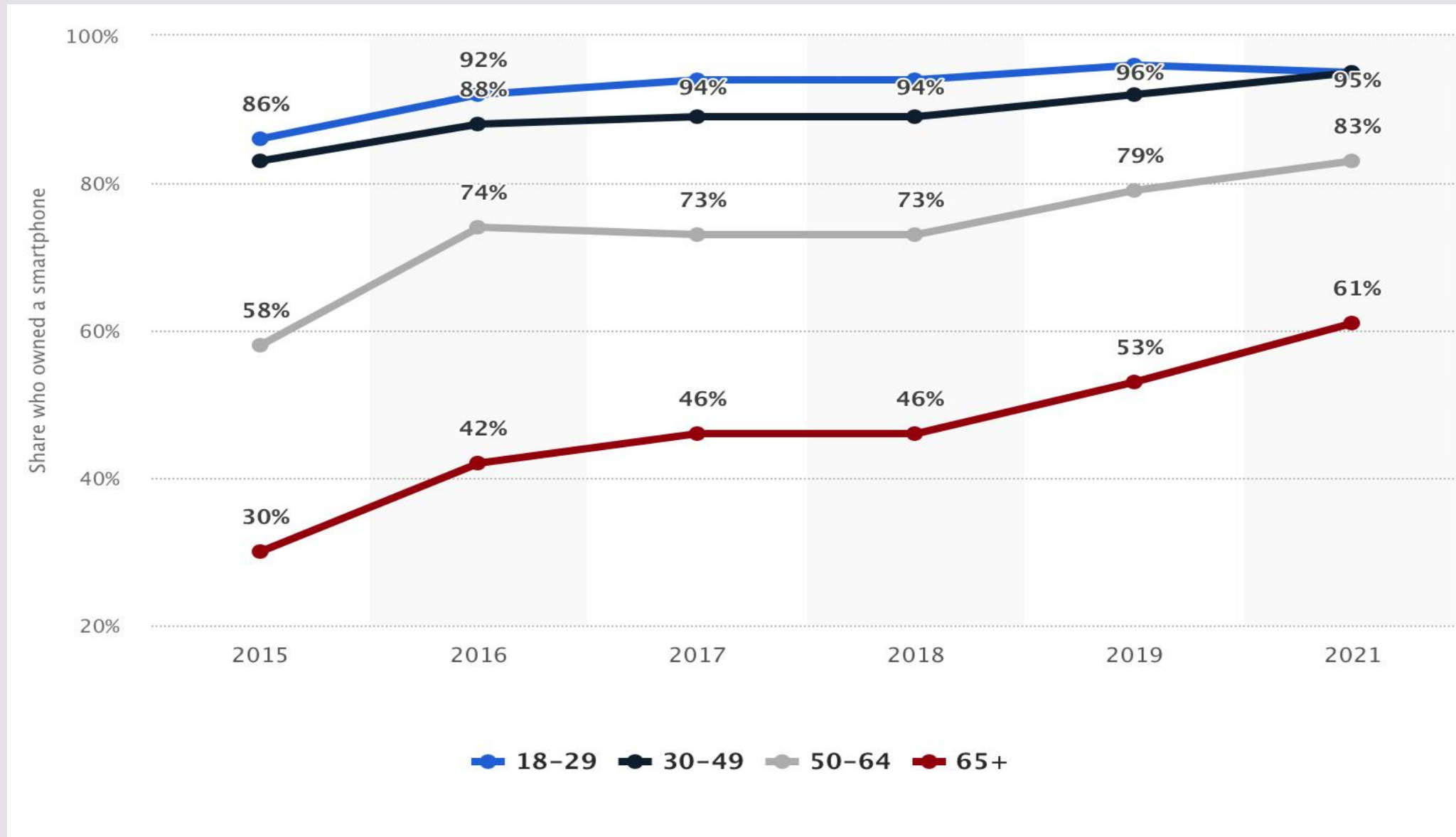




# Basic facts



# Smartphone Penetration by Age (U.S.)

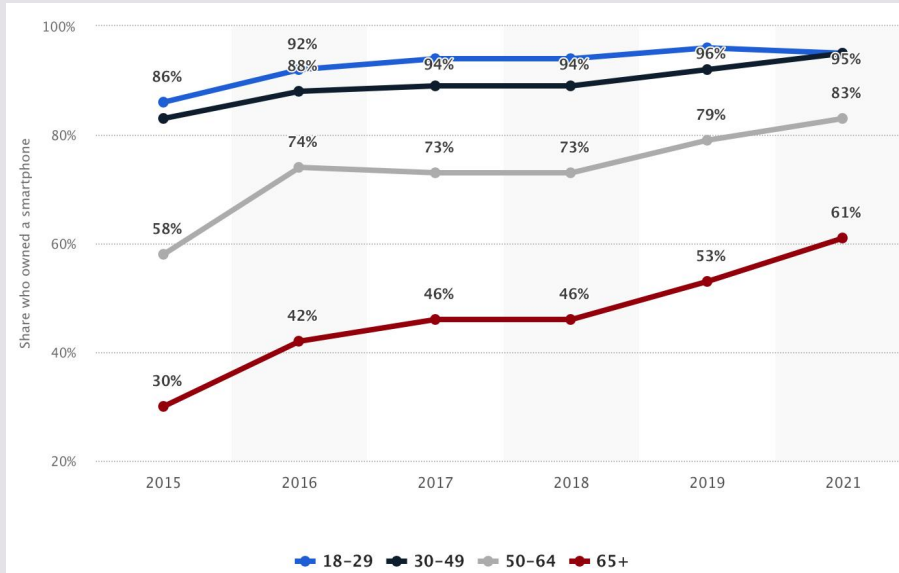




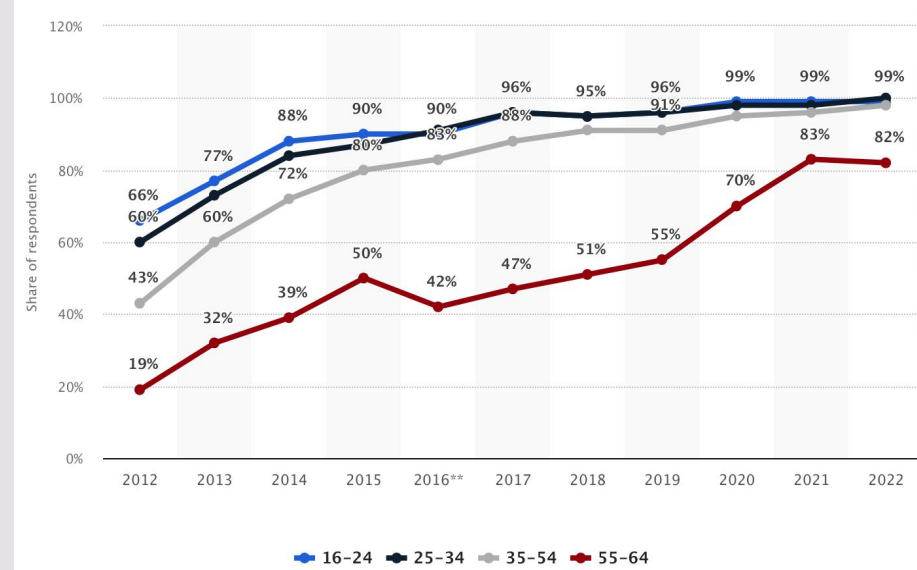
# Smartphone Penetration by Age



U.S.

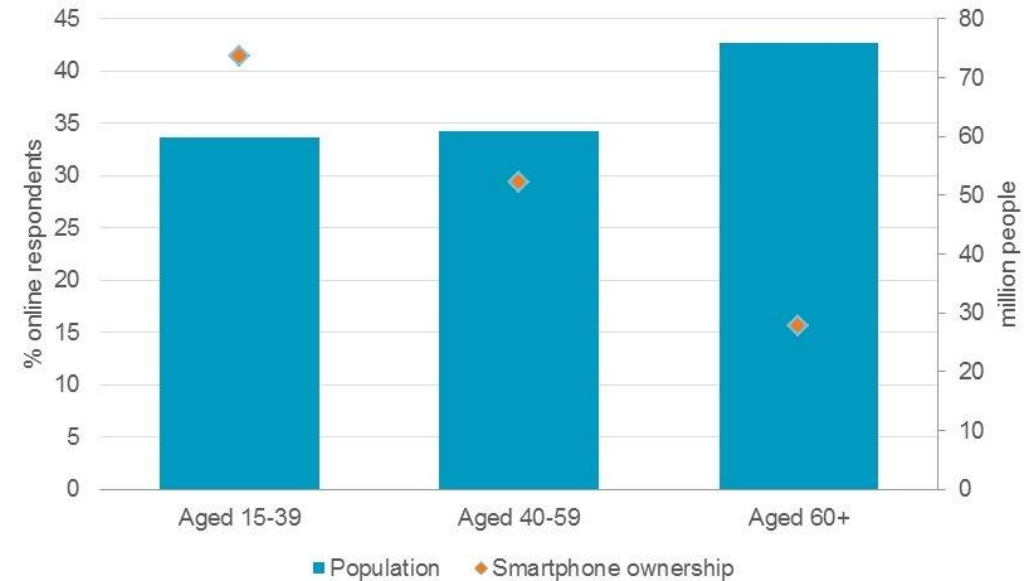
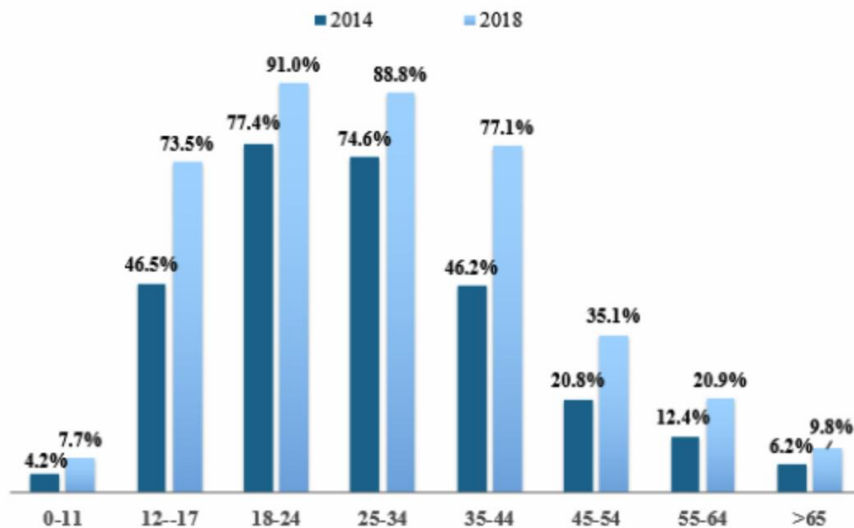


U.K.



China

China Smartphone Users' Penetration by Age Group



Japan



1990s

Use of Computers

vs.

No Use of Computers



**Online**



VS



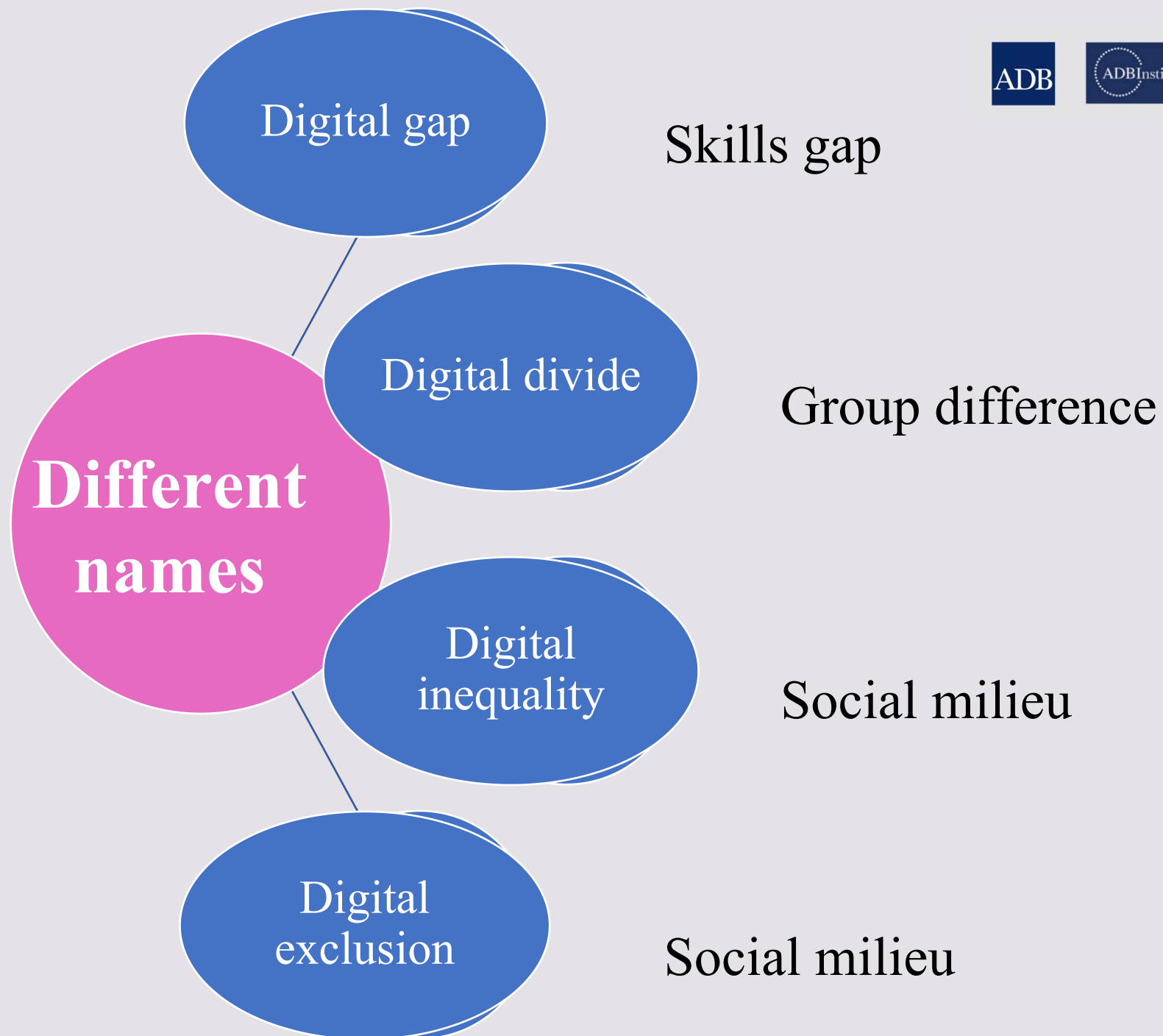
**Offline**

2020s

Online shopping

vs.

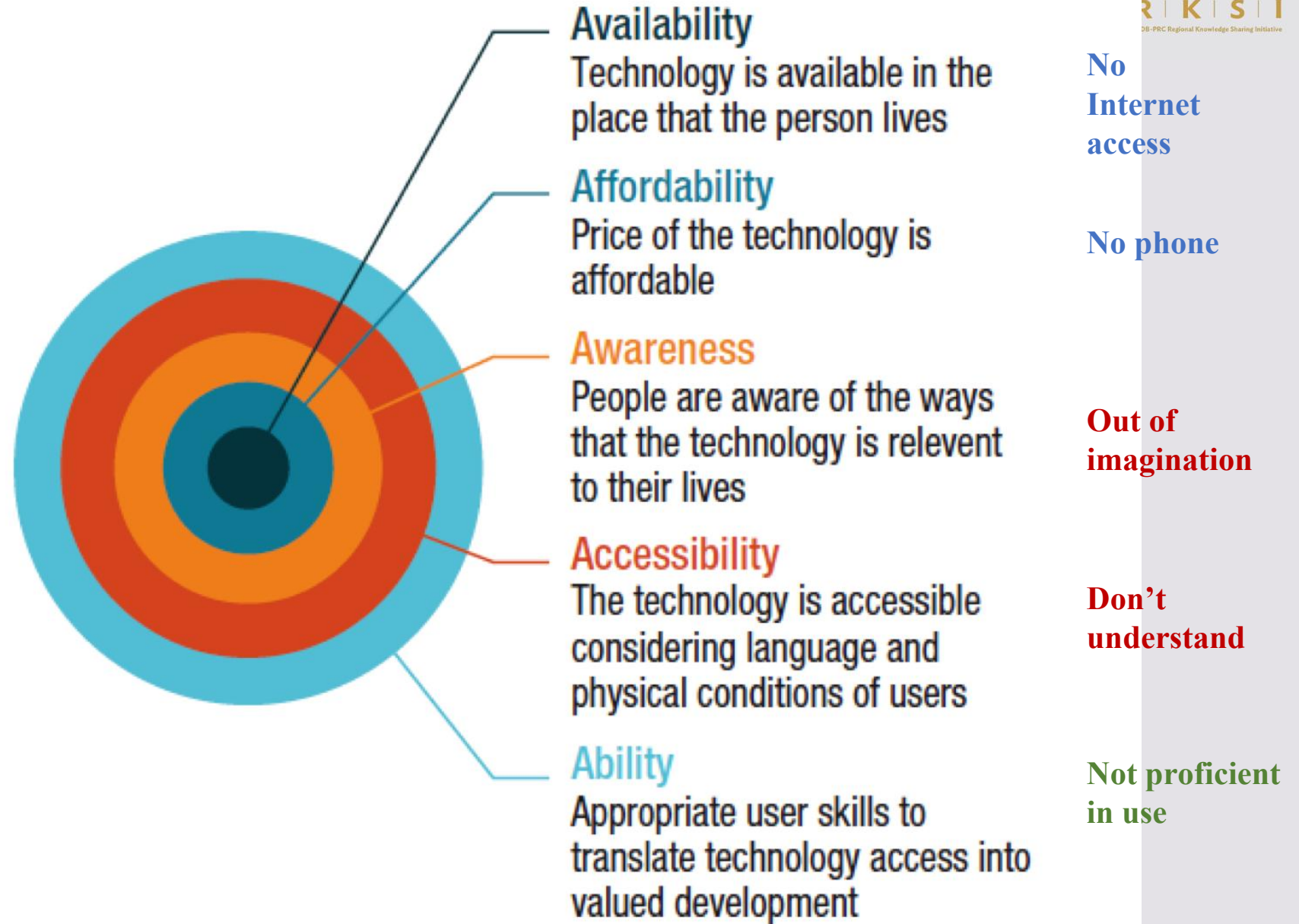
Incapable







# Five “A”s of Technology Access



Source: Roberts (2017) and Hernandez and Roberts (2018)



# Influence factor

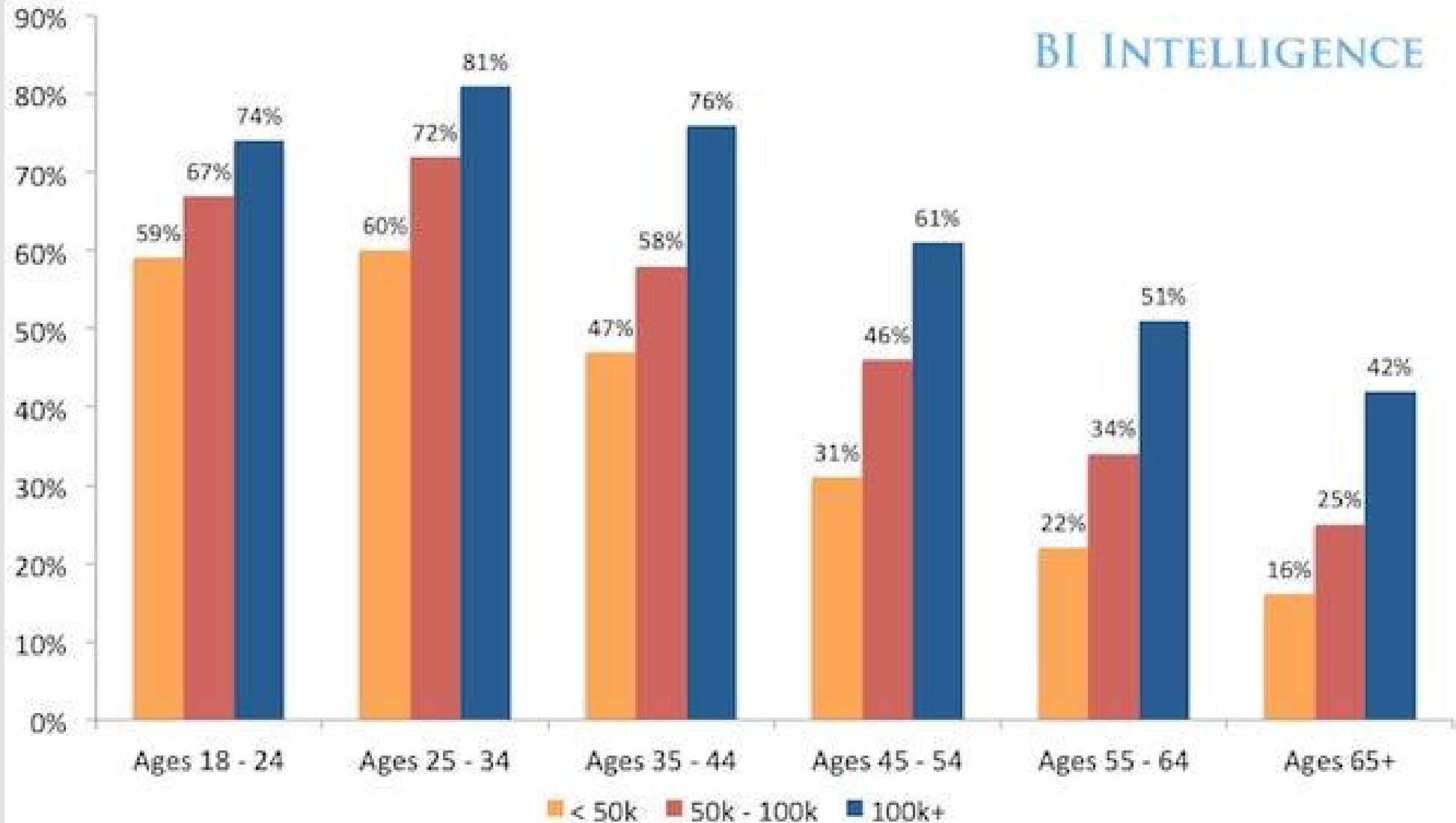




Economic  
income

## Smartphone Penetration By Age And Income (U.S.)

BI INTELLIGENCE

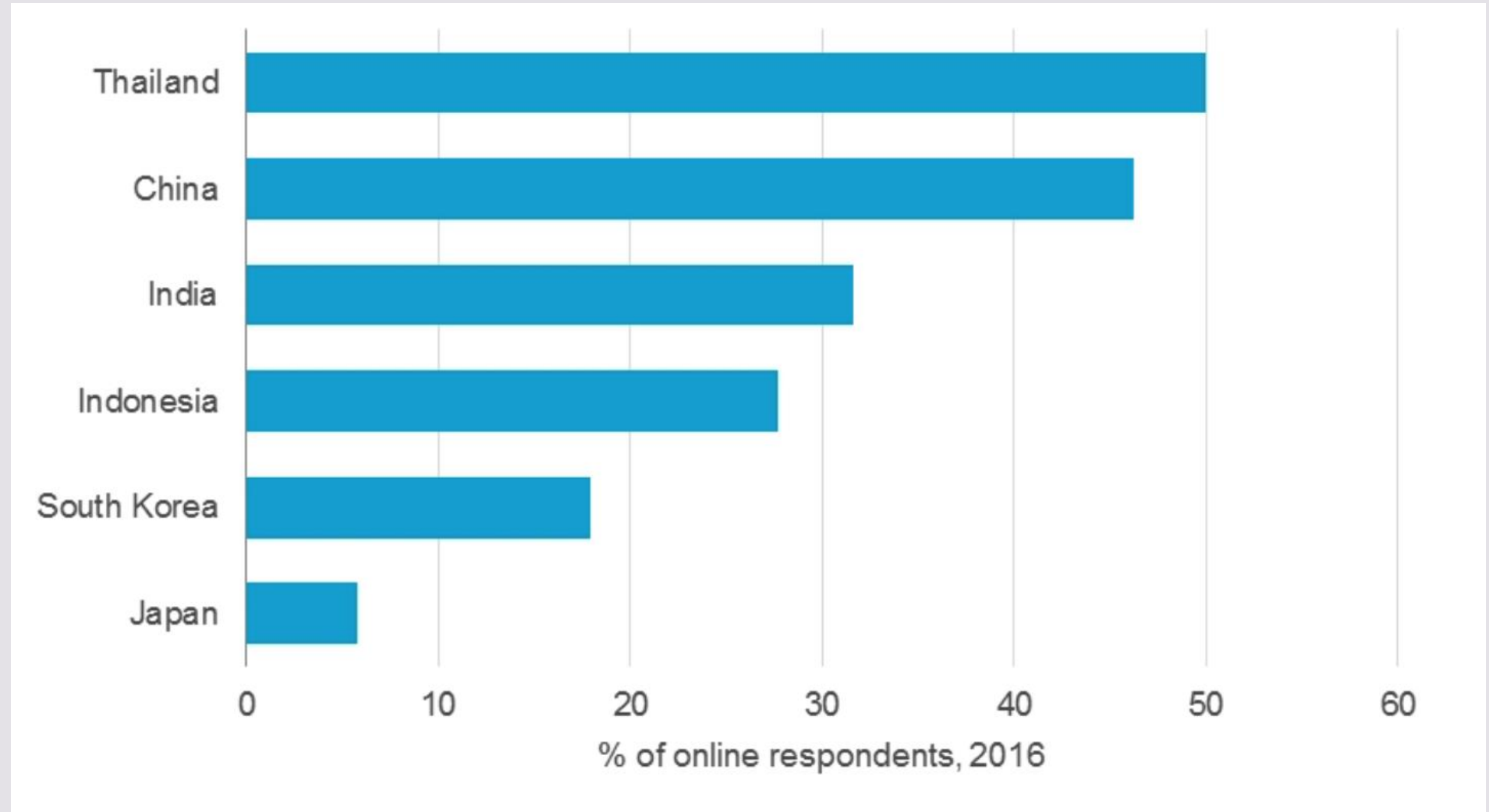


Source: Nielsen Mobile Insights, Q1 2012



# Willingness to Share Personal Information

Willing to  
share  
personal  
information

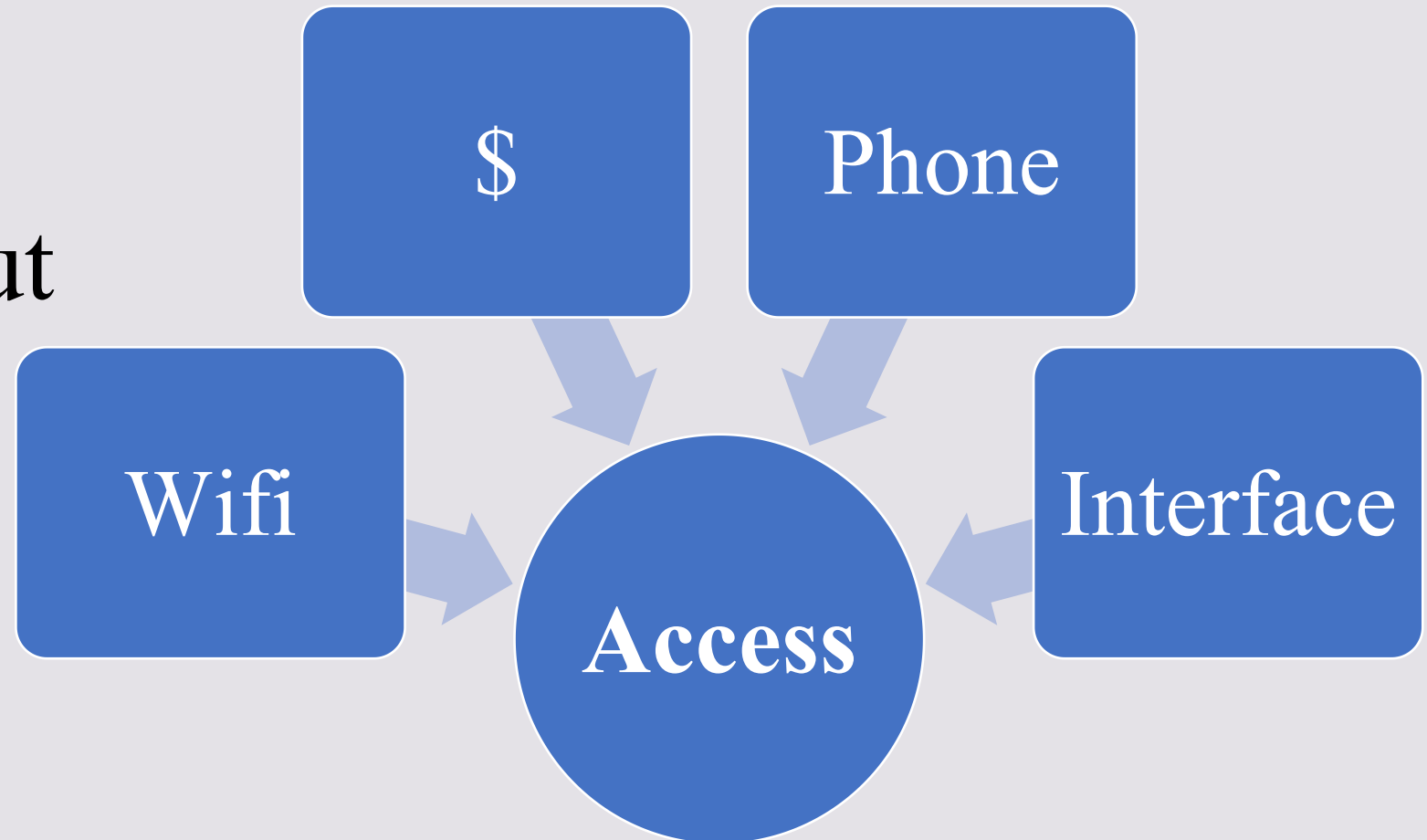


Source: Gorai Y. (2017). **Three Reasons Why Japan Is Falling Behind in Mobile Commerce**



# Analyses of causes/barriers (1)

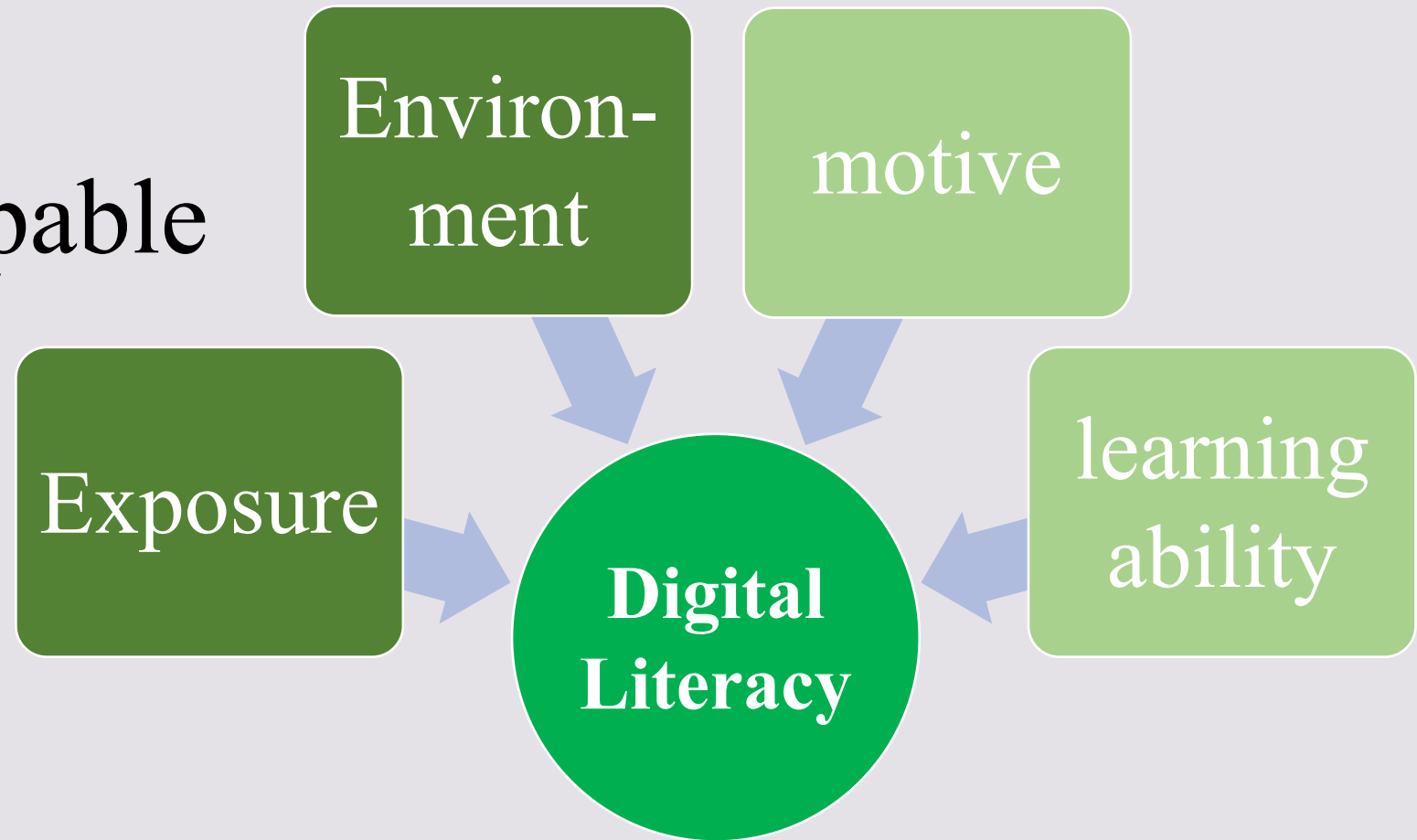
With vs Without





# Analyses of causes/barriers (2)

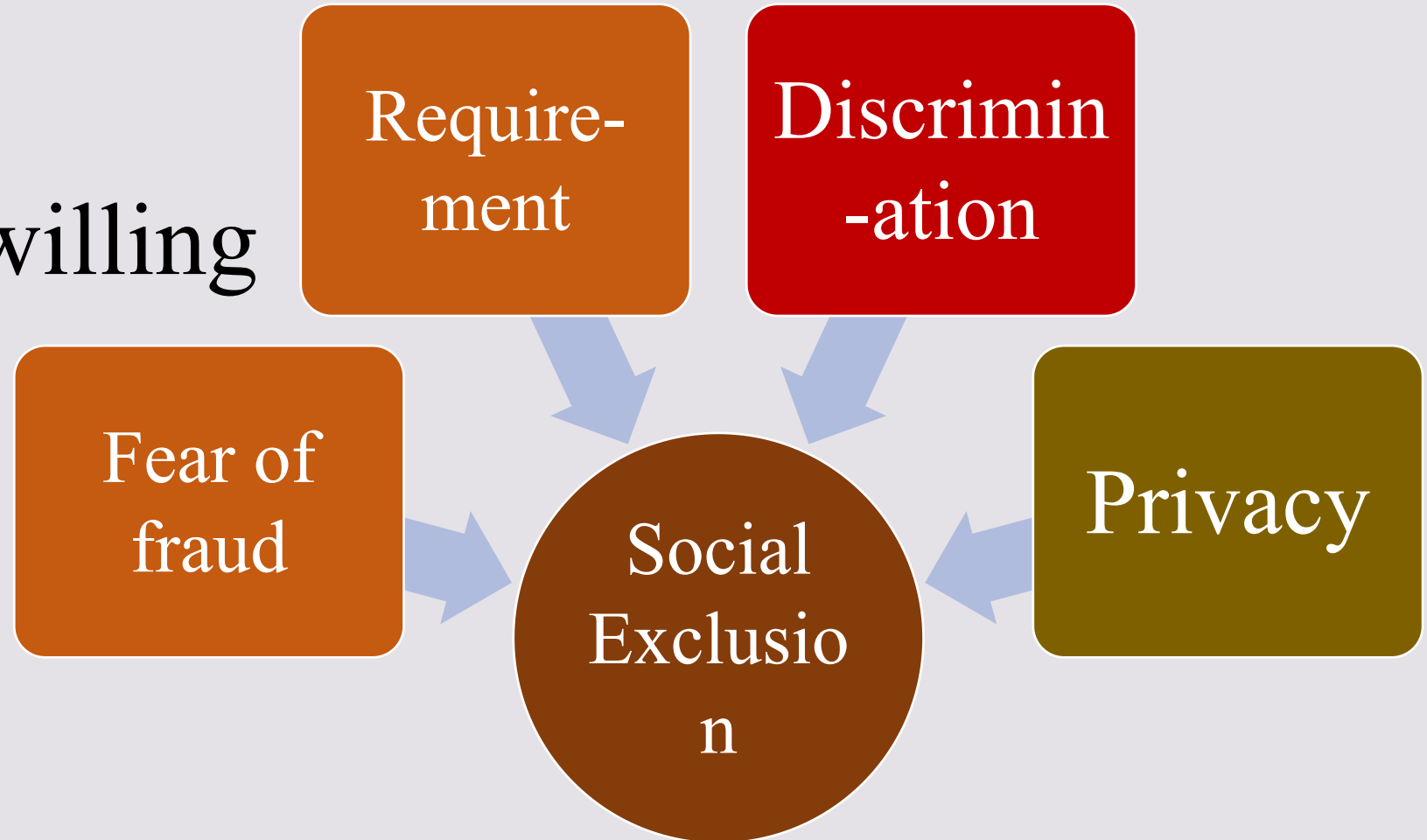
Capable vs. Incapable





# Analyses of causes/barriers (3)

Willing vs. Unwilling

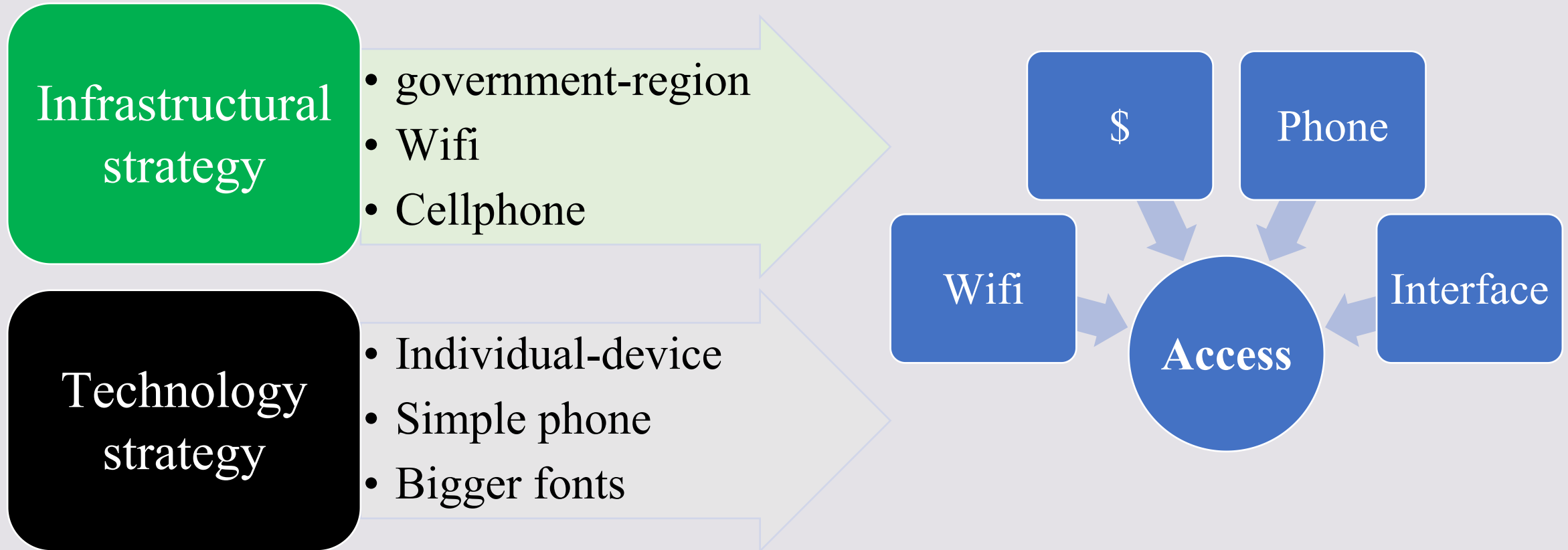




# Strategies to Address the Digital Divide



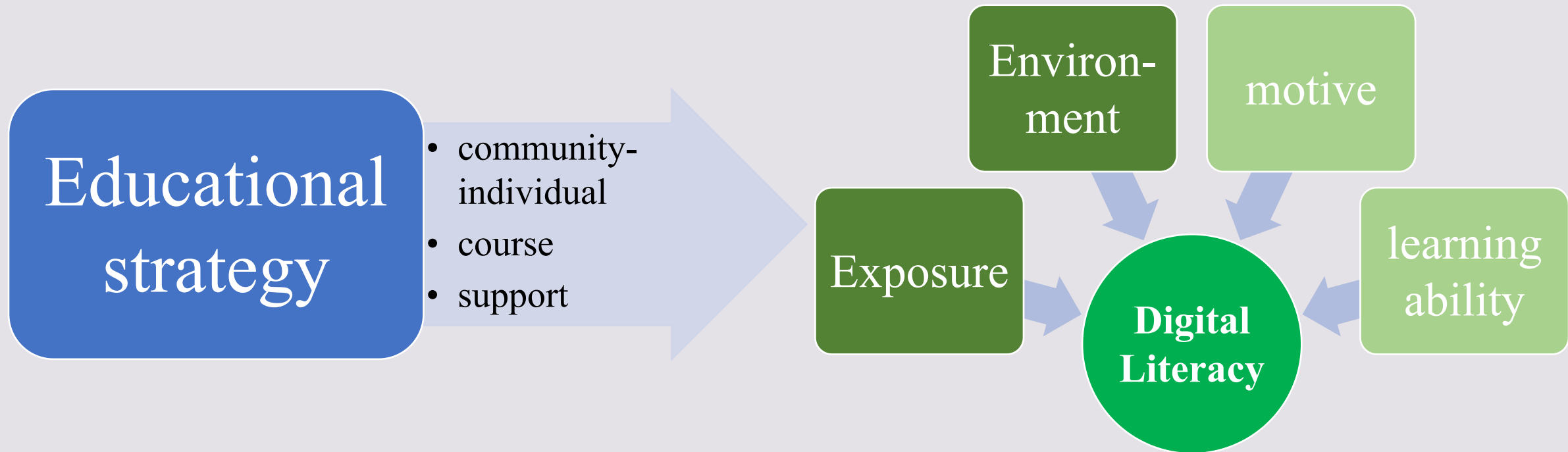
# Strategies to address (1) ACCESS





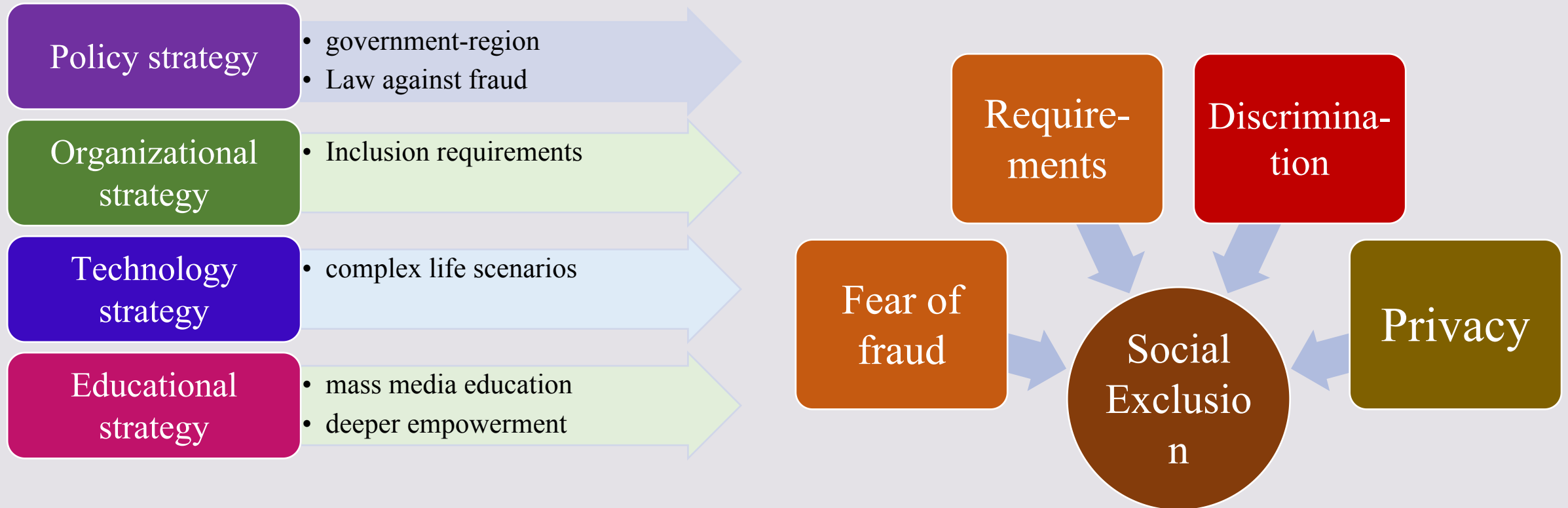


# Strategies/Solutions to address (2) ABILITY



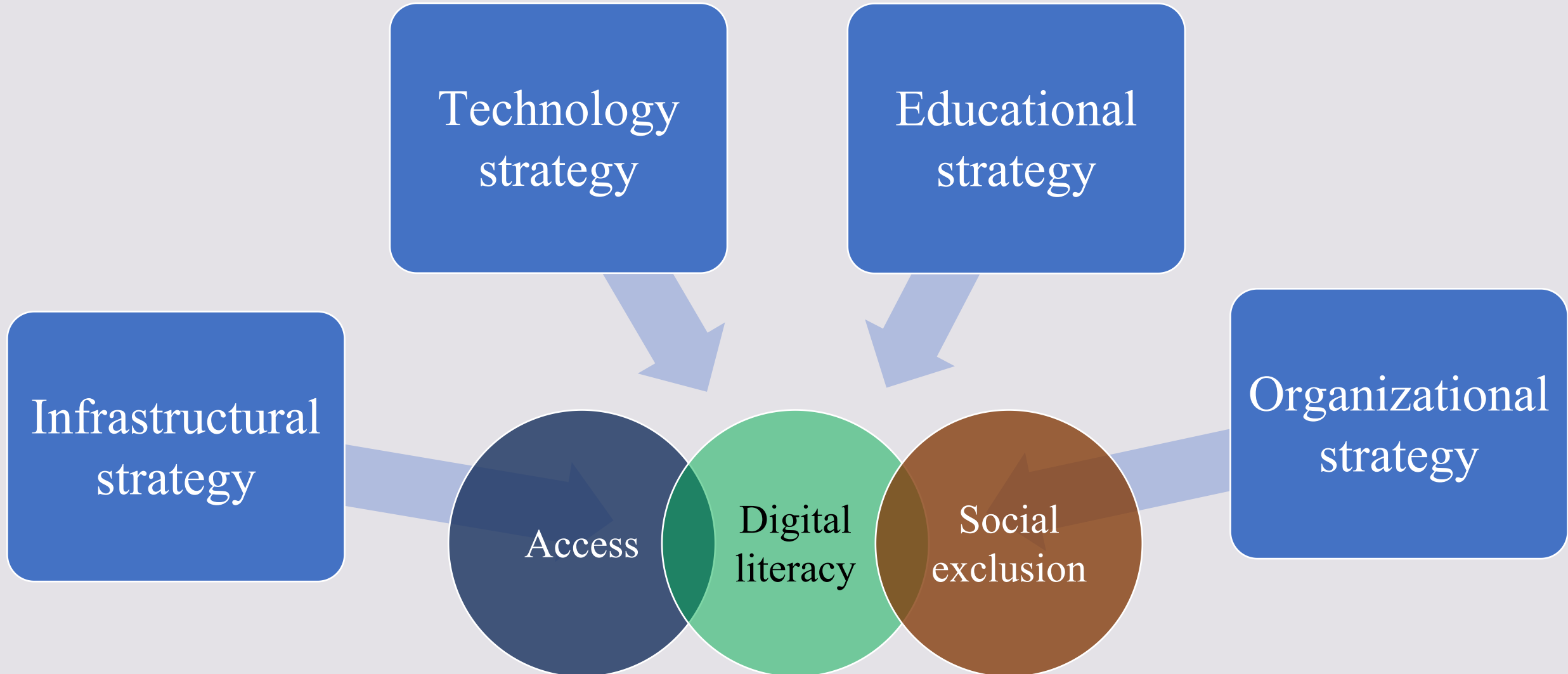


# Strategies/Solutions to address (3) EXCLUSION





# Digital inclusion strategies for older adults





# Historical changes



# **Changes** in strategies over time (1990 –2020)

## **Digital inclusion 1.0**

- Infrastructural strategy: wifi, phone
- Technology strategy: fonts, simple UI
- Educational strategy: course



# Changes in strategies over time (1990 –2020)

## Digital inclusion 2.0 (“social technology approach”)

- Infrastructural strategy:
  - App, other devices
- Educational strategy:
  - Start by helping solve actual life problems
- Technology strategy:
  - Scenario research: Task - Scenario - Experience - Problem - Demand → Task
  - Simplified Interface: e.g., voice control, brain-machine connection
- Organizational strategy:
  - inclusion policy (“transitional phase”)
  - cyber safety for older adults



# Changes in Digital Inclusion Strategies (1990 –2020)

## Digital Inclusion 1.0

- Enlightenment (condescending)
- Dualistic (backward - advanced)
- Discipline dominance (task)
- The sooner the better

## Digital Inclusion 2.0

- Inclusive (equal)
- Dual track system (online + offline)
- Scenario dominance (requirements)
- Transition Period (respect)





*Thank You !*

# Elderly Care System Development Forum

A Case Study of Yichang City and  
International Experience Exchange

Online, 26 - 28 Sep 2022



R | K | S | I  
ADB-PRC Regional Knowledge Sharing Initiative