Pictorial/Visual Representation in Mobile Health

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HAVE YOU SEEN THESE?

DO YOU KNOW THESE?

AMERICANS with DISABILITIES ACT

HOW ABOUT THESE?

DO YOU KNOW THESE?

YOU GET THE DRIFT!

Source: http://www.freepik.com/free-vector/52-health-icon-pack_710422.htm

The Issue

- Mobile platforms have become consumers' preferred means for communication
- Mobile devices are a big driver of consumer engagement in management of their health
- Mobile apps present an opportunity to facilitate monitoring consumer safety and wellbeing, promoting maximal independence
- Standardized graphics promote safety

The Need

- Literacy / language differences represent a significant risk of adverse events / outcomes
- Imperative to think proactively about mobile graphic messaging standards
- A major difficulty is defining intuitive symbols for the abstract concepts that convey healthcare information

Standards for Symbols

- Standards exist to enable rapid, non-verbal communication in domains such as transportation and occupational safety
- No analogous standards exist for the health care domain
- ISO has multiple standards guiding choice of text size, colors, shapes, and placement, among other things.

ISO Standards
Graphical Symbols

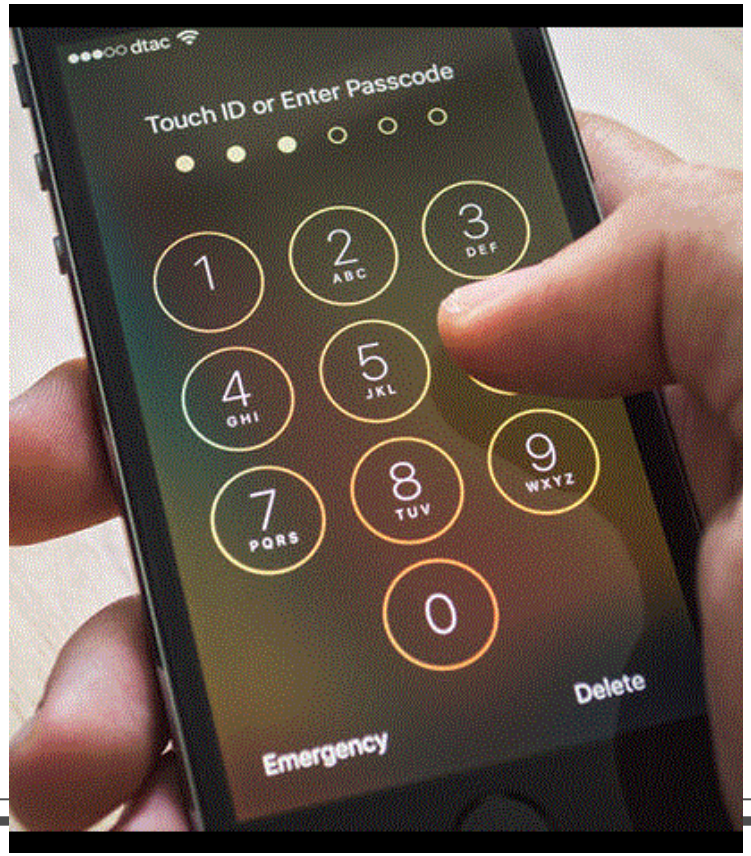
- ISO/TC 8
- ISO/TC 20
- ISO/TC 22
- ISO/TC 23
- ISO/TC 36
- ISO/TC 38
- ISO/TC 44
- ISO/TC 70
- ISO/TC 72
- ISO/TC 85
- ISO/TC 96
- ISO/TC 106
- ISO/TC 110
- ISO/TC 127
- ISO/TC 130
- ISO/TC 145
- ISO/TC 150
- ISO/TC 184
- ISO/TC 188
- ISO/TC 210
- ISO/TC 214
- ~~ISO/TC 215~~
- ISO/IEC JTC 1/SC 35

Standards Development

- Is there a perceived need to develop a standard for pictorial representation of health-related concepts?
- If so, the HL7 Mobile Health workgroup is the logical place to start:
  - Small form factor
  - Changing form factor - wearables
  - AR/VR (Augmented Reality/Virtual Reality)

Potential applications#1

- Mobile devices could enable symbols related to healthcare needs to be accessed even on a locked screen



Potential applications#2

- Initial applications:
  - Aging Communities
  - Behavioral health
  - School health
  - Child health

Work done so far

- Small team looking into this
  - Gora Datta – Chair HL7 Mobile Health WG
  - Mlynda Ownes, RN
  - Igor Yuabov, PhD and his team
    - @ Children's Hospital of Philadelphia
      - Manager Patient & Family Relations, Family Hospitality Navigator, Manager Spiritual Care and Language Services, Facilities Planner, Linguist Expert
- Define end-users and business need
- Continue research into this area
- Explore partnership with external entities

Next Steps

- Propose ISO/TC215:WG3 New Work Item
- Looking for Experts from NMB
- Collaborators

Additional Resources

- Americans with Disabilities Act (ADA)—A **law** that regulates sign usage, placement, colors, type, etc.
- Civil Rights Act —A **law** that prohibits discrimination or exclusion
- International Organization for Standardization--ISO/TC 145 defined internationally accepted requirements for symbols
- Unites States Pharmacopeia (USP) standardized graphic images to convey information about medications
- American National Standards Institute (ANSI)

THANK YOU!

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