

# Future of Technologies for Diagnostics and Aging in Place

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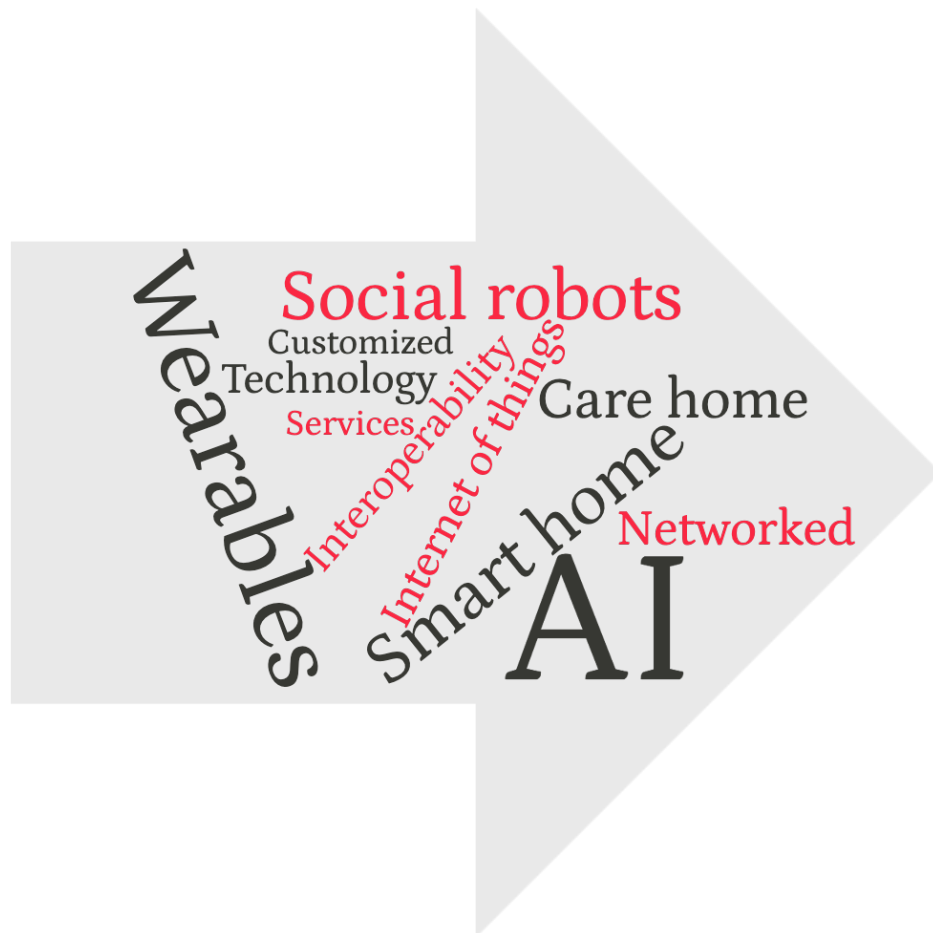


# Aging-in-place is a problem!

- > More than 20% of adults aged 65 to 84 and around 40% of adults 85 and older live alone in their households.
- > Nearly 90% of Americans age 50 and older want to “age in place.”
- > The U.S. will need nearly 1 million new senior living units by 2040.

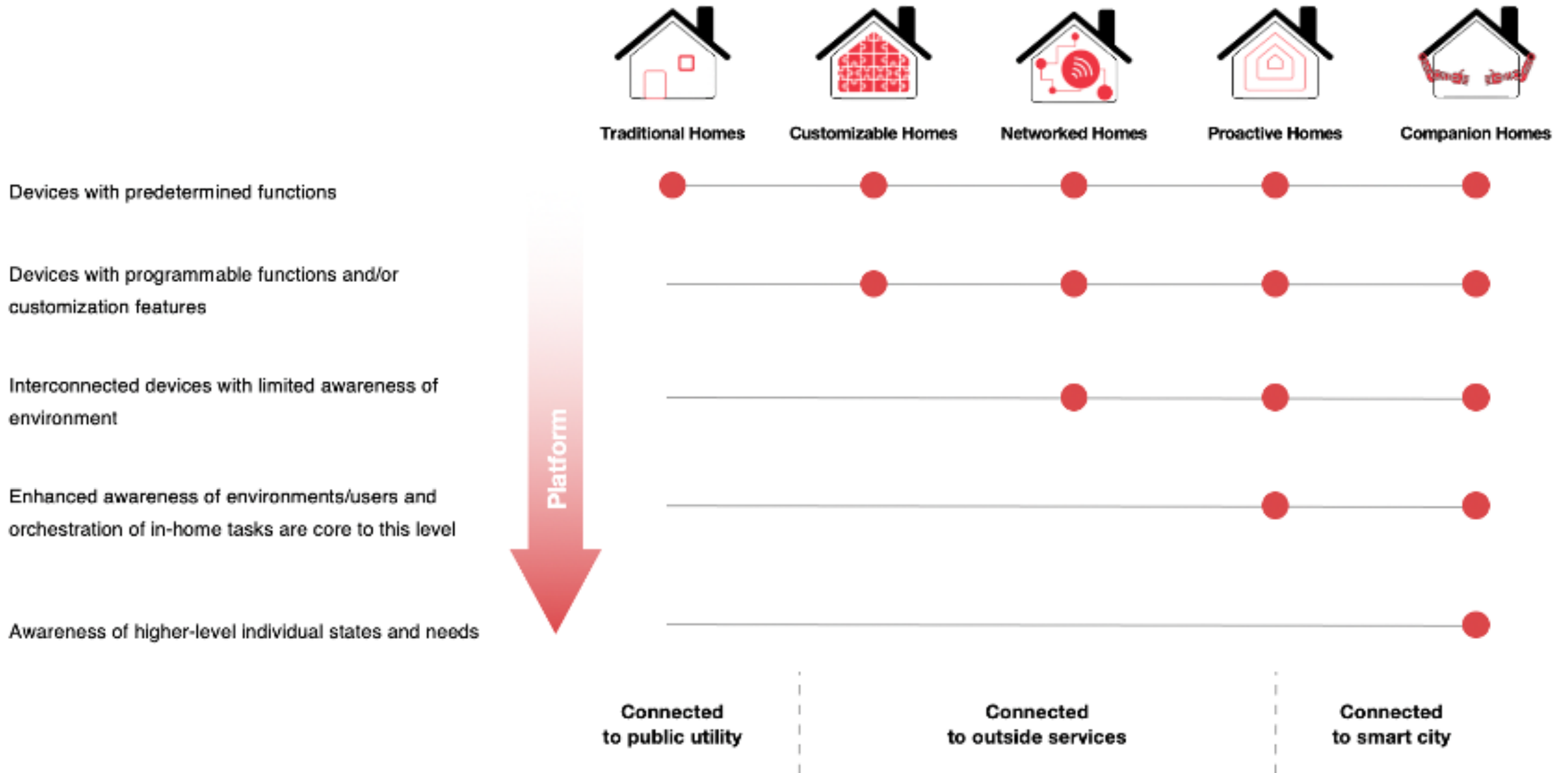


# Solutions that we are investigating:

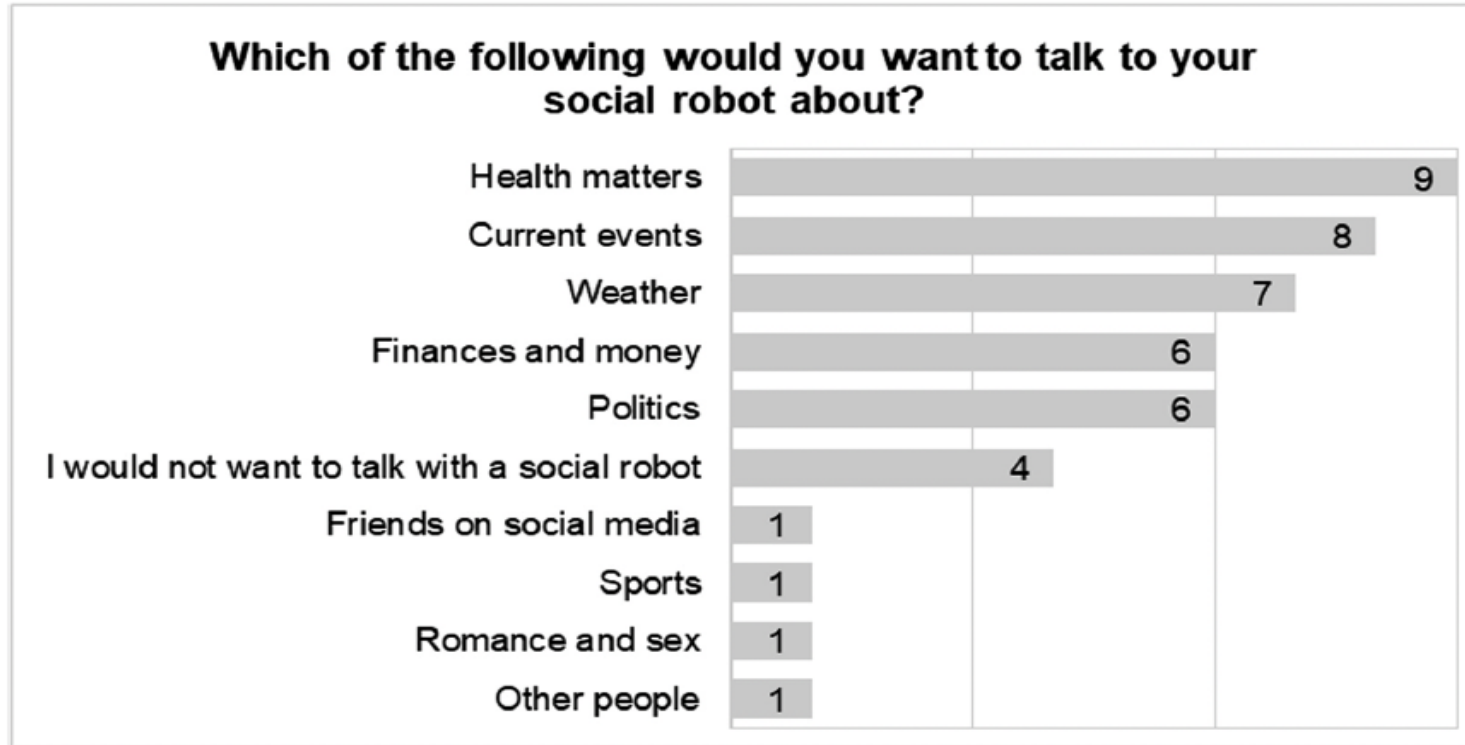


## MIT AgeLab Home Logistics & Services

# AgeLab's home taxonomy and levels of automation



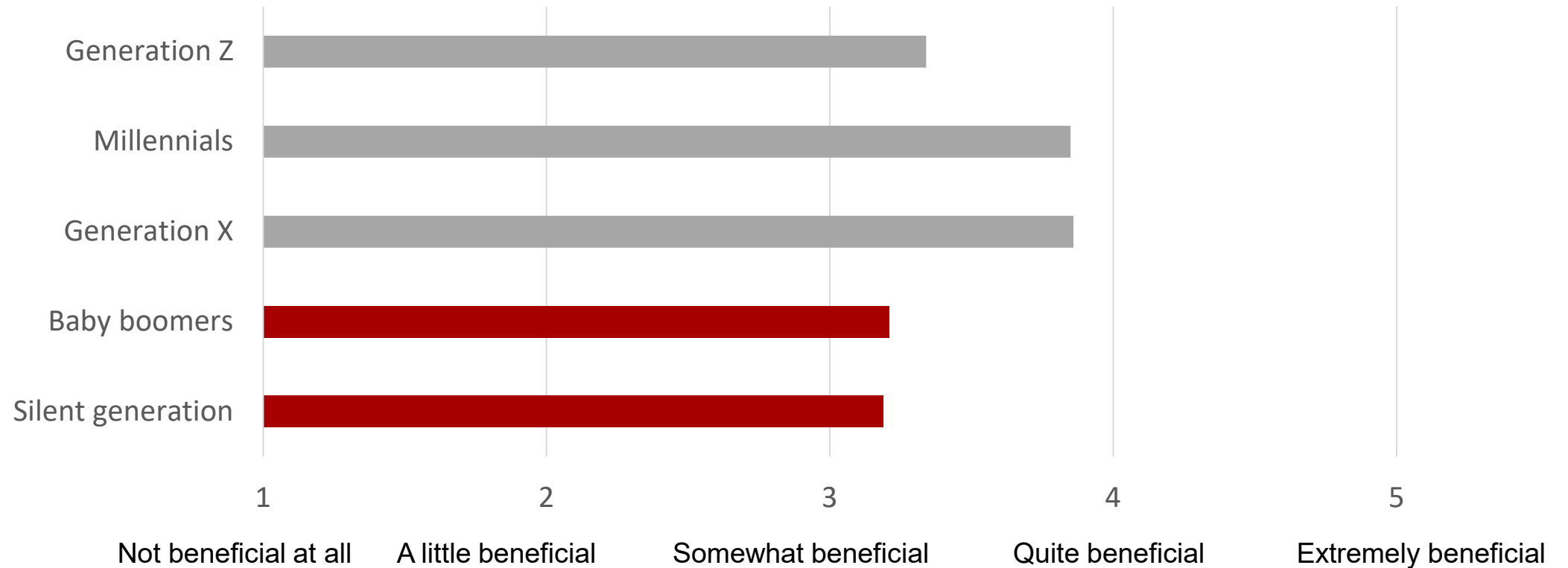
# Older adults want to talk with social robots about health!



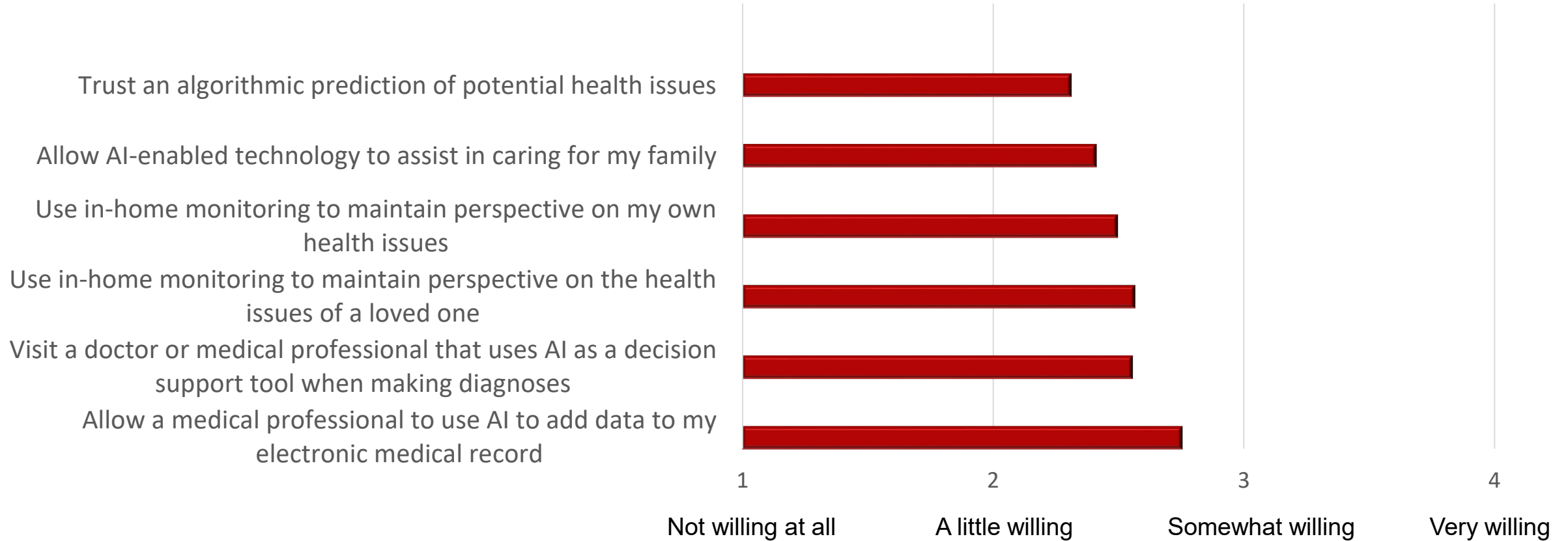
- > Sample: 20 older adults in the metro Boston, geographically limited and skewed in terms of level of education, physical and cognitive health, and overall wealth and tech savviness compared to the general population mentioned that.
- > Lee, C., FakhrHosseini, M., Miller, J., Patskanick, T. R., & Coughlin, J. F. (2019, July). The Oldest Olds' Perceptions of Social Robots. In *International Conference on Human-Computer Interaction* (pp. 405-415). Springer, Cham.

# Benefit

- > How beneficial do you think it is to develop and implement AI in healthcare and caregiving contexts?

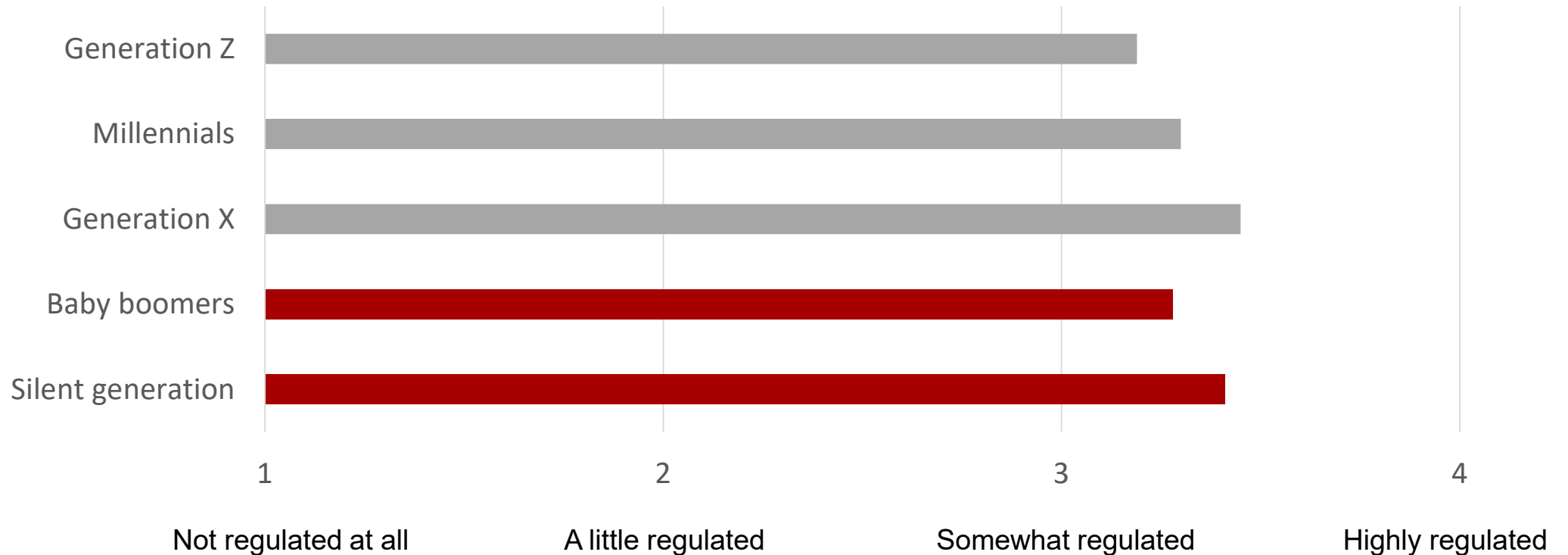


# Willingness to use/adopt AI



# Concerns

- > The development and implementation of AI for healthcare and caregiving applications need to be \_\_\_\_\_ .





# Design Aging-Friendly Homes

- 1. Identity:** Residents look for their home to reflect their identity, including their personal history, their memories, their family dynamics, and their aesthetic preferences.
- 2. Safety:** A home is a safe and familiar place—both physically and emotionally. A home compensates for the loss of senses such as hearing, vision, and balance as well as other aging related changes—it is the place where we should feel most skilled, capable, and sheltered from danger.
- 3. Duality:** a home should have a dual relationship with its residents: it should both *give and take*. A home that only takes—demanding constant work, care, and maintenance—can exhaust its residents and fail to provide comfort. A home that only gives—requiring no input of energy from the person who resides in it—becomes unfamiliar and alienating. A home should offer its residents feedback that enhances their sense of purpose.
- 4. Connection:** A home should facilitate and enhance connections: Connections between residents, connections between residents and their community, connections between residents and the outside natural world.
- 5. Control:** A home should provide its residents the sense that they are in control, and that they can be independent. A home should be easily managed, and everything should work as expected.
- 6. Comfort:** A home should give more energy that it takes. A home is efficient. A home is multifunctional. When needed, assistance is personal and reachable.

“Susy Tort”

