



Accessible and inclusive citiverse

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Citiverse for persons with disabilities and the elderly

- **Smart city services enable many things** that previously seemed impossible, especially in urban life for persons with disabilities, those with specific needs and the elderly with age-related disabilities.
- **Physical facilities** that help persons with disabilities living in the city are still very important means, but the supply, operation, and maintenance of these facilities require a lot of effort and sometimes do not work well.
- **Smart services** are good tools to supplement these physical facilities, but adapting to new technologies is very difficult, especially for persons with disabilities and the elderly.
- **Emerging technologies** such as the Internet of Things, digital twins and the metaverse as their interface could help systematically distribute and manage physical facilities, making smart services easier and more intuitive to use.
- To this end, **appropriate accessibility should be secured** when introducing smart city technology and metaverse to utilize it, and services that can actually help persons with disabilities should be developed.
- **Potential use cases**
 - *Mobility and transportation*
 - *Community care*
 - *Weather and pollution*
 - *Safety and disaster management*
 - *etc.*

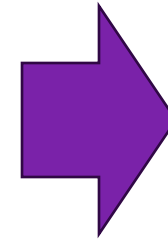
Mobility and transportation

- Persons with disabilities and those with specific needs require several urban facilities to secure mobility.



- **Physical facilities –**

- Need to connect from the beginning to the end of the journey.
- Difficult to **maintain** the facility.



Digital twin can help maintain the mobility facilities for specific needs

- **Smart technologies –**

- Integrating GPS and AR/VR technologies.
- Difficult to **integrate** and maintain **ease of use**.

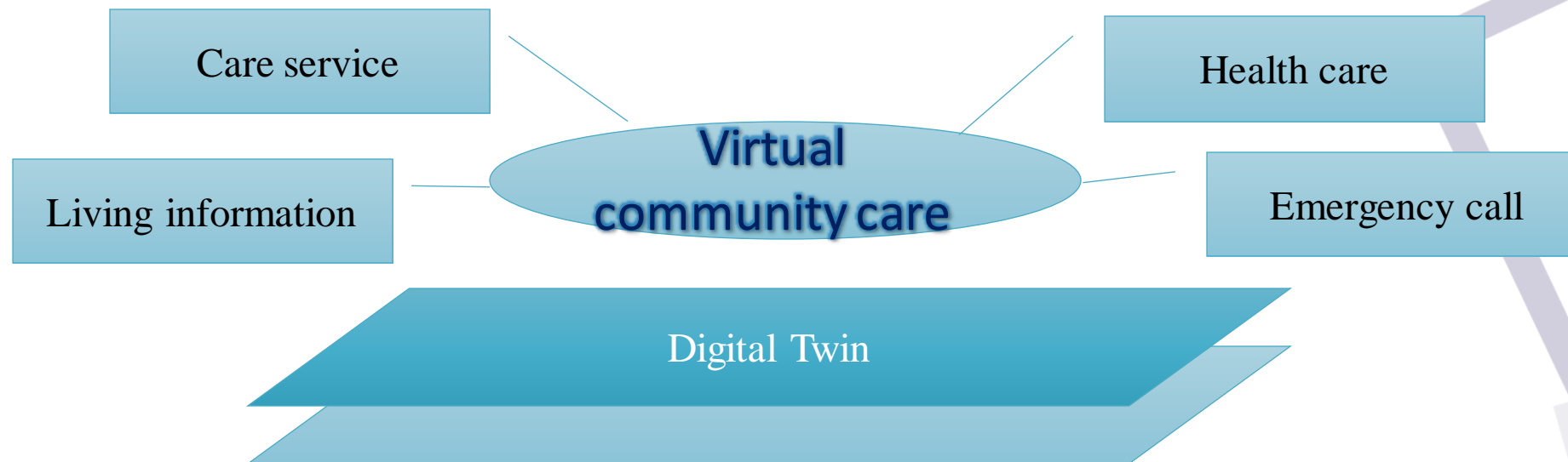


Standards help users reduce the learning curve to use these emerging technologies.

(e.g. ITU-T recommendation Y.4211 : Accessibility requirements for smart public transport services)

Community care and citiverse

- Providing services to care for the elderly with age-related disabilities and those with mental and developmental disabilities through their homes or communities, not welfare facilities.
 - The method of accommodation in welfare facilities is efficient in terms of providing medical services, but it is difficult to live independently, is isolated from society, and reduces the mental stability of persons with disabilities.
 - **Digital twin technology** can provide more efficient and advanced healthcare services on a community care basis, supporting independent living and social activities of persons with disabilities.





Thank You