

# Session II

Digital Identity- A global Perspective

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# Identity-Defined

- Classical human identity: philosophy, law, societal, cultural
- Digital identity: machine-related



# Definition of Digital Identity

- Information on an entity used by computer systems to represent an external agent
- Entity: person, organization, application, device
- Includes: electronic signatures, seals, time stamps, registered delivery, website identify authentication



# Identity Domains

- Philosophical (naturalist, constructivist,
- Legal (right to: life, personal integrity, privacy, freedom of thought/conscience, freedom of religion, expression, vote , property, intellectual, etc)
- Expressions of digital identity
- Categorizations of digital identity



# Identity Principles

## Cameron 2005

- user control and consent
- minimal disclosure for a constrained use
- justifiable parties
- directed identity
- pluralism of operators and technologies
- human integration
- consistent experience across contexts



# Principles of Self -Sovereign Identity

Allen 2016

- *Four models of online identity*
  - centralized identity
  - federated identity
  - user-centric identity
  - self-sovereign identity
- *10 key principles of SSI:*
  - user-centricity, control, access, transparency
  - longevity, portability, interoperability
  - consent, minimized data disclosure, and protection



# Hot Topics Overview

- Equivalent legal status as traditional paper based process
- Self-Sovereign identity management
- Cross border validity/reciprocity
- Privacy/Custody/Delegation
- Security
- Interoperability/ Data Exchanges
- Technical Architecture Design/Standards
- Digital Twins



# Detailed Discussion

- Privacy
- Accountability
- Data Exchange
- Self-Sovereign identity management
- Interoperability/architecture standards
- Digital Twins/ “Healthcare Digital Twin”
- Internet of Health & Internet of Medicine





# Universal Challenges

- Digital *Applied* Ethics
- Digital literacy
- Digital Fluency
- Legal & Taxation system discrepancy/lag
- Policy development
  - Lack of Consistency
  - Lack of Synchronization
  - Lack of Harmonization



# Region/Country-Specific Challenges

- Cultural
- Socio-economic
- Innovation Index



# Universal Opportunities

- QA/QI
- Performance Optimization
- Education
- Research
- Innovation



# Future Directions

- International Blockchain Standards for Digital Identity
- Digital Identity - A Gateway to Financial Inclusion
- Digital Identity- A Catalyst for Economic Development
- Harmonization of Blockchain & AI Ethics Standards



# Healthcare Specific Recommendations

- Digital health passports
- Digital health wallets
- Digital health identity (“twin”)



# Regulatory, Policy & Legislative Recommendations

- Overall harmonization
- Data ownership
- Accountability/Liability for smart contracting
- Healthcare specific standards/certifications
- Healthcare specific architecture/infrastructure



# Resources

<https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12528-European-Digital-Identity-EUid->  
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<https://www.industry.gov.au/sites/default/files/2020-02/national-blockchain-roadmap.pdf>  
<https://www2.deloitte.com/au/en/pages/financial-services/articles/mandate-digital-identity.html>  
<https://medium.com/@moonxfamily/south-korea-unveils-blockchain-strategy-to-launch-online-voting-and-election-system-by-2022-262661bfa1a6>  
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