Learning technology standards and their implication for higher education

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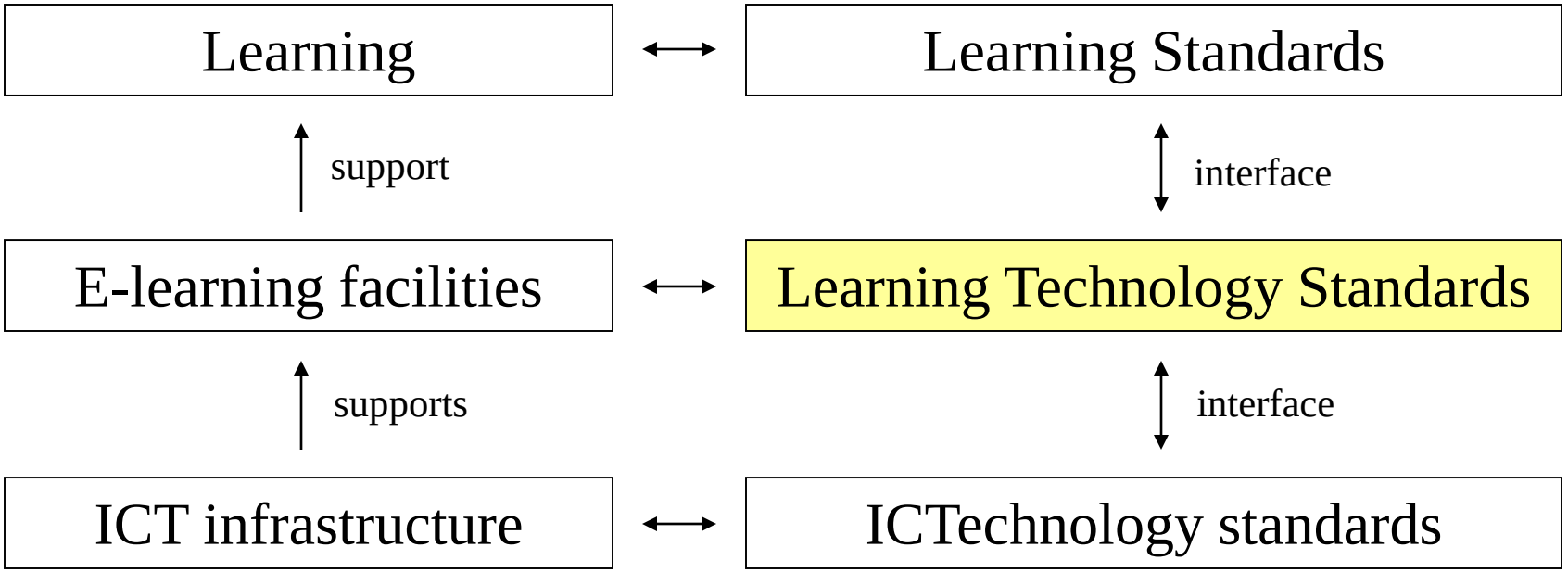
Standards in daily life

- They are everywhere
- They refer to certain norms
- Standards make life predictable
- Adoption can range from local to global

Standards in the learning domain



Learning technologies

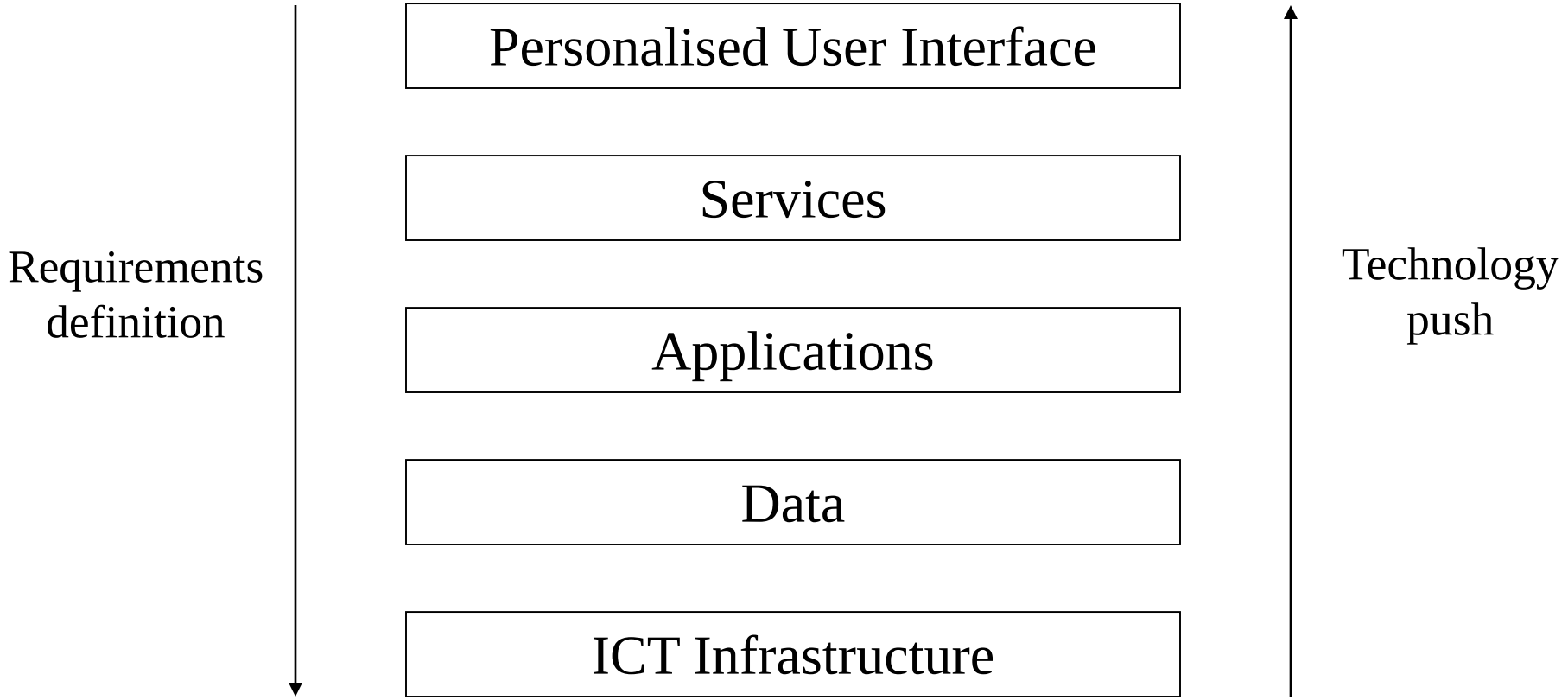
- Evolved over the past 2-3 decades
- Fast succession of technology generations
- Easily accessible and young field with few rules and regulations
- Wide variety of LT adoption levels and products between (and within) institutions

LT standards on what?

- Data definitions (learning objects, student characteristics, etc.)
- Interoperability between applications:
  - Data formats
  - Packaging
  - Sequencing
- Personalised Learning Services (SO-Architectures)

Overall motive: drive towards integration and harmonisation

LT system levels



Some existing LT standards

- Metadata
- Repository interfacing
- Content packaging and sequencing
- Assessment
- Student and course data
- Accessibility
- Learner competencies
- Learning activity modelling
- ……..

What LT standards may do for you

- Prolong the shelf-life of e-content
- Share, distribute and re-use e-content
- Create interoperability between systems and between domains
- Cooperate with others
- Become less dependent on one system/supplier
- In future: compile personalised e-learning environments

Problems that LT standards will not solve

- The production of inferior learning materials
- Sub-standard teaching practices
- Sloppy records keeping
- Ineffective organizational procedures
- Attitudes that foster the creation of ‘islands’
- High costs of education

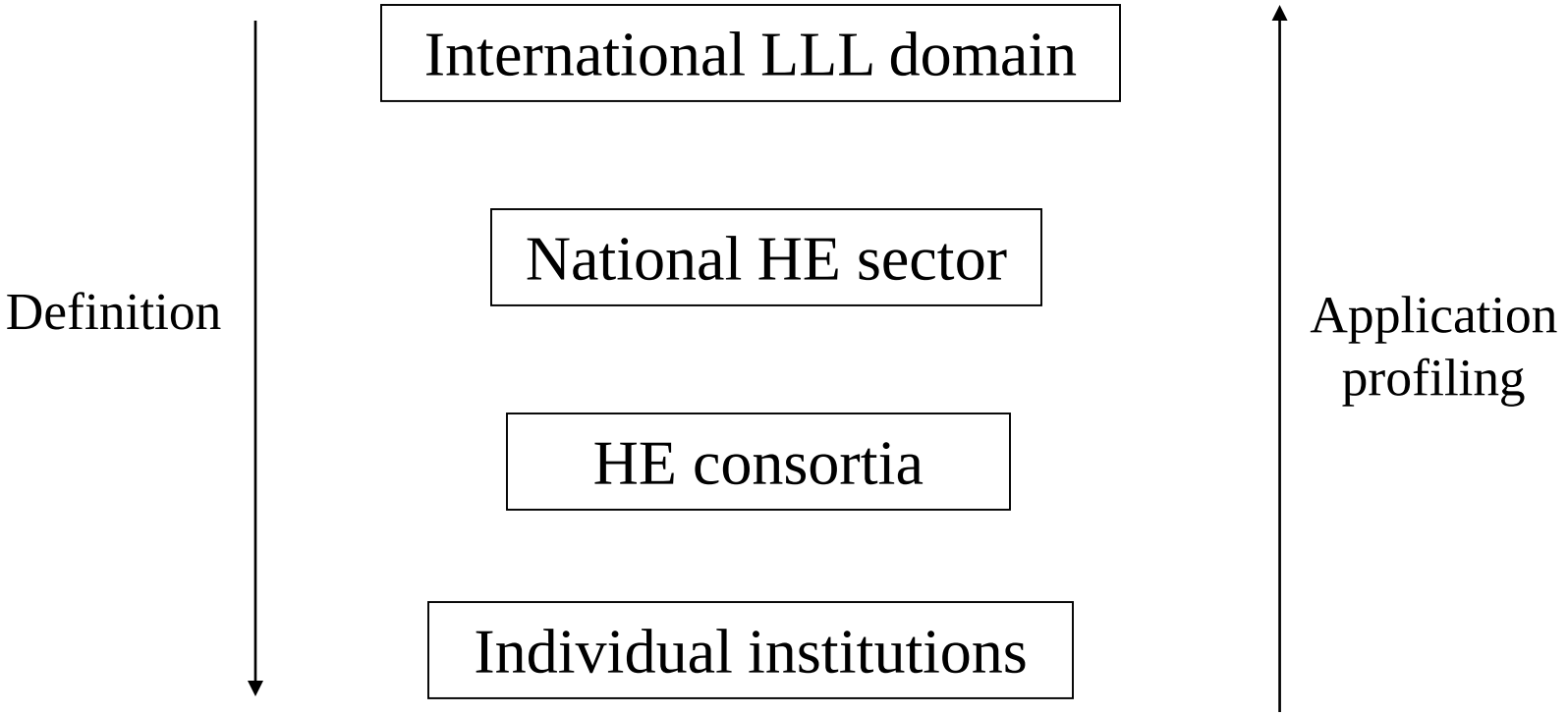
Problems with present LT standards

- There are too many of them
- Together they do not cover the full education domain
- Some are overlapping
- They are constantly changing
- Data definitions between standards are not harmonised
- Some only support the most basic pedagogical models
- Some are rather empty one-dimensional containers
- ‘Conformance to standards’ means different things to different people

Specifications, standards, user requirements and application profiles

- ***Specifications*** are typically drawn up by (inter)national research communities (e.g. IMS, CETIS-SIGs)
- These are then tested by ***user groups*** (e.g. AICC)
- And finally submitted to official national or international ***standards*** bodies (e.g. IEEE, ISO)
- Applying standards in real life through the creation of ***application profiles***

LT standards scope in HE



Standards landscape

Scope / Domain	Individual Institution	National HE Sector	Internat. LLL domain
Learning standards			
LT standards			
ICT standards			

Austrian HE and LT standards

- Adopting LT standards?
- Application profiling of standards?
- Creating new LT standards?

- Data?
- Systems?
- Architectures?

- How will they add value to HE?
- Not everything that is possible may be useful

For more info

- www.cetis.ac.uk/statis/standards.html
- www.imsglobal.org

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