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Integrating Together: Enterprise Architecture and Interoperability Enabling Collaboration

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15 June 2023
Digivisio 2030 programme in a nutshell

- Digivisio 2030 is a joint programme involving all Finnish higher education institutions.

- The purpose of the program is to enable learner-centric, flexible learning paths and make higher education accessible for different learners.

- Objective to create
  - A national digital service platform that
    - enables the compatibility of digital services between HEIs,
    - provides a “My Data” service for the learner and integrates the accumulation of the learner’s competence before and after the higher education in the learning and career path
  - Guidance based on digital pedagogics, the learner’s path and shared data
  - Support for change management for HEIs

- Enterprise architecture and interoperability are the key tools
Continuous and Flexible Learning Tray (1/2)

• The aim of the new digital service is to combine the continuous learning offering of Finnish HEIs so that learners can access it easily and effortlessly in one place.

• The continuous and flexible learning tray combines several technical solutions that build the basis for the digital service platform.
  • The educational offering service
  • The identity management service enables authentication via the learner’s user-centric identity
  • The My Data service gathers the learning-related data of the learner in one place
  • The guidance services form the tray’s recommendation engine
  • The joint application and registration services
  • The data platform collects the required data from source systems and is available to be used through APIs

• The version 1.0 of the service has been released for testing and restricted pilot use (features for support of informal and non-formal categories). 2.0 under development
Continuous and Flexible Learning Tray (2/2)

- The version 1.0 of the service has been released for testing and restricted pilot use
  - Features for support of informal offerings i.e., open resources for self-study such as learning materials, open events, podcasts etc.
  - First features for non-formal offerings, “simple courses”

- Version 2.0 is currently under development
  - Covers a part of formal non-degree education, focus on open university/open university of applied sciences
  - Scheduled release Q1/2024 for testing and pilot use

- Version 3.0 covers other forms of non-degree education in the HEIs
  - Target schedule Q3/2024
Interoperability at the heart of Digivisio's enterprise architecture

- The common architecture principles of the Digivisio 2030 programme concerning integrations
  - The integrations are implemented consistently
  - The technology solutions are interoperable and compatible
- Interoperability standards and industry standards are followed unless there is a compelling reason to apply a deviating solution.
- The HEIs have a will to adhere to the standards
How to Reach Common Specifications and Data Models (1/2)

• The Bologna Process and ECTS system constitutes a historical back-bone for common specifications

• In Finland there has been several phases (2004-2020), where different sets of data have been specified in cooperation
  • Curriculum data, study rights
  • Common data model of HEI’s (XDW) with large amount of data, specification of students and credits -> national Virta register and integrations to source systems (SIS)
  • National Studyinfo service for applicants -> adoption of MLO-model
  • Cross-Institutional Study Service for HEI’s, more detailed data of course units and course unit realisations/instances, enrolment, and study rights to support student mobility process more straight-forwardly.

• This work has developed the interoperability capabilities of HEI’s
  • the common data models in production
  • Organisational capabilities to develop common models in cooperation
How to Reach Common Specifications and Data Models (2/2)

• There has been several lessons to be learned from the past experiences
  • In the field of education, the international standards cannot be taken "as is", because of the specifics of national regulation
  • Extensibility is needed
  • There are several points of view that needs to be balanced, when changes are made to data models to meet new organisational/user needs
    • If it ain’t broke, don’t fix it
    • Take into account the time needed to implement changes technically and in practices of organisations.
  • Proof of viability in actual use may require POCs or pilot projects to justify the change and ensure motivation
    • Prepare for iterations before large-scale production
  • There is a need to discuss the planned changes with the relevant stakeholders in their language
Possibilities for international cooperation

• If the national interoperability is reached by creating a data model, that can be mapped with chosen international standards, there are good possibilities to make national integrations to international services

• Background in ECTS helps the HEI’s in Europe to find the ”common denominator”

• The candidates that are examined in Digivisio 2030 are currently
  • European Learning Model v.3
  • European Digital Credentials Infrastructure (EDCI)
  • ELMO/EMREX
  • Relevant 1EdTech standards

• There is a risk of network-specific solutions in European Universities alliances.
  • Can EUNIS be the player in this field to guide the IT architects of alliances to the use of standards and common solutions?
Questions?