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Digivisio webinar
14.12.2022

www.digivisio2030.fi/en

Building a future for learning

Digivisio 2030

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Programme:

- Preliminary study on knowledge-based management, Programme Manager Sakari Heikkilä
- User understanding in the development of the Continuous and Flexible Learning Tray and introduction to the prototype of the service, Product Manager Marko Taipale
- Q&A
- Closing words

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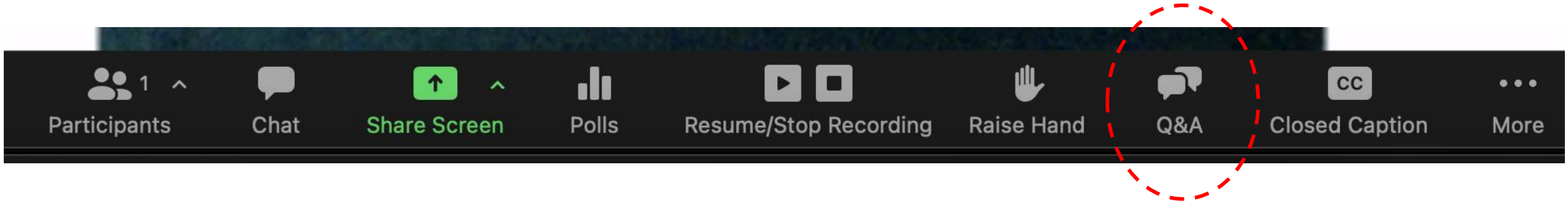
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Preliminary study on knowledge-based management

Sakari Heikkilä

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Objective of the study

***"Making higher education institutions into open communities with knowledge-based management"* – Digivisio project plan**

- Analysing the expectations related to knowledge-based management in higher education institutions
  - Especially the opportunities brought about by the continuous and flexible learning tray
- Assessing the current state of knowledge-based management in higher education institutions
  - Tools and organisation of knowledge-based management
- Constructing an image of the operating environment related to knowledge-based management in higher education institutions
- Assessing the use of data produced by the services created in the Digivisio 2030 programme to support knowledge-based management in higher education institutions.

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Preliminary study

- Survey for all higher education institutions
  - The respondents include 33 higher education institutions
  - Group interviews
- The aim was to limit the study to the scope of the Continuous and Flexible Learning Tray (up to the technical release component 4.0), but the responses contained plenty of perspectives on degree studies
- In the preliminary investigation phase, the functionalities of knowledge-based management related to Continuous and Flexible Learning Tray (CFLT) had not been conceptualised or their costs assessed
  - The respondents were only asked about the necessity of pre-outlined functionalities
- Issues and problems related to data protection were excluded from the report.
  - These will be handled as part of the data protection impact assessment (DPIA) process and service development
  - Some data protection perspectives have already emerged and these will be utilised in the future
- The focus was on knowledge-based management in higher education institutions, the learner's perspective was not discussed in this report

Plan for the gradual development of service, contents, and functionalities

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Piloting with HEIs

Piloting with HEIs

Piloting with HEIs

Piloting with HEIs

Q1/2023 Q3/2023 Q1/2024 Q3/2024

Technical release component 1.0	**Technical release component 2.0**	**Technical release component 3.0**	**Technical release component 4.0**
Offering: Non-formal and informal education offering, e.g. *podcasts, microcourses, public lectures, webinars*	**Offering:** Formal education offering e.g. *open university of applied sciences and university of applied sciences studies, collaborative education offering*	**Offering:** Non-formal education offering e.g. continuing education and *commissioned education*	**Offering:** Formal education offering e.g. *cross-institutional studies, specialisation education*
Displaying, filtering and comparison of offering *Hyperlink-based migration to content or offerings to an external online service* *Identification of the school's representative in the content management tools*	*Identification of the learner* *Competence profile (verified study attainments and study rights)* *Enrolment in an offering (no preconditions or payment)* *Recommendation functionalities based on educational offering and learner's data*	*Competence Profile* *Payment option related to enrolment* *Recommendation functionalities based on the offering, the learner's own data and labour market data*	*Learning path based on already accumulated competence and the learner's interest in specific competence* *Applying for a course offering with simple and clear preconditions or criteria* *Recommendation engine based on other formal education information*

More opportunities for knowledge-based management

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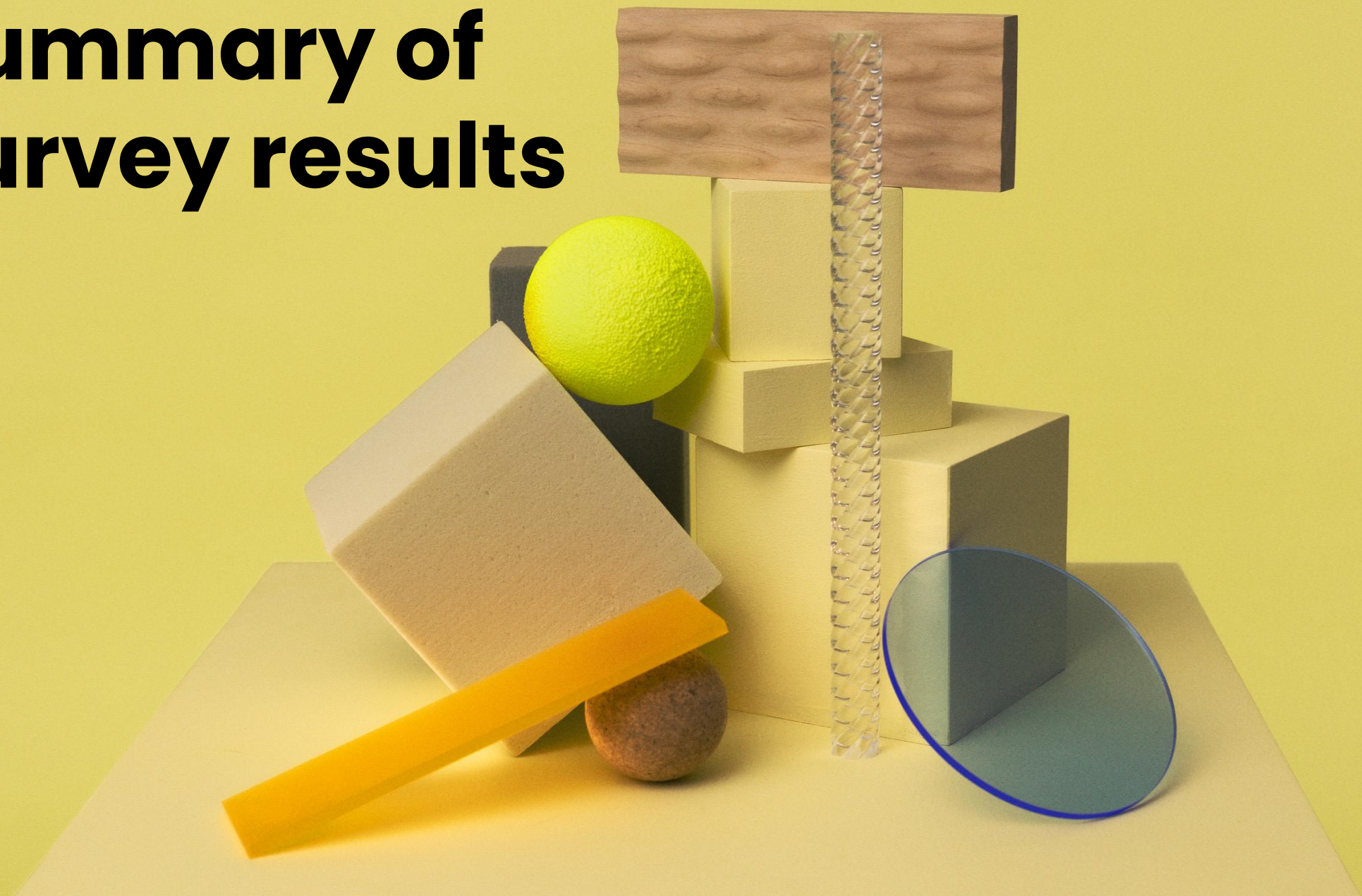
Summary of survey results



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Who and what kind of needs do higher education institutions' data production mainly serve at the moment?

- The most important audience is senior management; usually the rest of the institution's management also uses the same information.
  - Analysis data directed to management is mainly related to funding, funding indicators and other indicators of the institution's operations.
  - Quality assurance was also mentioned in several responses.
- The next most frequently mentioned analytics concerned learning and monitoring of studies, the audience of which also includes individual teachers and, in some cases, students (when learning analytics were mentioned)
- Excel and Power BI most common tools

The necessity of the functions outlined on the data platform

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- Higher education institutions wish to use the raw data produced by the data platform in their own analysis functions, in which case the data platform would serve as a data source.
  - Comparative data between higher education institutions is considered valuable.
- The greatest needs focused on the analytics related to study units
  - interest in the studies, comparisons of attractiveness (what the student is interested in) and raw data related to the studies
- The least popular item was communicating student feedback via the platform and linking the institution’s own organisational structure and the student operating on the platform.

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What use cases were identified based on the survey?

Development of teaching provision and contents

- Planning, contents and profiling of education provision
- Quality assurance
- Questions regarding payments
- Links to labour market information

Monitoring and supporting the learner's "learning lifecycle"

- Guidance on the study path
- Analytics on cross-institutional studies
- Dropouts
- Student feedback and utilising it, e.g., machine learning?
- Student profile vs. sector-specificity
- Students' backgrounds

Developing the institution's own operations

- Foresight and long-term scenarios
- Impact assessment and development
- Sales, marketing
- Identifying the focus groups and their needs
- Higher education institutions' profiling
- Comparative data, monitoring of funding and performance indicators
- Strategic planning
- Development of personnel's competence

Continuous learning

- Planning the provision of continuous learning
- Visibility of the lifelong learner profile/path of graduated students
- Interest of others in the higher education institution's learning offering

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Conclusions

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Observations made in the report 1/2

- Higher education institutions often use internal knowledge-based management at different organisational levels
- Higher education institutions have very different bases for knowledge-based management and the utilisation of data
- Higher education institutions have a clear need to move towards more proactive analytics and understand the reasons behind learners' choices
- The data platform should primarily focus on new data provided by the Continuous and Flexible Learning Tray
    - Higher education institutions' offering data is considered valuable
        - We assumed that in the first phase, the opportunities for knowledge-based management in Digivisio may be related to the analysis of the learning offering, and in the next stage to learners

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Observations made in the report 2/2

- Digivisio is expected to produce raw data that can be processed in higher education institutions
  - Machine-readable bi-directional interfaces are of great importance
  - Comparisons and time series analyses are important for higher education institutions
  - In some cases, data analysis on the data platform and sharing refined data from the interface
- Learners' behaviour on the continuous and flexible learning tray is interesting
  - We are expecting a large amount of data that offers added value to higher education institutions
- Data on the study unit offering is already considered significant.
- Collecting feedback on the data platform is not considered very interesting or useful, nor is it necessary to share feedback on the systems used in higher education institutions
- Learners' personal data are not necessary for analytics
  - "shadow profiles" may be sufficient

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Principles of knowledge-based management based on a preliminary study

- Digivisio develops knowledge-based management from the user's perspective. This way, customers may include very different actors within higher education institutions
- The development of the continuous and flexible learning tray will enable the sharing of data through interfaces.
- Promoting a common data model is important for the construction of services for knowledge-based management
- The project focuses primarily on data related to the continuous and flexible learning tray and its opportunities for developing knowledge-based management and operations.

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Further information

digivisio@csc.fi
digivisio2030.fi

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Continuous and Flexible Learning Tray

Webinar
14.12.2022

Marko Taipale
Product manager

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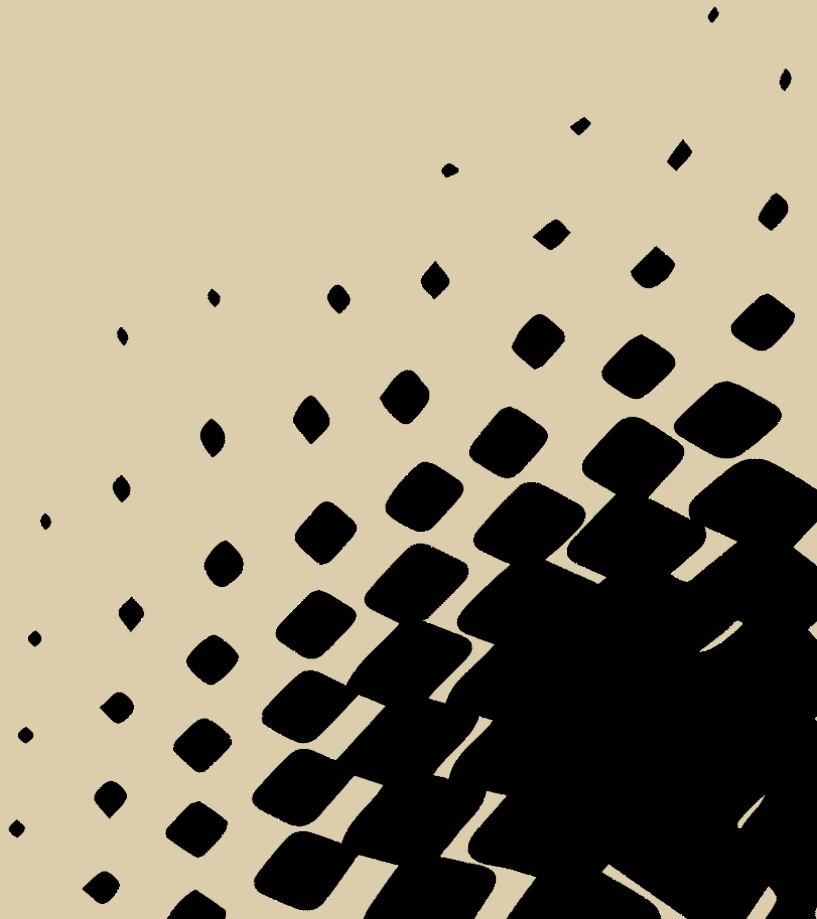
What are the problems we want to solve

What are the opportunities we see



Learners find their situation challenging

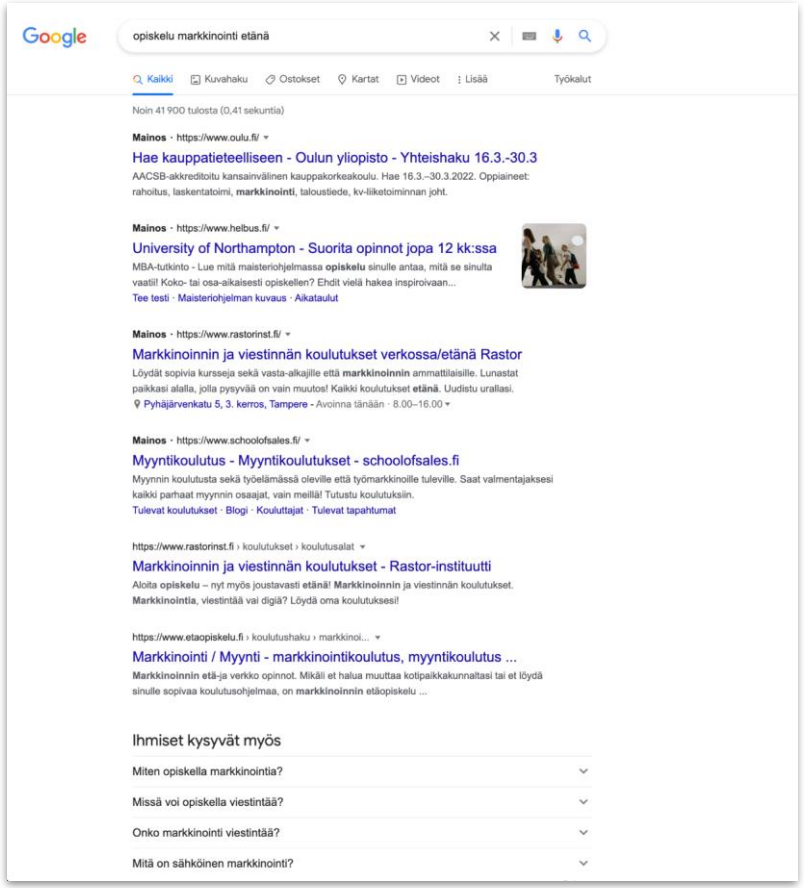
I would like to learn more about marketing.

I want the studies to suit my life situation.

Where I can find a suitable course?

Search engine finds me mass of options.

Should I choose private or public course? Which of these fits to my schedule?



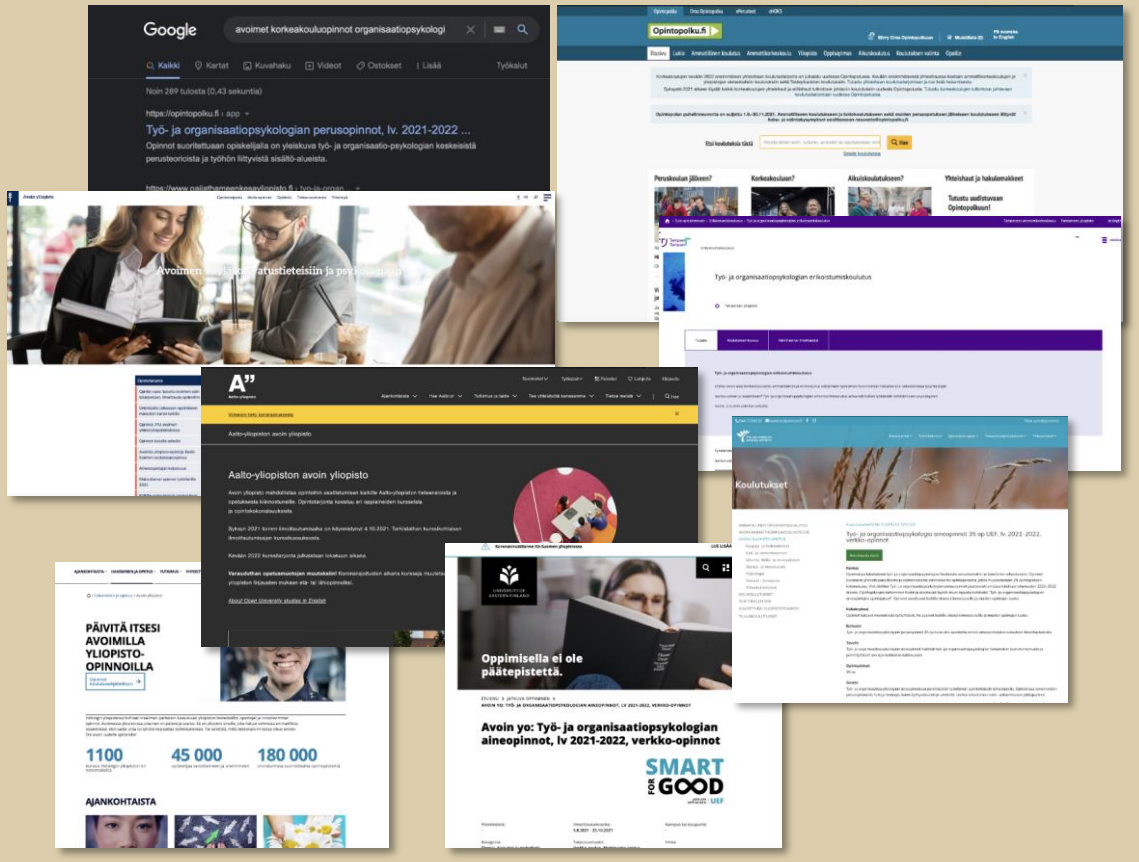
Problems we want to address with the solution

LEARNER

- Hard to find suitable learning opportunities, spending time and energy browsing through numerous websites without feeling of control.
- Finds interesting opportunity yet the enrollment often is forgotten.
- Often quits the course because they feel being misinformed about what the course is about or what is required from them

HIGHER EDUCATION INSTITUTION

- Do not want to loose the learner to another institution or to ”just somewhere”.
- Do not know how the similar offering is received by the market of learners.
- In case the learner finds a course from one institute unsuitable an another institute’s similar course is suggested as the offerings are isolated.



“20 browser windows open for three days”

“I need some kind of Tutor to help me to figure out how this actually works. I do not understand the logic of these institutions”

“I found University of Helsinki courses more interesting but I was more familiar with Aalto’s user interface”

“I don’t understand what is required from me”

“I felt uncomfortable at the payment phase”

Bringing learning offering to one place helps the learners to find suitable opportunities

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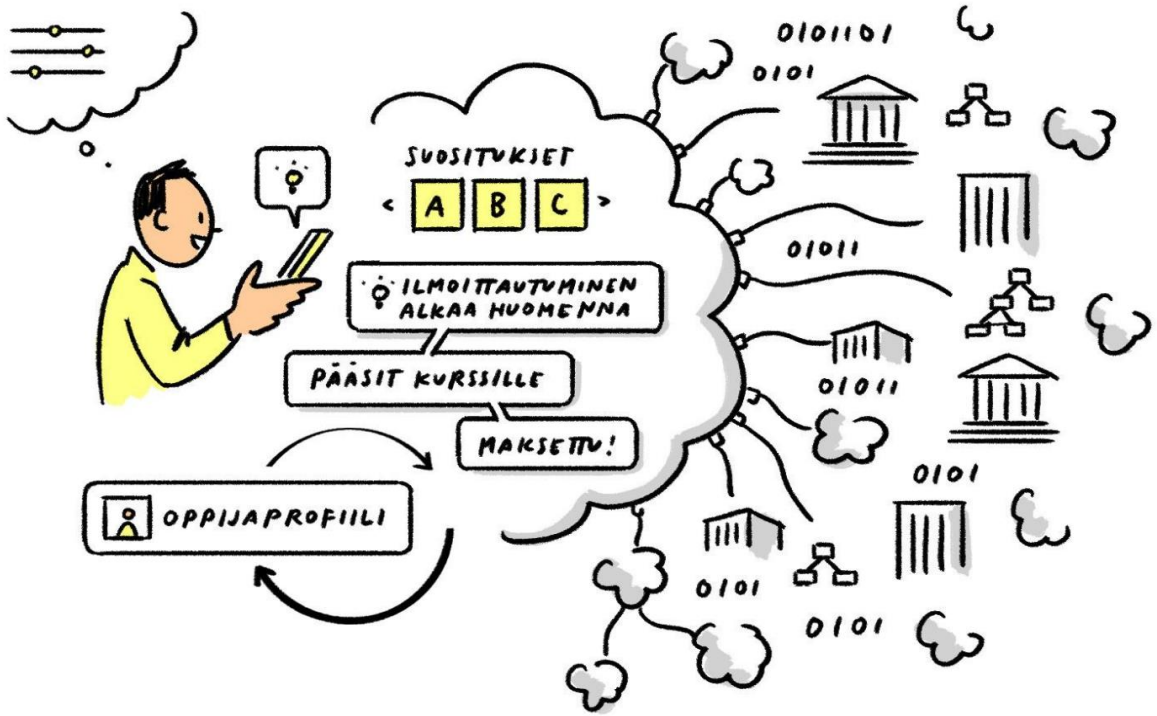
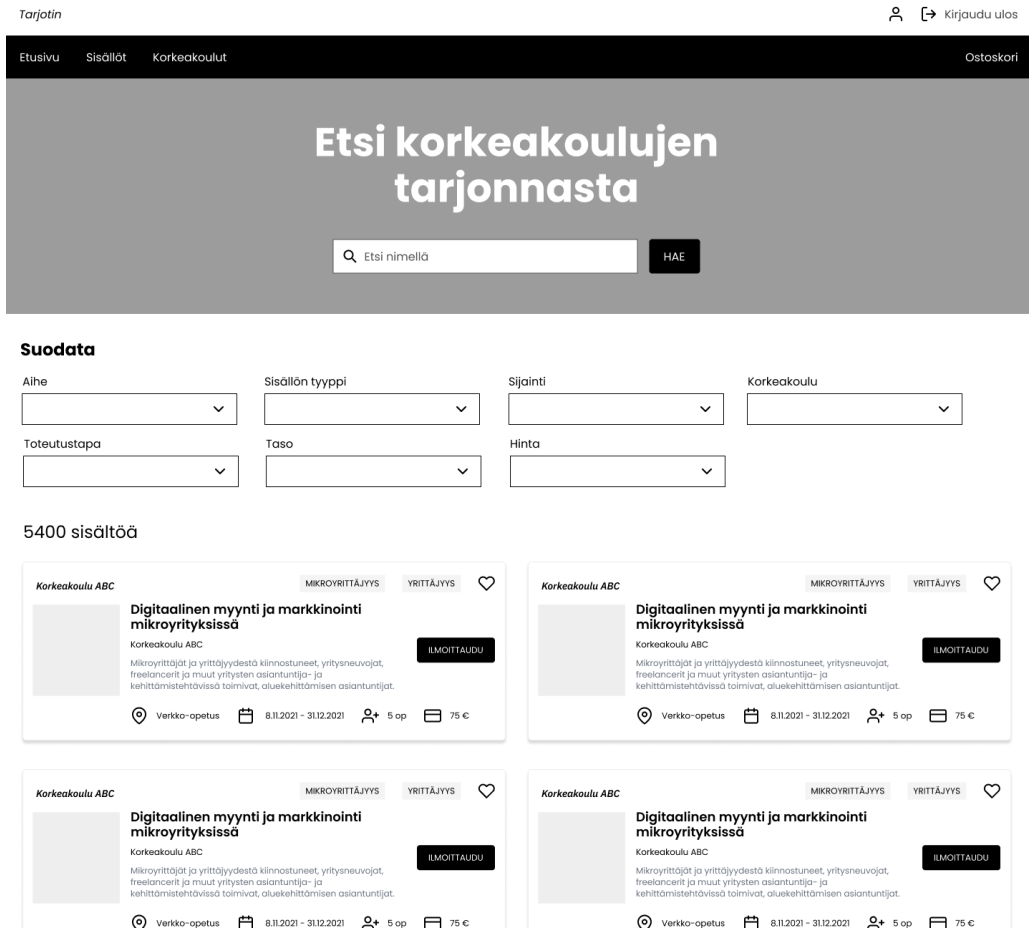
Everything under one place – sounds good!

One place where I can browse, compare ja eventually decide what I want to learn next.

In case I want to understand better the selection of a certain institute I can easily access their website.





Thank you!

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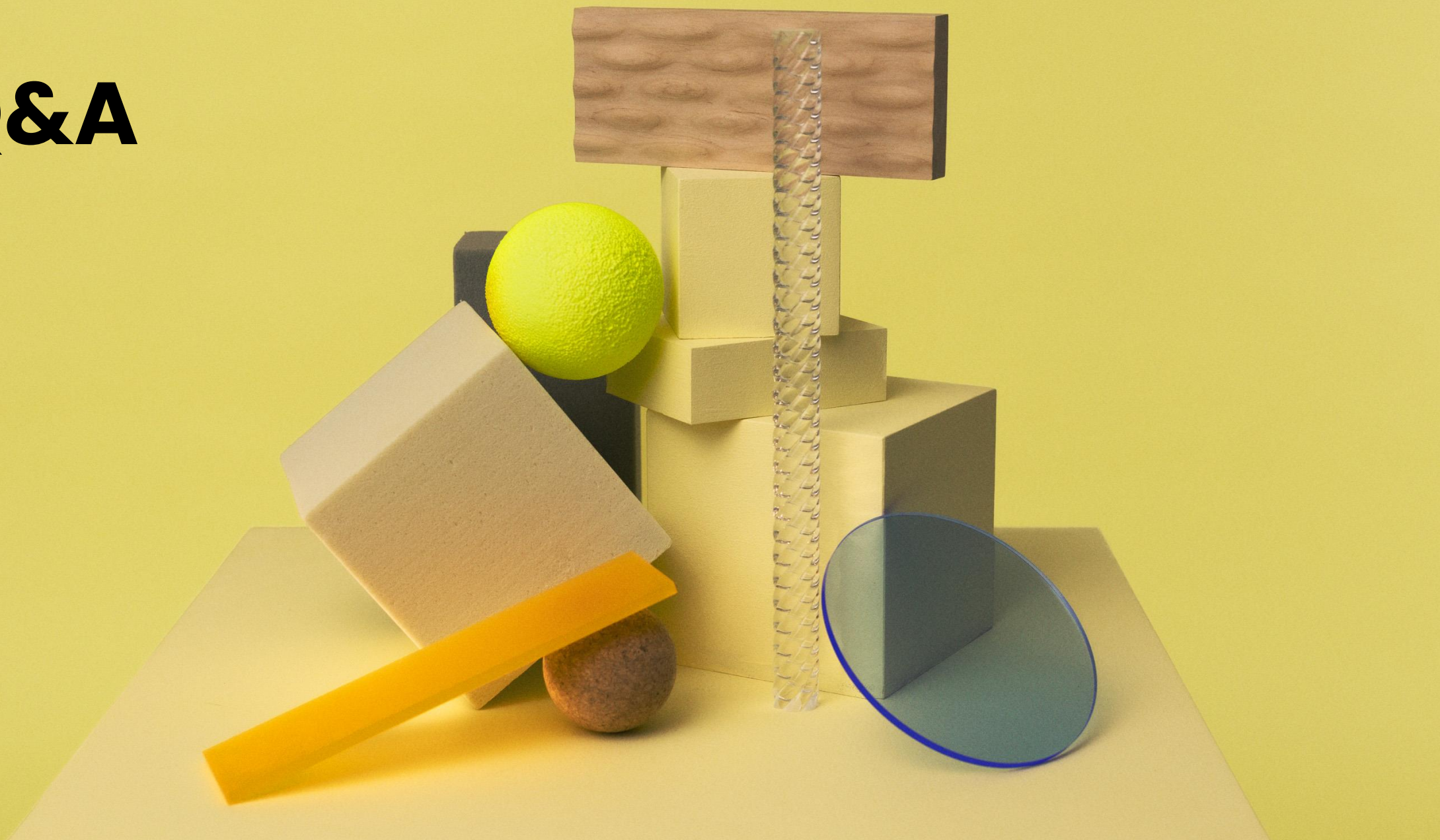
Q&A



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Digivisio webinars 2023

We will organize three Digivisio 2030 webinars in English next year.

- Tuesday 14th March 2-3 pm
- Tuesday 29th August 2-3 pm
- Tuesday 28th Novermber 2-3 pm

Digivisio newsletter:

Sign up for the Digivisio 2030 project's newsletters to receive the latest news about the project's progress directly to your e-mail!

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