

Portfolio

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Photo: Atte Makkonen

Who I am

I am a 24-year-old Information Networks master's student at Aalto University.

I love **data science, problem-solving and value creation**, and everything that combines them. In short, I am a little nerdy **mathematics and society enthusiast** who enjoys transforming data into real life solutions.

As a soon-to-be graduating young adult I am eagerly looking for new opportunities where I can develop myself in the fields of **societal and business-related problem-solving** by utilizing my abilities for **logical reasoning** and **understanding of analytics**.

This portfolio is made to showcase some of my awesome projects and what I have learned in them!

Analytics Hackathon for Finnish Elevator Company (1/3)

2020, Aalto University

The project was conducted as a group work for the Creating Value with Analytics course in Aalto University. The task was to, with a given set of elevator data, create value for a large Finnish elevator company. Our solution **won the hackathon**.

To put it simply, we proposed the company to use data to **predict and present relevant content** to passengers in elevators.

The content could be advertisements or announcements, and depending on e.g. **the location, time of the day, weather and direction and load of the elevator**, the most relevant content would be presented to the end-user.

The impact of the model would be measured by **following sales and people flow and traffic** after the content has been shown to the end-user. That data would further be used in developing the model iteratively.

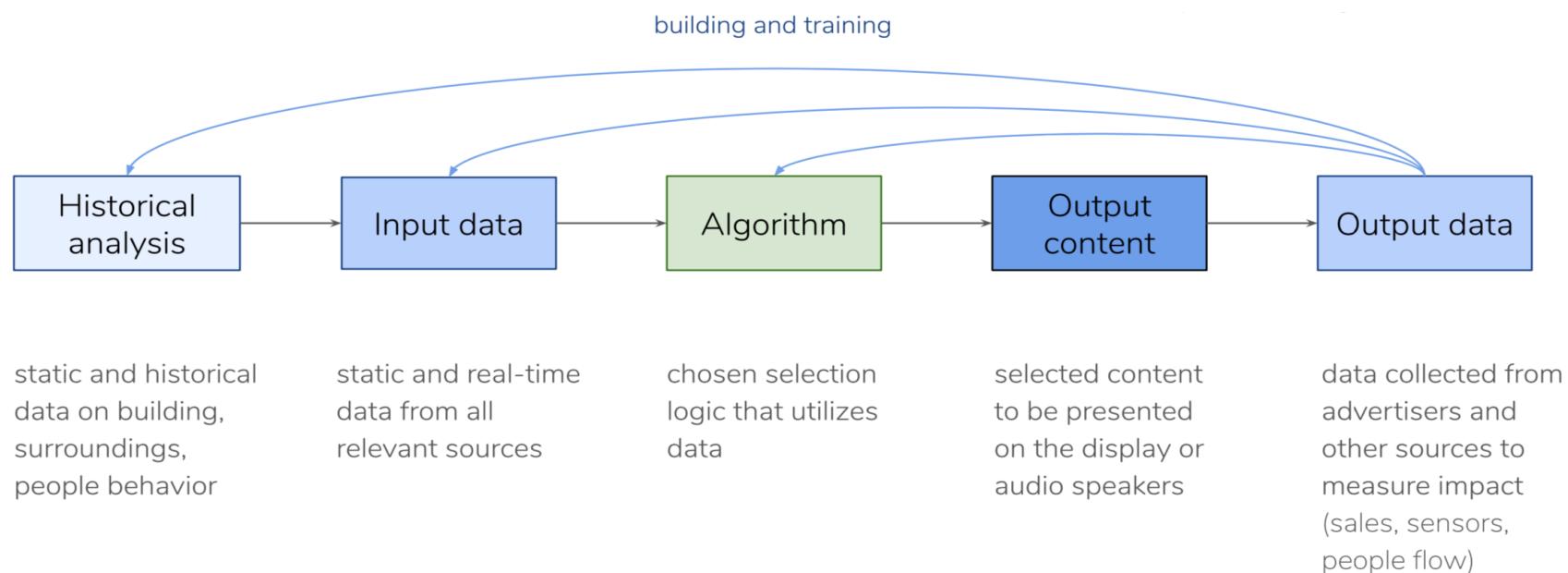


Office building with the company's elevators
Photo: SARC Architects

Analytics Hackathon for Finnish Elevator Company (2/3)

We focused on designing the **data architecture and data flow** of the model.

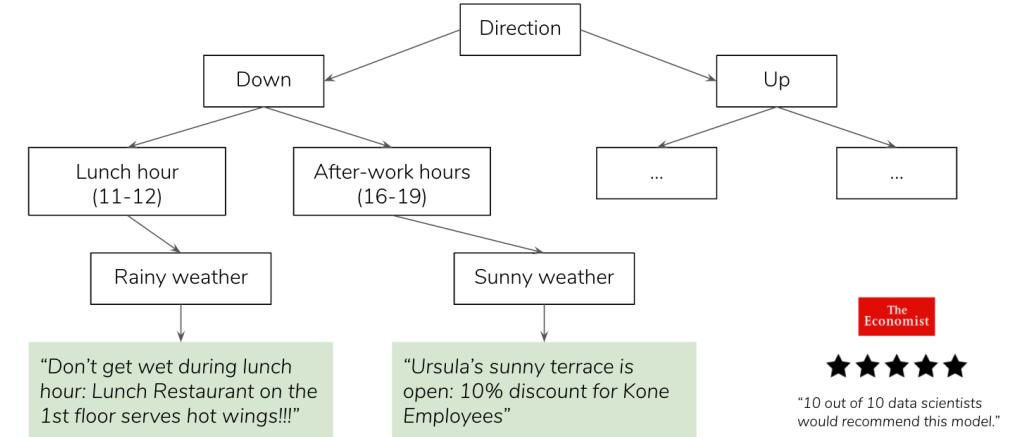
Below is a very simple representation of how data is collected, analyzed and utilized in building and training the model. The model was designed to be **recursive with a feedback loop** and dynamically utilizing **historical and real-time data and analysis based on measured performance**.



Analytics Hackathon for Finnish Elevator Company (3/3)

We presented three use case examples: an office building, a cruise ship and a shopping mall. In each of these cases the model uses **input data for an algorithm that produces a content proposal**.

The figure shows a very simple decision tree model of how relevant content could be selected in an office building context.



The Economist



"10 out of 10 data scientists would recommend this model."

This project taught a lot about creating **business opportunities with different, some more rigorous and some more vague, data sources**. By transforming data into a well-designed model we were able to propose a new business service for the existing portfolio of the company.

In the beginning of the project, we only had a huge amount of data related to elevator functions and had to start building business insights based on that. In the process I learned how to **create links between bigger ensembles of data** so that the output is coherent and meaningful.

Growth hacking the blog of the Family Federation of Finland (Väestöliitto) (1/2)



2020, Aalto University

The project was conducted as a group work for the Growth Hacking course in Aalto University. In short, our task was to gain more readers for the blog of Väestöliitto through growth hacking methodologies.

The process was **fast-paced and iterative** with various tests in different digital marketing platforms. Based on real-time data and analysis we were able to improve the tests continuously and **focus on what had the best impact**. The tools utilized consisted of Google Analytics, Google Ads, Facebook Ads, Instagram and an E-mail marketing tool.

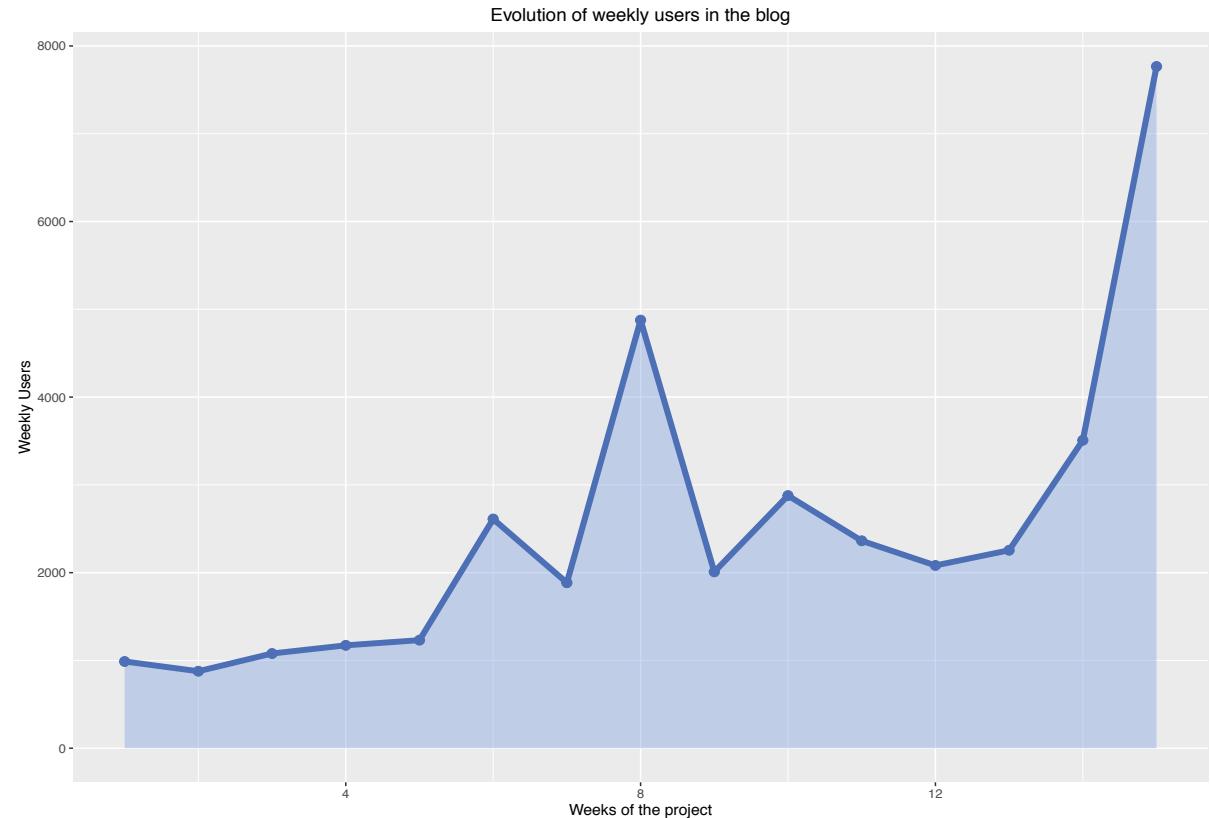
I learned to create digital campaigns in multiple platforms, follow their metrics with different analytics tools and **constantly improve the content based on measured performance**. The tempo and methods used in the project were inspiring, as we were quickly able to **base our next steps on proven numbers**.

Growth hacking the blog of the Family Federation of Finland (Väestöliitto) (2/2)

As a result, we managed to **increase the amount of users for over 400%**, from the daily average of 160 to 670 users.

This plot shows the impact of our growth hacking on the weekly users of the blog.

The first four weeks are for comparison, when Väestöliitto did not yet do any systematic growth hacking. We started the project in week five.



Teachify – A solution for primary education during an armed conflict in Syria (1/2)

2016, Aalto University

The project was conducted as a group work for the School of Science Project course in Aalto University. The vague problem we were presented with was about children not being able to go to school during the crisis in Syria.

Our solution was an **all-in-one mobile application that would help anyone to be able to teach primary schoolers**. It provided the users with necessary knowledge on how to teach the children and the teaching materials used in classrooms. The application draft consisted of two parts: the crash course and the teaching aid.

The purpose of the crash course was to **teach the users the basics of teaching** and the teaching aid to **assists the inexperienced teaching instructors** to carry out lessons.

Teachify



Crash course

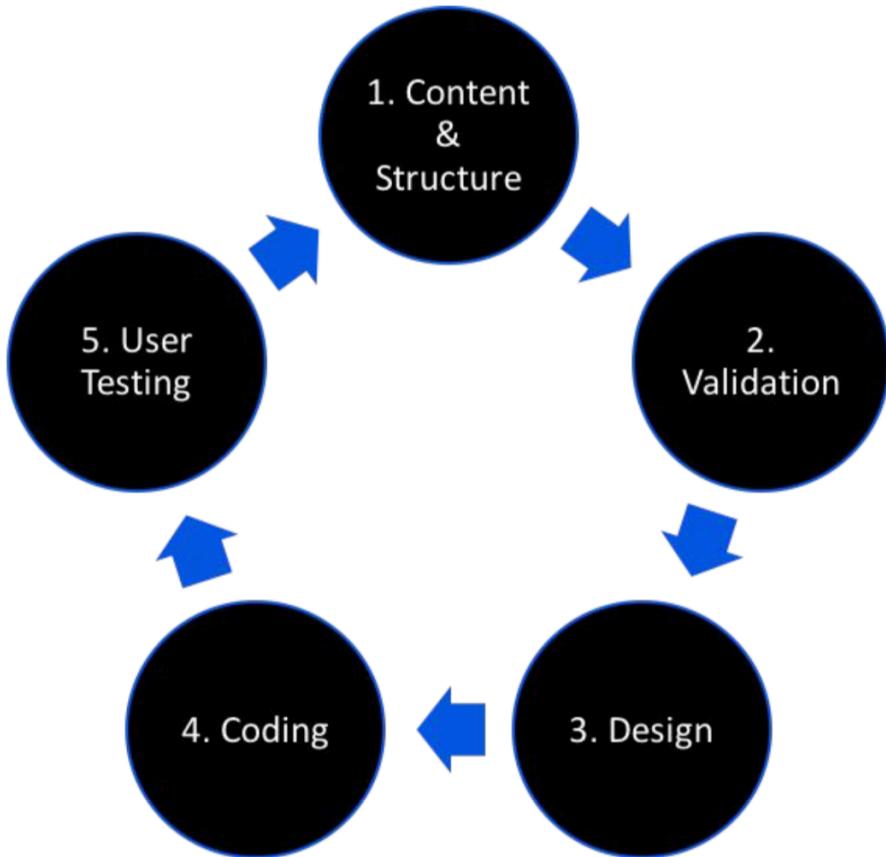
This is the crash course for teaching. It is an introduction to giving primary education. After you've completed it, you can use the teaching aid for giving lessons.



Teaching aid

This is the teaching aid. You can use it right before giving the lessons to recall what you've learnt in the crash course and during the lessons to maintain the right structure in them.

Teachify – A solution for primary education during an armed conflict in Syria (2/2)



The process was **iterative and cyclical** with five main stages. Content and structure was **designed and validated** based on curriculums and interviews. We did **user-interface design, coding and user testing** with both Finnish and Syrian individuals and experts.

The project taught a lot about basic problem-solving in a real, societal context. An important part of the iterative process was **defining the actual problem**, as it was not clear what were the circumstances in Syria. The execution of the project was motivational as we could combine our **multidisciplinary knowledge into the process of value creation** for a meaningful cause.

Well-being coaching for Information Networks first year students

2018-2019, Guild of Information Networks & Aalto University

Koko valmennuksen tavoitteet

- Taklata ongelmakohtia
- Oppia ymmärtämään ja tarkastelemaan omaa hyvinvointia useammasta näkökulmasta
- Tarjota konkreettisia työkaluja oman hyvinvoinnin seuraamiseen ja kehittämiseen
- Oppia tunnistamaan ongelmakohtia ja haasteita ennen kuin ne pahenevat

The objectives of the coaching as presented to the students in the first, introductory session. Unfortunately in Finnish.

This was a voluntary project that guild officials conducted together with Aalto staff members. The idea started off from **identified well-being issues** among the students.

The Aalto Well-being survey results were alarmingly low for the students of Information Networks. We identified two major issues that were particular for Info students: 1) uncertainty about one's studies and their relevance, and 2) wanting to combine studies, work and volunteering but not being able to handle all of them at the same time. Together these factors were **increasing the students' risk of burning out**.

To assess this, with rigorous examination of the situation through **interviews and surveys**, we decided to set up a coaching that consisted of five sessions. During those sessions, the students were able to **reflect different well-being aspects** in their lives.

The first realization was done in the spring of 2019 and it has been developed even further based on feedback and identified areas of improvement.

20-year history review

2017-2019, Guild of Information Networks

As a voluntary project, we created the guild jubilee year history review - a **two-hundred-paged book** with stories and narratives from the last ten years.

Apart from content creation and what it is like to print a book, the project taught me a lot about the **meaning of endurance** in a project. The whole team was just unyielding even when things started to look very difficult in terms of the schedule. Late nights of writing, searching for materials, and intensive visual work showed some real **perseverance and Finnish sisu**.

This was definitely one of the most **fun and rewarding** voluntary projects I have been involved with. Overall, those two years of hard work and then, **even harder work** and, eventually, getting the books just in time for the release is an experience I will never forget.



The proud 20-year history committee of the guild
Photo: Atte Makkonen



How can I help with your next project?

Let's discuss more!
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