

Meillä on vuori kiivettävänä

Jaakko Kurhila, CDO

Helsingin yliopisto

 @JKurhila

minä olen teidän
puolellanne

mikä “vuori”?

The
College
of the
Future

Independent Commission on the College of the Future

Progress Report

November 2019



1. Role, scope and focus of colleges: an essential service to people and employers in every community

Colleges will increasingly need to act as an essential service to people and employers in every community, combining high-quality education and skills with access to facilities and resources for lifelong learning.

2. Teaching, training, learning and assessment: lifelong, flexible learning for the future world of work

Changes in the world of work will see an increased need for people to study and train throughout their lives. This will come alongside increased demand for flexible provision, systems which facilitate credit transfer and effective use of new technologies to drive greater access and inclusivity.

kaikki puhuvat samasta muu-
toksesta, mikä siis on ongelma?

ylivertainen käyttäjäkokemus

vs

ikäiikainen yliopisto

~~Customer Commitment at~~ Google

If the users can't spell: **OUR PROBLEM!**

If they don't know how to form the query: **OUR PROBLEM!**

If they don't know what words to use: **OUR PROBLEM!**

If they can't speak the language: **OUR PROBLEM!**

If there's not enough content on the web: **OUR PROBLEM!**

If the web is too slow: **YEP! OUR PROBLEM!**

We look at THE WHOLE PROBLEM



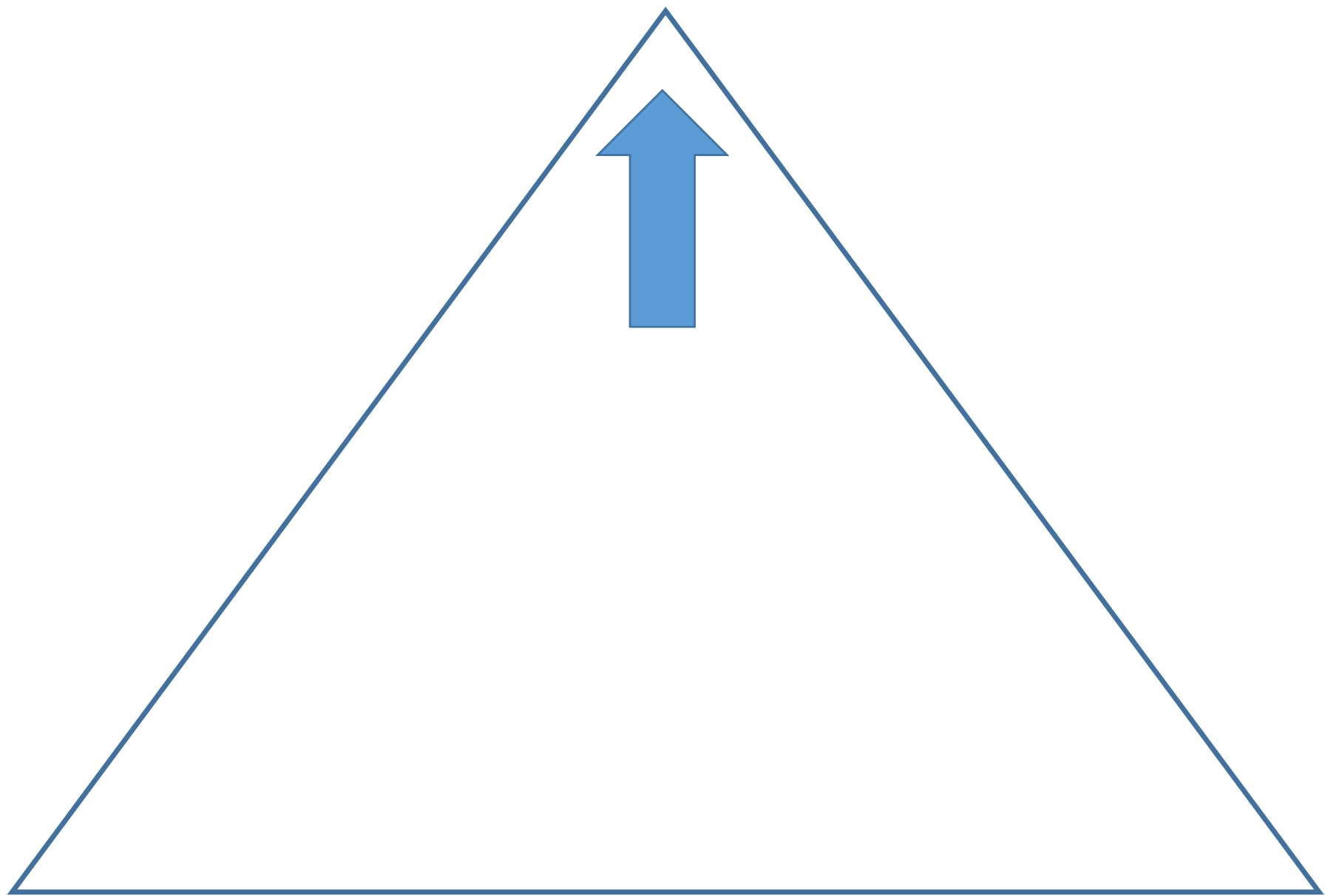


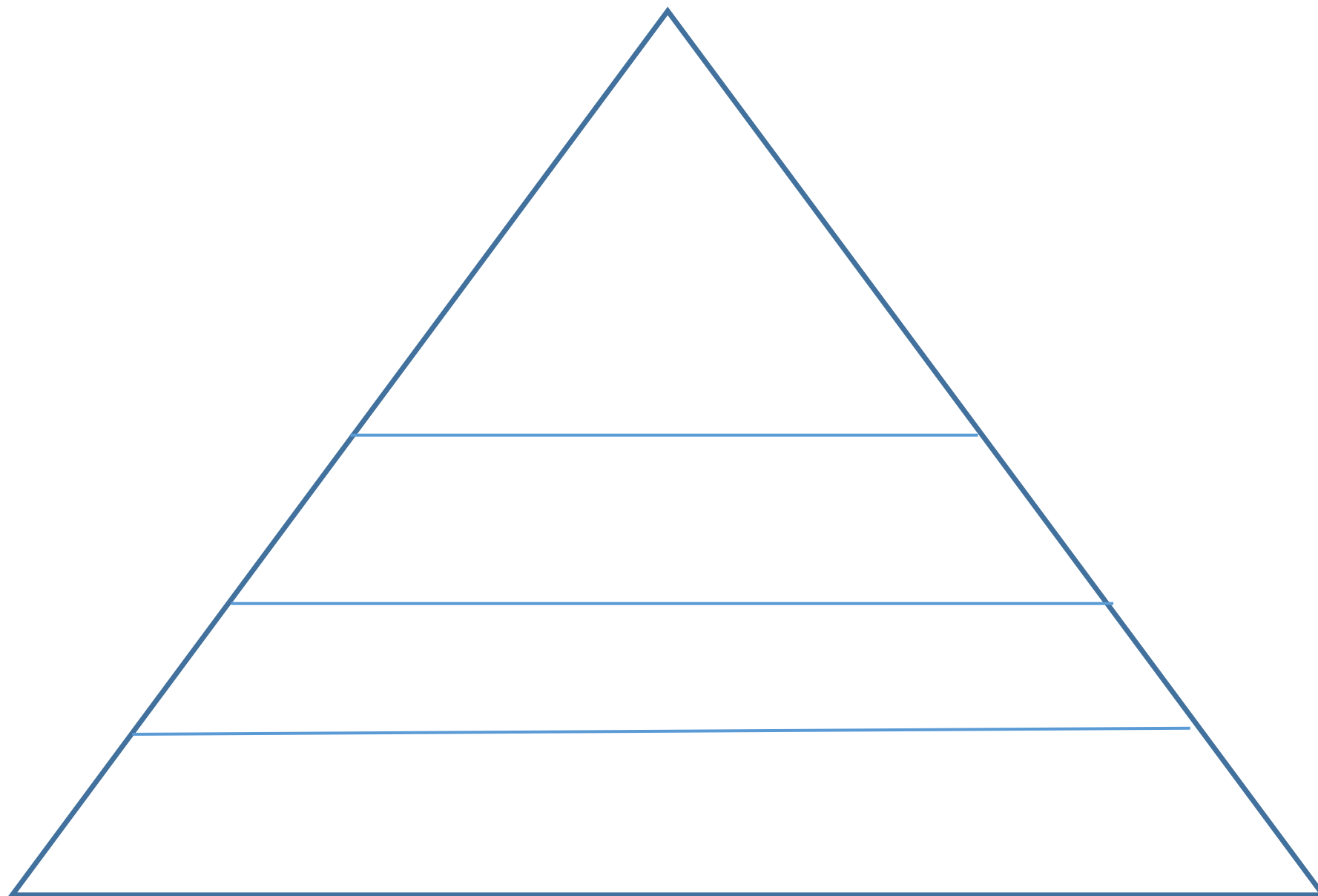
ikiaikainen yliopisto

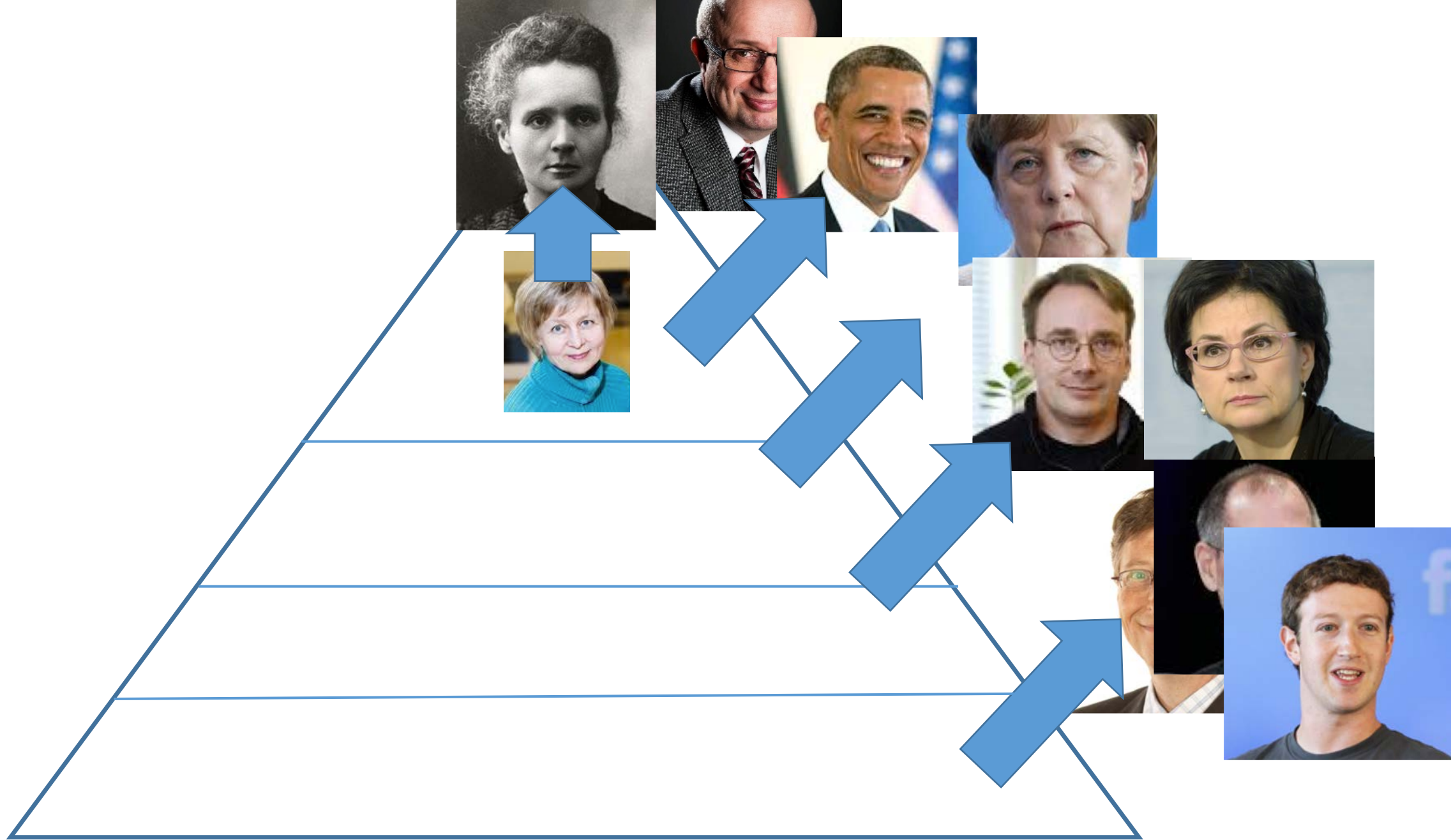


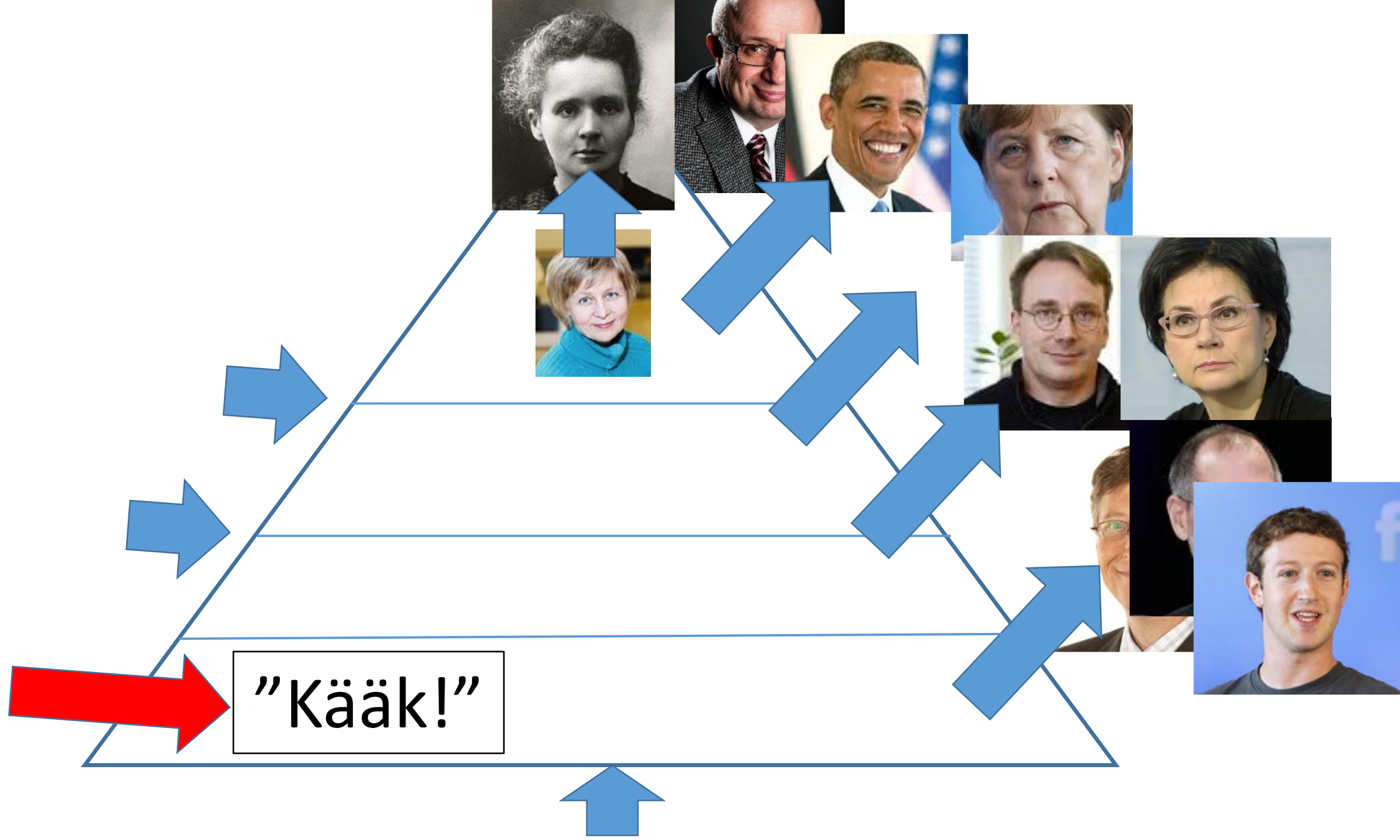
tieteenalan jatkajien kasvattaminen



















UNIVERSITY
OF HELSINKI

FOR THE WORLD





PwC x Slush





Tervetuloa opiskelemaan tekoölyn perusteita!

Liity satojentuhansien joukkoon ja aloita
oppiminen

Select language  Suomeksi 

Aloita kurssi →

The course is divided into 6 parts – we recommend going in the order below, but you can also jump straight to the sections that interest you most.

Part 1

Wh

Part 2

Part 3

215000+ aloittajaa
25000+ suorittajaa
7538 on ottanut opintopisteet

Part 4

Machine learning

Part 5

Neural networks

Part 6

Implications

mooc.fi



Ohjelmoinnin MOOC
(10 ECTS)

Julkistettiin syksyllä 2011

MOOC as Semester-long Entrance Exam

Arto Vihavainen, Matti Luukkainen, Jaakko Kurhila
University of Helsinki
Department of Computer Science
P.O. Box 68 (Gustaf Hållströmin katu 2b)
Fi-00014 University of Helsinki
{vihavai, mluukkai, kurhila}@cs.helsinki.fi

Julkistettiin syksyllä 2011

ular topic in both courses. In 2012. Many of the offered MOOCs are somewhat "down versions" of the actual courses given by the MOOC professors at their home universities. At the University of Helsinki, Department of Computer Science, our MOOC on introductory programming is exactly the same course as our first programming course on campus. Our MOOC uses the Extreme Apprenticeship (XA) model for programming education, thus ensuring that students are proceeding step-by-step in the desired direction. As an additional twist, we have used our MOOC as an entrance exam to studies in University of Helsinki. In this paper, we compare the student achievement after one year of studies between two cohorts: the MOOC intake (n=38) and the intake that started their studies during the fall (n=68). The results indicate that student achievement is at least as good on the MOOC intake when compared to the normal intake. An additional benefit is that the students admitted via MOOC are less likely to drop out from their studies during their first year.

Categories and Subject Descriptors

Education; Computer and Inform-

materials. massive attendance.

MOOCs have been aptly described as "textbooks on steroids" [6]. In other words, the students that are successful in MOOCs tend to be autodidacts, to the extent that e.g. more than 70% of the starting MOOC students already have an undergraduate or postgraduate degree [13].

Our MOOC at the University of Helsinki Department of Computer Science differs from typical MOOCs in two key aspects [16]:

- Students start by installing a real-world programming environment and start to program immediately. All learning materials are built to support hands-on programming. The emphasis is heavily on a learning process that allows and requires the learners to produce working solutions. There are hundreds of programming assignments that the students are expected to construct during the course.
- By successfully completing the MOOC and participating in an interview, a student is granted admission to a major in Computer Science.

Admitting Students through an Open Online Course in Programming: A Multi-year Analysis of Study Success

Juho Leinonen, Petri Ihantola, Antti Leinonen, Henrik Nygren,
Jaakko Kurhila, Matti Luukkainen, and Arto Hellas
firstname.lastname@helsinki.fi
University of Helsinki
Helsinki, Finland

ABSTRACT

Since 2012, part of computer science student body at the University of Helsinki has been selected by using a massively open online version of the same introductory programming course that our freshmen take. In this multi-year study, we compare study success between students accepted through the online course (MOOC intake) and students accepted through the traditional entrance exam and high school matriculation exam based intake (normal intake). Our findings indicate that the MOOC intake perform better in computer science studies when looking at completed credits and grade point average, but there is no difference when considering other courses. Retention among the MOOC intake is better than among the normal intake. Additionally, students in the MOOC intake are more likely to complete their capstone project and Bachelor's thesis in the studied time-frame. However, the MOOC intake makes the already skewed gender balance more pronounced.

CCS CONCEPTS

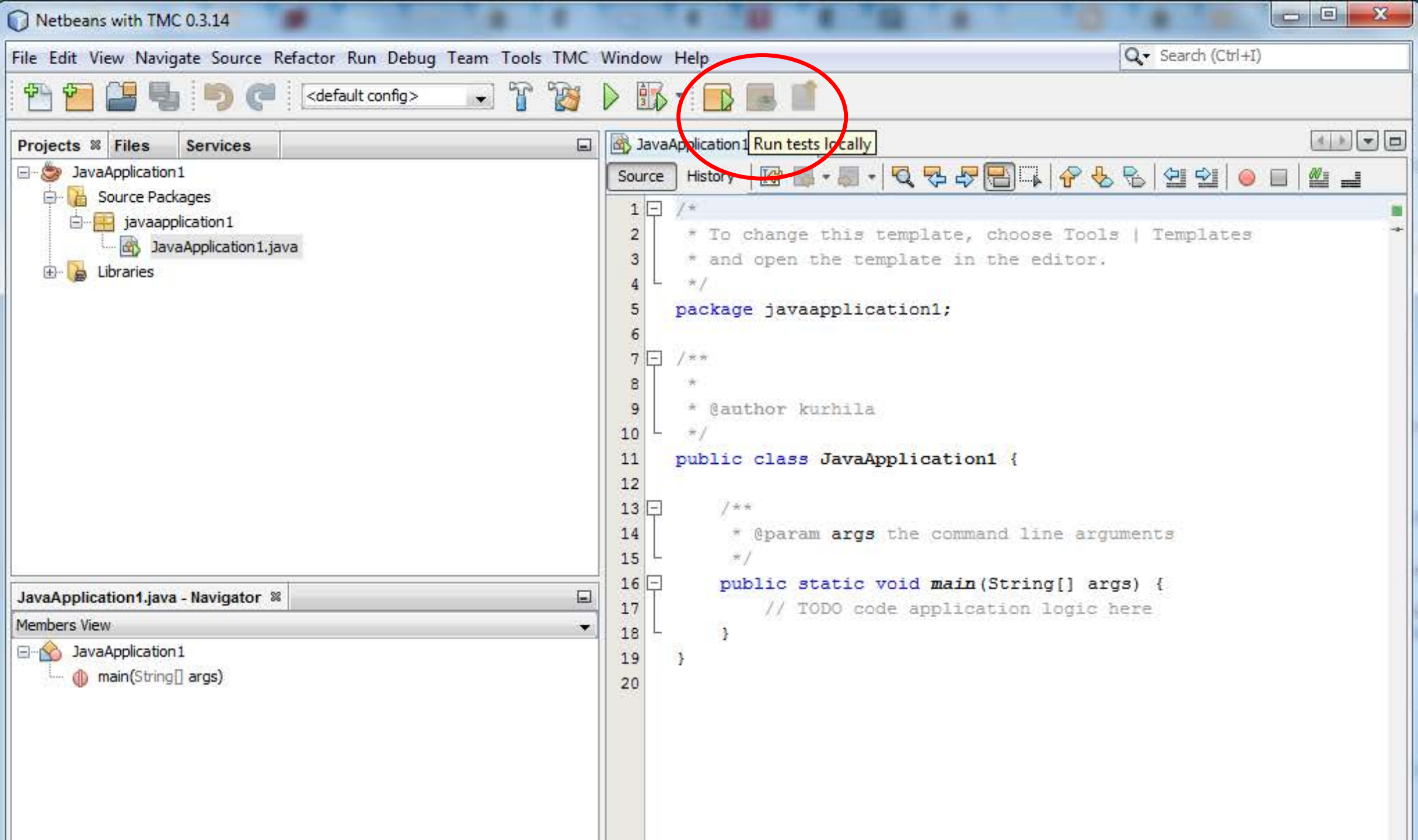
• Social and professional topics → Computing education.

KEYWORDS

introductory programming course, it is not surprising that computer science programs have higher than average dropout rates [25].

What if, instead of a proportion of students failing the introductory programming course, students starting at a university would have the course already completed? Would they then succeed in their studies, or would they then stumble in the subsequent courses? Completing a small part of the computer science degree before enrolling could perhaps lead to less misguided perceptions about what it means to study computer science. Moreover, having experience from a university-level course could lead to a better understanding of the workload and content of courses at the university.

Since 2012, the University of Helsinki has piloted a novel admission process where, in addition to traditional admission, prospective students have been offered a free open online introductory programming course (a MOOC) through which they can apply for a study right into the computer science degree program at the University of Helsinki. In this work, we study how students admitted through the course fare in their studies when compared to students admitted through traditional admission. We study students in terms of completed credits and weighted grade point average (GPA), and compare the proportion of students who complete their studies in time. While the MOOC discussed in this work has previously been discussed in [31] and studied in [14, 32], the work presented in this



Julkistettiin syksyllä 2011
-- ei vielä muita vastaavia

Vaikka ehkä kuulostan kriittiseltä,
oikeasti yliopistot menevät
eteenpäin...

... ja teidän tehtävänne on viedä
niitä eteenpäin!

Kiitos, ja toivotan
menestystä!

 @JKurhila