



digital society



Content

- About me
- Current national curriculum of Estonia
- Future plans
- What University of Tartu is doing?

Tauno Palts

- PhD student in the field of computer science education (computational thinking)
- Expertise at the university in teaching introductory programming courses to students and teachers.
- Has been teaching in Estonia and in England

		University (Masters)	Vocational Higher Education	
		University (Bachelor)	Vocational school	
Age	Class			
18	12	Key stage IV General Secondary school (~150 schools)		Vocational Secondary school
17	11			
16	10			
15	9	Key stage III Key stage II Basic school (~500 schools)		
14	8			
13	7			
12	6			
11	5			
10	4			
9	3			
8	2			
7	1			

Three levels of IT in the curricula



Compulsory:

- Digital competence as a general competence

Elective modules:

- **Grade 4-6 (Key stage II):** Learning with Computer
- **Grade 7-9 (Key stage III):** Information Society Technologies
- **Grade 10-12 (Key stage IV):** Various technical courses
(„Mehhatroonika ja robotika“, „3D-modelleerimine“,
„Joonestamine“, „Arvuti kasutamine uurimistöös“, „Rakenduste
loomise ja programmeerimise alused“)

Practical development

- Cross-curricular theme “Technology & innovation”

Extra curricula school activities

- ProgeTiiger
 - <http://progetiiger.ee/>
- Nutilabor
 - <http://www.nutilabor.ee/nutilabor-ikt-huviringid-noortele/>
- Kodulabor
- Robotex, First Lego League, ...



LEGO MINDSTORMS
education

Future modules

1. Digital security
 1. Digital world
 2. Digital hygiene
 3. Infotechnology
2. Programming and robotics
 1. Code
 2. Programming
 3. Software project
3. Digital media and animation
 1. Digital art
 2. Digital media
 3. Web design & animation

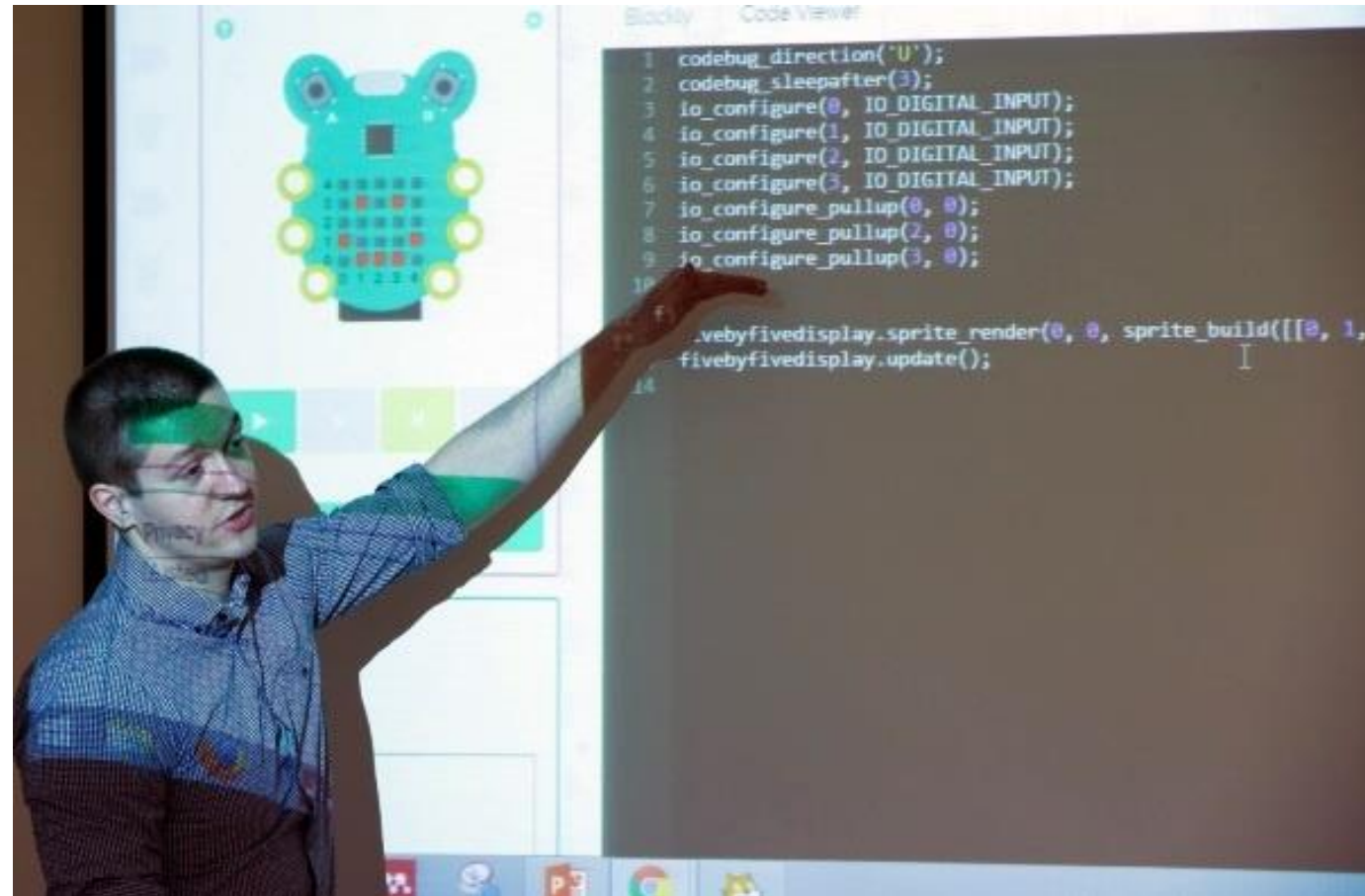


Key stage 1

- Digital world
 - Internet search, file management, health risks, public and private communication, technical problems
- Code
 - Using basic programming principles in a game environment, programs in real life, predicting application's work, creating simple applications using digital or physical tools, testing, downloading code snippets
- Digital art
 - Internet search and referring, printing, using camera, composition, recording and combining picture, sound and video,

School IT activities we are doing right now

- MOOCs
 - About programming (e-course of the year!)
 - Introduction to programming I & II
- E-courses for pupils
 - Game creation in Python
 - Multimedia
- Teaching active teachers
 - Scratch, App Inventor, Python, ...
- Coding materials, camps and workshops
 - Virtual reality / 3D
 - Internet security
 - Python programming
 - Algorithmics
 - Webpages
 - Linux (Raspberry Pi)
 - Arduino
- <http://programmeerimine.ut.ee/>



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