

## CHICAGO PUBLIC SCHOOL EDUCATORS IN FINLAND & ESTONIA / CODING, GAMING & ROBOTICS



**APRIL 8-17, 2022**

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▶ **DEPART CHICAGO O'HARE FOR HELSINKI, FINLAND (VIA REYKJAVIK) / FRIDAY, APRIL 8, 2022**

- Depart Chicago O'Hare International Airport for Reykjavik, Iceland on **Icelandair #852** at 7:30 PM

▶ **ARRIVE HELSINKI ~ GET SETTLED ~ ORIENTATION / SATURDAY, APRIL 9, 2022**

- Arrive Reykjavik at 6:40AM / Depart Reykjavik on **Icelandair #342** at 7:30 AM / Arrive Helsinki at 1:50 PM
- Meet **Maddalena Benedetti**, your guide; transfer to the **GLO Hotel Art**: <https://www.glohotels.fi/en/hotels/glo-art>
- At the hotel, Maddalena briefs us on the weekend touring, and the logistics of the school-week to come.
- Late afternoon & evening at your leisure, then overnight at the GLO Hotel Art

▶ **HELSINKI CITY TOUR / SUNDAY, APRIL 10, 2022**

- Morning **Helsinki city tour** (9:00 AM-12:00 PM). This is a guided excursion by coach throughout Finland's modern capital, to include stops at Uspensky Cathedral, Senate Square, the Sibelius monument, the iconic "Rock Church", and historic Helsinki harbor.
- Afternoon at leisure – or you may opt to visit **Suomenlinna Island** ([www.Suomenlinna.fi/en/](http://www.Suomenlinna.fi/en/)), a sea fortress built on eight islands located just off the harbor. Suomenlinna, a UNESCO World Heritage site, offers guided tours for 11 euros (\$13). Alternatively, you may tour **Porvoo** ([www.VisitPorvoo.fi](http://www.VisitPorvoo.fi)). This beautifully preserved medieval town lies 30 miles east of central Helsinki. It offers a peek into Finnish village life of centuries ago, but with all the modern amenities! Like Suomenlinna, the guided Porvoo tour is to your own account.
- Evening at your leisure, then overnight at the GLO Hotel Art

► **START WITH INNOVATION! ~ KULOSAARI SCHOOL ~ AALTO UNIVERSITY JUNIOR / MONDAY, APRIL 11, 2022**

- Breakfast at the hotel
- **Morning workshop with the Innokas Network, Faculty of Educational Sciences, University of Helsinki (9:00 AM-11:00 AM):** *Presenter #1:* Laura K. Salo, Ph.D. With Dr. Salo, we will explore the uniqueness of the Finnish education system, and the role of the City of Helsinki Education Department in nationwide curriculum reform. Dr. Salo will emphasize early childhood education, primary-level education, special education, and in-service teacher training. *Presenters #2 and #3:* Tiina Korhonen & Kati Sormunen. With Tiina and Kati, we will “Get started with innovation!” We will explore 21st century learning around coding, gaming & robotics (CGR) – the Finnish way! We will look at how the Finns integrate CGR concepts into curriculum – and we will consider the relevance of “design skills”. We will hear about the university’s “3T” technology project, and particularly its relevance to the primary grades.
- Lunch in central Helsinki
- **Afternoon visit #1: Kulosaari School:** Here we will meet the school’s principal, *Lauri Halla*. Mr. Halla will continue shedding light on the basics of Finnish education, with a particular focus on recent reforms that the Finns call phenomenon-based learning (PBL) – an intensively interdisciplinary approach to learning. We will hear Mr. Halla’s views on pedagogical leadership in the context of PBL, and we will shadow classes to interact meaningfully with students and teachers.
- **Afternoon visit #2: Aalto University “Junior” (1:30 PM-3:30 PM):** *Presenter: Veli-Matti Ikavalko, Ph.D.* With Dr. Ikavalko, we will explore AUJ’s range of CGR activities for children and young people. The new Aalto University Junior concept brings together Aalto University’s expertise in science & the arts, entrepreneurship, management, mathematics, and technology while offering related activities to children and young people both at school and on the university’s campus. Aalto University has a long tradition of cooperation with schools to promote coding, gaming, robotics & related STEAM concepts: (<https://translate.google.com/translate?hl=en&sl=fi&u=https://junior.aalto.fi/&prev=search>).
- Return to the hotel / Evening at your leisure / Overnight at the GLO Hotel Art

► **RIIHIMAKI SCHOOLS (ALL DAY) / TUESDAY, APRIL 12, 2022**

- Breakfast at the hotel
- Depart the hotel at 8:45am for Riihimäki, a delightful little town (pop. 29,000) located one hour north of Helsinki.
- **Riihimäki all day!** On our arrival, a trio of stellar local educators will welcome us. Our hosts will be *Esa Santakallio, Superintendent of Schools; Tiina Paukola, Education & Culture department head;* and *Reetta-Liisa Viitanen, robotics teacher*. After our morning meet & greet, we will fan out to visit a comprehensive school (Grades 1-9) and a high school (Grades 10-12).

We will attend robotics classes at these schools, from 10.00 AM until 3:00 PM, with breaks for lunch, snacks, and dialogue. Riihimäki schools have developed an innovative robotics curriculum that is the pride of the nation. The City of Riihimäki has 11 comprehensive schools, for instance – and *all* of them are committed to building out the innovative robotics program. Riihimäki schools began implementing a ‘continuum of model robotics studies’ in 2014, well ahead of others in Finland and internationally. The long-term goal is that students will continue at the secondary and tertiary levels the robotics studies they commenced during ‘basic’ (primary-level) education. Riihimäki schools partner with the Finnish non-profit HundrED in its endeavors; see [www.hundred.org](http://www.hundred.org).

Key points of our day’s observations in Riihimäki:

- The mission of the students we observe is to build and program a robot of their choice from start to finish.
- Teachers lecture on strategy and pedagogical principles, as well as the robot’s design, build, and programming.
- Throughout the day, each observed group will comprise 2 teachers and 3 or more students.

- At the end of today (i.e., between 2:00 PM and 3:00 PM), students will compete in teams, using the robots they've just designed, built, and programmed.
- At 3:00 PM, we will depart for a dialogue with local gamers about the intersection of gaming and academic curriculum – and, crucially, about how gaming is a form of the sacred Finnish concept of *play*.
- From 3:30 PM until 5:00 PM, we will discuss the fascinating development of the Finnish gaming industry (think: Angry Birds), and how gamers assist Finnish schools in building digital learning platforms for the ever-evolving early-childhood, primary, and high school curricula.
- **Return to the hotel / Evening at your leisure / Overnight at Glo Hotel Art**

### ▶ VESALA COMPREHENSIVE SCHOOL ~ FUN ACADEMY ~ OLARI SCHOOL / WEDNESDAY, APRIL 13, 2022

- Breakfast at the hotel, then depart the hotel for Vesala Comprehensive School at 7:30 AM
- **Vesala Comprehensive School** (8:00 AM-10:00 AM). This morning's special visit to Vesala school offers us a window into how a largely homogeneous, but rapidly changing, Finnish society is educating immigrant children in a manner that celebrates diversity and prioritizes equity! Finns find themselves welcoming newcomers from all corners – Afghanistan, Iraq, sub-Saharan Africa. Vesala sits in a 'rainbow-colored' neighborhood of immigrant families. And Vesala's principal, [Juha Juvonen](#), ensures a top-flight education for *all* of his kids.
- **Fun Academy** (10:30 AM-12:30 PM). This place is simply wonderful. Finland prioritizes joy and play as key tenets of a child's education, from the early years through the tertiary level! We will hear our Finnish colleagues reference these concepts over and over during our several days in the country. **Fun Academy**, established by [Sanna Lukander](#) and her team from the University of Helsinki, will share with us how they are 'exporting' these concepts globally, leveraging the world-beating Finnish model. Fun Academy is focused on the early years, and its commitment to promoting 'fun learning' extends to the STEAM curriculum. We will find the presentation of the Young Astronaut curriculum particularly compelling.
- Lunch
- **Olari School** (2:30 PM-4:30 PM). At Olari, principal [Marko Lipponen](#) and his dedicated team of teachers host us for computer programming lessons at the middle and high school level, plus a roundtable dialogue with 7<sup>th</sup> and 9<sup>th</sup> grade student leaders. Additionally, ICT instructor [Rita Järvinen](#) will present on using ICT in mathematics and social studies projects.
- Return to the hotel / Evening at your leisure / Overnight at the GLO Hotel Art

### ▶ JALAVAPUISTO PRIMARY SCHOOL ~ OTANIEMEN LUKIO SCHOOL ~ FERRY TO ESTONIA / THURS., APRIL 14, 2022

- Pack your bags & bring them to breakfast! / Breakfast at the hotel / Depart hotel for Jalavapuiisto School at 8:15 AM
- **Jalavapuiisto Primary School** (9:00 AM-11:00 AM). Jalavapuiisto Primary excels in foreign-language instruction. Here, we will observe an English class and take a look at the school's efforts to encourage student STEAM success. (After all, coding is a language!)
- **Otaniemen Lukio Special High School for Mathematics & Natural Sciences** ([Kaisa Tikka](#), *principal*). This extraordinary school serves as a magnet for *all* science instruction – and Ms. Tikka is more than passionate about what she has built. In the 2 hours we have onsite, we will observe a handful of classes; student leaders will escort us to a variety of class observations. Keep in mind that math, biology, physics, coding, robotics – *all* of these stand-alone courses actually teach to larger phenomenon-based learning (PBL) themes & concepts!
- Lunch.
- Depart for ferry terminal to Tallinn, Estonia at 2:30pm. Arrive at ferry terminal at 3:00 PM and check-in. Depart Helsinki for Tallinn, Estonia at 4:30pm. Arrive in Tallinn, at 6:30PM. *Orientation*: We will take an overview of Tallinn's head-shakingly beautiful Old Town, for about 15 minutes. (*Tallinn Old Town is arguably Europe's best-preserved; it is simply stunning.*) Transfer to the hotel and check in at 7:15PM. Evening at leisure – highly recommend making your way on foot to the Old Town for dinner/entertainment (10 minute walk; activities to your own account).
- Overnight at the **Nordic Hotel Forum** ([www.NordicHotels.eu](http://www.NordicHotels.eu))

▶ **TALLINN SCHOOL #21 ~ TALLINN UNIVERSITY ~ E-ESTONIA / FRIDAY, APRIL 15, 2022**

- Breakfast at the hotel, then depart for Tallinn School #21 at 8:15 AM.
- **Tallinn School #21** (9:00-11:00 am). Estonia, until 1991 a Soviet republic, and colonized for centuries by Denmark, Germany, and other outside powers, is taking full advantage of independence! You may notice a slightly different sensibility here, two hours south of Helsinki – but it’s hard to put your finger on. Estonia honors tradition, but also innovation. This small Baltic nation is IT on steroids; Skype was birthed here, after all! At Tallinn #21, one of this nation’s finest K-12 schools, we’ll meet with *Juta Hirv*, Deputy Principal; we’ll shed a tear observing the primary-grades choir; and we’ll attend the robotics class of the irrepressible Rasmus. “Welcome 6<sup>th</sup> graders!”, he will bellow to us. With Rasmus, we will code our own robot movements; with Rasmus, we’ll meet at the intersection between art and CGR.
- Early lunch at Tallinn #21, then transfer to the Tallinn University campus.
- **Tallinn University’s Center for Educational Technology** (12:30 PM-2:00 PM). Tallinn University performs groundbreaking interdisciplinary research on the practical challenges of digital technologies in educational settings. What’s more, this Center aims to develop entrepreneurial competence by encouraging design thinking in student projects. *Drs. James Sunney Quaicoe and Janika Loeste* host us at their Tallinn U. lab for a hands-on gaming experience; we will observe first-hand gaming’s application to new business development.
- **E-Estonia** (2:30 PM-4:30 PM). Estonia is far & away the world’s most wired, most ‘digital’ society. *Everything* is digitized – voting, citizenship, business startups, residency. We will visit the fascinating E-Estonia space to learn what the Estonian business sector and the Estonian national government do to support *schools* in their efforts to design curricula to ensure student success. We will tour the premises and speak with E-Estonia staff. Reps from Skype and Starship may join us. Both are Estonian companies – Skype speaks for itself; Starship deploys robots to deliver packages and shovel snow!
- Return to the hotel / Explore Old Town Tallinn on foot / Evening at your leisure / Overnight at the Nordic Hotel Forum

▶ **TALLINN, ESTONIA: EUROPE’S MOST DELIGHTFUL OLD TOWN! / SATURDAY, APRIL 16, 2022**

- Breakfast at the hotel
- **Tallinn morning city tour!** This tour features Europe’s best-preserved Old Town, several iconic Soviet-era sites, Tallinn’s singular music festival venue, and Kadriorg palace. Tallinn is a gem of a city; you will love every minute of this morning’s sights & sounds. It is a tour lovingly prepared and delivered by **Erik Aarpuu**, certified national guide and student of Estonia’s centuries of dramatic history. If you prefer, you may register for a day’s tour of **Lahemaa National Park**, located 30 miles east of Tallinn on the Baltic Sea. Here you will enjoy the beauty of the northern Estonia landscape with your guide, **Kadi Kallas**. You will take a ‘bog walk’, and tour two of the park’s most magnificent manor homes – Palmse and Sagadi – for a glimpse of upper-class 18th-century Estonian life. The park is home to an impressive 14 lakes, 8 rivers, and 4 waterfalls. (**Note:** The Tallinn city tour is an included activity; the Lahemaa National Park excursion is to your own account.)
- Return to the hotel / Evening at your leisure / Overnight at the Nordic Hotel Forum

▶ **TALLINN → HELSINKI → REYKJAVIK → WASHINGTON → / SUNDAY, APRIL 17, 2022**

- Early breakfast at the hotel, w/ bags packed
- Depart the hotel at 6:30 AM for ferry terminal / Ferry departs for Helsinki at 7:30 AM
- Arrive in Helsinki at 9:30 AM
- Transfer to Helsinki airport, and check in for flight home
- **Icelandair #343** departs Helsinki for Reykjavik at 3:35 PM; arrive Reykjavik at 4:00 PM
- **Icelandair #853** departs Reykjavik at 4:45 PM; arrive Chicago O’Hare at 6:15 PM