Future Classroom Lab course
Programming for the 21st century classrooms

15-19 October 2018, Future Classroom Lab, Brussels

INTRODUCTION

Programming and computational thinking skills are becoming ever more important in our society and working life. Learning to code develops various skills such as **problem-solving, logical reasoning and creativity**, and can help student motivation in mathematics theory as it encourages them to apply their knowledge. Schools are key players in introducing programming to students in an engaging way, and help defuse negative stereotypes around computer science. During the course teachers will learn about the importance of programming in today's society and education, learn ways to introduce programming in cross-curricular work, discover and test different programming tools, explore ways to motivate and encourage students, and develop a programming lesson plan for their classrooms.

The course objectives are:

- To support teachers who are or will be involved in the teaching of computer science, either as a direct subject or as an element of another subject, with their delivery of computer science theories, concepts, principles and activities
- To provide teachers with concrete ideas and resources in teaching programming
- To provide teachers with an overview of the societal context and rationale for the teaching of programming
- To offer teachers a place of exchange with like-minded peers to exchange resources, ideas and provide guidance to each other

The course is **addressed to secondary school teachers**:

- Computer science teachers who want to get new ideas, tools for teaching their subject
- STEM and other teachers who would like to link to computer science concepts and/or apply programming in their subjects

The participants are expected to have intermediate computer skills, but previous programming experience is not necessary.

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TRAINERS

MARGO TINAWI

Some years ago Canadian Margo Tinawi left her a career as a commercial lawyer to plunge into Europe's start-up IT scene. After completing Le Wagon's programming bootcamp in Brussels, she launched Kidzeum, a gaming app for museums. When she's not busy designing awesome games, Margo enjoys sharing her fascination with IT by teaching web programming at Le Wagon and giving introductory coding workshops to kids and teens at Techies Lab.

DRAFT PROGRAMME

Changes to the programme are possible

Day 1 – Monday	
9:15-9:30	Arrival and registration
9:30	Course introduction • Objectives and programme • Who is who: participants and trainers
10:00 (incl. coffee break)	Future Classroom Lab tour Exploring education technology and flexible learning spaces
12:30	Lunch
13:15 (incl. coffee break)	**Creativity** Visual programming language; Scratch
17:00	End of the day at the lab
17:00-18:30	*Social/cultural activity: Informal networking and Belgium fries*

Day 2– Tuesday	
9:00 (incl. coffee break)	**Problem-solving** Computational thinking Computer science unplugged
12:30	Lunch
13:15 (incl. coffee break)	**Collaboration** Game-based learning eTwinning
16:15	End of the day at the lab
16:30	*Social/cultural activity: Interactive city walk / Treasure Hunt*
19:30	Dinner at the Brussels centre

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Day 3 – Wednesday	
9:00 (incl. coffee break)	Group work: Working on lesson plans & activities of free choice
12:30	Lunch
13:15 (incl. coffee break)	**Programming mind-set and persistence** Robotics
16:15	End of the day at the lab
16:30	*Social/cultural activity: Visiting the Parlamentarium*

Day 4 – Thursday	
9:00	*Free morning*
11:00 (incl. coffee break)	**Programming toolkit 1** Drawing through coding Tinkering Twine: interactive storytelling
13:30	Lunch
14:15 (incl. coffee break)	**Social skills and communication** Coding Jam @ Discode Open Day
18:00	End of the day at the lab

Day 5 – Friday	
9:00 (incl. coffee break)	**Programming toolkit 2** Pocket Code FTP & GifHub
12:30	Lunch
13:15	Conclusions of the week: reflection and feedback Presenting the lesson plans/activity/idea Certificates
15:00	End of the course

Cultural/evening programme

The course participants are invited to take part in the following cultural/evening activities:

- **Monday:** Let's enjoy together an informal drink and original 'Belgium fries' at Place Jourdan www.maisonantoine.be – at the cost of your drink and fries: about 5€
- **Tuesday:** get to know Brussels through our interactive Treasure Hunt. Official course dinner.
- **Wednesday:** Visiting Parlamentarium (European Parliament's visitor centre) (free access)

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Brussels offers also many other options to spend time:

- What to visit/see: http://visitbrussels.be/bitc/BE_en/do-see/to-see/
- Parks and gardens: http://www.brussels.be/artdet.cfm/5443
- Free exhibition on the city of Brussels:
  http://experiencebrussels.biponline.be/en/exhibition
- Free museums/exhibitions: http://www.brusselsmuseums.be/en/faq.php?id=5
- Discover Belgium beers: http://belgium.beertourism.com/belgian-beers
- Discover Belgium chocolate: http://www.visitbelgium.com/?page=chocolate-lovers

Accommodation

The participants who have the hotel booked and organised by EUN

You will stay in **IBIS Brussels City Centre**, rue Joseph Plateau N°2, 1000 BRUSSELS. https://www.accorhotels.com/gb/hotel-1454-ibis-brussels-city-centre/index.shtml
It is individual room, breakfast included. The detailed arrival instructions will be provided closer to course.

The hotel will be booked according to the length of your course:
- 3-day course 14-17 October: check-in 14 October; check-out 17 October.
- 5-day course 14-19 October: check-in 14 October; check-out 19 October.

The participants who take care of their own accommodation arrangements

You can find many options at www.booking.com or www.airbnb.com/s/Brussels--Belgium. The following hotels are some of the options close to the course venue:

- Adagio Access Bruxelles Europe; www.booking.com/hotel/be/adagio-access-bruxelles-europe.en-gb.html
- Hotel Motel One: www.booking.com/hotel/be/motel-one-brussels.en-gb.html
- Hotel Chambord: www.booking.com/hotel/be/chambord.en-gb.html
- Chelton Hotel: www.booking.com/hotel/be/chelton.en-gb.html
- Hotel Le Berger: www.booking.com/hotel/be/le-berger.en-gb.html
- Thon Hotel EU: www.booking.com/hotel/be/thon-eu.en-gb.html

It is advised to avoid areas close to the two train stations Gare du Nord and Gare du Midi, which visitors usually find less pleasant. If you have any questions e.g. regarding the hotel location, public transport connections to the course venue or similar, please let us know.

How to arrive to Brussels (general)

Brussels has two airports: Brussels National airport (Zaventem), about 30 min to the city centre, and Brussels South airport (Charleroi), about 60 min to the city centre. You can arrive conveniently to Brussels also by train from London (Eurostar), Paris, Amsterdam and Cologne (Thalys).

From the Brussels airport (Zaventem) to the city:

- BY TRAIN to the city centre: The train takes you to the main train stations in the Brussels city area: Gare du Nord, Gare Centrale, and Gare du Midi. The ticket costs

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8.5€. The trains go every 15-20 min and leave from the level -1 of the airport terminal: www.brusselsairport.be/en/passngr/to_from_brussels_airport/train/

- BY BUS to Schuman-Luxembourg: From the level 0 of the airport, the buses 12 and 21:
  - **Number 12** (Monday to Friday until 20h) OR
  - **Number 21** (weekends all day and weekdays after 20h)
  - Both buses take you to **Diamant, Schuman and Luxembourg**.
  - The ticket costs 4.5€ from the automat and 6€ from the driver.
  - You find the bus schedules here: http://www.stib.be/horaires-dienstregeling.html?l=en
- BY BUS to Gare du Nord: Take the bus "De Lijn" N° 471 (level 0 of the airport). The bus takes you to the train station Gare du Nord / Brussel-Noord. Timetables: www.delijn.be/en/lijnen/lijn/3/471/1/471_Zaventem_-_Brussel?vertaling=true#2
- The buses leave from "level 0" at the airport terminal.

From the Charleroi airport to the centre:

- Take the Brussels City Shuttle bus which takes you to the Brussels Gare du Midi (main train station). A return ticket costs 28 euros (and a one-way ticket normally 14 euros).
- For the bus schedule, see here: www.charleroi-airport.com/en/passengers/acces-and-parking/brussels-city-shuttle/index.html
- At Gare du Midi you can continue your journey by using different metro lines, buses or pre-metro. See the metro map here: www.brussels.be/dwnld/57065131/Plan%5FM%5F10%2D2015.pdf
- Alternative for the shuttle bus: a private taxi shuttle that takes you directly to the hotel (price about 21€). You need to book this service in advance and directly here: Liedts Riflesso Italiano riflessoitalianoliedts@outlook.com // http://www.riflesso-italiano.be/312681630

Course venue and how to arrive

The courses will be organised in Brussels, at European Schoolnet's Future Classroom Lab.

Address: European Schoolnet, Rue de Trèves 61 – 3rd floor, 1040 Brussels (see the map below) www.europeanschoolnet.org/
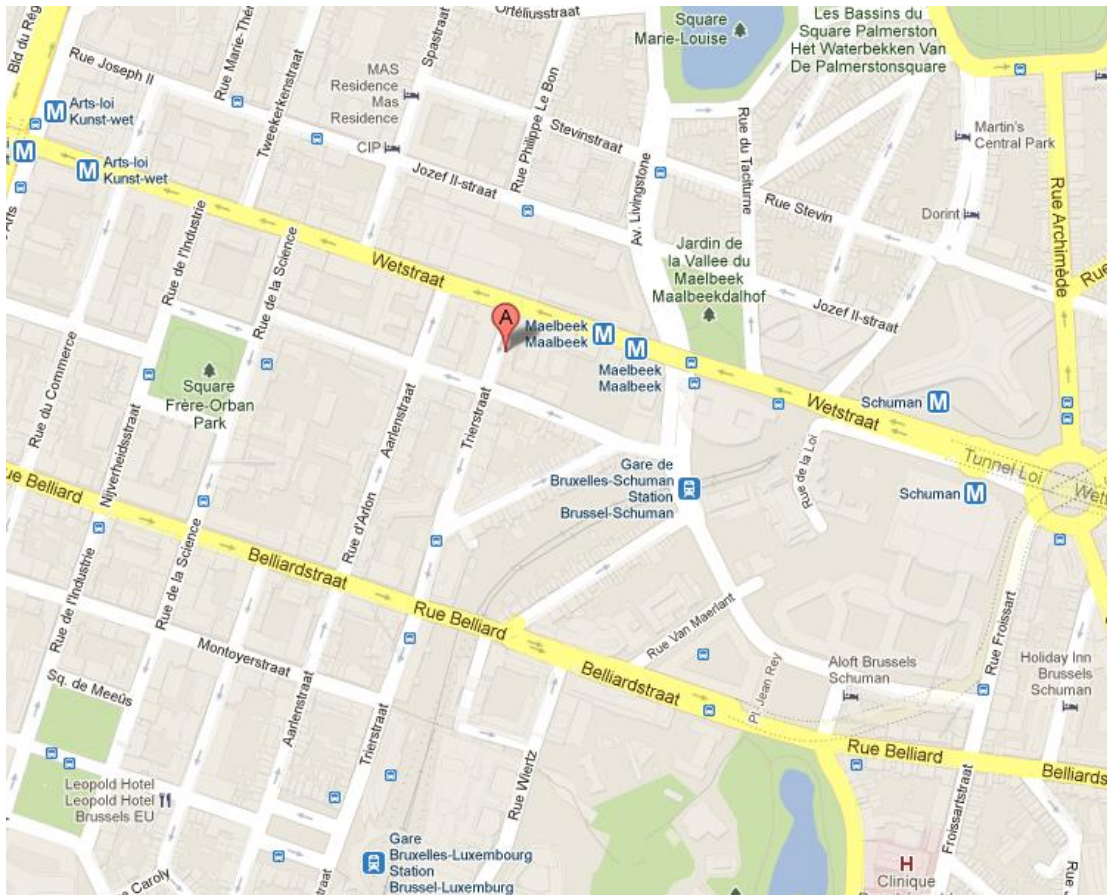
Future Classroom Lab - The Future Classroom Lab is a fully equipped, reconfigurable, teaching and learning space developed by European Schoolnet, its 34 supporting Ministries of Education and leading educational technology providers. Future Classroom Lab helps to visualise how conventional classrooms and other learning spaces can be reorganised to support changing styles of teaching and learning. Read more: http://fcl.eun.org

How to best reach the EUN office and Future Classroom Lab

The office is close to the following places:

- Schuman (buses, metro lines 5 & 1, train, airport bus): 10 min walk

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- Luxembourg (buses, train, airport bus): 10 min walk
- Arts-Loi (metro lines 1, 2, 5, 6): 10 min walk
- Maelbeek metro station (lines 1 and 5): take the exit "Rue de la Loi", 2 min walk
- Thon EU hotel: 1 min walk (across the street)

Be aware of pick-pockets whenever you are in public places, especially when using public transports.

Insurance

Participants are responsible for their own safety and belongings. The registration fee does not cover insurance for the participants. We recommend that participants take out insurance in their home country to cover pre-journey cancellation for personal reasons and necessary insurance to cover accidents, medical expenses and loss of personal belongings during the visit. EU citizens can obtain a free European Health Insurance Card (EHIC).

Cancellation policy

If the participant cancels his or her participation up to 6 weeks before the course begins, there are no cancellation fees. If the participation is cancelled between 6 weeks and 2 weeks before the course starts, 50% of the course fee will be charged. If they cancel any later, there will not be any refund. Substitutions are possible right up to the start of the course.

About European Schoolnet

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European Schoolnet is the network of 34 European Ministries of Education, based in Brussels. As a not-for-profit organisation, we aim to bring innovation in teaching and learning to our key stakeholders: Ministries of Education, schools, teachers, researchers, and industry partners. www.eun.org

Contact

For any questions related to the course please contact Elina Jokisalo, elina.jokisalo@eun.org

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