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United States & Canada

Every year we give grants to increase access to CS education by funding computer science professional development programs for educators.

50,000+ teachers   **50+** countries   **2,000,000+** students

Over 50,000 educators have benefited from training by expert PD providers dedicated to growing the confidence and skillset of new and future CS educators. This is a complete list of grantees from around the world since 2009.

Region	State	Institution	Summary
			2017
US	AR	Arkansas School for Mathematics, Sciences & Arts	ASMSA CS4HS offers educators an opportunity to learn CS before they teach CS through an online course leveraging asynchronous learning modules, ongoing peer mentorship, and face-to-face workshops for select participants.
US	NY	Buffalo State College	The PD workshop centers around two sets of curriculum: Exploring Computer Science for the new teachers and Computer Science Principles for the returning teachers.
US	MN	Code Savvy	The MN Coding in the Classroom Leadership Cohort consists of K-12 educators who meet monthly to learn, develop & share curricular resources that integrate CS into the classroom. Cohort members also create, deliver & share CS professional development.
US	NY	Code/Interactive	Teacher development of formative and summative assessment evaluations and strategies for introductory and culturally-relevant CS curricula (Grades 9-12).
US	GA	Georgia Tech Foundation	Learn to teach the CSP programming unit with EarSketch, a free online learning environment and curriculum that engages diverse populations of students in computer science through music.
US	CA	Harvey Mudd College	AP CSP PD for pre-service teachers completing CS teaching certification, with a focus on culturally-relevant pedagogy and CS educator communities (Grades 9-12).
US	DC	Howard University	Our PD includes a week-long summer workshop, followed by quarterly meetings during each school year. Participants form professional-development learning teams, to provide additional support while implementing the ECS curriculum.
US	IA	Iowa City Community School District	We offer a 4-day summer workshop and 2 fall follow up sessions for middle school teachers to integrate CS in math and science. Activity contexts include unplugged, Python, JavaScript, and Arduino.
US	CA	Krause Center for Innovation, Foothill College	Learn to code and implement coding and computer science lessons successfully in your classroom. No prior coding experience needed. Provide hands-on learning using lessons that have worked in real classrooms. Course designed for teachers by teachers.
US	OR	Lane Education Service District	A 3-day of PD by the Oregon Computer Science Teacher Association, 2 week workshop by higher education faculty on teaching computer science concepts to high school students, participation in an online cohort, and 1-day orientation and 1-day wrap-up.
US	ME	Maine Math and Science Alliance	Focusing on the CS Framework and Seven Big Ideas, the Maine Math and Science Alliance will employ a blended approach of in-person training sessions in 3 rural regions, online learning and video sessions. The program will focus its efforts on engaging teachers in problem solving around real topics, such a increasing the participation of girls in CS and addressing the barriers faced by rural schools.
US	CA	Merced College	Merced College CS Department has been creating pathways with the Merced Union High School District. Professor Kanemoto will lead the PD with the 10 current HS CS teachers and create CS curriculum together enabling HS students to pass the CS AP Exam.

Region	State	Institution	Summary
US	MI	Michigan Technological University	During a 3-day intensive summer workshop, Michigan Technological University will produce sessions for teachers and administrators on computational thinking, the impact of diversity in computer and creative programming activities. Teachers will participate in lectures, hands-on lab activities, discussions and the approach extends outside the sessions; MTU will cover team-based learning through pair programming and Process-Oriented Guided Inquiry Learning (POGIL).
US	GA	Morehouse College	Scale CS PD to increase teacher reach and impact through partnership with PD providers and undergraduate support of CS teachers in the classroom (Grades 9-12).
US	NM	New Mexico State University Foundation, Inc.	The PD will focus on 6 Big Ideas of CS Principles in the development of modules mapped to common core standards. We'll engage non-CS teachers to develop computational thinking (CT) skills by creating course modules that embed principles of CT.
US	MO	Northwest Missouri State University	For teachers with no prior experience, we offer a gentle intro to the 7 Big Ideas of CS; coding; and web, mobile & IoT development. The event features summer workshops, Google Hangouts, school visits, and wraps up with our Computingpalooza Tech Day.
US	NJ	Princeton University	Advanced content knowledge PD for CS teachers and non-co-located COPs (Grades 9-12).
US	IL	Quincy University	We will briefly review the concepts/knowledge, then focus on systematically cover CS concepts further/deeper, such as utilize creativity, data and information, computational thinking, algorithm discover and explore, introduction to programming.
US	CA	Riverside Unified School District	Unique opportunity to receive a supplementary authorization to teach CS in a blended and accelerated learning environment provided in partnership with the University of California, Riverside.
US	NJ	Rutgers University	We will look at the new CSTA 5 – 8 CS Standards and will UNPLUG teachers having them experience CS without computers before we introduce Scratch, Makey-Makeys, Finch, and Arduinos! We will learn CS with Bootstrap and CS concepts with Music and Art!
US	WY	Sweetwater Board of Cooperative Educational Services (BOCES)	The Wyoming CS4HS will include CS PD opportunities with STEM, Geographical Information Systems (GIS) and Computational Thinking workshops. Promote CS: "Do You Want To Think Like A Computer Scientist" events will be held at Wyoming schools.
US	OH	The Ohio State University	Structured, ongoing engagement for middle school pre-service teachers integrating CS into their teaching (Grades 4-9).
US	FL	The School Board of Broward County, Florida	This professional development opportunity will provide teachers with the content and pedagogy knowledge through an online course and in-person community of practice in preparation for the Florida educator certification in K-12 Computer Science.
US	RI	The University of Rhode Island	Building on two previous years of their program, URI's model will focus on pedagogy and classroom management that fosters effective, inclusive, teaching, using an online teaching system and in-person lectures. The participants, from 36 school districts in Rhode Island, will ultimately learn to teach AP CSP.
US	TX	The University of Texas at El Paso	Culturally-relevant and interdisciplinary CS/CT content for middle school educators (Grades 4-9).
US	NY	University at Albany	This project offers PD to high school teachers in the NY Capital District area. It starts with a 3-day summer workshop with ongoing professional development in teaching computational thinking and computer science over the school year of 2017-2018.
CA	Alberta	University of Alberta, Department of Computer Science	Training sessions and collaborative planning sessions will be held throughout the year. We will kick off with a summer academy targeting teachers from grades 4-12.
US	FL	University of South Florida - Sarasota	(1) A 5-day, face-to-face 40-hour workshop (2) Four community meetups; (3) Virtual Community of Practice (VCoP) - to expand participants' understanding of computer science, pedagogical tools, and assessment.
US	HI	University of Hawaii Maui College	Professional development and training for high school teachers from all over the state of Hawaii to learn Computer Science Principles (CSP) and prepare students for computing careers!
US	MD	University of Maryland, Baltimore County	Teachers learn how to incorporate active, inquiry-based learning with an overarching theme of data: the nature and variety of data; algorithmic methods for processing and managing data; and how data can be analyzed, visualized, and interpreted.
US	MA	University of Massachusetts Amherst	PD for high school teachers offering Mobile CSP in 2017-18, including 4-week summer hybrid workshop and year-round PLC. Led by the CAITE at UMass Amherst in partnership with Mobile CSP at Trinity College (supported by the NSF).

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Region	State	Institution	Summary	Region	State	Institution
US	NE	University of Nebraska at Kearney	The CS Principles on the Prairie Phase 2 program at the University of Nebraska at Kearney consists of face-to-face workshops and online coursework and resources to help rural K-12 teachers incorporate computer science ideas into their curriculum.			
US	NE	University of Nebraska Omaha	At four sites throughout rural Nebraska, we will provide an in-person day of computing education and activities, particularly introducing Computational Thinking (CT) Bins, activities designed for students to independently learn CT.			
CA	Saskatchewan	University of Saskatchewan	One-day onsite workshop to bring together Saskatchewan CS teachers from across the province			
CA	Ontario	University of Toronto Mississauga	The High School Teacher Workshop at UTM is an event which brings together UTM faculty, UofT post-doc, U of T graduate students, and Mississauga high school teachers for a day of workshops and discussions related to high school teaching.			
US	WI	University of Wisconsin - La Crosse	6 Days of workshops throughout the 2017-18 academic year focusing on CS content and CS pedagogy applicable to ECS and AP CSP			
US	WV	West Virginia University Institute of Technology	West Virginia CS4HS workshop is in "hybrid format" with three phases. Phase 1 constitutes face-to-face workshops. Phase 2 is an online workshop on fundamentals of Computer Science. Phase 3 is year-round online and onsite support to the participants.			

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2016					
US	AL	University of Alabama	US	NJ	Princeton University
CA	Alberta	University of Alberta	US	NJ	Rutgers University
US	CA	University of California Irvine	US	NJ	Kean University
US	CA	University of San Francisco	US	NM	New Mexico State University Foundation, Inc.
US	CA	University of California Berkeley	US	NY	John Jay College of Criminal Justice
US	CA	California Polytechnic State University - San Luis Obispo	US	NY	Buffalo State College
US	CA	Harvey Mudd College	US	NY	Code/Interactive
US	GA	Georgia Institute of Technology	US	NY	Rensselaer Polytechnic Institute
US	ID	Boise State University	CA	Ontario	University of Toronto Mississauga
US	IL	Quincy University	US	PA	Villanova University
US	IL	University of Illinois at Chicago	US	RI	University of Rhode Island
US	MA	University of Massachusetts Amherst on behalf of Commonwealth Alliance for Information Technology Education	US	SC	The Citadel
US	MI	Michigan Technological University	US	TX	The University of Texas at Austin
US	MO	University of Missouri, College of Education	US	VA	Virginia Commonwealth University
US	NE	University of Nebraska at Kearney	US	WI	University of Wisconsin - La Crosse
US	NE	University of Nebraska at Omaha	US	WI	Marquette University
US	NH	University of New Hampshire	US	WV	West Virginia University Institute of Technology
US	NJ	Fairleigh Dickinson University	US	WY	Western Wyoming Community College

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		2015			
US	AL	University of Alabama	US	NH	University of New Hampshire
US	CA	Alameda County Office of Education	US	NJ	Rutgers University
US	CA	University of San Francisco	US	NM	Santa Fe Institute
US	CO	University of Colorado Foundation	US	NY	Buffalo State College
US	GA	Columbus State University	US	NY	Code/Interactive
US	GA	CSTA Georgia	CA	Ontario	University of Toronto Mississauga
US	IA	University of Northern Iowa	US	PA	The POGIL Project
US	ID	Boise State University	US	RI	University of Rhode Island
US	IN	Indiana University – Purdue University Indianapolis	CA	Saskatchewan	University of Saskatchewan
US	MA	CSTA Greater Boston	US	TX	The University of Texas at Austin
US	MI	Michigan Technological University	US	WA	Columbia Basin College
US	MN	College of St. Scholastica	US	WI	Marquette University
US	MO	University of Missouri, College of Education			
		2014			
US	AL	University of Alabama	US	NJ	Kean University
CA	Alberta	University of Alberta	US	NM	Santa Fe Institute
US	CA	University of California Berkeley	US	WA	University of Washington
US	CA	University of California Los Angeles	US	WV	West Virginia University Institute of Technology
US	CO	University of Colorado, Boulder	LATAM	San Juan	University of Puerto Rico Río Piedras Campus (UPR-RP)
US	IA	University of Northern Iowa	LATAM	Buenos Aires	Universidad Nacional de Córdoba
US	MN	College of St. Scholastica	LATAM	Buenos Aires	University of Buenos Aires
US	MO	Northwest Missouri State University			
US	NJ	Rowan University			
		2013			
US	NY	Adelphi University	US	NY	Buffalo State College
US	NC	Appalachian State University	US	NY	College Board
US	AZ	ASU Foundation on behalf of Arizona State University	US	MN	College of St. Scholastica (online)
US	MN	Bethel University	US	NY	College of Staten City University of New York
US	ID	Boise State University	US	CO	Colorado State University-Global Campus Non-CS teachers (online)

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Region	State	Institution
US	FL	Florida International University
US	DC	Georgetown University
US	MA	Harvard University (online)
US	CA	Harvey Mudd
US	IA	Iowa Western Community College
US	VA	James Madison University
US	NJ	Kean University
US	WI	Marquette University
US	NY	New Visions for Public Schools
US	CA	Crafton Hills College
US	NC	Duke University
US	NJ	Fairfield University
US	FL	Florida Institute of Technology
US	KY	Northern Kentucky University
US	NM	Northern New Mexico College
US	MO	Northwest Missouri State University
US	TX	Northwest Vista College – Alamo Colleges
US	OK	Oklahoma State University Institute of Technology (OSUIT)
US	NJ	Rowan University (online)
US	NJ	Rutgers, The State of NJ
US	NM	Santa Fe Institute
US	MO	Southwest Baptist University
US	NY	St Francis College
US	CA	Stanford University
US	CA	UC Berkeley
US	CA	UCLA
US	AL	University of Alabama
CA	Alberta	University of Alberta
CA	Alberta	University of Calgary
US	MO	University of Central Missouri
US	CO	University of Colorado at Boulder

Region	State	Institution
US	IL	University of Illinois- Urbana
US	KY	University of Kentucky
US	MD	University of Maryland, Baltimore County
US	MA	University of Massachusetts Lowell
US	MI	University of Michigan
US	MO	University of Missouri- Kansas City
US	NE	University of Nebraska at Omaha
CA	New Brunswick	University of New Brunswick
US	NC	University of North Carolina Wilmington (UNCW)
US	IA	University of Northern Iowa
US	CA	University of Southern California
US	WA	University of Washington
CA	Ontario	University of Windsor
US	GA	Valdosta State University
US	VA	Virginia State University
US	VA	Virginia Tech
US	VA	Virginia Western Community College
US	NC	Wake Forest
US	UT	Weber State University
US	WV	West Virginia University Institute of Technology
US	MI	Western Michigan University

Region	State	Institution	Region	State	Institution
		2012			
CA	Alberta	University of Calgary	US	OR	Oregon State University
CA	New Brunswick	University of New Brunswick	US	NY	Rensselaer Polytechnic Institute
CA	Saskatchewan	University of Regina	US	NY	Rochester Institute of Technology
CA	Saskatchewan	University of Saskatchewan	US	NJ	Rowan University
CA	Ontario	University of Windsor	US	NJ	Rutgers University
CA	Alberta	University of Alberta	US	NM	Santa Fe Institute
CA	Ontario	University of Toronto	US	MO	Southwest Baptist University
US	NY	Adelphi University	US	CA	Stanford University
US	NC	Appalachian State University	US	SC	Trident Technical College (SC)
US	ID	Boise State University	US	AL	University of Alabama
US	NY	Buffalo State College/Research Foundation for SUNY	US	CA	University of California Berkeley
US	CA	Cal State Monterey	US	CA	University of California Los Angeles
US	CA	California Polytechnic State University - San Luis Obispo	US	AR	University of Central Arkansas
US	PA	Carnegie Mellon University	US	MO	University of Central Missouri
US	MN	College of St. Scholastica	US	CO	University of Colorado - Boulder
US	CO	Colorado School of Mines	US	IL	University of Illinois (Urbana-Champaign)
US	CA	Crafton Hills College	US	IL	University of Illinois Chicago
US	NC	Duke University	US	KS	University of Kansas
US	NJ	Fairfield University	US	MD	University of Maryland Baltimore County
US	FL	Florida Institute of Technology	US	MA	University of Massachusetts Lowell
US	CA	Harvey Mudd College	US	MI	University of Michigan
US	NJ	Kean University (NJ)	US	NE	University of Nebraska at Omaha
US	PA	Lehigh Carbon Community College	US	IA	University of Northern Iowa
US	WI	Marquette University	US	PA	University of Pennsylvania
US	MA	Massachusetts Institute of Technology	US	TX	University of Texas at Austin
US	IL	McKendree	US	WA	University of Washington
US	NM	Northern New Mexico College	US	GA	Valdosta State University
US	MO	Northwest Missouri State University	US	VA	Virginia Tech
US	OK	Oklahoma State University Institute of Technology	US	NC	Wake Forest University

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____		**2011**			
US	AL	University of Alabama	US	MO	Northwest Missouri State University
US	AR	University of Central Arkansas	US	MO	University of Central Missouri
US	CA	University of California Berkeley	US	NC	Appalachian State University
US	CA	Stanford University	US	NJ	Rowan University
US	CA	California Polytechnic State University - San Luis Obispo	US	NJ	Kean University
US	CA	Harvey Mudd College	US	NM	Santa Fe Institute
US	CA	University of California Los Angeles	US	NY	Rochester Institute of Technology
US	CO	University of Colorado, Boulder	US	OK	Oklahoma State University Institute of Technology
US	IA	University of Northern Iowa	US	OR	Oregon State University
US	ID	Boise State University	US	PA	Carnegie Mellon University
US	IL	University of Illinois, Urbana-Champaign	US	PA	Lehigh Carbon Community College
US	IL	McKendree University	US	PA	University of Pennsylvania
US	IL	University of Illinois at Chicago	US	SC	Trident Technical College
US	IL	Purdue University	US	TX	The University of Texas at Austin
US	MA	University of Massachusetts Lowell	US	VA	Virginia State University
US	MA	Massachusetts Institute of Technology	US	VA	Virginia Tech
US	MD	University of Maryland, Baltimore County	US	WA	University of Washington
US	MI	University of Michigan	US	SC	College of Charleston
US	MN	College of St. Scholastica	US	RI	Brown University
		2010			
US	CA	University of California Berkeley	US	NY	Rochester Institute of Technology
US	CA	University of California Los Angeles	US	OK	Oklahoma State University Institute of Technology
US	CO	University of Colorado, Boulder	US	OR	Oregon State University (via TechStart)
US	IA	University of Northern Iowa	US	PA	Carnegie Mellon University
US	IL	University of Illinois, Urbana-Champaign	US	PA	University of Pennsylvania
US	IL	University of Illinois at Chicago	US	SC	Trident Technical College
US	MA	Massachusetts Institute of Technology	US	TX	The University of Texas at Austin
US	MD	University of Maryland, Baltimore County	US	WA	University of Washington
US	MI	University of Michigan	US	SC	College of Charleston
US	NC	Appalachian State University	US	NJ	Stevens Institute of Technology

Region	State	Institution		Region	State	Institution
		2009				
US	CA	University of California Los Angeles		US	TX	The University of Texas at Austin
US	MA	Massachusetts Institute of Technology		US	WA	University of Washington
US	MI	University of Michigan		US	NY	Columbia University
US	PA	Carnegie Mellon University				

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Region	Country	Institution	Summary
2017			
Africa	Cameroon	GetReady	Our project aims at using CS to upgrade STEM subjects teaching methods and activities in Cameroonian secondary schools, with the goal to make these subjects more understandable and practical for students. Currently, poor methods, practices and even content are the rule, and lead most students to be focused on memorizing what will allow them to have good marks, instead of understanding what they need to acquire real skills. Through our project, students and STEM teachers will learn how they can use CS to improve their way of learning and teaching. A specific CS curriculum will also be provided to students and CS teachers, to train them on computational thinking and basic programming.
Africa	Ghana	Hapa Foundation	In 2016, we worked with 16 mixed sex schools to set up and run coding clubs in these schools. Based on the interest from the Forum of Heads of Girls Senior High Schools (FOHGSHS) to promoting STEM to girls, our goals for 2017 is to focus on 16 girls only senior schools in 4 regions (states) of Ghana. We will be using the Django Girls training curriculum to undertake the training. The program focus is in 3 parts. The first is to train 28 female teachers to develop the technical ability in building Django websites. The teachers will be trainers for Django Girls trainings for their schools ICT club. The second part involves training 80 students of the ICT Clubs to become Django champions, they will provide support for their teachers at the club's training sessions. The third part supports the school curriculum. The ICT syllabus of Ghana (https://goo.gl/ueZZkH) requires teachers to teach Website Design and Programing. These trainings will support the schools meet these requirements.
Africa	Kenya	Laikipia University	FOUR primary focus areas(COMPUTER NETWORKS;WEB PROGRAMMING; DATABASE DESIGN; SYSTEM DEV) one for each session of THREE months from 1st June 2017 to 30th June 2018 as stipulated in the below: Each of the FOUR sessions has a specific focus area tailored to suit the high school computer studies curriculum in Kenya. The focus areas are mainly selected to suit year 3 students in high school who have finalized with introductory content in computer science and are being equipped with relevant computer science content to prepare them for their final year computer science project in year 4
Africa	Senegal	Mobile4Senegal	The proposed program will target students and teachers in high schools in Thies. It will focus on teaching programing through drawing and animations with JavaScript and Processing.js. We chose technologies that are adapted to the context of Senegal: offline use and no need of buying specific hardware. The model is based on: 1) workshops for teachers; 2) workshops for students organized by Mobile4Senegal and teachers; 3) workshops organized by teachers in their respective schools; 4) network of mentors for teachers (1-to-1 mentoring and class observation); 5) production of teaching material (in French and available online); 6) inter-school competition; 7) monitoring and evaluation; 8) dissemination of the results. The education team is composed of: Jean-Marie Preira, professor of Computer Science at ESMT in Dakar, and Christelle Scharff, professor of Computer Science at Pace University in NYC. They are the co-founders of Mobile4Senegal.
Africa	South Africa	Peo Ya Phetogo in partnership with University of the Western Cape and Mozilla Foundation	In 2016 we established tech clubs to educate young girls and teachers on basic web development skills. In 2017, we aim to establish programming modules which these clubs can use to transfer this skill to each cohort that joins and finishes modules in the club. Following each lesson which is conducted in schools and in our university labs, teachers and girls from the school will give feedback on what they learnt from the lessons and how they aim to take that back to their website development project. We aim to use the freely available stacks online for them to see how the programming environment interlinks to give a final website. The test of whether the outcome was attained is to let teachers lead their technology clubs in developing the winning website and database and present their websites at the end of the year. At the end of this each school will have a shared google drive with teaching material, a website and resource portal, a peer learning club where learners graduate from.

Region	Country	Institution	Summary
Africa	Swaziland	Swaziland Foundation for STEM Education	The PD program will focus on introducing and increase Computational Thinking (CT) and Computer Science (CS) capacity and competence among educators in Swaziland and encourage them to integrate CT and CS to their teaching practice. Through this PD project/problem based activities, teachers (with no computer science background) will learn CT (Decomposition, Pattern Recognition, Abstraction, and Algorithm Design) concepts and to implement algorithms (coding) using a graphic base programming languages, The EV3 Education Software. The PD and COP program is a 12 months of intense designing/developing algorithms, programming, sharing and reflection, and application of skills learned, tailored to meet the participants Teachers needs. Program enables participants to experience being both a student and a teacher, developing teachers competence and confidence in CT and CS. This will allow discovery of how CT and CS fits in their classroom activities and subject areas.
Europe	Austria	Graz University of Technology	We will create a MOOC called "Tinkering with mobile hard- and software: Pocket Code meets physical computing". Tinkering with hardware has become a growing trend in schools and among kids. Participants will use our free visual programming App Pocket Code. Pocket Code has extensions for LEGO Mindstorms, littleBits, Raspberry Pi, Arduino, and micro:bit. In the MOOC we show how Pocket Code can be used with these extensions in an engaging and fun way. All sensors, cameras and speech functions of the smartphone can be used in the projects. One section in our MOOC will focus on being creative just with a smartphone and non-electronic tinkering materials. Our key value is the focus on mobility. With Pocket Code you can use a smartphone as a part of your creative work. E.g. mounting your smartphone on a simple robot allows to give it a face, voice, visions, GPS awareness, and much more. You can also attach a creative installation on an outdoor wall because you need no additional power supply.
Europe	Belgium	Hasselt University	We will focus on two areas: (1) physical computing for high schools students 14y - 18y and (2) computational thinking, algorithms and programming for high school students 16y - 18y. These are the same focus areas as in our 2016-2017 CS4HS project. In addition, we will target pupils of the age group 10y - 14y as well, as there is an increased interest in Flanders to teach programming at this age group given the increasing popularity of coding clubs (Coderdojo) and the growing interest in STEM-education that starts at this age level. As teachers for this age group have little to no background in computer science, we will extend our program to also target teachers without any prior programming experience. Through our collaboration with the teacher training departments of several university colleges we want to amplify the impact of our project and aid in the development of computing pathways for the respective age group.
Europe	Cyprus	Ideodromio	The curriculum of Computer Science (CS) in secondary education in Cyprus remains too focused on computer literacy (http://archeia.moec.gov.cy/sm/110/ap_periechomeno.pdf), while the curriculum of primary education has no provision for CS or programming. Our main focus will be on teachers (primary and secondary education) that (a) have a CS-background but little to no experience in teaching, (b) have experience in teaching but little to no experience in programming, (c) pre-service teachers from various non-CS backgrounds with little to no experience in either teaching or programming.
Europe	Czech Republic	Jednota Skolskych informatiku	Our ultimate goal is to introduce CS into general education in Czechia as a rigorous subject aimed at efficient and creative problem solving skills. This project is a part of this effort. One of the preconditions for success is teacher qualification. The most sustainable way to increase it is a cultural shift from the typical "mind your own business" attitude to appreciate the benefits of collaboration, sharing and constructive feedback. Teachers need to step out of their comfort zone and take responsibility for their professional development. We want to stimulate the necessary attitude changes in teachers along with improvements in their knowledge and skills in CS and how to teach it. Our last CS4HS project helped to establish local hubs, where teachers tackle common trouble, share good practice and mutually facilitate further development. We will challenge them to continue to grow by developing, testing, improving, publishing and sharing reusable CS teaching resources.
Europe	France	University of Lille	The main goal of the project is to construct a mooc on computer science for teachers of French high schools who teach to kids aged from 11 to 14. - During this mooc we will provide full lessons for programming with Scratch : both on paper support and videos. We will also test the understanding by puzzles to solve using Scratch. - We also have written a large number of unplug computer sciences activities (around 150 pages). These activities are to be done without computer, but will prepare and reinforce the work done with computer. Moreover with these activities we can do really different activities (eg. algorithm for Delaunay triangulation). All these resources are written to be used in class, but will be firstly be used for teachers to assimilate the notions. All the documents and videos will be publicly released after the mooc.
Europe	Greece	EduACT	In Greece there are more than 100 remote schools either that are far away from educational and support centers (ie the island of Gaydos, the smallest and southeast EU border). Because of the way teachers are transferred in Greek schools, in most cases they do not have sufficient experience to teach computer science subjects or inadequate support from the Ministry or/and training centers. Our intention is to focus on newly-appointed teachers with little to no teaching experience and to strengthen them through an online community of practice with synchronous and asynchronous means of communication and support. The need grows even greater keeping in mind that nearly 60.000 refugees reside in Greece at the moment , with 21.000 of them being children at school age. All teachers appointed at remote schools or working at schools that support hot-spots should be strengthen to teach basic computer science concepts and help all students develop basic 21st century skills.
Europe	Ireland	Dublin City University	The project will focus on developing secondary school teachers' understanding of and ability to use CS concepts by showing them how App Inventor can be used to develop apps and enabling them to develop their own apps based on the examples provided. No prior knowledge is assumed and the focus is on hands-on, practical experience for the teachers to demystify CS. Many secondary school teachers in Ireland are not very comfortable with using technology, even basic technology for educational purposes and it is important to build up their confidence and knowledge in the area. Our current CS4HS project (May 2016 - May 2017) tells us that teachers do enjoy using App Inventor and it does help in their understanding of CS concepts. Our aim is to show them that they can develop their own resources and that App Inventor can be used to develop cross-curricular resources. The aim of this CS4HS application is to build on our current CS4HS project and to scale it up to a wider cohort of teachers.

Region	Country	Institution	Summary
Europe	Italy	University of Milan	We plan to organize a training workshop directed to teachers who have no formal background in computer science and teach STEM disciplines in primary or non CS-vocational secondary schools. The workshop will focus on constructivist teaching strategies to promote informatics as a scientific discipline, to develop computational thinking skills and problem solving competences. The contents and learning strategies will be chosen and developed starting from the successful experiences and know-how of the ALaDDIn lab, who developed a CS teaching methodology called Algomotricity (a name combining algorithm and motoric). Such approach exploits kinesthetic learning activities, having the aim of informally exposing learners to a specific informatic topic, followed by an abstract learning phase devoted to let learners build their mental models of the topic under investigation and a final computer-based phase to close the loop with their previous acquaintance with applications.
Europe	Italy	University of Urbino	The proposal aims at empowering teachers by making them able to use intuitive block-based visual programming tools and unplugged coding activities at school to develop and exploit computational thinking as a transversal skill. Primary focus are "apps" as "practical applications" of coding co-created by teachers and students to stimulate and unleash their creativity in the context of different subject areas. Participants will build an App together with their students as part of their teaching practice during the School year.
Europe	Lithuania	Association Rural Internet Access Points	The introduction of computational thinking in compulsory education requires support measures to prepare teachers. In Lithuania, teaching Computer Science (CS) in a fun, effective and relevant way in schools remains a challenge. Technical difficulties, lack of skills and knowledge to create engaging content, lack of confidence and support are only few reasons to be mentioned. This project 'The Promoters of Computational Thinkers' aims at promoting computer learning based on teaching secondary school CS teachers of opportunities for making mobile apps in a classroom. In recent years' app programming classes for children have gained attention as mobile devices have been actively used by children from a very young age. To offer children making a mobile app for their phone would be seen as an exciting activity. Including mobile apps in a class would be an important element encouraging children to become creators and develop vital problem-solving and critical thinking skills.
Europe	Lithuania	Lithuanian Computer Society	CS (Informatics) facilitates exploration and the creation of knowledge. Exploring CS concepts is important. Our team emphasizes deep understanding of CS concepts and activities based on solving problems (tasks) used at HS lessons. Main focus of the teacher training activities is not CS per se, but on solving tasks. Many CS concepts were selected as basis for CS education at lower secondary school during last school year in Lithuania. Researchers from Vilnius University had developed CS concept based model (CS4HS grant 2016: http://bebras.lt/3s/informatikos-mokymas-mokytojams). For further development, teachers need more diverse activities that can lead students to deeper understanding CS. Based on our long experience at teaching CS in schools, we suggest to develop card-games for HS students to learn CS - discovering ALGORITHMS UNPLUGGED. Each task will be well-prepared: interesting, fun, and matched to one or few CS concepts and computational thinking.
Europe	Poland	Adam Mickiewicz University, Poznan	The primary goal of our project is to prepare supplementary materials for CS teachers of secondary and high schools, helpful in teaching CS. We plan to create an online, open source book, which will be developed later by the teachers. We intend to present teachers with new teaching techniques, according to the Computer Science Unplugged project, developed by CS Education Research Group at the University of Canterbury, NZ. We would like to create the web page which could help teachers to exchange their ideas (e.g. CS Unplugged lesson scenarios).
Europe	Poland	Nicolaus Copernicus University	The main focus of our proposal is on preparation of teachers to become CS teachers, improving their confidence and competence in teaching computer science and to be able to run CS lessons in schools according to the new CS national curriculum. In the syllabus of the course we will follow the preparation standards for CS teachers which consist of four main areas of teachers knowledge and skills: knowledge of content (CS), teaching and learning strategies (pedagogy), learning environments (in schools and virtual), professional knowledge and skills. The course will be primarily focused on hands-on experience of participants what will allow them to elaborate lessons plans for their classrooms and also as samples for other teachers. New (school) CS areas will be also the subject of instruction and participants activities, among them: programming in block-visual languages (Scratch, Blockly) and in textual languages (Python), programming robots, unplugged CS, and computational thinking.
Europe	Romania	Asociatia Tech Lounge	Our program is focused on promoting mobile development in High Schools from Romania, for educational purposes, as well as to promote IT&C as a viable career choice for both genders. Our workshops will be directed at High School girls, who are usually not encouraged to pursue STEM careers. To our workshops we will invite High School teachers to observe and aid our trainers in the teaching process, while also underlining pedagogy methods which are proven effective (including how to overcome unconscious bias). We provide two learning frameworks: one for Computer Science teachers who need this for teaching domain-related knowledge, and one for other types of teachers (STEM and non-STEM) who want to incorporate building an app in their curricula to support their teachings.
Europe	Romania	Asociatia Techsoup Romania	Starting with the new school year in September 2017, Romania will introduce for the first time an introduction to CS ("informatics and digital skills") in the compulsory educational framework for secondary education (11-15 years old students). In most rural, small urban, and underprivileged areas schools, this new subject will be taught by secondary school teachers with little or no prior experience in teaching computer science, or without a computer science background. This teacher's' training need has been addressed publicly by both the Ministry of Education and the Ministry of Communication - without a plan in place how or when to address it. The main focus of this development proposal is to pilot a scalable PD methodology for first-time secondary school CS teachers, using mentoring and peer to peer work with high-school CS teachers. In this pilot, we will work with 20 experienced high-school teachers and 100 first-time secondary school teachers in up to 5 counties/district.

Region	Country	Institution	Summary
Europe	Slovenia	University of Ljubljana	Primary focus is in increasing motivation for programming in secondary school. We will develop list of project topics, teacher's manual and other class-ready resources based on physical computing kits (Raspberry Pi with basic/advanced sensors package). Based on CS competitions data and last years' experiences: - Younger students participate more frequently in CS competitions, and girls/boys ratio is 40:60, while from grade 9 on, participation is decreasing very fast (from 20,000 to 500 students), and girls/boys ratio is 10:90. - Introduction to programming, as we anticipated last year with newly made resources, was more successful with teachers who had more experiences with programming, but even they introduce it in later grades (grade 10, 11). The problem was in "motivation for all" and in the format of CS course: CS is mandatory for all students in grade 9, but elective in higher grades. Teachers were worried if they introduce it in grade 9, fewer students will choose CS later.
Europe	Spain	Universidad de Granada	Our primary focus area will be Computing for life. Quite clearly, vocations in technological degrees are few and dropout rates are high, but computer literacy has become so much an integral part of every work that leaving computer science for computer scientists misses a big opportunity, not only of creating jobs and synergies with other areas, but also of creating role models of people whose primary focus is not computing, but something else: medicine, non-computing engineering, economics or law. Besides, teaching computing to solve real-life tasks makes it a more engaging subject not only for students, but also for teachers who will, through their experience, evolve the material and methods they use for teaching. Computing for life will allow us to engage teachers of non-technical areas (history, life sciences, economics) who will start to use computing for their subjects and, through it, improve their job and students performance and also increase visibility of computing jobs.
Europe	Sweden	Lund University	Swedish industry is facing a growth-hindering shortage of software engineers, while university computer science education has a severe gender imbalance with very few female students. The Swedish government has recently decided to add programming as a mandatory part of the math courses. However, the regular education for math teachers does not include any programming at all. There is thus an urgent need to support the development and implementation of this new curriculum. Hence, this project is focused on these three areas: 1: Developing open source educational resources in programming at high-school level, meeting the needs of math teachers. 2: Supporting recruitment to optional programming courses in at least 5 pioneer high schools, with special focus to recruit female students. 3: Arrange workshops for at least 60 high school pioneer teachers in math and programming where new teaching resources as result of this project are evaluated.
Europe	Switzerland	ETH Zurich	We want to focus on how to teach CS via distributed student-driven learning. The focus is on beginners in lab sessions. For teachers we want to show how to build high-quality learning materials which can be used in conjunction with our lab materials. The aim is to implement a successful student-driven CS teaching environment, where teachers are able to focus on core concepts of CS and not on syntax or language details, as they are mostly covered by the electronic tutorials.
Europe	UK	University of Roehampton	We have two main focuses for our work: Firstly, we teach computational thinking through 3D animation (outlined in our 2014 bid and more recently in the RPi helloworld magazine: goo.gl/SXaG1j). In addition to this, we argue that ideas such as modular and iterative design are easier to teach using 3D animation than computer programming. It is very easy to 'humble' your computer when getting it to do ray tracing, the need for efficiency in programming is far less apparent for the beginner programmer than it is for the 3D digital artist. Secondly, children are vast consumers of 3D content such as films, games and more recently products such as Google cardboard and Google expeditions. In general they have very little understanding of how this media is made or how to make it themselves. We want students to become creators not just consumers of this technology We aim to support teachers in delivering classes on the above and students in accessing these skills independently.
Europe	UK	University of Wolverhampton	This proposal focuses on creating a community of practice for prospective and existing teachers of GCSE and A Level Computer Science in the United Kingdom. Building on the success of our current project we aim to increase the reach and significance of our initial offering through an improved MOOC coupled with targeted one-day workshops in participating schools. The MOOC will be delivered over 8 weeks and will feature content covering the new areas of the GCSE and A level curriculum involving programming. It will be taught using the Java programming language to give students adequate preparation in object oriented programming. Based on feedback from teachers participating in this year's MOOC we will revise and develop new content areas to further support participating teachers. In addition, we propose to carry out ten one-day site visits to participating teachers within their classrooms. These visits will include demonstrations of how Finch Robots could be used to engage learners.
Middle East	Palestine	University College of Applied Sciences	Our project aims to provide secondary teachers with the required programming skills and knowledge to be able to teach the basics of computer programming to secondary students so they can easily adapt to the educational process inside the higher education institutes. After an extensive research, which included the consultancy of higher education institutes and IT companies active in the private sector it was deemed that Python be the programming language of choice. The main factor which shifted our opinion towards choosing Python is the fact that it is widely taught in universities located inside the Palestinian Territories. Python has become an integral part of so many CS programs due to the fact that Python was designed with the newcomer in mind. Moreover, Python's expansive library of open source data analysis tools, web frameworks, and testing instruments make its ecosystem one of the largest out of any programming community.

Region	Country	Institution	Summary
			2016
Africa	Ghana	Center for Social Innovation	The Center for Social Innovation runs the Youth Innovators' Challenge (YIC) program in Ghana. The program trains students from the universities to identify and analyse social challenges and generate solution ideas. In 2016, the YIC is focusing on training 16 Computer Science university student volunteers and 32 Computer Science senior high school teachers in programming using Scratch (https://scratch.mit.edu/). The 'Hour of code' concept will be used in setting up Computer Science Code Clubs in the 16 schools. 400 students will be supported weekly by the university student volunteers and their teachers to learn and use Scratch. Students will be placed in teams of fives and after 6 weeks of tuition, they will design projects over 4 weeks for an inter-school competition. The goal is to support schools to meet the programming requirement set out in elective ICT syllabus of Ghana (https://goo.gl/ueZZkH) that requires teachers to teach a programming language and also develop interest in computer science.
Africa	Kenya	Moringa School	This project aims to train potential CS instructors in computer science. Many people in the tech ecosystem in Sub-Saharan Africa are interested in gaining the skills, but they have to learn to sift through some of the poor methods and practices and identifying reliable tools online. Teachers use outdated teaching methodologies to teach, thus leading to poor results. We will integrate both interested students and teachers into a series of workshops so we can test what works and what doesn't.
Africa	Kenya	Tech Republic Africa	Last year, without any financial support, in only 6 months, through partnerships with educational institutions and technology companies, Tech Republic Africa trained over 200 students in 2 cities. We want to build on this success through the expansion of our flagship CS program - Innovation Camp, to include the professional development of teachers. The 2016 Innovation Camps are 3 - 5 day long technology workshops for teachers and high school students that take place 3 times a year, ran by Tech Republic Africa in partnership technology companies and educational institutions. This program will be used as a platform to build CS skills, showcase the power of technology and demonstrate how teachers and young people can harness it to help put Africa on the global map as a significant contributor to the global economy.
Africa	Malawi	Mzuzu University	Computer Science (CS) teachers in Malawi are faced with challenges of limited resources and many teachers lack up-to-date skills and knowledge to tackle computer programming topics. Computer programming topics have just been introduced in the secondary school curriculum and most teachers have not had any training in how to effectively deliver this new content. The project aims to provide CS teachers in secondary schools with computational thinking skills, programming skills and teaching strategies to make CS exciting for students. The project also aims to provide local curriculum relevant teaching resources and tools to be used by teachers in their CS lessons.
Africa	Saudi Arabia	King Saud University	This event we intend to conduct will be 3 days extensive workshop for high and middle school CS female Teachers. We plan to extend the success of our last year workshop, where we taught 32 high and middle school CS Teachers mobile programming, IoT programming, and 3D printing with a new dimension of E-textiles and Spherical robot programming. Spherical robot programming such as Sphero robot is becoming one of the hot technologies in STEM education, learning to program and control robots with a smartphone or tablet is part of computational thinking that computer science calls for. Also E-textiles are flourishing in health and beauty/fashion industry, and introducing CS teachers to such technology and how to program them for different purposes will help in adding new motivation into CS curriculum. Thus, the funding will be used to help introduce CS female Teachers to the world of Spherical robot programming and E-textiles and its relation to computer science.
Africa	South Africa	Hyperion Development	Hyperion will develop and deliver two 3-6 month long, part-time online courses, under our 'MicroDegree' format and hosted on our existing MOOC platform. The first MicroDegree, titled 'Intro to Computer Science for Teachers', will specifically target any current South African school teacher interested in learning CS and will use Delphi as a key programming language of instruction given extremely high demand for Delphi resources. The second course, titled 'Intro to Computer Science for students', will target age 13-18 high school students interested in learning CS and programming, and will be aimed at both providing support to learners who currently study within the field as well as introduce CS a a field of future study & work to these students. Hyperion will also host any resources directly-relevant to the current schools syllabus on an open website where teachers and students can download materials in a similar manner to the current TechTeachers site.
Europe	Belgium	Ghent University	This project brings us another step closer towards our long term goal: to establish in Flanders a self-sustaining CoP of teachers in computer science education for primary and secondary schools. The project itself revolves around two tracks. In the first track, we build on the experience of the currently running CS4HS'15 project Progra-MEER to make more teachers acquainted with, and enthusiastic about, physical computing. In the second track, we introduce the theory and practice of Algorithms to IT&CS, science and/or math teachers. The project explicitly demands involvement of the teachers to form and maintain the targeted CoP, by jointly developing reusable teaching materials. In the future, we hope to be able to extend the variety of topics. Along the way - and also included in the present proposal - we intend to conduct research on good practices in this area.
Europe	Czech Republic	Jednota Skolskych informatiku	Our project aims to initiate a CS teacher community development inspired by Computing At School (CAS UK). We intend work with a group of excellent teachers and support them in running "local hubs", where teachers in the region meet personally to tackle troubles, share resources and good practice and mutually facilitate further development. The challenge is to make the hubs sustainable. For this reason we provide individualized offers of professional development and other support, but most importantly, we must guide participants in the cultural shift from the typical "mind your own business" attitude to appreciate the benefits of collaboration, sharing and constructive feedback. This local and individual work will be supported by services provided centrally online, so that participant of each hub can tap into the wisdom of the whole community online.
Europe	France	Ecole Normale Superieure de Cachan	The workshop is organized for junior high school teachers, who will be teaching CS for the first time in September 2016. Three days out of five will be dedicated to hands on activities (programming) that can be directly reused in class. Two to more advanced topics, to increase their general background level in CS.

Region	Country	Institution	Summary
Europe	France	Lyon University	The French middle school program is changing this year and mathematic teachers will have to teach for the first time computer science in September 2016. We plan to organize a 3-day workshop in june 2016 to train local teachers the basics of computer science and give them open source teaching material to start with. We will keep in touch with them during the whole scholar year (from sept 2016 to june 2017) through a CoP but also by visiting them and their students in class. Pedagogical content will include CS Unplugged [1] (according to the new program) for sharing general computer science knowledge and basics, Scratch programming [2] for introducing elementary notions of algorithm and programming, and robotic activities (with Scratch + Thymio robots [3]) for making an explicit link with practical applications of programming. The consortium of tutors is built with researchers and academic professors having a high experience in scientific dissemination, and hence very familiar with these contents. [1] http://csunplugged.org/ [2] https://scratch.mit.edu/ [3] https://www.thymio.org/en:thymio
Europe	Germany	Friedrich-Alexander Universitat Erlangen-Nurnberg	Agile practices foster students' and teachers' enthusiasm for computer science in high schools. They enable students to self-organize their projects, promote students' enhancement of social and professional skills and support teachers in their work. These and similar observations and results from pilot teaching are promising across a huge variety of project contexts. However, for historical reasons the majority of German in-service teachers – even if they are aware of agile methods as an alternative to the waterfall model - are not prepared to use them. Hence our current effort in this research driven project is to spread the innovative classroom practice by qualifying master teachers who will subsequently train in-service CS teachers in various German states. To create sustainability, we will encourage and support teachers to build communities of agile enthusiasts who share their experiences, exchange materials and perform classroom research.
Europe	Germany	RWTH Aachen University	The overall goal of this year's project is to complement the domain specific knowledge acquired in the Arduino-MOOC (see CS4HS 2015) with didactic competences to teach microcontroller programming in high schools. The MOOCs further education which is running since August 2015 is to be expanded by one day presence seminars. Five of these workshops are planned at various locations in Germany (Aachen, Berlin, Munich, ...). During these workshops active teachers will acquire the competences to deal with the challenges while teaching computing concepts with Arduinos in schools and learn about novel concepts of how to integrate these units into computer science school classes.
Europe	Germany	University of Bonn	"Teachers' Circle of Computer Science (TiCCS) In this project, we establish a community practice of CS teachers in the region of Bonn (Germany, North-Rhine-Westphalia). Therefore the university of Bonn with its CS education working area, a teacher training college of Bonn with its CS department (as part of post-academic teacher education), and BWINF (national CS competition for secondary school students) are cooperating. In this first step, we will provide about 10 workshops to discuss and exchange ideas and teaching materials and concepts that may improve and innovate CS in secondary schools. Furthermore, we will support teachers in polishing and publishing best-practice material on a collaboration platform, which can be accessed by teachers from other regions as well."
Europe	Greece	Technical University of Crete	We propose the implementation of a 7-month online course for Greek Computer Science teachers. We will initially develop educational resources that are centered around meaningful, self-contained programming projects in Python. Participants, working together in regional groups, will then (a) use these resources to familiarize themselves with the Python programming language, (b) apply these resources in their own classes or in coding clubs employing pedagogically sound learning scenarios and (c) critically evaluate these resources and develop their own, based on the experience they acquire while applying them.
Europe	Ireland	Dublin City University	The School of Computing at Dublin City University (DCU) has run the ComputeTY programme for Transition Year (TY) students (15 – 17 years of age) for over 10 years and it has been very successful. One of the most popular modules is the AppInventor module which involves the students developing their own apps using AppInventor. This project will involve the shrink-wrapping of the AppInventor module so that it can be delivered on-site in both primary and secondary schools all over Ireland without the need for the students to travel to DCU. The project also involves developing a mini-MOOC in order to train the teachers to be able to deliver the course themselves and workshops to enhance the participants' Community of Practice (CoP). The Professional Development Service for Teachers (PDST) will be involved in the design and will be a key player in the dissemination of the course amongst teachers.
Europe	Ireland	National University of Ireland, Maynooth	With last years grant from Google we provided onsite training to help secondary school teachers teach Python programming and computational thinking. This proposal will develop a purpose built, free, virtual learning system, that is accessible to teachers 24/7 who cannot attend training days. The system will allow teachers to learn the concepts they will be teaching in a non-threatening, self-paced environment, supported by custom-made learning videos, lesson plans, exercises, samples answers, and on-demand help. The system will have a well publicized and supported community of practice. This shared collaborative environment will enable the project to grow and evolve driven by its primary stakeholders.
Europe	Ireland & NI	Trinity College Dublin & Queens University Belfast	The CTWINS ('Computational Thinking Wins' or 'Coding Twins') project aims to develop confidence in post-primary educators in their use of computational thinking to solve problems, with a focus on competence in computer programming and designing spreadsheets. The project will begin with a face-to-face launch workshop to join a new cross-border online community of practice. Then over ten weeks, participants develop solutions in remote pairs, seeking expertise from the online community. Results will be shared at a face-to-face exhibition event for the whole community. The project will be evaluated for its effect on building the confidence in participating educators, indicated by their willingness to consider more challenging courses in computational thinking and self-directed learning.
Europe	Lithuania	Vilnius University	The project focuses on collaboration and networking among CS high school teachers and researchers. A CS activities-based model involves: (1) Development of a set of the CS concepts for HS supported by exercises for students and explanatory material for teachers; (2) A national-wide brainstorming workshop on CS concepts mapping and creating resources; (3) Regional and national CS teachers training workshops based on constructionist learning approach; (4) Presentation and discussion of the developed model internationally; (5) The final project showcase organized together with an annual Bebras contest activity-based conference.
Europe	Poland	Foundation Centre for Citizenship Education	The Code with Class 2016 project will be built upon the resources and experience we have gathered in its 2015 edition, which has been on of the triggers of a recent inclusion of programming in the official school curriculum in Poland. The main goal of the project is to equip high school teachers with knowledge, resources and equipment necessary to run a local IT/programming interest club or course. This year we aim to create a starter pack for teachers interested in combining experience of programming in Python language, playing Minecraft and setting up a RaspberryPi microcomputer.

Region	Country	Institution	Summary
Europe	Poland	Nicolaus Copernicus University	We plan to develop scalable resources for CS teacher (in K-12) preparation and for their classroom activities with students. Resources for teachers preparation will be organized as an online courses (free and open to everyone). Classroom resources will be delivered as a repository, sorted according to topics, school level, tools etc. We plan also to organize several 2-3 day PD workshops for CS teachers in various parts of Poland, at least one in each of the 16 regions.
Europe	Slovenia	University of Ljubljana	The goal is to establish an active and sustainable CS teacher CoP, and provide it with the necessary material and tools. For this we envision three steps: 1. An aggregation of already existing systems in Slovenia into a single environment/portal (on-line textbook, http://lusy.fri.uni-lj.si/ucbenik/; environment for learning programming, https://www.projekt-tomo.si/; and existing teacher community environment, http://sio.si/). 2. Preparing an initial set of in-class material for teachers with emphasize on programming and algorithms (teachers reported the lack of knowledge particularly in this area). 3. Executing a hands-on workshop for CS master teachers, followed by local workshops for all CS teachers and monthly meet-ups. To foster the sustainability, an active participation in the developed environment is an important part of a project.
Europe	Switzerland	ETH Zurich	The international contest BEAVER became very popular, about 1300000 pupils are taking annually part, about 250000 in German speaking countries. This activity support very nicely the development of computational thinking. We aim to use this grant to organize workshops for local teachers in order to train them to use our teaching sequences to work with their classes.
Europe	UK	University College London	We propose a project to develop software 'Push Interactive Programming' (PIP)(primary) and Push Python Programming(PYP)(secondary) and related material. The software will enable pupils to use their computational thinking skills to solve problems and create designs and patterns, using push button interactive programming in UPL or Python 3 bypassing the difficulties associated with a text-based programming environment. Essentially, it enables pupils to construct, see the results of and correct interactively one program instruction at a time, including repetition and function/procedure statements, without changing screens or 'running' the program. This project is associated with an existing Google Award CS4HS 2015 for an online Course for Teachers involved in the transition from Primary to Secondary, block-based to text-based programming and will enable students to undertake successfully more than half the course using PIP or PYP.
Europe	UK	University of Kent	This is a continuation of last year's project: we have built a growing international online community of programming teachers (the Greenroom). The community currently has 3,900 members. We intend to continue and expand this work: We will continue to adapt and improve the software (among other things to manage the growing membership); we will create incentives for participation; we will create an provide some teaching content for teachers (for direct use, and as samples of good resources to be emulated with teacher-created resources); we will instigate and moderate discussion.
Europe	UK	University of Wolverhampton	A collaborative MOOC, which could serve as CPD for teachers and a classroom resource for students enrolled in the new GCSE and A Level courses. The MOOC will include four areas: an introduction to programming, advanced programming, mathematics for computer science and physical computing.
Middle East	Lebanon	Lebanese American University	This initiative includes a number of hands-on technical training workshops that target high school computer teachers to introduce them to problem solving and programming skills so they can be ready to introduce coding to the curriculum. This will generate a huge impact in Lebanon to help the youth in gaining the needed skills that contribute their economic and social growth
Middle East	Turkey	Bogazici University	This study is in three folds, one is to design and develop e-training materials for teachers to learn Scratch, App Inventor and Canva. The second is four days professional development workshops, held face-to-face. The third is to constitute and monitor a community of practice environment supported by e-training materials and by the experts for teachers all year round.

2015

Region	Country	Institution	Summary
Africa	Ghana	Kwame Nkrumah University of Science and Technology	Computer Science Education {CSE} is neglected in the Ghanaian Schools' curricula, our current CS4HS project has revealed that teachers are willing to include CSE lesson modules in schools via active extra curricula activities. Preliminary courses and Continuous Professional Development in CS is a critical requirement in executing CSE plan in Ghana;The CS Department of Kwame Nkrumah University of Science and Technology {KNUST} has agreed to develop a tailor-made MOOC to equip and up-skill teachers nationwide to use a start-up learning kit on "Introduction to CS in Ghanaian schools and/or classrooms". Furtherance to this the CS department of KNUST would host a 2-tier 2-day residential hands-on workshop exposing the teachers to the modules, rationale, and objectives of CSE Program in Ghana for 1000 teachers across the 10 regions of Ghana with 10 teachers per region.
Africa	Kenya	Kabarak University	.
Africa	Nigeria	Nigerian Turkish Nile University, Abuja	This project is geared towards empowering local Computer Science teachers in Secondary Schools and Universities to be able to teach CS in a way that's fun, engaging and motivating to students. The trained teachers will then be assisted in organizing a Train-The-Students (TTS) event on their various campuses. This will encourage the students to pursue future careers in CS and STEM related fields as well as motivate them to become lifelong learners.
Africa	Saudi Arabia	King Saud University	This event we intend to conduct will be 3 days extensive workshop for high school female Teachers. We plan to extend the success of our last year workshop, where we taught 50 high school students Android programming, Littlebits and robots programming, with a new dimension of 3D printing. 3D printing is becoming one of the hot technologies in STEM education, learning to design and think in 3D is part of computational thinking that computer science calls for. Thus, the funding will be used to help high school female Teachers implement mobile apps and introduce it in their classrooms as well as introduce them to the world of 3D Printing and its relation to computer science.
Africa	Saudi Arabia	Prince Sultan University	Game Development using Snap to Empower Saudi young women Effective Searching and fun Programming with Alice

Region	Country	Institution	Summary
Africa	South Africa	University of South Africa	Inspired towards Science, Engineering and Technology (I-SET) is a community engagement project that strives to create awareness of Science, Engineering and Technology through the fun activities of robotics. An important aspect of robotics is the programming of autonomous robots. However, the knowledge of space and the universe are important and relevant to all learners in the 21st century. The aim of the workshop(s) will be to introduce the high school learners and their educators to the logic of programming and the skill of problem solving (through the FUN activities of robotics), within the setting of a robotic Mars exploration – which provides the incidental learning context. To encourage engagement and build community, the workshop participants will also be introduced to the I-SET Kidz website (ongoing support) and also to a Google hangout (collaboration). The material will be made available on the I-SET website as OERs. We herewith apply to the CS4HS grant program to increase awareness of computer programing and programming skills to rural schools in Swaziland (piloted in South Africa).
Africa	Uganda	Bugema University	The CS4HS workshop will target science teachers from schools within the central region districts of Luwero, Mukono, Wakiso and Nakasongola. The teachers will come up with a lesson plan/outline on how they will use computer science to teach science subjects in their schools. This will enhance the involvement of teachers in practical teaching of computer science lessons
Africa	Uganda	University of Science and Technology	2015 CS4HS at Mbarara University of Science and Technology will introduce a blend of hands on training on Google technologies, Scratch Programming and peer mentored learning to teams of teachers and students from secondary schools from western and south western regions of Uganda. Through this, students and teacher teams will appreciate peer centred learning and a variety of computational thinking and better problem solving skills.
Europe	Austria	Graz University of Technology	With the free visual programming language Pocket Code and the corresponding Android app, basic and advanced programming concepts will be practically explored during the 4-6 week course. Through Pocket Code, it is possible to look at different pedagogical approaches such as mobile and collaborative learning. With additional didactic and educational content provided by our team, teachers can use these skills in line with their curricula in classrooms. Our MOOC is aimed at computer science and non-computer science teachers as well as their students. The modular structure of the course meets the specific requirements of the different target groups.
Europe	Belgium	Computer Science and IT in Education ASBL	The goal of the project is to design, build and hold a workshop targeted to teachers from 1st and 2nd secondary school grades whose goal is to show them what kind of courses and activities they could do in their schools to promote computer science. The activities will be based on Scratch and similar tools, and will be centered on programming and algorithm design.
Europe	Belgium	University of Leuven	In this project, we want to establish a basis of expertise in physical computing for computer science education in Flemish high schools (from K7 to K12). Therefore, we will organise a training program for CS and STEM teachers. During this training, the teachers can refresh their knowledge of CS, learn about novel approaches to CS teaching, and acquire hands-on experience with robots and other programmable electronics. The training will explicitly aim at implementation, as part of the training, at actual application of the lessons learned in schools with high school students by the participants.
Europe	Cyprus	The Ioannis & Iro Gregoriou Foundation	The proposed project will introduce the use of robotic platforms to elementary and high-school students for the purpose of learning programming principles. It also aims at introducing robotics to all teachers in various subjects such as Physics, Mathematics and Engineering and collaborating with them on how they can enhance their lessons through the use of robotics. The Lego EV3 robotic platform will be employed for this purpose.
Europe	Czech Republic	Charles University in Prague	There is virtually no computer science in Czech general education. We want to change this and encourage and support potential CS teachers by creating an online course, which will help them overcome the key obstacles they face. It will show them what computing is and how it is relevant for everyone, provide them with quality ready-to-use resources in Czech and guide them through their first practical experiments with CS in their classroom. The plan is that it will be a success and therefore they will continue and develop further. This development will be stimulated by the network of teachers forged during the course.
Europe	Germany	RWTH Aachen University	The overall goal is to provide an opportunity for children at the age of 14 to 18 years to gain first insights into the world of computer science (CS) even if they do not have CS lessons at school. Therefore, we want to support middle and high school teachers in teaching first aspects of CS especially regarding coding with the help of Arduinos. Our way to do this is a three step teacher training with a blended learning approach utilizing massive open online courses (MOOCs).
Europe	Germany	Universität Stuttgart	With our activities we intend to draw interest of young high school students for CS. Therefore, we follow two strategies: On the one hand, we address the students directly via talks at schools, workshops (both, at the university as well as schools), or other activities (e.g., the Computer Science Day or the Girls' Day). On the other hand, we attend to the continuing education of teachers in CS by providing teacher workshops and teaching materials – the impact factor of well trained teachers is invaluable since they can use the knowledge in their CS courses. Since in Germany it is pretty hard to achieve an approval as a provider for further training programs for teachers, we are very proud that our workshops are classified as official advanced training courses thanks to our close collaboration with Mr. Makowsky and the Regierungspräsidium (regional school authority in Baden-Württemberg).
Europe	Greece	Hellenic Open University	This project is about acquainting high school teachers with the Arduino electronic/programming platform in order to develop a set of open and remotely accessed laboratory experiments aiming to attract the interest of young people in applied computer science. Remote tuition will be performed by means of an e-learning portal and teleconferencing platform. After completion of the course (comprising 5 e-lectures, presentations and access to documentation, datasheets and sample projects) the participating teachers will be required to submit a lesson plan structured around the available platform and finally one member of the instructor's team will visit each school to assist the proposing teachers to setup the equipment and organize a hand's on training workshop for local school students. A contest will be organized and a prize will be awarded to the most tangible teacher's project that will be proposed and demonstrated, while an indicative set of the proposed experiments will be made available on-line providing open access for experimentation and demonstration using DSMC's remotely accessible laboratory facilities (either setup at local sites or hosted at HOU's Digital Systems and Media Computing Laboratory premises).

Region	Country	Institution	Summary
Europe	Ireland	National University of Ireland, Maynooth	The name of this project is PACT which stands for Programming & Algorithms = Computational Thinking. The project was begun by the Department of Computer Science, Maynooth University, in May 2013. We initially invited teachers from local schools to attend a two-day workshop and provided them with a course structure in Python. Our findings were recently featured in the Irish media here: http://www.irishtimes.com/news/education/ireland-needs-to-switch-on-or-be-left-behind-in-computer-science-1.2067421
Europe	Italy	University of Catania	The project will design and run a face-to-face workshop (based on 6 hands-on meetings of 4 hours each) for up to 40 Science, Technology, Engineering and Math teachers (STEM) secondary school teachers in the area of Catania. The project aims at creating a local community-of-practice (CoP) organized around the idea of using mobile computing in their educational practices, by introducing the CoP to the Mobile Computer Science Principles (Mobile CSP) course and by providing the opportunity to explore together how to incorporate Mobile CSP activities and materials into existing STEM curriculum, including computer science education. The project will involve experts from academia with a research background in innovative approaches in computing education and educational technology, and facilitators coming from the high school teachers milieux and from non-profit organizations devoted to informal science and technology education.
Europe	Italy	University of Urbino	The initiative is a MOOC (http://codeweek.it/mooc/) which introduces the main concepts of computer programming, computational thinking, and mobile app development, leveraging online interactive resources (Code.org, AppInventor) while producing original video tutorials streamed live on Hangout and made available on YouTube for reuse. The MOOC entails: the introductory course of Code.org, a brainstorming session to come out with an idea for a new mobile app for schools, live coding sessions leading to the implementation of the Android app, and a final hackathon for schools. Video tutorials are used by school teachers either directly in the classroom, or to prepare their own lessons. Italian universities will recognize 1 university credit to students who enroll having a certificate of completion of the MOOC endorsed by their school teachers.
Europe	Poland	Foundation Centre for Citizenship Education	The Code with Class nation-wide project will prepare 72 high-school teachers to run programming classes in Python language. The project is based on resources developed in 2014 during its first edition (12 trainers, 17 open-source lesson scenarios). In 2015 we will introduce new materials (e.g. module based on an open-source programming Robot Game), further develop the trainers' skills and engage new teachers. Main activities: 1 train-the-trainers, 6 workshops for teachers, classes for students.
Europe	Slovenia	University of Ljubljana	Our goal is to develop a set of hands-on tinkering projects for high schools in cooperation with high school students (to match their interests) and teachers (to match their typical expertise and typical school resources). The three example projects described below will motivate participants to learn some basic programming, as well as the use of microcontrollers, sensors and I/O devices and simple networking protocols. Besides this direct impact, we expect to extend the workshops to the nation-wide level; we will establish a permanent hacker-scout-like club for students and teachers and publish open source instructions for classroom use.
Europe	Sweden	Luleå University of Technology	The goal of this project is to create online resources targeted to the Swedish school system for attracting more females to computer science around the concepts of Maker Culture. This will be achieved via workshops to gather the specific needs and via the creation of a number of exercises clearly connected to the Swedish learning goals as set by the government.
Europe	UK	Queen Mary University of London	This project will support and extend the Queen Mary University of London 'Computer Science for Fun' programme. We will develop a fun 'cs4fn' puzzle book that supports the development of computational thinking and learning of school computing syllabus topics. It will use a mixture of new puzzle formats based on coding and/or algorithmic thinking, and on traditional puzzles. We will create portals on our websites to complement this distributing online versions of the puzzles and computing explanations open to all, with linked classroom activity sheets for teachers. We will distribute physical copies of the booklet to our cs4fn school subscribers across the UK and online via cs4fn and Teaching London Computing (TLC). Both have global reach.
Europe	UK	University College London	Learning and Teaching Algorithms and Programming: A Scaffolded Approach. This is an online Course for Teachers in how to scaffold a course in Algorithms and Programming for pupils from (KS2-KS3 (8yrs -13yrs)). The Course, developed from a CAS/UCL training Course for level 1 CAS Master Teachers, assumes no prior knowledge of the subject (for teachers and pupils), takes a project-based approach and uses an 'Unplugged' Programming Language (UPL) with 3 basic instructions common to UPL, Scratch and Python to introduce the control structures of sequence, repetition and functions. UPL provides the scaffolding to Scratch, which in turn acts as a pseudo-code scaffold to Python. Computational Thinking, the underpinning for the Course, is developed by exploiting, and encouraging teachers to adopt, largely constructionist approaches to teaching and learning in Computer Science, and leads to a final project to create unique coloured patterns.
Europe	UK	University of Glasgow	The Professional Learning and Networking in Computing (PLAN C) project, funded by Scottish Government, has trained 50 lead teachers who have in turn formed and led 26 teacher professional learning communities all over Scotland, involving up to 300 teachers out of the 650 Secondary CS teachers in Scotland. The original materials, used in the training sessions and then in the learning communities, draw on best practice and research. Given the success of the project in supporting changes in teacher practice and pupil outcomes, we aim in this project to prepare the materials for an international audience, by providing a contextual framework and extending the number and range of examples provided with each teaching technique, along with advice and feedback from classroom teachers who have used the materials with pupils.
Europe	UK	University of Kent	The Greenroom is a community website for teachers using the Greenfoot system. The website exists (it has been developed with the help of two previous CS4HS grants), but to remain successful it needs ongoing maintenance, curation, and further development. This project would improve the website functionality, create and solicit additional and updated content, carry out user support and maintenance, curate existing and new content, and promote the site to new teachers.
Europe	UK	University of Roehampton	This project will crowdsource an Creative Commons textbook for the new English Computer Science A-Level, helping schools make the choice to run the course from September 2015. It will use the well established and proven wikibooks (https://en.wikibooks.org/wiki/Main_Page) online collaboration platform to create an open source book that can be updated and adapted by teachers and students, as well as printed. The topics covered by this wikibook will have significant overlap with other computer science courses and the material can be used to support their teaching as well as providing foundational material to build books covering other qualifications from the UK and beyond.

Region	Country	Institution	Summary
Middle East	Armenia	Ayb Educational Foundation / Ayb School	Recently the "Ayb" Educational Foundation has initiated a "National Education Excellence Program" approved by the Ministry of Education and Science of Armenia with the collaboration of the University of Cambridge and London Institute of Education. The program aims to create an educational platform that will support Armenian teachers with a set of educational tools and curricula developed and studied at Ayb Learning Hub for the past several years. One of the main challenges of the program is the development of CS/CT centered interdisciplinary curricula that can be successfully applied by teachers of various non CS subjects. Conducting efficient teacher training sessions will be crucial for success. We seek both financial support and professional advice for the development of our program.

2014

Region	Country	Institution	Summary
Africa	Cameroon	University of Buea	Teacher training workshop.
Africa	Ethiopia	Hawassa University	2 guidebooks for students and organise workshops including a special workshop for female students.
Africa	Ghana	Ashesi University College	Workshop and and field trips.
Africa	Ghana	Kwame Nkrumah University of Science and Technology	CS teacher training workshop
Africa	Kenya	Maseno University	A 3 day workshop, presentations from IT leaders on the value of a computer science degree, Saturday CS sessions and a 2-day closing hack-a-thon.
Africa	Nigeria	American University of Nigeria	Training workshops on the SCRATCH Programming Environment (scrach.mit.edu) and a Technology Fair
Africa	Saudi Arabia	Saudi Computer Society/ King Saud University	This two week workshop summer camp for 50 female Saudi students.
Africa	USA/Africa	Boston College	Mentorship, hands-on activities, presentations and discussions.
Europe	Czech Republic	Charles University in Prague	An online CS textbook
Europe	Finland	University of Jyväskylä	The five-day Game Programming Summer Camp.
Europe	Germany	Universität Stuttgart	Teacher training workshop with hands-on labs, a Computer Science Day, Girl's Day and School visits
Europe	Germany	University of Potsdam	Provided an exemplary open source physical computing kit called "My Interactive Garden".
Europe	Greece	Hellenic Open University	A combination of "resource development" using Course Builder and "training workshops" to train high school teachers to use Scratch.
Europe	Ireland	Trinity College Dublin	Three teacher development workshops, four programming workshops at the Science Gallery for students from all-girl schools, using SCRATCH and school visits.
Europe	Romania	Spiru Haret University	This project aims to offer 2 types of courses for students and teachers.
Europe	Romania	University Politehnica of Bucharest	A series of workshops will empower teachers to use Python.
Europe	Spain	Granada	A workshop for girls, tutorship via an online system that uses Moodle or Google Course Builder and a roundtable on career options.
Europe	Spain	Universitat Politecnica de Catalunya-BarcelonaTech	A 2 day 'Exploring informatics' Teacher Workshop, an Informatics Contest and an informatics online course.
Europe	Sweden	Luleå University of Technology	8 interactive workshops, several discussion meetings will be held with key decision makers on how to further introduce Computer Science to the K12 schools and an open seminar to hold a debate about the importance of Computer Science in schools.
Europe	UK	Durham University	To facilitate a new third year module "Computer Science Into Schools" which places computer science students into local schools and provides "fun" hardware.
Europe	UK	Glyndwr University	A pan-Wales project running workshops simultaneously in: Wrexham, Bangor, Swansea and Cardiff.

Region	Country	Institution	Summary
Europe	UK	Queen Mary University of London	Computer Science For Fun (cs4fn) produces a magazine and curriculum-linked fun, classroom-ready activities and will run a programme of workshops.
Europe	UK	University of Roehampton	To deliver a single semester computing course, a website on 3D modelling and animation and free educational resources.
Middle East	Cyprus	European University Cyprus	A Training of Trainers course using the Lego NXT robotic platform and the Moodle e-learning platform.
Middle East	Israel	Technion	A collaborative educational site (a structured-wiki platform) will be developed for the Israeli Educational System.
Middle East	Russia	Innopolis University	Training for fifty teachers and a repository of successfully deployed STEM Robotics modules

2013

Region	Country	Institution	Summary
Africa	Congo	University of Lubumbashi	2 day workshop to CS teachers on new educational technologies and ICT tools to aid programming and 1 day workshop to 300 female students to introduce them to creative design activities and CS as a career option.
Africa	Gambia	University of The Gambia	A workshop to enhance and improve the knowledge content and the pedagogy of IT instructors in secondary schools in the Gambia.
Africa	Kenya	Kabarak University	Introduce mobile programming techniques and web technologies.
Africa	Kenya	Strathmore University	Workshop on SCRATCH, Google tools and Khan Academy tools
Africa	Nigeria	African University of Science and Technology	Introduce students to Python and Scratch.
Africa	Nigeria	Obafemi Awolowo University	12 day intensive mobile apps programming course
Africa	Nigeria	Osun State University	5 day Training/Workshop on Web Applications Development, e-Administration and eLearning Management System for CS teachers
Africa	South Africa	University of South Africa	Robotics Programming workshop
Africa	Uganda	Busitema University	Three day computer teacher's workshop with industry professionals in attendance
Africa	Uganda	Gulu University	An online platform and training in using HTML5 and CSS3.
Europe	Denmark	Aarhus University	Teacher-training workshops exploring pedagogical content knowledge (PCK) and didactical principles (DP).
Europe	Germany	University of Potsdam	Workshop promoting project based learning and programming
Europe	Germany	University of Stuttgart	Teacher CS workshops, school visits and a Computer Science Day event at the university
Europe	Greece	University of Ioannina	Workshop on "Educational Robotics Academy: Lego Mindstorm NXT" and "Android App Inventor Brings Computational Thinking to K-12"
Europe	Greece	University of Piraeus	Workshop on how make students authors of their own games.
Europe	Ireland	Trinity College Dublin	Social outreach programme, a nationwide schools transformation programme, research and CS programming workshops
Europe	Italy	University of Torino	Workshop on Open data.
Europe	Poland	Nicolaus Copernicus University	A workshop, the Polish Bebras website (an e-learning platform), competitions and e-learning courses on CS and CT topics.
Europe	Poland	Poznan University of Technology	Workshops, free online tools and tutorials for selected programming environments.
Europe	Romania	PU Bucharest	Python for Teachers' Workshop and Robotics for Teachers and Students' Workshop
Europe	Spain	Polytechnic University of Catalonia (UPC)	Teacher, robotics and programming CS4HS workshops

Region	Country	Institution	Summary
Europe	Switzerland	EPFL	Workshops, programming and create interest in Cs as a career choice.
Europe	UK	Queen Mary University of London	Computer Science For Fun (cs4fn) activity and live events
Europe	UK	Teesside University	Workshop and give teachers access to key presentations from national figures in Computer Science for Schools and crucial knowledge about the UK GCSE Controlled Assessment Task.
Europe	UK	University of Kent	Teacher workshops and an online tutorial video series.
Europe	UK	University of Manchester	Tutorials on Raspberry Pi workshops
Europe	UK	University of Warwick	Supported MOOC course and CS4HS workshop
Europe	UK	University of Worcester	Computer programming and creative programming workshops
Middle East	Egypt	German University in Cairo	CSunplugged activities
Middle East	Lebanon	Lebanese American University	Workshop on computational thinking and programming languages and hands-on tutorials on programming.
Middle East	Lebanon	University of Balamand	Workshop on Computational Mathematics
Middle East	Turkey	Bogazici University	Project increasing teachers' awareness on computer programming and computer games.
Middle East	Turkey	Ozyegin University	Game Programming Workshop
Middle East	United Arab Emirates	Abu Dhabi University	Workshop and a competition for all school teams to showcase and demo their SCRATCH creations.

2012

Region	Country	Institution	Summary
Africa	Cameroon	University of Yaounde	InfoEcole
Africa	Ethiopia	Hawassa University	Hawassa University CS4HS Workshop
Africa	Ghana	University of Ghana	University of Ghana CS4HS Workshop
Africa	Kenya	Africa Nazarene University	Jambo-CS4HS Workshop
Africa	Kenya	Jomo Kenyatta University	JKUAT's Computer Science Outreach Workshop for High Schools in Kenya
Africa	Kenya	St Pauls University	Teaching Computing Technologies to Transform Society [3TCS]
Africa	Kenya	Strathmore University	Strathmore University Rural Teachers' Workshop
Africa	Morocco	ENST Morocco	Computer Science Training Workshop for Physics, and Mathematics high school teachers in Tangier, Morocco (CSTWPM)
Africa	Nigeria	African University of Science and Technology	Building up Digital Aspirants Project
Africa	Nigeria	Benson Idahosa University	Nigerian Secondary School Computation Skill - Teachers Upgrade Workshop
Africa	Nigeria	Covenant University	Computer Science Inspire Programme for Secondary Schools (CSIP4SS), 2012
Africa	Nigeria	University of Ibadan	Google CS4HS Training Computer Science Trainers for Secondary Schools
Africa	Saudi Arabia	King Saud University	AlBiruni
Africa	Senegal	Ecole Superiere Multinationale des Telecommunications, Senegal	Python Goes To School

Region	Country	Institution	Summary
Africa	Tanzania	University of Dodoma	UDOM CS4HS 2012
Africa	Uganda	Gulu University	Gulu University CS4HS Training Workshop for Northern Uganda Region
Africa	Uganda	Makerere University	Makerere University CS4HS Workshop
Africa	Uganda	Mbara University of Science and Technology	Mbarara University CS4HS Workshop: Empowering Secondary School Teachers to encourage students to embrace Computer Studies
Africa	Uganda	Uganda Christian University	Use of ICT to Enhance Learning of Science Subjects including Computer Science in High School Workshop
Europe	Denmark	Aarhus University	CreateIT - 3 workshops on the new computing subject in Danish high-schools
Europe	France	Grenoble INP-Ensimag University	Workshops on Android Programming with AppInventor
Europe	Germany	RWTH Aachen University	CS4HS Workshop: Innovative approaches to teach CS
Europe	Germany	University of Munster	CS4HS - IfA (Informatics for all - Informatik für alle) - 3 + 1 day workshop
Europe	Germany	University of Stuttgart	All Roads Lead to an Android App! A set of events and activities as part of CS4HS activities at the Universität Stuttgart
Europe	Greece	TEI of Crete	TEI of Crete CS4HS Workshop
Europe	Hungary	Eötvös Loránd University	Eotvos Lorand University CS4HS Workshop
Europe	Ireland	Institute of Art, Design and Technology, Dun Laoghaire	CS4HS Workshop
Europe	Ireland	Trinity College Dublin	Trinity College CS4HS Workshop
Europe	Italy	Sapienza University of Rome	Sapienza University of Rome CS4HS Workshop
Europe	Italy	University of Torino	University of Torino CS4HS Workshop
Europe	Lithuania	Vilnius University	CS4HS Bebras Workshop
Europe	Netherlands	TU Delft	Delft University for Teachers Workshops
Europe	Poland	Poznan University of Technology	Poznan University of Technology CS4HS Workshop
Europe	Poland	University of Warsaw	University of Warsaw CS4HS Workshop
Europe	Romania	Politehnica University of Timisoara	University of Timisoara CS4HS Workshop
Europe	Romania	PU Bucharest	University Politehnica Bucharest CS4HS Workshop
Europe	Romania	PU Bucharest	University Politehnica Bucharest CS4HS Workshop
Europe	Spain	Polytechnic University of Catalonia (UPC)	Explorant la Informàtica (Exploring Informatics)
Europe	Switzerland	EPFL	Building and Programming a Robot in Classroom
Europe	Switzerland	ETH Zurich	Swiss Day of Computer Science Education (German acronym: STIU)
Europe	UK	Anglia Ruskin University	Python School Advanced Workshops
Europe	UK	Queen Mary University of London	Computer Science For Fun (cs4fn)
Europe	UK	University of Kent	Greenfoot Workshop and Support
Europe	UK	University of Worcester	Computational Thinking: Support for KS4 Learners and Teachers

Region	Country	Institution	Summary
Middle East	Egypt	Arab Academy for Science and Technology	Illuminating the Computer Science World
Middle East	Israel	Technion	Technion CS4HS Workshop
Middle East	Jordan	Jordan University of Science and Tech	JUST CS4HS Workshop
Middle East	Lebanon	American University of Beirut	CS Blossoms
Middle East	Turkey	Bogazici University	CS4HS @ Bogazici
Middle East	Turkey	Ozyegin University	RoboKamp 2012

2011

Region	Country	Institution	Summary
Africa	Kenya	Strathmore University	Strathmore University Nairobi CS4HS Workshop
Africa	Morocco	Ecole Superieure des Nouvelles Technologies Morocco	Computer Science workshops in partnership with Google
Europe	Czech Republic	Czech Technical University	Czech Technical University CS4HS Workshop
Europe	Germany	RWTH Aachen University	Bright Brains in Computer Science
Europe	Germany	TU Munich	Research workshop
Europe	Germany	University of Osnabrueck	University of Osnabrueck CS4HS Workshop
Europe	Germany	University of Stuttgart	CS4HS program
Europe	Ireland	Trinity College Dublin	Trinity College CS4HS Workshop
Europe	Ireland	University College Dublin	Computer Science Summer School
Europe	Italy	Sapienza University of Rome	Sapienza University of Rome CS4HS Workshop
Europe	Italy	University of Milan	Kangaroo
Europe	Poland	University of Warsaw	University of Warsaw CS4HS Workshop
Europe	Spain	Polytechnic University of Catalonia (UPC)	CS4HS at FIB
Europe	Spain	Universidad Rey Juan Carlos Calle Tulipan	FesTICva
Europe	Switzerland	EPFL	Google CS4HS Program
Europe	UK	Queen Mary University of London	Computer Science For Fun (cs4fn)
Europe	UK	University of Kent	Greenfoot Workshop and Support
Europe	UK	University of Manchester	Animation 10
Middle East	Israel	IDC Herzliya	IDC Herzliya CS4HS Workshop

Region	Country	Institution	Summary
Middle East	Lebanon	University of Balamand	Computer Science Experience & Contest for High School Students 2011
Middle East	Saudi Arabia	King Saud University	CS4HS@KSU in Saudi Arabia

		2010	

Region	Country	Institution	Summary
Africa	South Africa	University of Cape Town	Project Umonya
Africa	Uganda	Makerere University	Grassroot approach to improve the quality of applicants of computing programs at Makerere University
Europe	Germany	RWTH Aachen University	Bright Brains in Computer Science
Europe	Germany	University of Stuttgart	CS4HS-UniS2010
Europe	Ireland	Trinity College Dublin	Computer programming outreach workshops for students and teachers - using the B2C model
Europe	Ireland	University College Dublin	UCD Computer Science Summer School - incorporating ICSP and CSiC
Europe	Italy	Bertinoro International Center for Informatics	Bertinoro International Center for Informatics CS4HS Workshop
Europe	Norway	Oslo University	ENTER UiO (ENTER University of Oslo)
Europe	Poland	University of Warsaw	Mastering programming skills - workshops for teachers
Europe	Switzerland	EPFL	Increasing the interest of young girls for ICT and engineering fields "Building and programming robots"
Europe	Switzerland	ETH Zurich	ABZ Ausbildung- und Beratungszentrum fuer Informatikunterricht
Europe	UK	Queen Mary University of London	Computer Science For Fun (cs4fn)
Europe	UK	University of Manchester	The UK Schools Computer Animation Competition
Middle East	Israel	Technion	High School Computer Science Female Students' Visits in Google: Impressions, Conceptions and Influences

		2009	

Region	Country	Institution	Summary
Europe	Germany	University of Bremen	FRESH-ROBOTS
Europe	Germany	University of Stuttgart	CS4HS-UniS2009
Europe	Ireland	Trinity College Dublin	TCD SCSS Student Recruitment
Europe	Ireland	University College Dublin	Computer Science in the Classroom (CSiC) and Introduction to Computer Science & Programming (ICSP)
Europe	Norway	Oslo University	TENK
Europe	Switzerland	EPFL	Assembling and programming Robots
Europe	UK	Heriot-Watt University	Look to the Future: A one day conference for Scottish computing educators
Europe	UK	Queen Mary University of London	Expanding the Google-cs4fn partnership

Region	Country	Institution	Summary
Europe	UK	University of Edinburgh	CS4U - nano to terra
Europe	UK	University of Glasgow	CS Inside
Europe	UK	University of Manchester	UK Schools Computer Animation Competition 2010
Middle East	Israel	Technion	High School Female Students Visits in Google: Impressions, Conceptions and Influences
Middle East	Israel	Tel Aviv University	CSU/0א : Computer Science Unplugged: Hebrew Translation, New Materials Development, and Deployment in the Israeli High School System
Middle East	Russia	Novosibirsk State University	Increase the supply of CS students by improving high school teaching of IT

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50,000+ teachers **50+** countries **2,000,000+** students

Over 50,000 educators have benefited from training by expert PD providers dedicated to growing the confidence and skillset of new and future CS educators. This is a complete list of grantees from around the world since 2009.

Country	State	Institution
2017		
New Zealand		Auckland University of Technology
Australia	NSW	Australian Catholic University
Australia	QLD	Bentley Park College
Australia	NSW	Catholic Schools Office, Lismore
Australia	QLD	Coding and Innovation Hub
Australia	VIC	Design & Technology Teachers' Association
Australia	QLD	Griffith University
Australia	NSW	ICTENSW
Australia	VIC	John Monash Science School
Australia	NSW	Macquarie University
New Zealand		NZACDITT
Australia	SA	Pedare Christian College
Australia	NSW	Regional Development Australia Hunter (RDA Hunter)
Australia	NSW	Southern Cross University
Australia	NSW	St Bernard's Primary Bateman's Bay
Australia	NSW	St Columba Anglican School
Australia	TAS	Tasmanian Society for Information Technology in Education
Australia	SA	The University of Adelaide
New Zealand		The University of Canterbury
New Zealand		The University of Canterbury
Australia	VIC	The University of Melbourne
Australia	VIC	The University of Melbourne
Australia	NSW	The University of Newcastle
Australia	NSW	The University of Sydney (MadMaker)
Australia	WA	The University of Western Australia
Australia	VIC	Victoria University (Melbourne)
New Zealand		Victoria University of Wellington

Country	State	Institution
		2016
Australia	NSW	Australian Catholic University
Australia	NSW	Australian Council for Educational Research
Australia	NSW	Code Club Australia
Australia	QLD	Coding and Innovation Hub
New Zealand		CORE Education Ltd (CORE)
Australia	VIC	Digital Learning and Teaching Victoria
Australia	SA	Grant High School
Australia	NSW	ICT Educators NSW
Australia	ACT	Information Technology Educators ACT
Australia	QLD	QSITE
Australia	QLD	Queensland University of Technology
Australia	NSW	Southern Cross University
Australia	NSW	St Columba Anglican School
Australia	VIC	Swinburne University of Technology
Australia	TAS	Tasmanian Catholic Education Office
Australia	QLD	Tech Girls Movement
Australia	SA	The University of Adelaide
New Zealand		The University of Canterbury (Primary)
New Zealand		The University of Canterbury (Secondary)
Australia	VIC	The University of Melbourne
Australia	NSW	The University of Newcastle
Australia	QLD	The University of Queensland
Australia	NSW	The University of Sydney
Australia	TAS	The University of Tasmania
Australia	WA	The University of Western Australia
New Zealand		Victoria University of Wellington
Australia	VIC	Victoria University
		2015
Australia	NSW	Australian Catholic University
Australia	NSW	Code Club Australia
Australia	QLD	CQUniversity
Australia	QLD	Griffith University
Australia	NSW	ICTENSW
Australia	ACT	Information Technology Educators ACT
Australia	VIC	La Trobe University
Australia	NSW	Macquarie University - FIRST
Australia	NSW	Macquarie University
Australia	SA	Mark Oliphant College
Australia	QLD	QSITE
Australia	QLD	Queensland University of Technology
New Zealand		Robotics Education NZ Trust (RENZ)
Australia	NSW	St Columba Anglican School

Country	State	Institution
Australia	VIC	Swinburne University of Technology
Australia	TAS	Tasmanian Catholic Education Office
Australia	SA	The University of Adelaide
Australia	VIC	The University of Melbourne
Australia	NSW	The University of Newcastle
Australia	QLD	The University of Queensland
Australia	WA	The University of Western Australia
New Zealand		Unitec Institute of Technology
New Zealand		University of Canterbury
Australia	NSW	University of New South Wales
Australia	TAS	University of Tasmania
New Zealand		Victoria University of Wellington
Australia	NSW	Australian Council for Educational Research

2014

Country	State	Institution
Australia	TAS	Independent Schools Tasmania
Australia	ACT	Information Technology Educators ACT
Australia	VIC	University of Melbourne
Australia	NSW	Macquarie University
Australia	NSW	UNSW
Australia	NSW	University of Newcastle
Australia	SA	University of Adelaide
Australia	SA	Mark Oliphant College
Australia	QLD	Griffith University
Australia	NSW	University of Sydney
Australia	NSW	Macquarie University (FIRST)
Australia	WA	University of Western Australia
Australia	VIC	La Trobe University
New Zealand		Unitec Institute of Technology
Australia	QLD	University of QLD
Australia	QLD	Queensland Society for Information Technology Educators
Australia	QLD	Queensland University of Technology
New Zealand		Victoria University of Wellington
New Zealand		University of Canterbury
Australia	TAS	University of Tasmania

2013

Country	State	Institution
Australia	VIC	Deakin University
Australia	QLD	Griffith University
Australia	NSW	Macquarie University
Australia	NSW	Macquarie University
Australia	VIC	Swinburne University of Technology
Australia	SA	The University of Adelaide
Australia	ACT	The University of Canberra

Country	State	Institution
New Zealand		The University of Canterbury
Australia	VIC	The University of Melbourne
Australia	NSW	The University of New South Wales
Australia	NSW	The University of Newcastle
Australia	QLD	The University of Queensland
Australia	NSW	The University of Sydney
Australia	TAS	The University of Tasmania
Australia	WA	The University of Western Australia
New Zealand		Unitec
New Zealand		Victoria University of Wellington

2012

Country	State	Institution
New Zealand		Victoria University of Wellington
New Zealand		The University of Canterbury
Australia	NSW	The University of New South Wales
Australia	VIC	The University of Melbourne
Australia	QLD	The University of Queensland
Australia	SA	The University of Adelaide
Australia	NSW	The University of Sydney
Australia	NSW	Macquarie University
Australia	ACT	The University of Canberra

2011

Country	State	Institution
Australia	SA	The University of Adelaide
New Zealand		The University of Canterbury
Australia	VIC	The University of Melbourne
Australia	NSW	The University of New South Wales
Australia	QLD	The University of Queensland
Australia	NSW	The University of Sydney
New Zealand		Victoria University of Wellington

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Every year we give grants to increase access to CS education by funding computer science professional development programs for educators.

50,000+ teachers   **50+** countries   **2,000,000+** students

Over 50,000 educators have benefited from training by expert PD providers dedicated to growing the confidence and skillset of new and future CS educators. This is a complete list of grantees from around the world since 2009.

2017	
Lanzhou University	Blockly Master training workshop
Lanzhou University	Blockly teacher training workshop
Central China Normal University	Digital technology teacher training workshop
Dalian Neusoft University of Information	App Inventor teacher training workshop
No.3 Middle School of Kunming	App Inventor teacher training workshop
Gansu Institute for Educational Research	Digital technology teacher training workshop
Wuhu Institute of Technology	Digital technology teacher training workshop
The No. 3 Senior High School of Shenzhen	App Inventor teacher training workshop
Hebei North University	App Inventor teacher training workshop
Zhejiang University City College	App Inventor teacher training workshop
South China University of Technology	App Inventor teacher training workshop
Nanjing Normal University Taizhou College	App Inventor teacher training workshop
Beijing Normal University, Zhuhai	Digital technology teacher training workshop
Tianjin University	Blockly teacher training workshop
Xiamen University	App Inventor teacher training workshop
Shanghai Normal University	App Inventor teacher training workshop
The Fortieth Middle School of Shenyang City	App Inventor teacher training workshop
Suzhou Vocational University	App Inventor teacher training workshop
Hunan Normal University	App Inventor teacher training workshop

Institution	Summary
Liaoning Jianzhu Vocational University	Digital technology teacher training workshop
South China University of Technology	App Inventor teacher training workshop
Xi'an Jiaotong University	App Inventor teacher training workshop
Xiamen University	Blockly teacher training workshop
Chuzhou University	App Inventor teacher training workshop
Beijing Union University	Digital technology teacher training workshop
Beijing Institute of Education	App Inventor teacher training workshop
Xinjiang Agricultural Vocational Technical College	App Inventor teacher training workshop

2016

Institution	Summary
Beijing Normal University, Zhuhai	App Inventor teacher training workshop
Gansu Institute for Educational Research	App Inventor teacher training workshop
Hunan Normal University	App Inventor teacher training workshop
Lanzhou University	App Inventor teacher training workshop
Beijing Normal University	App Inventor teacher training workshop
Shanghai World Foreign Language Middle School	App Inventor teacher training workshop
City University of Hong Kong	App Inventor teacher training workshop
Hebei North University	App Inventor teacher training workshop
Nanjing Normal University Taizhou College	App Inventor teacher training workshop
Tianjin University	App Inventor teacher training workshop
Ningxia University	App Inventor teacher training workshop
No.3 Middle School of Kunming	App Inventor teacher training workshop
Shanghai Educational Center of Science & Art	App Inventor teacher training workshop
Shanghai Normal University	App Inventor teacher training workshop
Xinjiang Agricultural Vocational Technical College	App Inventor teacher training workshop
Zhejiang University City College	App Inventor teacher training workshop
South China University of Technology	App Inventor Master training workshop
South China University of Technology	App Inventor teacher training workshop
The No. 3 Senior High School of Shenzhen	App Inventor teacher training workshop
Wenzhou Vocational College of Science and Technology	App Inventor teacher training workshop

Institution	Summary
Wuhu Institute of Technology	App Inventor teacher training workshop
Xi'an Jiaotong University	App Inventor teacher training workshop
Xiamen University	App Inventor teacher training workshop
Zhejiang University of Media and Communications	App Inventor teacher training workshop

2015

Institution	Summary
Beijing Normal University	App Inventor teacher training workshop
Hangzhou Youth & Children's Center	App Inventor teacher training workshop
Hebei North University	App Inventor teacher training workshop
Hunan Normal University	App Inventor teacher training workshop
Jiangxi Normal University	App Inventor teacher training workshop
Lanzhou University	App Inventor teacher training workshop
Nanjing Normal University Taizhou College	App Inventor teacher training workshop
Ningxia University	App Inventor teacher training workshop
No.3 Middle School of Kunming	App Inventor teacher training workshop
Shanghai Educational Center of Science & Art	App Inventor teacher training workshop
Shenzhen Institute of Information Technology	App Inventor teacher training workshop
Sichuan Normal University	App Inventor teacher training workshop
South China University of Technology	App Inventor Master training workshop
South China University of Technology	App Inventor teacher training workshop
The Hong Kong Polytechnic University	App Inventor teacher training workshop
Tianjin University	App Inventor teacher training workshop
Wenzhou Vocational College of Science and Technology	App Inventor teacher training workshop
Wuhu Institute of Technology	App Inventor teacher training workshop
Xi'an Jiaotong University	App Inventor teacher training workshop
Xiamen University	App Inventor teacher training workshop
Zhejiang University City College	App Inventor teacher training workshop

2014

Institution	Summary
Beijing Normal University	App Inventor teacher training workshop
East China Normal University	Information Technology teacher training workshop

Institution	Summary
Gansu Radio & TV University	App Inventor teacher training workshop
Guangdong Open University	Information Technology teacher training workshop
Hangzhou Dianzi University	App Inventor teacher training workshop
Hebei North University	App Inventor teacher training workshop
Hunan Normal University	App Inventor teacher training workshop
Jiangxi Normal University	Information Technology teacher training workshop
Lanzhou University	App Inventor teacher training workshop
Ningxia University	Information Technology teacher training workshop
Shenzhen Institute of Information Technology	App Inventor teacher training workshop
Sichuan Normal University	Information Technology teacher training workshop
South China University of Technology	App Inventor teacher training workshop
Tianjin University	App Inventor teacher training workshop
Wuhu Institute of Technology	App Inventor teacher training workshop
Xi'an Jiaotong University	Information Technology teacher training workshop
Xiamen University	App Inventor teacher training workshop
Xidian University	App Inventor teacher training workshop
Xinjiang Agricultural Vocational Technical College	App Inventor teacher training workshop

2013

Institution	Summary
Beijing Normal University	Information Technology teacher training workshop
East China Normal University	Information Technology teacher training workshop
Fudan University	Information Technology teacher training workshop
Gansu Radio & TV University	Information Technology teacher training workshop
Guangdong Open University	Information Technology teacher training workshop
Hangzhou Dianzi University	Information Technology teacher training workshop
Hebei North University	Information Technology teacher training workshop
Hunan Normal University	Information Technology teacher training workshop
Jiangxi Normal University	Information Technology teacher training workshop
Lanzhou University	Information Technology teacher training workshop
Ningxia University	Information Technology teacher training workshop
Northwest Normal University	Information Technology teacher training workshop

Institution	Summary
Renmin University of China	Information Technology teacher training workshop
Shanghai Jiao Tong University	Information Technology teacher training workshop
Sichuan Normal University	Information Technology teacher training workshop
Tianjin University	Information Technology teacher training workshop
Xi'an Jiaotong University	Information Technology teacher training workshop
Xiamen University	Information Technology teacher training workshop
Xinjiang Agricultural Vocational Technical College	Information Technology teacher training workshop

2012

Institution	Summary
Beijing Normal University	Information Technology teacher training workshop
East China Normal University	Information Technology teacher training workshop
Fudan University	Information Technology teacher training workshop
Gansu Radio & TV University	Information Technology teacher training workshop
Hangzhou Dianzi University	Information Technology teacher training workshop
Hebei North University	Information Technology teacher training workshop
Hunan Normal University	Information Technology teacher training workshop
Hunan Normal University	Information Technology teacher training workshop
Jishou University	Information Technology teacher training workshop
Lanzhou University	Information Technology teacher training workshop
Ningxia University	Information Technology teacher training workshop
Northeastern University	Information Technology teacher training workshop
Renmin University of China	Information Technology teacher training workshop
Shanghai Jiao Tong University	Information Technology teacher training workshop
Sichuan Normal University	Information Technology teacher training workshop
Sichuan Normal University	Information Technology teacher training workshop
Tianjin University	Information Technology teacher training workshop
Xi'an Jiaotong University	Information Technology teacher training workshop
Xinjiang Agricultural Vocational Technical College	Information Technology teacher training workshop
Xinjiang Agricultural Vocational Technical College	Information Technology teacher training workshop

Institution	Summary
2011	
Hunan Normal University	Information Technology teacher training workshop
Sichuan Normal University	Information Technology teacher training workshop
Xi'an Jiaotong University	Information Technology teacher training workshop
Xi'an Jiaotong University	Information Technology teacher training workshop
Xi'an Jiaotong University	Information Technology teacher training workshop

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