

Competence development of STE(A)M educators through online tools and communities

STEAMonEDU – 612911-EPP-1-2019-1-EL-EPPKA3-PI-FORWARD



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Abstract: The STEAMonEdu final conference took place on the 14th October 2021 within the ALL DIGITAL Summit, the international annual event ALL DIGITAL organises with its members, inviting high level of stakeholders. The report covers the overview of the event: narrative, programme, facilities, communication, dissemination, and exploitation activities carried out and the results and feedback received from participants.

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Abstract

The STEAMonEdu final conference took place on the 14th October 2021 within the ALL DIGITAL Summit, the international annual event ALL DIGITAL organises with its members, inviting high level of stakeholders, policy makers, academics, innovators within education and digital inclusion, experts and companies to share their insights, achievements and perspectives related to the future for the wider audience to attend. The report covers all the stages behind the event: the setup, including the narrative and programme of the event from an art director point of view, and the facilities and services engaged for the hybrid format of the event; the communication, dissemination, and exploitation activities carried out before, during and after the event to guarantee the promotion of the final conference; the overall results reached and impact; and the feedback received from registered participants.

1 INTRODUCTION

This document is aimed at sharing the overview of the STEAMonEdu final conference in all its stages: setup, preparation, development, delivery, and post-production.

The key objective of the final conference is to communicate, share and disseminate the projects results achieved during the project and, also, to engage relevant stakeholders into the discussion on the future developments needed and understood from the STEAMonEdu results to bring forward in future actions.

To this end, the present document includes details and materials (provided also as annexes) with the relevant information, data, links, and outputs produced during the phases of the event.

ALL DIGITAL (AD) led the STEAMonEdu final conference preparation, development, delivery and post-production with the support, review and active participation of project partners.

1.1 Summary of the project

The project aims to increase the adoption and impact of STE(A)M education by investing in the community of stakeholders and the professional development of educators.

The approach of the project is to nominate educators as the pillars of implementation of STE(A)M education policies and support their professional development either by blended training or by their participation in a [community of practice](#). The training programme and the exchange of experience, collaboration and creative work of the community are supported by an online peer learning and crowdsourcing platform.

As a [result](#) of research conducted by the consortium, the [STE\(A\)M education framework](#), [Educator's profile](#) and Self-Assessment STEAM have been developed, including competences, policies, methodologies, learning objects, etc.

These findings have the core elements of the design of the training curriculum for STE(A)M educators, addressing the training programme: the [MOOC "STE\(A\)M education for educators: Design, orchestration and implementation of STE\(A\)M education"](#) and the [blended training](#). The MOOC is available to everyone interested in the topic, and more than 500 people have already enrolled. Also, 50 MOOC graduates have been selected for the blended training to focus their attention on the production of learning activities templates, STE(A)M education projects and policies to strengthen their competences in adopting and further develop and promote STE(A)M education at both local and national level.

The project has a bottom-up participatory approach when delivering:

- The [online community](#) of educators, collecting good practices and STE(A)M education policies.
- The [STE\(A\)M education framework](#), including the body of knowledge, template curricula and learning activities, with a focus on diversity.
- The **STE(A)M competence framework**, detailing the competences needed to design and implement STE(A)M education activities (STEAMComp will specialize DigCompEdu with STE(A)M-specific competences).

- The [STE\(A\)M educator profile](#), designed on the principles of ESCO (European multilingual classification of Skills, Competences, Qualifications and Occupations).
- The training programme, targeted to STE(A)M educators and delivered online on a [MOOC](#) (with OERs contents) and [blended training](#).
- The guide of STE(A)M educational [practices](#)
- The guide on STE(A)M education [policies](#)
- The STE(A)M **policy influence toolkit**
- The Guide for **STE(A)M education policy makers** (Policy recommendations)
- The STE(A)M readiness **self-assessment online tool** for educational organisations that implement STE(A)M education policies, that will implement or expand SELFIE.

1.2 STEAMonEdu Partnership

1. [Computer Technology Institute and Press “Diophantus” \(CTI\)](#), Greece (Coordinator)
2. [ALL DIGITAL](#), Belgium
3. [Stati Generali dell’Innovazione \(SGI\)](#), Italy
4. [Helliwood/21CCC](#), Germany
5. [EOS Foundation](#), Romania
6. [Colectic](#), Spain
7. [Regional Directorate of Primary and Secondary Education of Western Greece/Ministry of Education Lifelong Learning and Religious Affairs](#), Greece.

2 FINAL EVENT

The final event has been organised within the 14th ALL DIGITAL Summit scenario, a three-days event from 13th October to 15th October 2021, titled “Digital Skills and Tools for a Better World. Solving real world and problems through digital tools and approaches”. STEAMonEdu project has been presented during the first day of the ALL DIGITAL Summit to share and anticipate the topic of the second day, 14th October 2021, completely dedicated to STEAMonEdu and STE(A)M related topics.



Figure 1 ALL DIGITAL Summit branding

The ALL DIGITAL Summit is the annual meeting point of all ALL DIGITAL members and stakeholders: non-profit organisations, learning centres and networks of digital competence centres that empower citizens across Europe with technology. It is also a unique opportunity for the European digital inclusion sector to present achievements and exchange ideas with policy makers at EU and national level, academics, educators, school managers, young people and private companies among other stakeholders.

Digital competences are essential to how we live, learn and work. The confident and critical use of digital technology is key to supporting lifelong learning, active citizenship, employability, and inclusion. Citizens can wield their digital competences to access information and support, access new learning and employment opportunities, be creative and entrepreneurial, find new opportunities and to help others. Digital skills and jobs are a key action area in the EU's digital strategy (2019–2024) and the 2030 Digital Compass supported by a variety of initiatives announced as part of the European Skills Agenda, European Education Area and Digital Education Action Plan.

The ALL DIGITAL Summit is one of the leading public events in Europe on digital competences. It provides a unique platform where trainers and facilitators working for digital competence centres, ICT learning centres, adult education centres are joined by education and employability experts, private and public stakeholders, including policy makers, to exchange experiences and share knowledge, reflect together on strategies to expand the number of digitally literate citizens, while networking to identify new potential partners in future projects.

The event looked at how digital skills and digital tools unlock and amplify the subjects of STE(A)M Education and Digital Social Innovation, how they solve real world problems and add value to the beneficiaries with the aim of increasing capacity, readiness, and resilience of digital competence centres.

Keynote speeches, panel discussions, and forward-looking projects have been shared with the audience, presenting details about a range of tools and approaches for different purposes and different audiences under these themes.

2.1 Blended format: the venue, the Digital Platform and Exploitation Activities within

Due to COVID-19 restrictions a limited number of participants had been allowed to join the conference at the venue and a digital platform had been identified to host the online live event. This has guaranteed the accessibility of the event, which has also been streamed on social media on the ALL DIGITAL YouTube and Facebook channels.

The live venue was in Brussels, Belgium, at “L42 Business Center and Workspaces”, where had been set up the main room with the event branding and equipment to run the conferences, stream and record them.

The digital side of the event had been managed by a service company “Impact Media”, hired to provide the digital platform and overall support the technical organization and delivery of the event, including video production, and participants registration and management. Impact Media provided his own events platform tailored and personalised with ALL DIGITAL event branding, including the STEAMonEdu logo: <https://summit-all-digital.b2match.io/>.

Within the platform, registered members were able to access the event sessions, create their profile, including their business activities and projects to disseminate and share projects results, outputs, and network with other registered members. Participants, in fact, had the opportunity to interact within the platform through messaging, 1:1 networking sessions and a proprietary tool of the platform called ‘marketplace’. In this section, participants could add opportunities or items to showcase and highlight their own work and activities, relevant to matches the 1:1 networking meetings. At the end of the conference there was 91 opportunities added in the marketplace section, <https://summit-all-digital.b2match.io/marketplace>, one of which related directly to STEAMonEdu project, promoting the training programme.

The screenshot shows the 'Marketplace' section of the STEAMonEdu website. On the left, there is a sidebar with several categories for adding opportunities: Product, Service, Partnership, Project Cooperation, Expertise, Request, and Job position. The main area displays a list of opportunities, with one selected and expanded to show details. The selected listing is a 'SERVICE' titled 'STE(A)M education for educators: Design, orchestration and implementation of STE(A)M education - MOOC'. The description states that the course supports the professional development of educators and managers/directors at all levels of education. It lists several learning objectives, such as understanding modern approaches to STE(A)M education, designing educational activities, and developing competence frameworks. The course is free of charge and available online at a specific URL. Below the listing, there are tabs for 'Mapping' and 'Coaching', and a section for 'Attached files' including a 'Leaflet Course' and a 'Course description'. At the bottom of the listing, there is a video player showing a promotional poster for a webinar titled 'Competence Needs and Professional Development of STE(A)M Educators' held on 26 March 2021.

Figure 2. STEAMonEdu training programme at the AD Summit marketplace

2.2 Participants

Over than **500 participants** registered from 15 different countries, attending the 3 days, more than **50 speakers** ranging from renowned EU policymakers, academics, researchers, education experts, learning managers, stakeholders involved in STE(A)M related topics, digital inclusion, education. The networking sessions arranged had been more than 250.

More specifically, during the STEAMonEdu conference we had a total of 90 registered participants during the first part and 48 registered participants during the second one.

2.3 STEAMonEdu overview of the programme

STE(A)M education nurtures critical thinking skills which are crucial in critical phases of societies to overcome problems and innovate thanks to a creative mindset. This interdisciplinary approach integrates the analytical and the creative thinking, stimulates the development of convergent and divergent skills at the same time, stimulating both the right and left side of the human brain. STE(A)M prepares learners for current and future careers and life when dealing with complex systems, independently from the sector of field of interest. In this context, **STEAMonEdu** project aims to increase the adoption and impact of STE(A)M education by investing in the community of stakeholders and the professional development of educators and implementing STE(A)M education with a professional profile for teachers. Educators are the pillars of the implementation of STE(A)M education policies and **STEAMonEdu** project supports their professional development either by **blended training** or their participation in a **community of stakeholders**. The exchange of experience, collaboration and creative work of this community is supported by online peer learning and crowdsourcing platform. **STEAMonEdu** project is also developing a STE(A)M education framework, including STE(A)M body of knowledge, template curricula and learning activities, with a focus on diversity issues, the **STEAMComp** (STE(A)M competence framework that includes STE(A)M-specific competences with Digital Competence Framework for Educators, DigiCompEdu), The **STEAM educator profile** (designed on the principles of ESCO, the European multilingual classification of Skills, Competences, Qualifications and Occupations), a **Guide** of STE(A)M educational **practices**, a **Guide** on STE(A)M Education **policies**, the STE(A)M **policy influencer toolkit**, a **guide for STE(A)M education policy makers** and a STE(A)M readiness **self-assessment online tool** for educational organisations that implement STE(A)M education policies.

The overall aim of the day has been focused on Increasing the adoption and impact of STE(A)M education by the professional development of STE(A)M educators conference.

2.4 Programme

The event focused on three main aspects related to the field of STE(A)M education:

- the results from STEAMonEdu project
- the current innovations within STE(A)M and

- the future challenges in the field.



Figure 3. Participants at L42 venue during the STEAMonEdu final conference

A master of ceremonies introduced, moderated and facilitated the conference, Samuel Stolton, a professional journalist specialised in technologies within the European scenario, based in Brussels.

The final event took place from 1 pm to 6:30 pm, engaging a total of 20 speakers in all the sessions. Peter Palvolgyi, CEO at ALL DIGITAL opened the day providing an overview of the main sessions to expect and closed it with Professor Achilles Kameas as the coordinator of STEAMonEdu project and content director of the programme at the end underlying the main remarks of the day.

A total of 2 keynote speeches took place to open and close STEAMonEdu session where project partners introduced the audience to the main results, outputs and tools developed during the project. Lightning talks and Informative sessions explored other projects project partners and the STEM cluster representatives are running currently within STE(A)M to provide a wider overview of the innovative initiatives across Europe. A panel session explored the future developments needs and activities that should be developed or might be needed within STE(A)M education. Last but not least section has been dedicated to STEAMonEdu teachers and the practices they have developed within their schools to facilitate and promote STE(A)M within their programmes and the award ceremony to celebrate the STEAMonEdu PhotoContest Award with an ALL DIGITAL 3D printed award.

13:00 – 13:10 Opening plenary

- **Peter Palvolgyi**, CEO, ALL DIGITAL

13:10 – 13:30 Keynote speech

- **Anusca Ferrari**, Policy Officer, European Commission, Directorate-General for Education, Youth, Sport and Culture
- Q&A

13:30 – 15:10 STE(A)M On Edu project

- Project overview – **Prof. Achilles Kameas**, Professor of Pervasive and Mobile Computing Systems, DAISy research group, Hellenic Open University
- STE(A)M Community of Practice – **Esther Subias**, Project Manager, Colectic, **Paolo Russo**, Secretary-General, Stati Generali dell’Innovazione
- STE(A)M Education Framework – **Mihai Iacob**, Researcher, Educating for an Open Society Romania
- STE(A)M educators’ competence framework and self-assessment tool - **Natalia Spyropoulou**, Researcher, Computer and Technology Institute and Press “Diophantus”
- STE(A)M training for educators – **Athanasios Iossifides**, Senior Researcher, Computer and Technology Institute and Press “Diophantus”
- STE(A)M within policies - **Claudia Matera**, Project and Fundraising Officer, ALL DIGITAL
- Q&A

15:10 – 15:20 Break

15:20 – 15:40 Keynote speech

- Pedagogical aspects of STEM/STEAM education - **Prof. Anastasios Mikropoulos**, Professor, University of Ioannina

15:40 – 15:50 Q & A

15:50 – 16:00 Break

16:00 – 16:30 Lighting talks and Informative sessions

- **STEAM for the community** – **Esther Subias**, Project Manager, Colectic
- **3D-PRINT - An introductory training program for adult learners** – **Claudia Matera**, Project and Fundraising Officer, ALL DIGITAL
- **STE(A)M IT - An interdisciplinary STEM approach connected to ALL around us** – **Dr. Agueda Gras-Velazquez**, Science Programme Manager / Head of the Science Education Department, European Schoolnet
- **Increasing Young People’s Motivation to Choose STEM Careers by Collaborative Approach and Multi-disciplinary STE(A)M Education** – **Cecilie La Monica Grus**, Project Manager, CESIE
- **Deeper Learning in STEAM using Advanced Technologies** – **Dr. Sofoklis Sotiriou**, Head of R&D Department, Ellinogermaniki Agogi

16:30 – 17:30 Panel discussion

Moderator: **Prof. Achilles Kameas**, Professor of Pervasive and Mobile Computing Systems, DAISy research group, Hellenic Open University

Speakers:

- **Erik Ballhausen**, E+ Call Manager, European Education, and Culture Executive Agency

- **Dr. Agueda Gras-Velazquez**, Science Programme Manager / Head of the Science Education Department, European Schoolnet
- **Cecilie La Monica Grus**, Project Manager, CESIE
- **Dr. Sofoklis Sotiriou**, Head of R&D Department, Ellinogermaniki Agogi

17:30 – 17:45 Open discussion, Q&A

17:45 – 18:20 Best Practices insights and Award ceremony

- Best Practices from STEAMonEdu Community of Practice – **Paolo Russo**, Secretary-General, Stati Generali dell’Innovazione

Meet the practitioners:

Silvia Mazzeo

Maria Kruse

Gabriela Ileana Crisan

Evaggelia Kounavi

Xavier Rosell

- STEAMonEdu PhotoContest Award - Meet the winner

Alina Frățilă

18:20 – 18:30 Closing plenary

- **Prof. Achilles Kameas**, Professor of Pervasive and Mobile Computing Systems, DAISSy research group, Hellenic Open University

Peter Palvolgyi, CEO, ALL DIGITAL

2.5 Final Conference Results

Participants to the event gain knowledge on the latest achievements, EU positions and **action plans to support and facilitate broader adoption of integrated STE(A)M within the educational system**. They learn more about the activities promoted by STEAMonEdu project, its aims and outcomes related to the community of stakeholders, the professional development of educators, and the tools and training developed.

Integrated STE(A)M sounds like the next urgent goal within the field, where disciplines can be merged with a balance between them. During the 2nd day we learnt STEM/STE(A)M is one of the priorities of the 2030 Digital Compass supported by a variety of initiatives announced as part of the European Skills Agenda, European Education Area and the Digital Education Action Plan with the aim of **upskilling educators, facilitate women in accessing STEM careers and train professionals to solve**

real world problems. STE(A)M prepares learners for current and future careers independently from the sector or field of interest and life when dealing with complex situations.

Two excellent keynote speakers educated the audience on the basics of STE(A)M education and the latest policy developments.

EU policy officer **Anusca Ferrari**, DG EAC, through her keynote speech shed light on the EU objectives and initiatives: “We set STEM as a priority for cooperation projects in Higher Education in the Erasmus+ 2021 Work Programme.”

“Only 1 in 5 young people in Europe graduates from STEM tertiary education, and we have less than 2 millions of STEM graduate in the EU every year. Even if we try to promote an inclusive approach to STEM education, actually we know that women are strongly under-represented in the sector: 1 in 3 STEM graduate is a woman. It is even worse when we look at ICT studies where we have 1 in 5 ICT graduate that is a woman.”

Professor Anastasios Mikropoulos, University of Ioannina, highlighted the need for and importance of combining STEM and STE(A)M education to stimulate citizens in being able to solve real problems, introducing the circular process needed to facilitate the integration.



Figure 4. Keynote speakers during the final conference

The brief presentation of projects on STE(A)M-related topics led to a very interesting panel with the participation of experts each representing a different stakeholder’s perspective. The panel was moderated by Prof. Achilles Kameas, who engaged the panellists in discussions about reaching a common understanding of STE(A)M education, designing the policies to achieve its widespread adoption and identifying the means and resources to reach it.

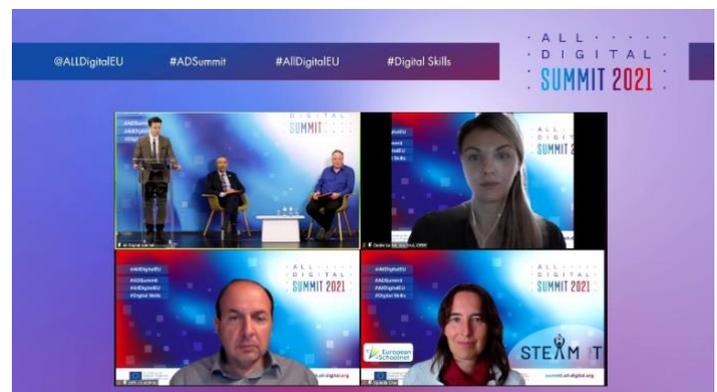


Figure 5. Speakers during the panel session

The panelists were:

- Erik Ballhausen, E+ Call Manager, European Education, and Culture Executive Agency
- Dr. Agueda Gras-Velazquez, Science Programme Manager / Head of the Science Education Department, European Schoolnet
- Cecilie La Monica Grus, Project Manager, CESIE
- Dr. Sofoklis Sotiriou, Head of R&D Department, Ellinogermaniki Agogi



Figure 6. Panel session

Educators feel the need to tune into a STE(A)M mindset where integrate approaches, blend skills and knowledge into a more dynamic and flexible way of teaching and supporting learners in developing skills. During the panel discussion it has been stressed the strategic understanding of the field to **avoid educating only some generations**. At the opposite, **STE(A)M education should refer to all generations**.

STEAMonEdu project appears as a significant project thanks to the tools and outputs developed to contribute to adopting STE(A)M approaches and methodologies within education and because it placed educators (teachers and trainers) at the heart of its activities and focused on their professional development.

Outputs produced:

- Livestream of the event on ALL DIGITAL [YouTube](#) channel.
- [Press Release](#) of the ALL DIGITAL Summit.
- [Pictures](#) of the event.
- [Speakers' presentations](#), on the ALL DIGITAL Summit Programme next to the speaker's name.
- Panel discussion Script, developed by professor Achilles Kameas, CTI, Annex 1 of this deliverable.

- Conference Script for the presenter, Annex 2 of this deliverable.
- Director Board for the Tech Team, Annex 3 of this deliverable.
- Press Release on STEAMonEdu final conference, Annex 4.

2.6 Communication and Dissemination activities to launch and promote the event

The final conference has been promoted, also through a paid campaign on Social Media, within the ALL DIGITAL channels (press, website, social media such as Facebook, Twitter and LinkedIn, and EU portals such as [EPALE](#)) as part of the ALL DIGITAL Summit. The STEAMonEdu logo has been added in all the visuals and videos produced for the launch and the live publishing during the three-days event.

At the same time, it has been promoted as a stand-alone project on project website and social media channels and through EU portals, like the [Erasmus Days](#) portal of events. Dedicated visuals have been produced to highlight the programme and keynote speakers and live posting during the day has supported the overall communication and dissemination of the event.

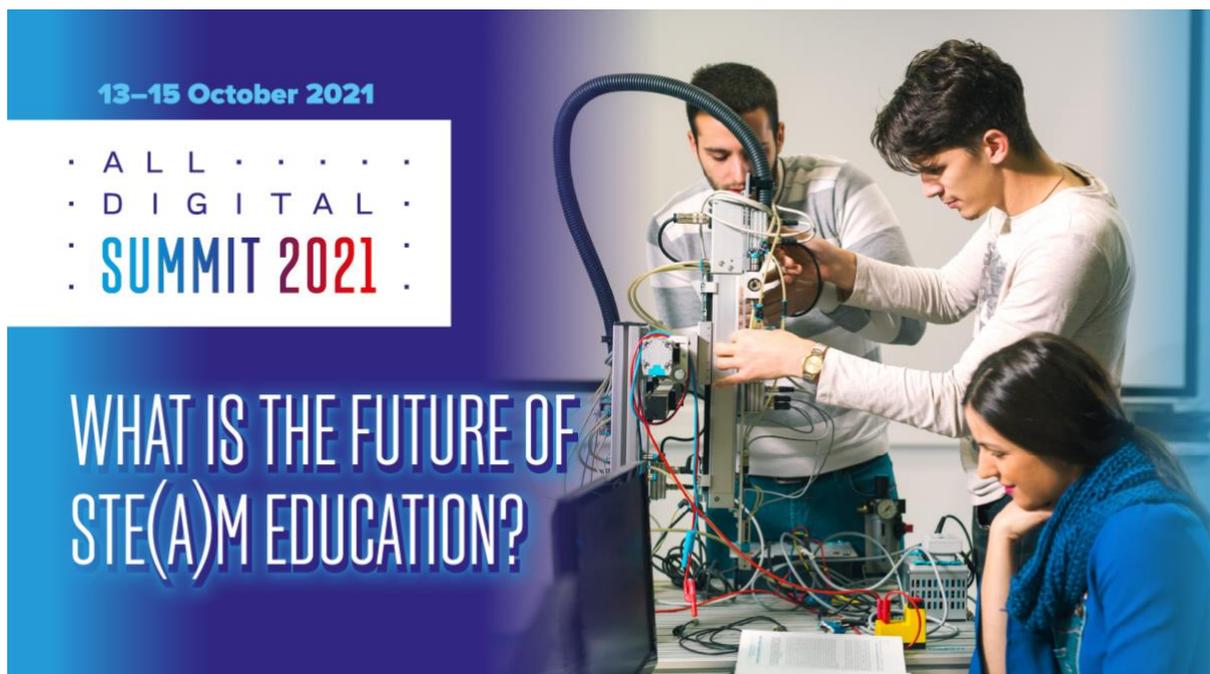


Figure 7. Visual produced to launch and promote STEAMonEdu final conference.



Figure 8. Keynote speakers' card to promote the STEAMonEdu final conference

2.7 Communication on social media: Materials and impact

2.7.1 TWITTER – STEAMonEdu @ALL DIGITAL conference

Your Tweets earned **8.1K impressions** over this **1 day** period

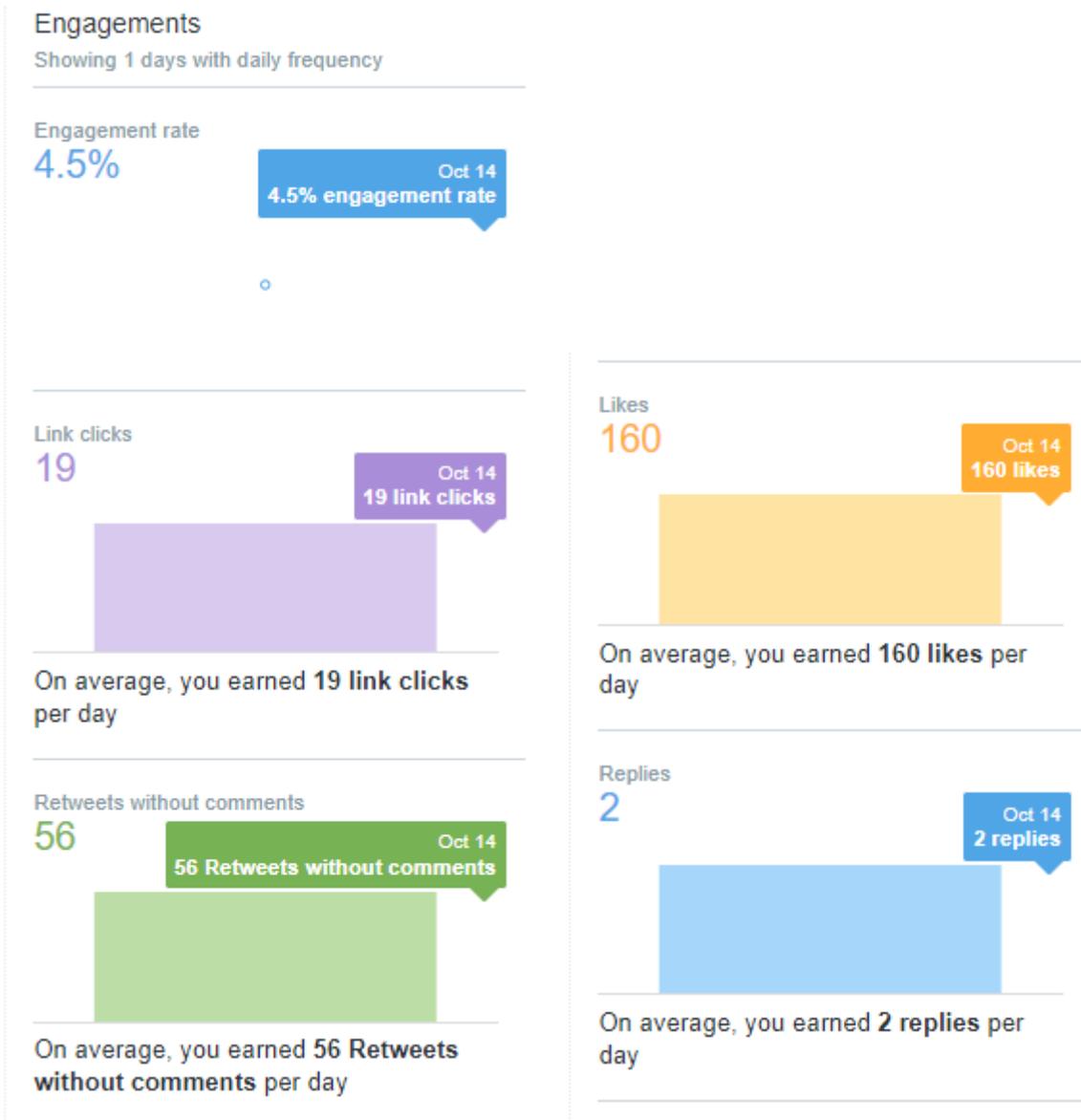


Figure 9. Insights from Twitter on the 14th October 2021 (AD channel).

Top tweets

The key content were the launch of the event, the keynote speech from Anusca Ferrari, the post on the best practices from the STEAMonEdu Community of Practice, the posts about Esther Subias from Colectic.

Tweets	Top Tweets	Tweets and replies	Promoted	Impressions	Engagements	Engagement rate
	<p>ALL DIGITAL @AllDigitalEU · Oct 14</p> <p>Everyone needs #digitalskills in modern days - @SamuelStolton, our moderator is presenting at the #AllDigitalEU #ADSummit. Join us.  summit-all-digital.b2match.io We are starting in 5 minutes! </p> <p>pic.twitter.com/Ya0vT657WJ</p> <p>View Tweet activity</p>			842	80	9.5%
	<p>ALL DIGITAL @AllDigitalEU · Oct 14</p> <p>.@anuscaferri @EUDigitalEdu in her keynote speech at #ADSummit #AllDigitalEU: "we set STEM as a priority for cooperation projects in higher education in the @EUErasmusPlus 2021 Work Programme" - #EUDigitalEducation #DigitalSkills #ErasmusDays </p> <p>pic.twitter.com/1KXTcrXC2X</p> <p>View Tweet activity</p>			779	31	4.0%
	<p>ALL DIGITAL @AllDigitalEU · Oct 14</p> <p>Meet the practitioners! Now listening to the Best Practices and vision from the future from the @STEAMonEdu Community of Practice  pic.twitter.com/piJvVcnm3j</p> <p>View Tweet activity</p>			498	28	5.6%
	<p>ALL DIGITAL @AllDigitalEU · Oct 14</p> <p>.@esthersubias @colectic_coop What are the benefits of a STE(A)M Community of Practice? You meet people with shared interests and a common goal: making #education better. You build personal relationships and can share knowledge on #STEAMeducation - #AllDigitalEU #ADSummit  pic.twitter.com/sIG6KfgsPW</p> <p>View Tweet activity</p>			487	26	5.3%
	<p>ALL DIGITAL @AllDigitalEU · Oct 14</p> <p>.@esthersubias @colectic_coop How to use STEAM for the community? Make children & youngsters play with robotics; involve girls; enhance teacher's training; break digital divide #ADSummit #AllDigitalEU #STEAMeducation  pic.twitter.com/xJdPnFmhSa</p>			420	22	5.2%

	<p>ALL DIGITAL @AllDigitalEU · Oct 14 🎉 Nice closing of day2 #AllDigitalEU #ADSummit - we celebrate today the 11th birthday of @AllDigitalEU! 🎂 🟢 pic.twitter.com/Nv0wthYOYe View Tweet activity</p>	390	38	9.7%
	<p>ALL DIGITAL @AllDigitalEU · Oct 14 Prof. Anastasios Mikropoulos, University of Ioannina, to solve real world problems we need pedagogical, technological & content knowledge combined. STEM/STEAMeducation: a circular process explained at the #ADSummit #AllDigitalEU 2021! #STEAMeducation #criticalthinking 🟢 pic.twitter.com/PH5lg5b6G0 View Tweet activity</p>	283	34	12.0%
	<p>ALL DIGITAL @AllDigitalEU · Oct 14 Prof. Athanasios Iossifides on #STEAMeducation training for educators. They wear many hats: teacher, learning designer, manager, community member, professional #STEAMeducation #AllDigitalEU #ADSummit. More on this: 🟢 steamonedu.eu/blended-course/ 🟢 pic.twitter.com/vPif0oTgbV View Tweet activity</p>	274	10	3.6%
	<p>ALL DIGITAL @AllDigitalEU · Oct 14 Would you like to deepen your knowledge on #STEAM #education? Today from 13.00 we will cover the @STEAMonEDU project, during the 2nd day of the #AllDigitalEU #ADSummit 2021! Join us 🟢 summit-all-digital.b2match.io/page-2291 🟢 pic.twitter.com/FoM3KSvrxT View Tweet activity</p>	246	19	7.7%
	<p>ALL DIGITAL @AllDigitalEU · Oct 14 We are about to start day 2 of the #AllDigitalEU #ADSummit 2021! Keynote speeches, @STEAMonEdu project presentation, panel discussion and more from 13.00 🟢 pic.twitter.com/RKcxQ7kzSK View Tweet activity</p>	245	19	7.8%

ALL DIGITAL @AllDigitalEU · Oct 14
 🎉 Nice closing of day2 #AllDigitalEU #ADSummit - we celebrate today the 11th birthday of @AllDigitalEU! 🎂



👍 3 ❤️ 17 📌

ALL DIGITAL @AllDigitalEU · Oct 14
 Meet the practitioners! Now listening to the Best Practices and vision from the future from the @STEAMonEdu Community of Practice



👍 3 ❤️ 6 📌

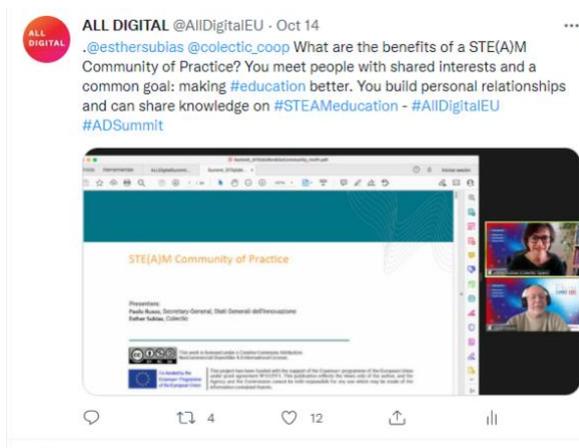


Figure 10. Collection of best tweets.

2.7.2 FACEBOOK – STEAMonEdu @ALL DIGITAL conference

546 impressions, 22 Likes (12 on the post, 10 on the shared posts).

Figure 11. Facebook post on STEAMonEdu day.

2.7.3 LinkedIn – STEAMonEdu @ALL DIGITAL conference

- 2 posts
- Total impression: 529
- Clicks: 20
- Reactions: 22

Update title	Posted by	Created	Impressions	Views	Clicks	CTR	Reactions	Comments	Shares	Follows
Day3 at the ALL DIGITAL Summit - Today we cover the Social Hackademy project ... All followers Boost unavailable	Andrea Bedorin	10/15/2021	341	-	23	6.74%	14	0	3	-
Today is the day of STEAMonEdu! During the 2nd day of the #AllDigitalEU Summit ... All followers Boost	Andrea Bedorin	10/14/2021	276	-	11	3.99%	14	0	0	-
The #STEAMeducation Conference on 14 October will feature the presentation of ... All followers Boost	Andrea Bedorin	10/8/2021	253	-	9	3.56%	8	0	0	-

Figure 12. LinkedIn post on STEAMonEdu day.

2.7.4 YouTube – STEAMonEdu @ALL DIGITAL conference

- DAY 2 – STEAMonEdu Conference, 31 views
- Livestreaming DAY 2 – STEAMonEdu Conference, 85 views, 2 likes

The recording is available on [YouTube](#).

3 EVENT EVALUATION

3.1 Survey to the Audience

A [survey](#) on the ALL DIGITAL Summit has been produced with general questions about how registered participants has reached the event and per each day, an evaluation on the perception of the contents, themes and discussions.

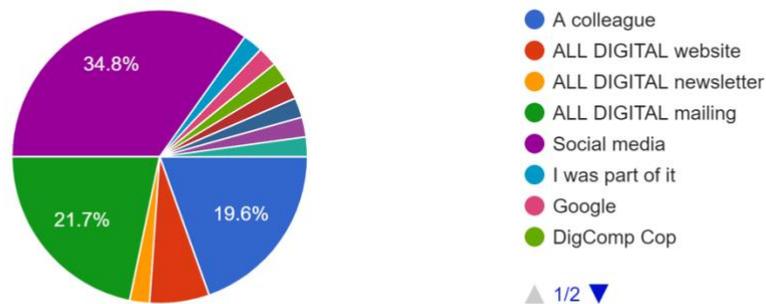
On Annex 5 there are all the questions relevant for the STEAMonEdu final conference.

3.2 Results of the survey and perception of the event

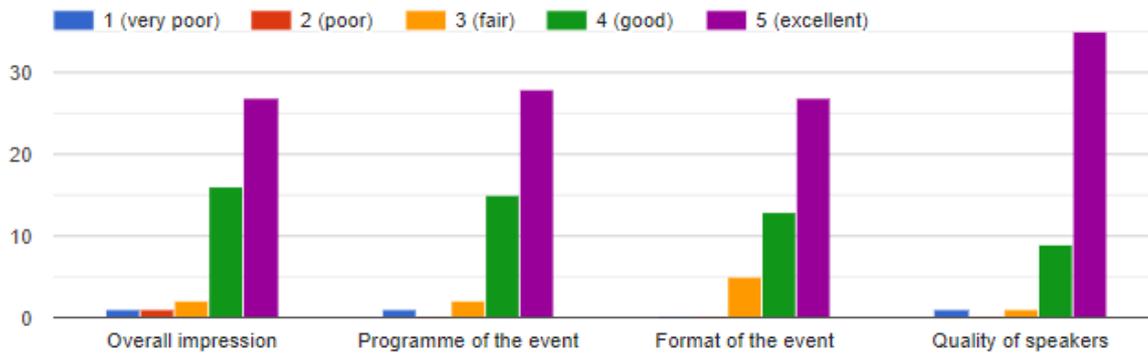
Main results from the survey.

4. How did you hear about the All Digital Summit 2021?

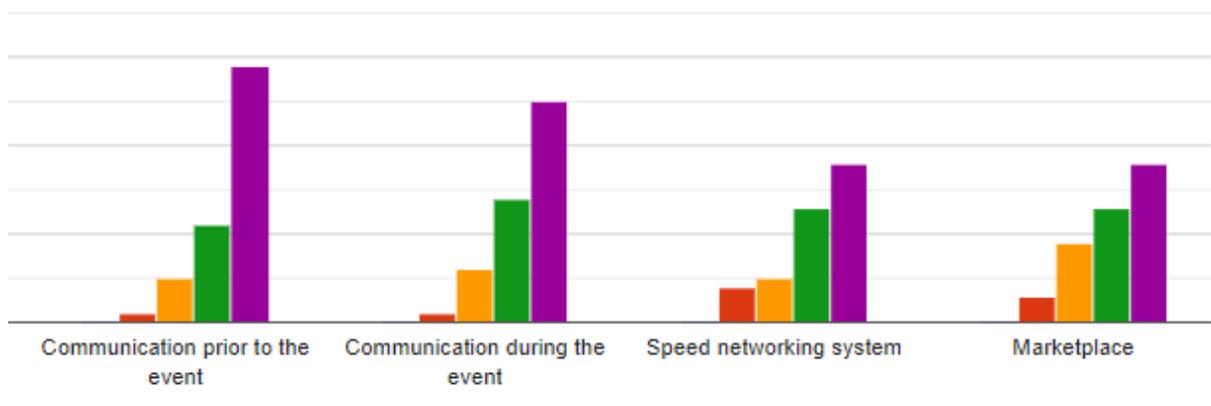
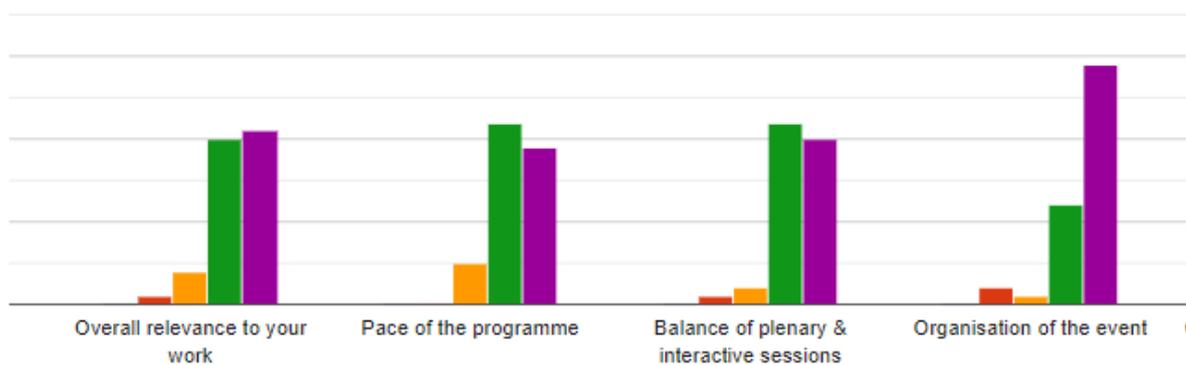
46 responses



5. How do you rate the Summit and all the activities in general?



5. How do you rate the Summit and all the activities in general?



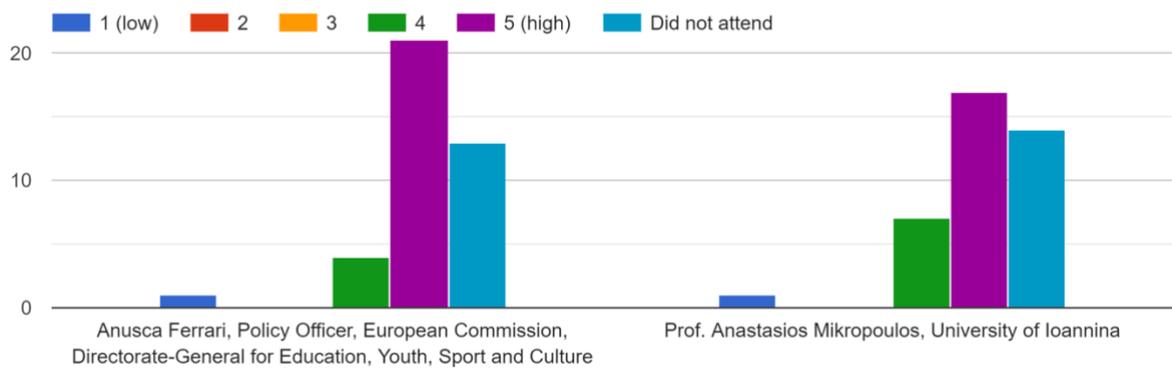
8. Which day did you attend?

45 responses

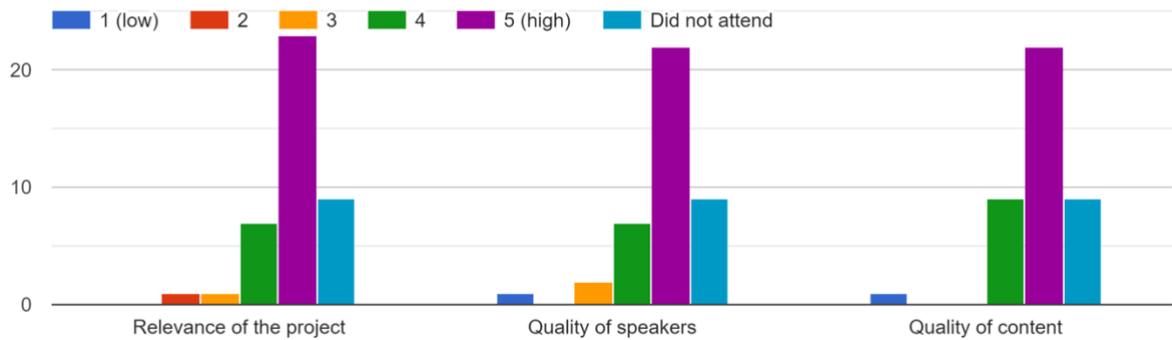


Questions related to STEAMonEdu final conference only.

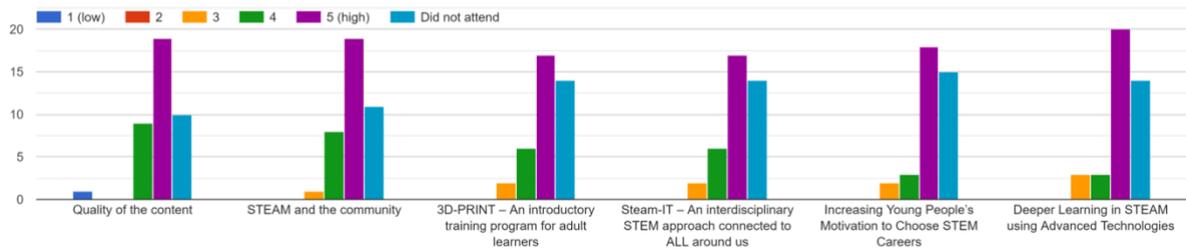
14. Keynote speeches



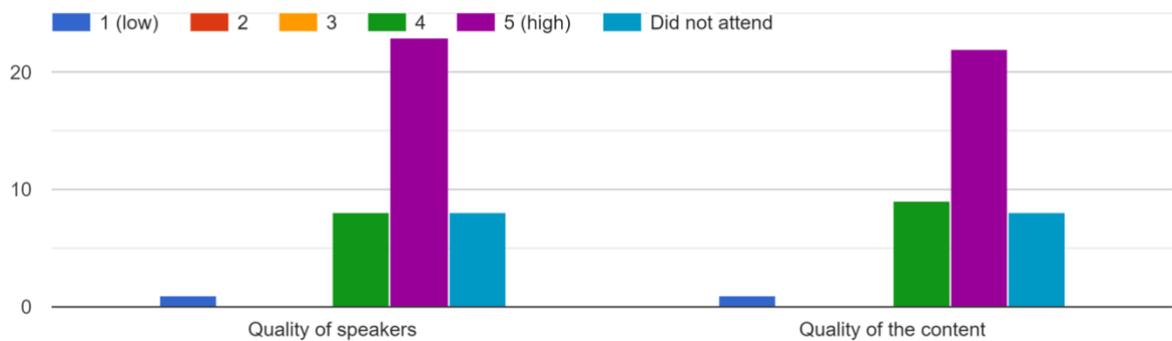
15. STE(A)M On Edu project



16. Lightning talks and informative sessions

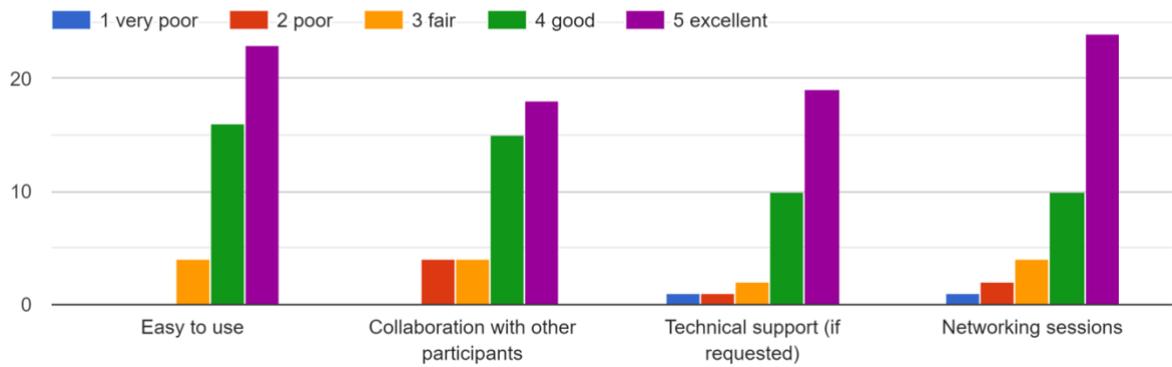


17. Panel discussion on STEAMonEdu



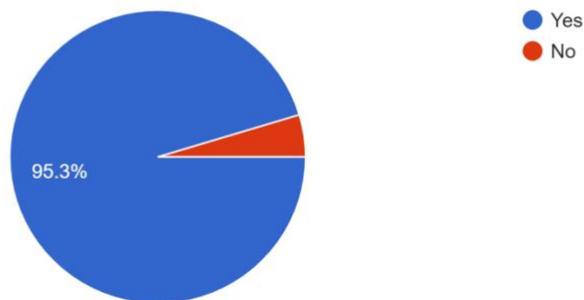
Questions related to the facilities and overall interest in the experience.

27. B2match streaming event platform



31. Would you attend an ALL DIGITAL Summit again?

43 responses



Comments left referred to the STEAMonEdu final conference.

1. Interesting topics and experimented speakers.
2. Congrats!
3. Actual topic
4. I did not attend all sessions live, so thanks for sharing the videos - I watched most of the session I could not see live!
5. Nice!
6. -
7. It was perfect!
8. I liked the STEAMonEdu because it nurtures critical thinking skills and it aims on to increase on education by helping teachers and younger people to create their mindset.

9. Perfect
10. I learned a lot of important and necessary information about education
11. It was very interesting. STEAM education needs more attention and I think we are on a good way
12. Evento troppo lungo, sebbene succoso - credo che online sia difficile avere eventi piu lunghi di 2/3 ore e mantenere alto interesse [Too long type of event, even though rich – I believe that it is tough to attend events longer than 2/3 hours and keep the interest]
13. A me e' parso organizzato molto bene in generale - tutto e' stato smooth eccetto l-episodio della pioggia in Grecia [It seems to me that it has been overall well organised – everything ran smoothly aside the raining episode in Greece]



Figure 13. Thank you message sent to all speakers and guests of the STEAMonEdu final conference.

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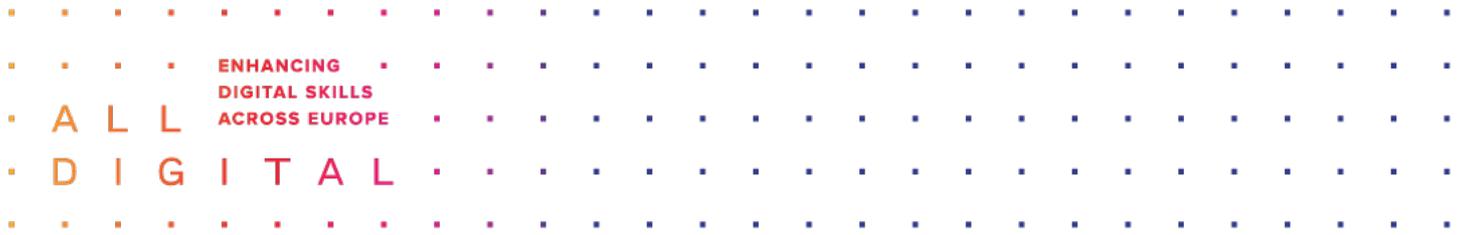
ENHANCING
DIGITAL SKILLS
ACROSS EUROPE

ALL DIGITAL Summit

14th October 2021

SteamonEdu conference

Panel session overview



Panel discussion session – 16:30-17:30 CET

Overview of the panel (Intro by Achilles Kameas)

Digital competences are essential to how we live, learn and work; they constitute a key action area in the EU's digital strategy (2019–2024) and the 2030 Digital Compass supported by a variety of initiatives announced as part of the European Skills Agenda, European Education Area and Digital Education Action Plan.

Interestingly enough, these policies consider digital skills as one of the key competence areas and seem to promote a holistic approach to competence development, which includes other areas, such as green skills, entrepreneurial skills, life skills etc. Then it comes as no surprise that the need to achieve widespread adoption of STEM education is mentioned, together with the importance of investing in the professional development of educators and the promotion of lifelong learning.

The STEM (and more recently, STEAM) education approach is radically different in focus, content and method from prevailing educational approaches. STEM/STEAM education highlights the key role of science and computational thinking, integrates research and engineering with creativity, relies heavily on modern technology and is tightly associated with real-life issues. Consequently, it seems that the adoption of STEM/STEAM education will require a paradigm shift in educational practice which in turn will require a change in mindsets.

Several STEM/STEAM related initiatives, projects and practices have been implemented and the number is increasing. However, the number of policies related to STEM/STEAM education is remarkably small. So perhaps this is the right time to shift the approach from entirely bottom-up and include some actions from top-down.

Before we start towards this direction, we might have to agree on a few issues, which I'd summarize as How? What? Where? and Then? These lie at the heart of the questions I'd like to ask each of you to answer based on your role, involvement and experience. **Each of you will have about 3' to answer each question.**

QUESTIONS FOR PANELISTS

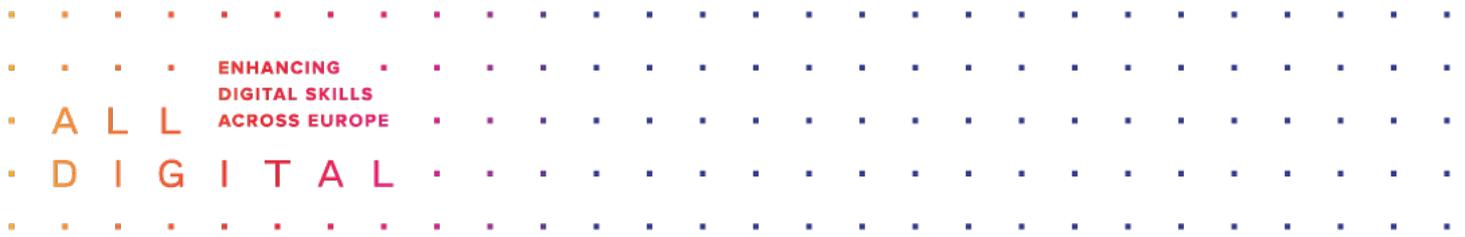
How are we going to achieve widespread use of STEM/STEAM education?

[Erik] Which actions the EC is planning to achieve this change in mindsets of the involved parties (i.e. ministries, educational policy makers, educators)? How long will it take to achieve it? Which are the milestones?

[Agueda] Which actions will be required at the policy level? Are teachers ready and eager?

[Sofoklis] What must be done from an organizational standpoint so that schools become STEM/STEAM-ready?

[Cecilie] What investment and training offers should be prepared by the training providers?



What kind of STEM/STEAM education are we looking at?

[Agueda] What is the prevailing perception of STEM/STEAM education among ministries and among teachers? Why is it important to aim at achieving integrated STEM/STEAM education?

[Sofoklis] What is the perception of the educational staff and the school management of STEM/STEAM education? In what way open schooling could contribute to its adoption?

[Cecilie] In what ways STEM/STEAM training differs from the STEM/STEAM education offered in schools?

[Erik] In what ways the perspectives mentioned from the other panelists have or will be integrated in EC policies? What is the aim of EC regarding the adoption of STEM/STEAM education from the EU members?

Where can the parties involved find the necessary resources?

[Sofoklis - Cecilie] What are the needs that must be covered at the “low level” so that this change can become a reality soon? Are the installation of infrastructure and the training of educators enough? What can be done to accelerate the process?

[Agueda] What is needed so that schools, universities, training providers and other educational organisations will quickly adopt and practice STEM/STEAM education?

[Erik] What are the supporting policies and actions planned by the EC?

Then what will happen?

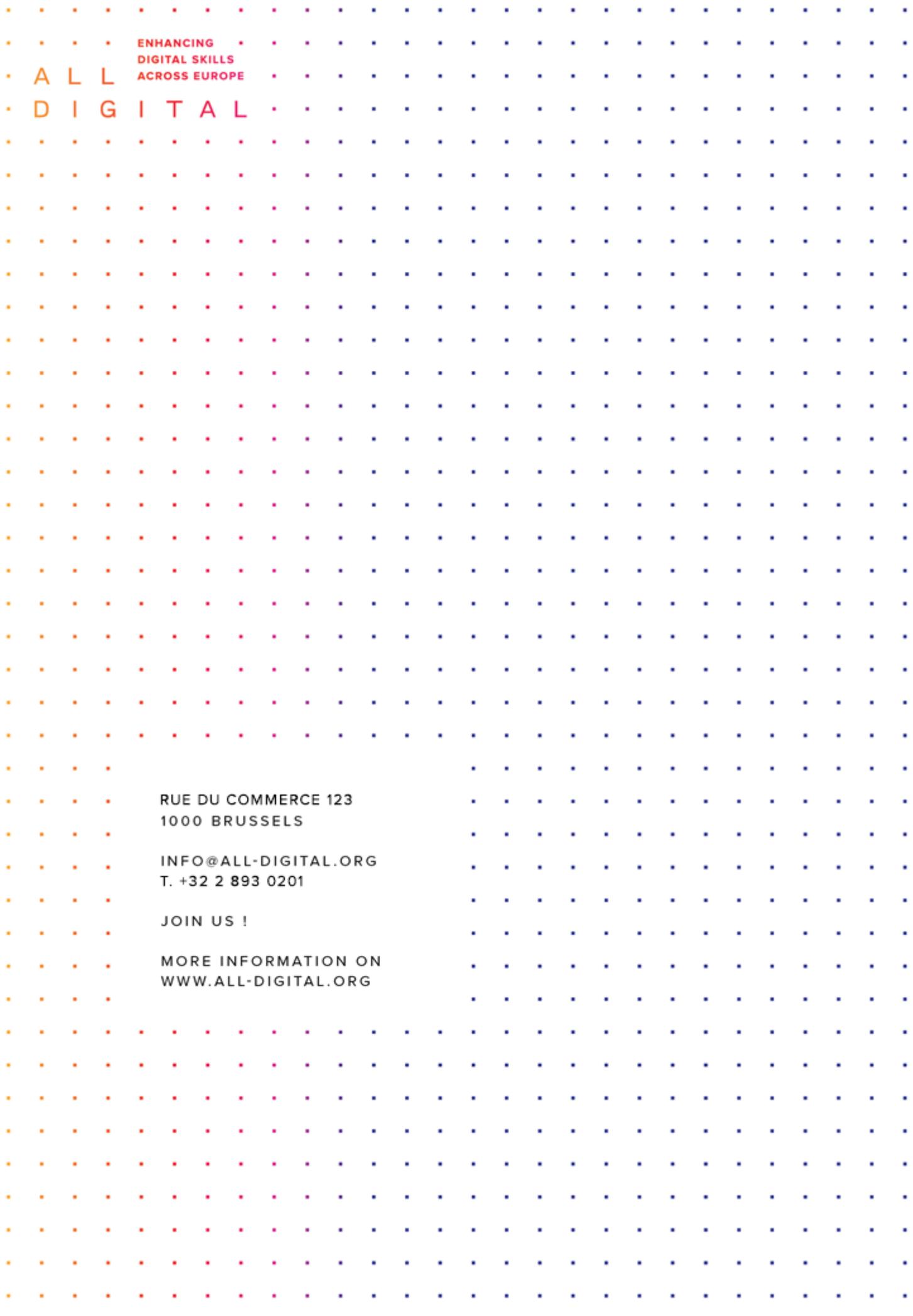
[Cecilie] Is there a gap between the formal and non-formal/lifelong STEM/STEAM education and if so, how can it be bridged?

[Agueda] What are the elements of a successful career for a STEM/STEAM educator?

[Sofoklis] What do you tell students about STEM/STEAM careers? Do you collaborate with industry to promote STEM/STEAM careers?

[Erik] What are the EC plans for a sustainable effect of STEM/STEAM education? Are there any plans to “close the loop” between education, training and career? And whose careers would the EC put in a priority?

FOLLOWING Q&A FROM THE AUDIENCE



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ALL DIGITAL Summit 2021 Day 2 SteamOnEdu final conference

Online, Brussels

14 October 2021 – 13:00-18:30 (CET)

PREPARATION

Set-up: Microphones, laptop, screens, and connection to guests

SCRIPT

Master of Ceremonies: Samuel Stolton

(01:00) Welcome to the second day of the ALL DIGITAL Summit, Intro of the topic and introduce Peter Palvolgyi, CEO at ALL DIGITAL (13:00 – 13:01)

STE(A)M education nurtures critical thinking skills which are crucial in critical phases of societies to overcome problems and innovate thanks to a creative mindset. This interdisciplinary approach integrates analytical and creative thinking, stimulates the development of convergent and divergent skills at the same time, stimulating both the right and left sides of the human brain. STE(A)M prepares learners for current and future careers independently from the sector or field of interest and life when dealing with complex situations. STEAMonEdu project is enhancing the adoption of STE(A)M education as the other projects we're going to explore today.

(9:00) Peter Palvolgyi presentation (13:01 – 13:10) with slides

(01:00) Presentation of the keynote speaker Anusca Ferrari (13:10 – 13:11)

Anusca Ferrari is Policy Officer at the European Commission, within the Directorate-General for Education, Youth, Sport and Culture. She is an expert in Digital Education with an extensive experience within the validation of non-formal and informal learning and micro-credentials with past working experiences at the Directorate-General for Employment, at the European Schoolnet and at JRC. Her research is primarily focused on policies on education and training in Europe, lifelong learning, digital competencies and digital education in general, innovation in education and research for policy-making. She's going to depict the perspective of the European Commission related with STEM and STE(A)M education... I'm delighted to give the floor to Anusca Ferrari.

(14:00) Keynote speech from Anusca Ferrari (13:11 – 13:25)

(05:00) Q&A (13:25 – 13:30)

(02:00) Presentation of the speaker Achilles Kameas (13:30 – 13:32)

Within this next session, we're going to explore the STEAMonEdu project. STEAMonEdu partners are going to share with us the main results reached in the last two years by the project. I would start with the overview of the project inviting prof. Achilles Kameas on stage. He is professor of Pervasive and Mobile Computing Systems at the Hellenic Open University in Greece. He is deputy Dean of the School of Science & Technology and Director of the MSc course "Pervasive and Mobile Computing Systems", the Founder and Head of DAISy Research Group and the Scientific Coordinator of RU3 at Computer Technology Institute and Press "Diophantus". Former chair of ALL DIGITAL, professor Kameas has been

promoting ICT and digital skills for over 25 years, contributing to DigComp 2.1 and co-authored the Manifesto for Enhancing Digital Competences across Europe. His current research interests include peer learning platforms and social systems, STE(A)M education, IoT and smart environments, digital skills and flexible learning paths and he represents the coordinating partner of the STEAMonEdu project.

(13:00) Presentation from Achilles Kameas (13:32 – 13:45)

(02:00) Presentation of the speakers Esther Subias and Paolo Russo (13:30 – 13:32)

One of the results of the STEAMonEdu project refers to the Community of Practice that has been created and supported in these last three years. I would invite Esther Subias, Project Manager at Colectic, a non-profit cooperative that works for social transformation through the participation, learning and socialization of ICT. She has coordinated and supported Punt TIC and Omnia networks in Catalonia (Spain). Esther Subias is the Director of the Postgraduate studies in Ecosystems in Digital Learning: Innovation in Training at Barcelona's University and she's ambassador of Technovation Girls in Spain. I would also invite Paolo Russo, General Secretary at Stati Generali dell'Innovazione and President at CRHACK LAB F4D in Italy. He promoted the "Crowddreaming: Youth co-create Digital Culture" contest and he coordinates it. His focus is on exploring the opportunities digital cultural heritage offers as an economic development and social inclusion tool. They are going to introduce us to the STE(A)MonEdu Community of Practice...

(13:00) Presentation from Esther Subias and Paolo Russo (13:47 – 14:00)

(01:00) Presentation of the speaker Mihai Iacob (14:00 – 14:01)

I would now introduce Mihai Iacob, researcher in education at EOS, Educating for an Open Society Romania. Formerly he worked primarily within the Institute of Educational Sciences in Bucharest, and he is currently pursuing PhD studies at the University of Bucharest. He is going to share with us the STE(A)M Education Framework developed within the STEAMonEdu project.

(09:00) Presentation from Mihai Iacob (14:01 – 14:10)

(01:00) Presentation of Natalia Spyropoulou (14:10 – 14:11)

One of the main results of the STEAMonEdu project is related with the definition of the Educators' profile adopting STE(A)M approaches and the Self-Assessment STEAM, which are going to be presented by Natalia Spyropoulou, researcher at the Computer and Technology Institute and Press "Diophantus" in Greece. She is a member of the Dynamic Ambient Intelligence Social Systems (DAISSy) and part of CTI research team involved in STEAMonEdu. She is also part of the scientific team of the Educational Content, Methodology, and Technology Laboratory (e-CoMeT Lab) of the Hellenic Open University, Greece.

(24:00) Presentation from Natalia Spyropoulou (14:11 – 14:35)

(01:00) Presentation of Athanasios Iossifides (14:35 – 14:36)

I would now move into the training programme that has been developed within the STEAMonEdu project for educators. For this reason, I would introduce Athanasios Iossifides, Senior Researcher at the Computer and Technology Institute and Press "Diophantus" in Greece. His background is within Computer Engineering and has been collaborating within the Hellenic Open University since 2010 as

lecturer, researcher within international projects developing a long experience in curricula and training programs design and management. His fields of research are IoT and STEM education.

(14:00) Presentation from Athanasios Iossifides (14:36 – 14:50)

(01:00) Presentation of Claudia Matera (14:50 – 14:51)

The last contribution related to the STEAMonEdu project is focused on policies within the field of STE(A)M education. I would like to invite on stage Claudia Matera, Project and Fundraising Officer at ALL DIGITAL. Her background is within the Creative and Cultural industries with a PhD in Contemporary History of Art and an extensive experience as researcher within Higher Education Institutions in Italy and the UK. Her fields of research are related with education and new technologies, Cultural Heritage and the Creative and Cultural Industries, gaming and the non-formal and informal practices and frameworks within learning.

(01:00) Presentation from Claudia Matera (14:51 – 15:00)

(10:00) Q & A (15:00 – 15:10)

(10:00) Break (15:10 – 15:20)

(02:00) Welcome and Presentation of Anastasios Mikropoulos (15:20 – 15:22)

Welcome back... I would like to introduce the second keynote speaker of today: Anastasios Mikropoulos, professor in ICT and virtual reality in education at the Department of Primary Education, School of Education, University of Ioannina, Greece. He is the director of the “Educational Approaches to Virtual Reality Technologies laboratory – earthlab”. His research interests are on learning technologies in mainstream and special education, and especially on virtual and augmented reality in education and educational neuroscience. He also serves as a consultant for the Greek Ministry of Education in topics such as digital school and in-service teachers’ further training. His speech is on the pedagogical aspects of STEM/STEAM education...

(18:00) Presentation from Anastasios Mikropoulos (15:22 – 15:40)

(10:00) Q & A (15:40 – 15:50)

(10:00) Break (15:50 – 16:00)

(00:30) Welcome back and Presentation of Esther Subias (16:00 – 16:00)

We now explore recent projects within the STE(A)M field, looking for innovative practices and approaches. I would invite again Esther Subias, Project Manager at Colectic, to hear the activities they carry out within the non-profit cooperative. For those that joined the conference now, Esther Subias has coordinated and supported Punt TIC and Omnia networks in Catalonia (Spain) and she is the Director of the Postgraduate studies in Ecosystems in Digital Learning: Innovation in Training at Barcelona’s University and she’s ambassador of Technovation Girls in Spain.

(04:30) Presentation from Esther Subias (16:00 – 16:05)

(00:30) Presentation of Claudia Matera (16:05 – 16:05)

ALL DIGITAL is carrying out projects within STE(A)M and I would invite on stage Claudia Matera, Project and Fundraising Officer at ALL DIGITAL. Her background is within the Creative and Cultural industries with a PhD in Contemporary History of Art and an extensive experience as researcher within Higher Education Institutions. She's going to introduce us to the 3D-Print project and the training programme they are developing.

(04:30) Presentation from Claudia Matera (16:05 – 16:10)

(01:00) Presentation of Agueda Gras-Velasquez (16:10 – 16:11)

Dr. Agueda Gras-Velasquez is the Science Programme Manager of European Schoolnet. As Head of the Science Education Department, she oversees the coordination of all STEM projects in which European Schoolnet is involved. She manages "Scientix", which is the community for science education in Europe, the 'Impact EdTech' cascading grant project and she coordinates the European Schoolnet's Ministries of Education STEM representatives Working Group. Her research focus is on Science Education Research and she holds a PhD in Astrophysics from Trinity College Dublin. She's going to introduce us to project STE(A)M IT, focusing on **An interdisciplinary STEM approach connected to ALL around us.**

(06:00) Presentation from Agueda Gras-Velasquez (16:11 – 16:17)

(01:00) Presentation of Cecilie La Monica Grus (16:17 – 16:18)

Cecilie La Monica Grus works at CESIE, a European centre of studies and initiatives focused on training & education, human resource development, and labour market orientation. She is the coordinator of the CHOICE project on strengthening the collaboration between educational institutions, businesses, and other key stakeholders. She's going to introduce us in the project more in depth a moment. Cecilie holds a master's degree in public policy and human resources and a master's degree in socioeconomic and environmental development of regions.

(07:00) Presentation from Cecilie La Monica Grus (16:18 – 16:24)

(01:00) Presentation of Sofoklis Sotiriou (16:24 – 16:25)

Dr. Sofoklis Sotiriou holds a PhD in High Energy Astrophysics and a PhD in the Use of Advanced Technologies in Science Education. He has worked at CERN, at the National Center for Scientific Research "DEMOKRITOS" in Athens and in the Physics Laboratory of Athens University. He is the Head of R&D Department of Ellinogermaniki Agogi, coordinating and developing research projects on advanced technologies such as wearable computers, Virtual Reality, Augmented Reality, robotics, Artificial Intelligence. He is the Director of the Ellinogermaniki Agogi Center for Teachers Training that offers courses certified by the Ministry of Education on educational design and digital resources development. His main research field is the design, application, and evaluation of virtual and digital media environments that could bridge the gap between formal and informal science learning.

(07:00) Presentation from Sofoklis Sotiriou (16:25 – 16:31)

(03:00) Presentation of panelists (16:31 – 16:34)

STE(A)M education is a field that has stimulated a growing interest from different types of stakeholders: policy makers, educators, researchers, education providers... We've seen earlier today, some innovative projects currently developed, and we would like now to be focused on what would be the future of STE(A)M education within the panel discussion. I would kindly invite Professor Achilles Kameas to join on stage to moderate the panel. He is professor of Pervasive and Mobile Computing Systems at the

Hellenic Open University in Greece. He is deputy Dean of the School of Science & Technology and Director of the MSc course “Pervasive and Mobile Computing Systems”, the Founder and Head of DAISy Research Group and the Scientific Coordinator of RU3 at Computer Technology Institute and Press “Diophantus”. Former chair of ALL DIGITAL, professor Kameas has been promoting ICT and digital skills for over 25 years, contributing to DigComp 2.1 and co-authored the Manifesto for Enhancing Digital Competences across Europe. His current research interests include peer learning platforms and social systems, STE(A)M education, IoT and smart environments, digital skills and flexible learning paths and he represents the coordinating partner of the STEAMonEdu project.

I would also invite the panelists to join us

- Erik Ballhausen is a senior desk officer at the European Education and Culture Executive Agency (EACEA) in the Platforms, Skills & Innovation unit. Over the years, Erik has managed a variety of Erasmus+ project portfolios in the fields of Higher education, social inclusion in education, applied semantics & analytic in education, development of pedagogies in support of digital transformation as well as educational research projects. Currently he is working on the forthcoming Erasmus+ Virtual Exchange action.
- Dr. Agueda Gras-Velazquez, Science Programme Manager of European Schoolnet where, as Head of the Science Education Department, she oversees the coordination of all STEM projects in which European Schoolnet is involved. She manages “Scientix”, which is the community for science education in Europe, the ‘Impact EdTech’ cascading grant project and she coordinates the European Schoolnet’s Ministries of Education STEM representatives Working Group.
- Cecilie La Monica Grus, Project Manager at CESIE, a European centre of studies and initiatives focused on training & education, human resource development, and labour market orientation, where she is coordinating ‘CHOICE’ project on strengthening the collaboration between educational institutions, businesses, and other key stakeholders.
- Dr. Sofoklis Sotiriou, the Head of R&D Department of Ellinogermaniki Agogi, coordinating and developing research projects on advanced technologies such as wearable computers, Virtual Reality, Augmented Reality, robotics, Artificial Intelligence. He is the Director of the Ellinogermaniki Agogi Center for Teachers Training that offers courses certified by the Ministry of Education on educational design and digital resources development.

I would leave the floor to Professor Achilles Kameas to introduce the panel’s topics.

(01:00) Presentation of the panel from Achilles Kameas (16:34 – 16:35)

(55:00) Panel discussion moderated by Achilles Kameas (16:35 – 17:30)

(15:00) Q & A (17:30 – 17:45) – Samuel reads the questions to panelists

(02:00) Presentation of the Best Practices insights session and invite of Paolo Russo (17:45 – 17:47)

I would like now to present Best Practices of STE(A)M education collected within the SteamOnEdu community of Practice from teachers across Europe. I would ask Paolo Russo to join me and share the criteria that have been set up when selecting the Best Practices. Paolo Russo, General Secretary at Stati Generali dell’Innovazione and President at CRHACK LAB F4D in Italy. He promoted the "Crowddreaming: Youth co-create Digital Culture" contest and he coordinates it. His focus is on exploring the opportunities digital cultural heritage offers as an economic development and social inclusion tool.

(02:00) Presentation of the criteria of selection by Paolo Russo (17:47 – 17:49)

(02:00) Presentation of the Italian Best Practice by Samuel (17:49 – 17:51)

Title “**GoodNews not FakeNews**” by Silvia Mazzeo from Italy

"GoodNews NOT FakeNews" has the aim of supporting students in developing critical skills in recognising information captured online through the development of a multimedia product.

It is a group activity that involves students aged 9-14 years old with a beginner level of knowledge on Engineering and Technology.

The challenge they address is to develop a series of animation videos to explain to their peers how insidious the world of the web can be and how to defend against misleading information. Students, working in team, support each other in understanding the topic, design the plot and characters for the video, create the visual parts and develop and animate the video using the free software Scratch. And then, they present it.

The skills students are able to enhance with this activity are related with core skills, e.g. IT skills, writing, creating and visualising skills (the A component within STE(A)M) and transversal skills such as critical thinking, peer learning, problem solving, communication, team cooperation and cognitive flexibility.

This is a really nice practice where it is clear the combination between STEM and the Art component. What I would kindly ask to Silvia Mazzeo is: Based on your experience in delivering this format with your students, what would you recognise as the key value of the Art component within the STEM setting? How has the creative element facilitated or challenged students when developing their projects? Feel free to share a practical example...

(03:00) Silvia Mazzeo answers the question (17:51 – 17:54)

(02:00) Presentation of the German Best Practice by Samuel (17:54 – 17:56)

Title “**Create a Smart home with Calliope**” by Maria Kruse from Germany

Create a Smart home with Calliope aims to provide students an impression of intelligent living with the support of technology. The activity is for beginners aged 8-10 years old, working in pairs.

The challenge is to create their own Smart home using program sensors of Calliope and build their flat within a box. Calliope sensors can measure temperature, light, acceleration and motion, compass, or acoustic signals. So, the format facilitates the understanding of electricity and programming thanks to the creative component in designing the flat.

The aim of “intelligent living” is to improve the quality of life, ensuring safety and making more efficient use of the energy.

This practice links STE(A)M with green competencies that are extremely relevant to develop to fight against the climate crisis. A perfect example on how STE(A)M education can support students in developing practical and theoretical skills to solve real problems in life. I would invite Maria Kruse to share with us her reflection on what have learnt students thanks to this practice from the technical aspects to more conceptual ones.

(03:00) Maria Kruse answers the question (17:56 – 17:59)

(02:00) Presentation of the Romanian Best Practice by Samuel (17:59 – 18:01)

Title “Scratch și..... Gool!” by Gabriela Ileana Crisan from Romania

Scratch și..... Gool! project aimed to increase confidence in programming, by stimulating the focus on the connections between the real world and technology.

It is a group activity that involves students aged 9-11 years old with a beginner level of knowledge on Technology.

Scratch și..... Gool! format combines football with technology, using the free software Scratch. Students design and develop the strategy and movements within Scratch that then they will deliver in the physical football field. In this way, they can easily familiarise with Scratch and translate from the real world into digital and vice versa, developing also soft skills such as strategic thinking and time management.

I would like to ask to Gabriela Ileana Crisan and her colleagues Bukos Istvan (the programming coordinator) and Sipos Arpad (the football team coordinator).

What impact this experience had on your students related with their confidence in coding and more generally with technology, also in terms of considering a career within STEM fields? And, if applicable, are there any differences between male and female students you engaged with?

(03:00) Gabriela Ileana Crisan answers the question (18:01 – 18:04)

(02:00) Presentation of the Greek Best Practice by Samuel (18:04 – 18:06)

Title “Visions of the future / science fiction (STEAM oriented)” by Evaggelia Kounavi from Greece

Students program two robots from scratch, design and develop a performance on stage where to include the robot. It is an advanced format for students aged between 14 to 17 years old.

Students with knowledge of Informatics programme the robot with JAVA for instance and apply their blended skills to enable the robot to react to obstacles, sing and dance on stage to being able to work with the performers on stage.

It has been developed engaging two different groups of students, one coming from the Informatics route and the other one from the Theatre one, so they were coming from two completely different subject and meet within the STE(A)M field. What I would like to ask you is how have they collaborated, what strategy have they found in understanding each other’s needs and what kind of impact has it had on them this experience?

(03:00) Evaggelia Kounavi answers the question (18:06 – 18:09)

(02:00) Presentation of the Spanish Best Practice by Samuel (18:09 – 18:11)

Title “Makers in the classroom - at Raval district (Barcelona)”

The aim of this format is to facilitate students to collaborate thanks to active learning and reflection on the meaning of belonging and rooting to a territory.

Students face the challenge of design a digital toy for primary school pupils and run a gaming session with them. To understand the target, students visit the primary school to partner with to talk and investigate with pupils and teachers' preferences and inhabits of pupils with playing.

It is for beginners' students aged between 6 and 15 years old.

The focus of the format is to stimulate in students responsible and active participation through real situations of daily life, within the concept of global citizenship and taking part at the good of society.

This best practice has been developed by Xavier Rosell that hasn't the chance to join us today but Pep Oliveras Escura, e-facilitator at Colectic in Barcelona, joined us on his behalf and I would like to ask him what is the added value in adopting this kind of format at local level for students, teachers, and the overall community?

(03:00) Pep on the behalf of Xavier Rosell answers the question (18:11 – 18:14)

(03:00) Presentation of the STEAMonEdu Photo Contest Award by Samuel (18:14 – 18:17)

At the beginning of 2021, within the STEAMonEdu project platform, it has been launched a photography contest with the aim of collecting the day-to-day STE(A)M activities. A total of 67 photographs have been sent from the teachers of the Community of Practice.

The jury selected three winning images based on the following criteria: active participation, aesthetic quality, effective explanation of STE(A)M education.

I'm delighted to introduce you to the first place titled "Mr. Science" and developed by Alina Frățilă

The project «Mr. Science» aims at optimizing the quality of primary education with the help of more motivating, stimulating and effective learning contexts, based on active learning and problematization, contexts that prepare students to adapt to the requirements of the society of the 21st century, training their digital skills. The educational project aims to promote active learning and problem-based learning (PBL) as strategic educational approaches in primary education. «Active learning has many benefits for education. And it facilitates the formation of basic knowledge, as well as non-technical skills such as analytical and critical thinking, entrepreneurship, the ability to collaborate in multidisciplinary groups, etc.», explains Alina Frățilă.

I would kindly ask Alina Frățilă to share with us what would you recognise as the strength of "Mr. Science" and which area, or part of it you would develop further.

(03:00) Contribution from the winner Alina Frățilă (18:17 – 18:20)

(01:00) Samuel inviting Peter Palvolgyi and Achilles Kameas on stage for Closing remarks (18:20 – 18:30)

STEAMonEdu final conference at the ALL DIGITAL Summit 2021



On the 14th of October 2021, within the 14th ALL DIGITAL Summit, a unique platform for the European digital inclusion sector, took place the STEAMonEdu project final conference, **gathering more than 400 registered participants**. EU policy makers, ALL DIGITAL members, EU stakeholders and private companies, academics, educators, and young people had the opportunity to get to know the results of the STEAMonEdu project by attending the **STEAMonEdu – Increasing the adoption and impact of STE(A)M education by the professional development of STE(A)M educators** conference. The event focused on three main aspects, all related with STE(A)M education: the results from STEAMonEdu project; the current innovations within STE(A)M education; and the future challenges in the field.

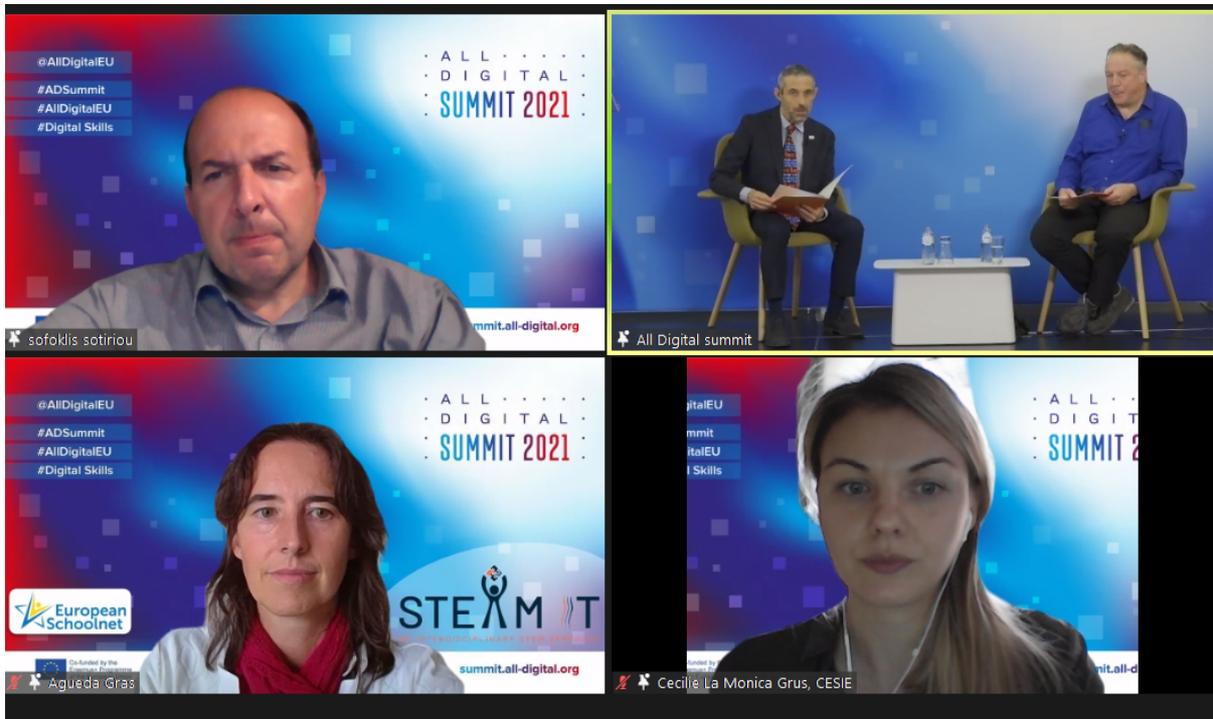
STE(A)M education nurtures critical thinking skills which are crucial in critical phases of societies to overcome problems and innovate thanks to a creative mindset. This interdisciplinary approach integrates the analytical and the creative thinking, stimulates the development of convergent and divergent skills at the same time, stimulating both the right and left side of the human brain. STE(A)M education prepares learners for current and future careers independently from the sector or field of interest and life when dealing with complex situations.

Important outcomes

- **Competence-based tools**
 - STE(A)M competence framework
 - STE(A)M educator profiles (based on ESCO)
 - STE(A)M readiness SAT (based on SELFIE)
- **STE(A)M education integrated framework**
 - STE(A)M educators community
 - Online collaborative platform
 - STE(A)M education framework
 - MOOC and Blended Course on "Design, orchestration and implementation of STE(A)M education"
- **Policy instruments**
 - Guide of STE(A)M educational practices and policies
 - STE(A)M policy influencer toolkit



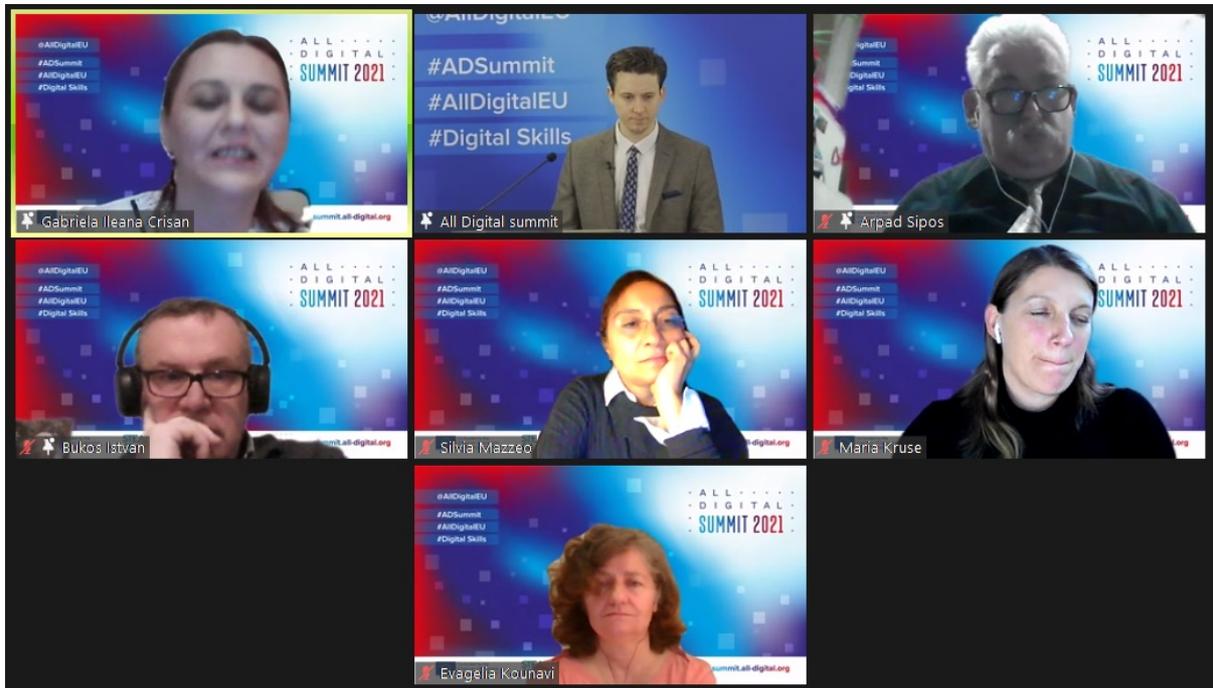
Participants to the event gained knowledge on the latest achievements, EU positions and **action plans to support and facilitate an increase adoption of integrated STE(A)M within the educational system**. Prof. Achilles Kameas, the scientific coordinator of STEAMonEdu project, gave an overview of the activities of the project, highlighting its important achievements.



Integrated STE(A)M sounds the next urgent goal within the field, where disciplines can be merged with a balance between them. STEM and STE(A)M is one of the priorities of the 2030 Digital Compass supported by a variety of initiatives announced as part of the European Skills Agenda, European Education Area and the Digital Education Action Plan with the aim of upskilling educators, facilitate women in accessing STEM careers and train professionals to solve real world problems.

Educators feel the need to tune into a STE(A)M mindset where integrate approaches, blend skills and knowledge into a more dynamic and flexible way of teaching and supporting learners in developing skills. During the panel discussion it has been stressed the strategic understanding of the field to avoid educating only some generations. At the opposite, STE(A)M education should refer to all generations.

The event concluded with the presentation of STE(A)M education best practices by the educators themselves. STEAMonEdu project is significant project not only thanks to the tools and outputs it developed that contribute to adopting STE(A)M approaches and methodologies within education, but also because it placed educators (teachers and trainers) at the heart of its activities and focused on their professional development.



The full recording of the session is available here:

<https://summit.all-digital.org/programme-2021-2/>

Information about STEAMonEdu project

The [STEAMonEdu](https://steamonedu.eu) project aims to increase the adoption and impact of STE(A)M education by investing in the community of practice and the professional development of educators and the pillars of implementation of STE(A)M education policies. Supporting educators' professional development through the developed blended training programme and the exchange of experience, collaboration and creative work of the community supported by an online peer learning and crowdsourcing platform. The consortium has developed the STE(A)M education framework, Educators' profile, and Self-Assessment STEAM, including competencies, policies and methodologies. Find out more at:

- Web: <https://steamonedu.eu>
- Email: SteamOnEdu@cti.gr
- FB: [#SteamOnEdu](https://www.facebook.com/SteamOnEdu)
- Tw: [@SteamOnEdu](https://twitter.com/SteamOnEdu)

Information about ALL DIGITAL

The Summit was organised by ALL DIGITAL – a Brussels-based network of organisations working to enhance digital skills of Europeans. Established in 2007 as an informal thematic network, in 2010 became a formal international non-profit association. Thirteen years later, ALL DIGITAL is a major European Association in the field of digital inclusion and empowerment, but also a family united by one purpose: empower Europe through digital skills.



ALL DIGITAL Summit 2021 - Feedback

Dear Participant,

We kindly ask you to answer a few questions about your experience at the online ALL DIGITAL Summit on 13-15 October. The programme is available here: <https://summit.all-digital.org/programme-2021/>

You can view the streaming of the plenary sessions online:

Day 1: https://www.youtube.com/watch?v=VYgEQOMY5Dg&ab_channel=ALLDIGITAL

Day 2: https://www.youtube.com/watch?v=JF2bDhXwTS4&ab_channel=ALLDIGITAL

Day 3: https://www.youtube.com/watch?v=hx1s2mWqcIU&ab_channel=ALLDIGITAL

Presentations are linked to the Programme: <https://summit.all-digital.org/programme-2021/>



claudia.matera@all-digital.org (non condiviso)

[Cambia account](#)



1. Your name (if you wish)

La tua risposta

2. Country (if you wish)

La tua risposta

3. Was it your first time at the ALL DIGITAL Summit?

Yes

No

4. How did you hear about the All Digital Summit 2021?

- A colleague
- ALL DIGITAL website
- ALL DIGITAL newsletter
- ALL DIGITAL mailing
- Social media
- Altro: _____

5. How do you rate the Summit and all the activities in general?



	1 (very poor)	2 (poor)	3 (fair)	4 (good)	5 (excellent)
Overall impression	<input type="radio"/>				
Programme of the event	<input type="radio"/>				
Format of the event	<input type="radio"/>				

Quality of speakers	<input type="radio"/>				
Overall relevance to your work	<input type="radio"/>				
Pace of the programme	<input type="radio"/>				
Balance of plenary & interactive sessions	<input type="radio"/>				
Organisation of the event	<input type="radio"/>				
Communication prior to the event	<input type="radio"/>				
Communication during the event	<input type="radio"/>				
Speed networking system	<input type="radio"/>				
Marketplace	<input type="radio"/>				

6. Were the networking opportunities enough?

Yes

No

7. Comments, suggestions

La tua risposta

8. Which day did you attend?

Scegli



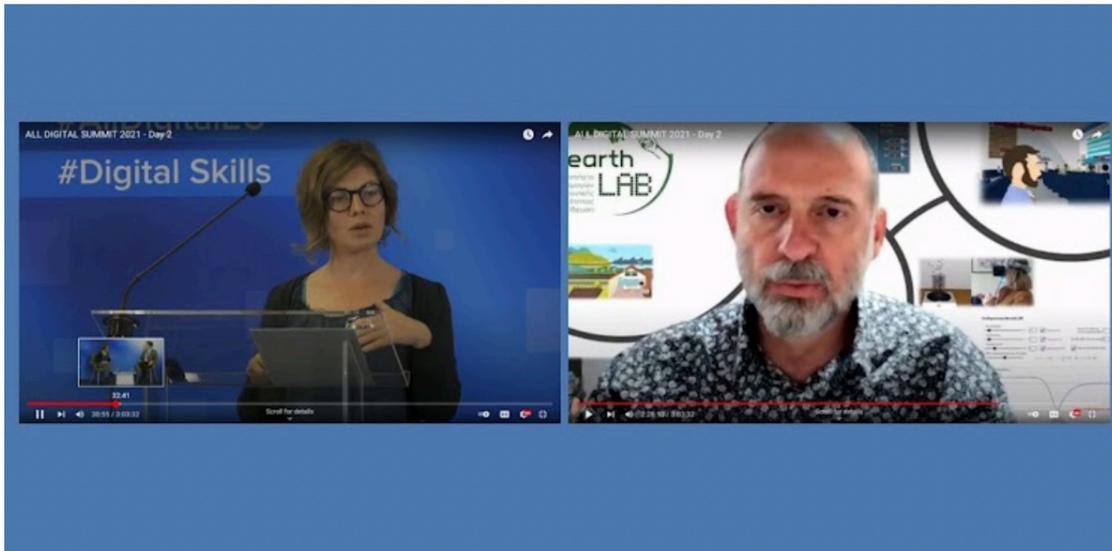
Day 2 - 14th October / STEAMonEdu

STEAMonEdu – Increasing the adoption and impact of STE(A)M education by the professional development of STE(A)M educators.

Please rate the following activities on Day 2.

You can find the programme here: <https://summit.all-digital.org/programme-2021/>

14. Keynote speeches



1 (low)

2

3

4

5 (high)

Did not attend

Anusca Ferrari,
Policy Officer,
European
Commission,
Directorate-
General for
Education,
Youth, Sport
and Culture

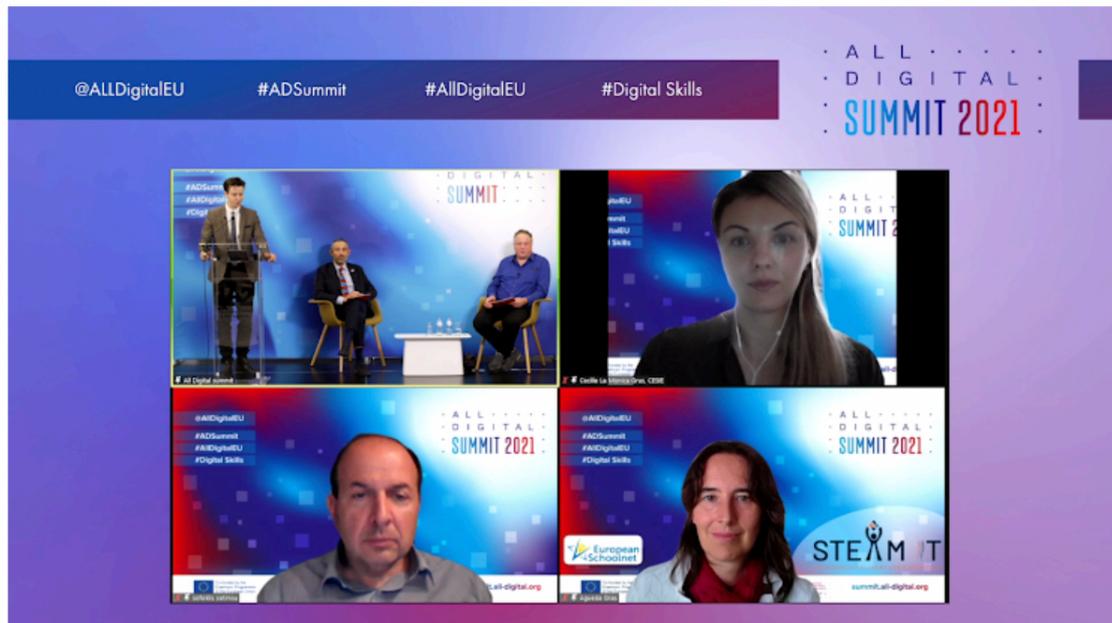


Steam-IT – An interdisciplinary STEM approach connected to ALL around us

Increasing Young People's Motivation to Choose STEM Careers

Deeper Learning in STEAM using Advanced Technologies

17. Panel discussion on STEAMonEdu



	1 (low)	2	3	4	5 (high)	Did not attend
Quality of speakers	<input type="radio"/>					
Quality of the content	<input type="radio"/>					

18. Add your comments and suggestions about the 2nd day

La tua risposta

General Aspects

27. B2match streaming event platform



	1 very poor	2 poor	3 fair	4 good	5 excellent
Easy to use	<input type="radio"/>				
Collaboration with other participants	<input type="radio"/>				
Technical support (if requested)	<input type="radio"/>				
Networking sessions	<input type="radio"/>				

28. If we could make one thing about the conference better, what would it be?

La tua risposta

29. What would you like to learn or experience during our future events?

La tua risposta

30. What is one thing — idea, technique, experience — that will stay with you after the Summit?

La tua risposta

31. Would you attend an ALL DIGITAL Summit again?

Yes

No

32. General comments about the Summit

La tua risposta

Thank you all!!!

@AllDigitalEU
#ADSummit
#AllDigitalEU
#Digital Skills

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· D I G I T A L ·
· S U M M I T · · · · ·

Many thank to our partners
for their help and support!

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DIGITAL SKILLS
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Co-funded by the
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See you in 2022!!!