

















eCraft2Learn 🚓

Digital Fabrication and Maker Movement in Education Making Computer – supported Artefacts from Scratch

Deliverable D6.7

Communication and dissemination activities report



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PROJECT DESCRIPTION

Acronym:	eCraft2Learn
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	Artefacts from Scratch
Coordinator:	University of Eastern Finland
Reference:	731345
Type:	RIA
Program:	HORIZON 2020
Theme:	Technologies for Learning and Skills
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Duration:	24 months
Website:	https://project.ecraft2learn.eu/
E-Mail:	office@ecraft2learn.eu
Consortium:	University of Eastern Finland, Finland, (UEF), Coordinator
	Edumotiva, Greece (EDUMOTIVA)
	Mälardalen University of Sweden, Sweden (MDH)
	Zentrum für Soziale Innovation, Austria, (ZSI)
	The University of Oxford, United Kingdom, (UOXF)
	SYNYO GmbH, Austria, (SYNYO)
	University of Padua, Italy, (UNIPD)
	Technopolis City of Athens, Greece (TECHNOPOLIS)
	Evothings, Sweden (EVOTHINGS)
	Arduino, Sweden (ARD)
	Ultimaker, United Kingdom (ULTIMAKER)
	Linnaeus University, Sweden, (LNU)



DELIVERABLE DESCRIPTION

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	services.		

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EXECUTIVE SUMMARY

This report covers the dissemination materials created and activities carried out during the overall project duration, mentioning how they were tailored in line with the Description of the Action and D6.2 Communication and Dissemination Strategy.

The document starts by presenting the Key Performance Indicators for dissemination materials and activities, describing how social media campaigns ran in the owned social media platforms, the communication through newsletters, the creation of an information-rich project website and additional visual materials, presented at various conferences, exhibitions and community gatherings all over Europe.

1 INTRODUCTION

This report covers the communication activities carried out throughout the overall project duration describing their implementation in accordance to the Communication and Dissemination Strategy. The fundamentals of the eCraft2Learn communication and dissemination strategy were set out in the Description of Action and include a dedicated work package for these purposes. Along with the creation of media channels and project identity materials, the first step in this work package included the drafting of a detailed Communication Plan and Dissemination Strategy to cover all project-relevant stakeholder groups. The Communication and Dissemination Strategy created as part of the D6.2 named first steps towards an effective dissemination, including guidelines for all the partners as well as Key Performance Indicators to measure the effectiveness of the overall activities. Since D6.2 described itself as a flexible document to be updated along the project for including external feedback of changes in the ecosystem, in line with the feedback from the first interim project review, a new set of KPIs was agreed upon by all partners.

This document starts by describing all set out communication activities, respective KPIs and their implementation, and further on describes the implementation each of the types of activities. The KPI overview presented at Table 1 names all the types of communication and dissemination activities carried out in the project, including: the project website, newsletter, social media channels (Facebook, Twitter, YouTube), scientific publications, project presentations in internally and externally organised events, and media presence in the form of blog posts, appearance in external channels, on air coverage etc. While the reporting on scientific publications has been covered by D6.3, this report describes the implementation of all other types of communication activities. The last section shows all materials created as part of WP6 for dissemination purposes.

2 Key Performance Indicators (KPIs)

The following table illustrates the Key Performance Indicators set-out for the second project period. The third column described the achieved results by the end of the project. The types of dissemination activities and outputs mentioned in the figure below and also described further on in this report, regard the social media activities and overall web presents together with the dissemination materials created to support the awareness raising on the web as well as in the physical events.

In maximise the outreach of the project results in the community, the KPI values were increased during the project, making the Dissemination Plan more ambitious and pushing the partners for more engagement in terms of dissemination of project results.

Table 1 provides an overview of all types of dissemination activities carried out throughout the overall project duration, the KPIs for each category, and how much was achieved by each type. As it can be observed, some types of activities resulted more successful than the others (e.g. Twitter over Facebook). For this reason, the main communication activities were than focused more on the channels that seemed to attract more interest and engagements. Of all the dissemination types/activities, the communication via newsletters is the only one meeting the set KPIs only on a very narrow margin. Since the number of newsletter subscribers failed to increase above 100, in spite of continuous advertisement through all other channels, the consortium did not put an emphasis on this communication way and instead tried to circulate project news more frequently via the other channels. The same is true to for the Facebook page, which was created a six months later than the Twitter page, and increased gradually in the number of followers until the end of the project, but not of the rhythm of Twitter. Taking account of all the differential patterns and characteristics of each of the dissemination channels/activities, the consortium tried to share abound project-related content online as well as on physical meetings all over the world, ensuring that all set KPIs are met and incentives of stakeholders to embrace eCraft2Learn are maximised.

The following sections describe how each type of these activities were carried out, illustrated by screenshots of example activities.

Dissemination item		Description	Minimum	Target	Achieved
Project Website		No. of Website Visits	15,000	50,000	~35,000
Newsletter		No. of Newsletters	5	8	6
		No. of Newsletter Subscriptions	100	200	~100
Social Media	Twitter	No. of Followers	350	450	455
		No. of Tweets	1000	1500	~1000
	Facebook	No. of Likes	150	200	~138
		No. of Posts	250	350	~300
		No. of Shares	80	100	~150
	Youtube	No. of Visits/ Downloads	400	600	~600
Publications/Papers/Reports/Proceedin gs		No. of Publications	5	8	20
Project presentations / Attendees at events		No. of Project Presentations at Events	15	20	~60
		No. of Attendees at the Presentations (total)	500	>1000	~6000
Media Presence		No. of Media Mentions (including Blogs)	20	60	~30

Table	1: Key	Performance	Indicators
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3 PROJECT WEBSITE

The project website was the initially created media channel. Initially it contained information on the project objectives, structure, work packages, milestones, consortium, contact details, subscription to the newsletter and social media channels etc. As the project progressed producing outputs, the website was continuously updated with the newest reports, scientific publications, news and illustration from consortium events, and event participated by the consortium partners and so on. The following illustrations show the actual structure and content on the project website, in the last project month. As the project reaches an end, the aim of the project website is to provide a resource which can be as easy as possible to understand by the stakeholder groups and enable a smooth introduction and familiarisation with the eCraft2Learn environment for teachers, students, coaches etc. For this reason, next to the 'About' tab which lists a project overview, the milestones, reports, scientific publications, data and privacy principles of conducted research etc., a 'Getting Started with eCraft2Learn' section was created. This section shall provide user-friendly manuals on understanding what the ecosystem is about, what you can do through it, what are the learning outcomes, what types of tools and materials you need to get started, how you can still make use of some component of the ecosystem through different configurations of materials that a teacher/school might have in common, what is the step-by-step pedagogical methodology teacher/coaches have to follow, what are the learning outcomes, related recommendations for all stakeholder groups etc. The first two subsections under the 'Getting Started' tab, 'Who is it for?' and 'What can you do with it' list the Personas and the Use-Cases created to understand the ecosystem as part of WP3. Further manuals were created by reformulating the content from project reports, making it more user-friendly. The final version of all manual for the 'Getting started with eCraft2Learn' will be uploaded early January, to ensure that contents from the last project reports (WP4 and WP5) are integrated.



FIGURE 1: Project Website: Homepage

	Main Objectives		
	velated within the pedapogical technical and business of a guiding structure. More informations can be found in Soc		r.
Performance Performac	CONTRACT OUTCOME	CONTRACTORS CONTRACTO	
 Emaining a peologycipical practicability of learning designs. Convoluping the integration of an exclusivity amount nationalism into already existing STECAM. 	anophis accessible performancies about the proprime of each busines, and data from previous accessions.	indumy analong isl workshaps	
	Project Results		
OVERWATCHING STATE	siantiking amang planes that The lacaritying commutations y and informal transverse. By file micro-transverse to be being advantations of micro-	FOCUS FOCUS The constraint of the second of	
personalized and adaptive lawreng in \$1544 enhants dowlitzenent of traf central pikitz	in the assisting the and final beny PL execute schemeniky generated to	(i.s. slinut staturd (22 preven Vehiclaters, and maker	

FIGURE 2: Project Website: Homepage

eCraft2Learn 🚓 Howe Acour	STARTED WITH BCRAFT2LEARN ACTIVITIES MEDIA CONSORTIUM CONTACT
PROJECT OVERVIEW	Harmen 1993, digit dindavidari
	 When the standard standard standard the way people work in industry, there services, media and commone and has upped necessary upped to the standard sta

FIGURE 3: Project Website: About> Project Overview

	eCraft2Lea	arn Concept
Con		Ine Constructivat learning by making methodology is strongly related to the do-th the «Crwh2Learn project recognoses the potential in digital fabrication and making DY thethenologies. More precisely, 30 DY frechnologies emerge as unique making tools that can create a learning
	5 Al TOOLS Excelose Exercises in the course	ecospend for attracting and keeping learners interest and motivaed. An indicative central of the collisticare involvement from the learners' perspective is attrained for ecolisticare involvement from the learners' the CardityLearn ecosystem, starts with students' own loaks, paked by esplores give visious (tops 1). These a binning stage follows where the ecosystem starts with and neeks for the relations of their idea (stopp 2). The students start neeks for the relations of their learners developed in a moking process that includes trainscorming, framework developed and merce and refers to the closed and their for students then engage in a making process that includes trainscorming, framework developed and merce and refers to the process theory (steps 2 and 4).
	× 3	and finally altain their finished projects with the open community (reage 5).
Dign Mark		WE ARE ALSO HERE and takes the handles and a generalized and a ge

FIGURE 4: Project Website: About> Project Overview

eCraft2Lear	C ABOUT GETTING STARTED WITH ECRAFT2L	2.LEARN ACTIVITIES MEDIA CONSORTIUM CONTACT
PROJECT STRUCTUR	ξĔ	Hanne - Mithold Structure
WPI – Coordination management I Technological environment implem	en consists of six main working packages: 5 quality assurance: VMP2 – Managing open innovisions & Mure use scenari entation, VMP5 – Pilots & evaluation, VMP6 – Dissemination and exploration. <cted as="" detailed="" graph.="" in="" it="" on="" right="" shown="" sided="" structur<="" structural="" td="" the="" way=""><td></td></cted>	
WP1 - COORDINATION MAX O1 1 General report on 1 O1 2 Data management	te project results	
+ WP3: DEVELOPMENT OF P LEARNING FRAMEWORK	NOVATIONS AND FUTURE USE SCIENTIGS ISSONALIZED, CRAFT AND PROJECT RASED UTMINITING THE TECHNOLOGICAL	
WP5 : DISSEMINATION AN WP6 : DISSEMINATION AN	DEXPLOTATION	urs, Bu?: Business Objectives, PO: Pedagopoli Objectives, TO:

FIGURE 5: Project Website: About> Project Structure

REPORTS	Home + REPORTS
WPT : COORDINATION MANAGEMENT AND QUALITY ASSURANCE	
✓ D1.1 eCraft2Learn Progress Report M6	Download 📥
✓ D1.2 Data management plan	
WP2 : MANAGING OPEN INNOVATIONS AND FUTURE USE SCENARIOS	i.
✓ D2.1 Enabling maker innovations in education. Barriers and drivers.	Download 📥
✓ D2.2 Puture Use Scenarios and Roadmap	Download 📥
✓ D2.3 Applied innovation management techniques	
WP3 : DEVELOPMENT OF PERSONALIZED, CRAFT AND PROJECT-BASED LEARNING FRAMEWORK	
✓ D3.1 Development of personalised, craft- and project-based learning	Download 📥
✓ D3.2 Description of Use cases (M5)	Download 📥
✓ D3.2 Description of Use Cases (M10)	Download 📥
D3.2 Description of Use cases (M15)	Download 📥
D3.3 Open educational resources description	Download 🚣
 D3.4 Manual of project- and craft-based learning STEAM training for teachers (M8) 	Download 🕹
 D3.4 Manual of project- and craft-based learning STEAM training for teachers (M16) 	Download 📥
WP4 : DESIGNING AND IMPLEMENTING THE TECHNOLOGICAL ENVIRONMENT	
✓ D4.1 Architecture Analysis and Design	Download 📥
✓ D4.2 Tools for a digital maker space in schools.	Download 📥
✓ D4.3 A software solution for the educational extension	Download 🛓
✓ D4.4 The unified user interface – A software solution for 3D design, programming and making computer-supported artefacts	Download 📥
	Download 📥
D4.5 User manual for programming of computer-supported artefacts with integrated debugger and 3d modelling, simulation and printing – the unified user interface approach	

FIGURE 6: Project Website: About > Reports

eCra	aft2Learn 🜞 🕬 🖉	ABOUT GETTING STARTED WITH ECRAFT2LEARN	ACTIVITIES MEDIA CONSORTIUM	CONTACT
PUBLI	CATIONS			ne - PUBLICATIONS
LIST OF F	UBLICATIONS			
✓ interpol	ating (and extrapolating) 3D turtle programs in Beetle	e Biocis		Download 📥
🗸 Al Progr	amming by Children			Download 📥
✓ The eCr	ft2Learn project in 1st EPAL KORVDALLOS: integration	ng a PabLab in the school curriculum		Download 📥
✓ Hacking	the knowledge of maker communities in support of a	21st century education		Download 📥
✓ Al Progr	emming by Children using Snap! Block Programming	in a Developing Country		Download 📥
✓ Putting	prward an open craft and project based methodolog	g/ for computer-supported artefact construction		Download 📥
🛩 Child-fri	endly Programming interfaces to Al Cloud Services			Download 📥
✓ 57€M et	lucation post-graduate students' training in the eCral	h2Learn ecosystem		Download 🛓
✓ STEAM	earning in formal and informal settings via craft and	maker projects		Download 📥
✓ innovati	on management in schools. Barriers and enablers to	making as educative practice		Download 📥
✓ Not Eve	y Remix is an innovation: A Network Perspective on t	the 3D-Printing Community		Download 📥
🗸 Al Progr	amming in Snap!			Download 📥
✓ 8 proget	to eCraft2Learn: Fabbricazione Digitale e Movimento	o dei Maker in ambito educativo		Download 📥

FIGURE 7: Project Website: About > Scientific Publications

DATA MANAGEMENT AND ETHICS
eCraft2Learn – Data Management Plan
1. The Data
During the eCraft2Learn project life the following data collection methods will be used for collecting the described types of data.
Countributive data – questionnaires surveys, activity logs from online participation, trace data from using technical devices (e.g. 3D printers) Couldative data – videotucido recordingo of plot sessons, observation notes, interviews, learning daries, focus group discussions Codes – programming activities surve codes our ng ploting sessons
The data will be collected by authorised researchers and assistants of the eCraft2Learn project.
2. Rights
The data collected belong to the eCraft2Learn project. The University of Eastern Finland manages the collected data on behalf to the project consortium and access is
grantes to the partners to use the data for research, study and demonstration purposes after proper anonymisation whenever required
Furthermore, according to the Grant Agreement of the project open access to fully anonymised data used in the production of solerafic publication is be granted. In cases when full anonymisation of data is not possible (such as video/audio recordings) the data is be kept protected according to the scheme layout by the EC (see Graph below)
The new and provide the second se
Europe (OpenA/RE)
R Cuscemination Cuscemination Resorts Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscemination Cuscem

FIGURE 8: Project Website: About > Data Management Plan

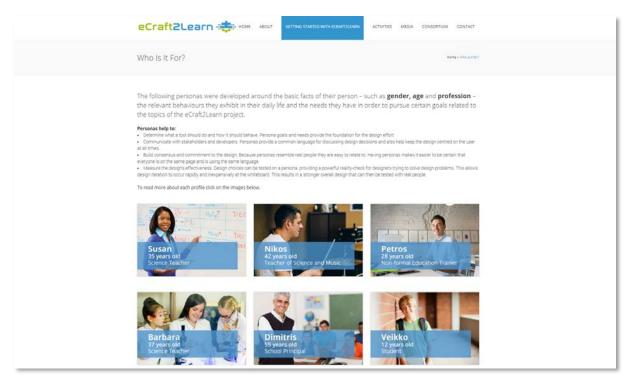


FIGURE 9: Project Website: Getting Started with eCraft2Learn

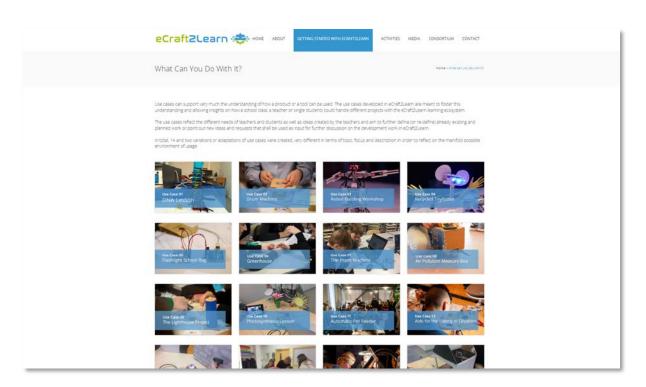


FIGURE 10: Project Website: Getting Started with eCraft2Learn

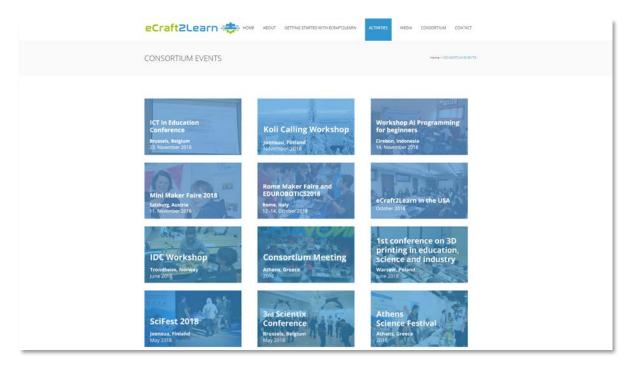


FIGURE 11: Project Website: Activities > Consortium Events

Arduino EDU Livecast Series	Meme + CONSORTING EVENTS	+ Anturna 601 Lovisont Serves
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		- 000
	LIVE CAST	
ARDUINO		
-		- 0

FIGURE 12: Project Website: Activities > Arduino Edu Livecasts



FIGURE 13: Project Website: Activities > Community Events

	Craft2Learn 💠 ном нолт нотиты алисстол	s инсил солонтним солтист
N	MEDIA	rementation
		<section-header><section-header><section-header><text><text><text><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></text></text></text></section-header></section-header></section-header>

FIGURE 14: Project Website: Media

	HOME ABOUT GETTING STARTED WITH ECRAFT2LEARN ACTIVITIES	A CONTRACTOR CONTRACTOR	
CONSORTIUM		Home - CONDORTUNE	
WHITEHET AT CATEGO FILMS	UNIVERSITY OF EASTERN FINLAND		
The Lawrence of an exercise States Codes Lawrences oversetter F and States Codes for A exercise Reconstruction Reconstruction Additional Additional	UNIVERSITY OF EASTERN FINLAND THE COORDINATE: The COORDINATE: The Coordinates Libragement action and the participated the activities are first and remements, if \$100 multitation and 2.800 members of 0.801 multitation of tables million are of the large travelets on finding to tables millions are folding to the state of the university of tables millions are of the large travelets on finding to tables millions are folding to the state of the university of tables millions are of the large travelets on finding the folding in most then 100 members that the university folding in most then 100 members that the of the university folding in most then 100 members that the of the university folding in each tables of the university unersity with a fifther folding in each tables of the university unersity and prefersity millions the observers and the woment of the university of the one shows the the university of the university designed and officiency of natural resources. The university of the university of the university of the university of the university of the university of the university of the university of the university of the unive	PERSONAL DETAILS Professor Market Tukkinen A Provinciumationalista Professor Nati Mikitato-Siegi A Provinciumation Crafilin Suero Monterio A Provinciumation A Provinciumation A Provinciumation	

FIGURE 15: Project Website: Consortium

	ED WTHEORNT2LLARDY ACTIVITES MEDIA CONSKITUM CONSKITUM
EXTERNAL ADVISORY BOARD	Hame - ETTENAL ADVECT BLACE
Dr. Sandra Schon, Satcharg Research Expert in making with children, inducational technology and enterprise. Dr. Garg Stager, Constructing Moders Konwiedge LLC One of the worlds leading-experts and advocates for computer programming robotics a Ma. Sphila Liber Martinez, M.A., Constructing Moders Konwiedge LLC For the goats tain, parts, Sphia was President of Generation VEB, a morp profit with a missio technology Dr. Mikor Veterantivo, University of Jydiskylä Expert on Technology Enterped Education-research with over 15 years of experience co worldwide	n of empowering young people to improve their schools and communities with modern

FIGURE 16: Project Website: Expert and Advisory Board

4 NEWSLETTER

As mentioned above, the newsletter seemed to be less popular in attracting a large audience. Other channels were however continuously used to promote it and rich contents of project outputs were circulated in regular quarters also via the newsletters. For an overall project duration of two years, 5 newsletters were set as an optimal number of communicating packages of information through the newsletters, and 8 would be an ideal number depending on the success of such materials. Since the audience of the newsletters however failed to increase very much beyond target numbers, we focused on distributing the content more frequently on other channels. Thus, by the end of the project five newsletter were sent out in total. A sixth one will be distributed after the final update of all user manual on the website, the creation of the online community group for the exploiting the ecosystem in a sustainable way in the future, and describing the next steps of 'eCraft2Learn 2.0'. The newsletters distributed during the project included information on the research reports, news and announcements regarding the project pilots, pilot outcomes and testimonials, news and announcements on project activities such as calls for proposals/registrations on our workshops, outcomes of such events, important community events etc.

eCraft2Learn 🚟



PROJECT FACTS

The eCraft2Learn project will research, design, pilot and validate ecosystem based on digital fabrication and making technologies for creating computer-supported artefacts. The project aims at reinforcing personalised learning and teaching in science, technology, engineering, arts and math (STEAM) education and to assist the development of 21st century skills that (STEAM) sources and assist the overlaphine of the central years and promote inclusion and employability for youth in the EU. The eCraft2Learn consortium is glad to share with you the latest information on the project and introduce you to the benefits of getting involved in our

Only a strong consortium can guarantee the success of such a project. Even er brings in different strengths and will therefore contribute to different parts of the project. Learn more about our Team here: Consortium Partners

INSIGHT THAT WE ARE HAPPY TO SHARE

Our first reports are here and downloadable:

Deliverable 3.1 "Description of personalized and adaptive scenarios" presents the foundations for developing the craft- and project-based learning methodology for flexible and open learning scenarios. It includes a description of personalised and adaptive learning scenarios that serve the pedagogical development of craft- and project-based science serve the pedagogical development of craft- and project-based science, technology, engineering, arts, and mathematics (STEAM) education. The aim of the report is to develop the pedagogical framework for an appropriate craft- and project-based learning methodology to deploy our tech core. The framework is developed within five stages that take into account the features of personalised and adaptive learning within flexible and open learning scenarios. (1) Ideation – Exploring the work; (2) Planning a project; (3) Designing and building a computer-supported artefact: (4) Programming the built computer-supported artefact and (5) Show casing

also deliberates with Deliverable 4.1 "Architecture Analysis becification" which presents information about the vision and early defi for the eCraft2Learn technological environment with a focus on the software

IMPRESSIONS FROM OUR EVENTS

The sunny Mario Robot Head" Workshops at the University of Eastern Finland



Several workshops with groups of 13-15-year olds were run by the UEF during the olds were run by the UEF during the international science event in Joensuu "SciFest 2017". Students were provided the Arduino electronics platform, Raspberry Pi software and several other materials like paper, plastic or glue for building a robot head.

In an interview about the experiences and observations during the workshop, Hana Mygren – researcher of ducation science and PDD candidate at the UEF – described the workshops as a success. In her perception, the students seemed very excited and eager to learn new things. She however pointed out a significant knowledge gap on science basics which will need to be addressed by the future eCraft2Learn platform. She also recommends continuously sharing students' experiments and projects to the community to capture the interest of other students less interested with cience and crafting.

Project presentations in Italy, Greece and Austria



Menegatti presented the project to a wide network of robotics engineers at the bigges innovation event in northern Italy, the Galileo Festival of Innovation, which took place or Innovation, which took place on 11-13 May 2017.

In Athens students, teachers and other gro of interest had the opportunity to get to know more of the project and test some basic hacks at two major events: the Athens Science Festival from 29. March to 2. April 2017 and the Athens Mini Maker Faire on 6-7 May 2017



University of Padova Professor Emanuele

Viennese students, educators and makers could also have insights on the objectives, methodologies and current progress of the project by the presentation at the Vienna Maker Faire from the project partner ZSI from 20-21 May 2017



FIGURE 17: Newsletter 1



EVENTS ON THE HORIZON

Are you looking for similar events in the maker move articrafting in education? Don't miss the opportunity and visit one of these events

EDULEGRN17 EDULEARN17 3.07.2017



eCraft2Learn 🐲



Welcome to the November edition of the eCraft2Learn newsletter These newsletters are being provided to inform you on recent project developments and outputs.

PROJECT FACTS

PROJECTACTS The eCraftZeam project will research, design, pilot and validate an computer-supported metaleta. The project aims at renitoring personalised learning and beaching in subceive, technology, explorement, as than dimit (STEAH) education and to assat the development of 2 tat century skills that promote inculsion and endipsiyebility for youth in the CU. Only a strong cancerium can guarantee the subcess of such a project. Every partner thrings in different strengths and therefore conditionals to different parts of the project. Learn more about our Team here: <u>Consortium Pathers</u>

The eCraft2Learn consortium is glad to share with you the latest information on the project and introduce you to the benefits of getting involved in our activities.

INSIGHTS FROM OUR NEWEST REPORTS

Report on Innovation Management in Education

UPCOMING ACTIVITIES

This report explores the management of open innovations in education. It decuses the role of appropriate funding, national regulations, curricular flockidity, technologies ready to use and adequate training opportunities for teachers, on the basis of 25 interviews from 9 European countries. See the fore relievation and the set of the s

Manual of project- and crafts- based learning STEAM training for teachers

The manual provides the basic information about craft- and project-based learning and STEAM education for training teachers and opens the basic concepts of the technology to be used during training. It also includes the provider of thating by incorporating the 5-shop pedaging and the idea of giving a tool to teachers for teaching robotics and easing their path into I. See

Deployment of small-scale pilots with learners in Athens

Plots with the students in Greece are going to start the 2nd week November both in the formal education site and in the informal educational si of Athens Technopolis.

The plots will be carried out by the teachers that participated as trainees in the eCraRLearn teacher training conducted in Athens. The 20 teachers will be now given the opportunity to work with the students on projects that focus on artifact unaing and build you the eCraRLearn methodology and to support the students in using creatively the selected technologies and tools.

The Craft2Learn workshops in the school settings will be integrated into the school program/curriculum and will run for 10 weeks for 3hrs/week with the participation of 2 school classes (approximately 25 students, 15-16 years old).

The teachers are encouraged to act as coaches assisting the students as they create their learning journey. They will need to acaffold the learning process but also to show readiness in participating in co-learning experiences.

Are you looking for similar events in the maker movement and digital articrafting in education? Don't miss the opportunity and visit the upcoming one:

Lawrence

We look forward to sharing more results soon!

EVENTS ON THE HORIZON

ICERI 2017

1 ++

Description of the eCraft2Learn Open Educational Resources

The development of Open Educational Resources guiding users through their first experiences in the eCraftLearn ecosystem has started. Our report 03 a provides an early description of the OERs that will be produed by the project. The OERs will be made available to the open community through appropriate crastics, Follow the development of our OERs and our OERs will be made available to the open community through the our of the OERs will be made available to the open community through the our of the OERs that will be appropriate crastic provides the our of the OERs will be an our of the our of the our OERs the output of the OERs the output of the here.

eCraft2Learn Ecosystem Use-Cases and Personas

Building on the work done in <u>Delverable 3.2a</u> which sets up a methology for the establishment of use-cases of the <u>CORECLearn</u> ecosystem and provides some initially identified scenarios, our second report enhances one scenario presented in the first one and describes four other <u>Use-Class</u>. In order to increase the understanding of the end-users that will teach and learn within the <u>CrastClasen</u> environment, the second report presents as el of <u>Principa</u> as a method for enhancing engagement and really. Both use-cases as well as personas very built on the basis of qualitative interviews and student questionnaires. See the detailed analysis of the datasets <u>here</u>.



THE eCRAFT2LEARN UNIFIED USER INTERFACE (UUI) DEVELOPMENT

ft2Learn 🚓

T 0 0 7 0 0 0

The first version of the Unified User Interface (UUI) that lies on the core of the claft2learn ecosystem was recently released. The UUI is based upon the the pedgopoic stages underlying the claft2learn project idealinn, planning reation, programming, and sharing A large number of tools that if each of these stages was carefully evaluated for selecting a set of forward and available tools. All of these tools are file, most of them are web-based and many are open source. We are also working on adding new functionalities to many of them. This includes generating event togs for providing user guidance based upon tearning analytics. We have also enhanced some of the programming tools on support an easy to use interface to Al cloud services for imager ecosyntion and speech input and output. The Unified User Interface integrates launching, documentation, vent togping, and an umbrefla under which tools are run as sub-windows of the main interface window. The UUI runs in any modern browser and is a workible at thigh? uns in any modern browser and is available at https://afsheenam.github.io UUV.

eCraft2Learn 🐲

INSIGHTS WE ARE HAPPY TO SHARE

UPCOMING ACTIVITIES

IMPRESSIONS FROM OUR ACTIVITIES

THE .

Capacity building workshops for teachers carried out in Athens and

Project partners EDUMOTIVA and UEF organized several rounds of teacher training workshops in Athens, Greece and Joensuu, Friland. The aim of the workshops was to familiarize the participant teachers with the cicaTL2carm reflected becambiges and tools. Through the workshops the teachers were encouraged to reflect upon the cicaTL2care methodology and the society encourage of the reflect upon the cicaTL2care methodology and the society and the init their teaching practices. They were also introduced to the ectraTL2care technologies and tools through hand-on tasks that were easy to start with but concurrently were offering apportunities for exclinion and engagement in once advanced and complex tasks. During the Sessions at EUDUOTTV, the trainess were engaged in tasks related to DY electronics, visual programming. 30 modeling. 30 printing and remote interaction with ther arteriads.

artefacts. Preliminary feedback based on discussions in the end of the training sessions has provided encouraging evidence that teachers appreciated the technologies and pediagogies introduced in the course while some skepticism was expressed regarding the shift in their role as coach during the plots. A structured analysis of the feedback from the teachers is in progress and will

be presented in our upcoming newsletter.

eCriticitizers project pilots in Athens and Jeensuu The first round of piloting activities running from November 2017 to February 2016 was competed both in Athens, Greece and Jeensuu, Friand with highly packive feedback from the barchers and the activities. Journaum of pilot were hosted at the <u>Instanton school</u> and <u>Useds school</u> with groups of 13-15 year citils from T-Machine School and <u>Useds school</u> with groups of 13-16 year citils from T-Machine School and <u>Useds school</u> with groups of 13-16 year citils from T-Machine School and <u>Useds school</u> with groups of 13-16 in Athens the pilots took piece at a formal and formal education setting, the tieEALL of Koryalises and T-Ghonopare respectively. In Intel 51 subusets ago 13-17, and 15 trachers had the chance to test the eCristQLearn pedapopolal model

In the context of the 1st pilot round the students were involved in ideating solutions, planning their strategies, creating (through 30 modelling, crating, digital fabricidin, 30 pinting), programming (to make their creations interactive) and sharing their creations and knowledge gained with others. For more details on these activities cloth prec.



PROJECT FACTS

PROJECTACTS The CCr8TL2tam project is researching, designing, piloting and validating an ecosystem based on digital fabrication and making technologies for creating elaming and leaching in science, technology, engineering, arts and math (STEAH) education and to assist the development of 21st century skills that promote inclusion and employability foryouth in the U.O. And you are a surger to the surger of the surger of

INSIGHTS WE ARE HAPPY TO SHARE

eCraft2Learn project pilots in Athens and Joensuu The first round of picking activities running from November 2017 to February 2016 was completed both in Athens, Greece and Joensuu, Friland with highly positive feedback from the tearchers and the students. In Joensuu the pilots were hosted at the <u>citation school</u> and <u>usees school</u> with groups of 13-15 year oils from "The three athent and formal education setting, the LEPAL of Koyadios and Technologie respectively. In total 51 students and 13-17, and 15 teachers had the chance to test the eCraft2Learn pedagogical model.

In the context of the 1st pilot round the students were involved in ideating In the context of the standard standard

FIGURE 19: Newsletter 2 and 3







ICERI 2017 16.-18, November 2017

YAJ9 20170809 93743



FIGURE 18: Newsletter 2



Our UUI has been further developed to allow a login function for the learners. This function is also used for identifying the pilot site. These additions are also needed for customisation of the proposed solution. Open Educational Resources have also been integrated to guide learners. Users can access the OERs through the menu on the top-right corner. To access the UUI follow the table. this link

UPCOMING EVENTS

eCraft2Learn Workshop "STEAM Learning in formal and informal settings via craft and maker projects" We are happy to announce the Call for Participation for our upcoming workshop taking place on 19 June as part of the DC Conferece in Norway. Find more details on the workshop structure and participation <u>here</u>.



New Conference Presentation by ZSI

New Conterence Presentation by 25 Our project members at 25, D. Christian Voigt and Dr. Margt Hofer are presenting the paper "Innovation management in schools: Barriers and enablers to making as educative practice" at MKWI Conference in Lüneburg, Germany on 09, March 2016 in the session "FL-tearning and Educational Service Engineering". More infos about the conference can be found <u>here</u>.

PAST EVENTS

Lecture and webinar in South Africa and Ecuador Our Project Coordinator Dr. Calkin Suero Montero held a webinar introducing the concepts of Project-based Learning and Maker Movement in the Classroom at elemerge Africa – an educational technology network comprised of researchers and practitioners in African higher education. The recording of the webinar is available titters. She also held a lecture on the application of STEAM and critical thinking in research and education at the Regional Amazonian University RUAM in Ecuador in front of around 60 educational researchers.





EVENTS ON THE HORIZON



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O Twitter

S'E

PROJECT PARTNERS

STAY CONNECTED O Website

rafdusam is funced by the European Commiss Grant Age



Athens Science Festival April 2018

SCIENTIX Conference

iFest Joensuu av 2018

Email

(3)³⁰⁴¹

STEM Disc April 2018

May 2018



Lecture on AI Progamming by Children in Indonesia Dr. Kon Kahn from the University of Oxford gave an invited talk to over 200 future science and computer science tachters in Indonesa. The talk, "A Programme, by Children: How children can learn about technology, computing, psychology, and perception while creating At algos of their own design" resented and demonstrated the AI education extensions developed as part of eCarCBLearn. There are plants to by the softwer with students at an associated junior high school. Slides from the talk are available <u>hors</u>.





wcasing at BETT Show 2018 in UK partner Utimaker and its education ject took eCraft2Learn to the annual BETT



Spring-former 2018 has been a very boay and exciting time for all the team in organizing and participating in many large scale events all over the world - deseminating addahlbaam to educational, scalarific and natural communities. Have a large at organization of advices, - including to concert events and several organizations to the scientific community - to learn more about e02x101aam taking the world (-)



FUTURE ACTIVITIES

It doesn't and here! We are already very excited to meet a vast makers community Rome in October. Join us at the EDUROBOTICS Conference on Oct. 11th and check stand at the huge Rome Maker Pare on Oct. 12-14th.



PROJECT FACTS

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FIGURE 21: Newsletter 4









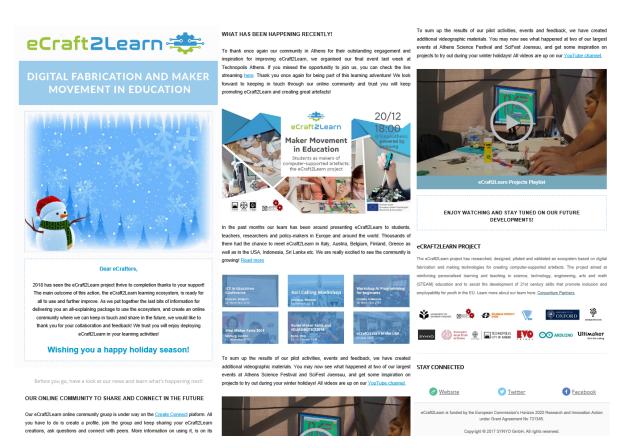


FIGURE 22: Newsletter 5

5 SOCIAL MEDIA CHANNELS

Social media platforms represent an integral part of the dissemination activities carried out through the project. In accordance with the Communication and Dissemination Strategy, the communication through the social media channels was carried out throughout the entire project duration. The second project period, matching with the achievement of more objectives and release of more outputs, led to the expansion of the online audiences on all channels and an increase in the engagement of the users towards the content produced from the project results.

The type of content shared on all owned social media channels includes output of the project (reports and publication and extracts from them), awareness raising and recruitment of participants for the project activities (workshops, exhibitions etc.), and related content from external sources that is relevant for the maker community (e.g. knowledge articles and blog posts, research publications, policy papers, upcoming events and announcements, quotes, and generally important knowledge for the field).

The collection and posting of content for social media campaigns in the second half of the project, was mostly made in a collaborative manner by different consortium members ensuring that the continuous updates from the project activities and a broad variety of content is shared.

Besides the social media channels owned in the first project period, a YouTube channel was created during the project's first year. The YouTube channel hosts a big collection of visual contents such as

Open Educational Resources made available in the Unified User Interface, sample eCraft2Learn projects done during the pilots in Greece and Finland and other good practice videos and validation interviews from other events.

The following sections show some types of posts and campaigns on all owned social media channels, and related analytics if provided by the social media platform.

5.1. TWITTER

Twitter was one of the first platforms to have been created which had a steady increase in the number of followers and engagements, reaching around 900 followers by the end of the project. As Twitter has a wording limit, it was mainly used to share related content for the community (retweets from relevant stakeholder and knowledge providers e.g. Scientix, European Schoolnet, Arduino, CREATE Education Project, Makerspaces, Laura Fleming etc.), and post links to publications, reports, events, videos, and other pieces of knowledge acquired in the project. As it can be seen from the analytics, several Twitter posts were particularly successful and involved more than 3,000 engagements with the top one being above 30,000 engagements.



FIGURE 23: Twitter Channel

vee	et ac	tivity								🗎 Jar	n 27 – Mar 31, 2017 🗸	🛓 Export data
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											YOUR TWEETS During this 64 day perior impressions per day Grow	your
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FIGURE 24: Twitter Analytics

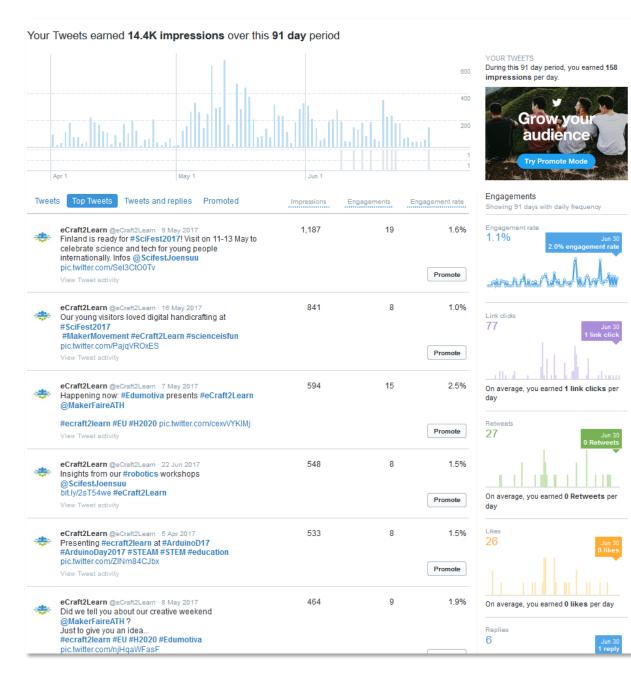


FIGURE 25: Twitter Analytics

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				2	Try Promote Mode
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a.,	View Tweet activity eCraft2Learn @eCraft2Learn · 12 Sep 2017	1,977	30	1.5%	mahan maha
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1	eCraft2Learn @eCraft2Learn · 8 Sep 2017 Our training manual for teachers on project- and craft- based learning is now online and downloadable bitJy/2KX/Nv #eCraft2Learn pic.twitter.com/fcQfuJ8y0f View Tweet activity	1,666	22	Promote	
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-	View Tweet activity eCraft2Learn @eCraft2Learn - 6 Jul 2017 Don't miss the #Construit2017 Conference at University of Warwick, 13-16 July! You'll find us there! #eCraft2Learn	733	9	On 1.2% day	
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	eCraft2Learn @eCraft2Learn - 21 Sep 2017 What #eCraft2Learn stands for! #STEAM #innovation #arts #makermovement #DIY pic.twitter.com/6DZ1RU2qT3	623	7	1.1%	average, you earned 0 likes per day
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-	eCraft2Learn @eCraft2Learn - 28 Jul 2017 More information on our project is now also available on the @scientix_eu community platform bitJy/2eNonIE #eCraft2Learn	569	13	2.3% 8	Sep O repii
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FIGURE 26: Twitter Analytics

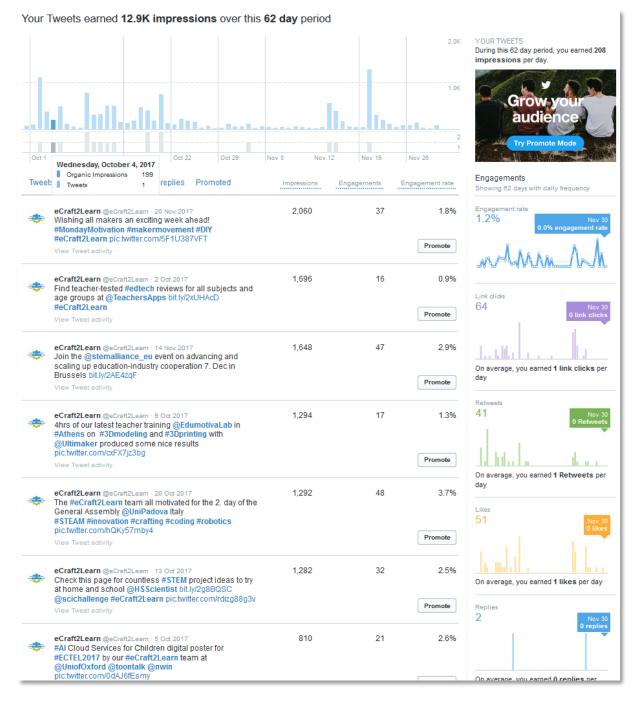


FIGURE 27: Twitter Analytics

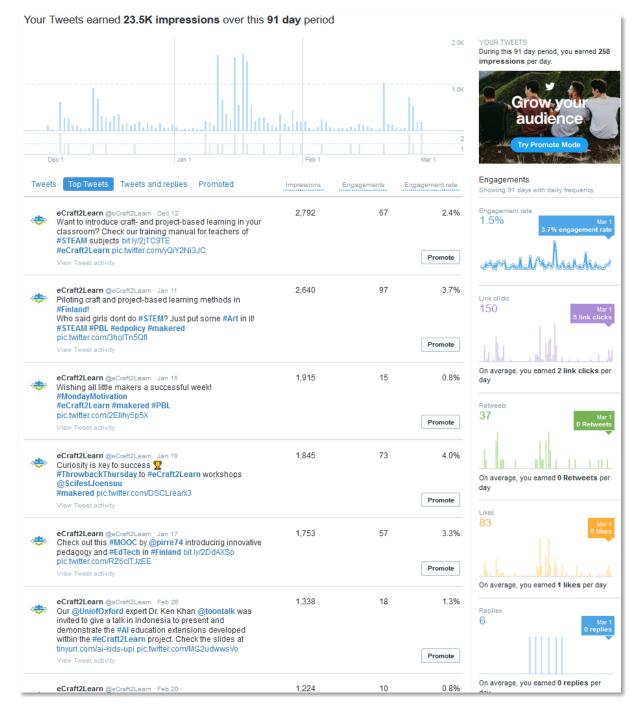


FIGURE 28: Twitter Analytics

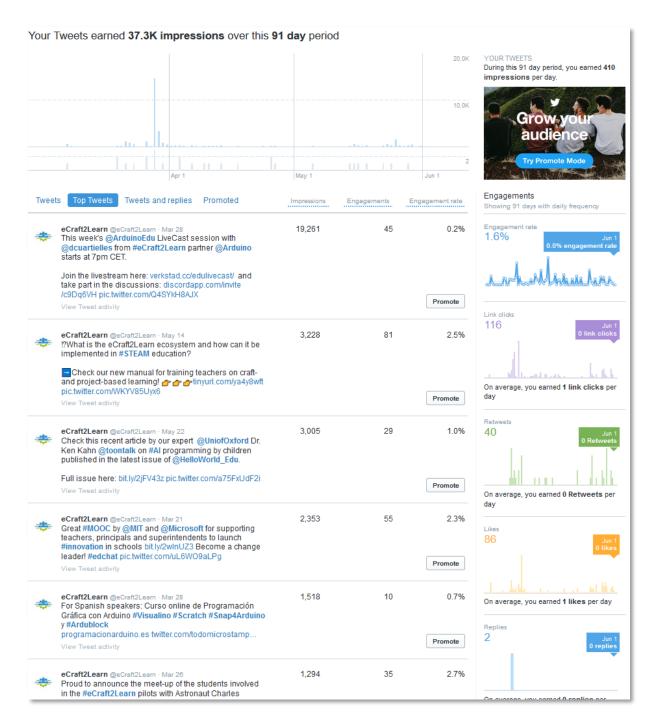
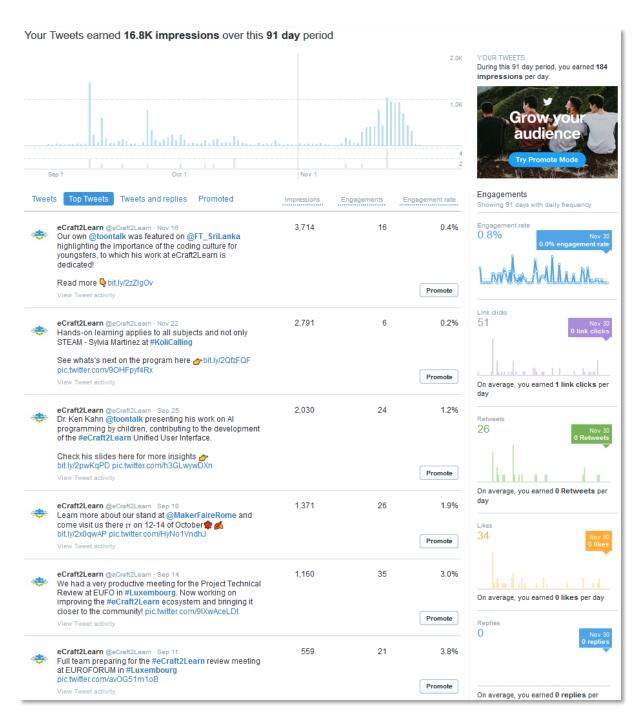


FIGURE 29: Twitter Analytics

2.0K YOUR TWEFTS During this 91 day period, you earned 112 impressions per day. 1.0K Gro audie Try Pi Aug Engagements Tweets and replies Promoted Tweets Top Tweets Impressio Engagements Engagement rate Showing 91 days with daily frequency 1,638 58 3.5% eCraft2Learn @eCraft2Le 0.6% -During our visit @InnovAthens for the #eCraft2Learn project meeting, all partners had the chance to check the informal pilot site where students have been testing the eCraft2Learn ecosystem and creating robotic artefacts. We give their creations a thumbs up! 👍 😡 pic.twitter.com/EnRPsfouOv Promote Link clicks 29 eCraft2Learn @eCraft2Learn · Jun 8 1,355 38 2.8% Contraction deviation of the second s <u>i li in l</u> #edtech #innovation pic.twitter.com/xQgpny5zqj On average, you earned 0 link clicks per Promote View Tweet activity day 1,116 30 2.7% eCraft2Learn @eCraft2Learn · Jun 6 Retweets #eCraft2Learn General Assembly kicking off @InnovAthens in #Greece pic.twitter.com/JQXouyDZkH 22 Promote View Tweet activity eCraft2Learn @eCraft2Learn · Aug 1 986 13 1.3% 🙆 🚇 Have you registered to our newsletter yet?! On average, you earned 0 Retweets per day SUBSCRIBE NOW and never miss out any update again! Likes 27 Sproject.ecraft2learn.eu/newsletter/ #Edtech #makered #pbl #STEAM #eCraft2Learn pic.twitter.com/WA0ZkRDu5Z Promote eCraft2Learn @eCraft2Learn · Jun 26 This year's @MakerFaireRome takes place in October 854 13 1.5% On average, you earned 0 likes per day 12-14. Repli Attached to it, the International Conference Educational Robotics (EDUROBOTICS 2018) will take place in 2 October 11. Find below the call for papers running until July 14! easychair.org/cfp/ER18 pic.twitter.com/D0QOicMDcf Promote On average, you earned 0 replies per

FIGURE 30: Twitter Analytics

Your Tweets earned 10.2K impressions over this 91 day period





5.2. FACEBOOK

Facebook is another social media platform successfully exploited for dissemination and communication activities. In comparison to Twitter, Facebook has no word limit to posts which allowed for broader messages to be shared and attract more audiences. The types of contents shared on Facebook were quite similar to the ones from Twitter, however in an extended and more informative format. While the Twitter channel was created immediately after the project start, the Facebook page was created after the first six months, following the delivery of the initial project outcomes. As per coincidence, the

number of followers on Facebook remained below that of Twitter, possibly due to a decrease in popularity of the platform itself and an increased embrace of Twitter.

The content shared on Facebook was mainly coming from the consortium, but it also included sharing of important knowledge from related pages. The following figures show some types of posts shared recently on Facebook, and content posted from external stakeholders. Unfortunately, Facebook does not offer detailed analytics such as Twitter, but an overview is presented below.

	DIGITAL FABRIC			📰 Rea	ch Orga	nic / Paid		Post Clicks	Reactio	ns, Comments	& Shares #
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	Read the overall publication here <	designing, pictog and validating an ecosystem that is bas	11/16/2018 12:04 PM	Prof. Ken Kahn's work on enabling children to use Artificial Intelligence		0	68	1	3 4	1	Boost Po
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FIGURE 32: Facebook Page



FIGURE 33: Facebook Page

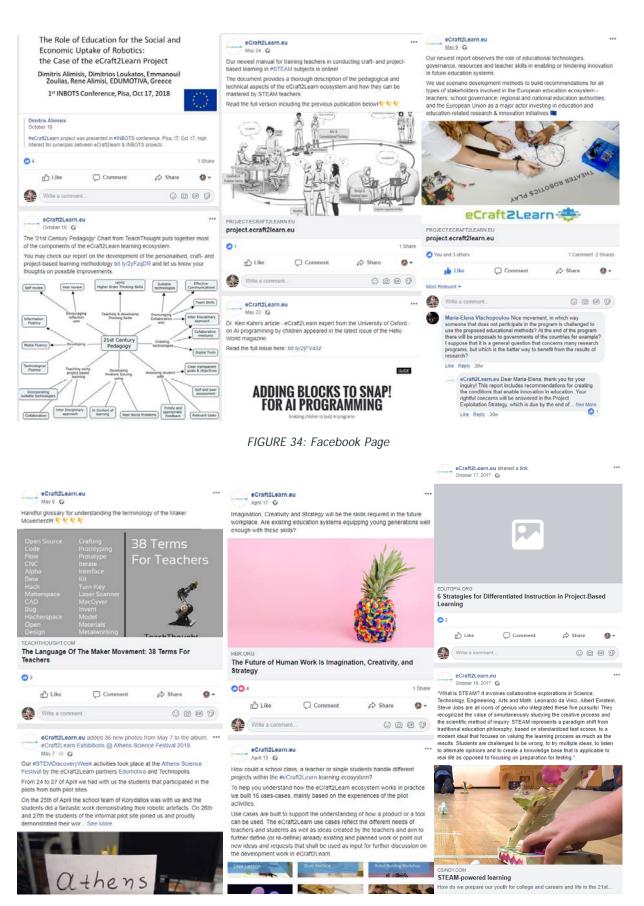
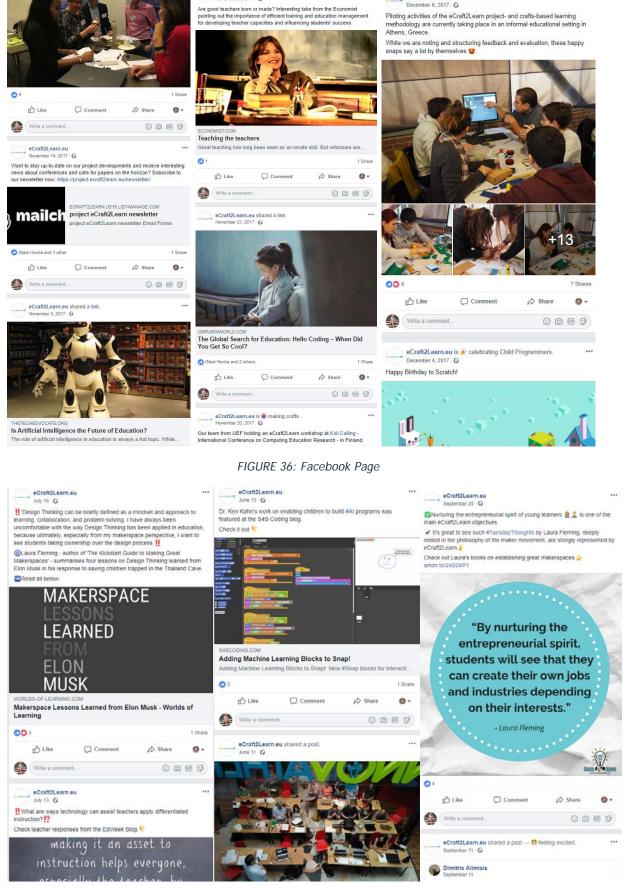


FIGURE 35: Facebook Page



eCraft2Learn.eu November 24, 2017 - 🚱

eCraft2Learn.eu is in Athens, Greece. December 6, 2017 · O

FIGURE 37: Facebook Page

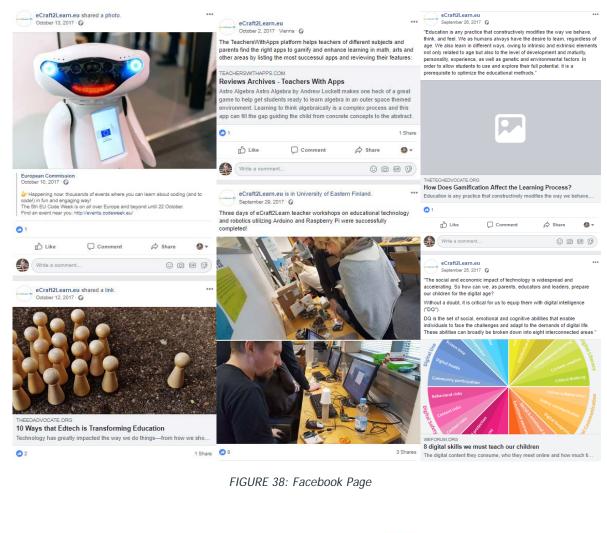
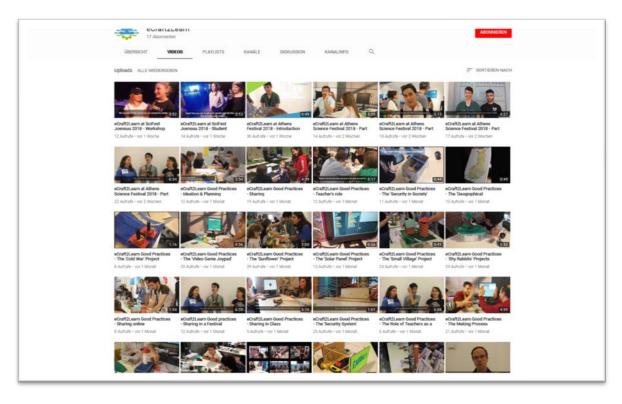




FIGURE 39: Facebook Page

5.3. YOUTUBE

As mentioned, the YouTube Channel was created following the creation of the first visual materials and used to dissemination materials as well as supportive materials for running eCRaft2Learn project on the UUI. Currently the channels includes a rich collection of materials such as interview with teachers and students involved in the pilots providing feedback and validation of the ecosystem, showcases of projects run during the pilots in Greece and Athens and supportive materials of 'good practices' for running each of five stages, interviews of visitors at the eCraft2Learn public events in Athens and Joensuu while exhibiting the ecosystem in a hand-on approach, one video including some of the main researchers involved in the eCRaft2Learn team and the project coordinators, as well as an official corporate video of the project that was included in the EU R&I project repository.



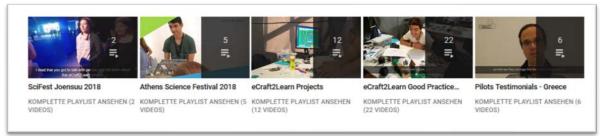


FIGURE 40: YouTube Channel





FIGURE 41: YouTube Channel







FIGURE 42: YouTube Channel

6 PROJECT PRESENTATIONS

Apart from the social media presence, and the communication to the scientific community via publications, another types of dissemination activities that was particularly important and impactful during the whole project was the participation in workshops and conferences either as an organizer or through holding a presentation, speech or simple networking in various event worldwide in front of vast audiences.

The very last event to conclude the series of eCraft2Learn engagement with the community was organized in Athens by EDUMOTVA and TECHNOPOLIS on 20th of December with the title "Students as makers of computer-supported artefacts: the eCraft2Learn project". The event started with an overview of project objectives and methodology and implemented activities by Dr Dimitris Alimisis (Edumotiva) and Mr. Antonis Economou (Technopolis). The floor was then given to Mr. Kostas Asimakopoulos (head of the 1st EPAL Korydallou -formal pilot site) who explained how the eCraft2Learn initiative was integrated in the school program; he further highlighted the impact perceived in the formal school settings; he then elaborated on the plans for "a new cycle of making sessions" in the eCraft2Learn lab in February 2019 with the engagement of more school classes. Then a "flash back" to the pilot period was made by Rene Alimisi with the demonstration of videos taken during the pilot implementation period. Then the floor was given to the students that participated in the pilots who freely talk about their experiences and contributed short pieces of their eCraft2Learn moments. It was interesting to see that the students had new ideas for projects and could recognize the impact of the eCraft2Learn on their cognitive and social skills. It was also interesting to see that some students had transferred the knowledge gained in new contexts (i.e. 2 students joined recently the CanSat initiative of the European Space Agency (ESA)) whereas others were spreading the "word" about the eCraft2Learn to their classmates (some of which joined the closing event). The event was attended by 35-40 people, it lasted almost 2 hours and was live streamed via Facebook.

Other major events organized and attended during the project can be found on the project website in the section Consortium Events. Table 2 lists all of main project organized and attended by partners in which eCraft2Learn was brought to the spotlight. In sum the followings can be concluded:

- More than 50 project presentations we done
- More than 20 countries covered (including Asia, South Africa, Latin America)
- More than 5000 overall audience members
- More than 10 Media Channels and more than 100 posts on other media

Conference/Event Name	Location	Partners Involved	
Athens Science Festival 17/18	Athens, Greece	EDUMOTIVA, TECHNOPOLIS	
Arduino Day 17/18	Malmö, Sweden	ARDUINO, MDH	
Edinbugh Mini Maker Faire	Edinburg, UK	Ultimaker, DUNDEE	
EC-TEL	Tallin, Estonia	UOXF	
SciChallenge Award Academy	Vienna, Austria	SYNYO	
Athens Mini Maker Faire	Athens, Greece	EDUMOTIVA	
Vienna Maker Faire	Vienna, Austria	ZSI	
EDULEARN17	Barcelona, Spain	UOXF	
CONSTRUIT 17/18	Warwick, UK	Several Partners	
Galileo Festival 17/18	Padua, Italy	UNIPD	
Giocare a pensare	Milan, Italy UNIPD		
Live Broadcast: Athina 9.84 radio	Athens, Greece	EDUMOTIVA	
Tieteen päivät, Savonlinna	Savonlinna, Finland	UEF	
RoboESL conference	Genoa, Italy UNIPD		
Innovation 2.0	Cluj-Napoca, Romania Several Partners		
Holomakers Kickoff Meeting	Athens, Greece	EDUMOTIVA	
INBOTS Kickoff Meeting	Brussels, Belgium EDUMOTIVA		

Table 2: Project Presentations and Workshops

e/Merge Africa	South Africa /Online	UEF	
School in Creative Moments	Athens, Greece	EDUMOTIVA	
1st pan-Cyprian Engino Conference	Limassol, Cyprus	EDUMOTIVA	
Scientix Conference	Brussels, Belgium	SYNYO	
IKIAM University Lecture	Napo, Ecuador	UEF	
Bandung Polytechnic State University	Bandung, Indonesia	UOXF	
University of Turku	Turku, Finland /Online	UEF	
Robotica Educativa e Competizioni Robotiche Junior	Trento, Italy	UNIPD	
Maker Days for Kids	Graz, Austria	ZSI	
SciFest Joensuu 17/18	Joensuu, Finland	UEF	
IDC Conference	Trondheim, Norway	Several Partners	
1st conference on 3D printing ir education, science and industry		EDUMOTIVA	
2nd international conference or Innovating STEM Education	Athens, Greece	EDUMOTIVA	
Maker Faire Rome 17/18	Rome, Italy	Several Partners	
BETT Show 2018	Birmingham, UK	Ultimaker	
Industria 4.0	Padua, Italy	UNIPD	

FSI – Festival Smart Innovation	Silea, Italy	UNIPD	
Robots and robotics at school for teaching science	Treviso, Italy	UNIPD	
Creative learning: lab for exploring and making robotic artefacts	Athens, Greece	EDUMOTIVA	
Koli Calling 17/18	Joensuu, Finland	UEF	
Makernoise 2018	Ormskirk, UK	UOXF	
Big Bang NorthWest	Liverpool, UK	UOXF	
EDUROBOTICS18	Rome, Italy	Several Partners	
AI Programming Workshop	Cirebon, Indonesia	UOXF	
Adding AI Blocks to Snap!	USA, Several locations UOXF		
ICT in Education	Brussels, Belgium SYNYO		
RISE Kista, IOT and Sensors Day	ay Stockholm, Sweden MDH		
'Students as makers of computer–supported artefacts the eCraft2Learn project'	Athens, Greece EDUMOTIVA, TECH		

7 MEDIA PRESENCE

Besides the presente on the owned media channels, the project and its outcomes were presented in all the partner websites and online communities as well as several outcomes were featured in important international media. A list of the types and channels of such media presence is summarised by Table 3 below. Links to the blogposts can be found on the project website.

Medium	Title	Partners	Location
Innovathens website	Call for educators/Project Outcomes/Events etc.	Technopolis	Online
Athina 9,84 Radio	Media presense	EDUMOTIVA	Greece
Innovathens Facebook Page	Call for participants for the pilots	Technopolis	Online
BESA website - news	Website News Mention	Ultimaker	UK
CREATE Education Website and Newsletter	Website News Mention/ongoing	Ultimaker	UK
IKIAM Youtube channel	University News Channel	UEF	Ecuador
e/merge Africa	Webinar	UEF	South Africa
Blog channel of T&W	Online News	ZSI	AT, International
S4S Coding	Article	UOXF	Online
Computing at School	Article	UOXF	Online/Offline
The Island	Article	UOXF	Online
FT Daily	Article	UOXF	Online
I-LINC	eCraft2Learn Project	SYNYO	Online
SCIENTIX	eCraft2Learn Project	SYNYO	Online
Social Media Channels of partner organisations and personal accounts of team		All partners	Online

Table 3: Media Presence

8 DISSEMINATION MATERIALS

This section presents the dissemination materials creating to present the project at physical events as well as on the online channels. The initial step towards creating an identity of the project, which will live further as the eCraft2Learn learning environment, was to create a logo and respective color coding used in the upcoming materials. The created materials include factsheets to present the project, the UUI etc. The ultimate package of dissemination materials including user-friendly content will be uploaded as part of the 'getting Started with eCraft2Learn' package on the website and other media channels related to the project, and will be presented during the final project review in February 2019.





eCraft2Learn 🚓







DIGITAL FABRICATION AND MAKER MOVEMENT IN EDUCATION

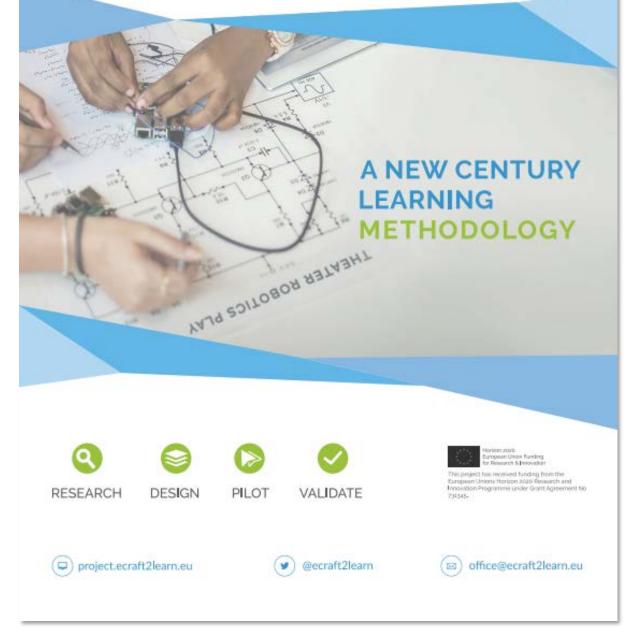


FIGURE 44: Factsheets

PROJECT BACKGROUND

Digital technology has radically changed the way people work in industry, finance, services, media and commerce and has urged necessary corresponding changes in educational systems, In many cases, new technologies are simply reinforcing old ways of training and learning in current school settings and very often they are introduced according to a narrow perception as being suitable only for talented youth or only for Science-, Maths- or Engineering-oriented majors, Current developments call for a move from this elitism to the recognition that fluency with making technologies represents knowledge and skills valuable for every citizen.

PROJECT VISION

For learners (13-17 year olds) and their teachers/instructors/coaches who want to learn by making in an engaging and rewarding environment supporting creativity, eCraft2Learn is an integrated learning ecosystem that provides tools, support and training for innovative learning. contributing to opening learning towards innovation through a craft- and project-based pedagogical approach in STEAM education.

PROJECT OBJECTIVES

The eCraftzLearn project has a three-fold focus interrelated within the pedagogical, technical and business objectives,

Pedagogical objectives:

- innovation management techniques
- · developing a different approach to education
- enabling communication

Technical objectives:

 facilitating positive changes in attitudes towards education in science, technology

Bussines objectives:

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- enabling and making sustainable network of
- collaboration among industry

PROJECT FACTS

DURATION 01/01/2017 to 31/12/2018

PROGRAMME Horizon 2020 Research & Innovation Action





DIGITAL FABRICATION AND MAKER MOVEMENT IN EDUCATION



FIGURE 46: Factsheets

eCraftzLearn seeks to build an educational ecosystem which relies on project- and crafts-based teaching and learning methods. This methodology includes 5 stages, which together guide the learner from an idea to developing, showcasing and sharing the final solution.

- IDEATION: The learners explore the world to find challenges. This exploration can be in the physical or virtual world (i.e. online communities).
- PLANNING: The learners collect information and material and start making project plans.

Project- and Crafts-based Learning

- CREATION: Through a co-design and co-creation process, the learners start creating their solutions. This stage might involve
 many different technologies such as do-it-yourself (DIY) electronics, visualisation, simulation and 3D printing.
- PROGRAMMING: Learners add functionality to their crafted artefacts through high-level programming languages.
- SHARING: By sharing the solutions on online communities, the learners can learn from other projects, while receiving feedback from designers, engineers and programmers.

The Unified User Interface (UUI)

Each of the aforementioned stages requires a different set of tools and materials. Developing a central place (software) for managing these stages is the aim of the eCraftzLearn educational extension – the Unified User Interface (UUI). Such a solution will make it easier for the learners to manage their co-creation process and project work as well as provide additional tools to develop their projects and solutions further. The UUI plays a central role in this context since its aim is to allow the users to navigate smoothly among different tools for making. The structure of the UUI is built in groups of tiles, each of which representing one of the five stages of the pedagogical methodology. Each tile represents a technological tool which can be used to facilitate the five stages of co-creation. The larger tiles represent the tools that are directly integrated or will integrate into eCraft2Learn ecosystem, while the smaller tiles are not directly supported by eCraft2Learn. All of these tools are free, most of them are webbased and many are open source enabling their usage to wider groups of students. Another important feature of this interface is to collect information about the activities of the users. This information is used in the learning analytics part. Based on the learning analytics data, the solution provides additional help to the users and eases their project management cycle.



FIGURE 47: Factsheets

PERSONAS

Find out more on project.ecraft2learn.eu



SUSAN, 35 Science Teacher, Finland



NIKOS, 42 Teacher of Science & Music, Greece



BARBARA, 37 Science Teacher, Austria



ELENA, 17 Student, Greece



eCraft2Learn 🐲

BORA, 12 Student, Albania



DIMITRIS, 55 School Pricipal, Greece



NOAH, 12 Student, Austria



CHRISTOPH, 41 Science Teacher, Austria



PETROS, 28 Non-formal Education Trainer, Greece



VEIKKO, 12 Student, Finland



IVANA, 56 Teacher of Biology & Chemistry, Slovenia

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FIGURE 48: Factsheets



DIGITAL FABRICATION AND MAKER MOVEMENT IN EDUCATION

USE CASES

Use cases can support very much the understanding of how a product or a tool can be used. The use cases developed in eCraft2Learn are meant to foster this understanding and allowing insights on how a school class, a teacher or single students could handle different projects with the eCraft2Learn learning ecosystem.

The use cases reflect the different needs of teachers and students as well as ideas created by the teachers and

aim to further define (or re-define) already existing and planned work or point out new ideas and requests that shall be used as input for further discussion on the development work in eCraft2Learn.

In total, 14 and two variations or adaptations of use cases were created, very different in terms of topic, focus and description in order to reflect on the manifold possible environment of usage.



FIGURE 49: Factsheets

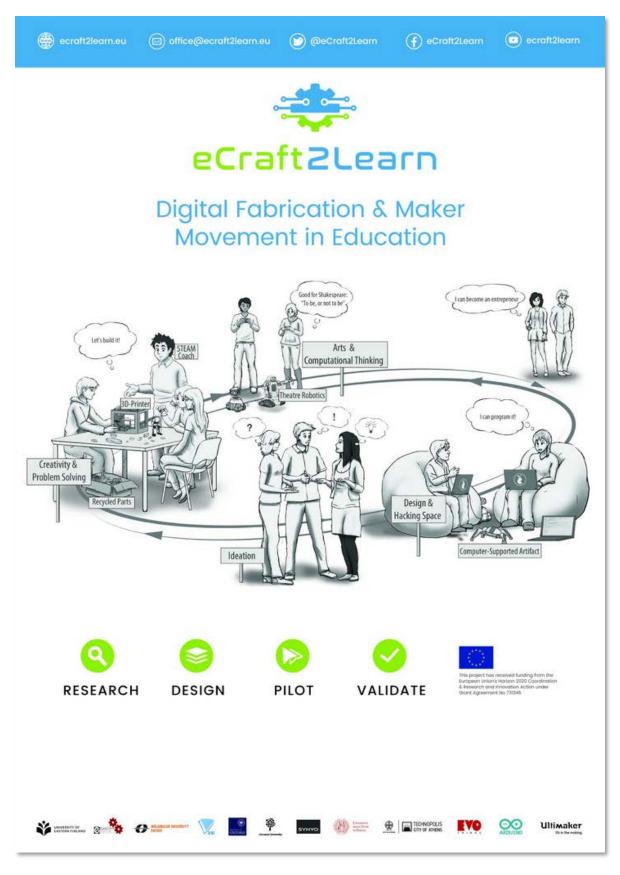


FIGURE 50: Factsheets

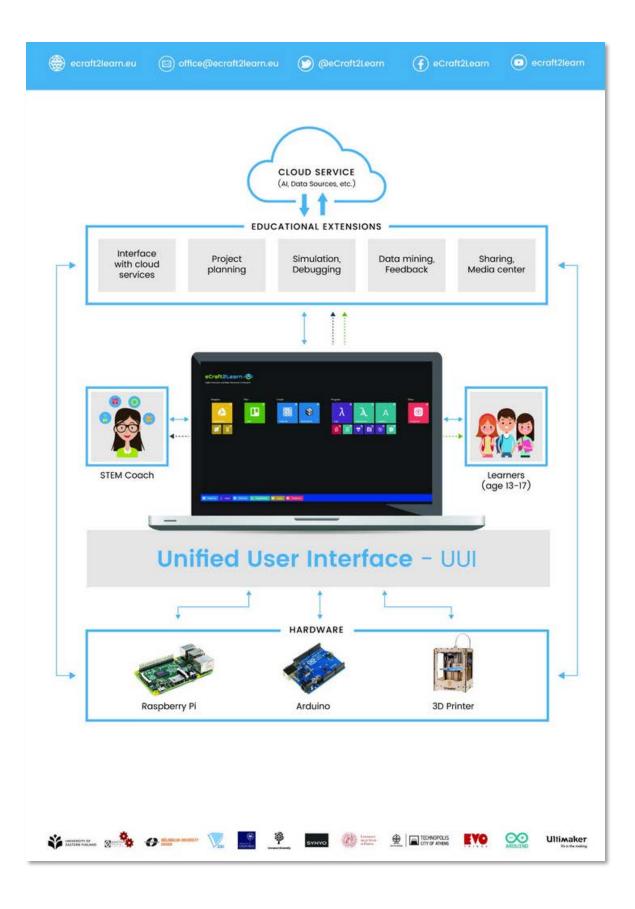
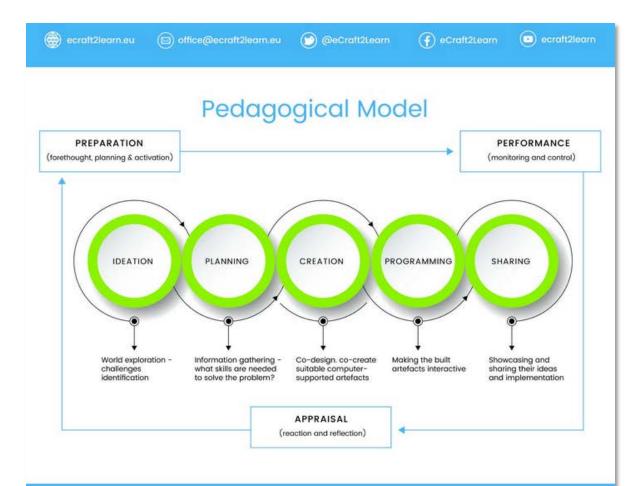


FIGURE 51: Factsheets

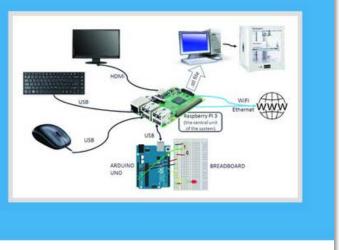


Technical Setting

The eCraft2Learn project has built an educational ecosystem which relies on project- and crafts-based teaching and learning methods. This methodology includes 5 stages that guide the learner from an idea to developing, showcasing and sharing the final solution. Each of the 5 stages is accompanied by a set of tools and materials described as the technical setting.

Besides existing technologies, an educational extension developed by the project – the Unified User Interface – is a solution for managing each of the 5 pedagogical stages and making it easier for learners to manage their co-creation process and provide additional tools to develop their projects further.

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FIGURE 52: Factsheets

9 CONCLUSION

This report provided examples and illustrations of the dissemination activities carried out during the project. The activities carried out online and through physical events or publications were in line with the plan detailed in the Description of Action and the Dissemination and Communication Strategy designed upon the project start. The table of the KPIs shows that in spite of an engagement of the partners to use all available channels to disseminate the project outcomes, some activities and channels resulted more successful than others for attracting interest of the community. In sum, some KPIs were surpassed by far, were other are on the edge of their achievement of slightly below the desired goal. However, the overall dissemination and exploitation workpackage includes a wide spectrum of activities and rich supportive materials to create a considerable community of 'eCrafters' that will hopefully be sustained through the tools designed for future exploitation. A last package of dissemination materials that will enrich the project website and act as user manual for all stakeholders of the ecosystem, will be delivered in January 2019 and presented during the project review meeting and final reports.

10 REFERENCES

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