#ConnectingYouth Policy e-Booklet:

Youth, Education and the Access to the EU Labour Market

A selection of research and policy texts on digital skills, active citizenship, multilingualism and #ConnectingYouth policy recommendations

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Introduction

1. The #ConnectingYouth Project

This introductory section provides a summary of the rationale, methodology and activities of #ConnectingYouth, a Structured Dialogue project financed by the EC within the framework of Erasmus+ K3 actions (1st semester 2017).

#ConnectingYouth in the framework of the E+ Structured Dialogue

The Structured Dialogue is a typology of project funded by the European Commission in the framework of the Erasmus+ Actions for youth mobility and lifelong learning. The objective of Structured Dialogue is to promote dialogue between young people, policy makers and other experts in the fields of youth education and training, and to provide new insight and recommendations for policy reformation with a bottom-up approach

What can one expect from a Structured Dialogue project?

1) that young people become more aware of the opportunities and weaknesses inherent in their education as regards their access to the highly competitive and fast-changing international labour market;
2) that deeper mutual understanding is fostered between the various stakeholders involved in youth and education policy;
3) that new ideas, requests and proposals concerning the discussed topics are shared and disseminated by project participants as broadly as possible and at all levels of policymaking (regional, national, European) that can be reached.

#ConnectingYouth is a project proposed by Fondazione Goria (Italy) together with four European partners: Villa Vigoni (Italy-Germany); I. gymnasia Zagreb (Croatia); Institut für Deutschlandforschung,

University of Bochum (Germany); PostScriptum (Greece). Within the framework of the Structured Dialogue, *#ConnectingYouth* focuses on the following themes in particular:

1) the potential of digital education in the preparation for young people's access to the labour market;
2) the development and strengthening of linguistic, social and cultural skills as the premise for fruitful collaboration between future young workers in multicultural working environments;
3) the bottom-up exchange and share of ideas and good practices between EU citizens with different socio-economic and cultural backgrounds and traditions.

In line with the objectives of the Structured Dialogue, the young people involved in *#ConnectingYouth* have been acknowledged the leading role in evaluating existing youth policy, in proposing new needs and ideas and in communicating the results of the project. Policy makers have played the role of interlocutors and mediators and are expected to pick up, spread and implement the project results at policy level. Teachers/trainers and other experts in education and in the ICT sector have interacted with young people and policy makers throughout the project, each of them contributing with her/his specific expertise to provide guidance and help for the fruitful development of the discussion.

Project structure

#ConnectingYouth is organized in three phases: preparation (national level); international workshop; implementation (both national and international level).

1) Preparation. During the preparatory phase of the project (February-April 2017), each national group, composed of students, teachers, policy makers and other experts, has gathered online and at least twice physically, for two intensive seminars of about 4 hours concerning the themes of the project.

   The first meeting (February-March) was dedicated to an introduction to the Erasmus+ actions for young people and schools (2 h) and to the

main European skills certificates in use for formal and non-formal education: Youthpass, Europass CV e Europass Language Passport (2 h). During this meeting, moreover, the project partner introduced a tool developed for #ConnectingYouth to promote discussion on European youth and education policy: the #ConnectingYouth Policy Booklet containing passages of international publications that exemplify the leading policy measures and the main issues dealt with by the EC as regards the preparation of young people to the digital and multicultural European labour market. Each text of this booklet was accompanied by questions to promote and guide discussion of current policy in the EU.

During the period between the first and second meetings, each national group made use of the booklet to discuss policy, benchmark EU guidelines against their local and national experience and share their opinions, suggestions and criticisms for potential reformation and improvement. At this stage, each group involved local experts and other figures whose contribution was considered useful to broaden the scope of the discussion and/or get new insight into the discussed topics. Interaction with other national groups also started at this stage.

During the second meeting (first half of April), each national group met to resume and write down their opinions about current EU guidelines in youth and education policy and to reflect on the strengths, weaknesses, opportunities and threats (SWOT analysis) inherent in the model of education in which they grow up. The results of this stage have constituted a starting point for the international discussion at Como.

2) The International Workshop held at Villa Vigoni, the Centre of Excellence for Italian-German Collaboration (Como, April 18th-23rd), is the core of the project: a highly formative 1-week experience of intercultural collaboration on youth, education and digital policy, based on interdisciplinary activities and non-formal learning methods. It accompanied the participants through all the aspects of the empowering process necessary in order to detect current issues and challenges, identify possible improvements

and make the best use of European opportunities in order to support change at local level in compliance with a global vision. We started with an intercultural team-building workshop led by Villa Vigoni (Day 1), during which the national teams presented audio/video/material documentation concerning aspects of their culture and their expectations for the #ConnectingYouth international workshop.

Villa Vigoni

On Day 2 we evaluated the current situation in the partner countries with regard to youth, education and digital policy. The staff of Fondazione Goria and I.gimnazija guided both young and adult participants through a brainstorm on the perceived challenges in formation of young people and in their future access to an international and fast-changing labour market. During the afternoon, topics outlined in the morning session were discussed in teams and plenary sessions in order to identify at which level (personal, local, national, European) change could be promoted, and how. The output of the day was a first draft of policy guidelines in the field of youth, education and digital strategies.

Day 3 further explored possibilities for citizens' engagement, intercultural encounter and economic competitiveness opened up

by digital strategies and skills. The leading partner for this day's activities was PostScriptum. The morning was dedicated to an introductory workshop on digital and culture: participants were accompanied in the evaluation of their access to culture through digital tools as well as in the discovery of a variety of digital platforms enabling access to culture, with particular attention to questions of intellectual property rights and reuse on the internet. The afternoon session guided participants to actively explore how cultural institutions they know could improve their use of digital platforms and adopt an open culture strategy to promote visibility and citizens' engagement.

Day 4 further dealt with the topics of engagement and active participation in order to raise awareness about the links between personal education and active participation in society. The morning session, organized by IDF, adopted a role game approach to enable young people and experts to discuss together about the role of the Bologna Process in promoting mobility and certification of competences. The afternoon visit of Como focused on citizens' engagement and ICT skills in the process of making citizens the drivers of cultural promotion and economic development through digital tools. The format of "Digital Invasions" (www. invasionidigitali.it/en) was adopted to stimulate the participants to transform digital communications platforms they are familiar with, such as social media, into powerful instruments to design and share viral collective stories about the cultural heritage.

On Day 5 all the previous experiences of #ConnectingYouth came together in an engaging simulation of E+ project creation. Group selected different topics among those discussed during the international workshop and one fitting E+ action; then they tested their creativity, ambition and spirit of collaboration by developing a draft of an E+ proposal meant to implement the vision of #ConnectingYouth in their communities. The ideas will constitute the basis for future follow-ups to #ConnectingYouth.

On Day 6, I. gymnasia Zagreb held the Youthpass workshop, during which young people brainstormed on what they had learnt during the week. Then the week was closed by the general evaluation and discussion led by Fondazione Goria.

3) Implementation (April-June). During this phase, the re-elaboration of the workshop ideas, requests and proposals has paved the way to the dissemination of the project results and final evaluation. Young people have been encouraged to play a leading role in dissemination, not only by becoming spokesmen of the project among their peers inside and outside educational institutions, but also by taking part in official meetings with policy makers at regional and national level. Digital communication platform and collaboration between national groups and partners have ensured that dissemination reaches the European level as well.

Educating, guiding, activating
#ConnectingYouth has aimed to offer all participants an enriching experience of international dialogue and collaboration between persons with different age, professional profile and socio-cultural backgrounds. As regards schools, the project was meant to promote the establishment of a durable dialogue between students and teachers for the discussion and planning of guidelines and initiatives concerning youth and education policy in our complex and competitive societies. Concerning the young participants, #ConnectingYouth has not only strengthened some major curricular competences (e.g. English; reading and writing technical texts; digital skills) and transversal competences (communication and collaboration in multicultural environments; organizational and management competences; professional use of social media). In addition to these competences, students have been guided to the discovery of the opportunities that the EC opens for non-formal and informal education, youth mobility and lifelong learning: this element is an added value to the resources through which young people will plan their educational and professional future. Thus

#ConnectigYouth has achieved its ultimate goal: making young people more aware of their resources ad of their fundamental role as drivers of social, economic and cultural development in the EU. In addition to educating and guiding, *#ConnectingYouth* has contributed to the empowerment of young people by making them the protagonists of a cultural "contagion" towards their peers and by giving value to their creativity, courage and engagement for the sake of the improvement of EU education and preparation for the labour market.

2. How to use this booklet

This e-book has the dual function of providing an introductory picture of current EU youth policy, which has constituted the working material for our workshops, and of delivering the policy recommendations designed by the #ConnectingYouth consortium during the project activities.

Thus the first section of this volume contains a selection of state-of-the-art background research and policy texts concerning the main themes of EU youth policy, from non-formal education to citizens' empowerment, from digital skills to gender gap, from youth entrepreneurship to cybersecurity in education. All the selected texts have been published by leading EU policy institutions or by the European Commission itself (with the exception of the United Nations Resolution at the end of Part Four) and have been released within the last 5 years. Almost all of them, in fact, date to the last 24 months from the release of this booklet. Thus they represent a faithful portrait of youth policy debates ongoing at the time of the #ConnectingYouth project, a point which we expect will increase its dissemination and impact.

The policy guidelines published in the second section (p. 83) are the results of the activities of #ConnectingYouth at both national and international level. They are meant to provide an encompassing overview of the various types of stakeholders that have taken part

in the project. In order to make our recommendations sharper and provide a useful roadmap for their implementation, recommendations are divided in categories corresponding to the diverse topics and target publics that have been taken into account.

While not pretending to be exhaustive or to provide the absolute best anthology of relevant documents available on line, the texts published in the first section of the book have been selected following the criteria of clarity and concision on the one hand, of reusability for open access on the other. The material is organized in 4 parts, of which the first is meant to provide an encompassing overview of the discussed topics. All users will be free to take advantage of this tool in its entirety or in part, in compliance with their own goals and approaches. Following the methodology of the #ConnectingYouth project, the first section is the sole which all the young participants are requested to read in its entirety. For the rest, during the period of preparation of the International Workshop at Villa Vigoni, the young members of each national group have been asked to select a limited number of documents and to report on them to their peers on a weekly basis, under the guidance of their teachers.

In our view, this working method brings about two advantages: first, it keeps within reasonable limits the total amount of time that teachers and students must invest to get acquainted with the variety of the proposed topics, without narrowing the scope of their investigation; second, by working in small groups and with the help of online tutors, young participants can strengthen their organizational and communicational skills and experience a simulation of real life collaboration, where each person or group interacts with others as an "expert" in one or more specific themes.

Guiding Principles

A NEW SKILLS AGENDA FOR EUROPE

Source: *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A New Skills Agenda for Europe. Working together to strengthen human capital, employability and competitiveness.* European Commission, Brussels, 10.6.2016.
Link to the complete text in the various EU languages:
http://eur-lex.europa.eu/legal-content/IT/TXT/?uri=CELEX:52016DC0381

Introduction (p. 2-3)

Skills are a pathway to employability and prosperity. With the right skills, people are equipped for good-quality jobs and can fulfil their potential as confident, active citizens. In a fast-changing global economy, skills will to a great extent determine competitiveness and the capacity to drive innovation. They are a pull factor for investment and a catalyst in the virtuous circle of job creation and growth. They are key to social cohesion.

Yet the situation in Europe calls for action. 70 million Europeans lack adequate reading and writing skills, and even more have poor numeracy and digital skills, putting them at risk of unemployment, poverty and social exclusion. More than half of the 12 million long-term unemployed are considered as low-skilled. Higher education institutions need to ensure that they equip graduates with relevant and up-to-date skills.

Skills gaps and mismatches are striking. Many people work in jobs that do not match their talents. At the same time, 40% of European employers have difficulty finding people with the skills they need to grow and innovate. Education providers on the one hand and employers

and learners on the other have different perceptions of how well prepared graduates are for the labour market. Too few people have the entrepreneurial mindsets and skills needed to set up their own business.

National and regional labour markets and education and training systems encounter specific challenges, but all Member States face similar problems and opportunities:

- Skill acquisition and development are essential for the performance and modernisation of labour markets in order to provide new forms of flexibility and security for job seekers, employees, and employers alike.
- Skills mismatches hinder productivity and growth and affect Member States' resilience to economic shocks.
- The digital transformation of the economy is re-shaping the way people work and do business. New ways of working are affecting the types of skills needed, including innovation and entrepreneurship. Many sectors are undergoing rapid technological change and digital skills are needed for all jobs, from the simplest to the most complex. High skills enable people to adapt to unforeseen changes. [...]
- The EU workforce is ageing and shrinking, leading to skills shortages in some cases. To compensate for this it is necessary to increase labour market participation and productivity. Women represent 60% of new graduates, but their employment rate remains below that of men and women and men tend to work in different sectors. Inclusive labour markets should draw on the skills and talents of all, including the low-skilled and other vulnerable groups. In the global race for talent, we need to nurture our skilled workers, reduce brain drain, while facilitating mobility of EU citizens, attracting talent from abroad and making better use of migrants' skills.
- The quality and relevance of the education and training available, including teaching standards, vary widely. This contributes to increasing disparities in the economic and social performance of Member States, whereas stronger education and skills policies are key to shape innovation and could facilitate upward convergence towards the best performing countries.

- Perceptions are not always rooted in reality; for example, more awareness of the good employment outcomes of Vocational Education and training (VET) can make it a genuine first choice for more people. Similarly, increasing the attractiveness of the teaching profession would stimulate talented young people to pursue this career.
- People increasingly learn in settings outside formal education – online, at work, through professional courses, social activities or volunteering. These learning experiences can often go unrecognised.

Tackling the skills challenges will require significant policy efforts and systemic reforms in education and training. […] While competence for the content of teaching and the organisation of education and training systems lies with Member States, a concerted effort is required to achieve meaningful, sustainable results. […]

The New Skills Agenda presented today is number one in the list of major initiatives in the Commission Work Programme 2016. It supports a shared commitment and works towards a common vision about the strategic importance of skills for sustaining jobs, growth and competitiveness. […] It seeks a shared commitment to reform in a number of areas where Union action brings most added value. It is centred around three key work strands:

1. Improving the quality and relevance of skills formation
2. Making skills and qualifications more visible and comparable
3. Improving skills intelligence and information for better career choices

Getting connected: focus on digital skills (p. 7-8)

The rapid digital transformation of the economy means that almost all jobs now require some level of digital skills, as does participation in society at large. […] Access to services, including e-services, is changing and requires that both users, providers and public administrations have sufficient digital skills. E-health, for instance, is transforming the way people access and receive healthcare.

The demand for digital technology professionals has grown by

4% annually in the last ten years. Yet digital skills are lacking in Europe at all levels. Despite continued strong employment growth, the number of unfilled vacancies for ICT professionals is expected to almost double to 756,000 by 2020. Furthermore, almost half the EU population lacks basic digital skills; with around 20% of people having none at all. Member States, business and individuals need to rise to the challenge and invest more in digital skills formation (including coding / computer science) across the whole spectrum of education and training.

Europe needs digitally smart people who are not only able to use but also to innovate and lead in using these technologies. Without it Europe will not succeed in embracing this digital transformation. The acquisition of new skills is vital to keep pace with technological developments and industry is already introducing innovative training methods. Research and innovation hubs can also help develop and transfer such skills, acting as catalysers for investment and for business and job creation.

The Commission is launching the Digital Skills and Jobs Coalition to develop a large digital talent pool and ensure that individuals and the labour force in Europe are equipped with adequate digital skills. Building on the positive results of the Grand Coalition for Digital Jobs and the EU e-skills strategy, and in coordination with the work under Education and Training 2020, Member States are invited to develop comprehensive national digital skills strategies by mid-2017 on the basis of targets set by end-2016. This includes:

- Establishing national digital skills coalitions connecting public authorities, business, education, training and labour market stakeholders.
- Developing concrete measures to bring digital skills and competences to all levels of education and training, supporting teachers and educators and promoting active involvement of business and other organisations.

The Commission will bring together Member States and stakeholders, including social partners, to pledge action and to identify and share best practices, so that they can be more easily replicated and scaled up. It will improve the dissemination of information about available EU

funds ([European Structural and Investment Funds](#), [Youth Employment Initiative](#), [Erasmus+](#)) and explore possible funding opportunities for example through voucher mechanisms. The Commission will monitor progress annually through its [Europe's Digital Progress Report](#) (EDPR).

Youth and education policies: analysis and proposals presentation by Serena Bertolucci, Policy Maker (Italian Ministry of Culture)

Making skills and qualifications visible and comparable (p. 8-9)
Qualifications signal to employers what people know and are able to do but rarely capture skills acquired outside formal learning institutions, which therefore risk being undervalued. Identifying and validating these skills is particularly important for people with lower qualifications, the unemployed or those at risk of unemployment, for people who need to change career path and for migrants. It helps people better showcase and use their experience and talent, identify further training needs and take up opportunities for re-qualification.

Differences between education and training systems in the EU, however, make it difficult for employers to assess the knowledge and skills of people with a qualification from another country than their own.

Mobility across borders can help labour markets work well and opens up people's life chances. But low understanding and recognition of their qualifications means that EU and non-EU workers who move abroad

often face more obstacles to find a job or are paid less than workers with comparable qualifications gained in the host country. [...]

To make it easier to understand qualifications and related skills and contribute to their better use in the EU labour market, the Commission is putting forward a proposal for the revision of the European Qualifications Framework (see ref. doc. COM (2016 383). The revision will:

- support a regular update of the national qualifications systems;
- ensure that qualifications with an EQF level are underpinned by common principles for quality assurance;
- ensure that common principles for credit systems are used when qualifications with an EQF level are built on credits;
- encourage the use of EQF by social partners, public employment services, education providers and public authorities to support transparency and the comparison of qualifications;
- promote the comparability of qualifications between the countries covered in the EQF and other countries, in particular Neighbourhood Countries and other countries with mature qualifications frameworks, in accordance with EU international agreements.

More support for learners' mobility (p. 14)

More learners should be able to get the benefit of a learning experience abroad. Data show that young people who study or train abroad find employment much more quickly than those without international experience. They adapt more quickly to new situations and are better problem solvers. Recently the EU adapted its legal framework for non-EU students and researchers, notably to make it easier to attract and retain these talented people.

Student mobility in higher education already has a long-standing tradition. To date, over 3 million students have taken part in the Erasmus programme. Mobility opportunities for Initial Vocational Education and Training (IVET) apprentices and learners are also supported under Erasmus+. However, mobility opportunities for learners are largely insufficient to meet current demand. Only a few

countries include mobility opportunities in their national education, training and youth schemes.

Apprentices also benefit from learning and working abroad. In order to improve conditions for their mobility, the Commission is carrying out a pilot project commissioned by the European Parliament to assess the feasibility and benefits of longer mobility periods abroad (6-12 months) for apprentices.

EU budget support alone will never be sufficient. If Member States include mobility support in their national programmes, this can assist a large share of young people to benefit from an experience abroad.

The quality of work or study placements is essential. Funding must go hand in hand with national policies and measures that encourage and value the learning acquired, and ensure the relevance and quality of the training. […]

More learning at the workplace (p. 14-15)

Most of the European workforce of the next two decades are already adult today. They need ongoing training to update their skills and exploit new career opportunities.

But only 1 in 10 adults currently participates in organised learning, most often those with higher skills levels and employees of large companies. In 2010, about one third of companies in the EU provided no training at all for their staff, while only about one third of employees engaged in some form of training. More recently, one quarter of employees reported that they had not developed their skills since starting their job.

More can be done to support learning environments at work and enable SMEs in particular to provide training, for example by making it easier to pool resources and infrastructure for joint training. European Structural and Investment funds are already available to support the modernisation of education and training infrastructure. Together with the European Investment Fund (EIF), the Commission is exploring the possibilities of further supporting bank loans at favourable rates to SMEs with a financial instrument specific for skills.

More opportunities to validate non-formal and informal learning (p. 15)

People should be able to use the full range of their skills for their careers or for further learning. Increasingly they learn and develop skills in a wide variety of settings beyond the formal education and training system, whether through work experience, in-company training, digital resources, or volunteering. These skills can be validated – through identification and documentation, assessment and certification, with options leading to a partial or full qualification. However, in many countries there is a low level of awareness of validation possibilities and low acceptance of the concept. In some, validation is possible only in the context of specific projects; in others, the administrative costs are prohibitive.

To help policymakers and practitioners establish national validation arrangements by 2018, the Commission and Cedefop published guidelines on validation in early 2016 and will update them regularly. [...]

Supporting teachers and trainers (p. 15-16)

Learners at all ages need excellent educators to develop the broad set of skills and attitudes they need both for life and future work. Variation in learners' achievements in education and training depends mainly on individual characteristics and family background. However, in educational institutions, it is teachers and trainers who have most impact on learners' performance. They can inspire and help learners to acquire higher and more relevant skills. They also play a key role in introducing new teaching and learning methods, in stimulating creativity and innovation, in overcoming biases and in bringing out the best in increasingly diverse classrooms.

The ageing of teachers is an alarming trend in many countries. As they retire, there is an increasing risk of loss of experience and staff shortages. Innovative recruitment, attractive working conditions, and retention policies are needed to create a new generation of teaching professionals. Developing the competences of teaching staff, including those who have been in the profession for a long time,

Brainstorm workshop on new proposals for policy makers

is also an ongoing and increasingly urgent priority throughout the EU. The Commission will support the sharing of best practices in this area among Member States and stakeholders through cooperation and mobility opportunities. Particular attention will be given to innovation in pedagogy; this will include supporting flexible curricula, promoting interdisciplinary and collaborative approaches within institutions, and supporting professional development to enhance innovative teaching practice, including ways of using and bringing digital tools into the classroom and stimulating entrepreneurial mindsets.

Modernising higher education (p. 16)

By 2025 almost half of all job openings in the EU will require higher qualifications, usually awarded through academic and professional programmes at tertiary level. Skills developed through these programmes are generally considered to be drivers of productivity and innovation. Graduates have better chances of employment and higher earnings than people with only upper-secondary qualifications.

A recent public consultation on the 'Agenda for the modernisation

of Europe's higher education systems'[1] shows that over two thirds of students and recent graduates perceive a mismatch between the supply of graduates and the knowledge and skills the economy needs. Nearly half of higher education providers share this assessment. It also highlighted the need for higher education institutions to be active players at regional and national level, not only supplying qualified people to the labour market, but also promoting innovation. […]

The Commission will work with stakeholders to support the modernisation of higher education, building on the results of the public consultation. This will include in particular the development of competence assessment frameworks for different higher education disciplines to allow comparable assessment of students' and graduates' skills.

Discussion

Discuss together the following topics and come up with a short list of suggestion on possible solutions

1. More than half of EU students and recent graduates perceive a mismatch between their education and what is required by the labour market. Providing better information about labour market trends to younger students (secondary school) might help young people make more conscious choices about their future formation. How do you think this process could be supported at the local/regional level? Take into consideration the various stakeholders (education, policy makers, youth organisations, companies, trade unions, etc.). Consider also whether differences exist in your country as for the way public and private educational institutions prepare graduates for the access to the labour market.

[1] http://ec.europa.eu/dgs/education_culture/repository/education/library/policy/modernisation_en.pdf

2. Teachers and trainers are a key factor for the modernisation of education at all levels. However, in general, both the national and European levels still lack systems allowing teachers and trainers to acquire and implement new pedagogical methods. This is especially true in new fields such as participatory didactics and digital learning. Lack of time and of professional/ social recognition often discourage teachers from acquiring and testing new skills and methods on a voluntary basis. On the other hand, top-down imposed initiatives might fail to respond to the specific needs and priorities of each local context. Discuss 1) the socio-economic factors that can have a negative impact on the modernisation of teaching; 2) the policy guidelines that could respond to them, at the regional, national or European level. Try to think inclusively and at various levels: for instance, you could explore the possibility of developing a common agenda shared by teachers and students; you could include in your analysis the role of local NGOs and facilitators.

STRUCTURED DIALOGUE: YOUTH ENGAGEMENT AND EMPOWERMENT FOR A BETTER EUROPE

Source: *A Framework for the next Structured Dialogue cycle: Enabling All Young People to Engage in a Diverse, connected and inclusive Europe.* Resolution of the Council of Members, Extraordinary General Assembly, Madrid 27-28 November 2015.
Link to the complete document: http://bit.ly/2jbOkfr

On the Structured Dialogue, see also:
• http://ec.europa.eu/youth/policy/youth-strategy_en
• http://ec.europa.eu/youth/policy/implementation/dialogue_en

[...] It is an exciting but challenging time to be young. [...] This should be a time for Europe to empower its young people and harness this creativity for the benefit of society. However, instead social and education policies and systems are lagging behind and failing to empower young people with a sense of common humanity, belonging and purpose to be active, self-aware, empowered and autonomous citizens.

Europe's formal education systems often fail to consider how these skills and competences could be developed in a comprehensive way throughout the life of young people. Beginning at school, teaching methods do not appropriately engage or encourage young people's participation and do not cater for their specific needs and talents. Instead these methods promote competition and do not promote success for all. When young people engage in youth organisations or civil society organisations, they are hampered by the organisation's underfunding and limited support for empowering young people.

The Youth Forum's shadow Youth Report[2] revealed that only 50% of responding National Youth Councils received sufficient funding to ensure their independence and sustainability. Although the shadow Youth Report focused on NYCs, this trend is reflected in International Non-Governmental Youth Organisations.

Young people in Europe today

Young people, particularly those from marginalised backgrounds are exposed to unprecedented economic and social challenges that are increasing their risk of marginalisation and are hampering their transition to becoming autonomous citizens and accessing their rights. Finding a sense of belonging within different communities can be especially challenging, particularly for excluded groups.

Focusing on the development of personal, interpersonal and intercultural competences and skills is essential for empowering and recognising young people as positive actors of change, and enabling them to find common grounds between different beliefs and cultural backgrounds.

*Brainstorm workshop
on new proposals for policy makers*

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[2] http://www.youthforum.org/assets/2015/10/Shadow-Report-on-Youth-Policy.pdf

Enable all young people to engage in a diverse, connected and inclusive Europe

The Youth Forum considers the following skills as crucial elements for young people's engagement in a diverse, connected and inclusive Europe:

- The ability to lead a self-determined life: The ability to shape one's life according to their own capacities, opportunities and dreams is the basis for young people's engagement and their active participation in society. Young people need creative spaces and time to develop their potential, but we see that this is becoming increasingly difficult due to the manifold demands of changing societies, changing school routines or social and economic pressures.
- Intercultural competences and the ability for critical thought: The ability to live and argue with other people, to respect them and to be able to reflect critically upon life, also with regard to the environment and humanity is crucial for living in diverse societies. This includes democratic awareness and a sense of self-worth.
- The ability to learn in a comprehensive way: The ability to use one's senses and intellectual capacities is the basis of learning. In an ever-changing environment, young people need the tools to learn how to learn, to develop critical thinking and the ability to adapt to different environments.

Apart from family, friends, communities, and civil society, the education system plays an essential role in developing young people's full potential. We believe a more learner-centered approach in the formal education sphere is a very effective way to help young people improve their potential through acquiring the knowledge, skills, attitudes and values they need to fully exploit today's opportunities and learn to live together in a positive, free, safe and inclusive environment. Therefore, formal education should focus more on transversal skills and personal development using proven pedagogical complementary tools and methods, and innovative pedagogical approaches inspired by non-formal education (NFE).

Secondly the key educational role of youth organisations, youth work and volunteering needs to be recognised by formal education

institutions as well as by policy-makers and society at large. Youth organisations offer a space where:

- Young people can acquire skills and competences that will be useful for their personal and professional life;
- Young people can evolve in a group, in a community and where they learn how to better work and live together through collective intelligence;
- Young people can develop a feeling of being part and responsible of the development of their community, country and Europe through taking positive actions;
- Young people can build self-confidence and develop a sense of initiative through responsibility-taking and creative risk-taking in a safe environment.

The European Youth Forum, through its research found that the skills developed in youth organisations can include interpersonal, organisational, conflict and problem solving skills, intercultural awareness, teamwork and leadership skills, self-confidence and a sense of responsibility.

Approaches: change the situation
Structural reforms of education systems

- A shift by formal education providers toward holistic education that focuses on developing individuals as persons, valuing their strengths and capacities.
- An increased focus from Member States towards education policies that develop personal and transversal competences (including self-management, self-awareness, emotional intelligence, self-esteem, problem-solving, communication and confidence) and implementing key competences' framework in to education reforms.
- A comprehensive change in focus of school curricula toward integrating more learner-centered skills development using methods used in non-formal education. On local and regional level, joint projects should be encouraged that bridge NFE and youth work into the school environment.

• Learning environments that are free, safe, inclusive and supportive for all young people.

More support and recognition of the value of youth organisations

• Recognition by public actors at all levels, including in terms of funding and cross-sectorial valorisation, of the role of youth organisations and youth work in their role providing space at local, regional, national and European levels for young people to develop skills, to be part of multiple communities and to relate positively with other people from different backgrounds. Full recognition of youth organisations means as well actively engaging them in youth related decision-making and supporting them thus in policy participation on all levels of public sphere.

• Recognition by society, including employers, of the skills acquired through volunteering and youth work. The European Commission could facilitate the process of better integrating recognition of volunteering into the EU's Europass & Skills passport as a first step.
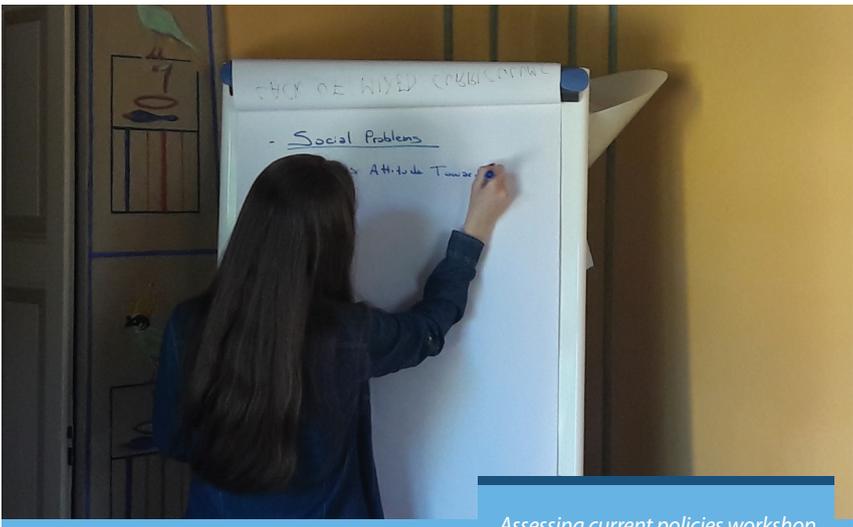
Assessing current policies workshop

- National validation systems for learning outcomes gained through non-formal education should also take into account competences gained through involvement in youth organisations.
- A stronger legal framework for youth workers and volunteers implementing the '[Policy Agenda for Volunteering in Europe](#)'[3] (PAVE) recommendations of the Alliance of the European Year of Volunteering 2011, in order to strengthen learning opportunities for young people through volunteering and the conditions of youth workers and volunteers providing learning to youth.

Citizenship education, intercultural learning and social inclusion

- Member States should integrate citizenship education into curricula in schools and to support youth organization-led citizenship education programmes. Citizenship education should focus on developing knowledge, skills, values and attitudes for inclusive, peaceful and democratic societies. These include critical thinking, intercultural communication, human rights education, mutual respect and solidarity, active participation in local communities, freedom of thought and respect for diversity. Citizenship education is best provided in participatory environments and therefore formal and non-formal education providers are invited to work together to achieve this.
- There should be a focus in all spheres of education, on developing intercultural learning and competences and ensuring that young people from all backgrounds can learn to understand and accept each other. Young people should be empowered to take action together for social transformation and social inclusion.
- A greater recognition by public authorities at national and European level, of the role that learning mobility plays in the development of interpersonal and intercultural skills. More mobility opportunities should be offered within Europe and beyond for young people from different backgrounds in order to develop intercultural understanding and enhance intercultural

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[3] *http://www.cev.be/uploads/2015/10/EYV2011Alliance_PAVE_copyfriendly.pdf*

dialogue. The private sector should also play a role and provide support for these activities.

• Strong support from national and European public authorities towards policies that support initiatives specifically designed to build bridges and partnerships in society focused on the inclusion of marginalised youth.

• Recognising that social inclusion is a process which ensures that all young people gain the opportunities and resources necessary to participate fully in economic, social and cultural life and to enjoy a decent standard of living and well-being, we emphasise the need for structural changes in social protection systems targeting youth and social security systems in general.

• Income support, activation measures and services must be concerned with preventing, managing and overcoming the situations that adversely affect especially young people's well-being.

• Efforts should be made to include excluded groups of young people and done in a way that includes them in deciding what they want and need in order to be active citizens.

Discussion
Discuss together the following topics and come up with a short list of suggestion on possible solutions

1. The European Commission values youth organisations and volunteering and considers them to be strategic in promoting a holistic approach to learning. Following this approach, existing competences are combined with newly-acquired critical, organizational and communicational competences in order to deal with personal, professional, and societal challenges. Is there an initiative in your school that promotes civic engagement? If yes, have you been part of it? If not, how appealing would it be to you to participate in such an initiative? In your opinion, which regional and national policy initiatives

would contribute to stimulate young people to experiment with this positive interaction between civic participation, formal education and preparation for the labour market?

2. Citizenship education is indicated by the European Commission as a crucial element in the process of making young citizens the future drivers of a more inclusive European society. Is citizenship education in your school an obligatory or an optional course? Do you think that it is taught in a way that is interweaved with the routine and everyday life of a youngster? Discuss which policy guidelines could support the fruitful interaction between curricular and extra-curricular learning for citizenship education.

3. #ConnectingYouth is a Structured Dialogue funded by the European Commission. Its goal is to bring together young people, policy makers and experts in the fields of youth, education and labour market to discuss and identify relevant policy guidelines. However, the duration of #ConnectingYouth is limited to a certain number of months: consider which initiatives could transform the mechanisms of interaction you are experimenting within #ConnectinYouth into a permanent framework of thematic discussion and collaboration. Would you imagine yourself as part of a steering committee of youngsters that would contribute to this discussion and collaboration, provide feedback and become drivers of a hands-on approach?

The two pillars: Multilingualism and Digital Skills

MULTILINGUALISM: A SCHOOL-BUSINESS PARTNERSHIP APPROACH

Source: *Languages for Jobs. Providing multilingual communication skills for the labour market. Report from the thematic working group "Languages for Jobs".* European Strategic Framework for Education and Training (ET 2020), 2011.
Link to the complete text in the various EU languages: http://bit.ly/2imYAQp

Background (p. 5)

The demand for foreign languages and communication skills is steadily rising on the European labour market. In order to reduce the gap between offer and demand of language skills and to increase the motivation of learners, the experts of the group encourage the development and dissemination of new methods of teaching languages. These methods should be learner-focused, practically oriented and more applied to professional contexts. Effective communication and cultural awareness are important elements of language teaching, as intercultural competence, ability to work in multilingual and multicultural teams, flexibility and good communication skills are highly demanded by the employers. Since these skills can be acquired or enhanced through spending a study exchange or work placement abroad, mobility of both learners and teachers needs to be further increased and supported. Partnerships between local and regional authorities, business and education could be developed for the purpose of increasing funding for mobility and language preparation in connection with mobility on all educational levels.

(p. 20) In the report of the Business Forum for Multilingualism in 2008 some clear messages were addressed to the education authorities: "We would like to see multilingualism being encouraged more actively at all school levels. First and foremost, the choice of languages needs to be widened. At higher levels, learning methods need to be more applied and practice oriented. Proper recognition should be awarded for language skills in school curricula and at a later stage in the assessment of job candidates. In a different context, language skills need to be acknowledged in an appropriate way in centrally negotiated agreements between the social partners."

(pp. 34-35) The need for language skills is an issue that has not been much focused on in the context of school-business partnerships. It is suggested to extend current partnerships to encompass examples of good practice and to involve Chambers of Commerce and other professional organisations in the development of long term strategies for school curricula. [...]
In times of cutbacks and scarce resources, it is even more important that funding for education and training is used efficiently. A weak supply of language skills, inappropriately matched to employer needs, makes employers dissatisfied with the skills on offer and limits their capacity to exploit them to benefit their business. This in turn makes providers and policy-makers less likely to see the importance of language skills and less likely to invest in improving them.
However there is already ample evidence to show that language skills improve business performance and benefit the wider economy and are a vital tool in achieving the growth Member States so desperately need. We need to break through the vicious circle by working to provide a better match between supply and demand and supporting employers to understand how best to exploit language skills.
That is why new partnerships are increasingly being sought in the area of education, both on national and on European level. With evidence of the need for language skills and the framework for collaboration initiated through the skills council on European level, national administrations need to reach out to large companies and employer organisations (both private and public) in order to provide

the financing to secure a better and more targeted language teaching. One way of encouraging companies to collaborate with the education sector and contribute financially to targeted language education is to award organisations with outstanding performance in multilingual business communication.

Selected Recommendations (Annex I)

What?	Why?	How and who?
1. Improve the information flow about the language skill needs on the labour market	So that training providers can plan appropriately, individuals can make better choices, and a better match between supply and demand is achieved.	Regular surveys of trends in the demand for languages in the labour market should either be built into existing methods to anticipate skills needs or commissioned separately. This information should be brought to the attention of career advisers and education authorities at different levels. Such surveys should ideally be coordinated at EU level in order to facilitate aggregation of data and create synergy and impact.
2. Widen the supply of languages taught and learned in secondary education	The gap between supply and demand needs to be reduced.	Promote new methods of teaching languages in order to motivate learners to keep languages in their study programmes. Education authorities need to collaborate with organisations and individuals offering education and career guidance.
3. Increase the opportunities to continue language learning and training throughout education pathways, including in higher education	The time and effort invested in language learning in school might be wasted unless language skills are maintained throughout the education pathway. A	Enhance language training in all institutions of higher education and promote cross-curricular collaboration. Provide students involved in mobility actions with incentives to learn the language of their host country in parallel to their studies

What?	Why?	How and who?
	foreign language is a valuable complement to any academic diploma.	(if the language of instruction is English). This action could be funded jointly by regional, national and European authorities.
4. Re-orient language teaching to develop targeted options and put language skills into context	Languages are needed for specific purposes. Different occupations require different kinds of multilingual communication skills, mediation skills etc.	Develop dedicated language options in both initial vocational training and tertiary education to direct language learning towards a particular occupation. Explore content and language integrated learning for specialised vocational training.
5. Increase learner mobility across the board	Mobility is still underexploited. The lack of language skills is a major obstacle, especially in the VET sector.	Extend mobility to wider groups of learners and encourage work placements for both students in IVET and apprentices, along the lines of the Youth on the Move initiative. Make languages an integral part of a strategy to make international mobility a reality for every learner. Promote partnerships between regional, national and European authorities, business and education institutions, with a view to increasing funding for language teaching and learning as well as for mobility.
6. Validate informal language skills	Language skills can be acquired outside formal educational settings; language skills acquired through informal and non-formal learning need to be validated and recognised.	[...] Ensure the ability of the Language Passport to document skills acquired through informal and non-formal learning and experience.

What?	Why?	How and who?
7. Improve the structures for dialogue between education and the world of work	Such a dialogue is a prerequisite to match the supply of language skills to demand from the labour market.	Identify organisations in which business representatives can take part in the continuous development of teaching syllabuses and contribute to the counselling and guidance of students throughout their educational pathway.
8. Establish awards for companies to recognize outstanding multilingual performance	To encourage companies to improve their capacity to manage language skills and to take full advantage of language skills supplied by the education sector.	Introduce a business language label in each participating country which could be awarded by national chambers of commerce. Encourage award winners to engage in a dialogue with the education sector. [...]
9. Identify new financing models to secure provision of good language skills for the labour market	Funding for education is being reduced all over Europe and languages are permanently at risk of being subject to severe cuts.	Involve both public authorities and companies in the financing of vocationally oriented language training, in particular linguistic preparation for mobility actions and for work placements abroad. Use the new generation of EU education programmes to explore opportunities for partnerships at different levels, recognising the crucial role of foreign languages for the success of European programmes.

Discussion
Discuss together the following topics and come up with a short list of suggestion on possible solutions

1. Collaboration between school and business world is indicated as a crucial strategy in order to raise awareness, among students, on

the language skills needed in the modern labour market, and also to develop a model of studying foreign languages that focuses on the acquisition of communicational skills in practical scenarios. Preparing students to an active and targeted use of foreign languages is crucial to future personal and professional life of young people. To what extent is this school-business strategic partnership developed in your region/country? How does it work nowadays, and what policy guidelines and initiatives could improve the effectiveness of this system in the future?

2. Non-formal and informal education play a crucial role in learning languages, by enriching and improving formal education. Certification is useful to give value to these experiences and to capitalize them in one's curriculum. In your opinion, which initiatives should be promoted by different stakeholders (school, business, policy makers, etc.) in order to make national and European certificates a common, widely recognised and effective tool in young people's preparation to the labour market?

3. A multilingual professional context does not only mean a variety of languages. It also implies a variety of different cultures. People with different cultural backgrounds usually also approach teamwork, workflow organisation, and work execution in a different manner. This can often hinder effective communication much more than a limited knowledge of foreign languages, and it can often be the main obstacle to an optimal work environment. In your opinion, which initiatives should be promoted at the regional/national/European level in order to help young people train their intercultural skills as part of the preparation for the European labour market?

4. Prepare a short presentation (powerpoint, audio, video, etc.) of your group and of the region you live in. Then share it on-line with the other #ConnectingYouth national groups as part of the preparation to the Villa Vigoni workshop. Use English and / or other languages you know, other than your native language.

DIGITAL SKILLS IN EDUCATION

Source: *The e-Skills Manifesto 2016. With contributions from leading figures in government, education, policy, research and industry.* European Schoolnet, Brussels, December 2016.
Link to the complete text: http://bit.ly/2hjuj5S

Digital skills at the heart of education (CHAPTER 11, p. 69-72)

Introduction – digital skills gaps are bigger than we expect
The Digital Economy and Society Index (DESI)[4] indicates that almost half (45%) of Europeans (European Commission, 2016) still do not have basic digital skills. This is measured in the index as the ability to use a mailbox, edit tools or install new devices.
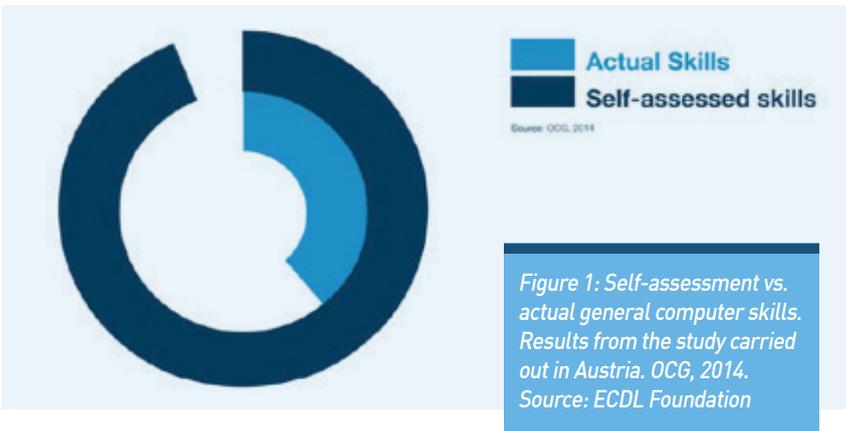

Higher education and citizen engagement workshop

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[4] *https://ec.europa.eu/digital-single-market/en/desi*

Most international indicators are based on activities that people say they do online. However, these indicators do not measure how good people are at these activities, nor if they have the right skills to carry them out effectively and safely. In fact, recent studies show the shortcomings of self-assessment as a measure of digital skills.

A representative study carried out in Austria, found out that 94% of Austrians assess their general computer skills as "average" to "very good" (see Figure 1). However, when they were required to take a practical test to check their actual skills levels, only 39% of study respondents scored that high (ECDL Foundation, 2016).

Similar studies were also replicated in Denmark, Finland, Germany and Switzerland. All of these studies revealed the same results: people cannot adequately assess their digital skills levels. This trend could be explained in two ways: people either assume that they automatically develop the right skills simply by using digital applications, or they are trying to show themselves in a better light for potential employers. In order to avoid self-assessment bias, an objective measure of digital skills is essential.

Actual Skills
Self-assessed skills
Source: OCG, 2014

Figure 1: Self-assessment vs. actual general computer skills. Results from the study carried out in Austria. OCG, 2014. Source: ECDL Foundation

Young peoples' familiarity with digital tools is often reported and taken as a proxy for their digital skills, while in fact it is a sign of frequent use, which does not necessarily involve skills. Adolescents might spend most of their time using technologies to play games,

communicate on social networks and consume digital content. These activities do not develop the skills required to use the computer in an effective and safe manner, find a job or use online public services. The assumption that young people are "digital natives" is a dangerous fallacy. Only consistent education and training can equip young people with the skills required to become successful learners, employees, entrepreneurs and citizens.

In order to grasp and recognise the variety of digital skills for citizens, the European Commission developed a Digital Competence Framework, also known as DigComp. The framework provides a common language to describe digital competence and is used as a reference in several countries in Europe.

Simply equipping schools with digital technologies is not enough – skills are needed

When every sphere of life is becoming more dependent on digital technology, education systems are pressured to transform rapidly. Multiple solutions are available, but they do not always bring about the desired results. A recent OECD study states that using digital technology in the classroom does not always lead to a better quality of education and higher achievements by students (OECD, 2015). In fact, the study found that, in mathematical tests, almost any time spent on the computer led to poorer performance by students, even after accounting for differences in socio-economic status (see Figure 2).
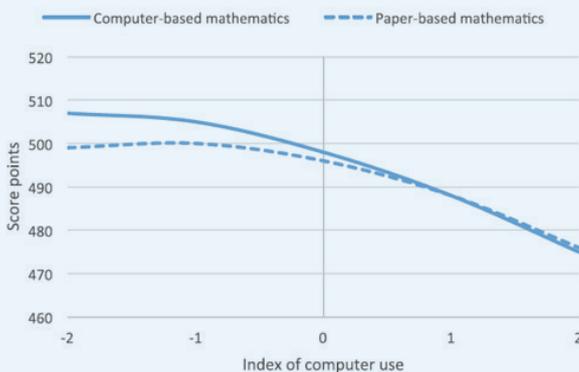
Figure 2: students who do not use computers in maths lessons score highest in mathematics. Source: based on OECD (2015a), "Students, Computers and Learning. Making a Connection".

These findings do not suggest that countries should stop investing in digital technologies for education. Andreas Schleicher, OECD Director for Education and Skills, said "technology is the only way to dramatically expand access to knowledge. To deliver on the promises technology holds, countries need to invest more effectively and ensure that teachers are at the forefront of designing and implementing this change" (OECD, 2015b). In other words, school staff, teachers and students should be provided not only with digital tools, but also with consistent training and guidance on how to use them.

The need to develop teachers' skills in using and applying digital technologies in teaching practices has been revealed by several research studies. According to the study commissioned by DG CONNECT at the European Commission, only 25% of students in Europe are taught by digitally confident and supportive teachers (European Schoolnet & University of Liege, 2013). Moreover, an OECD survey of the teaching profession (TALIS) found that 56% of teachers report moderate or high professional development needs regarding the use of digital technologies in the workplace (OECD, 2014). Teacher training is central in ensuring that teachers understand the key concepts and benefits of using ICT to support and enhance teaching: learning and assessment in the classroom; planning ICT-enhanced lessons; understanding safety, security and well-being
considerations when using ICT in education; understanding how to source and evaluate ICT resources to support and enhance teaching and using key features of a learning platform, etc. (ECDL Foundation, 2016).

Computer science and digital literacy are both important in digital education

Many countries in Europe and beyond are considering coding as a possible skill to be develop in formal education. Coding can enable people to become creators of digital applications rather than just passive consumers of digital content. Moreover, knowing how to code is considered to be useful in the labour market, as demand

for ICT specialists is outstripping supply. According to forecasts, there might be 765,000 unfilled vacancies for ICT professionals in Europe by 2020 (empirica, 2015b).

The European Commission has promoted coding through numerous initiatives, such as the Opening Up Education Initiative, the European "eSkills for Jobs" campaign and the EU Code Week. The European Coding Initiative was created under the auspices of the European Commission, and is led by partners from the technology industry, including Facebook, Liberty Global, Microsoft, Samsung and SAP. Data collected by European Schoolnet shows that five countries in Europe have introduced coding at primary school level (Estonia, France, Spain, Slovakia and the UK (England)) and eight countries have introduced it at upper secondary school in general education (Austria, Denmark, Estonia, Lithuania, Malta, Poland, Spain and the UK (England)) (European Schoolnet, 2015). Moreover, numerous voluntary-led afterschool activities, such as Coder Dojos, Code Clubs and Rails Girls, are happening across Europe.

While initiatives around coding are increasing worldwide, it is important to consider this skill from a broader perspective. As defined by European Schoolnet, coding "on a technical level is a type of computer programming that closely or exactly represents what happens at the machine level. However, when most people talk about coding, they usually mean something at a higher, more human-readable level" (European Schoolnet, 2014). It is important to have in mind that coding is just one element of a broader discipline of computer science. This discipline encompasses the theory of computation, as well as various concepts that range from programming to data structures and systems architecture. In order to equip children with a full set of transferable skills and knowledge, all of these areas should be covered in digital skills education. This does not mean that current educational provision should ignore general digital skills. The International Computer and Information Literacy Study (ICILS), which assesses computer and information literacy skills of 60,000 eighth graders (14 year olds) from 21 education systems all over the world, revealed that

around 17% of students do not reach the lowest level of their scale and only 2% score at the highest level, which requires the application of critical thinking while searching for information online (ICILS, 2014). Digital skills are crucial for every area of life – studying, travelling, and commerce, managing personal finances, accessing public services amongst others. They should be developed together with, and be complementary to, computer science.

Discussion
Discuss together the following topics and come up with a short list of suggestion on possible solutions

1. While e-learning can provide young people with crucial skills for their future education and formation, the costs for equipping schools with digital devices and for training teachers to use them can cause an educational gap between rich and poor milieus. Moreover, digital learning implies that students are able to use the same (or compatible) digital tools outside and inside the school environment. Therefore, there is a high risk that the digital divide caused by different socio-economic conditions may endanger rather than foster equal opportunities in education. To what extent does this statement apply to the context you know? Discuss a few options to alleviate this issue, such as: agreements between schools and private e-providers; lifelong learning centres providing digital material to be used in a shared environment; combining funding opportunities between local foundations, regional, national and European funds.

2. In order to effectively integrate digital technologies and skills in formal education, equipping schools with digital devices is not sufficient without the development of pedagogical methods that allow making profitable use of these devices.

Hence, a crucial factor for a successful digital school is to have teachers that are confident users of teaching-related digital devices and services. On the other hand, young people are the greatest users of digital tools and especially of internet, yet frequency of use does not necessarily imply a skilled use. Because both teachers and students are faced with fundamental challenges raised by the development of digital schools, an effective digital pedagogy should the product of their collaboration. Which policy guidelines could be taken at regional/national/European level in order to multiply the occasions of discussion and collaboration between teachers and students on this topic?

Implementation: A Strategic Synergy between Technologies and Humanities

STEM (Science, Technology, Engineering and Maths)

Source: *The e-Skills Manifesto 2016. With contributions from leading figures in government, education, policy, research and industry.* European Schoolnet, Brussels, December 2016.
Link to the complete document: http://bit.ly/2hjuj5S

STEM education for STEM careers (CHAPTER 12, pp. 73-75)
The acronym STEM (Science, Technology, Engineering and Maths) refers to an array of subjects and disciplines that are today widely promoted in education throughout Europe and around the world. What stands behind this acronym is much more than a definite number of subjects, as the push for STEM education is a way to address a lack of skilled talent, rising youth unemployment rates and even as a call to update teaching and learning methods and educational content.

Demands and supply in STEM
Every year in Europe about 640,000 students graduate in STEM subjects (empirica, 2015b). The number of people working in STEM is increasing and demand is anticipated to grow even more (European Commission, 2015). In the short to medium term, the main reason for the increase in demand is the need to replace highly-skilled professionals who are retiring, which leads to concerns about the adequate supply of skilled talent in Europe (Ulicna D & Royale R, 2015). However, the demand-supply issue is not as clear-cut as it may seem at first sight. Demand will not grow across the board in a homogeneous way. First of all, there are pockets of need in certain

parts of Europe, which implies that certain European regions will have higher demands than others (European Parliament, 2015). Secondly, demand varies according to sectors. In particular, shortages are expected in professional services and computing, for example, and some demand might be specific to highly specialised STEM subfields (European Parliament, 2015). Overall the science and technology sectors provide work for over half of the EU's workforce (European Commission, 2014).

STEM skills are also needed and applied beyond STEM careers. Individuals with STEM degrees or training are significantly less likely to be unemployed than the average, and this holds true despite the current economic crisis (Cedefop, 2014) and even in countries that currently have high unemployment levels such as Greece, Portugal, Spain (European Parliament, 2015).

STEM skills are regarded as a trigger for innovation. At the same time, the ongoing changes in economic and social life will affect the relevance of the skills and knowledge held by STEM professionals. In the coming years, the required skills and competences will change as a result of technological development and convergence (Ulicna D & Royale R, 2015).

An ongoing issue is the gender balance in STEM studies and careers. Across the EU-28, 14% of female students graduate in a STEM subject versus 40% of male students (European Commission, 2015). Despite various initiatives and policy efforts that have improved the situation, the STEM gender gap persists.

STEM in Europe: the European Commission's role
Ensuring the supply of STEM-skilled individuals has been tackled through several projects, initiatives and campaigns. This focus includes an effort to address lower numbers of women choosing these subjects. Several initiatives converge towards this aim and these include campaigns (e.g. Science, it's a girl thing) and work programmes (e.g. Sciences with and for Society).

A number of European projects aim to raise awareness among students about opportunities in STEM fields and support teachers and students who engage in science education. Examples include

Scientix, a community for science education in Europe, and the STEM Alliance, an industry and education partnership to promote STEM education in Europe.

STEM education: challenges and methods

It remains a challenge to attract sufficient students to STEM subjects, which are often perceived negatively as difficult, boring or uninspiring (European Schoolnet et al, 2013). However, students and pupils that do study STEM subjects primarily perceive the teaching methods as problematic, rather than the subject matter itself (European Schoolnet & InGenious, 2014). Until recently, education offers in STEM subjects still tended to emphasise rote learning and knowledge recall, rather than experimentation, discovery, or trial and error, which are foundational aspects of STEM disciplines and tend to be more engaging.

Current educational practices embrace new pedagogies that are more adapted to the scientific method and include observation, experimentation, collaboration and problem solving. Inquiry-based learning, which is a more engaging method that encourages student autonomy and places curiosity and questioning at the centre of the learning process, is a top priority for several ministries of education in Europe (Kearney C, 2015).

Digital technologies in STEM education

Digital technologies can also help to integrate such pedagogies and teaching methods. Through the possibilities offered by simulation tools, virtual reality or 3D printing, the teaching and learning of STEM subjects can be more hands-on and be made more attractive, enjoyable and dynamic. A more intensive use of digital technologies in class also enables the inclusion of cutting-edge topics (e.g. nanotechnology, robotics) and help to integrate content and tasks that graduates will encounter in the workplace (e.g. sensors, data loggers, online collaboration) (European Schoolnet et al, 2013).

While access to digital devices was sparse two decades ago, today it is nearly ubiquitous and devices are readily at hand in class as well as practical learning situations. But while the opportunities offered by

technologies can make a significant impact, teachers and students do not need hi-tech classrooms to teach and learn effectively. Various trends such as the "tinkering movement" demonstrate that effective hands-on STEM education can also be achieved at a low-cost or low-tech level. The guiding principle behind the "tinkering movement" or the related "maker movement" is to use real tools to solve real problems. Students engage and experiment with the subject matter and are encouraged to try new things and make mistakes. A European example for STEM education through tinkering is Tinkering Europe. From creating robots to building circuits boards, such activities can create a deeper and practical understanding of digital and other technology and a spirit of innovation and invention to the everyday endeavours of students, who are engaged and motivated through active involvement.

Discussion
Discuss together the following topics and come up with a short list of suggestion on possible solutions

1. Reflect on the place of STEM education in your country, if possible by drawing on figures and/or local documentation. To what extent is your country in line with the evaluations and proposals developed at European level? If not, according to you which are the main motivations justifying the differences between the promotion/implementation of the STEM model at the European level and in your country?

EUROPEANA: DIGITAL CULTURAL HERITAGE AND THE CREATIVE INDUSTRY

Source: *Digital Cultural Heritage in Europe: an Introduction in Europeana and its strategy. PostScriptum, Athens, February 2017.*

On Europeana see also:
• http://strategy2020.europeana.eu

On Digital Cultural Heritage see also:
• http://pro.europeana.eu/blogpost/placing-culture-at-the-heart-of-europe-s-digital-single-market
• http://www.dariah.eu
• http://www.consilium.europa.eu/en/press/press-releases/2016/05/31-eycs-europeana-conclusions

I. Concepts of digital culture and digital strategy

Digital environments are enveloping all aspects of everyday life, thus culture both online and offline. The landscape of culture is in a constant progress. Next to this progress cultural institutions and its professionals are missioned to safeguard culture in all its forms keeping the memory alive. At this point is where digital technology comes to accelerate and improve the recording of culture.

To this end and in order to keep cultural production safeguarded and alive it is important to understand the changing environment and the importance of access to culture. As Uzelac[5] (2010, p. 8) vividly describes:

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[5] Uzelac, Aleksandra. 2010. "The Role of Cultural Portals in the Context of Converging Digital Culture" *Media Research: Croatian journal for journalism and the media* 16 (2): 5-43. http://hrcak.srce.hr/63936.

> the cultural sector is a custodian and communicator of our recorded cultural memory that comprises many different forms […] that in order to stay culturally alive, must be communicated to the audiences, and the audiences must be able to appropriate this content and use the related references in their communication and creative processes

It is clearly understood that access to culture by its users constitutes an essential aspect, whereas cultural institutions are called upon to respond to the digital shifts and exploit them in order to adapt to contemporary challenges. To this context we cannot ignore the participative Internet (Web 2.0). This means that the users are in the epicenter and their role becomes more prominent. On the other hand, cultural institutions need to constantly adjust, becoming aware of the participatory processes and the shared environments, having to compete for the user's attention.

In this context, culture professionals have to come up with new working practices, exploiting digital environments in order to reach the public. However, this does not necessarily mean to just announce vernissages online or attract new visitors through an electronic newsletter. Audience development by using digital technology can also mean creating digital experiences for users. An innovative example is The Commons[6], launched on the Flickr photo-sharing site in 2008. By then many institutions[7] have opened their collections to the public allowing users to interact with, comment, share and discuss about it. Thus, it can be stated that users add value and this value generates income for the institution.

II. European Policy Agenda: guidelines to go digital

It is of vital importance to elucidate how European cultural policy agenda has examined issues of digital growth and incorporated them in its documents and operational programmes. In 2007, the European

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[6] https://www.flickr.com/search/?text=Commons

[7] https://www.rijksmuseum.nl/en/rijksstudio

Union endorsed a new European agenda for culture, whose objectives structure focused on the following three priorities:
- promotion of the trans-national mobility of people working in the cultural sector
- support for the transnational circulation of cultural and artistic works and products
- promotion of intercultural dialogue[8]

Next to this and one year earlier, in 2006 the European Commission issued a Recommendation to the Member States with a view to optimizing, by means of the internet, the economic and cultural potential of Europe's cultural heritage. The Member States' reports on the implementation of the Recommendation of 2008 and 2010 show that progress has been made.

However, progress is not consistent across the Member States and is uneven for the different points of the Recommendation.

Therefore, an updated set of measures for digitizing and bringing cultural heritage online and for digital preservation was recommended to the Member States. This work plan established by the Council at its meeting in November 2010, focused on the need for a coordinated effort in the area of digitization[9].

In brief, the Member States proposed further **digitization of any form of cultural material** (books, journals, newspapers, photographs, museum objects, archival documents, sound and audiovisual material, monuments and archaeological sites) that would lead to further development of Europeana, encourage partnerships between cultural institutions and the private sector, stimulate innovation, make use of the EU's Structural Funds, optimization of digitization capacity and cross-border collaboration. Moreover,

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[8] 2010. "Comission Report to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions." Brussels. Accessed September 26, 2016. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52010DC0390.

[9] 2011. "Comission Recommendation on the digitisation and online accessibility of cultural material and digital preservation." Official Journal of the European Union 711: 39-45. Accessed September 26, 2016. https://ec.europa.eu/digital-single-market/en/digitisation-digital-preservation.

*Digital platforms and cultural
market workshop*

the Member States recommended to improve access to and use of digitized cultural material that is in the public domain whereas they proposed to improve conditions for the digitization and online accessibility of in-copyright material.

Lastly, a strong focus was given to issues of **digital preservation**. This practically meant to reinforce national strategies for the long-term preservation of digital material, update action plans implementing the strategies, and exchange information with each other on the strategies and action plans. Also necessary was to make clear provision in the legislation, as well as to make the necessary arrangements for the deposit of material created in digital format in order to guarantee its long term preservation, and improve the efficiency of existing deposit arrangements for material created in digital format.

III. Introducing Europeana

History

The initiative of Europeana started with a vision. Jacques Chirac, President of France, together with the premiers of Germany, Spain, Italy, Poland and Hungary sent a letter to the President of the European Commission, José Manuel Durâo Barroso, in April 2005.

The letter recommended the creation of a virtual European library, to make Europe's cultural heritage accessible for all[10].

In 2007 the building of the prototype began and the project bulding Europeana was called the European Digital Library Network (EDLnet). Europeana was aimed at building a prototype of a cross-border, cross-domain, user-centered service. It was funded by the European Commission under its eContentplus programme, one of the research and development funding streams of i2010. In 2008 Europeana's prototype was launched by Viviane Reding, European Commissioner for Information Society and Media, and the President of the Commission, José Manuel Barroso. By 2009 Europeana's collection had reached the amount of 5 million items and it received a wider and unanimous approval, while by July 2010 the collection reached the amount of 10 million items[11]. Early in 2011, new features on the site included a translation tool and the ability to expand on information by automatically transferring the search term to Wikipedia and other services.

From 2012 and on Europeana on the basis of the Comission Recommendations set the following objectives:

- Consolidate the strategy and targets for the digitisation of cultural material;
- Consolidate the organisation of and provision of funding for digitisation, promoting public-private partnerships
- Improve the framework conditions for the online accessibility and use of cultural material;
- Contribute to the further development of Europeana, the Europeana Digital Library and
- To ensure long-term digital preservation[12].

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[10] "Timeline of digitisation and online accessibility of cultural heritage" (23 July 2014). European Commission, *Digital Agenda for Europe*. The letter, written in French, was dated 28 April 2005 (see under that date in timeline): ec.europa.eu. Retrieved 27-01-2017.

[11] "Background". Europeana.eu. Archived from the original on January 22, 2011. Retrieved 10 March 2011. 2008 Europeana's prototype is launched on November 20th by Viviane Reding, European Commissioner for Information Society and Media, and the President of the Commission, José Manuel Barroso.

[12] "Timeline of digitisation and online accessibility of cultural heritage" (23 July 2014). European Commission, *Digital Agenda for Europe*. Retrieved 27-01-2017.

Function:
Europeana gives access to different types of content from different types of heritage institutions. The digital objects that users can find in Europeana are not stored on a central computer, but remain with the cultural institution and are hosted on their networks. Europeana collects contextual information – or metadata – about the items, including a small picture. Users search this contextual information. Once they find what they are looking for, if they want to access the full content of the item, they can click through to the original site that holds the content.

Different types of cultural heritage organisations – libraries, museums, archives and audiovisual collections – catalogue their content in different ways and to different standards. Approaches also vary in different countries. To make the information searchable, it has to be mapped to a single common standard, known as the Europeana Semantic Elements. This metadata standard at present takes a lowest common denominator approach to the integration of different types of digital content. In 2010 the Europeana Data Model, a richer metadata standard, was introduced to help give users more and better information[13].

Europeana accepts metadata about digital objects; it does not make any decisions about digitisation. The decision about which objects are digitised lies with the organisation that holds the material, that is the content provider, said otherwise.

Europeana Strategy:
In its Strategic Plan for 2015–2020[14], which was published in January 2014, Europeana outlines four strategic tracks that will shape its further development:
 1. Improve data quality in order to be more attractive for institutions to share their very best material;

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[13] "Europeana Data Model Documentation". *pro.europeana*. Europeana. Retrieved 29-01-2017.

[14] "Europeana Strategy 2015-2020". strategy2020.europeana.eu. Europeana. Retrieved 29-01-2017.

2. Open the data: make partners' data more openly accessible so that it may be viewed, and re-used within its copyright; work with contributing partners and policy-makers in Europe to make all digitised Public Domain material freely available for re-use without any restrictions;

3. Create value for partners: find ways to let value flow in all directions through the system, so that memory institutions get the visibility, cost reductions and return they deserve from tapping into a shared infrastructure.

IV. Impact and Economic Potential:

Further on the above strategy, below the Council conclusions on the role of Europeana for the digital access, visibility and use of European cultural heritage, adopted by the Council at its 3471st meeting held on 30 and 31 May 2016:

- semantic interoperability should be enhanced, allowing cultural heritage institutions to connect, and share and update their content and metadata in a flexible, easy and sustainable way;
- Europeana's multilingual access point should become more user-friendly, in particular by improving the quality and findability of content and further developing semantic and multilingual search functionalities in line with best available practices;
- content shared through Europeana needs to be presented in attractive and diverse ways, in particular by involving cultural heritage institutions and third parties as multiple entry and dissemination points, for example through cultural trans-European projects such as the projects on World War I (1914-1918) and the fall of the Iron Curtain and other revolutionary events of 1989;
- the governance of Europeana needs to become more inclusive, involving Member States' governments, the wider network of aggregators and cultural heritage institutions in the setting of strategic priorities and the development of cultural, user-oriented projects on the basis of the available funding;
- there is a continued need for sharing and updating knowledge

and identifying common solutions within the network of cultural heritage professionals

• the current public funding model (based on grants) does not provide a sufficiently stable basis for sustaining the Europeana investment to date and safeguarding its future quality, availability and reliability.
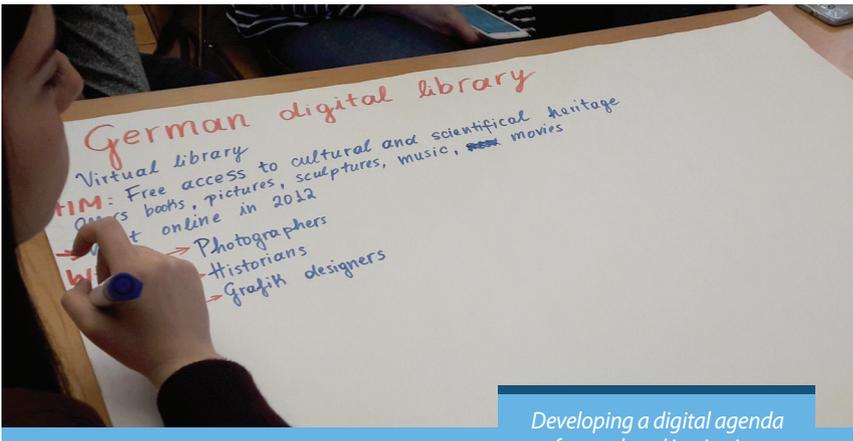
Developing a digital agenda for a cultural institution

Europeana and job opportunities:

Among Europeana's objectives is the economic impact. Considering the above Council's conclusions and more specifically that the challenge of funding lies ahead it should be stated that Europeana's vision is that culture can become a catalyst for social and economic change. But that's only possible if it's readily usable and easily accessible for people to build with, build on and share.

"Culture unites Europe, and making it more accessible promotes understanding and new economies"

The largest economic contribution expected from Europeana is likely to be in uplifting tourism numbers and research quality. It is in the combination of cultural tourism and the increasing importance of ICT that the activities of Europeana can create additional welfare effects through economic growth and jobs. Europeana provides different actors

in the tourism industry (e.g., travel agencies, guidebook publishers, travel websites and app developers) access to unique digital material in the field of European cultural heritage. Provided that the use of this digital material by these actors increases the tourism expenditures in the European Union (and that this would not have been the case if they used another source or did nothing at all), these additional expenditures and resulting welfare effects can be considered the economic value of Europeana's activities[15].

Another benefited group is made up of the developers and entrepreneurs who come up with the new ideas and applications – collectively known as the 'creative industries'. This part of the economy currently represents 3.3% of the European GDP and Europeana can help to fuel more growth. With ready access to cultural heritage, this group will use it to develop new services to attract tourists to Europe, inspire new business ideas, create new jobs and find completely new ways to interpret the past. Cultural institutions can also contribute to involving youngsters and unemployed people in cultural heritage related activities (e.g. renovation projects, museums, community management) in order to develop their self-confidence and professional skills and enable them to return to the job market even in sectors not related to cultural heritage.

According to a report of the Horizon 2020 Expert Group on Cultural Heritage there have been many examples of projects in areas of rich cultural heritage that have stimulated jobs, apprenticeships, growth and innovation. Some of these have been extremely effective. This is an area that is little understood and fully developed on a European level. Europeana proposes support for a number of demonstration projects that could show communities, cities and regions how their cultural heritage can be used to create employment in cultural and creative industries[16].

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[15] http://www.seo.nl/pagina/article/the-value-of-europeana/

[16] http://www.kowi.de/Portaldata/2/Resources/horizon2020/coop/H2020-Report-Expert-Group-Cultural-Heritage.pdf

Discussion
Discuss together the following topics and come up with a short list of suggestion on possible solutions

1. With its more than 54 million digitized artworks, artefacts, books, videos and sounds from across Europe, Europeana can provide young people, educational institutions and the creative industry with an enormous potential to develop more engaging educational programmes and to create new job opportunities based on the cultural heritage. To give an example of the first case, Historiana is a platform providing History teachers with digital material for their classes[17]. However, Europeana still struggles to get its digital assets closer to the people[18]. How well is Europeana promoted in your country and in your school? Which initiatives should be taken, and at which level, in order to get citizens closer to their cultural heritage via Europeana, as already recommended by the European Council?

2. To what extent do cultural heritage institutions in your region use digital tools and methods to engage visitors during their visit? Is free WI-FI provided for the visitors? Are digital devices and hot-spots available to make the visit more interactive? Do museums have a blog or other digital publications which are updated regularly? Get in contact with one or more cultural heritage institution in your city/area and discuss together experiences, success and challenges of digital strategies for museums.

3. The Rijksmuseum in Amsterdam has launched Rijks Studio, a platform through which all users can have free access to high quality digital reproductions of the masterpieces in the museum collection, on the condition that works are in the Public Domain

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[17] http://historiana.eu

[18] http://pro.europeana.eu/files/Europeana_Professional/Europeana_Network/europeana-task-force-final-report-on-creating-local-europeana-networks-for-sharing-information-and-collaboration.pdf

(that is, after 70 years from the death of their author). The revolutionary approach is that the Rijksmuseum not only allows free reuse for cultural purposes, but also for economic ones, and even promotes them with public on-line contests. This strategy has resulted in a measurable growth of the museum incomes because more and more people make the images of the museum masterpieces visible and viral on the internet. Discuss this strategy with museum experts in your area and come up together with a few guidelines to make this marketing model more known in your region.

4. Discuss with local museum experts a cultural heritage activity that can involve and value the contribution of youngsters and unemployed people, while at the same time providing them with new skills that can be certified with a European certificate for informal learning. Then consider how such initiatives could be promoted by local policy makers in order to foster the combination between formal and informal learning.

DIGITAL CULTURAL HERITAGE AND EUROPEAN IDENTITY

Source: *Report outlining the results of a qualitative study that examined the importance of (digital) Cultural Heritage for identity-building processes within European communities and its role for the development of a European identity.*

Link to the complete document:
http://resources.riches-project.eu/d4-1-european-identity-belonging-and-the-role-for-digital-ch/

(p.5) This report outlines the results of a qualitative study that examined the importance of (digital) Cultural Heritage for identity-building processes within European communities and its role for the development of a European identity. European identity as a unifying factor should not be seen as a way to transcend other identities - individual, ethnic, local, national, and community identities – but as an opportunity to acquire a sense of belonging to a greater community on the continent, a "community of culture united in diversity". The Identification with Europe and a sense of belonging is also based on values that teach people to live together, to respect their differences whilst searching for elements of unity. At first, the report provides an analysis of the opportunities offered by the availability of large amounts of digital content of the European heritage, published by institutions or cultural authorities. The research examines digital practices to identify the characteristics that can support the strengthening of a European identity, which methods are tangentially less suitable for this

purpose and what the challenges, limits and future perspectives of the interaction with digital technologies are. Moreover, this study explores diverse European minority communities and their relationship to Cultural Heritage itself, analysing how they represent, preserve and transmit their heritage in digital format to keep alive a sense of belonging with their home countries or wider communities. The potential of digital technologies is examined to enable them to reflect on their own particular cultural identities and to engage critically with mainstream Cultural Heritage. Large volumes of digital cultural content can facilitate the construction of a European identity and strengthen a feeling of belonging to a Europe of cultural pluralism. For this, five Cultural Heritage websites are offering curated European Cultural Heritage content.

- Europeana
- Europeana 1914-1918
- Europeana 1989
- Euromuse
- Inventing Europe

European Cultural Heritage is intrinsically related to language diversity. There is a lot still to do for multilingual access and multilingual content that would reflect on European cultural diversity with digital Cultural Heritage and foster a better understanding of the commonalities and differences among European cultures. This research has also revealed that there is a need for better mediation and contextualisation of the content as well as further participative offers. Moreover, the findings reveal a trend towards a more personal and lively connection with Cultural Heritage. Moreover, the strategic use of semantic and linked data technologies can facilitate access to European Cultural Heritage and can enhance digital practices that could foster a sense of European belonging among people of diverse origins. In the framework of European Cultural Heritage digital applications, these technologies enhance access and discoverability of content and support language and cultural diversity. By linking to external resources, they provide rich documentation and contextual information or background information about Cultural Heritage

objects in an innovative as much as cost-effective way. Semantic representation of knowledge and linked data has the potential to increase innovation and their use can result in a number of breakthroughs in Humanities research. Benefits for the wider audience include a better understanding of information through contextualization, easy access and re-usability. All communities that were analysed within the case studies used digital technologies to strengthen their community tie and identity, apart from the mainstream, through various forms of communication depending on the user group. Digital technologies have been used both for communication processes within the communities and for maintaining close contacts with their homelands or a worldwide diaspora. Often especially younger generations with a higher educational level and well knowledge of the community's and the mainstream culture, develop innovative new ways of mediating their Cultural Heritage on virtual community platforms that go far beyond information and documentation purposes. Community platforms offer a successful combination of information and interaction, high media richness and a high percentage of participatory elements. They leave space for a lively, immediate reception of the European Cultural Heritage, as well as its discussion and exchange and offer the possibility of a flexible and individual engagement with the community's culture. Although digital Cultural Heritage represented in online collections of official cultural institutions serve as extremely rich sources of information, they are not regarded as necessity for maintaining the community's culture in the everyday life. This generally results in the creation of digital Cultural Heritage, especially in the form of intangible heritage, notably music and dances, which are mediated through living media practices and form an essential part of the community's everyday life. Simultaneously digital technologies have the potential to increase awareness and understanding of multiple alternative and minority communities and their heritage, facilitating dissemination of information all over the world for a more open, inter-cultural approach. Nevertheless, the research also showed that at present time, there is still much more

potential in engaging with especially digitally relatively inactive migrant groups, such as the community of Romani. Moreover, especially communities with older or communities with a low spending-power have no or limited access to digital technologies and therefore to digital cultural artefacts that might connect them virtually with aspects of their own culture that they have not experienced for some time. In the context of the digital literacy gap that divides Europe significantly, this is a huge deficit, since the study revealed that digital media can be used for bottom up activism and provides means for individual and community voices excluded both from mainstream media and society.

Instead of a strict separation of groups it is important to connect the European communities to build understanding for foreign cultures and create European cohesion by stressing (cultural) similarities and fostering cultural exchange. In this sense innovative digital tools that start with the people's digital practices and demands have the potential to support an awareness of cultural pluralism, by providing new ways of dealing with Cultural Heritage as an engaged experience. The research showed that there is a need for digital resources that are uniting the past and the present, since the current attempts are yet too academic and a consideration of the user's demands has not taken place sufficiently. Moreover, European citizens deal, in particular, with contemporary forms of tangible and intangible Cultural Heritage, the re-use of which is often restricted by IPR.

Discussion

Discuss together the following topics and come up with a short list of suggestion on possible solutions

1. Select one of the websites mentioned above and find examples of how digital cultural content can facilitate the construction of a European identity and strengthen a feeling of belonging to a Europe of cultural pluralism. Then consider which similar initiatives could be promoted to give value to the cultural heritage and memory of your region in a European perspective (for example, an action in a museum of your municipality).

2. Social processes, whereby the initiative of promoting a message, a policy, a way of doing things is taken up by individuals and groups rather than by governmental bodies, can be defined as forms of bottom-up activism. Youth organizations provide a clear example of the functioning of bottom-up activism. Digital media support bottom-up initiatives by providing means of expression to individuals and communities in addition to mainstream media. Discuss how digital media can be used by youth organizations to promote the cultural heritage of their region. What should local policy makers and educational institutions do in order to help youth organization accomplish this cultural function?

Tackling issues

DIGITAL GAP: FACILITATORS FROM SCHOOL, PUBLIC AND PRIVATE SECTORS

Source: *The e-Skills Manifesto 2015. With contributions from leading figures in government, education, policy, research and industry.* European Schoolnet, Brussels, December 2015.
Link to the complete document: http://bit.ly/1k2ew80

Background (p. 72)
The digital divide[19] exists not only within different vulnerable groups but also within the EU 28 countries. Some of them have been traditionally seen as digital leaders – Scandinavian countries, Netherlands, UK and Germany. On the other hand, others such as Italy, Greece, Cyprus, Portugal, as well as some of the new members states – Romania, Bulgaria, Croatia – are significantly behind in eSkills levels as well as other information society indicators.
With the policy goal of addressing the specific digital inclusion needs of low-people, the ageing population, unemployed youth and other vulnerable groups, the key challenges are:

- How can digital inclusion, digital competence, ICT mediated social interventions and social innovation support groups at risk of socio-economic exclusion?
- How can the EU and member state policies support these processes and the related actors?

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[19] See also RICHES Project, CH Definitions and Taxonomy, p. 23-24.

There are a set of EU and member country policy initiatives and quite a large number of pan-European and national stakeholders who work to ensure digital opportunities for all European citizens. However, more coordination and targeted actions could be envisaged.

Figure 1: Basic skills and usage, by Aggregate scores
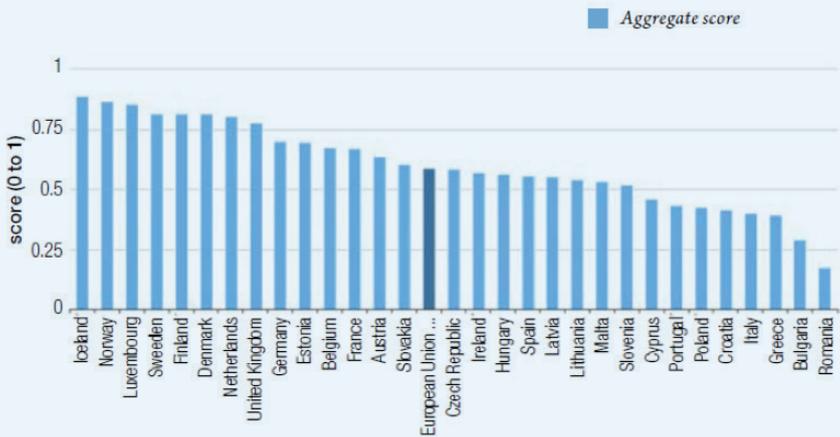
European Commission, Digital Agenda Scoreboard

(p 73) *The digital gap and vulnerable groups: focus on the ageing population and unemployed youth*
The digital divide is directly linked with social and economic divides and has diverse effects. The traditional vulnerable groups to be addressed by eInclusion policies are:
  • seniors and elderly people;
  • the unemployed (with a special emphasis on unemployed youth);
  • people with low incomes and education;
  • migrants and ethnic minorities.

Unemployed citizens (particularly young unemployed workers)
(p.74)
The unemployed, especially young people who are out of work are another social group which cannot succeed without regular digital

skills updates. Unfortunately being born in a digital era has proven an insufficient condition for being digitally competent. Although digital competences are essential for employment, a large section of today's youth lack the ability to use them creatively and critically. According to EU Digital Agenda Scoreboard 2014, 39% of the economically active EU workforce has insufficient digital skills while 14% has no digital skills at all. Nearly half of the European labour force (47 %) is not confident that their computer and internet skills are sufficient in today's labour market (European Commission).

Young people without proper digital skills are at risk of social exclusion and must be a priority target for EU social and eInclusion policies. Around five million young people (under 25) were unemployed in the EU 28 area in 2014, of whom over 3.2 million were in the euro area. This represents an unemployment rate of 21.4% in the EU (23% in the euro area). More than one in five young Europeans on the labour market cannot find a job while five million young Europeans aged between 15 and 24 are not employed, or in education or training (NEETs, European Commission).

The role of eInclusion intermediaries (p. 76-77)
The involvement of vulnerable groups in digital skills training and using of eServices can best be achieved at the grassroots level. In this context, digital inclusion and social inclusion actors such as telecentres, public internet access points, public libraries, municipal Lifelong Learning (LLL) centres, third sector organisations including NGOs – eInclusion intermediaries – play a crucial role. [...]

The main services that eInclusion intermediaries provide to citizens are:
- digital access and basic skills trainings;
- introduction and consultation to various eServices;
- consultation on digital tools and devices;
- ICT skills trainings for employment, entrepreneurship and social innovation;
- access to eLearning platforms;
- support for participation and community development;

- coding activities are also organized and supported by many of these organisations.

In the majority of the members states the eInlcusion intermediary organisations form national or regional networks. At the European level, these networks are represented by Telecentre Europe, a European non-for-profit organization (NGO) which unites 56 members from 27 countries and represents a network of more than 20,000 telecentres across Europe.

eFacilitators or digital competence facilitators working at telecentres are key actors for providing digital competences for citizens in general and especially vulnerable groups. It is estimated that around 250,000-375,000 people in the EU are currently working in this field of employment. This staff is in need of constant training and knowledge updates.

More than that, the staff of organisations in the sectors of education, employment, health, immigration and social services which have direct access to large networks of end users are facing a need to act as digital service promoters and digital skills facilitators for their customers. Therefore, competences to promote and facilitate general and specific digital skills becomes a part of professional profiles of professions like youth career consultants, state employment agency officials, social workers, care workers and others.

Recommendations (p. 78)

- existing eInclusion intermediaries or telecentres need to be publicly supported to have a better reach and existing infrastructures (public libraries, civic centres, schools) should be equipped as telecentres to cover underserved areas. These digital inclusion actors could become more efficient and help digitally excluded citizens when cooperating with existing organisations which work with 'digital offliners' and vulnerable groups such as employment agencies, immigration services, municipal social services and welfare system entities. Cooperation could actively be supported by national and regional policies;

- the impact of telecentres could be increased by supporting the professionalization of these organisations. Policies should support and initiate the development and spreading of learning content (for end users) and methodology (for telecentre staff), instruments for continuous training and evaluation, tools for awareness raising and managing, sustaining and enlarging telecentres;
- the eFacilitator profile is a key component for approaching vulnerable target groups. This profile could be supported by professionalization of staff by formal and social recognition. As there is no such thing as a European recognition process valid for all countries, policy should support national or even regional procedures for recognition of this profile. National or regional education authorities should foster the recognition of this profile and should build links to existing profiles and employment possibilities;
- pan-European, national and regional awareness raising and trust building campaigns play an important role for involving and convincing digitally excluded citizens. These campaigns need to have coordinated efforts and they should be led by National or local coalitions and Digital Champions, cooperating with sectoral actors. The impact of such campaigns should be measured and the best practices showcased and replicated in members states;
- innovative methodologies' and approaches has to be explored and introduced to reduce social and economic exclusion as a result of increased digital skills of target groups – e.g. intergenerational learning experiments, social enterprises by seniors and young people and others;
- EU social and other funds have to be used to support the activities and projects to help reduce the digital divide. The EU funded activities should focus and help to upscale innovative projects and campaigns that have demonstrated real and measurable impact and are often designed and introduced by third sector organisations.

Discussion
Discuss together the following topics and come up with a short list of suggestion on possible solutions

1. Comment on the Basic Skills and Usage statistics published in the paper. Consider in particular whether the figure reflects the regional context in which you live and reflect on the infrastructural, socio-economic and cultural factors that may play a role.
- Is broadband largely available across your region, and if not, what geographic areas are excluded? (assessing structural digital gap)
- Are digital devices and internet economically accessible for a vast majority of the population? (assessing economic digital gap)
- According to you, is digital literacy a common part of personal culture in your area, and which social groups are excluded? (assessing socio-cultural digital gap)
- Is access to internet data and e-services subject to any special political control? (assessing political digital gap).

Which policy guidelines should be taken in order to improve the current situation of your country/region?

2. Are eFacilitators and eMediators available in the region in which you live? Who administer them (public/private sector, NGOs, etc.) and who are the typical users of these services? Which policy initiatives (and at which level) could improve the situation by making the local network of eMediators more connected and more efficient?

APPROACHING GENDER GAP

Background (p. 65-66)

[...] Among regions of the world, a second, persistent phenomenon may also be observed that cuts across geographic locations and even socio-economic conditions. Around the globe, no matter where they are, women as a demographic are less likely to be online than men, and despite its apparent leadership, Europe's women are also being left behind (International Telecommunication Union, ITU, 2015b). Of the three and a half billion people online in the world, 18% are men and 16% are women, reflecting 200 million fewer women online overall (Broadband Commission, 2013). In Europe, of the 21 countries for which the ITU collected sex-disaggregated data in 2015, men enjoy greater online access than women in 18 countries (ITU, 2016b). In addition, women are coming online at a slower rate than men, meaning that the gender gap is likely to widen (Broadband Commission, 2013). [...]

In addition to enjoying less online access, European women have fewer digital skills than men, are less likely to engage in formal computer science studies and hold 20% or less of the technical and leadership roles in ICT organisations (Broadband Commission, 2013). Tech entrepreneurs are five times more likely to be men than women, and in some places this ratio is closer to 100:1. In leadership positions across all sectors, including in the technology sector, women make up only 4% of corporate

CEOs and they hold less than 15% of board positions in the private sector. Since the tech sector is both a key driver of digitalisation as well as a reflection of the general digitalisation of a society, diversity in this sector is particularly indicative of digital inclusiveness.

Where digital skills are concerned research over a seven-year period (from 2005 to 2012) showed a consistent and persistent lag in the digital skill levels of European women (European Commission, 2016). When overall skill levels increased or decreased across EU member states, a corresponding shift in women's skill sets was also reported. In every case a lag remained, roughly representing a 10% difference between the genders. [...]

A woman in Europe is (p. 67):
- less likely to be online;
- more likely to be digitally under-skilled;
- at a greater risk of being excluded from the digital disruption underway.

Towards inclusive digital transformation (p. 68)

Like online access, digital skill levels are an excellent indicator of the general education and economic integration of a given demographic, and they are an even stronger litmus test of how well that demographic is engaged in the digital transformation afoot. As such, the situation described above represents a vast lost potential to Europe and to the young and adult women of Europe who are unable to realise their place as productive members of our increasingly digital society. There is a risk that the needs of these women go unheeded and the benefits of engaging them in the further digitalisation of European society go unrealised.

A 2013 European Commission report demonstrated that equal participation of women in the ICT sector — as a quick-win to address the growing skills and job gap in Europe — would contribute as much as €9 billion to the European economy every year (European Commission, 2013). A United Nations (UN) study in the same period linked every 10% increase in access to broadband with a 1.38% growth in Gross Domestic Product (GDP) for developing countries, and noted that bringing 600 million additional women and girls online specifically could boost global

GDP by up to $18 billion (Broadband Commission, 2013). The increasing rate of digital disruption could certainly serve to compound the upside potential as captured in these reports as much as it could multiply the downside risk from exclusion that is already happening.

For this reason, the following resources and actions need to be supported at the EU level:

- curtail the risk of further digital exclusion of Europe's 286 million women;
- close the digital skills gap impacting women in Europe;
- maximise the opportunities presented by engaging Europe's women to design, build and lead Europe's digital transformation.

To this end, initiatives that increase entrepreneurship, science, technology, engineering, arts and maths (ESTEAM) - including digital - skills for girls and women and prepare them to lead Europe's digital transformation need to be promoted, scaled-up and replicated. Such initiatives should embody best practices of the following kind:

- focus on girls and women specifically;
- promote female role models in tech, and more generally;
- stimulate learning through hands-on, result-driven and values-oriented activities;
- develop a rich, diverse and widespread community of European female digital leaders in the public and private sector, including entrepreneurship.

Discussion
Discuss together the following topics and come up with a short list of suggestion on possible solutions

1. How can the digital world provide new chances for gender inclusion and equality? Discuss the topic with a particular focus on the local level of your community. Is there currently any gender-specific policy to promote the augmentation of digital skills? If yes, how could it be improved? If not, which actions should be taken, and by whom?

DATA SECURITY AND EDUCATION

Source: *The e-Skills Manifesto 2016. With contributions from leading figures in government, education, policy, research and industry.* European Schoolnet, Brussels, December 2016.
Link to the complete document: http://bit.ly/2hjuj5S

Background (p. 76)

The rapid digitalisation of our economies and societies and the emergence of new technologies has had a considerable impact not only on our industries, markets and innovation but also on our fundamental rights to privacy. It has produced an irreversible paradigm shift in the way we regulate and approach the world around us.
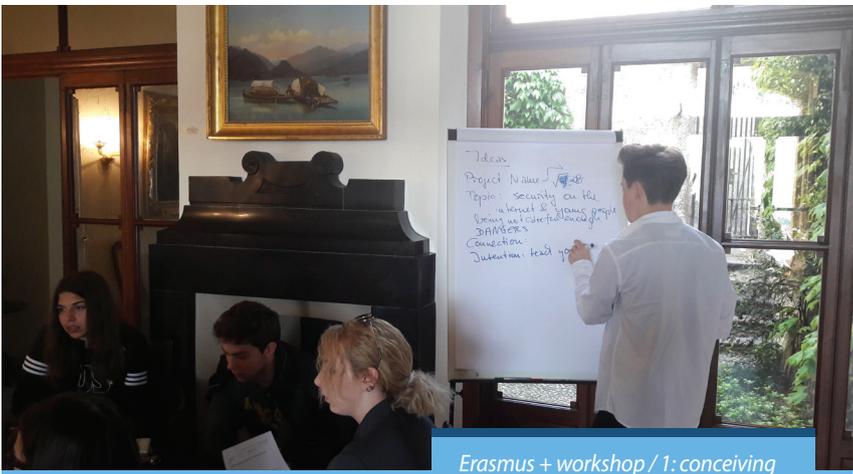
Erasmus + workshop / 1: conceiving and planning a E+ project

With this digitalisation has come an acceleration in the use of new technologies and solutions to safeguard our privacy and secure digital networks and applications. Due to the increasing pervasiveness and rapidly changing nature of cyber threats, cyber security has become a crucial issue not only for building a sustainable architecture for Europe's Digital Single Market but also for protecting our citizens' privacy and data. As digitalisation continues to be a dominant feature of our society, the question we should ask ourselves is: "do our societies and workforces have the necessary knowledge and skills to live and work in this digitised world?"

The general public today still regards cyber security as a complex and predominantly technical issue. The fast digitalisation of our world must be matched with a comprehensive and efficient education system. This needs to provide our workforce with the necessary skills for the current job market - preparing the next generations of professionals in the Information and Communication Technologies (ICT) sector and raising the general public's awareness, as users, of the importance of cyber security.

(p. 77) At the education level, there is a lack of cyber security awareness by teachers and students and few integrated training modules on cyber security at all school levels. The same is true at university level - only a few cyber security higher education programmes exist in Europe but more and more initiatives have been set up by European Universities like Solvay Business School in Belgium or Telecom Bretagne in France.

Public-Private Partnership on cyber security: envisaged actions and expected impact (p. 78-79)

In 2016, the European Commission started a Public-Private Partnership (cPPP) on cyber security with a new industry-led organisation – the European Cyber Security Organisation (ECSO). This partnership is part of the Strategic Research & Innovation Agenda in Europe. One of the key pillars of this agenda will be dedicated to the development of education, training and eSkills to support the creation of a cyber security ecosystem in Europe. The cPPP has already proposed the following actions:

- establish a European cyber security academy and a network of national cyber security "academies" to provide multi-disciplinary curricula and training to be recognised at European level. This is designed for graduate students, teachers of all levels, industry including SMEs as well as cyber security specialists and researchers;
- collaborate in preparing materials and modules for professional training as well as for younger educational levels[20]; [...]
- promote creativity and innovation in young students and young researchers by proposing challenges, prizes and cyber campus activities in order to connect them with the needs of citizens and industry [...]

Discussion

Discuss together the following topics and come up with a short list of suggestion on possible solutions

1. According to the recent Eurobarometer on data protection and privacy, only a minority (15%) of users feel they have complete control over the information they provide online; 31% think they have no control over it at all. More and more people use digital platforms providing eServices on a daily basis and a very large proportion of these are young people. However, only a little part of people with an account on social media or other digital platforms know how to customize their privacy choices, and how these work in practice[21]. Moreover, a particular aspect of our digital society is that the majority of digital services available today are provided for free. This is just a false perception. In fact, users pay by providing their personal data, rather than with money. The information

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[20] See http://arcades-project.eu/images/pdf/arcades_teaching_handbook_final_EN.pdf

[21] See the Privacy setting dedicated pages Google and Facebook:
https://myaccount.google.com/privacy; https://www.facebook.com/about/basics

gathered by advertising networks and data brokers is sold and used to build up comprehensive profiles about people. The more detailed the profiles are, the greater their market value. Few users of digital services are conscious of this phenomenon, and even less of the available tools by which they can understand who is tracking their web experience[22]. Which initiatives could be used to raise awareness among young people on the importance of their data and privacy? What role is played in this process by educational institutions in your area, and how could it be increased?

2. A safe use of the internet by young people is not only related to cyber security, but also to awareness of the responsibilities that internet users have towards the privacy and rights of themselves and of other people. Cyber-bullying is a particularly sensitive aspect of this theme. How do educational institutions and policy makers react to this problem in your country? Is the current policy effective, and how could it be improved? Which initiatives could allow the young people to get more involved in sharing information and raising awareness among their peers?

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[22] The Firefox plugin Lightbeam is an example of these tools: https://www.mozilla.org/it/lightbeam

THE UNITED NATIONS ON ACCESS TO INTERNET AS A HUMAN RIGHT

Source: *The promotion, protection and enjoyment of human rights on the Internet.* Non-binding resolution of the United Nations (Art. 19), Human Rights Council. Thirty-second session. Agenda item 3: Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development. 27 June 2016.
Link to the complete document:
https://www.article19.org/data/files/Internet_Statement_Adopted.pdf

Statement (pp. 3-4)

[...] Considering the key importance of government engagement with all relevant stakeholders, including civil society, private sector, the technical community and academia, in promoting and protecting human rights and fundamental freedoms online,

1. Affirms that the same rights that people have offline must also be protected online, in particular freedom of expression, which is applicable regardless of frontiers and through any media of one's choice, in accordance with articles 19 of the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights;

2. Recognizes the global and open nature of the Internet as a driving force in accelerating progress towards development in its various forms, including in achieving the Sustainable Development Goals;

3. Calls upon all States to promote and facilitate international cooperation aimed at the development of media and information and communication facilities and technologies in all countries;

4. Affirms that quality education plays a decisive role in development, and therefore calls upon all States to promote digital literacy and to facilitate access to information on the Internet, which can be an important tool in facilitating the promotion of the right to education;

5. Affirms also the importance of applying a comprehensive human rights-based approach in providing and in expanding access to Internet and requests all States to make efforts to bridge the many forms of digital divides;

6. Calls upon all States to bridge the gender digital divide and enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of all women and girls;

7. Encourages all States to take appropriate measures to promote, with the participation of persons with disabilities, the design, development, production and distribution of information and communications technologies and systems, including assistive and adaptive technologies, that are accessible to persons with disabilities;

8. Calls upon all States to address security concerns on the Internet in accordance with their international human rights obligations to ensure protection of freedom of expression, freedom of association, privacy and other human rights online, including through national democratic, transparent institutions, based on the rule of law, in a way that ensures freedom and security on the Internet so that it can continue to be a vibrant force that generates economic, social and cultural development;

9. Condemns unequivocally all human rights violations and abuses, such as torture, extrajudicial killings, enforced disappearances and arbitrary detention, expulsion, intimidation and harassment, as well as gender based violence, committed against persons for exercising their human rights and fundamental freedoms on the Internet, and calls on all States to ensure accountability in this regard;

10. Condemns unequivocally measures to intentionally prevent or disrupt access to or dissemination of information online

in violation of international human rights law and calls on all States to refrain from and cease such measures;

11. Stresses the importance of combating advocacy of hatred that constitutes incitement to discrimination or violence on the Internet, including by promoting tolerance and dialogue;

12. Calls upon all States to consider formulating, through transparent and inclusive processes with all stakeholders, and adopting national Internet-related public policies that have the objective of universal access and enjoyment of human rights at their core;

13. Requests the High Commissioner to prepare a report on ways to bridge the gender digital divide from a human rights perspective, in consultation with States, the special procedures of the Human Rights Council, international organizations, national human rights institutions, civil society, industry, technical community and academia and other stakeholders, and to submit it to the Human Rights Council at its thirty-fifth session;

14. Encourages the special procedures to take these issues into account within their existing mandates, as applicable;

15. Decides to continue its consideration of the promotion, protection and enjoyment of human rights, including the right to freedom of expression, on the Internet and other information and communication technology, as well as of how the Internet can be an important tool for fostering citizen and civil society participation, for the realization of development in every community and for exercising human rights, in accordance with its programme of work.

Discussion

Discuss together the following topics and come up with a short list of suggestion on possible solutions

1. Access to internet and, more broadly, to digital media and services is not only an important factor for the innovation of education and labour market. It is also a fundamental social right because a limited access to these services, for political, economic, social or cultural reasons, can have a negative impact on equal opportunities: being forced to remain offline in a more and more digitally connected world can make people more vulnerable and ultimately marginalize them. Do you know social initiatives promoting the right to access to digital services in your country? Which initiatives could empower young people to promote these campaign for digital equal opportunities?

#ConnectingYouth policy Recommendations

The policy guidelines published in this booklet are the results of the activities of #ConnectingYouth at both national and international levels. They are meant to provide an encompassing overview of the various types of participants in the project on the following topics: 1. Access to information about EU policies and opportunities for Youth and Education; 2. Digital Literacy and Citizenship; 3. Youth and the Labour Market; 4. Youth and Cultural Heritage.

In order to provide sharper recommendations and to make the reading of this section easier, we have decided to distinguish, for each topic, the various types of public to which our recommendations are addressed.

1. Access to information about EU policies and opportunities for Youth and Education

Averagely, young people do not feel adequately informed about European policies for youth and education and about the mobility opportunities for learning provided by the EC. Even if specific organizations and communication channels exist, they rarely manage to reach their target public of young people in a satisfactory way. Moreover, the complex language of background research and policy papers on these topics, which are issued by and for specialists, marginalizes those who should be the protagonists of the debate on youth and education policies. A major issue to be tackled is the uneven distribution of opportunities, for young people, to experience contexts of multilingual and multicultural collaboration in non-formal meetings with peers from other EU countries. The uneven

distribution of human and economic resources in educational institutions undermines the effects of social inclusion promoted by Erasmus+, as human and economic resources for project design and management constitute a prerequisite for a school to develop its own Erasmus+ strategy. This might result into increasing the gap between schools with a fully-developed expertise and other institutions with a weaker background in the field.

European policy makers could:
• promote projects and initiatives that help young people understand the content of policy texts and reformulate/disseminate it in forms (texts, images, videos), via communication channels, and in a language designed by young participants for themselves and their peers;
• increase E+ funds for projects that combine experienced partners and new partners, in order to reach new social areas and to promote inter-organization tutoring and transfer of knowledge
• consider the possibility of reorganizing the distribution of E+ funds; the proposed change would go towards a hybrid system in which a large part of the funds is still allocated at the national level, while another part (about 30%) is administered at the regional level and is destined to projects focusing on regional priorities. This approach would bring E+ closer to the concrete needs of the people and enhance the establishment of thematic collaborations between geographical areas in the EU that face similar societal challenges

National policy makers could:
• promote projects and initiatives that help young people understand the content of policy texts and reformulate/disseminate it in forms (texts, images, videos), via communication channels, and in a language suitable for them
• provide practical guidelines to local authorities about how to make communication about EU policy and opportunities more effective for young people

Local policy makers could:
- promote projects and initiatives that help young people understand the content of policy texts and reformulate/disseminate it in forms (texts, images, videos), via communication channels, and in a language suitable for them
- streamline and optimize, in collaboration with schools, the communication of local agencies about EU policy and opportunities for young people

Educational institutions could:
- promote projects and initiatives that help young people understand the content of policy texts and reformulate/disseminate it in forms (texts, images, videos), via communication channels, and in a language suitable for them
- invite staff from local agencies to schools to organize workshops and info-days and promote direct participation of students in the organization of these events

Youth organizations could:
- play an active role in demanding a more direct participation in the processes of youth and education policymaking at all levels
- collect and disseminate among peers information concerning mobility opportunities for learning
- build up a sufficient know-how about Erasmus+ in order to play a prominent role in designing projects that really reflect the felt needs of young people

Youth workers could:
- develop and test working methodologies that stimulate young people's creativity and awareness
- support youth organizations in the process of acquiring and sharing knowledge about Erasmus+ and competences for assessing issues and designing solutions.

2. Digital Literacy and Citizenship

Young people feel that living in the digital era exposes them to challenges and risks of which they are not fully aware. These include topics such as limitations of digital privacy in contemporaneous societies driven by data economy, cyberbullying, lack of basic digital literacy and lack of awareness about the quality and neutrality of information retrieved on the internet. Similarly, young people need to be informed and empowered concerning the positive potential of digital tools for enhancing active citizenship and participation in the civil society. Awareness must also be further promoted as regards the difference between the use of digital tools for leisure and for learning and professional purposes. Tackling these issues in an encompassing way means that young people feel more supported in their everyday life and that they have equal access to the knowledge allowing them to take conscious choices about their use of information and about their participation in society. Beside cultural gaps in digital literacy, moreover, structural gaps are still present with regard to limited access to e-services and facilities in rural and geographically isolated areas. Social issues such as gender gap and the exclusion of migrants also need to be taken into account.

European policy makers could:

• increase and streamline investments to support organizations and projects dealing with digital literacy and citizenship in both formal and non-formal education;
• increase and streamline investments to support organizations and projects fighting the digital gap at all levels: education, socio-economic access to digital facilities and broadband, gender gap, inclusion of migrants;
• support and disseminate governance and business models promoting access to digital facilities and broadband in rural and geographically secluded areas, with a particular focus on the financial support of network initiatives providing e-services to diffused communities;
• promote the activity of best practice networks for digital literacy

and citizenship, by bringing together the various stakeholders (national youth forums, national ministries of education and economic development, youth workers networks, ICT enterprises);

- intensively promote the implementation of digital literacy and civic education with its sub-disciplines (ICT, e-privacy and IPR law, psychology, sociology, digital communication) in secondary education curricula
- create and test a Digital Citizenship Certificate as part of the reform of the European Certification Framework, in order to promote the synergy between formal, non-formal and informal learning in the relevant field

National policy makers could:
- act as mediators between the various stakeholders (national youth forums, educational institutions, youth workers networks, ICT enterprises);
- support and disseminate governance and business models promoting access to digital facilities and broadband in rural and geographically secluded areas, with a particular focus on the financial support of network initiatives providing e-services to diffused communities;
- increase and streamline investments to support organizations and projects dealing with digital literacy and citizenship in both formal and non-formal educational sectors;
- promote specific trainings of teachers in the subjects related to digital literacy and citizenship, especially through initiatives that bring together teachers and students;
- test and promote the implementation of digital literacy and civil education with its sub-disciplines (ICT, e-privacy and IPR law, psychology, sociology, digital communication) in secondary education curricula;
- actively collaborate with the other policymaking levels in order to support the certification of Digital Citizenship learning

Local policy makers could:
- encourage, support and streamline local initiatives meant to raise

awareness about the challenges and potential of Digital Literacy and Citizenship;
- establish strategic roundtables with the various stakeholders (youth organizations, educational institutions, youth workers, ICT enterprises);
- actively disseminate, via specific agencies, information about relevant projects and initiatives at national and European level;
- facilitate the development of local network initiatives providing e-services to diffused communities in rural and geographically secluded areas

Educational institutions could:
- encourage and support the training of their staff in the disciplines related to Digital Literacy and Citizenship
- promote the implementation of the disciplines related to Digital Literacy and Citizenship in their educational offer, at both formal and non-formal levels
- compensate, when necessary, the lack of curricular education in Digital Literacy and Citizenship with projects in the relevant fields
- provide tutorship and guidance to young people and their families in order to raise awareness, prevent and tackle personal issues, especially those related to e-privacy and cyberbullying

Youth organizations could:
- prioritize discussion about Digital Literacy and Citizenship and contribute to raising awareness about its related topics;
- take the initiative in order to draw attention of local authorities and experts to the needs of young people in the field of Digital Literacy and Citizenship
- act as mediators between young people, educational institutions and local authorities

Youth workers could:
- design and participate in activities of Digital Literacy and Citizenship networks at regional, national and European level

- help educational institutions with specific support in tackling personal issues related to e-privacy and cyber-bullying
- explore the potential of professional specialization in the field of Digital Literacy and Citizenship, with the purpose of creating local hubs of specific knowledge that can be shared with other stakeholders

The private ICT sector could:
- contribute to the discussion about Digital Literacy and Citizenship with the other stakeholders
- contribute to the development of a school-business synergy to strengthen education concerning Digital Literacy and Citizenship
- explore the potential of developing local network initiatives providing e-services to diffused communities in rural and geographically secluded areas

3. Youth and the Labour Market

Young people are aware of the socio-economic problems that affect access to the labour market in the EU zone in general, and for young citizens in particular, yet they do not feel empowered to play a role in finding strategic solutions for themselves and their peers as the issues appear to belong to a level of intervention that is out of their reach. To begin with, lack of up-to-date curricula in secondary education is felt as a major issue in various EU countries, where young people feel disadvantaged in comparison with their peers from Member States with more flexible and focused curricula. The uneven score of EU countries as for competences in foreign languages constitutes another factor currently undermining equal opportunities for EU young people when it comes to accessing a dynamic and multicultural labour market. These issues include both the general capacity of young people to satisfactorily express themselves with international peers and the access to information about which languages could play a strategic role in their future professional life. Projects allowing for combined school-business learning are supported by the Ministries of Education in various

countries, but with remarkable inequalities when it comes to funding, guidance and, consequently, satisfaction of the involved parties. Most relevant in this regard is the lack of well-developed common guidelines for the implementation of these projects, in particular as concerns the interaction between educational institutions and enterprises at the local level. A significant gap between vocational and grammar schools is also evident. While vocational schools are more directly suitable for school-business collaboration, comparable initiatives for grammar schools are often absent or they do not yet provide a satisfactory match between curricula and work experience, thus causing frustration and demotivation among students, educators and professional tutors.

European policy makers could:
• increase funds for network-based collaborations (such as those supported under the E+ K2 actions) between stakeholders from various EU countries in order to promote knowledge transfer and the experimentation of new curricular solutions

National policy makers could:
• when necessary, work to increase the flexibility of curricula so that young people can have access to a more suitable educational offer following their interests and strong points;
• provide more support and guidance to projects of combined school-business learning for vocational schools and increment the use of European certifications to make acquired competences more visible at EU level;
• explore better matches for similar initiatives for grammar schools, in particular by developing partnerships between educational institutions and cultural organizations, where students can learn the basics of cultural management in a non-formal way;
• promote the study of foreign languages at both curricular and extra-curricular level as well as the certification of language skills acquired through formal and non-formal methods;

- promote the dissemination of information concerning new trends in employment with special attention to new skills (such as digital skills) and request for less commonly taught foreign languages for specific professional fields

Local policy makers could:
- promote, via specific agencies, regular encounters between the various stakeholders of school-business partnership (youth organizations, educational institutions, enterprises, cultural organizations, youth workers) in order to increase the efficiency of local collaboration;
- collect and adapt general guidelines for school-business partnerships to the local socio-economic environment

Educational institutions could:
- take an active role in the discussion for curriculum reformation, by bringing together the needs of both the teaching staff and the young people;
- promote the use of the EU Certification Framework in order to give value to non-formal learning of foreign languages and to enhance the international visibility of national and local initiatives in the field of combined school-business learning
- play an active role in establishing and evaluating collaborations in the field of school-business partnership, by broadening up their contacts from private business to non-for-profit organizations as well

Youth organizations could:
- raise awareness about curricular issues at national level and about possible solutions provided by positive cases in other EU Member States;
- raise awareness among young people about the EU Certification System;
- develop a student-driven system of evaluation of local institutions involved in school-business partnerships, to be shared with local policy makers and educational institutions;

• help school staff create and update a list of local enterprises and organizations recommended for school-business collaboration.

Youth workers could:
• contribute with their expertise to the development of an efficient school-business environment at the local level;
• consider the possibility of professional specialization in providing guidance and support to the establishment of school-business and school-NGOs partnerships at the local level. This is particularly relevant in cases where local guidance from policy makers and educational institutions is not sufficient.

4. Youth and Cultural Heritage

This is perhaps the field in which most work remains yet to be done. While young people are generally interested in culture for both leisure and their individual formation, the perception of cultural heritage as an asset for both social cohesion and economic growth still remains rather vague, despite these two principles clearly emerge as priorities from the Horizon 2020 agenda. Part of the reasons of this gap between specialists' view and the common perception depends on the EC and Europeana top-down approach taken up in designing a digital agenda for the cultural heritage. While this approach has proven effective with regard to promoting the digitization of the EU cultural assets by governmental and cultural institutions, it has failed to engender a parallel growth of awareness among non-specialists. Therefore, as immensely inspiring as it is, the Europeana digital assets remain in most cases entirely unknown to young people as well as to their teachers. This impression becomes even stronger when compared with other initiatives bringing digital cultural assets directly to the people, such as Wikipedia, CoderDojo's and alike. Change is necessary, not only to make the EU digital cultural assets play a role in the building of an inclusive European identity, but also to help young people take strategic choices concerning their future professional formation.

European policy makers could:
- at the top-down level, further promote the digitization process of the EU cultural heritage, especially by promoting projects that enable new levels of efficiency, lower down costs and develop digital strategies that are sustainable not only for large, but also for medium and small size cultural heritage institution (especially through networks);
- increase funds for network-based collaborations (such as those supported under the E+ K2 actions) between stakeholders from various EU countries in order to promote the development of dual curriculums combining digital skills and cultural content at both secondary and higher education level;
- collaborate with Europeana and with national and regional institutions in order to design an effective and sustainable bottom-up strategy for digital cultural engagement

Europeana could:
- at the top-down level, strengthen partnerships with EU Ministries of Education and of Cultural Heritage, in order to promote the reuse of Europeana digital assets in curricular education;
- reverse the current working model with regard to outreach and citizens' engagement, with particular regard to young people, by focusing on crowdsourcing activities addressed to young people that will appropriate and promote Europeana's principles. This approach would imply focusing not on the Europeana offer, but on the specific demand of digital cultural assets at the local level;
- fund a 3-year pilot project that shall pay professional ambassadors at regional level; these ambassadors should act as mediators between the citizens' demand for digital cultural heritage and the Europeana offer, thus helping Europeana establish strategic collaborations and use them to produce successful projects with big impact at the local level. An approximately 30-to-50 % local salary rate might be a reasonable solution to allow professionals to work for Europeana while keeping a firm hold on their local activities in the fields of cultural heritage. This double profile

is expected to raise attention to Europeana among other professionals and thus to enhance transfer of knowledge
• promote and co-fund surveys and info days for specific kinds of target public in collaboration with local stakeholders for the cultural heritage. Information should primarily not come from Europeana to the public, but from the public to Europeana local ambassadors, so that the organization can redress its offer to fulfil and stimulate the demand for digital cultural assets;

National policy makers could:
• promote awareness about the importance of combining digital skills and cultural contents in the formation of young people, both at secondary and higher education level. This can happen both via specific calls for projects and at curricular level;
• promote and co-fund surveys and info days for specific kinds of target public in collaboration with local stakeholders for the cultural heritage. The goal of such initiatives should be to help cultural organizations redress their digital strategies in relation to the citizens' demand for digital cultural assets;
• coordinate the work of regional policy makers in the development of a shared and engaging strategy for digital promotion of culture, also taking into account cultural tourism for an international public;
• help the EC and Europeana identify the most suitable strategies to shift the EU digital agenda from top-down to bottom-up at the national level, by focusing on the citizens' demand for digital culture

Local policy makers could:
• promote and co-fund surveys and info days in collaboration with local stakeholders for the cultural heritage. The goal of such initiatives should be to develop a digital strategy for cultural engagement that fits the potential of the region and takes into account both citizens (young people in particular) and international tourists
• support cultural heritage institutions in their effort to update, or

create anew, their digital strategy. Particular attention should be paid to the creation of a network of medium and small institutions, which have limited human and economic resources to renew their methods but which can take great profit from sharing the costs of digital tools as well as of acquiring digital skills for their staff;

- consider the possibility of establishing win-win collaborations with non-for-profit cultural organizations in the field of open digital culture, such as Wikimedia

Cultural heritage institution could:

- explore the possibilities of updating their curation and communication strategies by adopting digital best practices. A network approach is warmly suggested for contexts with a prevalence of medium and small size organizations, which can take great profit from sharing the costs of digital tools as well as of acquiring digital skills for their staff;
- play an active role in designing a strategy for digital engagement at the local level;
- actively involve educational institutions and youth organizations in the process of renewal of their own curation and communication, in particular by exploring the potential of digital communication in order to establish a durable exchange with their public and to better understand their demand for culture
- explore the possibility of establishing win-win partnerships with non-for-profit organizations working in the field of open digital culture, such as Wikimedia;
- explore the possibility of establishing school-business partnerships focusing on the learning of cultural management for students of schools with an orientation to humanities

Educational institutions could:

- promote projects that place students at the core of the process of defining a digital strategy for young people's engagement and for the promotion of local culture, also with a touristic purpose;
- explore the possibility of establishing school-business

partnerships focusing on the learning of cultural management for students of grammar schools

Youth organizations could:
- play a central role in enhancing young people's engagement and active citizenship in the cultural field
- make young people aware of the potential of the local cultural heritage for their professional life and of the role of digital strategies in maximizing visibility for international tourists

Youth workers could:
- Develop methodologies to empower young people in the process of designing the digital culture strategy of the place where they live

The private ICT sector could:
- contribute to the design of a digital strategy for the local cultural heritage with the other stakeholders
- explore the potential of developing local network initiatives providing e-services and guidance for the digital promotion of the local cultural heritage

Partners Description

Fondazione Giovanni Goria is a non-profit organization founded in 2004 and carrying out projects in the fields of education, research and training, with particular reference to issues surrounding the development of twentieth-century Italian society in a European perspective. In 2009, the Foundation has launched the "Talents of Civil Society Project", which is meant to award research grants to gifted young graduates from Piedmont and Val d'Aosta regions in the following areas: Environment and Landscape, Sciences of Antiquity, Philological Sciences, Legal Sciences, Literary Studies and Performing Arts, Philosophical and Historical Sciences, Pedagogical Sciences and Psychology, Political Science and Sociology. In addition to research, education is another field in which the Foundation has managed to acquire a referential position, by promoting innovative learning methods and active citizenship, and connecting policy makers, students and youth workers at the local, national and European level. In particular, the School Project provides educational programmes dedicated to students of the secondary schools. These are meant to stimulate critical thinking on societal challenges and to provide participants with extra-curricular, non-formal insights in their social and cultural environment: migration, democracy and freedom, fight against organized criminality are the main topics addressed in the recent years.

Website: www.fondazionegoria.it

PostScriptum, established in 1991, is an SME based in Athens, specialized in supporting cultural reference agencies with

innovative actions while building networks with their communities, education, tourism, creative industries and the economy in general. PostsScriptum expands its activity to supporting, consulting and collaborating with Museums, Galleries, Libraries, Archives, Agencies of contemporary cultural creation, Foundations, Companies with high corporate social responsibility and local governmental agencies. The main sectors of expertise include cultural heritage, creative, cultural economy and entrepreneurship, cultural tourism, lifelong learning, capacity building and the internet.

From cultural products for administrating and safeguarding collections to digital exhibition design and breakthrough ideas for audience development in museums, PostScriptum is committed to opening new horizons for cultural organizations and heritage projects.

Website: www.postscriptum.gr/en/

Ellinogermaniki Agogi is a private school in Greece covering all stages of education. The school pursues the developments in the field of education; it constantly sets and invariably achieves new goals holding at the same time an eminent position in the educational vanguard. The school's educational planning has a basic core and is unified from the Kindergarten all the way to Senior High School. The focal point is gradually shifted from the rich educational activities to the purely academic learning, so that, upon completing Senior High School, our students will have fulfilled all the necessary requirements in order to successfully continue their studies in Greek, German or English universities.

Website: www.ea.gr/ea/index.asp?lag=en

I.I.S. Castigliano is a large vocational secondary school situated in the historic center of Asti (Piemonte – Italy), counting about 900 students and 180 teachers. Students may choose between

six curricula defined by the main technical discipline that is taught: mechanics, hydraulics, electrics, electronics, fashion and clothing, health and social support. Special attention is paid to the combination between theoretical learning and practical experience, which is promoted via a school-business strategy. In addition to practical laboratories at school, formation is completed by internships in various companies, factories and workshops, for a minimum amount of 400 hours during the last three school years. An already well-established expertise in European mobility has also become a mark of the school, whose students can build a European professional profile thanks to periods of work abroad in partner institutions. The school also enriches the curricular offer with extra-curricular courses and activities, among which those focused on the acquisition of linguistic and digital competences are of particular importance.

Website: www.ipsiacastigliano.it

Founded in 1854, the **I. gimnazija** from Zagreb is one of the most respectable and successful grammar schools in Croatia. Today there are around 600 students and 70 employees in the school. External assessment in the form of state graduation exams has shown that I. gimnazija is the most successful general curriculum grammar school in Croatia, and its students are frequently ranked very high in state competitions in knowledge and skills in different areas. In addition to a strong experience in European projects, I. gimnazija promotes in Croatia and abroad a variety of activities in the fields of active citizenship, ecology, sport, entrepreneurship, young people's mental health and arts.

Website: www.prva.hr

Villa Vigoni is a bilateral association founded by the German Federal Republic and the Italian Republic, situated in a historical

XIX century's estate of rare fascination. Its aim is to foster the relationship between Italy and Germany in research, higher education, youth and culture. The association's 30-year experience in organizing and promoting international academic meetings has been enriched in the last decade by a growing expertise in projects related to youth policy. Villa Vigoni has a modern congress centre with up-to-date conference equipment and accommodation facilities for 45 students. This combination of expertise and facilities explain why more than 70 international cultural, academic and political events (workshops for PhD students, debates, round tables) take place yearly in Villa Vigoni. These meetings are characterized by thematic diversity and the participation of prominent personalities, including high-standing policy makers at national and European level.

Website: www.villavigoni.it

Since its foundation by professors of the Ruhr-Universität Bochum (RUB) in 1989, the activities of the **Institut für Deutschlandforschung** (IDF) have included numerous interdisciplinary research projects on German cultural studies as well as didactic programmes for young people and dissemination initiatives for the large public, such as lectures, seminars, readings, exhibitions and movie weeks. The aims of the institute are not limited to German borders, but embrace more broadly German interactions with other countries. Nowadays, the IDF is an interdisciplinary platform supported by a group of humanists, cultural and social scientists, who are observing and researching diverse phenomena related to German history (since 1945) and the present age within a European context. The main fields of expertise comprise modern history, political and social science, literature and cultural studies. There are also focus areas like national identity, stereotypes and transnational communication, and cooperation between policy makers and young citizens. Organizing innovative opportunities for learning is a priority of the Institute, which has been conducting international

programmes since 1994 and currently cooperates with grammar schools and other educational institutions Nordrhein-Westfalen, with the purpose of promoting discussion on topics of high social relevance and international mobility for learning.

Website: www.rub.de/deutschlandforschung

The **Neues Gymnasium Bochum** is the largest grammar school in the city of Bochum, with about 1400 pupils and 95 teachers, and one with a very international orientation and expertise. The school is specialized in humanities, modern languages, mathematics and natural science. Its pupils are offered the study of various European and non-European languages and can get certificates in many of them. Moreover, as part of the European studies curriculum, every year a number of 16-18-year-old students visit partner schools in various European countries on an exchange basis. In recent years, the school has given top priority to furthering multilingualism and promoting digital skills as well as cultural contents in the formation of young people, with the purpose of enabling students to confidently move in a background of fast digitalization and globalization of society and work.

Website: www.neues-gymnasium-bochum.de

Notes
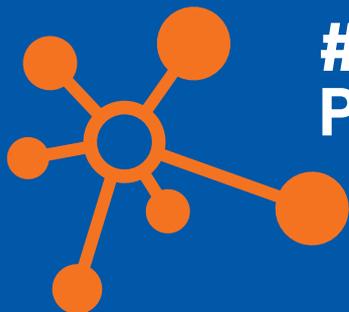
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