



Creating forums for enhancing dialogue between relevant stakeholders

Report of Task 4.2

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Lead beneficiary for this final report: Tallinn University (TU)



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This report draws on communicative analysis and field research reports of consortium partners, as follows:

The partners contributing to design and evaluation activities of scenarios were TU, UTA, AUTH, and UCL.

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List of abbreviations

AC – Active Citizenship

AE – Adult Education

APC – Active Participatory Citizenship

CEA - The Communicative Ecologies and Assemblages Analytical Framework

GP – Good Practice

IMS – Instant Messaging Platforms

ICT – Information and Communication Technology

IDSS – Intelligent Decision Support Systems

IT – Information Technology

NEET – Not in Education, Employment or Training

VET – Vocational Education and Training

INTRODUCTION

Background and aims

This report presents the design of the interaction scenarios for enhancing dialogue between the adult education providers and vulnerable young adults to promote adult education (AE) for their active participatory citizenship. The findings from EduMAP work packages WP2, WP3 and different countries' communicative ecologies' reports from Task 4.1 were utilised to explore, design and validate the blended face-to-face and social media based forums' opportunities for enhancing dialogue between providers and potential users of adult education among the vulnerable minority groups.

Methodology

The **main research question** of Task 4.2 is:

How can forums for dialogue and encounter between AE stakeholders and young people at risk of social exclusion be designed, to improve access and participation in AE programmes?

The purpose of Task 4.2 is to follow up and build on the research findings of WP4.1 by adding the interaction design component, and showing how the research findings can be used to map entry points, leads, and opportunities that can be harnessed in the design of new participation and dialogue spaces.

Based on 4.1 data and findings, 2 streams of analysis related to 4.2 took place:

1) Using the CEA analytical framework that emerged from 4.1, exploring actual examples of good practices across the four stages of AE:

- a. Programme design
- b. Programme recruitment
- c. Programme delivery
- d. Post- delivery (alumni)

2) Design and piloting activities

- Building on WP2, 3 and 4.1 findings and leads
- The qualitative Communicative Ecologies reports (WP 4.1) were analyzed using concept-mapping of interaction paths. This was a parallel activity to stream 1. We harmonized and illustrated our design with examples from Deliverable 4.1.
- The conceptual overarching reference interaction model was created and discussed in the focus groups with partners.
- Finally, using the interaction model from strand 2, and informed by strand 1 examples the interaction scenarios were created based on the reference interaction model.
- The interaction scenarios were shared digitally to formatively evaluate them by different stakeholders in several partner countries.

Sites and sampling: In WP3 and WP4 EduMAP partners conducted research in Adult Education environments, and within selected groups of young people at risk of social exclusion

in seven EU countries (Finland, Germany, Greece, Hungary, Romania, Spain, UK) and Turkey. These case reports (see also Deliverable 3.1 and 4.1) were analyzed for the goal of Task 4.2. Additionally, the focus group was conducted with partners from TU, UTA, AUTH, UCL and Helpific CEO (a social enterprise) to discuss the interaction pattern results for design input for the conceptual reference model for interaction. The same partners validated the interaction scenarios. The evaluation of scenarios by survey method was conducted with 12 persons (mainly in the role of councillor) from different countries; and by interviews 3 persons (social workers). Evaluation of scenarios by vulnerable groups (10 adult learners) took place in Greece second chance school as part of “PolitoZo” project that aimed developing active citizenship skills at 1st Second Chance School Municipality Neapolis Sykeon /Thessaloniki Greece. At 11 meetings students reflected upon the scenarios, the scenarios were used for helping the young persons to become change agents in their communities.

Theoretical framework

To develop the interaction model for EduMap task 4.2. we identified the essential elements in interaction that enable young people to reach out to information, identify suitable opportunities and engage in AE programmes that make a difference for their lives.

We mapped separately each communication-related case study with visual concept map. The generalized concept map was developed summarizing the interaction opportunities across situations. The concept map approach enables to write the ontological propositions of nodes and verbs. We distinguished the types of nodes related to:

Stakeholders' roles (WHO?)

Face to face and digital networks and organizations and physical places (WHERE?)

Information, shared meanings and representations, data (WHAT?)

Digital media platforms, data platforms and databases, software (WITH WHAT?)

Resources that are facilitated to support the goals (SCAFFOLDS)

The types of verbs were related with interactions, such as:

- Part of (e.g. is employed by, hosts, contains, has)
- Is an instance of (e.g. a type of a place or role)
- Interacts with (e.g. uses, takes contact with, sends, develops, informs, provides, collects, updates, makes queries).

Significance and implications for policy and practice

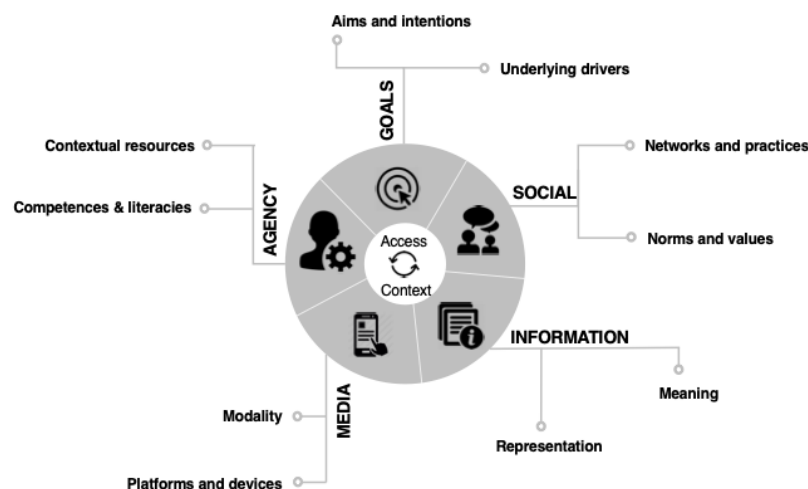
The design research results in deliverable 4.2 – the interaction scenarios for enhancing young adults from vulnerable groups to access to AE opportunities – can be used in the countries to develop and orchestrate the communicative ecosystem between different stakeholders and places. An effective communicative ecosystem may require developing the national Database of social services, Database of Educational opportunities, Databases of linked and lifelong records of educational and employment paths and specific needs and accessed services. Using linked records' data, however, would require decisions and regulations at the data access and privacy level. Our analysis demonstrated that there is the need for stable and paid advisor roles to promote mediated access AE for the youth from vulnerable minority groups. These advisors are at present at different organizations such as in educational institutions,

rehabilitation centres, youth centres, unemployment offices, migrant centres. A common procedure for tracking and advice mediation and communication channels needs to be developed in each country's context that enables different stakeholders in the country to be mutually informed while advising a person, and the person should be guided to the advisors and to the AE opportunities by their preferred ways and channels (such as in physical centres and places, in public social media groups, in personal social media groups, or also in the gamified digital environments). There is the need for activating alumni networks in adult education institutions. This requires also rethinking the motivation elements that could be used to repurpose alumni of AE with vulnerable background into discovering, mentoring, guiding other young adults from vulnerable groups in need to adult education from their social networks. The emerging social sharing economy shows potential in providing educational and supportive services through help networks models, increasing the active participatory citizenship competences among young adults from vulnerable groups, and enabling developing informal networks and increasing social cohesion. The growing dependency of corporative controlled social media such as Facebook and WhatsApp is considered as a concern. Corporative media layer defines the interaction opportunities (free and payed) that can be used for advertising AE opportunities with games, promotion campaigns or other means. Separate empirical studies are needed to define the success of such campaigns and games. For example, the harvesting of data from communicative interactions, if implemented in the regional communicative ecosystem for accessing AE could be useful to make evidence based decisions about the effects of actions.

CHAPTER 1 COMMUNICATIONS APPROACH: The Communicative Ecologies and Assemblages Analytical Framework

The findings from WP4.1, synthesized in the D4.1 deliverable report, have been firstly structured and interpreted using an analytical framework that interprets information and communication resources and practices in terms of communicative ecologies and assemblages. Communicative ecologies encompass information and communication resources, media, networks, and content that are available for agents to fulfil various information and communication goals. Communication assemblages refer to how agents may pull together information resources to reach a certain communication goal.

The Communicative Ecologies and Assemblages Analytical Framework (CEA Framework) can be used to analyze both the communication practices of young people and information and communication flows around AE programmes.



Communicative Ecologies and Assemblages Analytical Framework

Figure 1. The Communicative Ecologies and Assemblages analytical framework

The framework has five components: Goals, Social, Information, Media and Agency. When applied to the case of young people, these components highlight essential considerations for better connecting young people with AE opportunities:

- the capacity to aspire and construct **goals**;
- access to **social** networks and hubs;
- access to relevant content and **information**;
- access and use of relevant **media** and platforms; and
- information and communication competences and literacies (**agency**).

In the field of AE, the framework was used to analyze key processes, challenges, and effective practices of communication at three levels:

1. The AE programme, across the stages of Programme Design, Recruitment, Delivery, and Post-course communication.
2. The AE organisation embedded in the AE sector; and
3. Cross-sectoral policy making that influences the AE field. CEA framework as applied to actual examples.

Further, we exemplify how the CEA framework was used to synthesize the communicative assemblages mobilized by AE programmes at four stages: during design, for reaching out to prospective students, during programme delivery, and for post-course communication. Each stage is illustrated with one AE programme studied in EduMAP, encompassing:

1. The redesign of a Federal VET preparatory programme, Austria.
2. Recruitment communication for a VET programme for integration on the labor market, Romania.
3. Communication during programme delivery for a VET programme for computer repair and maintenance, Spain.
4. Post-course communication for a gateway programme for young people not in education, employment or training, UK.

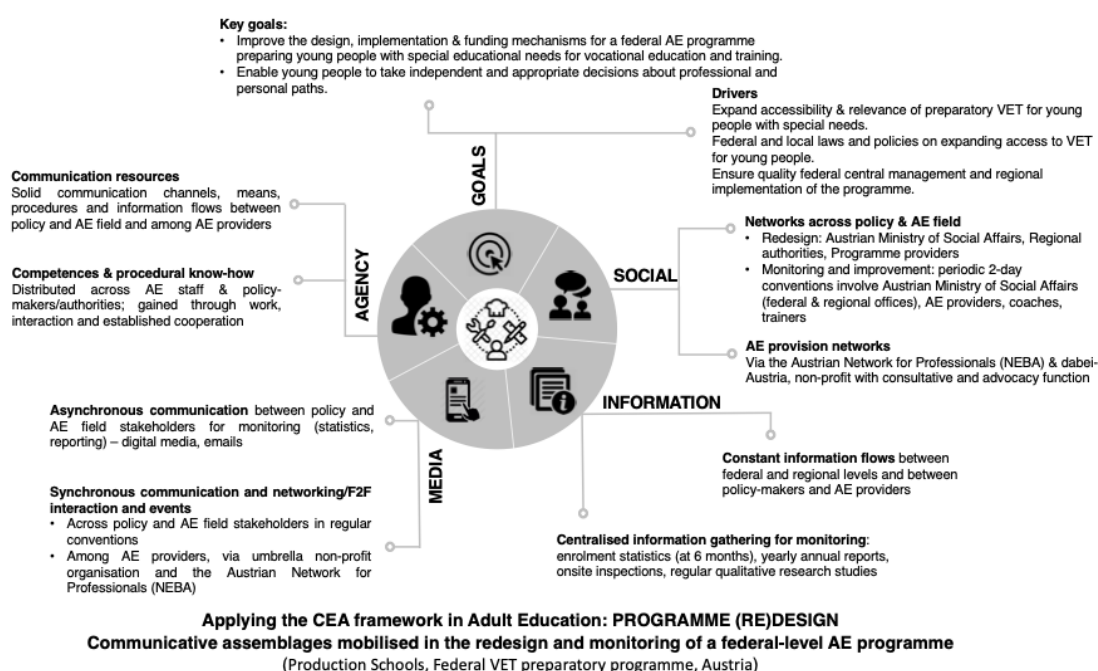


Figure 2. The redesign of a Federal VET preparatory programme, Austria

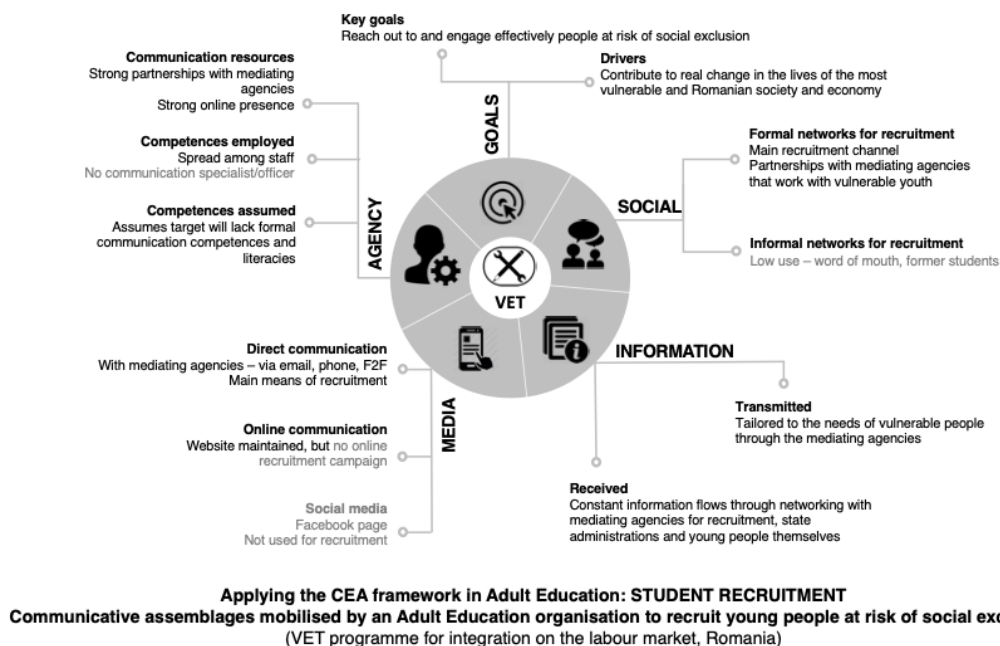


Figure 3. Recruitment communication for a VET programme for integration on the labor market, Romania

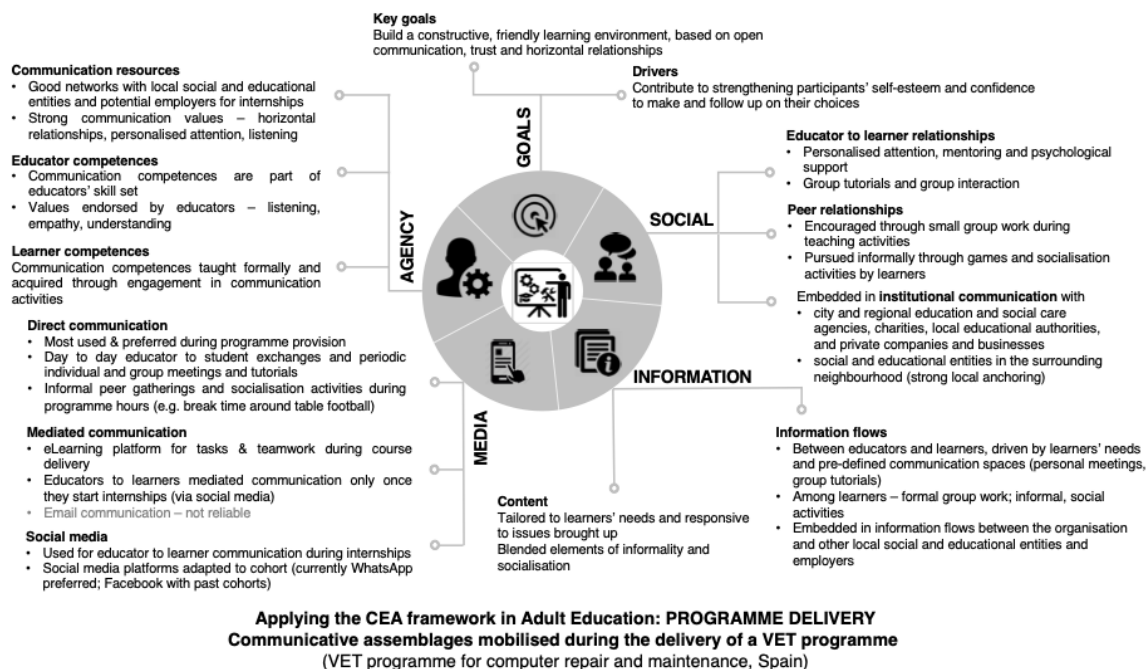
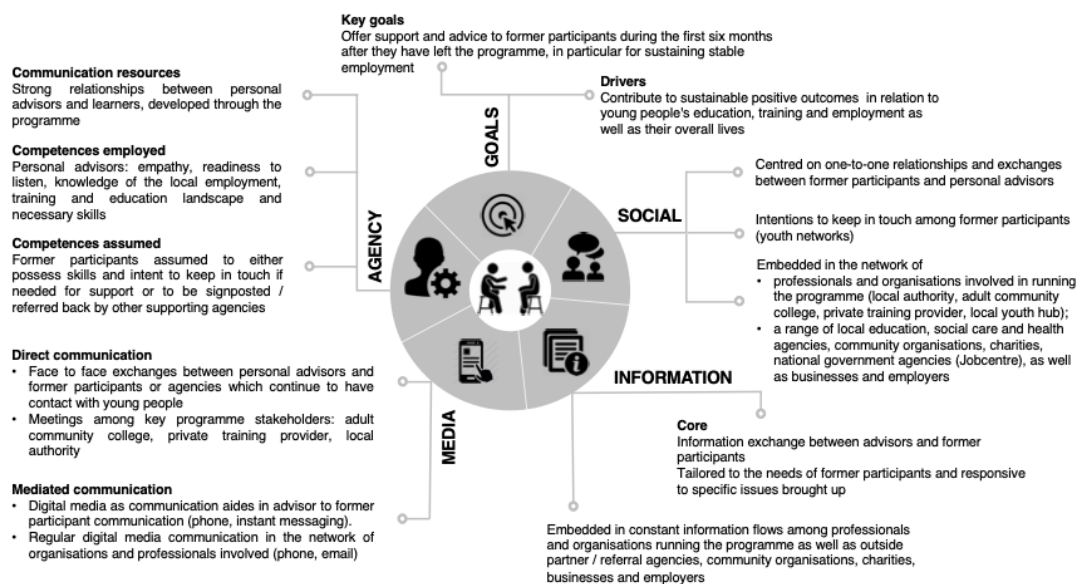


Figure 4. Communication during programme delivery for a VET programme for computer repair and maintenance, Spain



Applying the CEA framework in Adult Education: POST-COURSE COMMUNICATION
Communicative assemblages mobilised to offer advice and support for former programme participants
 (Gateway programme for young people not in education, employment or training, UK)

Figure 5. Post-course communication for a gateway programme for young people not in education, employment or training, UK

Chapter 2. DESIGN APPROACH :

Developing the conceptual reference model and interaction scenarios

The findings from EduMAP work packages WP2, WP3 and different countries' communicative ecologies' reports from Task 4.1 were utilised to explore, design and validate the blended face-to-face and social media based forums' opportunities for enhancing dialogue between providers and potential users of adult education among the vulnerable minority groups. The design process went through the following phases:

- Building on WP2, 3 and 4.1 findings and leads.
- The qualitative Communicative Ecologies reports (WP 4.1) were analyzed using concept-mapping of interaction paths. This was a parallel activity to stream 1. We harmonized and illustrated our design with examples from Deliverable 4.1.
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- The interaction scenarios were shared digitally to formatively evaluate them by different stakeholders in several partner countries.

2.1 Building on WP4.1 findings and leads

To answer the Task 4.2 research question, we have used as starting point the main opportunities and challenges in communication experienced by young people in accessing information about AE, summarized in D4.1:

Potential of social networks for information access

- Social networks are the most effective ways of passing on AE information to young people and heightening chances of follow-up. Social networks refer to personal and professional contacts that are close to young people, and whom young people trust. They may include friends and acquaintances, people in the community or neighborhood, or professionals from associations and organizations who work closely with young people. Communication among these networks can be direct or mediated, diversely by voice services, digital and social media. However, in most instances it is the human factor and direct contact with young people that makes them valuable for enhancing young people's access to AE information.

Potential of blended channels spanning social networks and digital media

- Digital media can be an effective means to reach out to young people if used in conjunction with direct communication through personal and professional networks close to young people. For example, social media can be used to follow up on initial contacts to provide more information, engage young people in groups and discussions, or to encourage follow-up.

- Access to digital media and Internet varies by context. The most well connected are the young people interviewed in Finland, and least connected the homeless in Thessaloniki. Mobile device ownership is most wide spread, though in some cases (like the Romanian Roma) they can be shared in the family.
- The social media platforms used by young people vary from one context to another. As a general overview, WhatsApp is the most used and preferred application among some groups, like the young people interviewed in Spain. In Hungary and Romania, Facebook and YouTube are more used. The use of Instagram, well established in some contexts, appears to be popular especially among the younger people, 16 to 18. The bottom line is that platform preference varies by context, age group and personal preferences, and cannot be assumed.

Communication challenges

- Some young adult groups are difficult to reach and persistently found outside regular recruitment channels.
- Many young adults in vulnerable situations lack the capacity to navigate social services.
- Young people's digital practices tend to be more focused on entertainment than on active information research about AE opportunities; AE information is often accessed randomly and by chance. Accessing AE opportunities requires active mediation by advising persons using blended mediation channels;
- Language barriers often prevent young refugees and migrants from accessing AE information.

2.2 Developing the conceptual reference model for interactions

In this section we describe the process of building the conceptual reference model for interactions and also introduce the model.

A reference model in system development is an abstract framework or domain-specific ontology consisting of an interlinked set of clearly defined concepts produced by an expert or body of experts in order to encourage clear communication. Reference models may depict the structural or process-related linkages between the concepts. Such models help the developers to take the reference in developing the interaction models for human-computer interaction. The general practice in developing the reference models is that these are deduced from the exemplary cases or actual practices, and thus summarize and generalize the variety of opportunities across cases.

As an input for the reference model for interactions across different stakeholders in adult education area that promotes the educational opportunities for young people with vulnerable backgrounds the reports received from Communicative ecologies case studies (Edumap Task 4.1) were read independently by two researchers, who then used the concept-mapping approach (Novak, 2010) to map the described interactions as conceptual propositions. The concept maps may be used as cognitive guides or reference maps to reach the new level of insight into the phenomenon.

The concept mapping approach has been used for developing the reference models of interactions using the following procedure: 1) Identifying the general concepts in the depicted area as concept map nodes, 2) The concept nodes should be connected with lines with verbs

that depict the types of relations between concept nodes. This approach enables forming propositions from concept nodes and verbs. Different areas of the concept map may also be cross-linked.

The concept map approach enables to write the ontological propositions of nodes and verbs. We distinguished the types of nodes related to:

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One of the best tools to apply concept mapping technique is C-map, that was used in this project. C-map enables the dynamical and collaborative co-construction of concept maps.

Below several exemplary concept maps from different selected EduMap case studies are presented below (Figures 6-9).

(Figure 10) that summarizes the possible interactions identified at different case studies reports as well as the findings received at the focus group interviews with project partners from UK, Finland, Estonia at the meeting we conducted together with social enterprise Helpific CEO.

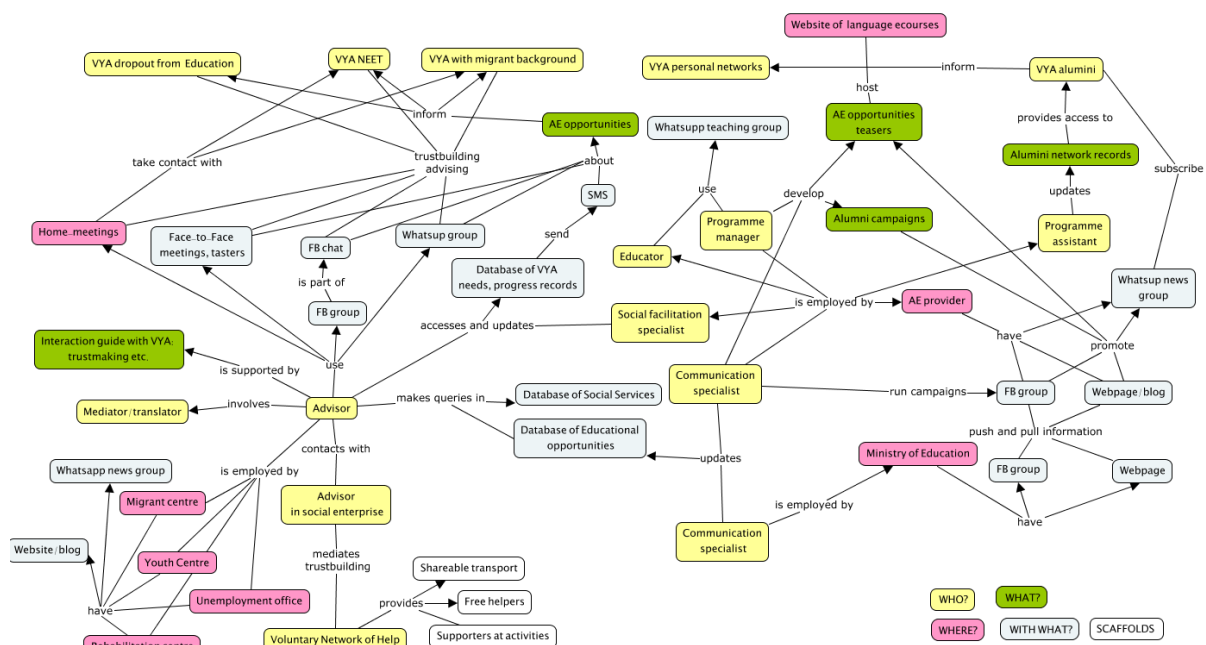


Figure 10. Reference model of interactions summarizes the concept maps from different case studies

The reference model of interactions enabled the identification of several design directions for creating spaces for dialogue between adult education providers and young adults in situations of vulnerability. We have organized the interaction opportunities into six paths that are interconnected. The first interaction path “*Communication ecosystem with social media*” depicts the overall social media based communicative ecosystem development between different stakeholder organizations and places for secondary information sharing and for increasing the visibility of information about adult education opportunities. This approach enables distributed access to information that is shared in self-organized manner across the dynamically evolving communicative ecosystem that provides the social media layer. Such information orchestration may support the stakeholder organizations, as well as attract young adults. This practice is more common in the countries like UK, Finland and Estonia, while the general trend based on EduMap case studies in Task 4.1 is that young adults with NEET, migrant or other vulnerable background with low digital literacy do not attend such social media channels that the AE and supportive organizations provide. The second interaction path “*Hidden advisor*” depicts how the advisory practices may be embedded (hidden) into the social media environments, leveraging on the practices among young adults who spend much time in massive multiplayer computer games, at topical forum spaces or groups or are engaged into the serious games through youth centers’ project activities. Such embedded advisory practices have been reported in Finland and Estonia as a way of creating engagement opportunities for young adults from vulnerable background, as well as, it was considered a

relevant way for first advisory interaction in Greece among young homeless people who do not like to attend social and educational advisors. The third interaction path “*Social facilitator*” leverages on the existing advisory practices in different stakeholder organizations, and proposes that advisory engagement in initial stages could be partially conducted using social media channels. This interaction opportunity builds on the finding that advisors were the main information source for young adults with vulnerable background to get to know and access adult education opportunities. The advisory practice as a leverage was common across Edumap Communicative ecology cases. The interaction opportunity in fourth case “*Alumni network*” leveraged on repurposing social interactions in the personal networks of young adults. It was evident from several case studies that while educators keep contact personally with some alumni, and in some cases there is an agreed engagement procedure to follow up the alumni of AE until a short period after graduation, this practice is still not used as an effective leverage to gain access to the internal social networks of vulnerable young adults, to share information about AE learning opportunities. The practice was considered especially useful for accessing the young adults from migrant groups. The fifth interaction path “*Voluntary help network*” was developed inspired by the emerging socially provided help and sharing economy services, that can be repurposed for providing missing supportive services for young adults to promote their access to AE. The Helpific CEO example was used, this organization provides already for vulnerable people from all age groups the access to voluntary help networks for finding temporal help, learning buddies, shared transport opportunities etc. Often this help is provided free of charge. Helpific has also piloted the interaction path between the people in need, the advisors, and the voluntary helpers. This interaction scenario promotes active citizenship competences among all people in cohesive society, and among vulnerable people themselves, enabling them to offer help to the others, such as babysitting, language help, study buddy etc. The sixth interaction path “*WhatsApp learning group*” depicts the emerging educational practices to use social media channels like WhatsApp, Facebook groups, Instagram as digital learning environments for sharing learning resources, tasks, and providing support. The practice was found for example in Austria, Germany and Turkey. We propose leveraging on that practice to reuse the study groups after graduation as alumni networks.

In several cases, such as in Turkey, Estonia, and Finland we found that the central information systems existed about AE educational courses. In some countries there were also databases where the records of advised people were collected longitudinally. The access to such personal data was not yet cross-institutional among educational, social and job advisory organizations, there is the clear need to improve such linked data. These data could be used for decision-support engines such as IDSS systems that recommend relevant opportunities or make predictions for policy makers in the area. The linked longitudinal data could be used cross-institutionally by advisors for not losing track of persons who need help while they progress in their life path. The cross-stakeholder access to AE educational, job and supportive services was not provided in any countries, Estonia has the X-road of services, but the improved searchability functionality is needed that advisors or even young adults themselves could filter out what AE opportunities and related services they could benefit from in specific cases.

Overall the reference map of interactions (Figure 10) provides in every country the point of reference to discover the stakeholders, systems, and interaction opportunities they could build upon to promote the access to AE opportunities inclusively to all young adults.

2.3. Developing and evaluating the interactions scenarios

In the second phase of the design study we developed based on the conceptual reference map of interactions the interaction scenarios (S1-S6). The general approach in interaction design is to validate the interaction scenarios with the users. This may be done in face-to-face focus groups, using visual mockups or cues to promote evaluative discussions about the proposed scenarios. We took the approach of visual storytelling, since it was understandable for different target groups, and the visual stories could be shared online for remote evaluation. The cartoon-based interaction stories have been found useful in discussing the scenarios with different stakeholders (advisors, adult educators, young adults with different level of literacies).

Two researchers were engaged into developing the scenarios. The scenario characters and places were partially induced by actual cases, however, we tried to depict these in the generalized way. We used the visual cartoon-based storytelling approach (with software Pixton.com) to depict the sequence of actions in interaction paths. This approach enabled to generalize the roles and places visually. In order to indicate to the young adults with specific vulnerability backgrounds we used visual cues. Visual cues indicating to certain typical places were used as well. The scenarios are presented in Chapter 3.

The access to interaction scenarios were shared publicly via various channels: as an EduMap blog post, EPALE post in Estonia, Helpific.com social network post, in the network of Youth centres (Noorte tugila) in Estonia and among the Edumap partners by email. The scenarios were used in Greece adult education second chance programme as discussion materials. The scenarios were viewed online: S1. Communication ecosystem with social media (67 persons), S2. Hidden advisor (80 persons), S3. Social facilitator (114 persons), S4. Alumni network of young adults from vulnerable groups (53 persons), S5. Social help network (55 persons), S6. Course with WhatsApp (62 persons).

A survey with open ended questions was developed to conduct a formative evaluation of the scenarios' applicability. 12 persons with counselling and adult educator background provided feedback. Additionally, EduMAP partners were asked to conduct focus groups with different stakeholders to collect feedback to the scenarios (3 people approached through focus groups). 10 young adults at second chance programme evaluated the scenarios in Greece.

The findings from the evaluation of the 6 interaction scenarios are summarized into the key principles presented in Chapter 4.

Minor changes were made in the interaction scenarios based on evaluation reports. The final set of interaction scenarios together with the contextual explanations and references to the case studies (indicating to deliverable 4.1) are provided in Chapter 3.

Our findings from designing interaction scenarios, conducted in parallel with the analysis of WP 4.1 reports, came to the same conclusions: for young adults from vulnerable groups two of the key barriers to access education and cultivate APC competences regard:

- Low literacies (including media and information literacy) and lack of competences for formal communication, such as finding the AE opportunities from internet by themselves, communicating without mediated support;

- Lack of connecting networks: many young people are informationally isolated or live in informationally isolated communities. In the absence of connecting networks, they remain unaware of the potential of AE and how to access it.

We have also identified a series of leverages and unused potential for enhancing young people's access to AE. A significant one regards post-course communication, which is an unused potential for AE to reach out to other vulnerable young adults who could benefit from AE.

Chapter 3. Interaction scenarios for enhancing dialogue between AE providers and vulnerable young adults

Interaction scenarios are bringing together the communications approach and the design approach. The interaction scenarios for enhancing dialogue between AE providers and vulnerable young adults were developed taking the following steps:

- 1) Guided by the reference model of interactions (Figure 10),
- 2) Six possible generalized interaction paths were extracted that focus on the leverages of advisory practices at different support organizations for young adults, social media, social networks, and digital social innovation services;
- 3) Based on these interactions the generalized stories were developed using comics storytelling approach.

The scenarios are described using the design pattern approach developed by Alexander (1977), that has been used for various type of interaction problems, such as pedagogical patterns, design patterns in human computer interaction including ICT architectural patterns etc. The pattern approach focuses on problem solutions that occur and are usable in various contexts. According to Christoph Alexander: *“Each pattern describes a problem, which occurs over and over again in our environment, and then describes the core of the solution or problem, in such a way, that you can use the solution million times over, without ever doing it the same way twice”*. Patterns form kind of a pattern language, the patterns are interrelated. Each solution is stated such a way that it gives essential field of relationships needed to solve the problem, but in a very general and abstract way – the patterns should be used in local contexts by adapting them to local conditions.

All together the scenarios cover possible interactions across different types of typical stakeholders, in face-to-face and virtual settings. Such an approach enables to have an overview of Adult education directed interaction opportunities with young adults regardless of the specific country contexts, identifying the typical stakeholders, places, digital services and media content, and is applicable for guiding the relevant design opportunities in the specific country settings. We have organized these scenarios based on the detected opportunities at media layer orchestration, augmentation, and blending with information and social layers. Scenarios are interconnected, as depicted at the referential concept map of interactions. As common in design practice the existing interaction opportunities were repurposed for proposing new type of interactions that may enhance young adults to access information about adult education programmes.

1.1 Scenario 1. Communication ecosystem with social media

Problem/issue: Different stakeholder organizations that set young adults' active citizenship as a goal separately run distributed social media sites in Facebook, blogs, Instagram, YouTube etc. to conduct social media campaigns for reaching young adults and bringing them to educational, job and social services' opportunities. There is the need to effectively prompt information across such a self-organized social media system, so that it reaches potentially to all stakeholders' organizations and types of stakeholders fulfilling their information needs relevantly.

Audience/Context: Central adult education policy organizations at regional and local level, adult education providers, youth-, employment-, migration- and rehabilitation centres that provide counselling, specialists' networks and associations run their own web pages to share news and specific information about opportunities for learning and additional services. The web-pages have blog based component, that can be pushed or pulled to social media channels such as Facebook or WhatsApp groups, monitored by personal aggregators or shared across platforms. Some of these central Facebook pages are monitored by thousands of young adults, adult educators and counselling specialists (see Figure 1). The channels incorporate also YouTube channels for sharing videos about the learning facilities, and best practice cases in adult education, and the Instagram or Snapchat channels for sharing visual materials about vocational competitions or job-related designs etc. The Facebook pages may be used for promotion campaigns, such as winning access tickets to training events, selecting the best specialists based on videos or case descriptions. The campaigns and the competitions prompt visits and sharing of the information and media content about jobs, practices, careers and learning opportunities.

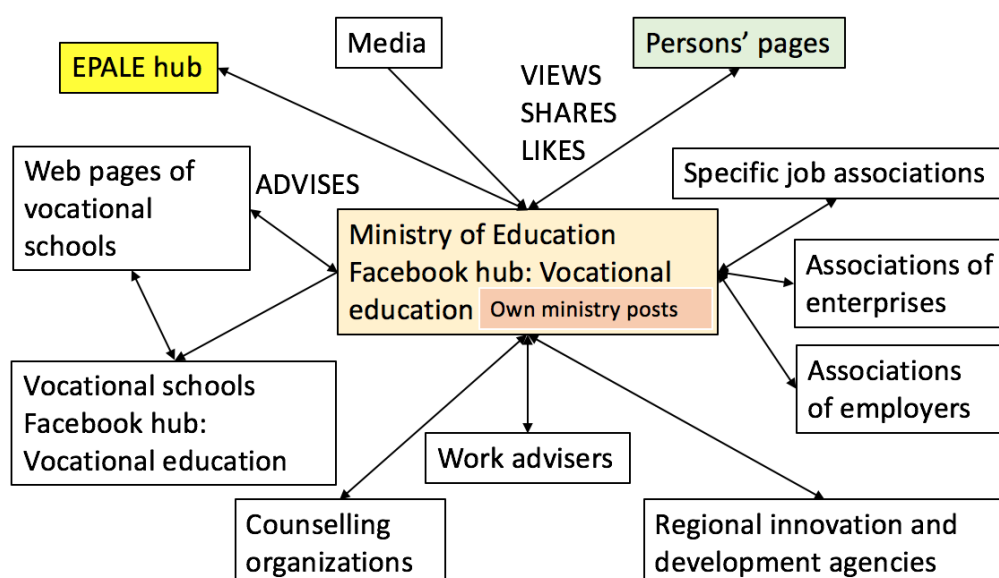


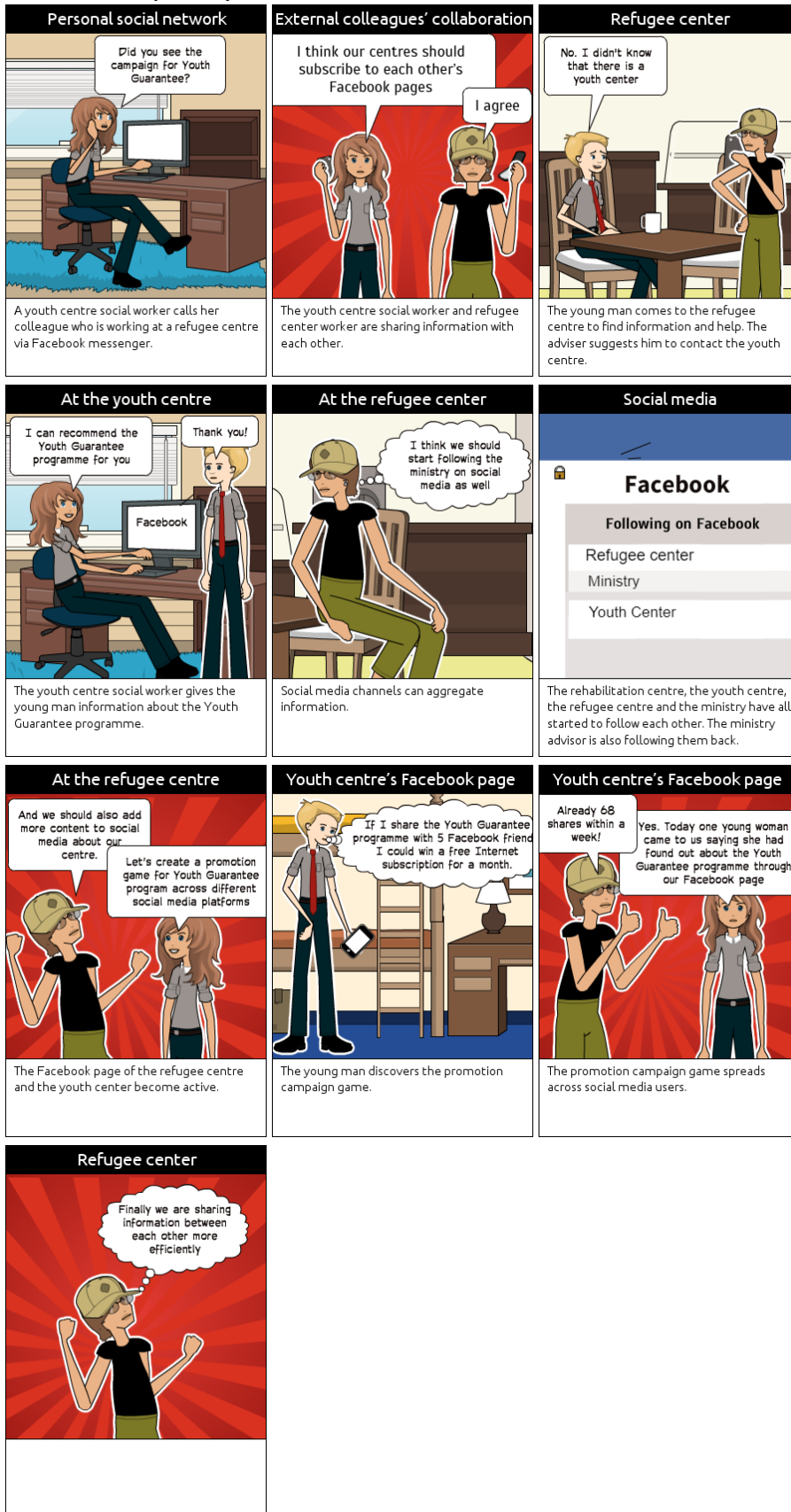
Figure 11. An example of an aggregated social media ecosystem developed around the

Estonian Ministry of Education's vocational education Facebook groups.

Solution: Seamless access to information across social media channels between the coordinating organizations for young adults (Figure 2). The interconnected social media environment will provide more relevant content to young adults independent of their access points at social media hubs of certain organizations.

Communication specialist/socialmedia

by sille.paas



PIXTON

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Figure 12. Scenario 1. Communication ecosystem with social media

Discussion/consequences/implementation: Orchestrating social media sites of different stakeholder organizations into the communication ecosystem where information can be pushed and pulled across partners may increase information visibility and prompt education, job and social services-directed awareness and engagement opportunities among young adults. It also makes up the cohesive secondary communicative ecosystem where different stakeholder organizations can be aware of each other's initiatives, and approaches.

Related patterns: S1 scenario links with the S3 (social facilitator): the Facebook pages are used for providing immediate contact with advising persons or communication specialists. While already at the place young adults, may become aware of more information and take part of other offered engagement opportunities. S1 scenario associates with the S4 (alumni network). Particularly, the Messenger group of Facebook for alumni, and the WhatsApp group of alumni have a potential to be the channels that the young adults from vulnerable groups may continue following if these groups contain gamified components like winning free tickets for in-service learning, finding paid collaboration opportunities with AE that promote their career in exchange for sharing information about AE learning opportunities or their own success cases across their personal networks.

Example instances, exceptions: This scenario was described in the Estonian good practice case by the communication specialist of the Ministry of Education, and the specialist from a vocational school. The analysis of social media channels in vocational work-embedded education context was made to verify the scenario. The findings from many EduMAP case studies indicated that generally, young adults from vulnerable groups tended not to follow and search specific AE groups (see S3). Exceptionally, many Syrian refugees interviewed in Turkey used social media for professional and education purposes: Facebook to follow certain institutions that supply AE programmes and WhatsApp groups for networking and receiving information about finding jobs and AE programmes. For the migrant women in the UK, the internet (particularly the search engine Google) was also an important source for finding out information about programmes or colleges in general.

1.2 Scenario 2 - Hidden advisor

Problem/issue: Some young adults might have few interests except hanging around in social media interest groups or playing various multiplayer games. This is the community they may trust more than official advisors. It is difficult to identify such young persons, to get familiar with their problems and offer adequate help to allow them return to learning or work.

Audience/Context: There are cases when youth centres have organized projects where young adults from vulnerable backgrounds are engaged into interest groups or gamified activities that are not directly related to studies or work. In the interest group or game settings, youth workers who participate in the game become more familiar with the players, form trusted relationships and might be able get to the problems they have in life. This augmented setting of advisory practice is the leverage that may be built on to invite young people to receive more guidance in their life.

Solution: Scenario S2 (Figure 1) describes the approach of augmented (hidden) advising. Often young adults develop passions and interests around social media groups, multiplayer games, e-sport activities etc. These activities may be used as entry points to gain access to young adults, develop trusted relationships, and open up new opportunities for them in adult education programmes.

Discussion/consequences/implementation: This scenario requires situation augmented trained advisors as trustees that do not violate young persons' privacy and rights in deciding about their needs. Implementing this scenario requires consideration of all ethical principles (see evaluation).


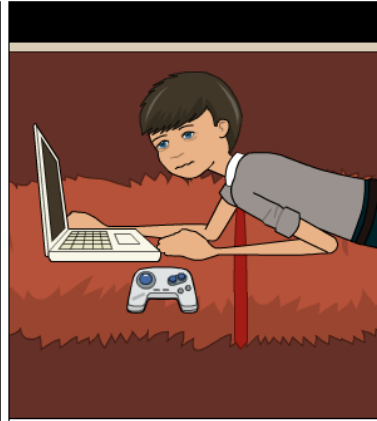

Related patterns: The scenario may be combined with S3 (social advisor). As the problems and needs of the person have been identified, some more formal forms of advising may follow to find suitable AE opportunities and supportive services. This scenario may further be combined with scenario S5 to discover the opportunities of a voluntary network of support. Finally, the S4 (alumni network) may be used also for recruiting new players to the games using the snowball methodology.

Example instances, exceptions:

Scenario S2 was described at focus group interviews of the design sessions in Tallinn, and by the youth workers interviewed in youth centre settings in Estonia. The Estonian informant from a youth centre claimed that youth workers engage with young people playing existing games (Minecraft, Roblox, GTA, Fortnite, etc) rather than to develop special serious games targeting young adults. The video games have been played in youth centres for the same purpose, to develop trusted relationships. In a Finnish case, a specific "manga course" was developed in a youth centre for young adults, where augmented advisory practices were used to get more familiar with the problems young adults had. For example, in Estonia, in 2014 one youth centre used Minecraft to develop a virtual youth centre. Two youth workers were engaged in playing at the virtual youth centre with young people. Another known approach from Estonia is organizing LAN parties for young adults. LAN parties connect video players with a local area network. In such settings, young people can build trusted relationships that may be used as leverages for advising them in career and learning related issues.

HIDDEN ADVISOR

by Silke

 <p>A young person has not attended to school for a long time.</p>	 <p>His hobbies are computer games and skating.</p>	 <p>ACTIVITY/PROGRAMME COACH</p> <p>The coach works in the youth centre and her job is to come up with innovative ways how to track young adults who are not engaged in education and who may be vulnerable.</p>
 <p>YOUTH CENTRE</p> <p>Anyone can use youth centre's computers and facilities but some young adults never visit the centre.</p>	 <p>MULTIPLAYER GAME</p> <p>The programme coach is developing a multiplayer game and hopes to reach out to more young people who are not engaged in education or training in this way.</p>	 <p>THE GAME IS SHARED WITH HIM</p> <p>The young person signs up to the new multiplayer game that has been developed by the youth centre.</p>
 <p>ONLINE COUNSELLING</p> <p>Embedded in the multi-player game are various options offering educational advice and counselling to young people.</p> <p>The programme coach is available to provide support to young players. This enables her to build trust with young people who are willing to receive such support.</p>	 <p>During the process of supporting young people who have agreed to receive advice, the coach has an access to a database of educational and support services.</p>	 <p>He started studying again. I am very happy for him.</p> <p>After the young person has decided what educational course he wants to do next, the programme coach helps him to complete relevant applications.</p>

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Figure 13. Scenario S2 - Hidden advisor within new media platforms, such as computer games

1.3 Scenario 3 - Social facilitator

Problem/issue: Bringing young adults in vulnerable situations to organizations where they could get advice and guidance in career, job opportunities, or could discover adult educational opportunities that fit for their needs. Helping young adults from vulnerable backgrounds to discover supportive services that enable access to the aforementioned opportunities is difficult, because they might not have sufficient self-drive and communication competences to set up visits to unfamiliar official places. The drawback of digital media is that one first needs to know where to look for adult education opportunities, so they first need to find out about and follow up on leads and tips from contacts. There is often lack of knowledge about the local AE system and opportunities and lack of support structures for turning information into decisions. Another issue is that as young people drop out from educational institutions, they also lose contact with their institutional advisors, and are not smoothly transferred to the next advisors on their life path. There are no complete records of life paths of vulnerable young adults, because the data from advising events are kept in different data systems.

Audience/Context: The scenario (S3) (see Figure 1) targets young adults that have low communication skills for setting up meetings in official organizations they are not familiar with (rehabilitation centres, educational advisory centres, unemployment centres etc). The scenario depicts the key advisory role of professional figures such as community and social workers; local administration youth contact points etc. in mediating AE information to young adults in vulnerable life situations. Advising is typically accompanied by using different databases to track down the records of the interviewed people for further sharing among different advisory bodies and organizations, searching for AE opportunities that fit the profiles of clients, and the accompanying services to scaffold access to the AE and compensating for possible lack of individual's agency.

Mediating organizations in different case studies are social care and youth centres, such as those accessed by some learners, schools, accessed by programmes such as; state and local administration offices, used in particular by national programmes carried out at local level. The roles of these organizations in mediating information also differs. Some organizations are channels for information, while others play a substantive gatekeeping function and can influence and drive young people's decisions through tailored information and advice.

 <p>A young man is struggling with figuring out his aims and aspirations. He is trying to balance work with high school studies, but feels that he can't keep up.</p>	 <p>A social facilitator receives information from a local youth centre about a young man who is dropping out of school. He send him an invitation via Facebook Messenger to meet.</p>	 <p>After their initial meeting, the social facilitator sends the young man additional information and asks him to get back in touch for further support.</p>
 <p>Youngster is not going to school or coming back to his office. Social facilitator sends feedback to the youth centre advisor that she should contact with the young man.</p>	 <p>One-to-one counselling is given via Facebook Messenger or WhatsApp chat. thereafter that young man is invited to the youth centre.</p>	 <p>The youth centre advisor can find educational opportunities and supportive services from the database which filters options and provides recommendations. The anonymised track records are used by decision making support engines that develop predictions relevant to improving adult education for vulnerable young adults.</p>
 <p>The youth centre advisor uses a designated interview script for advice sessions, but this is done in a way that is not noticeable to the young adults.</p>	 <p>After the interview, the young man understands his options better and realises that he could start learning in a vocational education centre.</p>	 <p>The database of educational opportunities and supportive services is updated with the anonymised track record of the educational advice the young man has received and his subsequent chosen path. The decision-making support engines use the anonymised data to predict on how to support vulnerable young people even better in the future.</p>

Figure 14. Scenario S3 - Social facilitator mediating the AE opportunities for young adults from vulnerable groups.

Solution: The different advisory practices (at schools, vocational places, rehabilitation centres, youth centres) should have connections across social media channels (S1). The initial contact with young people can be developed through lightweight chat channels such as Facebook Messenger, Instagram or others that young people use in their everyday practices. Young adults can be invited to chat with different advisors, before a face-to-face meeting is set up. In order to have records of young persons' life paths towards educational and vocational opportunities, the advisors in organizations may fill in the records of young adults in shared databases, or by using a linked data approach. They should be able to easily access earlier records made by different advisors. Anonymized records may also be used for IDSS systems to discover gaps and to predict needs and successful vocational and educational choices for specific "young adult types". The advisors should also use the educational information systems and social service systems in combined searches to make relevant offers to young adults in need. Blending different advice forms is useful and promotes discovering and engaging better with young adults.

Discussion/consequences/implementation: This scenario was found to be the most relevant one, since advising is the main access channel of young adults to adult education opportunities. Young adults from vulnerable backgrounds are characterized by rarely looking for AE opportunities. The use of digital and social media for personal browsing and entertainment is not an indication that these are also used for accessing information about learning opportunities. For example, in EduMAP cases young people in Germany, Roma in Romania and some migrant women in UK reported using social media regularly, yet they did not typically use it for accessing information about AE, or at least not unless they were following a lead received from a trusted contact. Young Finns proposed that there were a lot of job possibilities "on the internet" but offered no further observations on the subject, neither did they describe their experiences in job seeking. The tracking of young adults' records have been implemented in some countries, however privacy concerns apply, as well as issues of equality. The tracking methods should not be used for specific vulnerable groups only. It has also been argued that real advising should happen in secure settings, not in social media controlled by international corporations. E-mail was found not to be very reliable as a communication channel, many users admitted they do not check it regularly and educators confirmed this view.

Related patterns: This S3 scenario relates with the S1 (communication ecosystem), since the Facebook groups of AE or associations providing advising services often use live chat (Facebook Messenger) for first immediate information sharing. The best way for AE information to reach out to young people is through blended channels that merge direct information provided through contacts, organizational mediators and social networks, with information provided through a variety of digital and social media channels.

Example - migrants and refugees who have not yet established local networks accessed AE opportunities by Youth Integration Centre Point in the Germany study.

Example instances, exceptions: Advisory practices were detected as central across all communicative ecology cases. Different types of mediating agencies were used at case

studies. Mediators mainly encompassed social workers, educational advisors, youth centres, refugee centres, rehabilitation centres, school educators, and social advisors.

1.4 Scenario 4 – Alumni network

Problem/issue: Many adults with migrant backgrounds might not use other channels of information than trusted inner community groups in IMS apps. Access to the young people in need of education and vocation may be gained through the alumni, who have already experienced how education might change their life paths. However, it seems that educational organizations have not managed to build up access and information sharing to these inner networks with the help of the alumni. Educational organizations that seek to sustain post-course alumni communication generally experience several challenges – the lack of resources; formal impediments to maintaining contact (privacy, data protection); transiting from informal to structured practices.

Audience/Context: The audience of this scenario are particular migrant groups and other groups who share information by communicating mainly with their inner communities. Often in such communities, the trust is built by the members who have experienced success in their life path and may advise others to take similar educational or vocational paths. While educational institutions are successfully communicating with their students, they often lose track of them after graduation. The study groups created in social media platforms could be systemically used to build alumni networks. The task of communicating with alumni may be transferred from educators to communication specialists who can develop targeted campaigns through social media channels of institutions, also in IMS chat applications.

Solution: This scenario S4 (Figure 15) provides the ways of accessing an inner community or group by using personal social media channels in WhatsApp. The scenario creates the linkage between trustworthy acquaintances from adult education, associations, community centres or social care centres and inner social networks cultivated informally among friends and family.

Discussion/consequences/implementation: There needs to be motivational elements to promote such alumni channels and post-studies information sharing to the inner networks.

Related patterns: Scenario relates with S6 (Learning with WhatsApp). Scenario makes use of the fact that the value of social networks increases exponentially when young people benefit from the support of a cohesive community or group. Young adults from vulnerable groups appreciate above all personal contacts as sources for information, also when it comes to finding out about learning or job opportunities.

Example instances, exceptions: Practices of leveraging on social networks are described in numerous EduMAP case studies. For example: The communicative ecology of a Roma woman in Barcelona (Spain); The access to homeless youth in Greece, Networks of Syrian refugees in Turkey, and Roma women in Romania; Migrants' networks in Germany and the UK, and Roma communities in Spain, Romania and Hungary. Migrant women networks in London, Networks of migrants and refugees in Germany, and Roma in Romania and Spain.

Alumni network

by sille.paas

<p>Young woman</p> <p>A young woman has started studying at a vocational school. The study coordinator is staying in touch and keeping her on track through WhatsApp.</p>	<p>Study coordinator</p> <p>Study coordinator is motivating the young person to do her homework on time.</p>	<p>Young woman</p> <p>The young woman has been studying on her own for a few months. This is her last assignment. She is struggling, but her study coordinator is keeping an eye on her and motivates her.</p>
<p>Completing the programme</p> <p>After completing her course the young woman continues subscribing to the vocational school's WhatsApp alumni channel, to get school's interesting offers and take part of their competitions that the</p>	<p>Starting working</p> <p>The young woman has started working in a nail spa. The study coordinator contacts her and asks her if she wants to become a mentor for new students at her work place.</p>	<p>Alumni network</p> <p>Study coordinator wants to invite her to the alumni network which is a dedicated platform for former learners who are now involved in guiding and teaching new students.</p>
<p>Information sharing</p> <p>Through the alumni network, the young woman is involved in sharing news and information about the college's programmes within her own network.</p>	<p>At work</p> <p>The study coordinator offers her a contract to become an official mentor in the work place for new students.</p>	<p>Incentives for sharing</p> <p>The Alumni WhatsApp channel is used to encourage former learners to invite friends to courses using incentives such as prize draws.</p>

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Figure 15. Scenario S4 - Alumni network for sharing AE information to inner communities of young adults from vulnerable groups

1.5 Scenario 5 – Voluntary help network

Problem/issue: Young adults with vulnerable backgrounds often face several obstacles to access adult education. They need additional social services, but often those services are not available in their localities (when living in remote areas, they need transport, or babysitting help). Other young adults have issues with directing their studies and work, or communicating in formal settings and they might benefit from study peers, or mentors.

Audience/Context: While the a person may access several services that help to access AE opportunities, there may still be the need for tailored services to remove all the constraints to facilitate one's agency. Such constraints may be related with lack of self-organization or communication literacy, disability or inexperience from new situations where the person may need to find a more experienced study-body or friend. Alternatively, one may need e.g. a lift with a car, or caretaking of children or relatives while they are studying. In the best case, such voluntary help networks should be mediated to young adults by the advisors who counsel them at different advisory related centres.

Solution: S5 (Figure 16) depicts the emerging social enterprise based opportunities to extend the support to young adults from vulnerable groups using active participatory citizenship based approaches to get support and scaffolding.



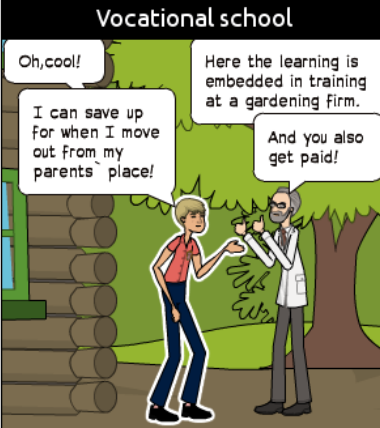


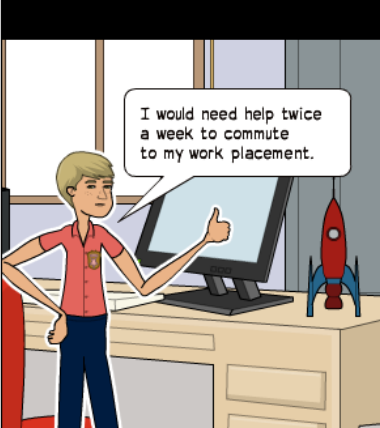



Discussion/consequences/implementation: The voluntary help network is a new sharing-economy based service, that enables young adults from vulnerable groups and the alumni of AE (former young adults from vulnerable groups) to offer services also to others, such as mentoring, language support or simply the lift with the car.

Related patterns: This pattern relates with S3 (advising practices).

Example instances, exceptions: Scenario S5 was developed based on the focus group meeting with Helpific SEO (social enterprise) that provides voluntary help.

Voluntary Help network

by sille.paas

<p>Looking for direction</p>  <p>A young man who has struggled in school due to special educational needs is living with his parents. His parents suggest him to connect with the local rehabilitation centre.</p>	<p>At the rehabilitation centre</p>  <p>The young man visits the rehabilitation centre. The advisor recommends starting a training course in gardening at a vocational school.</p>	<p>Vocational school</p>  <p>Vocational schools can combine practical training or work experience with studies.</p>
<p>Independent living</p>  <p>The young man has now moved into an independent living housing. His parents live further away. He needs help with transportation.</p>	<p>Advisor</p>  <p>Advisor helps youngster to make personal account on voluntary social services network to find someone who will do car share.</p>	 <p>The young man posts a message about the help he needs on the voluntary social services network. He requests help for his journeys to and from his work placement.</p>
<p>Finding support</p>  <p>In voluntary social services network people can find study buddies, practice language skills or even offer voluntary help to others.</p>	<p>At the greenhouse</p>  <p>Through the voluntary social services network, the young man has received the help he needed to get to his work placements.</p>	<p>Completing the programme</p>  <p>With the help of his advisor and the voluntary support networks the young man has successfully completed his programme.</p>

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Figure 16. Scenario S5 – Getting the right support from voluntary help network

1.6 Scenario 6 – WhatsApp learning group

Problem/issue: People from informationally isolated or culturally constrained communities primarily use IMS such as WhatsApp for communicating with inner communities. They do not have the digital tools to study other than mobile phones. The group's specific cultural and social norms and values may also shape possibilities to use social media for learning, as illustrated by the gender regimes operating on Syrian refugee women in Turkey. Even educated women access some information via their male relatives rather than from direct contact with the institutions. Their agency to develop autonomous communication and information practices is severely restricted by their domestic and care responsibilities.

Audience/Context: Characteristically, word of mouth and social networks are among the most important ways of accessing information about AE in (informationally) isolated or culturally constrained communities. Information is delivered locally through trusted information sources such as community centres, local foundations or informal community leaders; key mediators such as support organizations, foundations, or caretakers have a central role. These places may be used for offering learning opportunities.

People from informationally isolated or culturally constrained communities who already access learning opportunities, also use the social context of their courses to develop networks that may offer information about future opportunities – such as WhatsApp groups. Persons appreciate if WhatsApp or Messenger channels are used for personalized help and advice either from tutors or advisors at the college, or from within their social networks, because information available on the internet can be confusing and unclear. The follow-up after-course communication of WhatsApp course may range from maintaining relationships and networks, with a general purpose of connecting, sharing and keeping in touch, to supporting young people in their personal and occupational lives and preventing set-backs.

Solution: This scenario S6 (See Figure 17) depicts the WhatsApp channel engagement with the young adults belonging to informationally isolated or culturally constrained communities. In general, the solution to the cultural isolation problem is social layer repurposing, i.e. social media study groups may be developed for sharing information within these communities.











Discussion/consequences/implementation: Some groups of young adults may be digitally disconnected, having access to Internet only in the care facility they regularly attend, where their sense of agency (understood here as the possibility of digital connection) is enhanced by the combination of their own knowledge and motivations to communicate, computers, WIFI and the social workers who manage the centre, among other factors. Some persons may be sharing mobile phones and even Facebook profiles with other family members, which may also hinder or control their active participatory citizenship.

Related patterns: This scenario relates with S4 (alumni network), since the social media based learning groups may be transformed to alumni networks.

Example instances, exceptions: The examples from EduMAP case studies were found among Roma women in Spain and Romania, migrant women in London. Particular formalized after-course communication practices and informal practices in after-course communication were described in Turkey, Germany and Austria.

Course with WhatsApp

by Silke

<p>MIGRANT CENTRE</p>  <p>I would like to get social benefits and security</p> <p>Adult educator course developer tries to understand refugees and migrants...</p>	<p>COMMUNITY CENTRE</p>  <p>Mothers gather in the community centre because their children receive help and support with their homework there.</p>	<p>COMMUNITY CENTRE</p>  <p>Children need computers for their homeworks. There is a mediator /interpreter who helps children and parents with the computers.</p>
<p>COMMUNITY CENTRE</p>  <p>I can't do it. I don't have time...</p> <p>The adult education course developer visits the community centre and finds out from the mothers what kind of courses they might be interested in.</p>	<p>COMMUNITY CENTRE</p>  <p>Many mothers find it difficult to attend daytime courses due to family responsibilities. Adult Training Centre organizes blended learning evening classes in the Community centre.</p>	<p>COMMUNITY CENTRE</p>  <p>But I don't have a computer at home</p> <p>No worries, you have a phone!</p> <p>The adult training centre stays in contact with the mothers through social media (WhatsApp chat or Facebook messenger) during the blended learning course. This enables the women to use their mobile phones for the training.</p>
<p>LEARNING PROCESS</p>  <p>How am I going to learn through my phone?</p> <p>The adult training centre stays in contact with the women through WhatsApp during the blended learning course. Women use their mobile phones for the training process.</p>	<p>LEARNING PROCESS</p>  <p>Hello, I'm your teacher. How is your homework going?</p> <p>good, thanks for keeping me on track</p> <p>Inside the WhatsApp study group women are sharing educational videos and pictures with their family and friends and can add more students to the group</p>	<p>FINISHING THE FIRST COURSE</p>  <p>She finishes the course and the certificate helps her with finding a job. Anonymised information from her contacts with the adult training centre are added to the database tracking learners' next steps and developments.</p>
 <p>Thanks, I was very nervous, but I think they might have some part-time work for me</p> <p>How did your interview go?</p> <p>The adult training centre stays in contact with former learners via social media (WhatsApp and Facebook messenger). They can use their phones for further training courses.</p>		

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Figure 17. Scenario S6 – Extending the WhatsApp course to Alumni networks for sharing information and additional learning opportunities

Chapter 4. General evaluation findings and implications

Evaluation of scenarios

Evaluation of survey results

The survey of formative evaluation of scenarios asked the following aspects:

- Provide feedback to the scenario: Where does the scenario work? Does the stakeholder believes in it? Could the stakeholder use it?
- What needs to be changed in the scenario to help young adults from vulnerable groups?
- Can you provide some new scenario ideas that would work?

12 survey answers were collected from UK, Estonia, Greece, Finland, Germany, Taiwan. The respondents of surveys were: male (age 30), studying, not working; male (34), studying and working, female (35) studying and working, male (30), working; women (46), studying and working; woman (29) working; female (49) studying and working as a vocational counselor at second chance school; female (40), working as social worker; male (32), working as vocational counselor; female (50) studying and working as vocational counselor; female (37) working; female (38) working. The respondents mostly had the job of advisers and counselors, and they had experience with young adults with vulnerable background in different contexts, such as second chance schools, vocational schools, youth centres.

Three formative evaluation interviews were conducted in Estonia with social workers. Ten young adults evaluated the scenarios as part of the second chance education course in Greece.

The general finding was that using comics as the reference framework for gathering feedback about potential interactions with social media worked very fruitfully. All the scenarios gained positive as well as critical feedback and comments. Respondents in some countries estimated social media as a potential in helping to bring young vulnerable adults to AE. However, in Estonia the informants mentioned many times that in Estonia social workers are not trained to behave the way the characters did in the comics, **indicating that the new social media approaches to enhance young adults from vulnerable groups to access AE would also require training.**

Secondly, it was mentioned that in Estonia **there aren't free resource to help young adults from vulnerable groups with social media** the same way as explained in the comics.

Based on the formative evaluation results the scenarios were updated. Below some of the issues are presented that the respondents highlighted about the scenarios.

S1. Communication ecosystem with social media

Communication ecosystem with social media scenario (S1) was considered relevant by many respondents, since it **provides ubiquitous communications**: *"important because most beneficiaries communicate only through the internet at free access points."*, and there is the need to **develop relevant networks for targeted information exchange**. One respondent claimed that **there are better ways of sharing information between adult education**

institution educators, advisors, counselors, media specialists in the related organizations than social media.

Some respondents perceived it as **too institution-centered and not providing direct help to young vulnerable adults**, for example the results of D 4.1 case studies indicated that **young people do not use Facebook as the most preferable channel** (they think it's for "old people"). It was believed that Facebook platform *"would need very good social media algorithms to encourage young adults to engage with platform."*

It was noted that **social media does not necessary represent the whole spectrum of services different support service organizations provide.**

Protecting anonymity was considered a concern in the communication using social media channels like Facebook.

S2. Hidden advisor

Several respondents considered Hidden advisor S2 scenario an **interesting and well working scenario, suitable for younger generation, particularly for people who avoid social workers** *"it is a good way to encourage young person to reflect on their career aspirations"; "In Greece, people with low education or migrants avoid counselors and psychologists generally"*. However, many respondents were concerned, considering it **ethically problematic, as it invades to personal space and violates privacy of young adults from vulnerable groups**: *"it is completely randomized, risky, and can be deemed as invasion of personal space and violation of privacy"*. One respondent considered that the **linguistic issue may emerge** in hidden advising *"I got a feeling the coach was spying on the gamers, but that could be a linguistic issue."*

There are **potential ethical implications** of using a 'hidden advisor' who gains the trust of young people online, especially if terms such as 'hidden script' and 'hidden counselling' are being used. Even though the intention is benevolent, gaining trust while **being hidden is a method used by online perpetrators**. Not only could such a programme make it easier for online perpetrators to gain the trust of young people who may be vulnerable, professionals are also not exempt from being potential perpetrators. **Parents (for example) might find this approach / terminology concerning.** One important question is whether the young people are automatically monitored/influenced by participating in the game or whether they receive offers of support / advice which they can decline. **It is important to consider the willingness of young persons to be advised.**

Respondents made **distinction between providing social help online and doing it in the embedded and hidden ways**: *"Approach young adults for social help is ethically approved, but approach someone virtually online can be problematic unless the counselor's identity is revealed upfront - which pretty much goes back to the conventional, in person way. "; "I would imagine there would have to be some form of disclaimer / consent regarding use of information that could be quite personal through 'hidden' advisors embedded within a game."* **It is important to reveal the intention and presence of embedded advisor roles from the beginning if such are used**, *"it may perceived by young adults from vulnerable groups as a treachery to discover it out"*.

Some concerns were related with the contextual situation where hidden advice was provided – **game was not considered appropriate or described at sufficient details**: *"Reaching target groups can be done online, but I just don't think that 'game' environment is necessary*

or helpful”, “luring youth in with a game, it could be explained in more detail.” The **pitfalls of using multiplayer games as medium were related with the lack of interaction opportunities between players and the facilitator**: *Many multiplayer game and the online programs are well designed, but keep the youngsters and the facilitator in a distance and each one alone. So they miss the interaction, sharing ideas and promoting a productive dialogue.* “

One respondent mentioned **the concern of privacy in game environment, being not suitable for going in depth to advice**: *“My concern is whether the young person will engage as games is usually played as a form of escapism, also if the young person engages they may disclose a number of personal matters that may be difficult to deal with sensitively via a game.”*

It was suggested the advisor **to contact the young adults from vulnerable groups rather in their activity places**, such as the depicted skatepark.

S3. Social facilitator scenario to mediate AE and services

This was the main scenario that we could find in the actual case studies. However, there were **variations how access to young adults’ groups with vulnerability was gained**. The informants found the scenario feasible but they reported also, that **several young adults from vulnerable groups may benefit from the advisor mediated AE access scenario, while others cannot be accessed so easily**. *“It definitely works for young adults who want to be financial independent yet find subjects taught in school useless. Social intervention and redirection to vocational training can help these people. But there are some young people who seem unwilling to participate in either education or work life.”*

The payed advisor role is at present in many different institutions, it has the most potential in bringing young adults to AE opportunities, compared if each AE provider would reach out by themselves to young adults. At AE institutions there are communication specialists and programme managers who are responsible for advertising the programme to target groups, but they use more the written and social media and events forms, where young adults from vulnerable groups may not be found.

It would be important that the advisors have access to dynamically updated databases to AE opportunities.

The inadequacy in advising may emerge from the lack of suitable offers for young adults from vulnerable group: *“There might be various reasons to fail providing advice: social facilitator does not have the right contact or resource that young people are interested in; bureaucracy and paper work that drag the whole process and diminish young people’s interests; general disappointment to the society that cannot be solved solely by life goal interview.”*

One proposed way of accessing young vulnerable adults after contacting at advisory office was a face-to-face home visit: *“after sending a message, a youth worker could even visit the young individual in person. It is often the case in Finland with youth that are hardest to reach.”*

One concern in **cross-accessing young adults from vulnerable groups’ related information**. Such information should be provided in protected databases of personal records. Such an information should be cross-accessed by different advisors in different institutions, such as social workers, rehabilitation centres, youth centres etc. Respondents ask: *“Where does the youth center get their information? It would be more likely that a state/municipal agency (e.g. under Ministry of Social Affairs) processes this sort of personal*

information. The youth center might be a facilitator of some kind, but in real life, they could never possess the type of information.” One respondent was concerned that if the counselled young person, who is transferred from one advising point to another, would discover that the advisor knows specific information about him, this might invite **distrust and data privacy concerns**.

Several respondents believed into the social facilitator in youth center or vocational school scenario *“it’s perfect”, “the idea of the social facilitator is amazing”, “the facilitator’s idea is very good for Greek reality. Vulnerable population groups do not reach out to counseling centers. They usually approach institutions that provide financial aid, their children’s schools and primary health services.”*

The **personal contact in advising in safe place is considered the most important to trigger motivated interest of the advised person**: *“From my perspective the whole process of inspiring and guiding the young man started in a wrong way. The scenario is missing a personal contact with the young men, the safe space where the young man can express his concerns, the participation of the young man to his potential option, the free willing of the young men for his next step and the entire participation of the young man for his decision.*

The proposed advisor scenario as it has been revised by one critical evaluator could be:

As the Social facilitator gets informed that young man is dropping out of school he should be trying to **gather fieldwork information** from school unit regarding the young man absence. He can make a research in order to understand the background of the young man. **Understanding also the protective network of the young man** could be helpful.

Social worker should try to **meet him and face to face at the school context or visiting him at his home**. Meeting him face to face, the social facilitator should aim to **gain the trust of the young men and he should create a safe space for him** in order to gain to increase the possibilities the young men to share his concerns and minimize the risk of rejecting the support.

One-to-one counselling should not be done in FB Messenger Chat: Invite young adults from vulnerable groups through the social application and send opportunities is a bad practice as that way is impersonal and not promote the human interaction. Also with the use of the social app, the social facilitator miss all the important and concrete information that he can gain through the fieldwork. **The communication via social media app is bad practice**.

The role of the social facilitator is to motivate, to co-lead to inspire the young men and not to take decision for him. **The social facilitator should co-work with the boy and together to explore the options the boy has. Bad practice is not including the boy to his potential options he has**. If the youth centre is the best option for the boy, a **decision should come from the boy and not from the social facilitator**.

The **social facilitator has to be the focal point among the boy with the Youth centre. The social worker has to accompany the boy for the first meeting** at the Youth centre and **not sharing personal information with third parties**. In that way there is **smooth transitional phase** of the boy and a **stable inclusion** at the new context of the youth centre.

Another **gab in that scenario is the lack of the Information Sharing Protocol**. The social worker should not share information so easily.

Using interview guidelines, that would be more immersive and closer to the communication forms of young people was considered important. One respondent comments: *"The interview script must be adaptable and not biblical... Furthermore conversations with a career adviser would be useful."*

S4. Alumni network to spread the AE opportunities to inner networks

Many respondents found the scenario **applicable, very important and useful, there is the need to maintain connections with alumni and employers, and reuse the possibility of alumni as mentors**: *"This scenario is very interesting and could be useful. As someone who has coordinated work-related mentoring programme, it requires a lot of effort from the coordinator and very strong connections to employers who are willing to participate in employing young adults from vulnerable groups"; "a very important application as it enables feedback and makes the school a point of reference even after graduation"; "it is very helpful for the carrier to be a benchmark after service"; "Fantastic means of encouraging leadership and a great way of showing successful engagement in the Whatsapp course. It will be important that a variety of candidates become mentors to ensure it engages with a variety of young adult learners"; "young people being AE agents among other young people is a working solution".* There is the critical need for motivating such an agency to promote AE among peers. **"provide incentives for people who want to study"**.

The critical issue in AE institutions is **that there aren't such follow up tools of alumni**.

Second issue in case if such alumni follow-up is made is **the data protection and privacy**: *"due to the protection of personal data, the beneficiaries of some programs cannot have this application. We are obliged to observe anonymity."*

On the other hand, S4 scenario was considered idealistic and plausible by several respondents. *"I think it's idealistic to all social networking regardless of contextual backgrounds. It's the most common, positive imagination and it does work likewise most of the time."* **"This is a plausible scenario, since it uses a positive role model "expert by experience" to make learning more appealing, that does not fit with the young adults from vulnerable groups thinking about the positive image of learning."**

S5. Social Help network to provide additional support to access AE

The social help scenario got mostly positive responses. **This scenario illuminates the aspect that the needs of young adults from vulnerable groups are diverse, and the social help network may provide support that the central services do not provide.** Respondents write: *this scenario is exemplifying a case where different types of services are utilised in tandem to benefit the client"; "Special educational need is extremely diverse. In my country it's an everyday struggle for special education providers and those who need it"; "the establishment of social services matching the needs of people who have nowhere to address"; "the exploitation of volunteering to avoid leaving school very nice idea"; "learning barriers and the exploitation of volunteering is an important solution".*

S6. Course with WhatsApp to be extended to alumni network mediation among inner networks

The learning activity with WhatsApp support was considered relevant in S6 by many informants. *"This scenario is the most coherent one. This sort of micro-learning and micro-crediting of learning through mobile technology etc. is already being used and developed in many places for vulnerable groups but also to those who have no time to study for other reasons. Similar ways of studying are also in use in AE VET in Finland"; "I think it could*

work in our second chance school to keep learners close to school”; “could be perfect as most of our beneficiaries are **familiar with what's up**”.

Some critical aspects were mentioned: “We use different social apps but smart phone is very common for information, resource, recreation etc. But there is a subtext of 'using smart phone' that educator/trainer should be aware of - it is never going to be the same as using other device like pc for online courses. **I don't think people would pay the same concentration on cell phone as they do for pc or in a traditional classroom because of different nature**”; “nor technology either social services do such in depth work”

This requires different course design: “The mobility and convenience of phone should be taken into course design; **the loading and assessment mechanism should be different from traditional online courses.**”; “It could be decided when and what videos are shared to avoid people not seeing it purpose”.

Beyond specific scenarios some general concerns emerged with the comics based visual scenario approach:

Target group and usages for scenarios:

The scenarios were developed for promoting the formative feedback, and for easy storytelling during the design process about the development options for **interaction between different stakeholders using social media**.

Some other ideas were offered for using the scenarios. Some respondents thought using interaction scenarios could be useful and that they haven't seen anything like that before. They believed it to be innovative and excellent **tool for showing information for all the stakeholder (people that are involved in supporting the young adults from vulnerable groups)**. One respondent said that as a working social worker she didn't learn anything new but could find these scenarios useful for new starting social workers, who don't have a counselling experience. They both said that they would like to **use these as study materials to explain situations and how to help young adults from vulnerable groups in the educational system in general**. One respondent asked: “Are the scenarios aimed at practitioners, young people or both?” In our evaluation, we did not use the scenarios for gathering feedback from young vulnerable adults, that would be still necessary for full evaluation of the interaction models in the proposed reference framework.

Critical issues related to comics images: Overall, **the graphics for scenarios need to avoid stereotypisation that might invoke stereotypization**.

Racial/ethnic/gender stereotypization: Example: “At S6 the young man (young adult from vulnerable groups) has a darker skin colour than the two professionals. If this is to represent diversity it is a good idea but should then also involve practitioners – otherwise I could see a risk that people could perceive this as a degree of **racial/ethnic stereotypisation**”; “quite a lot of lost young men in these examples. Maybe for the sake of equality, some of these “lost souls” could be women.”

Behavioural stereotypization: “The fact that the mother sits on the sofa on two of the pictures, **asks for social benefits and security** in the first picture and in subsequent pictures is **described as ‘too busy’ or not having time** bears the risk of **invoking prejudices** about mothers in general and refugee/migrant women in particular.”

Motivational and mood stereotypization: *“The facial expressions of most of the characters also seem quite unhappy.”*

In S6: *“The body posture of the adult educator course developer in the first picture suggests a degree of resignation.”*

The stereotypization of young adult from vulnerable groups in the cartoon format in S2 was considered not realistic: *“The depiction of an aimless youngster as a boy who's into skating and games is a bit stereotypical and probably doesn't represent the reality. He seems to have hobbies and is active in many ways. In Finland, the problem are those young people who are depressed and do not even leave the house.”* **More aimless, depressed and isolated ways of describing young vulnerable adults** might have been used in the cartoons. However, some of these situations and moods are difficult to be represented at images without stereotyping.

The scenes at cartoons may show too speedy and optimistic progress, and do not show the **trust building as a lengthy process**: *“The leap from playing a game of some kind to enrolling to a school is a bit too sudden. In reality it might take a long time to build trust and to meet face-to-face with a counsellor”,* it was perceived from scenes that *“the particular scenario lacks of the personal interaction of the Facilitator with the youngsters.”*

Some informants indicated that the cartoon of S1 showed social worker professional role unsatisfyingly depicting them *“acting more as sharing information assistant rather than a qualified social worker. That means she has to build bridges among her and the young man, to include him at the decision-making process and not stand only at the FB communication line.”* Another respondent added: *“the appropriate use of social media improves the quality of life of learners, rapid dissemination of information and networking. We see it in practice.”*

Depicting the young adults from vulnerable groups at cartoons does not enable to show the age precisely, however the Edumap WP2 discovered that in different countries the regulations that imply for young adults from vulnerable groups are dependent of their age groups, and the age ranges differ. Both of the interviewees in Estonia wanted to get additional information about the age of the young adults from vulnerable groups: *“It is important to understand if they were under 18.”* They pointed out that variations in the age range of compulsory education differs in every country and that is why they wanted to know how old where the young adults from vulnerable groups in every scenario.

Several participants had general concerns regarding social media:

Social media itself is only a tool to try to get young people to go and get more information face-to-face. The **most vulnerable people are out of reach for any social media**. They **require much more personal contact from professionals**.

Social media should have some prerequisites to be an effective tool for supporting young adults from vulnerable groups to access educational opportunities:

- 1) to **promote the interaction among the members**;
- 2) **not to cancel the physical interaction** of the members;
- 3) to be part of the intervention and not the intervention itself.

Summary of general findings about the scenario application:

The interaction scenarios must consider some critical problems: access to different young adults from vulnerable groups, ethical implications of suggested interaction behaviours, data protection & privacy, linguistic issues, stereotypization of stakeholders at scenarios regarding racism, digital equality, gender equality but also stereotypization about their roles, motivations and behaviours.

Other ideas for scenarios to promote AE for young adults from vulnerable groups

Several idea seeds were shared by the respondents how to help young vulnerable adults to get access to adult education.

Role model mechanism, affection, young people's interests such as:

- Youtuber idolizing to attract young adults from vulnerable groups' attention (it's difficult to be an educational Youtuber thou). Finnish respondent wrote: *"One thing we began thinking about only after conducting the Finnish CEM interviews was that we didn't ask if the young adults from vulnerable groups had any social media idols or personalities they followed, who would have similar background or live struggles than them. Or who had perhaps graduated from similar programmes for young adults from vulnerable groups. Finding and utilizing these kinds of social media personalities could be useful way of collaboration for AE organisers and programmes"*.
- Using popularity and channel flow to spread important information in social media, it can be educational itself or a resource sharing.
- Social media groups of youth organizations, youth centres may be useful channels for sharing information about adult education opportunities for young adults from vulnerable groups as well. These could be used to provide success stories (pictures and biography) of vulnerable young adults thriving in vocational education following prior disengagement in learning. This should be put on more popular social media platforms like Instagram and Snap Chat, Instagram. The critical issue is to find such role models who would like to show about their life. The interview with the communication specialist of vocational education central Facebook page in Estonia revealed that such campaigns hare difficult to organize due to finding role models who agree to be filmed, also the information spreads in social media mainly among the friends of these people. Funny videos on Youtube about adult education premises could be a solution, since these spread across friends and acquaintances and may become viral and catch attention of young adults from vulnerable groups. Narratives of well-known actors, singers, athletes about how they benefited from similar services for their professional development could be used to promote AE and second chance education.
- Update AE success stories via newscasts, through favorite TV series. Especially, scenario writers could include such scenarios in the favorite series of the learners. That is, to introduce young people out of work and education who take advantage of social media and manage to change their lives.

Implications

Scenarios serve as the reference architecture to plan and develop communicative ecosystems in AE.

The main stakeholders' roles (WHO?): Young adults from vulnerable groups, advisors, communication specialists, educators

The vulnerability groups cannot be described by official categories such as NEET, migrant or refugee background, but vulnerability associates with complex combination of cultural, educational, social, economic background, the passiveness to take part of active life, regional, literacy or language constraints and disabilities, gender constraints and digital equality and literacy. For each country the young adults from vulnerable groups must be specified and their media and communication patterns described based on social, information, media layer and agency. The communicative ecologies of similar young adults from vulnerable groups vary. The trends that affect access to young adults from vulnerable groups associate with their accessibility: in specific places (like refugee camps, schools); difficulties in identifying their localities (like school drop-outs, long term migrants); according to the services they are accessing (such as people who get social services) and needs (passive young adults from vulnerable groups, with low communication competences, self-regulation and literacy, young adults from vulnerable groups in remote locations). To tailor the needs of different young adults from vulnerable groups the communicative ecosystem needs to have several interaction paths.

Other important roles are advisor role, communication specialist role and educator role. In the regional communicative ecosystem several complementary roles may be needed to support different young adults from vulnerable groups. The orchestrated handling of information and media layer and social layer must be achieved between the advisors', communication specialists' and educators' roles.

Face to face and digital networks and organizations and physical places (WHERE?)

The main stakeholder organizations providing advising services, educational services, supportive services should be identified. Some of them have complementary roles. Similar interaction practices with information and media layer must be introduced across complementary roles. For example, how the data of young adults from vulnerable groups can be updated in databases; how to hand young adults from vulnerable groups over between advising, supporting and teaching stakeholders as they progress.

Information, shared meanings and representations, data (WHAT?)

The data about AE opportunities and about services must be harvested dynamically. The data of young adults (if tracked along life path) must be protected, the linked data approaches should be used across different data recording systems to enable also the application of future intelligent decision support engines to be used in providing relevant and tailored AE advice.

The tailored to young adults from vulnerable groups' media content and presentation forms about AE should be developed, that can be used by different platforms, and social media channels.

There could be motivational packages to scale up the access to all young adults from vulnerable groups (e.g. gamified approaches to collect badges, points, achieving small successes through different personalized life paths and by also showing responsibility as active citizen such as mentoring or helping or participating in shared economy based service provision to the others). One of the future features in educational opportunities' databases and supportive services' databases is the intelligent recommendation tailored to personal needs but also predictive data models.

Media, digital media platforms, data platforms and databases, software (WITH WHAT?)

The growing dependency of corporate controlled social media such as Facebook and WhatsApp is predicted. Corporate media layer defines the interaction opportunities (free and paid) that can be used for advertising AE opportunities with games, promotion campaigns or other means. Separate empirical studies are needed to define the success of such campaigns and games. For example, the harvesting of data from communicative interactions, if implemented in the regional communicative ecosystem for accessing AE could be useful to make evidence based decisions about the effects of actions.

The main pitfalls in agency (resources, literacies) and opportunities to facilitated agency to support the goals (SCAFFOLDS)

The emerging social sharing economy shows potential in providing educational and supportive services through help networks models, increasing the active participatory citizenship competences among young adults from vulnerable groups, and enabling developing informal networks and increasing social cohesion.

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Tacchi, J., Sabiescu, A. (2019). Edumap Deliverable 4.1.

Interaction scenarios:

S1 Communication ecosystem with social media:

<https://www.pixton.com/schools/storyboard/e6ieff80>

S2 Hidden advisor: <https://www.pixton.com/schools/storyboard/97ek6mj1>

S3 Social advisor: <https://www.pixton.com/schools/comic/3epp70kk>

S4: Alumni network: <https://www.pixton.com/schools/storyboard/xjixt5am>

S5: Getting the right support: <https://www.pixton.com/schools/storyboard/4iqo27t4>

S6: Course with WhatsApp: <https://www.pixton.com/schools/comic/ja6n1tcb>