INTEGRATING VULNERABLE AND MARGINALIZED GROUPS INTO VOCATIONAL EDUCATION AND TRAINING THROUGH INNOVATIVE SOLUTIONS

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Abstract

There is high (youth) unemployment in several EU countries. These present the latest examples from e.g. Greece, Spain or Italy. Other countries such as Germany or Austria are suffering a brain drain, and consequent depletion of knowledge sources, due to emigration of highly skilled and knowledgeable people. To ensure a broad and productive regional knowledge base, which would enable innovation, regions should develop an integrated human capital agenda. A main pillar of such an agenda is the use of regional untapped potential. To date scholars have only examined the meaning of highly skilled workers as knowledge-holders thereby neglecting the role of vulnerable and marginalized (VAM) groups. This paper focuses on the (re-)integration of vulnerable and marginalized groups to the vocational education and training (VET) system and labour markets using innovative VET solutions such as the approach of mentoring, social media (Web 2.0 and 3.0) as well as social networks. Social networks in particular, contain potential such as the formation of regional social capital through the ability of learners to interact in common learning situations, which may raise regional human capital of vulnerable and marginalized groups. Vice versa, if human capital accumulates into a strong regional knowledge base, which can be used for regional (economical) issues, the result will be regional social capital increases.
Key words: *integration of vulnerable and marginalized groups, vocational education and training, social capital, human capital.*

Introduction

Human capital is moving to the fore of the European agenda. In the topic-related literature, authors such as Rodriguez-Pose & Vilalta-Bufi (2005), Florida et al. (2007) and/or Morais et al. (2011) stress the function of human capital for regions in both socio-economical and socio-cultural terms. One mentioned reason for the increasing popularity of human capital, which in this paper is understood as acquired personal skills, capabilities and knowledge which make people able to act in a certain way (Coleman, 1988), might be its recognised role as contributor to regional social capital. This contribution can be achieved by participating in social networks and the mutual exchange of information and knowledge within such networks as well as through untapped forms of learning like the social forms. Conversely, social capital allocated within families and outside family structures in, for example, social networks incorporated in school systems, VET systems and organisations and/or even work places, can contribute to the creation and increase of human capital. Coleman (1988, p. 101) states "Both social capital in the family and social capital in the community play roles in the creation of human capital in the raising generation".

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In the past decades, literature and research have mainly focused on the role of highly skilled workers as knowledge carriers or knowledge-holders (Growe, 2009; Florida, 2008). This can be explained by the fact that highly skilled workers possess a high quality and quantity of knowledge and are able to generate, exploit and anchor knowledge regionally (Smed Olsen et. al, 2010). Because of their fast access to new and external knowledge flows by e.g. co-operation and networking capability, the highly skilled are regarded as social capital shapers and accumulators. So far, the role of the so-called vulnerable and marginalized (VAM) groups such as (post) migrants (Yildiz, 2013), early school leavers and/or people with disabilities, has been neglected. To put this topic back into the spotlight, the main goal of the work described in this paper is to present social innovative approaches, such as the use of social networks and platforms, which contribute to the improvement of vocational education and training (VET), in order to support and motivate VAM groups to (re)-integrate into education and the labour market. The role of VAM groups as contributors to regional social capital may, thereby, also be boosted. This paper bases on the following theses:

(1) Currently, VET seems not to be attractive enough and may not obtain enough possibilities for the (re-)integration of VAM groups. In this case, collective learning situations could be improved by using solutions such as Web 2.0 and 3.0, as well as social networking and unused forms of learning. (2) The regional social capital might grow through improved integration of VAM groups into VET structures due to learners' participation in social networks. This may also be supportive for new learning situations. To provide both theses this paper first briefly argues the importance of human capital in terms of social capital for regions and vice versa. It presents the VAM groups as regional untapped potential. Later, the paper summarizes some characteristics of VET and the vocational training scene. It then outlines the features of social media and social networks for collective learning (effects), as well as tools of Web 2.0 and 3.0, which could improve collective learning situations. Subsequently, examples of the integration of VAM groups such as (post) migrants, people with disabilities and/or early school leavers in vocational education and training (VET) and continuing education and training (CVET) will be offered. The paper concludes by summarising some advantages of the development of innovative approaches such as social networks and unused forms of technology-based learning and discusses their role in the process of building regional social capital.

As the methodological basis of the theses a mix of qualitative research was accomplished, which was extended by quantitative questionnaires. The methodological mix includes a basic research on social and human capital by using literature overview and studies. Moreover, an applied research was conducted on the improvement of the current VET system situation and the learning methods to support the (re-)integration of vulnerable and marginalized groups into VET and later into the labour market. For the qualitative research results of focus discussion groups and evaluations of developments in VET systems and in carried out projects were used. A questionnaire for experts of LLL and experts of education were added as the quantitative part. The realization of the described research was supported by LLL Leonardo da Vinci sub-programme "Transfer of Innovation" including the projects IBB2, DIMENSAAI and Net-Knowing 2.0.

Human Capital, Social Capital and Social Networks

In this article, social capital is defined as both individual-focused, (bringing advantages for individuals) and group-focused (sharing common advantages within and throughout a network). Both definitions are understood as network-related benefits for network members. Regarding network members as regional actors and multipliers (Bourdieu, 1983) their individual and group-related benefits can, by sharing the acquired knowledge with the outside world, bring potential advantages for regions and depending on the information, be a possible boost for regional growth. Putman (1993) points out, that an existing regional stock of social capital can be important for economic development. Correspondingly, Bourdieu (1983) and Bourdieu

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& Wacquant (1992) define social capital as a sum of actual and potential resources that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalised relationships of mutual acquaintance and recognition. In other words, social capital is a resource, basing on the belonging of persons to a group (Bourdieu, 1983, p. 191) built on mutual exchange. Putman (1993, p. 36) quotes, "(…) "social capital refers to features of social organizations, such as networks, norms, and trust, that facilitate coordination and co-operation for mutual benefits". Boshuizen (2009, p. 25) summarises these ideas in the following terms saying: "The principle of social capital is that individuals are able to access resources via others". Thus, "(s)ocial capital is defined by its function" (Coleman, 1988, p. 98) and is "(…) less tangible yet, for it exists in the relations among persons (Coleman 1988, p. 101).

In the context of lifelong learning solutions social capital might be recognised as e.g. a faster access to resources such as information and knowledge. Within the networks knowledge transfer, knowledge generation and exploitation can be the added value, which at its best may result in regional innovation (Malecki, 2012). Moreover, social capital may help solving problems of individuals and their learning situations. "(These) effects may vary depending on the needs and the human capital of those accessing social capital" (Greve et al., 2006). Or as Putman (1993, p. 36) notes: "Social capital enhances the benefits of investments in physical and human capital". This paper focuses on the contribution of VET and, in particular, social innovative approaches for (re-)integration of VAM groups into education and labour markets. In this context, it would like to assign an essential role to the individual and common learning effects, which are regarded as social capital, emerging within and throughout network co-operations. Referring to Coleman (1988, p. 101) "(…) the concept of social capital allows taking such resources", which occur through co-operations and trust-related behaviour in co-operations and "showing the way they can be combined with other resources to produce different system-level behaviour or, in other cases, different outcomes for individuals".

Common learning possibilities can emerge within bilateral relations such as the concept of a mentoring process, but foremost within social (learning) networks, which are characterised by the interweaving of autonomous actors, which should be at least three equal parties (Butzin, 2000). These networks can be supported by new web solutions such as Web 2.0 and 3.0, which can bring added value to all members participating. Scholars such as Granovetter have already emphasised the positive effects of contacts and co-operations within social networks for individual career paths. Granovetter (1974) presents in his studies "Getting a job", that co-operations and contacts can boost carriers. In relation, he particularly stresses network relations and the ties between the network members who bring in new knowledge and information flows (Granovetter, 1973). Therefore, VAM groups should also make full use of the networks for their educational and job-related paths to increase skills and their capital. Additionally, if the knowledge carried by workers, which they had acquired in the networks, (Lawson/Lorenz, 1998) can be absorbed by and utilized in the region, or vice versa if workers are capable and aware of the *how* and the *where,* they can use their knowledge within a region, human capital is more likely to become social capital (Faggian & McCann, 2009a; Storper & Scott, 2009; Caragliu & Nijkamp, 2008). In other words, human capital may become social capital if workers' knowledge is able to unfold regional effects, thereby realising collective regional advantages and benefits. Thus, knowledge is recognised as one of the key factors for regional development (Malecki, 2010; Cotic-Svetina et al., 2008) setting up common regional learning effects leading to a common regional knowledge base. In turn, this knowledge base acts as an attractor for further knowledge carriers by absorbing external knowledge flows. At best, the absorbed knowledge flows into the regional innovation systems, which consist of organisations and institutions (see Triple Helix, Etzkowitz, 2008) conducting research, generates new knowledge and commercialises that knowledge to the outside world (Cook, 2007). Blöcker (2012) argues that humans make innovation. She regards innovation as work and justifies this by claiming that innovation is generated, transformed and exploited in knowledge-intensive working processes (Blöcker, 2010).

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VAM groups' Untapped Potential in a Challenging EU

The present discussion on human capital is enhanced by phenomena such as ageing society (demographic change), rising migration (OECD, 2013) and recent high (youth) un-employment rates in several European countries (Barbagelata, 2012) caused by, among other things, financial and economic crises. The challenging effects on the EU are manifold. Skills shortages have created a demand for workers in particular economic sectors in some regions, especially in MINT-based professions (mathematics, informatics, natural sciences, and technology). There is also a high brain drain incidence in specific EU-regions caused by the emigration of young and middle-aged people searching for better job opportunities. Regions affected by a brain drain, for whatever reason, are often negatively affected by a lack of knowledge in their regional knowledge base and their regional innovation systems. Often, it is particular peripheral and border regions which increasingly suffer a loss of knowledge carriers when the balance between immigration and emigration is disturbed (Stockhorst, 2011, Coenen & Fikkers, 2010). These regions can also experience an absence of internal social and learning networks and the connection to external knowledge flows.

Young people in particular, despite their skills and good qualifications, are often un-successful in job searches due to ineffective labour market regulations and the unsatisfactory conditions found in poorly functioning institutions. Often the difficulty in finding a job lies in the lack of information on job opportunities as well as in less information on the regional company structure. In addition, the consulting of young unemployed people seems in some cases be inflexible and little goal-oriented. Especially in cases of early school leavers and young people who grew up in families facing difficult social circumstances, the consulting and information management should be better organised. Just as in some EU-regions the labour market seems to be "nearly" closed to skilled young people, entrance to labour markets for (young) vulnerable and marginalized groups (VAM) such as (post) migrants, early school leavers and people with disabilities or/and without a VET history, is even more critical. Often held back by a serious lack of hard and soft skills these target groups enter a vicious circle of unemployment, social exclusion and psychological difficulties and later fall into age-related poverty as the Confederation of German Trade Unions stated in 2013. Employers' growing requirements for trainees and employees make it increasingly difficult for VAM groups to gain a foothold in working life. Entrance barriers differ from country to country compounding the transnational mobility of all workers and to an even greater extent, to VAM groups.

To prevent a possible brain drain and to compensate for the lack of regional knowledge, regions, regardless of the extent of their concern, need to develop appropriate concepts for the future set-up of a regional human capital agenda. This includes a mix of measurements based on five pillars of a human capital strategy: (1) exploitation of regional untapped potential, (2) retention of workers, (3) temporary attraction of workers, (4) re-attraction of workers, who once lived in the region and finally (5) the new acquisition of workers. Of particular relevance for regions is the first pillar, especially with regard to the untapped potential of VAM groups as listed above. However, the previously cited literature on the role of human capital and its contribution to regional economy and innovation capacity through knowledge, mainly addresses highly-educated workers or even the so-called knowledge elite (Faggian & McCann, 2009b; Trippl & Maier, 2007). In the context of knowledge generation and exploitation, the role of VAM groups remains neglected. However, these groups are of relevance for regions undergoing a brain drain. They are untapped potential and, at the same time, offer much capability for individual development. To go a step further, authors such as Yildiz (2013) and Saunders (2011) present a different view on VAM groups with a special focus on migrants or the so-called (post) migrants (Yildiz describes post migrants as the generation who did not have to accomplish the migration process themselves, but are second or third generation immigrants in the receiving country) and describe these as inventors and innovators within regional, and especially urban milieus and societies. Their cultural contribution to social and working life can initiate social

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changes and their international networks (migration networks) constitute new forms of cultural and social capital (Schmiz, 2010). Therefore, a special focus should be given to this group. In general, VAM groups should be even more integrated to social innovative concepts to develop fast and easy solutions for (re-)integration into VET and later into the labour market to make full use of their skills and knowledge.

Vocational education and training (VET) programmes, defined as 'a collection of educational and training activities', are organised to accomplish a pre-determined objective or the completion of a specific set of educational tasks. VET should be, and in many cases already is, part of lifelong learning strategies the remit of which is to meet the requirements of a knowledge society. It helps to develop and preserve human resources and knowledge, which are precious to society, and which need and depend on innovation, social cohesion and economic growth. Through fostering human resources, demographic developments should be equilibrated and vulnerable groups, and those marginalized to the point of exclusion, be helped to bridge the gap between a lack or non-recognition of qualifications and (re-)obtaining employment. VET includes initial education and training (IVET) as well as continuing education and training (CVET). A particular problem seems to be that VET systems in Europe are very diverse. Establishment of common rules to guarantee recognition of competences is necessary. Another problem is that the strategies of many European organisations, including the training ones, often fail to support lifelong-learners particularly those with special needs. E-Learning, utilizing social media including collective learning through social networks, Web 2.0 and 3.0 applications and techniques, mobile learning, social learning in connection with networking could all enhance knowledge sharing and efficient learning. Furthermore, social approaches such as mentoring can contribute, not only to the improvement of VET, but also to integrating people with special needs and requirements who wish to learn and work.

The Current VET Situation

In recent decades VET sectors have gained special attention from both research and decision making communities (Nevriye & Yazçayır, 2009; Martin, 2012). This has been demonstrated by changes in national policies and budgets allocated to vocational sectors. More public and private interveners have been involved in meeting the requirements and challenge of training new generations of appropriate manpower, which will in turn; fulfil the requirements of industry, trade and services.

It is difficult and potentially challenging to present a detailed picture of different forms of VET offered in Europe. Not only are the data inconsistent and incomplete, but also definition, particularly of CVET, is non-consensual (Bohlinger, 2004). For a programme to be considered as a VET program it should comprise of at least 25% of the vocational and technical content. "In comprehensive systems when students choose among general and vocational courses, VET programmes would be those which enable students to choose vocational courses which provide at least 25% of the content of the programmes" (OECD, 2003). For the definition in this paper, the term VET is used in the sense of including all forms of general and job-related education and training for the employed, as well as the unemployed and other groups at risk of exclusion from the labour market. The challenges for VET are to provide more opportunities for individuals to participate in vocational training courses, to improve the routes through which learners can use computers and IT for learning and to use approaches such as mentoring in order to integrate and to achieve the necessary competences and skill enhancements.

There should be opportunities for the validation of non-formal and informal learning (that are used by several people) so that people can (re-)integrate into society as well as into the labour market (ETUCE Conference, 2012). The importance of VET for all, particularly for those at risk of exclusion and unemployment and the aforementioned VAM groups, is clearly due to structural changes in the labour market. A decrease in demand for low-skilled work and the taking over of skills and decision-making by new technologies can be seen as structural

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changes in the labour market. European companies continue to shift production to low-wage countries where low-skilled and highly skilled work is estimated and paid at lower rates. The existence of structural changes in the labour market is generally accepted; many of issues of in-depth analysis of VET 'for all' are extremely controversial. Being at risk of unemployment and exclusion usually corresponds to inadequate, incomplete or obsolete qualifications or the non-recognition of qualifications achieved in several EU-countries (CEDEFOP, 2004; European Commission, 2003). One of the first problems is that the number of persons receiving training is high, but many of the VAM groups are unlikely to participate in training because i.e. (Bohlinger, 2004):

- In many countries, such as Germany, accessibility to VET and CVET is linked with a minimum length of employment
- Young qualified males are over-represented in VET; female, older, (post) migrants and long-term unemployed people are less well represented.

Often VET programmes are not oriented to the needs of groups at risk of exclusion and those, which differ from the needs of young people or short-term unemployed mothers. People with special needs such as the VAM groups are uncertain about potential VET benefits, have a negative self-image and often harbour prejudices caused by negative experiences during education and ensuing working time. People able to motivate and help them to integrate, such as mentors, are not used in VET and diversity counsellors are still not in place. Additionally, many existing VET systems fail to take full advantage of new ICT capabilities for generating and sharing knowledge within networks and also fail to develop and update innovative skills. E-Learning, by enabling lifelong-learning, has the potential to transform *how* and *when* employees learn to satisfy their work and life needs and acts as a catalyst for change and integration. ICT-supported social and mobile learning cannot be considered completely new forms of learning and should certainly be included in future VET programmes. In the following, we present a mix of approaches, which contribute to the improvement of VET and increase the human capital of VAM groups. In doing so, they indirectly constitute regional social capital.

Innovative Solutions for VET Improvement

Social Media, Web 2.0 and 3.0 in VET

The concept of Web 2.0 (O'Reilly, 2005) facilitates a new level of interaction making it easier to collaborate and share information. A huge benefit of Web 3.0 is the move towards being able to access data from anywhere. This is mainly driven by the heavy usage of smart phones and cloud applications. The idea is to ensure that users can access as much data as possible from anywhere, not just their home. Thus, the web is moving beyond Web 2.0 and 3.0 but many VET programmes are not exploiting the services Web 2.0 and 3.0 offer. The development of technologies like Web 2.0 and the networked world, in which we live and move, necessitates a new learning approach – connectivity – which requires trainers and trainees to have the capacity to deal with knowledge on a network and to continually acquire new information from within and outside the network. This corresponds to the increasing need for co-operation in companies and workplaces. Siemens (2005) recognised the importance of connectivity and pointed out that learning theories such as behaviourism, cognitivism and constructivism do not explore the impact of networks on learning. A mechanism to encourage "connection" would be a community i.e., a social network like Xing, LinkedIn or Facebook (Wenger et al. 2002). The current generation of web-based technology (Web 2.0), which is not mainly a technical revolution but primarily a social one, has a vast potential to create prospering environments that foster forms of learning which can be used flexibly thereby facilitating any-time and any-place interaction and communication and to bring forth individual and group-related social capital.

Mobile learning and social learning are new and relevant trends for IVET and CVET. They can be regarded as social capital, i.e., the advantages people possess based on their location in a social structure and through social relationships, which in turn, benefit their way of learning and the learning content in several ways (Burt, 2004; Boshuizen, 2009).

Social media, i.e. media for social interaction, lends itself very well to the support of collaborative activities within a community. It supports the idea of connectivity developed by Siemens (2005) where: information is constantly changing, learning takes place in distributed networks of people, learning is based on diversity of opinions, content and services are adaptable and responsive to the specific needs of learners. Social media based on both Web 2.0 and 3.0 offers the premises for fast knowledge acquisition and also supports learning within the communities. Kaplan and Heinlein created a classification scheme for different social media types in their Business Horizons article published in 2010. According to Kaplan and Heinlein (2010) there are six different types of social media: (1) collaborative projects, (2) blogs and microblogs, (3) content communities, (4) social networking sites, (5) virtual game worlds, and (6) virtual communities. Technologies include: blogs, picture-sharing, wall-postings, email, instant messaging, music-sharing, crowd sourcing, and voice over IP, to name a few. Many of these social media services can be integrated via social network aggregation platforms. The technical skills needed to use social media are quite low. Another important characteristic of such applications and "spaces" is the amount of decreasing differences such as those between teachers and the taught, between formal and informal learning processes and between education and knowledge acquisition/management.

The use of social media with web services and E-Learning improves the ability of learners/members to socially interact with the technology used (communication with technology) and to learn with it. Social media tools like internet forums, weblogs, social blogs, microblogging, wikis, podcasts, photographs or pictures, video, rating and social bookmarking are easy to use and can help to create a more dynamic community and provide an ongoing conversation which benefits members. Social media contribute to fostering democratic processes and the creation of social capital. But in the context of today's social-networked society and the rise of social media tools, new perspectives for VET will have to be considered.

Social Learning and Mobile Learning in VET

"Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behaviour is learned observationally through modelling: from observing others one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action." *Albert Bandura, Social Learning Theory, 1977*

The social learning theory proposed by Albert Bandura added a social element, arguing that people can learn new information and behaviours by observing others. This type of learning can be used to explain a wide variety of behaviours. Social learning is closed to communities (De Witt & Gangus, 2011). It is relevant for VET and contributes to achieving interaction, co-operation, communication and conflict-management skills in connection with new technologies. The widespread use of mobile devices like mobile phones, smartphones and tablet PCs, which are independent from power sources and can be permanently connected to networks, make mobile learning one of the future forms of learning in companies (MMB, 2011).

An overview of the main characteristics and potentials of these forms of learning for VET are shown in Table 1 (De Witt & Gangus, 2011):

Table 1. Overview of the two forms of learning.

	Mobile learning	Social learning and social media
Characteristics	Any-time, any-place learning; ubiquitous access to information; social networks and digital tools; personalised learning environments	Participation; collaboration; user-generated content
Didactic potentials	Extending the places and times of learning; situated learning; contextualised learning; informal learning; micro-learning	Learning in social networks and communities; informal learning; collaborative learning
Potentials for VET	Linking learning venues and workplaces; improving cooperation between learning venues	Active co-authoring; collaboration between employees in dispersed locations; transparency of work procedures
Limitations	Imparting and acquiring complex learning processes without integration into broader learning contexts	Traditional corporate cultures
Applications	Location-based services; augmented reality; QR codes; micro-blogging/social networking; GEO-tagging; RFID / NFC	Micro-blogging; social networking; social tagging; wikis
Technologies	Smart phones; Tablet PCs; e-book readers; mobile media players	Community platforms; micro-blogging tools

These two forms of learning are suitable for IVET as well as for CVET. They facilitate interactions and communication between learners dispersed across localities and is particularly important during the work process. Social learning is a part of building social capital and contributes to building and revising shared beliefs, norms and contexts. It also takes into account new awareness and settings where collective decisions and individual actions are needed. The spreading utilisation of mobile devices is affecting communities around the world and altering the ways we educate and communicate, collaborate and engage with one another. At the same time they are "transforming our ideas about identity, discourse, community, technology, knowledge, space and time" (Traxler, 2008, p. 3). Mobile learning would be an interactive tool between technologies, learning and social context. The two forms of learning certainly have disadvantages and there are difficulties in trying to introduce them within the VET. Firstly, there is a problem of acceptance; many training institutions do not have the technical and didactical capacities to use web tools and adapt training materials to these forms of learning. Social media platforms or web sites, particularly in public institutions, may be blocked due to security risks. The learning for work process is often hindered by the learning culture of CVET in many organisations as well as various and diverse web applications. Additionally, learning attempted in inappropriate situations such as on the train, etc. is not a solution for long-term knowledge acquisition.

The Mentoring Approach in VET

Mentoring has been used in Europe for a long time and has deep roots in ancient European society. Odysseus entrusted his kingdom to Mentor when he went to the Trojan wars. In classical Greece, young men often lived with more experienced elders to learn, not simply knowledge, but also skills and attitudes. The mentoring relationship was evident in the guilds of mediaeval Europe and the forms of apprenticeship that evolved from them. Mentoring involves not just guidance and suggestion, but also the development of autonomous skills, judgments,

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personal and professional master ship, expertise, trust and the development of self-confidence over the time involved (Kram, 1985; Richert, 2006; Hamburg, 2012). Many organisations generate approaches of mentoring for the integration and supported development of new staff. In the field of VET, CVET mentoring is particularly significant in trending institutions and companies. It is to be expected that the integration rate of people with special needs and the so-called VAM groups in such institutions is higher. At the moment, the use of mentoring in IVET is undertaken across conventional professional contexts i.e. visiting trainers as practice mentors. Mentoring can be applied within VET on-site if the company employs mentors. This has several advantages in that mentors are familiar with their company's work and organisational processes and know its routines and culture. They can estimate what types of knowledge are needed for company efficiency and what kinds of knowledge resources or knowledge base already exists. They are used to the working environment and can estimate hazards and situations, which could challenge mentees or their colleagues. A further advantage of mentoring relationships is the development of a mutual trust between colleagues, which may later become the basis of a mentee's daily work.

Becoming a mentor requires, in particular, social competences, professional competences and operating competences. Experience and expertise is necessary as well as being moderately extraverted. Motivation and responsibility are required in the mentor-mentee relationship. The mentee needs to be ready for professional development, open to learning and able to accept feedback. Time and initiative are also necessary. The company can gain benefits from mentoring within CVET by: introducing mentees quickly into formal and informal company structures, culture and demands, by facilitating a deliberate, systematic and smooth transfer of technical or internal knowledge, through providing opportunities to shape the workforce of the future in an international, deliberate way that meets company strategic goals and objectives and by providing training in social competences for mentees and mentors.

Mentees have the following benefits:
- Gaining a positive attitude and trust
- Help to focus on their future and on setting realistic career goals
- Encouragement of emotional and social growth
- Exposure to new experiences and professional backgrounds

Within CVET, mentees have the opportunity to meet with a trusted person, to access a work place quickly, to cope with initial problems and to discuss and resolve emerging job problems of a genuine nature and in relation to individual needs. Mentees are able to build relationships and be part of interactions, which allow them to strengthen and maintain their position and advance in jobs by choosing ways, which correspond to the work routines and social actions of other employees.

Mentors benefit from the following:
- Gaining personal and professional satisfaction particularly if helping a person at risk of exclusion
- Gaining recognition from their mentees
- Improving their personal skills, in particular their social competences and their social capital
- Obtaining a better understanding of diversity and societal problems

There is a broad range of mentoring relationships, which can be used in CVET, ranging from informal or spontaneous mentoring to highly structured and planned mentoring. Informal mentoring is created when the mentor has a special interest in the mentee, e.g., if the mentee has been identified as a potential employee. This form of mentoring is particularly suitable for mentees with special needs. Formal mentoring is when the relationship is supported by the organisation so that more participants can benefit.

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Effective mentoring practices include:

- Involving mentees in deciding how the pair will spend their time together
- Mentors maintaining responsibility for keeping the relationship alive
- Respecting a mentee's viewpoint
- Separating mentor goals from those of the mentee
- Not focusing on the negative aspects of the mentee
- Seeking and utilising the help and advice of VET program staff

Organisations are interested in using mentoring within CVET to improve job performance by increasing employees' capabilities to manage their own performance with an emphasis on trust, experience and supervision, to facilitate performance in the organisation and to support retention and leadership development. Mentoring relationships are one way in which individuals can gain access to social capital, which includes information and social support that can be helpful in the VET and in the development of legal careers.

Examples

In the following some European projects are shortly described referring to the use of social media and mentoring. Fifteen representatives of SMEs from the business area software development, IT consulting, SME consulting, training, high education and research, CEOs, entrepreneurs, training responsible and IT have evaluated the basic course. The presentation and training by using the advance courses have been done in the "HAGENER Agentur" in Hagen/ Germany (at the German network Wisnet) and at the Institute for Work and Technology (IAT) in Gelsenkirchen/Germany. A forum has been organized with the topic of using different forms of learning in CVET on the "provadis" platform, which is a communication platform for the Wisnet partners and also contains useful training solutions for the CVET in SMEs.

A project aimed at using informal and social learning, Web 2.0 and networking in CVET is Net Knowing 2.0 (www.netknowing.eu) (Hamburg 2011, Hamburg & Marian, 2012). Two main CVET products of Net Knowing 2.0 are a self-learning basic course which focuses on the benefits of informal learning for SMEs and how to learn using Web 2.0, social networks and net collaborating practices and an E-Learning advanced course which focuses on the implementation of Web 2.0 based informal learning, networking strategies and mentoring in SMEs and other organisations.

Figure 1: Screenshot of the Net Knowing 2.0 learning suite (source: http://cop. netknowing.eu).

Net Knowing project workshops with companies have been organised in partner countries to discuss tactics with SME representatives with a view to implementing a mentoring programme in their CVET. For a mentoring programme to be successfully deployed within the specific context of an SME environment, some factors have to be considered such as putting the specific working environment into context, researching the role played by the organisational culture or "climate" in the development, the maintenance and success of the SME, determining which knowledge gaps can be reduced by a mentoring system and the qualification needs of staff. SME managers have to be convinced that mentoring interventions are not bureaucratic and therefore have real benefits for CVET. Before a mentoring process can start, any barriers to effective mentoring/coaching issues that need to be incorporated within the mentoring/coaching intervention have to be cleared. Figure 2 presents a screenshot from the learning suite within Net Knowing 2.0 including a mentoring part (Hamburg & Marian, 2012). A community of practice (CoP) supported by a social platform (http://cop.netknowing.eu) using Web 2.0 and social media a facility (i.e. forums) has been connected to the CVET modules. Companies of all the European project partners have tested the CVET module. Improvements, particularly for the self-learning module, have been made i.e. with reference to the correlation between text and graphics, exercises, etc.).

The LdV innovation transfer project IBB2 (Inclusive Disability Care – www.lebenshilfe-guv.at/ueber_uns/eu_projekte/ibb_2) aims to support an inclusive CVET of workers with learning disabilities to help them during job entry. The main project result was a support system geared toward the needs of all people involved in the process (employers, colleagues, and inclu-

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sive care workers). The model is based on three modules which provide an analysis of the future workplace and the legal framework (laws and regulations) plus the development of a special Diversity Team Workshop which the inclusive care worker can use shortly before job entry. The final module deals with the mentoring process taking place between the inclusive care worker and the mentor. The model is supported by a web-based platform (*www.ibb2.com*) and tested by the use of social learning methods in each of the partner countries. It has been improved and distributed in many European countries. The employment of people with disabilities and supported by mentors has been one of the care sector's positive results.

DIMENSAAI (Diversity and Mentoring Approaches supporting Active Ageing and Integration – www.dimensaai.eu) is a European LdV innovation transfer project. By transferring a mentoring model from former European projects like IBB2 to Germany and other partner countries, the consortium intends to improve participation in VET and employment, particularly for disadvantaged groups, by using a social innovative VET process which includes mentoring that focuses on social networking and health and care sector workplaces (Hamburg, 2013). Focus Group Discussions with educators, social actors and target group representatives (one group consisted of people with disabilities) were organised in all partner countries to discuss target groups' needs for VET and work integration and how a mentoring process could support these processes. The results were used in the next steps: the development of a catalogue of competences for target groups' mentors, workshops on diversity and the development and testing of the mentoring process. Social competences training will be carried out alongside training of professional and diversity competences. It was discussed how social networking using social media can support social learning which is an important element for people with special needs. A social network supported by a web-based platform (Figure 2) for innovative online training, with forums for information exchange, solving problems and collaboration is being developed within the project (www. platform.dimensaai.eu).

To develop platforms in the three projects the tool TikiWiki CMS Groupware, a free and open source wiki-based content management system was used, which facilitates social media applications. It is important to discuss integrative VET with the organisations' employers and the VET organiser in order to improve the building of social capital in their programmes through social learning in co-operation-based interactions.
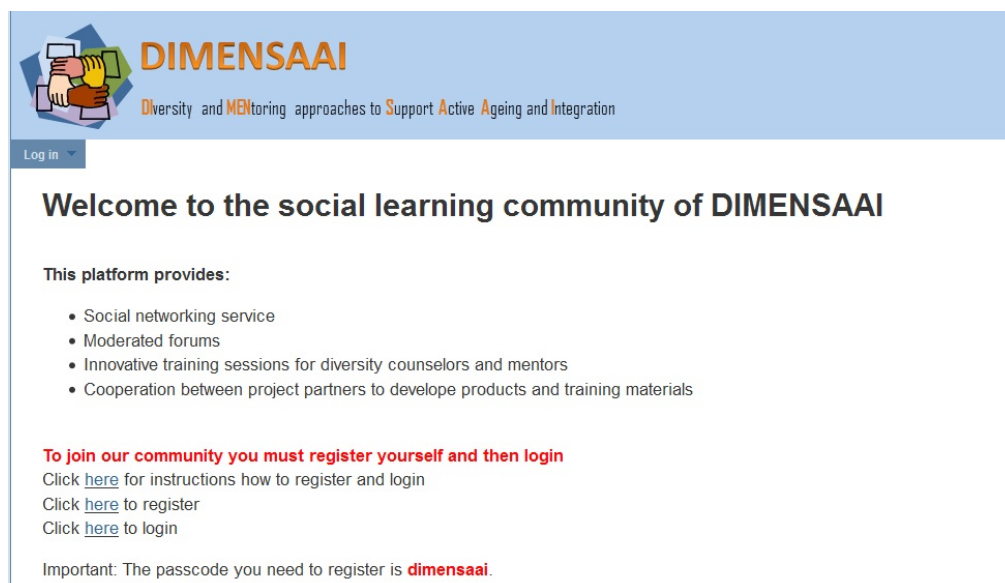

Figure 2: Screenshot of the DIMENSAAI Platform (source: http://dimensaai.eu).

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Discussion

The summarised results from several Europe-wide accomplished projects based on the analyses of VET structures, confirm that VET programmes need improvements to support VAM groups in their (re-)integration. This paper argued that using new forms of learning, especially in social networks, could, under certain circumstances constitute, regional social capital firstly by its ability to co-operate in a network and secondly by producing knowledge and information as added value to each single network member. To improve VET integration for VAM groups, the findings would suggest the use of social media and web facilities, which make VET more attractive and flexible, particularly to young people. The building of social networks and their use alongside traditional learning forms can be fruitful and create benefits for all individuals involved in network-based learning situations as well as for groups of learners. In line with this idea, the authors of this paper believe that social mobile learning should be a complementary form in VET although it is important to stress, that this form is not practicable for long learning periods. Even if network-based learning situations are often characterised by the constitution of social capital, this can also occur in bilateral relationships such as that of mentor-mentee. Ideally, the mentor approach is based on a trust-driven mentor-mentee relationship and supports a fast, and in many cases uncomplicated, (re-)integration of the mentee into work, by quickly overcoming possible teething problems.

Even if these new learning solutions valorise the attractions of VET and bring advantages to the VAM groups' learners, one must not forget the other side of the coin. The listed approaches have their limitations. For VAM groups, and in particular, people with disabilities, new technologies bring not only advantages but also hazards, which must be overcome. Moreover, in the context of new web solutions security barriers might appear which complicate free access and participation in social networks and network-related opportunities and which are not able to make safe the transferred information and knowledge within such a network. Another difficulty in improving VET programmes could be the VET trainers' insufficient knowledge in terms of content, integrative aspects and the use of new media and new learning solutions. If the social media, including social networks, cannot be used in an adequate way, a lack of added value and a loss of possible social capital may result. In addition, colleges and VET institutions complain of a shortage of skills in mentoring, showing several parallels to shortages in the care and health sectors. Another difficulty this paper would like to draw the attention to, is the matching-problem in some mentor-mentee situations. In terms of diversity, mentors need a broad knowledge base and, as well as the required hard skills, they must also possess several soft skills to handle new learning and working situations with the mentee. The mentor-mentee relationship, in addition to its professional function, is a relationship between two human individuals. Both need to find the human base/level to communicate and to appreciate each other's perspectives and be able to tolerate differences.

Conclusions

The argument in this paper is that to date, discussion about human capital has been very much related to discussion about highly skilled workers, their knowledge contribution to regional knowledge base and their feasible role in regional innovation. In the future, human capital will move to the fore on the European agenda, accentuated by demographic change, an anticipated skills shortage, the loss of workers through emigration, the search for adequate job opportunities all over Europe and high (youth) unemployment rates. Therefore, regions need to constitute a holistic human capital agenda, which focuses on regional untapped potential such as the so-called vulnerable and marginalized groups (VAM).

In contrast, it was stated that in this context, analysis of the roles of vulnerable and marginalized groups (VAM) has so far not been adequately carried out. However, VAM groups are also carriers of knowledge and through co-operations can contribute to the constitution and

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accumulation of social capital. To do so, a strong focus should be put on the skills, ability and knowledge of VAM groups. A step in the right direction would be (re-)integration into the VET system, and later into the labour market, of groups such as (post) migrants, early school leavers and/or people with disabilities. In this context, one must firstly consider the attraction of VET programmes for VAM groups, which in the authors' opinion, currently suffer from several deficits and need to be improved. Secondly, this paper argued, that an improved integration of VAM groups into VET and labour markets could increase VAM group members' human capital and by co-operation, also the individual and regional social capital. Therefore, this paper advocates the improvement of VET through existing services such as Web 2.0 and 3.0 and social media including networks and innovative forms of learning such as social learning and mobile learning. Following on from this, the role of social networks such as Facebook should be also mentioned, which have grown into global phenomena and are used widely for business, learning and overall exchange activities, such as blogs and wikis. As yet however, the benefits of these supporting platforms and Web 2.0 services are not being widely used in VET. Social networks are useful for improving VET strategies, for cooperation and keeping experts and learners in touch. They make a significant contribution to informal learning and can be used optimally if work-oriented content and suitable learning platforms are provided.

Furthermore, this paper wishes to stress the importance of approaches such as mentoring, which can contribute, not only to VET improvement, but also to the direct integration of vulnerable and marginalized groups with special requirements who wish to work. Similar to networks, such bilateral relationships are based on trust and common understanding. They are an alternative to theoretical learning through the concept of direct integration of VAM groups into given work situations. In this way, initial problems and hazards can be identified and resolved immediately. The mentoring approach particularly addresses people with less human and social capital and social support and has been proven as instrumental in improving the awareness of both terms.

In summarising, the authors of this paper plead for the improvement and enhanced accessibility of VET technologies and an increase of support in the (re-)integration of people such as those in the described VAM groups. In the future, VET should include approaches that enable individuals to develop their full potential. VET should also support knowledge development and creativity through their engagement within social and cultural networks; experience from academic context can support this process. These innovative solutions may also change the way in which the VET staff learns to interact with the learning content and technology in a social context and how to communicate this to peers. It is important to help the VET staff to have an open and adaptable attitude to new tools that can be exploited in the learning process. Situations, environments, frames and projects have to be created to develop critical thinking, to further develop staff skills and to prepare VET teachers to be effective in a globalized and competitive society. In this way they will be able to contribute to the building of regional human capital and social capital.

Acknowledgements

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