(Digital) Social Innovation through Public Internet Access Points

Christoph Kaletka, Bastian Pelka

Sozialforschungsstelle, Dortmund, Germany

{kaletka, pelka}@sfs-dortmund.de

Abstract. The post-industrial innovation system with its distinct focus on social innovation allows for theoretical and conceptual connections between innovation research and new fields of social practice. In this article we elaborate on the potential of social innovation and especially digital social innovation to tackle digitally excluded persons' needs. Public internet access points are key infrastructures driving the digital inclusion of marginalized persons. Empirical results presented in this paper shows that these players act socially innovative by creating collaborative spaces for digital inclusion, by developing hybrid staff competence profiles and by creating community-based, intergenerational learning content. The paper relates research perspectives from the social innovation and the digital inclusion discourse and argues against the background of research and development results of six EU funded projects on social innovation and/or digital inclusion in the years 2011-2015.

Keywords: telecentre, digital gap, digital inclusion, social innovation, digital social innovation

1 Introduction

As of today, there is a growing consensus among practitioners, policy makers and the research community that technological innovations alone are not capable of overcoming the social and economic challenges modern societies are facing. This is why the task of understanding and unlocking the potential of social innovation is on the research and policy agenda alike. The social innovation discourse is being driven by new projects, initiatives and policies, and by fields of practice which recognize SI theory and methods as useful drivers, and social innovators as powerful allies. The field is practice led. In this text we explore the common ground of social innovation and digital inclusion. Existing approaches and empirical findings on the role of telecentres as offline support structures for digital inclusion are introduced and discussed, with special attention being paid to their socially innovative character. A generic understanding of social innovation, as developed in ongoing research projects, is distinguished from a functional understanding in a concrete field of application. This leads to a better understanding the complementarity and the collaborative potential of social innovation and digital inclusion as two important fields of social research.

2 Background: (Digital) Social Innovation

2.1 Social Innovation

With the change from the industrial to post-industrial society, the innovation system shows an increasing appreciation of the "social" as a field of new ideas. Recent years have seen a new form of innovation emerging, both as an object of research and development: Social innovations (SI) appear in a variety of forms and influence our lives. They change the way we live together (flat sharing), work (tele-working) or handle crises (short-time work instead of layoffs). They enable new types of cooperation (co-working bureaus) and organizations (public-private partnerships). They are driven by civil society (urban farming), politics (parental leave), the economy (microcredits), or in-between sectors (dual studies, sharing economy).

As a first step, it is important to differentiate between two levels on which SI can be defined: a generic one, valid for all types and areas of application, and a definition referring to a specific area of action. On a generic level, the term "social innovation" in this paper is referring to a combination or figuration of practices in areas of social action, prompted by certain actors or constellations of actors with the goal of better coping with needs and problems than is possible by existing practices. An innovation is therefore social to the extent that it varies social action, and is socially accepted and diffused [1]. Taking into account that society changes through innovation, Howaldt/Schwarz [2] have pointed out that this understanding of innovation on the level of social action has an ever-increasing influence on society in the post-industrial era – while innovation after Schumpeter [3] had focused almost exclusively on technological innovation. Howaldt/Schwarz [2] conclude that "the contours of a new innovation paradigm are becoming visible and causing social innovation to grow in importance. This is accompanied by an exploration of the question of what (new) roles social sciences can play in analyzing and shaping social innovation" (ibid, p.2). Recent research within the project "SI-Drive" has tried to identify drivers and barriers as well as means to support and foster them [4].

Project name	SI-Drive
Funding provided	EU, 7th Framework Programme
URL	http://www.si-drive.eu/
Research question	How does social innovation relate to social change?
Main outcomes	World wide mapping of social innovations; SI case studies and database; policy dialogue and recommendations

In addition to the generic understanding presented above, there are numerous definitions applied in different parts of the world and in different areas of application [5].

A definition for this specific sub-set of SI which is compatible with the generic definition and at the same time conducive to better understanding SI's potential for the (digital) inclusion of vulnerable target groups – as targeted in the project "SIMPACT" - is the following: SI "refer to new ideas (products, services and models)

that simultaneously meet the needs of socially or economically marginalised groups more effectively and enable the society to create new or improved social relationships or collaborations leading to a better use of societal assets and resources" (ibid: p.3).

Project name	Boosting the Impact of Social Innovation in Europe through Economic Underpinnings ("SIMPACT")
Funding provided	EU, 7th Framework Programme
URL	http://www.simpact-project.eu/
Research question	How can social innovation for vulnerable people be economically underpinned
Main outcomes	Insights in economical drivers and barriers for social innovation for marginalised persons

Several aspects of the generic and specific definitions of social innovation presented above are of special interest also in the context of digital or electronic inclusion ("eInclusion"). Public internet access points (PICs) or telecentres are institutions that provide free internet access and help to raise the competences of digitally excluded persons - typical examples are public libraries, senior residences, youth clubs or dedicated public internet cafes that offer free internet access and support to their clientele. These institutions have shaped new practices of supporting vulnerable target groups by creating places in which to learn and spend leisure time, by creating new learning opportunities and principles (such as community-based learning), by creating local networks for promoting digital and social inclusion on the local level, and finally by supporting staff competences matching the multi-faceted profile needed to do the job. As chapter 3 will show, this development did not happen randomly or in few places, but well-planned and on a major scale. Through a continuous and transnational diffusion of the telecentre concept, they have become a widespread phenomenon meeting the needs of (digitally) excluded target groups and improving their capabilities.

The diffusion concept of social innovations as mentioned above almost always has a strong spatial component, meaning that a social innovation is implemented in different communities, cities or regions. This understanding of diffusion is closely related to traditional innovation research's concept of scaling [6]. One example for diffusion in this sense would be the emerging social practice of car sharing, which can be found all over the world, but which is organized differently in every city or community, not speaking about the fundamental differences of car sharing in first-world and third-world contexts. This concept of adaptive diffusion is important in order to understand the large-scale diffusion of telecentres throughout the world and, as analyzed by Rissola/Garrido [7], specifically in Europe. This diffusion resulted in a broad functional diversity of both the learning centres and their staff (cf. chapter 3.2).

Social Innovation and Cross-Sector Collaboration at Local Level

Although digital technologies are often used to connect people with similar interestst, the telecentres' mission to digitally and socially include vulnerable target groups has a strong emphasis on the local level and is focused on establishing or re-activating

local communities. One reason is certainly that exclusion and inadequate policies become visible in cities, suburbs and villages in the first place.

Social innovation perspectives on local development, in this context, have some distinct characteristics setting them apart from traditional innovation models. They focus on the increase of social capital facilitated by cross-sectoral collaborations between actors from policy, research, economy and the civil society. This collaborative principle is picked up by at least two different heuristic models, the quadruple helix [8] on the one hand, where government, industry, academia and civil society work together to co-create the future and drive specific structural changes, and the social innovation ecosystem [9] on the other hand, which also asks for interactions between the helix actors, adds the notion of systemic complexity and looks at both the serendipity and absorptive capacity of a system as a whole. In this system, civil society is considered increasingly important for developing new processes and collaborations in such helix structures aimed at social change on the local level [10], which can be exemplified by telecentres promoting social and digital inclusion (see chapter 3.1).

A Small-Scale Stakeholder Experiment

In a small-scale stakeholder experiment conducted in the SIMPACT project in September 2014 such cross-sector collaborations were highlighted as a central driver - understood as all factors which stimulate or facilitate the emergence of social innovation - for the inclusion of disadvantaged target groups through SI. The participants of this exercise (stakeholder organisations for vulnerable people, social policy makers, social innovators and researchers) pointed out:

1. A society's openness to change and the emergence of a "social innovation ecosystem" is crucial for SI promoting the inclusion of disadvantaged target groups. Supporting factors were seen in an intimate relation between society and innovation, naturally perceived co-operations and a policy framework supporting SI.
2. A rich, trust based and powerful collaboration environment promotes innovation processes. Features of this environment include the involvement of all actors of the quadruple helix in policy making processes and new and effective ways of knowledge creation and sharing.
3. Social media play a dominant role in the communication infrastructure of social innovators. Social media are used as cheap and easy-to-use tools for interlinking actors, exchanging knowledge and empowering vulnerable people to articulate their opinion and support the diffusion of good practices.

2.2 Digital Social Innovation

Many social innovation activities are driven by the use of ICT and cooperation supported via social media [22], which prompted research activities and the emerging research domain of "digital social innovation" [11]. Digital social innovation (DSI) is understood as "a type of social and collaborative innovation in which final users and communities collaborate through digital platforms to produce solutions for a wide

range of social needs and at a scale that was unimaginable before the rise of internet-enabled networking platforms" [12, p.4].

This definition, again, is more specific than the generic understanding of SI presented in chapter 1.1 and describes another sub-set of social innovations: While DSI are still social innovations in the first place, it stresses the collaborative and participatory character of problem-solving enabled by the use of ICT and digital media. The specific role of digital media in social innovation varies from case to case. In line with our results of the small-scale stakeholder experiments introduced before, digital media can be a central driver, but sometimes also a barrier for SI on several layers. Three such layers will be introduced and commented on the basis of our research results here: (1) the supporting or enabling character of ICT in general, (2) the use of standard or bespoke software solutions, and (3) the concept of spaces and place-making.

A central distinction is whether digital media have a supporting or an enabling role. "'Enable' implies that the SI wouldn't happen without ICT and could even mean that new types of SI appear (i.e. doing new things). A supporting role implies that SI is taking place anyway but also that it is, in some way or other, improved by ICT (i.e. doing existing things better, faster, cheaper, etc.)." [13, p.135]. Earlier we elaborated on the settings needed for a telecentre operating as a social innovation incubator. [23]

For example, ICT in telecentres can help jobseekers identify a larger number of potential employers and speed up the job seeking process (supporting character). On the other hand, blended-learning opportunities offered by telecentres help to include groups of learners who otherwise could not participate in the course at all (enabling character). This includes people with disabilities, people who live in remote rural areas and employed people who cannot attend courses at regular hours.

Another important distinction is whether social innovations make use of standard or customized/bespoke ICT. Many DSI cases use off-the-shelf ICT solutions, which are available and relatively cheap [13, p.4]. Such affordable solutions can enhance the speed of diffusion for two reasons: budgets for promoting social innovations are usually limited, so off-the-shelf software limits necessary expenses, and also the time needed for adapting software to one's own requirements is manageable. Telecentres generally use standard office solutions, easily accessible leaning platforms like moodle to implement distance- and blended-learning courses, and promote the use of open software. Without such easily replicable and adaptable solutions, the inclusion of new learning opportunities in the telecentres' curricula on a large scale and the diffusion of the telecentre concept throughout the world would have been severely impeded.

Although digital media support transnational cooperation and network-building, many cases of digital social innovation make use of place-related infrastructures and facilities. These spaces help to create local partnerships, build capacity in local communities and facilitate volunteer activities by using digital media. Examples of such local spaces are Fablabs, Social Innovation Labs, Hackerspaces, Living Labs, Impact Hubs, and also telecentres (cf. chapter 3.1). Millard/Carpenter conclude that such spaces "need to be multi-sectoral and comprehensive at the local level to ensure good impacts […]. Relationship building based on trust, ethics, transparency and clear, often shared responsibilities are also hallmarks of these cases" [13, p.30].

3 Telecenters for Digital Inclusion

This chapter is dedicated to the question where social innovation for the digitally excluded actually can take place. Following our initial puzzle of how digital inclusion could be supported, we earlier [14] differentiated three dimensions of digital inclusion instruments: In a first dimension, technology can be designed to avoid barriers and invite people with special needs; universal design is regarded as a fruitful approach here [15]. Secondly, online media themselves can be used to mediate and stipulate competences, solutions and assistance – online training or peer support networks are examples here. With this article we elaborate on the third dimension: "brick and mortar" welfare institutions (like senior residences or welfare centers) as "traditional" instruments, discovering the digital world as a new field of exclusion. Drawing from a series of research and development projects on telecentres, we can describe three ingredients necessary to make these "spaces" successful in reaching vulnerable target groups: A pedagogical concept of "space", skilled pedagogical staff and an appropriate learning methodology; a pedagogy for digital inclusion.

3.1 Space

The need for "offline" support structures for digital inclusion is obvious: As 22% of Europeans [16] do not use the internet regularly and 18% never accessed it, online support cannot reach them. This target group – predominantly elderly, unemployed or people with disabilities– can only be empowered through offline instruments addressing their special needs. A comparison on the European level shows that the percentage of "offliners" in a society is not set in stone, but strongly depends on the national context: Some European countries - as Denmark, Iceland, Norway or the Netherlands - see only 3-6% of their population never using the internet; in other countries - like Romania or Greece - numbers reach 39% [16]. With ICT entering everyday life in most countries, welfare organizations and public institutions (like libraries, cultural centers and youth clubs for example) have acknowledged the risks but also the potentials of the digital society for inclusion and empowerment of their target groups. They offer IT infrastructure, internet access, courses and individual support for disadvantaged persons on their way to the digital society as a new branch of their empowerment services. These institutions often have an established expertise in supporting these target groups and add "ICT knowledge" to their agenda. Other organizations were founded just recently and with the explicit aim of raising ICT competences. Both types – public internet access points as parts of existing welfare institutions with a broad variety of offers, and dedicated "telecentres" – can be understood as a third dimension of support for digital inclusion which is using "space" and "proximity" as key factors in a low-threshold target group approach. The physical space of a telecentre is therefore used to establish proximity to persons who are not profiting from ICT. These spaces serve as learning and community centres alike.

Rissola/Garrido [7] estimate that there are "almost 250,000 eInclusion organizations in the EU27, or an average of one eInclusion organization for every 2,000 inhabitants". More than a quarter of these (25.8 % of the public and 28.4 % of the third

sector funded institutions) are targeting individuals with physical disabilities. 18.8 % of the public and 24.1 % of the third sector funded organisations are targeting individuals with mental disabilities (ibid: p.59). These institutions usually operate with less than 10 employees and a budget of less than 100,000 EUR per year (ibid) – leading to a "physical" digital inclusion support structure in Europe which is widely spread, but consisting of small units. There is a huge variety in the quality of those "spaces": They can be distinguished by the support they offers and the proximity to their target group. There are four levels of empowerment services [17]:

Level 1: On demand assistance	Passive role; the telecentre only reacts to user's demand of help.
Level 2: Level 1 + Training	Provider of digital literacy training, the telecentre can also look for/attract the users and give a social orientation to his/her intervention.
Level 3: Level 2+ User empowerment	Provider of social inclusion services, the telecentre promotes the digital autonomy of the users and their achievement of personal goals taking advantage of the many resources available at the Information Society
Level 4: Level 3 + Active participation in community	Provider of community service-learning, the telecentre promotes the critical use of ICT and the engagement of the users with their local communities/social belonging groups through their active participation of community/social projects.

Telecentres on levels 3 and 4 understand themselves as active social innovation actors in local communities - they empower local communities via digital media and build networks and unlikely alliances with other education providers, public employment services and companies. An overview of telecentre activities shows [18] the broad variety of social activities these spaces provide for local communities, including occupational training, local network facilitation, digital literacy support, child care services during parents' learning hours, and more. Accordingly, telecentres do not only consider themselves providers of digital literacy, but also social innovation and inclusion agents. They articulate the need of additional competences for facilitating social co-construction processes, such as "socio-cultural animation" or "job guidance", as results of an online survey of 252 telecentre staff suggest [18, p.46].

3.2 Staff

Project name	Vocational training and education solutions for e-Facilitators for social inclusion (vet4e-I")
Funding provided	EU, Lifelong learning programme, 2011-2013
URL	http://www.efacilitator.eu
Research question	Which competences should people working in a telecentre have in order to empower their target groups for eInclusion?
Main outcomes	Learning material for eFacilitators

The four levels of services offered by telecentres demonstrate that "space" is working as an anchor for discourse between vulnerable people and professional staff addressing their needs. This staff - recently named "eFacilitators" [19] - is combining competences in target group specific approaches and digital skills. As those 250,000 institutions comprise such different "spaces" as internet cafes, workshops for disabled or public libraries, it is difficult to estimate the number of staff actually involved in digital inclusion activities. But taking 250,000 organisations as a basis, it seems safe to argue that around 250,000-375,000 persons in the EU are working on digital competences for disadvantaged persons. The "vet4e-I" and "TeF" projects' initial research [18] has revealed the socio-demographic characteristics of this occupational field: The results show that eFacilitators are mostly young, female and highly educated, 70% have an educational background in different fields of social work [20, p.13]. Men or staff with an ICT background are a minority. Telecentre staff are persons with a high interest in social innovation. Strong links between this group and social innovators can be traced. Against this background, eFacilitators can be considered social innovators in the field of digital inclusion.

DSI research is still too young to produce insights into innovators' motivations, but Millard/Carpenter suggest that "hubs" of opinion makers are playing a significant role in their spreading [13, p.14]. Telecentres could play the role of such hubs, as they provide a sphere of social action and bring together people with a high motivation to care for vulnerable people. On the other hand, eFacilitators are no natural ICT professionals - 67% of 252 eFacilitators participating in a survey in 2012 [18] indicated they were in need of ICT skills. Easy to use ICT seems to be a prerequisite for supporting DSI, as Millard/Carpenter point out [13, p.47]. Other job requirements requested by eFacilitators are managerial and sustainability aspects. The projects "vet4e-I" and "TeF" provided these competences by developing training curricula for telecentre staff. The "TeF" training course consists of twelve modules, addressing management, sustainability, communication and ICT competences. All learning materials are available online and free and have been disseminated to telecentre staff all over Europe.

Project name	Training for e-facilitators ("TeF")
Funding provided	EU, Lifelong learning programme, 2012-2014
URL	http://www.trans-efacilitator.eu
Research question	Which competences should people working in a telecentre have in order to empower their target groups for eInclusion?
Main outcomes	12 modules of e-learning course for eFacilitators

3.3 Learning Content

Making use of the trust-building low-threshold functions of "space" and approaching vulnerable target groups with skilled staff, telecentres are a powerful instrument for providing digital skills. But being a relatively new phenomenon, in many countries telecentres cannot build on a long standing experience in providing digital competences. Therefore, the European Commission started two projects aiming at devel-

oping learning materials and pedagogical approaches for telecentres. The project "Key competences for all" addressed the learning needs and interests of digitally excluded people. Empirical research identified labour market participation and participation in social networks as two key reasons for acquiring ICT competences [21]. The project developed a toolkit of learning materials, structured in three modules: The first part helps users to choose a profession based upon their skills and interests. Two workshops are available in this section, improving own skills assessment and the ability to search the web and use word processing software. The second part offers online resources and three workshops to help them apply for a job by developing job search skills using IT, to compare vacancies, and to prepare a professional CV. The workshops also improve the general ability to use word processing and spreadsheet software. The last part raises users` awareness of social networks' possibilities to create new professional opportunities.

Project name	Key Competences for all (KC4all)
Funding provided	EU, Lifelong learning programme, 2011-2013
URL	http://www.keycompetences.eu
Research question	Which learning content should telecentres offer their target groups?
Main outcomes	Learning material for disadvantages persons, facilitators' handbook, guidelines for stakeholders and policy makers

Another challenge telecentres are facing is the fact that pedagogical approaches of traditional welfare institutions do not consider ICT as a key factor of empowerment and lack a pedagogical methodology to raise ICT competences. This was addressed by the EU funded project "eScouts" [20]. Initial research found a broad variety of approaches to empower vulnerable target groups in Europe. Another key finding was that welfare organisations articulated interest in intergenerational learning methodologies, as ICT seems to be both a binding and a separating phenomenon between generations. The project identified two distinct learning methodologies and brought them together in an approach to support ICT-driven intergenerational learning. A main outcome is a blended learning course which empowers seniors to support the labour market related skills of young people and at the same time empowers the young to support ICT competences of the elderly. eFacilitators take the role of innovators community innovators (elderly and youth), stipulating peer empowerment processes.

Project name	Intergenerational learning circle for community management ("eScouts")
Funding provided	EU, Lifelong learning programme, 2011-2013
URL	http://escouts.eu/
Research question	Which pedagogical approaches are useful for mediating digital skills to marginalised target groups?
Main outcomes	Learning approach for intergenerational peer support for digital inclusion

4 Conclusion

Two distinct research contexts have been introduced: (digital) social innovation on the one hand, public internet access points and telecentres as drivers of digital inclusion on the other. First, a generic definition of social innovation and two specific definitions (SI for vulnerable and DSI) were presented, offering a new approach to observe and construct digital inclusion instruments. Secondly, public internet access points (PICs) or telecentres as institutions providing free internet access and helping to raise the competences oft digitally excluded persons were described, drawing on diverse survey results.

While the research discourses on digital social innovation and digital inclusion have not been linked systematically yet, both fields can profit from an integrated debate. We have argued that telecentres as infrastructures for digital inclusion show clear characteristics of both social and digital social innovation. While these support structures, despite their impressive numbers, have yet to overcome their pioneer status, they have initiated and sustained new practices of supporting vulnerable target groups. New learning opportunities and principles (such as community-based learning) were developed and diffused, local networks and "unusual" actor constellations were facilitated, with an underlying focus on the empowerment of local communities and unlikely alliances with education providers, public employment services, companies and other local stakeholders. These telecentres do not only consider themselves providers of digital literacy, but also social innovation and inclusion agents. The complex qualificational staff profile ("eFacilitators") seems to be a key enabler for this mission and was already addressed in several projects.

In order to better understand the complementarity and the collaborative potential of the two fields of research as well as the related communities in the field, the following questions should be addressed in future research:

1. How can new pedagogic approaches and materials and local networking solutions be scaled up, and how can an efficient process of adaptive diffusion look like which is sensitive to different local, organizational and pedagogic requirements?
2. How can small-scale innovations involving digital technology be applied in telecentres, and how can the most powerful ones be better identified in order to promote digital inclusion on a larger scale?
3. How can the use of innovative digital means and interpersonal relations be balanced and managed in the telecentre context, harnessing the best from both sides?
4. How can eFacilitators' and social entrepreneurs skills and learning programmes be exchanged and combined in order to empower both sides to do their job better?

Answering these questions will not only help to promote the scientific debate on the two respective topics, it will also drive very concrete collaborations of the two communities of practice working in the field. Telecentres can join and valorize the emerging group of DSI intermediaries with their mission of empowerment, and at the same time they may profit from the other side's vast experience in promoting (digital) social entrepreneurship, which creates new opportunities for telecentres' curricular development and their capacity to promote digital literacy.

References

1. Howaldt, J.; Butzin, A.; Domanski, D.; Kaletka, C., Theoretical Approaches to Social Innovation - A Critical Literature Review. A deliverable of the project: 'Social Innovation: Driving Force of Social Change' (SI-DRIVE), European Commission – 7th Framework Programme. Dortmund: sfs. (2014)
2. Howaldt, J.; Schwarz, M., Social Innovation: Concepts, Research Fields and International Trends. Studies for Innovation in a Modern Working Environment - International Monitoring, Eds. Klaus Henning, Frank Hees, Volume 5. Online: http://www.sfs-dort-mund.de/odb/Repository/Publication/Doc%5C1289%5CIMO_Trendstudie_Howaldt_Schwarz_englische_Version.pdf (2010)
3. Schumpeter, J.A., Theorie der wirtschaftlichen Entwicklung. Berlin: Duncker & Humblot (1964)
4. Howaldt, J.; Kopp, R.; Schwarz, M. (Ed.), Zur Theorie sozialer Innovationen. Tardes vernachlässigter Beitrag zur Entwicklung einer soziologischen Innovationstheorie; Wiesbaden (2014)
5. Rehfeld, D.; Terstriep, J.; Welschhoff, J.; S. Alijani, Comparative Report on SI Framework. Deliverable D1.1 of the project "Boosting the Impact of SI in Europe through Economic Underpinnings" (SIMPACT), EC – 7th Framework Programme, Brussels: European Commission, DG Research & Innovation (2014)
6. Gabriel, M., Making It Big. Strategies for Scaling Social Innovations. London, National Endowment for Science, Technology and the Arts (NESTA) (2014)
7. Rissola, G.; Garrido, M., Survey on eInclusion Actors in the EU27. Online: http://ftp.jrc.es/EURdoc/JRC84429.pdf (2013)
8. Wallin, S., The co-evolvement in local development - From the triple to the quadruple helix model. Conference Paper at Triple Helix VIII, Madrid, October 2010. Online: www.triplehelix8.org (2010)
9. Sgaragli, F., Enabling Social Innovation Ecosystems for Community-led Territorial Development (2014)
10. Sinnergiak Social Innovation & Innobasque, Regional Innovation Index. Innobasque Publishing (2013)
11. Casebourne,J.; Armstrong, K. (ed.), Digital Social Innovation. Second Interim Study report. Online: http://content.digitalsocial.eu/wp-content/uploads/2014/09/FINAL-2ND-INTERIM-STUDY-REPORT.pdf (2014)
12. Bria, F., Digital Social Innovation. Interim report. Online: http://content.digitalsocial.eu/resource-category/research/ (2014)

13. Millard, J.; Carpenter, G., Digital technology in social innovation: synthesis, gaps and recommendations. A deliverable of the project: 'The theoretical, empirical and policy foundation for building social innovation in Europe' (TEPSIE), European Commission – 7th Framework Programme. Brussels: EC (2014)
14. Bühler, C./Pelka, B., Empowerment by Digital Media of People with Disabilities. Three levels of support. In: Klaus Miesenberger, Deborah Fels, Dominique Archambault, Petr Peňáz, Wolfgang Zagler (Hrsg.): Computers Helping People with Special Needs. 14th International Conference, ICCHP 2014, Paris, France, July 9-11, 2014, Proceedings, Part I (2014)
15. Bühler, C., Universal Design – Computer. In: International Encyclopedia of Rehabilitation (Online), Chapter: 146, Publisher: Center for International Rehabilitation Research Information and Exchange (CIRRIE) Online: http://cirrie.buffalo.edu/encyclopedia/en/article/146/ (2010)
16. Eurostat, Internet use by individuals. Code: tin00028, % of individuals aged 16 to 74 Last internet use: within last 3 months, Online: http://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tin00028&language=en (2014)
17. Kaletka, C.; Pelka, B.; Diaz, A.; Rastrelli, M., eScouts: Intergenerational Learning in Blended Environments and Spaces (ILBES) for social inclusion. In: European Distance and eLearning network (EDEN). Online: www.eden-online.org/system/files/Annual_2012_Porto_BOA.pdf (2012)
18. eFacilitator, Results of a multi-country analysis: Context in four countries. Online: http://www.efacilitator.eu/wordpress/wp-content/uploads/2010/12/VET4e-i_Multi-Country_Context_AnalysisDEF.pdf (2012)
19. Pelka, B.; Kaletka, C., eFacilitators: Functional Hybrids between ICT Teaching and Community Management. Proceedings of the ECER VETNET Conference. Online: http://www.b.shuttle.de/wifo/vetnet/ecer12.htm; http://vetnet.mixxt.org/networks/files/file.111156 (2012)
20. eScouts, Deliverable 3.2: CONTEXT ANALYSIS. Part 2: Facilitators. Online: http://escouts8.files.wordpress.com/2012/04/escouts-context-analysis-facilitators.pdf (2012)
21. Keycompetences: Online Employment toolkit. Guidelines for stakeholders and new actors. Online: http://www.keycompetences.eu/wordpress/wp-content/uploads/2011/09/booklet_English_guidllines_r2.pdf (2012)
22. Pelka, B.; Kaletka, C., Web 2.0 zwischen technischer und sozialer Innovation: Anschluss an die medientheoretische Debatte; In: Howaldt, Jürgen; Jacobsen, Heike (Ed.): Soziale Innovation. Auf dem Weg zu einem postindustriellen Innovationsparadigma; pp. 143-161; Wiesbaden: VS Verlag. (2010)
23. Pelka, B.; Kaletka, C.: Blended Learning Spaces as a Social Innovation for Local Inclusion, Integration and Employability. EIRP Proceedings, Vol 7 (2012). Online: http://www.proceedings.univ-danubius.ro/index.php/eirp/article/view/1362/1308 (2012b)