Democratic Concepts of Research

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Abstract

Over the years, various researchers have put effort into the democracy of the society concepts (c.f. Richter 2011). But still, how democratically is the world of research actually conceived now? The present contribution follows the idea to point at democratic concepts in the present development of research in order to plead, in this way, for a meaningful expansion of democratic research structures. The development of open access, the ideas of participatory research, the appearance of open innovation, and the first attempts at research volunteering are presented here. Thereby a multidisciplinary view is taken. Finally, the relevant question it is reflected upon as to what extent concordance can be produced between the interests of society on the one hand and research activities on the other hand.

1. Open Access

Gasparyan, Ayvazyan und Kitas (2013, p. 1) assess the access to scientific resources as "essential for analyzing available evidence-base, designing research studies, and writing scholarly papers". Moreover, Haspelmath (2013, p. 1) argues in favour of the so-called Gold-Open-Access-Modus which stands out due to "freely accessible electronic publications on the publisher's website", i.e. no hurdles are planned in terms of a monetary manner or on the basis of a membership.

As Liesegang (2013) explains, the open access movement extends after the public access to (written) knowledge by the allocation of research data. For the area of the chemistry Bird and Frey (2013) underline the relevance of data sharing and they speak, in this context, of *e-research*. Numerous data

banks or platforms have been installed for these duties (e.g., ZoophyteBase of Dunlap et al., 2013; Malaria Box of Spangenberg et al., 2013; OpenSPIM of Pitrone et al., 2013; Malaria Atlas Project of Moyes et al., 2013). OpenSPIM tries to be active in the microscopy area to people's own research ("build your own OpenSPIM", OpenSPIM 2013, w.p.), pursuing with it also an educational idea. The malaria atlas Project (MAP) has included more than 3,000 sources of research groups, governmental organizations and NGOs.

The relations and perspectives which are created by the accessible knowledge archives are various. Maggio et al. (2013) mention the relevance of open access for the continuing education of health staff. Samaranayake (2013) connects it similarly to possibilities of lifelong learning.

2. Participatory Research

The social-scientific use of *community-based participatory research* has the aim to work adequately on social-spatial questions with the perspective and the action rooms of different partners. Participatory research goes beyond the inclusion as a questioned subject (addressee's research) and integrates the partners also in the co-determination of the research process (e.g., purification of the methodical flow). The research process is made visible and it is co-formable (cf. Anastasiadis, Heimgartner, Kittl-Satran, Wrentschur, in press). A methodical form of participatory research is the research workshop. Heimgartner and Pilch Ortega Hernández (2012) differentiate between research workshops with students, with practitioners, with researchers and with affected persons and refer, in the realization, to the relevance of both social and scientific quality. Moreover, educational processes should be initialized by the research process (cf. Heimgartner & Pilch Ortega, 2012). Instead of *affected persons* or *partners* is also spoken about (local) *actors* (e.g., De Ros & Mazzola, 2012; Heimgartner, Lauermann & Sting, 2013).

The researcher's operating with affected persons is negotiated in the social research also as action research. Razpotnik and Dekleva (2012) show their

long-standing research project and action work with people who are threatened or concerned by homelessness. The authors refer to the relevance of their work in the areas of "research, education, practical experience and experience transfer" (Razpotnik & Dekleva, 2012, p. 40).

Different accesses and intermediate stages of participatory research can be perceived: An example in which participation takes place in monitoring processes is the following: Dangles et al. (2010) search a cooperation of farmers and scientists for the monitoring of pests. Sigot (2013) introduces an advisory board of people with learning difficulties to work as a central theme on their recognition at different social levels. Wrentschur (2013) works with theatrical methods. Affected persons can articulate their biographies, and, at the same time, the spectators can propose attempts of change in the scenes. They thus become co-actors, and they *plant* their action ideas, which, moreover, are collected and become part of a political discourse.

3. Crowd-concepts: Open innovation

The management of *crowds* has a sociological dimension. Borch (2013) refers to the possible difficulties, which can be connected with the management of crowds. On the other hand, numerous economic attempts (crowd sourcing), campaigning activities (e.g., Avaaz.org) and single accesses with scientific relevance exist which can even be taken as best practice examples.

One popular example is *InnoCentive*. This enterprise invites registered people to find solutions for given problems (cf. www.innocentive.com). These scientific tasks are usually worked out by economic companies, and financial incentives are paid for. Since 2006, a non-profit area has existed. InnoCentive (2013) reports about more than 300,000 users, so-called *solvers*, from more than 200 countries. They have already introduced more than 40,000 solution proposals. More than 1,500 cash awards between 5,000$ and 1 million $ have been paid out. Companies like Dupont, BASF or Henkel have been availing themselves of this possibility. Other companies like Lego or Philips are

already involved in other forms of *open innovation* (Zeit online 2006). Comparable platforms are atizo.com and brainfloor.com. They regard it as part of their mission to perform the often enterprise-supported search for (technical) solutions in the public sphere.

An American inventor's platform that works with crowd principles is Quirky. Along the possibilities *invent*, *influence* and *shop*, product ideas are collected and valued, perfected by the network of Quirky and by global users. At the end the products are produced by Quirky. The contribution to the development of the products is financially re-compensated. The realized products are often applicable in the household. An own reality TV-show added to Quirky's popularity (Quirky.com 2013).

Some software solutions take up the idea of the open innovation (e.g., CogniStreamer, Imaginatik). CogniStreamer enables to submit, to discuss and to judge ideas (CogniStreamer.com).

A regional community or social space orientation can be compared to a crowd in virtual space. It implies to think in spatial units, to gain partners for the participation and to rely on resources. Interactive low threshold possibilities, open social and participatory rooms, cultural implications, linking of individuals, associations, companies and public facilities and solution orientation are characteristic features (cf. Heimgartner 2009). It is the community-based idea to use "sensitivities and needs for real coping attempts" (ibid. p.15). Subjective life experiences and nearness to everyday problems are decisive (e.g., Grunwald & Thiersch, 2008). Basically, an "interference culture" is pursued (Thole, 2010, p. 62). Miscellaneous applied and analytic discussions to social-spatial thinking in different traditions are given (e.g., Hinte, 2010; Kessl et al., 2005). Social space concepts are also specified for certain areas of activity like child protection and youth welfare (e.g., Budde, Früchtel & Hinte, 2006; Hinte & Treeß, 2007).

4. Research Volunteering

In a total view, about one third of the population now more than 15 years old is involved in formal, volunteering in Austria. Differences can be found concerning the age, the employment or the urbanization degree. The participation rate differentiates among diverse areas of society (like rescue services, culture, environment, social tasks, politics, education, sport). The informal voluntary work without organizational background is in a similar size (cf. More-Hollerweger & Heimgartner, 2009; BMASK, 2012). It has to be mentioned that different volunteering centres exist. They match the enthusiasts with working profiles of the voluntary institutions. Trends of volunteering concern the participation on the Internet, Voluntourism (a mixture of volunteering and global tourism) or corporate volunteering by companies within the scope of CSR-concepts (cf. More-Hollerweger & Heimgartner, 2009).

This field of research has up to now hardly been mentioned in academia in the field of volunteering. Indeed, voluntary participation starts in the scientific world of research. Scientists of the British Universities in Portsmouth and Oxford as well as John Hopkins University have inspired to determine galaxies. Introductory courses, tests and parallel categorizations should protect the scientific quality (e.g., Spiegel Online, 2007). A similar concept shows the Stardust@home-Project. The dust particles are determined which the space craft Stardust has brought. In this "citizen science" (Stardust, 2013, w.p.) achievement rankings of the voluntary employees are made (cf. ibid.). Also in the ornithology there is a veritable tradition to lean on the observations of the population (e.g., "Hour of the garden birds", cf. ornithologie.net). On Platforms like spielplatztreff.de, parents assess German playgrounds on the basis of criteria (security, playground equipment, overall impression etc.). The amount of evaluated playground exceeds the possibilities of single persons or institutions.

5. At the end: The question after the social intentionality

The variety of the aims implemented in science is wide: Van Drongelen et al. (2013) try to reduce the tiredness of airplane pilots. Clery (2013) takes care of a *superlaser*. Sifferlin (2013) strives to reduce the number of the deaths due to lung cancer.

Classically, a distinction is made between *fundamental* and *applied* research. Another categorization is related to the disciplines that also find themselves in different educations. This represents the specialization of the science during the last centuries. Easy co-operations of the disciplines are called interdisciplinary, multiple ones multidisciplinary, and resolutions of the discipline borders trans-disciplinary (cf. Lenz, 2010).

The social relevance can be seen as a touchstone of any scientific work. In this respect it would be a first democratic step to let (partly) decide the population which research should be performed. With the determination of the subject the localization of the social figures of sense can be derived, which can be related to recent social and environmental problems. Secondly, the participation in the scientific research itself is realization. Different participation forms become visible on this level: regulation of the research methods, performance of the research methods, counseling of the research process, and analysis of the gained data.

Aim definitions can possibly be helpful in this process. Aim definitions already exist in different contexts. For example, the UN-Millennium-Development Goals speak out against poverty and hunger, and in favor of primary education, the equalization of the genders, the lowering of the child mortality, the improvement of the health care by mothers, the fight against illnesses like HIV/AIDS or malaria, the ecological sustainability and the construction of a global partnership for development (cf. UN Millennium-campaign, 2013). Beside other knowledge accesses (description, explanation, order, effect analysis etc., cf. Heimgartner, 2011) the aim is a planner's possibility to define scientific duties. The openness of the research process

should possibly continue so that a tension between the development of research and the definition of its aims still remains.

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