International Journal of the Commons Vol. 8, no 2 August 2014, pp. 531–553

Publisher: Igitur publishing

URL:http://www.thecommonsjournal.org

URN:NBN:NL:UI:10-1-116425

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ISSN: 1875-0281

Basic education in Communist Hungary. A commons approach

Ferenc Gyuris Department of Regional Science, Eötvös Loránd University, Budapest, Hungary gyurisf@gmail.com

Abstract: In commons research, the study of the 'knowledge commons' has emerged as a new field of interest over the last few years. Our paper begins by providing a brief overview of the state of research in the field, and proceeds by discussing some crucial but relatively underconceptualised issues. The difference between information and knowledge, and the ambiguities surrounding the claim that all sorts of knowledge can be considered part of the commons, are the focal point here. We also pay close attention to education, arguing that it is not a common good, but rather a common-pool resource institution that ensures that some forms of knowledge can be governed as a commons. With regard to these issues, the article provides a case study, one in which we analyse basic education in Communist Hungary, and look for evidence of the commons design principles as outlined in Elinor Ostrom's IAD Framework. Given the complex nature of basic education, we investigate it from three points of view: as a service, as a set of physical structures (e.g. school buildings), and as a complex of organizational structures (e.g. legal and financial arrangements). On the basis of empirical findings we argue that basic education in the Stalinist epoch did not correspond to Ostromian design principles. Basic education, therefore, was not managed in an equitable way, and its geographical accessibility was uneven. During the 'technocratic' Communism of the 1960s, 1970s, and 1980s, the education system underwent important changes. However, though the circle of those who had some impact on the governance of education expanded, most individuals involved with the education system were still excluded. As a result, the commons approach did not become stronger in general, nor did spatial unevenness with respect to access to basic education decrease. The paper finishes with a brief conclusion of our findings and a discussion of some questions for future research.

Keywords: Basic education, Communism, governance design, Hungary, knowledge commons

Acknowledgements: This research was realized in the frames of TÁMOP 4.2.4. A/1-11-1-2012-0001 "National Excellence Program – Elaborating and operating an inland student and researcher personal support system". The project was subsidized by the European Union and co-financed by the European Social Fund. My investigations have benefitted much from the precious comments of Timothy Moss and Peter Meusburger on a former paper of mine prepared for the workshop "Territoriality of the Commons", held 29–30 September 2011 at IRS (Leibniz Institute for Regional Development and Structural Planning) in Erkner, Germany. I also owe much to three anonymous referees.

I. Introduction

Since the remarkable increase in academic interests in the commons during the 1980s the topic has become a rapidly growing field of scientific research both in natural and social sciences (Laerhoven and Ostrom 2007). This has not only turned attention to many questions underanalysed before, but has contributed considerably to an improvement in corresponding concepts and typologies (Stern et al. 2002). Beyond so-called 'traditional commons', mainly shared natural resources such as water or forests, along which the commons research emerged, in recent years an increasing attention has been paid to what is called the 'new commons' (Hess 2008). This term refers to phenomena that are outcomes of human agency (e.g. intellectual property and internet commons; cf. Stern et al. 2002; Hofmokl 2010; or urban commons like public urban spaces; cf. Blomley 2008; Foster 2011; Harvey 2012), or that are naturally given, but which first gained relevance for human society with technological innovations of the last hundred years or more (such as the electromagnetic spectrum; cf. Berge and Kranakis 2011; Henrich-Franke 2011; Wormbs 2011).

In line with these trends and strongly influenced by the rapid expansion of the internet and the manifold privacy debates this has opened up since the mid-1990s, commons research has explored a new domain commonly referred to as the 'knowledge commons' (Hess and Ostrom 2007a; Bollier and Helfrich 2012; Hess 2012). On the level of research practice this term embraces a broad and loosely defined set of issues. A typical example is Hess and Ostrom (2007b), who interpret knowledge as 'all intelligible ideas, information and data in all types of understanding gained through experience or study' (8), a concept prevailing in Hess (2012), too. The commons approach might also have considerable relevance for analysing public services involved in the production and dissemination of knowledge. This point is likely to have become most explicit in a 2013 interview with the US commons scholar and activist David Bollier, who argued for 'viewing education as a commons' (Education Week Teacher Blogs).

We are no doubt witnesses to the emergence of a new field of research. Its relevance is obvious in a world that has been transformed not only by electronic forms of communication that infiltrate our lives now more than ever before, but also by neoliberal attempts to privatise education in many countries in both the Global North and the Global South. There are a number of striking conceptual questions as well that are in need of more careful and precise elaboration.

First, literature on the 'knowledge commons' to date adopts a stance putting an equal sign between knowledge and information, deliberately using 'the terms knowledge commons and information commons interchangeably' (Hess and Ostrom 2007b, 9). As Meusburger (2009) underlines, this interpretation has quite a tradition in some research areas, especially in neoclassical economics, but it neglects some crucial features of the communication process. Even if information successfully arrives from its originator to its recipient, it only becomes knowledge on the side of the latter if the recipient is both willing and able to obtain, understand, approve, process, and integrate it in his or her existing knowledge base. In Meusburger's example, a certain sort of information in theoretical physics, even if carefully formulated in equations and published on an open access website, will only be understandable for a few dozens of researchers within the entire world population. They will be the only ones who can indeed gain new knowledge on the basis of the information published.

Such a difference between information and knowledge has fundamental implications for a commons approach. Ensuring that information becomes or remains a shared resource is basically a matter of accessibility. If the originator makes the unit of information accessible for everyone without any fiscal, technical etc. limitations, it automatically becomes accessible for all if a sufficient code and channel of transformation exists (which is, of course, not necessary in real conditions). But to make a certain sort of knowledge a shared resource, related information must become accessible and potential recipients must become able and willing to internalize it. Therefore, knowledge cannot become a shared resource without a complex set of institutions and practices that give the opportunity to potential recipients to gain the necessary abilities and willingness. These institutions and practices together basically add up what one can call education in a broad sense, including formal education (e.g. the school system) as well as the forms of education children get from their parents and relatives in the family, young colleagues gain from more experienced colleagues at their workplace etc. Hence, in our view education in general and (formal) basic education in particular might be interpreted not as commons per se, but rather as a framework aimed at the governance of (certain sorts of) knowledge as a common good.

A second conceptual challenge for the literature on 'knowledge commons' is its underlying and permanently returning claim that 'the discovery of new knowledge is a common good' (Hess 2012, 15). Of course, one can understand the strong motivation of a number of intellectuals to counteract practices disabling many people to get and use certain forms of knowledge. It is easy to find examples for what Heller (1998) names 'the tragedy of the anticommons', when extreme regulatory regimes result in an 'underuse of scarce scientific resources'. 'Overpatenting' (Hess and Ostrom 2007b, 11), for instance, can lead to new biomedical achievements finding their way to only a fraction of those suffering

from a certain disease. It is also true that expanding intellectual property rights, what Boyle (2003), referring to land enclosures of the Industrial Revolution, calls 'Second Enclosure Movement', might result in certain cases in serious forms of exclusion contradicting the ethos of democracy and freedom (Hess and Ostrom 2007a,b) – at least in the sense these were defined in the European tradition of the Enlightenment.

Still, knowledge has never been a pure commons, at least not all kinds of it. In fact, many sorts of knowledge would not be produced at all if its producer could not monopolise it and exclude others from the use of it, at least for a certain time. This is because innovation and knowledge creation are cost-intensive activities, and if their result automatically became a common good, all individuals or enterprises could make benefit from it, while the costs of related investments would fully go to the actor that carried out the project. Hence, many individuals as well as enterprises would lose their interests in massive investments in knowledge production (Schumpeter 1912; Meusburger 1998). That is why patent laws can intensify the creation of knowledge as well as economic growth, and were one of the reasons for Britain's relatively early Industrial Revolution (compared to other European countries) (North 1973).

Beyond such economic considerations, certain forms of knowledge are kept secret for security reasons presumably few people would disagree with. The same goes to all kinds of information that, if received by others, might enable them to gain the knowledge the producer created. Production formula of materials indispensable in medical practice but highly toxic and having the potential to be used as chemical or biological weapon are never made open access. Police also keeps confidential the knowledge gained during the process of criminal investigation to avoid criminals learning what investigators know about them and manage to escape. In these cases neither knowledge nor information are common goods, a situation most people certainly finds justifiable. Therefore, the point of Hess and Ostrom (2007b, 13), the principles 'open access of information provides a universal public good' and 'with distributed knowledge and information the resource is usually nonrivalrous' do not seem valid here.

This does not mean, of course, that the commons approach is not relevant for studying knowledge. In our view, in each society a certain set of knowledge exists, which the society considers fundamental and desirable to be adopted by everyone, at least by everybody without special needs hindering adoption. This 'knowledge commons' constitutes a highly relevant domain for commons research. No doubt, it is difficult to define this set of knowledge, especially since its boundaries are always changing as they are not a priori given but take shape in a permanent process of social debate. Thus, just like every commons, knowledge commons is socially constructed (Bernhardt and Kilper 2009; Moss et al. 2009; Moss 2012), so it can be defined similarly to what Malkin and Wildavsky (1991, 372) describes about public goods as follows: 'A public good is one that the public decides to treat as a public good.'

In fact, it is not easy to define what the public decides to treat as a commons. Yet, at least one part of this domain seems to have relatively clear boundaries: this is the knowledge children are expected to get access to and adopt and learn to use within the framework of basic education. Of course, basic education is also socially constructed. Although it is often regarded a 'merit good' (Musgrave 1957), meaning that it is by most considered a good everyone has the right to, this attitude merely reflects the current political discourse of society in several countries (Fend 2001), and is not 'universal'. In Europe, before the attempt of Reformation to enable people to read the Bible, the emergence of modern nation states indoctrinating citizens with national ideology, and an increasing need for skilled labour force in the Industrial Revolution, to provide formal basic education for all was not considered a fundamental goal to achieve (Meusburger 1998; Schriewer and Nóvoa 2001). Hence, basic education can get regarded as a commons only if specific social circumstances are given, and this attitude meets the interests of those possessing political power as well as of broad masses of society (cf. Titze 2006). In European countries this process began between the 17th and early 20th centuries (Leschinsky and Roeder 1976; Müller et al. 1987; Roeder 2001) and by now has resulted in a well-defined and regulated framework of basic education.

In our view one can interpret this sort of well-established basic education as, adopting the words of Hess and Ostrom (2007a,b), a form of 'common-pool resource governance', where common-pool resource is the kind of knowledge basic education is expected to transmit to young generations. Therefore, in a broader sense, basic education is a common-pool resource institution, which in the expectation of all actors concerned should be robust and long-enduring. For this reason, we regard it a legitimate attempt to investigate whether basic education meets the design principles Ostrom (1990) identified in her Institutional Analysis and Development (IAD) Framework on the basis of eighty-six case studies as common features of successful (equitable, efficient, and sustainable) ways of governing the commons. The eight design principles are as follows (Ostrom 1990, 90–102; cf. Agrawal 2002; Hess and Ostrom 2007b, 7):

- Clearly defined boundaries should be in place.
- Rules in use are well matched to local needs and conditions.
- Individuals affected by these rules can usually participate in modifying the rules.
- The right of community members to devise their own rules is suspected by external authorities.
- A system for self-monitoring members' behaviour has been established.
- A graduated system of sanctions is available.
- Community members have access to low-cost conflict-resolution mechanisms.
- Nested enterprises that is, appropriation, provision, monitoring and sanctioning, conflict resolution, and other governance activities – are organized in a nested structure with multiple layers of activities.

As Hess and Ostrom (2007b, 7) put it, these are the factors 'found to exist in most robust institutions - but they were absent in failed systems'. Yet, one should be careful with automatically relying on these principles while studying basic education. First, they are neither prescriptive nor models. Second, they were derived from a comprehensive analysis on governance forms of natural commons, so it is not self-evident whether and to what extent they apply to the investigation of social commons, e.g. knowledge commons. To decide this, Hess and Ostrom (2007b) as well as Hess (2012) argue for further research and indepth case studies. Third, as Blomley (2008) underlines, the circle of individuals affected might not to be defined as easily and exactly as Ostrom's design principles suggest. Fourth, Moss (2012) points out that Ostrom's case studies are local examples, where space only emerges as a local physical-material context. Certain commons, however, have a much larger 'range' and should be managed on higher scales. For these the most striking outcomes of insufficient governance can also be spatial: an 'oversupply' of the resource at some places and an 'undersupply' at others might prevail at the same time. Hence, the governance of commons is necessarily a spatial project, especially in the case of social commons. In our view, it is highly important to take these remarks into consideration while investigating basic education in a commons approach.

It also seems necessary in the analysis to handle basic education not as a simple phenomenon, but rather as complex of three factors. On the one hand, basic education is (i) a service provided by school teachers to pupils. In this sense, the set of knowledge basic education is expected to transmit becomes a commons only if each child in the corresponding age can join and actively participate in education programmes at the same quality at any geographical location. On the other, basic education includes (ii) a set of physical structures, such as school buildings, equipment, etc., without which education as a service could hardly be provided. In this view, the prerequisite for mediated knowledge to become indeed a common good is a sufficient number and quality of buildings, equipment, units of infrastructure, etc., with an even distribution in geographical space. Furthermore, education can be considered as (iii) a complex of organisational structures, including legal arrangements, education authorities, and mechanisms of financing. Hence, the knowledge mediated by basic education only becomes a commons if a feasible legal and financial framework is established and sustained. These three factors are intertwined in practice, but if any of them is challenged, basic education cannot fulfil its function any more, even if the two other factors are assured.

The goal of our paper is to analyse basic education with a commons approach, along the design principles of Ostrom's (1990) IAD Framework. Given that the current literature on commons is dominated by works about how neoliberal capitalist regimes with their 'market paradigm' (Education Week Teacher Blogs) try to 'enclose' the commons, we are focusing on another context to contribute to a better understanding of the commons in general, beyond the borders of one particular economic system. Therefore, we investigate basic education in

Communist Hungary under the aegis of what one might call the 'state paradigm' between the late 1940s and 1990, to reveal to what extent it was in correspondence with Ostromian design principles.

2. Basic education in Hungary: the pre-Communist legacy

After 1945, Hungary became a part of the Soviet occupation zone. A brief provisional period with multi-party elections between 1945 and 1948 was followed by the violent establishment of a Stalinist-type Communist regime. The new leadership was determined to transform Hungarian society and the economic system. Education was no exception.

For basic education in Hungary at the eve of the Communist turn, the complex of organisational structures necessitated by a system of universal accessibility was already given. Compulsory elementary education had been introduced in Hungary as early as 1868, and school attendance had been free of charge since 1908. For physical arrangement, the number of buildings and their geographical location was sufficient to enable each child in corresponding age to go to school. Remote rural areas lacking improved traffic infrastructure constituted no exception, either, mainly due to large-scale school development programmes of the interwar period and especially the 1920s (Szabó 2007). The maintenance of this system financially was based on the participation of various institutional actors. In the academic year of 1937/1938, 18.7% of the country's 7,376 elementary schools were maintained by the state. A further 12.0% were sustained by localities and 2.6% by private supporters or associations, while the overwhelming majority of elementary schools (66.7%) was run by churches – foremost by the Roman Catholic Church (41.4%) (Szabó 2007). In other words, at the end of the interwar period legal arrangements as well as school buildings enabled universal access to basic education in Hungary, while a decentralised mechanism of financing provided the necessary financial resources for a system free for pupils.

The main weakness of this system was a considerable geographical unevenness in the quality of education as well as in the equipment of schools, mainly due to decentralised mechanisms of financing. Parochial schools had a significant independence both in terms of financing and management from the state as well as higher administrative levels of the inner hierarchy of the church. The share of state transfers from their income was generally below 45%, while management of, and decision-making on, schools were tasks of the parishes (Nagy 2005). Fiscal independence of secular schools run by localities was even bigger given that their maintenance relied mostly on own resources of the localities (81.8%) (ibid.). The economic prosperity of congregations and localities varied on a broad scale, however. Hence, most schools in small villages had limited revenues and only one classroom and one teacher, pupils in different classes were taught together, and curricula were much shorter than in most town and city schools (Kovátsné 1989; cited in Zátonyi 2006). Furthermore, the universal accessibility of basic education only referred to the first six classes, although compulsory primary education in

most neighbouring countries had already prolonged to seven or eight academic years by 1930.

General conditions became worse during World War II, in which approximately half of the buildings of elementary schools were damaged, losses in equipment were significant, and the number of teachers decreased (Romsics 2010). Most of these problems were, however, solved in the post-war years by the newly elected democratic governments and, thus, before the Communist turn in 1948. Furthermore, these also introduced a compulsory national system of eight-class primary schools in 1945, followed by the standardised curriculum one year later (Zátonyi 2006). These measures were basically successful in restoring pre-war conditions in basic education but, due to inadequate time and resources, further progress could be made only for legal arrangements. Although the shift to eight-class primary education ended by the late 1940s, neither the quantity nor the quality of physical structures improved. Thus, the Communist regime took over an education system with shortcomings basically similar to those of its pre-war counterpart.

3. Basic education after the Stalinist turn

The new Communist regime showed great interest towards education from the very beginning, for three major reasons. First, it suggested that the mediation of a sort of basic knowledge to everyone, which was considered impossible without an adequate basic education system, was crucial for the 'construction of Communism'. Second, basic education was a decisive means for the Communist leadership to control the minds of the population; schoolrooms provided a feasible arena for creating the 'new socialist type of human' (Sáska 2005, 85). Third, before the Communist turn, basic education in the countries concerned had been considered by most inhabitants as a valuable good many had not had adequate access to. Thus, it was of great propagandistic value for these regimes to urge for equal access to this service, and to create themselves the image of a 'just' system 'superior' to capitalism. No wonder that Communists in Hungary argued from the very beginning for an 'equality of chances' in education (Kovács 2003). Given that legal arrangements were already in line with the notion of compulsory basic education, school buildings as the main units of physical infrastructure could be found all over the country and elementary education as a service was free for all, the Communist regime adopted as its main propaganda goal the achievement of equal standards in the quality of physical structures (school buildings and their equipment) and basic education as a service.

This goal, however, was soon challenged by other considerations, which were also inherent in the logic of Communist systems: the principles of economic efficiency (meaning cost reduction) and centralisation of political power. The former was rooted both in Marxist-Leninist ideology, urging for a more efficient distribution of resources that better served 'the needs of society', and in the economic reality of these countries, whose lower level of technological development

and productivity had to be approximated to those in capitalist countries. The centralisation of power, on the one hand, was considered a necessary prerequisite for increasing economic efficiency, since it was expected to put decision-making fully in the hand of a few ultimate 'experts', who were thought to be the only ones with sufficient knowledge to find solutions serving best 'the needs of society'. On the other hand, the centralisation of power was a crucial prerequisite for a total control of society, a fundamental endeavour of dictatorships. These political and economic considerations, if put into practice, were to mean that basic education as a service tended to focus on those who could better utilise the knowledge they gained, and were loyal to the regime. Physical structures were to be centralised to reduce maintenance costs, with main economic centres dominated by the working class and a strong social embeddedness of the Communist party being preferred. Organisational structures such as legal authorities and mechanisms of financing also had to undergo strong centralisation.

Under such controversial considerations, the first fundamental step of the Communist regime was the monopolisation of authority over basic education. This led first to the nationalisation of virtually all primary schools in 1948 (Kelemen 2003) and, thus, the dispossession of physical structures. A direct outcome was that legal regulation as well as the control of mechanisms of finance became an exclusive right of the public sphere. From then on the public sphere was equal in this sense to the national leadership due to changes in the administrative system. In 1950 a new framework was introduced, the so-called 'council system', which officially differentiated several sub-national levels (with 19 county-, 140 districtand some 3000 local-level councils in cities, towns and villages), but these had no local autonomy. Instead, they became unconditional executives of (party-) state decrees (Beluszky 2003). For János Beér, an influential Communist expert of administrative issues in the 1950s: '[local] councils are not the organs of local authorities, but local organs of the authority' (our emphasis) (Beér 1951, 595). Similarly, participation of the churches in education was annihilated. Parochial schools were nationalised, with the exception of fifteen secondary grammar schools (Romsics 2010). These were allowed to survive for propaganda goals: they had to testify that the new regime 'did not persecute religion' (Drahos 1992, 49). Yet, they were fully dependent on state transfers since properties of the churches were also nationalised (ibid.). To sum up, nationalisation brought a dramatic scalar shift in decision-making on education: all functions migrated to the highest (national) level, while lower levels as well as non-state organisations such as the churches and civic groups lost all their authority.

Due to these changes, the education system was regulated from then on by party decrees along the interests of a few Communist leaders (Kelemen 2003), and basic education as service became a scene of modernist endeavours and open class struggle (Sáska 2006). Given the extreme centralisation of power, to identify the interests of pupils and society and to define what to teach became an exclusive right of the party (Sáska 2005). In consequence, the official ideology penetrated 'classroom spaces' (Basu 2004a). Curricula were rewritten; much time was spent

on political celebrations, exhibitions and competitions; education material was infiltrated by Marxism-Leninism (Horváth and Probáld 2003; Kardos 2003). In a sense these measures reduced the spatial inequalities of basic education. Still, this change was not positive. The equalisation of legal arrangements simply meant that schools were common now in their profound subordination to party decrees. Efforts to strictly standardise basic education as a service did not lead to 'upgrading' but rather to 'downgrading' quality. According to new regulations, schools had to mediate foremost political ideology at the expense of other sorts of knowledge. Evaluation system became highly unreliable due to direct political interventions. Many experienced teachers were sacked for political reasons. For the remaining ones, they could easily be judged 'enemies of the working people' and punished if suspected that they were 'too strict' with children of manual workers, since the Stalinist system put great emphasis on supporting this social stratum. Consequences were the same if a teacher was found 'liberal' in evaluating pupils. This uncertainty and the defencelessness of teachers negatively influenced the quality of education (Kardos 2003), and promoted evenness only in the sense of harming more the schools where education as a service had had higher standards before.

For basic education, the aim of a geographically equitable design could also not be achieved. Given that in line with the Soviet example the country was subjected to large-scale development projects in heavy industry, resources were concentrated on these initiatives, while in most other sectors (e.g. education) expenditures were curtailed. For this reason, the leadership judged as a waste of financial resources the maintenance of 7440 primary schools, among them many small ones and some 3000 one-classroom schools (Illés 2003), and regarded as desirable a dramatic reduction of the physical structures. Such an approach was also fuelled by the regime's negative attitude to rural society, which it considered as 'feudal vestige' that had no place in the society it wanted to create. The radical endeavour with regard to basic education rapidly found its way into practice: the Communist leadership took advantage of its power monopoly to modify legal arrangements in order to promote changes in physical structures. A 1949 government decree banned the construction of permanent flats or public buildings (e.g. schools) in the so-called scattered farms (small farmsteads spread over the lowlands of the Great Hungarian Plain, with some 900,000 inhabitants in sum). Given the strong political control at all scales and that local councils had no autonomy, this decree implicitly meant the gradual demolition of these settlements in the long-term. Moreover, a 1951 official plan of the Hungarian urban network argued for a total ban on investment in almost half of the settlements (Hajdú 1993), although this initiative did not become law.

In fact, the Communist regime could not risk the universal accessibility of basic education at the same standard since proving equal rights to learn for everybody was a main slogan of the party. To untie the Gordian knot, the leadership tried to relocate people from scattered farms to larger villages, and especially to towns and cities. For this reason, in 1948 the Ministry of Interior established the Preparatory

Scattered Farm Committee, whose successor from 1949 on was the Scattered Farm Council. Almost 900,000 persons in a country of 9.2 million were subjected to relocation, while the number of scattered farm buildings to be demolished – and, consequently, to be substituted with new spaces for living in larger villages and towns – exceeded 150,000 (Hajdú 1990/1991). Besides, in the long run, all settlements with less than 3000 inhabitants were considered as 'uneconomical' to maintain (Beluszky 2003). The concept, however, proved about impossible due to inadequate material, technical, and human resources, especially since preceding years of forced industrialisation led to an economic crisis by 1952 (Sáska 2006). Therefore, the Scattered Farm Council became passive from then on, and was officially disestablished in 1954 (Hajdú 1990/1991). In sum, the Stalinist leadership failed in achieving a geographically more equitable governance of basic education, providing the same quality for all children over the country.

From a commons perspective this means that most of Ostrom's design principles were absent in Stalinist basic education. Rules in use were matched to central needs and conditions, not to local ones. Since the central interest was in many cases a thorough transformation of local circumstances in line with Communist principles, local interests were not only neglected but often consciously offended. Individuals affected by these rules could not participate in modifying the rules at all. Given the total lack of free elections after 1948, individuals did not even have the rather indirect opportunity to elect representatives whom they expected to be in favour of modifying regulations. Self-determination of the community was not recognized by higher-level (central) authorities. Though a system for monitoring members' behaviour existed, it was asymmetric since the central state could and actually did strongly monitor all other members' behaviour, while these had no device to exert any control over central power. Likewise, only the central power and its local authorities could impose sanctions on others; the other way round was impossible. Furthermore, the system of sanctions for those who potentially objected was not a graduated one. Even minor deviations from central government expectations could be sanctioned severely, while in other cases more significant anomalies remained unpunished if the community member(s) responsible for them had good relations to influential party functionaries (cf. Kornai 1992). In other cases, community members did not have access to any sort of conflict-resolution mechanisms. The only Ostromian design principle that Stalinist basic education fulfilled was the first one: as in prior decades, clearly defined boundaries were in place that defined who had access to basic education.

4. Basic education in Hungary in 'Technocratic' Communism

After the death of Stalin in 1953, power relations in the communist party in Hungary changed to some extent. This resulted in some moderate 'corrections' in social as well as economic issues, concerning basic education as well. Fundamental changes, however, did not take place, and political tensions were rapidly increasing. The outcome was the 1956 revolution, which was crushed

by Soviet troops, but which put an end to the first, Stalinist phase of post-war communism in Hungary.

After the Soviet intervention, the Communist system was re-established. The new leader, János Kádár, was no Stalinist, and from the sixties on, during the decades of the so-called 'soft dictatorship', the means of open terror were given up. It became a major goal to improve the material standard of living in Hungary since mass dissatisfaction with shortages of basic supplies was considered an important reason for the 1956 revolution (Romsics 2010). The new era created new circumstances for education, as became manifest in a new education law in 1961 – the first one since the Communist turn in 1948. The 1961 law set the goal of increasing the quality of education, and adjusting it to 'real life' by decreasing the role of propaganda knowledge in curricula (Kelemen 2003). The political control of teachers loosened, even if it did not disappear (Sáska 2006). Hence, the heritage of the Stalinist period in basic education underwent a certain revision.

The regime led by Kádár, however, broke only with Stalinism, not with Marxism-Leninism. Therefore, the contradiction between the principle to provide equal access to basic education and the aim of narrowly interpreted economic efficiency and centralisation was still present. The controversial milieu had its imprint on the 1961 education law. This not only addressed (and, thus, justified the existence of) formerly handicapped scattered farm schools, but also gave them updated curricula (Komlóssy 1997). This seemed to reflect increasing tolerance of these institutions, and the superiority of egalitarian notions over those of efficiency and centralisation. But this law also urged the construction of hostels in local centres, which could serve pupils who were learning in the local centre instead of their small settlements (ibid.). Thus, the leadership neither fully gave up the goal to change the spatial distribution of population, although the means it selected seemed not as hard as those before the revolution. To sum up, the attitude of the Communist party towards basic education both as a service, as a set of physical structures, and as a complex of organisational structures remained controversial until the late 1960s.

The situation began to change from the late 1960s on. A new law passed on councils in 1970 led to some decentralisation in political decision-making: county-level councils gained considerable independence in distributing financial resources within their counties (Illés 2003). With these, the Kádár regime seemed to distance itself from the idea of centralisation. Decentralisation, however, left the main fundaments of the Communist system untouched. First, the (partial) scalar shift of political decision-making to the county-level did not release local councils from a state of extreme dependence. The only difference for the latter was that from now on over certain issues localities had to follow county decrees instead of national ones. Moreover, since the 1970 reform abolished district-level councils between county- and local-level ones (Illés 2003), the bargaining position of county-level councils improved. Second, nationalised property (even the physical structures of education) remained in the hands of the state. Third, the authoritarian framework as well as the party's monopoly remained untouched.

No free elections were held, and political actors at all administrative levels were selected and legitimised by higher hierarchical levels of the party, not by inhabitants belonging to the given administrative level.

Hence, the new circumstances were not to lead to an end to attempts at centralisation in basic education. Instead, the official 1970 principles of spatial development of the party's Political Committee urged the spatial concentration of settlement systems and infrastructure in line with the concentration of the 'forces of production' (Hajdú 1993). These principles were soon elaborated in more detail and implemented in the 1971 National Master Plan of Settlement Network Development, the main document of urban development for the next one decade and more (Kőszegfalvi 2009). The main argument was basically technocratic and strongly linked to an inherent notion of Communist systems: to increase efficiency in the maintenance of the school system. Regarding the massive outflow of population from scattered farms and small villages, which was a direct outcome of forced industrialisation, the collectivisation of agriculture and the ban on investments in scattered farms, many primary schools seemed useless in the mid-term. Furthermore, diverting pupils from ill-equipped scattered farm and village schools to well-equipped town schools seemed a key for improving the quality of education (Komlóssy 1997).

In other words, legal arrangements did not change; the objective of universal access to basic education remained. But as the Communist regime lacked sufficient resources to sustain all primary schools and bring them to the same high standard in terms of equipment and service, the demolition of physical structures in the periphery seemed to enable the reduction of disparities in the quality of education as a service for the institutions to survive. Thus, the leadership did not have to explicitly give up the goal of equal access, it only needed to reformulate the meaning of this. Instead of the geographical access to physical structures, emphasis was put now on the quality of service, and the centralisation of the system could thus be presented as a great leap towards the latter. Furthermore, the regime played a propaganda trick: it tendentiously referred to centralisation as 'rationalisation', which it expected to radiate positive connotations and thus to justify the demolition of a great many school buildings (for the logic of this strategy cf. Flyvbjerg 1998; Basu 2004b).

Parallel to such a reinterpretation of 'equality' and 'rationality', the leadership began a rapid transformation of basic education in Hungary. Although local population and councils in affected villages had interests in having their schools kept open, they could not or did not articulate these against the national leadership, for three reasons. First, the members of local councils were appointed by the party. Local elections, although regularly held, were formal since only one candidate, selected by the party, was to be voted for. Consequently, council members were loyal foremost to (and dependent on) leaders at higher levels of the party, not the local population. Any protest from their side was thus highly improbable.

Second, 'rationalisation' not only concerned education, but all public infrastructures including public administration. From the 1960s on, thousands of villages lost their local councils since these were also 'rationalised'. While in 1960 almost 90% of all villages had their own council, this ratio dropped below 55% by 1970 and below one-fourth by 1980 (Figure 1) (Beluszky 2003). Therefore, many villages were administered by councils that were located in other villages or towns, and that were dominated by cadres from those larger localities (Illés 2003). Furthermore, scattered farms had never had local councils, but belonged to nearby villages in this sense, so they could never really express their interests. In consequence, local cadres were not only lacking political motivation, but effective means as well to protest against 'rationalisation'.

Third, local society proved impotent in such situations. Local communities accepted political initiatives with resignation: in the decades before, they had got used to their defencelessness and that they had no means to counteract (Forray 1990). Furthermore, many accepted the official technocratic argumentation for 'rationalisation'. Most local teachers and school directors were exceptions since they made their criticism explicit through professional arguments. Still, in Forray's (1990) words, they also behaved as state employees. They formed no political opinion and soon adapted to new circumstances after their workplace was moved to another village or town. This attitude is highly understandable in a system where all schools and all other workplaces were controlled by the state. Here, organizing political protests might wreck one's career, and even their family members' opportunities.

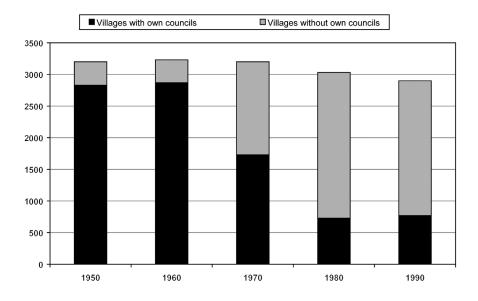


Figure 1: Villages with and without own councils in Communist Hungary (1950–1990). Design by author based on data from Beluszky (2003) and Illés (2003).

Besides, after the 1970 administrative reform county-level councils had firm interests in 'rationalisation'. On the one hand, closing rural schools in the county's periphery enabled the concentration of financial resources on schools in towns, especially on schools in the county seat. Since most influential members of county-level councils were living in towns due to proximity of their workplaces, their children also went to school there. Thus, leading cadres had personal interests in 'rationalisation'. On the other hand, councils that conducted 'rationalisation' 'efficiently' were rewarded. This meant extra financial support from the state and was also manifest in political acknowledgement (Forray 1995), which was crucial for cadres in county-level councils as well since, like cadres in local-level councils, they were appointed by their superiors, not by local inhabitants.

Of course, to 'rationalise' education infrastructure through school closures was a specific phenomenon neither to Hungary, nor to the Communist bloc. Similar efforts at the time in Western countries, however, usually led to fierce opposition from the local communities affected (cf. Bondi 1987; Meusburger and Kramer 1991; Meusburger 1998), a phenomenon totally missing in Communist Hungary for the reasons we have explained. In consequence, the Communist regime could carry its radical initiative through, and the 1970s brought an historically unexampled decline of scattered farms and small villages, together with their education infrastructure, which was much more severe than similar tendencies in capitalist countries. Between 1970 and 1980 the number of primary schools dropped from 5907 to 4207 (28.8% decrease) (Figure 2), with virtually all scattered farm schools closed (Komlóssy 1997). Scattered farms on the Great Hungarian Plain lost 42.5% of their inhabitants (Berényi and Dövényi 1996), and villages with less than 500 inhabitants also had a loss of 17.7% (Beluszky 2003). Villages that had lost their schools witnessed an especially rapid decline of population in this period (Nemes Nagy 1982). In other words, the regime gave up the objective of providing equal access to basic education in the sense of geographical proximity. They reduced the physical structures of education, which resulted in decreasing maintenance costs and the centralisation of the system.

As one can see, in basic education the epoch of 'technocratic' Communism led to some relevant changes, even for Ostromian design principles. These alterations were mainly manifest in a decreasing monopoly of the central power and the downscaling of certain competences to the county-level. Rules in use still had to be in line with central needs and conditions, but county-level councils could also take into consideration needs and conditions on their own scale. Self-determination of the entire community was not recognized yet by higher-level (central) authorities, but that of county-level councils was to some extent. The system for monitoring members' behaviour remained asymmetric, but now it was not only the central state which monitored all other members' behaviour. County-level councils also gained a considerable opportunity to monitor others on lower scales. Beyond the central power, county-level councils too could impose sanctions on others below them in the power hierarchy.

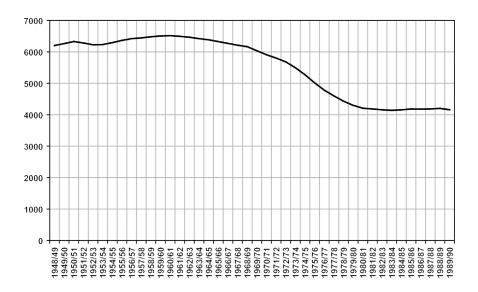


Figure 2: Number of primary schools in Communist Hungary (1948/1949–1989/1990). Design by author based on data from KSH (1996)

However, most individuals affected by these rules still could not participate in modifying the rules. The lack of free elections remained, so individuals did not even have the rather indirect opportunity to elect representatives whom they expected to be in favour of changing regulations. Most community members did not gain access to any sort of conflict-resolution mechanisms. Furthermore, increasing power of county-level councils resulted in even more negligence of needs and conditions on the local scale, e.g. in villages and most towns in the county, except for the seat of the county-level council and a few other influential industrial centres (if such existed within the county). For stability, clearly defined boundaries remained in place that defined who had access to basic education. Thus, changes in the governance of basic education were significant, but the design still fell short of fulfilling Ostrom's design principles, and disabled geographically as well as socially equitable modes of service provision.

5. Conclusion

Beyond 'traditional commons', the study of what is called the 'new commons' has become a rapidly growing field of research over the last few years. One branch within this newly emerging domain is the question of 'knowledge commons'. The first goal of our article was to focus on related conceptual issues that have attracted little attention so far, but whose careful analysis is necessary for a feasible adoption of the commons approach in research about knowledge. On the basis of relevant literature outside the narrowly interpreted domain of commons

research, we have argued that knowledge and information cannot be considered as interchangeable terms. Information is much less than knowledge, since the latter necessitates that information is obtained, understood, approved, processed, and integrated by the recipient in his/her own knowledge bases. Hence, making information a shared resource is fundamentally a technical question of access, while knowledge only becomes a shared resource if a complex set of institutions and practices are established that allow potential recipients to be able and willing to internalize knowledge.

We also underlined that the idea of (all sorts of) knowledge being a common good might easily win one's sympathy in a world of rapidly expanding intellectual property rights. However, it neglects the fact that several kinds of knowledge have never been governed as a commons. Actually, much knowledge would not have been produced at all if its producer had not believed that it could be kept confidential (at least for some time). Furthermore, many sorts of knowledge are kept secret by each society for (e.g. security) considerations most individuals certainly agree with. We took the stance that it is rather a certain domain of knowledge that most people regard as a commons. This domain includes (beyond others) the knowledge basic education is expected to transmit to each child in corresponding age cohorts. From this line of argument, we interpreted basic education not as a shared resource *per se*, but as a common-pool resource institution aimed at a successful mediation of what we can call basic knowledge.

On this basis, we conducted a case study of a basic education system, adopting Ostrom's IAD approach and checking whether its eight design principles prevailed there. Given that examples from neoliberal systems obviously dominate the knowledge commons discourse, we rather focused on Communist Hungary. By this, our goal was to test the eight design principles for non-capitalist contexts, and to contribute to a better understanding of commons problems beyond the domain of a single economic system. Since governing the commons is a highly geographical project in our view, we put strong emphasis on whether the Communist design could meet the goal of spatially even and equitable governance forms of basic education. For analytical reasons, we interpreted basic education as a service, as a set of physical structures, and as a complex of organisational arrangements.

Our first major finding was that in the Stalinist epoch in Hungary, from 1948 to the mid-1950s, the Communist leadership tried to adopt the controversial goals of enabling equal access to basic education at the same standard *and* increasing cost-efficiency. To achieve its aims, the Communist leadership fully reshaped the framework of basic education in a way that was fully in accordance with the political motifs of the Communist dictatorship, but, in consequence, provided virtually no space for the design principles of Ostrom. The only exception was the first design principle of clearly defined boundaries, which actually prevailed. Thus, basic education was not handled as a commons, and the regime fell short of providing equal access to it for all.

For the second part of the Communist epoch in Hungary, which was not Stalinist but rather 'technocratic', basic education underwent considerable changes. Most

of Ostrom's design principles were still not met, but the 'deviation' from them decreased. This means that a limited decentralisation of certain competencies from the national level (the central leadership) to the scale of county-level councils took place, and the circle of actors allowed to have influence on the governance of basic education expanded. This expansion was, however, limited, since it benefited only county-level councils and their elite, but not those of minor towns and villages, nor broad strata of society. Therefore, the governance of basic education did not lead to less unevenness, only the dividing line between those who 'enclosed' resources and those who suffered from this changed. These results underline that some remarkable but limited changes to a framework incompatible with Ostromian design principles were not enough to ensure that a resource was governed in line with the commons approach.

In our view, the study showed that the adoption of Ostrom's analytical concept and a reliance on her design principles might be a reasonable framework for the investigation of basic education, and in a Communist context, too. Yet, many questions still remain open. On the one hand, our paper presented a case study where the lack of most Ostromian design principles resulted in a governance of basic education along the interests of a narrow interest group. This does not necessarily mean, however, that no successful (equitable, efficient, and sustainable) education governance could exist without matching all eight design principles. Neither can we claim for sure that these principles, if all fulfilled, automatically lead to successful governance. On the other hand, we should be careful and not attribute universal validity to our findings for basic education in Communist Hungary. We do not know exactly to what extent other education levels (e.g. higher education) are similar or different to basic education. It is similarly unclear, whether the evidence for Hungary is basically what one would find in other Communist countries, given that the Soviet Bloc was not profoundly homogeneous and national paths showed some differences. Reliable answers to these questions will necessitate further case studies.

Literature cited

Agrawal, A. 2002. Common Resources and Institutional Sustainability. In *The Drama of the Commons*, eds. E. Ostrom, T. Dietz, N. Dolšak, P. C. Stern, S. Stonich, and E. U. Weber, 41–86. Washington, DC: National Academy Press.

Basu, R. 2004a. The Rationalization of Neoliberalism in Ontario's Public Education System, 1995–2000. *Geoforum* 35:621–634. http://dx.doi.org/10.1016/j.geoforum.2004.03.003.

Basu, R. 2004b. A Flybjergian Perspective on Public Elementary School Closures in Toronto: a Question of 'Rationality' or 'Power'? *Environment and Planning C* 22:423–451. http://dx.doi.org/10.1068/c11r.

Beér, J. 1951. Helyi tanácsaink államhatalmi jellege [Power Characteristics of Local Governments in Hungary]. *Állam és Igazgatás* 3:593–606.

- Beluszky, P. 2003. *Magyarország településföldrajza* [The Urban Geography of Hungary]. Budapest; Pécs: Dialóg Campus.
- Berényi, I. and Z. Dövényi. 1996. Historische und aktuelle Entwicklungen des ungarischen Siedlungsnetzes [Historical and Recent Developments in Hungarian Urban Network]. In *Städte und Städtesysteme in Mittel- und Südosteuropa. Tschechische Republik, Slowakei, Ungarn, Rumänien. Beiträge zur Regionalen Geographie 39*, eds. A. Mayr, and F. D. Grimm, 104–171. Leipzig: Leibniz-Institut für Länderkunde.
- Berge, E. and E. Kranakis. 2011. Editorial: Technology-Dependent Commons: the Radio Spectrum. *International Journal of the Commons* 5:86–91. http://www.thecommonsjournal.org/index.php/ijc/article/view/287/200.
- Bernhardt, C. and H. Kilper. 2009. Synthese III: Im Sinne des Gemeinwohls zur Bedeutung raumwissenschaftlicher Gemeinschaftsgutanalysen [Synthesis III. In Terms of the Common Good to the Importance of the Spatial Analysis of Public Goods]. In *Im Interesse des Gemeinwohls. Regionale Gemeinschaftsgüter in Geschichte, Politik und Planung*, eds. B. Christoph, H. Kilper, and T. Moss, 371–383. Frankfurt am Main; New York: Campus Verlag.
- Blomley, N. 2008. Enclosure, Common Right and the Property of the Poor. *Social Legal Studies* 17:311–331.
- Bollier, D. and S. Helfrich, eds. 2012. *The Wealth of the Commons. A World Beyond Market & State.* London: Levellers Press. Available at: http://wealthofthecommons.org/contents; accessed on 29 April 2014.
- Bondi, L. 1987. School Closures and Local Politics: the Negotiation of Primary School Rationalization in Manchester. *Political Geography Quarterly* 6:203–224. http://dx.doi.org/10.1016/S0260-9827(87)80001-0.
- Boyle, J. 2003. The Second Enclosure Movement and the Construction of the Public Domain. *Law and Contemporary Problems* 66:33–74. http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1273&context=lcp.
- Drahos, P. 1992. Katolikus iskolák az államosítás után [Catholic Schools after the Nationalization]. *Educatio* 1:46–64. http://www.hier.iif.hu/hu/letoltes. php?fid=tartalomsor/1910.
- Education Week Teacher Blogs. Living in Dialogue. *Interview with David Bollier: Viewing education as a commons.* http://blogs.edweek.org/teachers/living-in-dialogue/2013/03/question_1_can_you_explain.html (accessed April 26, 2014).
- Fend, H. 2001. Educational Institutions and Society. In *International Encyclopedia* of the Social & Behavioral Sciences, eds. N. J. Smelser, and P. B. Baltes, 4262–4266. Oxford: Elsevier.
- Flyvbjerg, B. 1998. *Rationality and Power: Democracy in Practice*. Chicago, IL: University of Chicago Press.
- Forray, K. 1990. Visszakörzetesítés? Aprófalvak harca az iskoláért [Reconcentration? Small Villages' Fight for Schools]. *A Falu* 5:5–14.
- Forray, K. 1995. Önkormányzatok és kisiskolák [Local Governments and Small Schools]. *Educatio* 4:70–81. http://www.hier.iif.hu/hu/letoltes. php?fid=tartalomsor/1505.

Foster, S. R. 2011. Collective Action and the Urban Commons. *Notre Dam Law Review* 87:57–133.

- Hajdú, Z. 1990/1991. A Tanyai Tanács története (A "szocialista tanyapolitika" alapvetése és a tanyakérdés megoldásának radikális, voluntarisztikus kísérlete, 1949–1954) [A History of the Scattered Farms Council. The Fundaments of 'Socialist Scattered Farm Policy' and the Radical, Voluntaristic Experiment of Solving the Scattered Farm Issue, 1949–1954]. *Alföldi Tanulmányok* 14:105–124.
- Hajdú, Z. 1993. Település- és településhálózat-fejlesztési politika Magyarországon az államszocializmus időszakában [Settlement and Settlement Network Development Policy in Hungary During the Era of State Socialism]. In *Társadalmi-területi egyenlőtlenségek Magyarországon*, ed. G. Enyedi, 39–56. Budapest: Közgazdasági és Jogi Könyvkiadó.
- Harvey, D. 2012. *Rebel Cities. From the Right to the City to the Urban Revolution.*London: Verso.
- Heller, M. A. 1998. The Tragedy of the Anticommons: Property in the Transition from Marx to Markets. *Harvard Law Review* 111:621–688. http://links.jstor.org/sici?sici=0017-811X%28199801%29111%3A3%3C621%3ATTOTAP%3 E2.0.CO%3B2-A.
- Henrich-Franke, C. 2011. Property Rights on a Cold War Battlefield: Managing Broadcasting Transmissions through the Iron Curtain. *International Journal of the Commons* 5:110–129. http://www.thecommonsjournal.org/index.php/ijc/article/view/209/202.
- Hess, C. 2008. *Mapping the New Commons*. Paper Presented at the Conference 'Governing Shared Resources: Connecting Local Experience to Global Challenges', Cheltenham, July 14–18, 2008. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1356835.
- Hess, C. 2012. The Unfolding of the Knowledge Commons. St. Antony's International Review 8:13–24.
- Hess, C. and E. Ostrom eds. 2007a. *Understanding Knowledge as a Commons. From Theory to Practice*. Cambridge MA, London: MIT Press.
- Hess, C. and E. Ostrom. 2007b. Introduction: An Overview of the Knowledge Commons. In *Understanding Knowledge as a Commons. From Theory to Practice*, eds. C. Hess, E. Ostrom, 3–26. Cambridge MA; London: MIT Press.
- Hofmokl, J. 2010. The Internet Commons: Towards an Eclectic Theoretical Framework. *International Journal of the Commons* 4:226–250. http://www.thecommonsjournal.org/index.php/ijc/article/view/111/136.
- Horváth, G. and F. Probáld. 2003. Geographical Education in a Region of Transition East Central Europe. *International Research in Geographical and Environmental Education* 2:139–147. http://www.tandfonline.com/doi/pdf/10.1080/10382040308667523.
- Illés, I. 2003. Társadalmi szolgáltatások [Social Services]. In *Magyarország társadalmi-gazdasági földrajza*, ed. G. Perczel, 467–518. Budapest: Eötvös University Press.

- Kardos, J. 2003. Fordulat a magyar iskolák életében: a Rákosi-időszak oktatáspolitikája [Turn in the Life of Hungarian Schools: Education Policy in the Rákosi era]. *Iskolakultúra* 13:73–80. http://www.iskolakultura.hu/ikultura-folyoirat/documents/2003/67/TAN-KONF-VITA2003-6-7.pdf.
- Kelemen, E. 2003. Oktatásügyi törvényhozásunk fordulópontjai a 19–20. században [Turning Points in Hungarian Legislation on Education]. *Iskolakultúra* 13:47–56. http://www.iskolakultura.hu/ikultura-folyoirat/documents/2003/2/tanulm2003-2.pdf.
- Komlóssy, Á. 1997. Tanyai iskolák, tanyai tanítók [Scattered Farm Schools, Scattered Farm Teachers]. *Iskolakultúra* 7:94–102.
- Kornai, J. 1992. *The Socialist System. The Political Economy of Communism.* Princeton NJ: Princeton University Press.
- Kovács, É. 2003. A magyar közoktatásügy története 1945 és 1956 között. (A magyar közoktatás-politika ideológiai változásai.) [A History of Education Affairs in Hungary Between 1945 and 1956. Ideological Changes in Hungarian Education Policy] PhD thesis. Budapest: Eötvös Loránd University, Faculty of Humanities.
- Kovátsné, G. 1989. *Kultúra és politika Kornis Gyula közoktatási tevékenységében* [Culture and Politics in the Education Activities of Gyula Kornis]. Győr: The Committee of Patriotic Popular Front in Győr-Sopron County, Publishing Company of Győr County.
- Kőszegfalvi, G. 2009. Törekvések a magyarországi településrendszer tudatos fejlesztésére. Az Országos településhálózat-fejlesztési koncepció [Attempts on a Conscious Development of the Settlement System in Hungary. The National Master Plan of Settlement Network Development]. *Területi Statisztika* 12:571–584.
- KSH. 1996. *Magyarország népessége és gazdasága. Múlt és jelen* [The Population and Economy of Hungary. Past and Present]. Budapest: KSH (Hungarian Central Statistical Office).
- Laerhoven, F. v. and E. Ostrom. 2007. Traditions and Trends in the Study of the Commons. *International Journal of the Commons* 1:3–28. http://www.thecommonsjournal.org/index.php/ijc/article/view/76/7.
- Leschinsky, A. and P. M. Roeder. 1976. Schule im historischen Prozeß. Zum Wechselverhältnis von institutioneller Erziehung und gesellschaftlicher Entwicklung [The School in Historical Process. To Interactions of Institutional Education and Social Development]. Stuttgart: Ernst Klett.
- Malkin, J. and A. Wildavsky. 1991. Why the Traditional Distinction Between Public and Private Goods should be Abandoned. *Journal of Theoretical Politics* 3:355–378.
- Meusburger, P. 1998. *Bildungsgeographie* [Geography of Education]. Heidelberg; Berlin: Spektrum.
- Meusburger, P. 2009. Spatial Mobility of Knowledge: A Proposal for a More Realistic Communication Model. *disP* 177:29–39.

Meusburger, P. and C. Kramer. 1991. Die Entwicklung des Vorarlberger Volksschulwesens zwischen 1948 und 1987 – im Vergleich zum gesamtösterreichischen Trend [The Development of Primary Education in Vorarlberg Between 1948 and 1987 – in Comparison with National Trends in Austria]. Österreich in Geschichte und Literatur mit Geographie 35:185–201.

- Moss, T. 2012. Geographien von Gemeinschaftsgütern. Erklärungsansätze aus der neueren institutionen-, handlungs- und raumtheoretischen Forschung [Geographies of Common Goods: Insights from Recent Research on Institutions, Agency and Space]. *Geographische Zeitschrift* 100:208–227.
- Moss, T., R. Gudermann, and A. Röhring. 2009. Zur Reneissance der Gemeinschaftsgut- und Gemeinwohlforschung [To the Renaissance of Studying Common Goods and the Common Good]. In *Im Interesse des Gemeinwohls. Regionale Gemeinschaftsgüter in Geschichte, Politik und Planung*, eds. B. Christoph, H. Kilper, T. Moss, 31–49. Frankfurt am Main, New York: Campus Verlag.
- Müller, D. K., F. Ringer, and B. Simon. eds. 1987. *The Rise of the Modern Education System. Structural Change and Social Reproduction 1870–1920.* Cambridge, New York, Melbourne: Oxford University Press and Paris: Maison des Sciences de l'Homme.
- Musgrave, R. A. 1957. A Multiple Theory of Budget Determination. *Finanzarchiv* 17:333–343. http://www.mohr.de/fileadmin/user_upload/Zeitschriften/musgrave budget determination.pdf.
- Nagy, P. T. 2005. Az állami befolyás növekedése a magyarországi oktatáspolitikában 1867–1945 [Increasing State Influence in Education Affairs in Hungary, 1867–1945]. *Iskolakultúra* 15:3–229. http://www.iskolakultura.hu/ikultura-folyoirat/documents/2005/6-7/tan_vita2005-6-7.pdf.
- Nemes Nagy, J. 1982. Az iskolakörzetesítések hatása az aprófalvak népességfejlődésére [Implication of School Regionalisations on Population Development in Small Villages]. *Területi Statisztika* 32:104–109.
- North, D. C. 1973. Innovation and Diffusion of Technology. In *Fourth International Conference of Economic History*, ed. F. C. Lane, 223–231. Paris: Mouton.
- Ostrom, E. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.
- Roeder, P. M. 2001. Educational Institutions, History of. In *International Encyclopedia of the Social & Behavioral Sciences*, eds. N. J. Smelser, and P. B. Baltes, 4266–4272. Oxford: Elsevier.
- Romsics, I. 2010. *Magyarország története a XX. században* [A History of Hungary in the 20th century]. Budapest: Osiris.
- Sáska, G. 2005. A társadalmi egyenlőség antikapitalista és demokrácia-ellenes képzete a XX. századi pedagógiai ideológiákban [The Anti-capitalist and Anti-democratic Idea of Social Equality in 20th Century Pedagogical Ideologies]. *Magyar Pedagógia* 105:83–99. http://www.magyarpedagogia.hu/document/Saska_MP1051.pdf.

- Sáska, G. 2006. A társadalmi egyenlőség megteremtésének kísérlete az ötvenes évek felsőoktatásában [An Experiment to Establish Social Equality in Higher Education During the 1950s]. *Educatio* 15:593–608. http://www.hier.iif.hu/hu/letoltes.php?fid=tartalomsor/802.
- Schriewer, J. and A. Nóvoa. 2001. Education, History of. In *International Encyclopedia of the Social & Behavioral Sciences*, eds. N. J. Smelser, P. B. Baltes, 4217–4223. Oxford: Elsevier.
- Schumpeter, J. 1912. *Theorie der wirtschaftlichen Entwicklung* [Theory of Economic Development]. Leipzig: Dunker und Humblot.
- Szabó, A. 2007. A trianoni Magyarország közoktatási infrastruktúrája [Infrastructure of Public Education in Hungary After the 1920 Peace Treaty of Trianon]. Földrajzi Közlemények 131:39–53.
- Stern, P. C., T. Dietz, N. Dolšak, E. Ostrom, and S. Stonich. 2002. Knowledge and Questions After 15 Years of Research. In *The Drama of the Commons*, eds. E. Ostrom, T. Dietz, N. Dolšak, P. C. Stern, S. Stonich, and E. U. Weber, 445–489. Washington, DC: National Academy Press.
- Titze, H. 2006. Bildungskrisen und Selbstorganisation der Kultur. Zur Eigendynamik von Bildungsprozessen in der Moderne [Crises in Education and the Self-organization of Culture. To the Momentum of Modern-day Education Processes]. In *Bildung und Wissensgesellschaft*, eds. K. Kempter, and P. Meusburger, 163–208. Berlin; Heidelberg: Springer.
- Wormbs, N. 2011. Technology-dependent Commons: the Example of Frequency Spectrum for Broadcasting in Europe in the 1920s. *International Journal of the Commons* 5:92–109. http://www.thecommonsjournal.org/index.php/ijc/article/view/237/201.
- Zátonyi, S. 2006. Hatvan éves az általános iskola [Elementary School is Sixty Years Old]. *Iskolakultúra* 16:49–58. http://www.iskolakultura.hu/ikultura-folyoirat/documents/2006/2/iskolakultura2006-2.pdf.