

Horizon 2020 As A Tool for Educational Governance

- The Horizon Discourse

Lejf Moos*

Department of Educational Sociologist, Denmark's Institute for Education and Education, Aarhus University, Copenhagen, Denmark

Review Article

Received date: 26/12/2017

Accepted date: 24/01/2018

Published date: 31/01/2018

*For Correspondence

Lejf Moos, Department of Educational Sociologist, Denmark's Institute for Education and Education, Aarhus University, Copenhagen, Denmark, Tel: +45 3066 3443.

E-mail: moos@edu.au.dk

Keywords: Governance, Globalisation, Trans-national agencies, Market place

ABSTRACT

Horizon 2020 is an important political-administrative program for research funding in Europe from 2013 through 2020. The European Commission (EC) uses the program to further the integration and development of the European Union and therefore it is interesting to investigate the EC thinking in this particular field of educational policy and governance.

The program is analysed as a discourse in ways that Ernesto Laclau and Chantal Mouffe conceptualise discourse. They are seen as important tools in the establishment of political hegemony and social change, not only in language and ideas, but also in institutions and materialisations. The research interest is to find trends, tendencies and basic logics in the ways the EC works in order to construct political hegemony at commission level and as a part of moving the European Community towards the Global market place.

The HorizonDiscourse is analysed in the light of general global and transnational educational governance trends and a number of key concepts in the documents are analysed and discussed. These privileged discursive points, the nodal points are named the 'sic i's and one e's'. Those nodal points are at the core of the EC neo-liberal discourse and governance.

The research interest is not to find ways in which national governments and other actors interpret and translate EC trends into national politics or local practices. The core of the analyses is to find out how the EC conceives and practices educational research governance through the Horizon 2020 program.

INTRODUCTION

This section focuses on the general global governance trends because educational research governance and discourses are shaped by local, regional, national, transnational, and global influences (This section and the following two sections build on author 2009, 2013a, 2014). There are trends and tendencies in local governance that can be traced back to trends and tendencies in national, transnational and even global sources.

Establishing a Governance Context: Emergence of a Global Market Place

Through governance analyses ^[1,2] it has been established that it is not possible to govern a union, a nation, its institutions or even its individuals by economic and administrative regulation through legislation only ^[3]. This understanding is supplemented, or perhaps even replaced, by the understanding that societies cannot be governed from one point, i.e., the government. Governments and other authorities must see themselves as 'leaders of leaders' through indirect forms of power in 'polyphonic settings' ^[4]. A similar pattern can be observed in the case of the European Union. To balance central and national interests, a system of governance is in place: a mix of regulation and budgeting (hard governance) and soft, discursive governance (non-cohesive and advisory power). These forms are meant to influence the ways in which institutions and individuals perceive, interpret, understand and act – in particular in respect to social and human areas like education. The actions themselves become less important in this

era. The values and norms behind them are more important from a governmental point of view because indirect forms of power attempt to influence values and norms.

There are parallel trends in the development of supra- and transnational agencies such as the Organisation for Economic Co-operation and Development (OECD) and the European Commission. When it comes to education and its governance and politics, these agencies are not commissioned to use direct forms of power, such as regulations, and they therefore develop soft forms of governance in line with very general globalisation trends.

Globalisation is an intricate pattern of changes in economics and the division of labour (e.g., the emergence of more than 50,000 massive transnational companies, which are loyal to their shareholders and therefore able to force governments to shape their financial policies according to market logic), changes in communication (especially the internet and other forms of split-second, global mass media), changes in politics (with only one global political system remaining) and changes in culture ^[5]. More recent areas affected by global interdependencies are the financial market, the climate and the environment.

There are strong tendencies towards designing a new global marketplace with few or no barriers to cross-country operations: the free flow of finances, goods and workers ^[6]. The prime driver for this deregulation of cooperation was neo-liberal economics; hence, the core logics and theories of the new world order were economic: public choice, rational choice, principal-agent, transaction cost theory and scientific management ^[4].

One global effect of this development is the trend towards neo-liberal market politics (with a focus on decentralisation, output, competition and strong leadership) ^[7] as well as outcomes and accountability politics in the public sphere (with a focus on re-centralisation and centrally imposed standards and quality criteria). This trend is known as New Public Management (NPM) ^[8-10].

Barriers between nations in the areas of economics, industry and trade and culture and communication have thus been torn down, and new relationships and new coalitions and liaisons have been formed. Some of these new relationships are ad-hoc; some are more formal. Most of them have been established primarily to promote economic and financial cooperation. The G8 ^[11] (the coalition of France, Germany, Italy, Japan, the UK, the US, Canada and Russia), the World Bank, the OECD and the EU are just a few of these powerful agencies.

This development has brought opportunities for educational research to find inspiration outside the national borders. At the same time new challenges emerge when we try to balance national values with transnational harmonisations.

Establishing an Institutional Context: Transnational Agencies Are Agents Constructing Discourses

The Organisation for Economic Co-operation and Development (OECD), and the European Union and Commission are two powerful players in the global field of educational politics. To date, they have not been positioned to make educational policy regulations on behalf of member governments. However, this fact is in some respects changing in the EU due to the Lisbon Agreement ^[12], which includes education in the field of services and thus became subject to EC regulation. In addition, it is also subject to the subsidiarity clause (stating that decisions can be made at a lower level if the lower level finds it to be the best solution). National policies are influenced by supranational EU policies “that create, filter and convey the globalisation process” ^[13]. This influence is one of the purposes of the EU, but not the purpose for which it was originally intended. It was taken in with the Lisbon Agreement as opposed to the earlier trend in the Maastricht treaty.

Because both agencies and their member governments are obliged to international collaboration and inspiration, they have developed non-regulatory and soft governance methods to influence the thinking and regulation of education in member states. The EU has developed the open method of coordination ^[14], and the OECD has developed a method of peer pressure ^[15,16]. Research literature shows that the influences of transnational agencies, especially the OECD, have been very visible over the past 20 years. That is why it is important to describe and analyse the ways in which these influences are being interpreted and translated into national political cultures and policies in national states ^[13,17]. One transnational document seems to have been more influential than others: “Governance in Transition – Public Management Reforms in OECD Countries” ^[10]. This document was produced following the OECD soft governance strategy, the peer learning method: member countries have reported trends in their public management strategies to the organisation, where the complex picture is clarified and simplified, as trends and tendencies across countries are categorised into a smaller number of main themes and categories. This brought ideas of New Public Management very much into the focus of the union and national agendas and also infected policies on educational research.

At the European Commission’s meeting in Lisbon in 2000, participants agreed to develop a flexible method based on reflexivity and indicators. This method should include flexible governance tools that rely on soft law. A major feature of the open method of coordination is reflexivity: member states and institutions should inspire each other through comparisons, peer reviews and policy learning, e.g., best practices. An important tool is a set of indicators meant to enable the identification of best practices ^[14].

The CERI (Centre for Educational Research and Innovation), the OECD bureau that manages education and educational research, is a powerful player in the globalisation of economies and therefore in the restructuring of nation-states ^[18].

Both the EU and the OECD are very much in accordance with the decision of the WTO's General Agreement on Tariffs and Trade (GATS) agreement^[19] to include education services in the areas of free trade, thus transforming education into a commodity, a 'product' that can be traded on the market place like all other products, as it has been analysed by Ball, author and Pitman^[20-22].

These influences on policy and practices are not linear or straightforward. Lingard^[23] describes them as 'mutually constitutive relations' between distinctive fields or spaces. Lawn and Lingard claim that transnational organisations such as the OECD act as shapers of emerging discourses of educational policy, as 'expressed in reports, key committees, funding streams and programs'^[17]. The main influence comes from the OECD setting the agenda^[16] within the member states through e.g., international comparisons such as PISA (Program for International Student Assessment)^[24] and other agencies such as UNESCO and the IEA (International Association for the Evaluation of Educational Achievement). If a government wants to put an issue on the national agenda but lacks the strength to do so on its own, it can call on the OECD for help. The OECD then forms a team that reviews the state of affairs in the member state based on a detailed and comprehensive framework designed by the OECD. The team's report often forms the basis for political action in the states. The review of educational research and development in England and Denmark are relevant examples to show how the political interest is being shifted from universities as 'knowledge producers' towards being deliverers of policy and practice relevant results (like best practice, evidence or indicators)^[15].

Hard and Soft Governance and Social Technologies

Both the OECD and the EC distinguish between hard governance and soft governance. The choice of terms is interesting because hard law/governance stands for regulations that influence people's behaviour, while soft law/governance influences the way in which people perceive and think about themselves and their relationships with the outside world. Soft governance therefore influences agents in much deeper ways. While these methods of influence might seem softer or more educational, the effects of soft influence are harder and more profound^[25].

In addition to soft governance, transnational agencies develop social technologies that national governments build on, adjust and use in their endeavours to influence public sector institutions and practitioners. Social technologies are technologies with a purpose or an aim, which can be routines, manuals, methods and tools that very often conceal the aims^[1,25,26]. The social technologies used by the EC and OECD transnational agencies seem to follow the same pattern, which builds on the liberal core concept of citizens' choice, presupposing that citizens are given a screen or a background upon which to make their choices. Therefore, there must be comparisons between competitors and, eventually, indicators that can function as yardsticks for making the selection of national interpretations.

Transnational influences are, as mentioned, forms of soft governance: advice, discourse, etc. To some degree, these are taken in by the national political and administrative systems and transformed to national policies, reinventing national education. However, something central spills over. When joining international comparison programs such as PISA or TIMSS, national governments take over international standards and let them replace national standards, and they take over ways of perceiving education through numbers^[24,27,28].

An important instrument, more precisely a social technology, to influence and thus govern research is the European Commission's framework Program no. 1-7 and now no. 8: Horizon 2020. These programs are established in order to serve as a lever for EU politics: building a European community and looking after its growth.

The analyses of the governance structures and logics in Horizon 2020 are given in the last section of this chapter. The analyses have been carried out on the basis of central European Commission policy documents produced from 2010 through 2014. In order to understand and validate the analysis a short summary of those documents is given in the next section.

Horizon 2020 – A Short History

The main documents in this history are:

- 1) Europe 2020, A European strategy for smart, sustainable and inclusive growths, with Indicators and 7 flagships. European Commission President, José Manuel Barroso, 2010^[29].
- 2) Innovation Union. Commissioner for Research, Innovation and Science, Máire Geoghegan-Quinn, October 2010^[30].
- 3) From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation funding. Green Paper, Commissioner Máire Geoghegan-Quinn, February 11th, 2011^[31].
- 4) Horizon 2020. Commissioner Máire Geoghegan-Quinn, December 2012 and Summer 2013^[32].
- 5) Work Program 2014-2015. Commissioner Máire Geoghegan-Quinn, Launch Speak in Berlin, January 2014^[33].

Europe 2020

The EC strategy for 2010-2020 was constructed on 3 grand challenges to the European economies:

- Smart growth: developing an economy based on knowledge and innovation.

- Sustainable growth: promoting a more resource efficient, greener and more competitive economy.
- Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.

The strategy was followed by a number of indicators and flagships. The indicators were: 75% of the population aged 20-64 should be employed; 3% of the EU's GDP should be invested in Research and Development (R&D); The '20/20/20' climate/energy targets should be met; the share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree; 20 million less people should be at risk of poverty.

7 Flagships were the major initiative to be taken by the commission in order to further the strategy and handle or solve the grand challenges:

- 'Innovation Union' to improve framework conditions and access to finances for research and innovation in order to ensure that innovative ideas can be turned into products and services that create growth and jobs.
- Six more Flagships, only to be designated, are: 'Youth on the move,' 'A digital agenda for Europe,' 'Resource efficient Europe,' 'An industrial policy for the globalisation era,' 'An agenda for new skills and jobs' and 'European platform against poverty'.

These flagships could be interpreted as the President's agenda for the commissioners.

Innovation union

The Commissioner for Research, Innovation and Science issued a report: "Innovation Union in the Fall of 2010" ^[30]. It summarises criticism on the former framework program and stipulated where to go and how to walk that road. A number of initiatives were mentioned:

- Continuous investment in education, R&D, innovation and information and communication technologies (ICT) (claiming the need for at least one million new research jobs).
- Improving links between national and EU research & innovation systems (a self-assessment tool on 'well performing national and regional research and innovation systems' for national governments is attached to the paper).
- Excellence to be the guiding principle in education (benchmarks for Universities to be developed).
- Completing the European Research Area in terms of mobility.
- Simplification of access to EU programs and European Research Council (ERC) to be reinforced (aiming at a better balance between control-based and trust-based systems).
- More cooperation between science and business.
- Removing barriers for entrepreneurs.
- Launching of a 'European Innovation Partnership'.
- Better Exploitation of strengths in design and creativity.
- Improvement of cooperation with international partners.

The report seemed to be somewhat balanced, seen from the point of view of social science and humanities: investments in education and research and development, stronger links between national systems of research, continuing the work on the European Research Area, better balance between control-based and trust-based systems, etc. The report also emphasizes the need for stronger links between science and business.

From challenges to opportunities

In February of 2011, the Commissioner launched a hearing on the next framework program, now named Horizon 2020, the Green Paper "From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation funding" ^[31], containing 6 foci: Clarifying objectives, reducing complexity, avoiding duplication, simplifying participation, broadening participation and increasing the competitiveness and societal impact from EU support.

The foci were subject to some concerns of scientific communities in social sciences and humanities, because the focus on societal challenges could well take funding away from bottom-up projects as the main interest lies on political and economical solutions and less on research diversity. But one concern was much bigger: There was no mentioning of social science and humanities (SSH) and of educational research at all. Many stakeholders from SSH communities were alerted and voiced their concerns to the Commission and the European Parliament. One example can be the open letter to the Commission from 26.000 scientists, having signed a petition from the 'European Alliance on Social Science and Humanities' (EASSH) in the Fall of 2011 ^[34].

Horizon 2020

In December of 2012 the Commissioner published the first version of the framework program, Horizon 2020 ^[32]. It was build on three pillars:

- 1) Excellent science with European Research Council, Marie Skłodowska Curie actions and European Research Infrastructure.
- 2) Industrial leadership with ICT and biotechnology, access to risk finances and innovation in small and middle sized Enterprises (SME's).
- 3) Societal challenges with the following social challenges:
 - Health, demographic change and well-being.
 - European bioeconomy.
 - Sustainable and competitive bio-based industries.
 - Smart, green and integrated transport.
 - Climate action, resource efficiency and raw materials.
 - Secure societies – protecting Europe' and its citizens' freedom and security.

Following a high number of reactions (letters, petitions etc.) finding faults with the invisibility of social sciences and humanities (SSH), claiming those areas being paired with security solutions, which were demanded by a massive lobbying industry, the following changes were made:

- 4) Europe in a changing world – inclusive, innovative and reflective societies.
- 5) Secure societies – protecting freedom and security of Europe and its citizens.

During the summer of 2013 more initiatives were taken to make sure that SSH were reasonably represented in the funding program. One of the initiatives was the Vilnius Presidential Conference that agreed on the Vilnius Declaration “Horizons for Social Sciences and Humanities” [35]. The declaration provides a strong argument for having SSH at the very core of the Horizon 2020: the human factor is essential for all kinds of development. In this period it was argued strongly by the Commission, that SSH should not only be highly visible in societal challenge no. 6, but also be “mainstreamed” or “embedded” in all societal challenges, thus SSH should be part or aspect of all research projects.

The work program

In December of 2013 the call for applications to the Horizon 2020 funding, The Work Program, was issued and at that occasion was launched by the Commissioner in Brussels and shortly thereafter, on January 20th, 2014, in Berlin [33]. Excerpts from the speech are quoted here, because they are very clear statements of the EC's thinking and logics in the funding program. They are distinct signs of the soft governance thinking in the Commission. (Bold added by author).

I would say the Horizon 2020 is designed to deliver the results that will make a difference to people's life. Worth more than 80 billion euro over seven years, Horizon 2020 is one of the few areas of the EU's new budget to see a major increase in resources.

I think that this 'paradigm shift' is most clearly demonstrated in two aspects: simplification and coherence in Horizon 2020.

The program is also designed to address society's biggest challenges. Issues such as food and energy security, clean transport, public health or climate change, cannot be solved by a single field of science or technology, let alone a single Member State acting alone. It's here that 'European added value' can make all the difference. By making it easier for the best researchers to work together, regardless of borders, we can get bigger, world-changing impacts and better results for taxpayers' money. These complex challenges will need solutions that draw upon many different areas of research and innovation. That's why interdisciplinarity is such a crucial aspect of Horizon 2020. We will encourage researchers to get out of their silos, and we expect broader societal aspects to be addressed by embedding the Socio-Economic Science and Humanities across the whole program. Horizon 2020 will also be less prescriptive about what projects need to do. This will allow researchers and innovators to come up with the bright ideas to address the challenges. However, we will be more demanding about the impacts of research and innovation, and this will be one of the key criteria for selecting which proposals get funding. We are counting on Europe's best minds to work together to both solve our societal challenges and make our economy more innovative and more competitive.

Simplification will certainly help sell Horizon 2020 to businesses, as will the guiding ethos of support from 'lab to market' which will offer private companies greater scope to get involved in close-to-market actions.

Horizon 2020-Governance: Six i's and One e

The analyses and criticism of the documents mentioned above on Horizon 2020 and its Work Program are subdivided into 7 sections, each pointing to central features – nodal points - of the program, seen as governance, the Horizon Discourse. The [] brackets refer to the list of documents at the beginning of this section.

Interesting (short for policy relevant)

The Europe 2020 and following documents state that science must help policy makers to solve challenges in the economies

– please notice that societies are named economies in the Europe 2020 text. The text on 7 flagships in Europe 2020 underscores the need to ensure that innovative ideas can be turned into products and services that create growth and jobs. This phrase: ‘from ideas to innovation to product to growth’ is reiterated in the White Paper ^[31] and also in her talk on the program will allow researchers and innovators ‘to come up with bright ideas to address the challenges’. This can be read as a strong indicator of what the EC sees as the main units for development. Science is seen as a policy instrument for finding solutions to the grand challenges. In the wording of the Commissioner for Research, Innovation and Science: ‘The program is also designed to address society’s biggest challenges’.

This aspect of the H2020 program can be seen as both an attempt to form a dominant discourse of European societal development and as a strong top-down mode of governance. Dominant discourses are ways of speaking or behaving on any given topic – it is the language and actions that appear most prevalently within a given society and across societies. These behaviours and patterns of speech and writing, naturalizations, reflect the ideologies of those who have the most power in the society. Naming the grand challenges tells us that they are the very core of Europe’s development, this is what, according to the EC, needs to be given attention for the time being: the growth of economies. This discourse is in line with the neo-liberal globalisation narrative as described in the beginning of this text, and may therefore be easy to understand and to accept for European policy makers.

The attempt to govern from the top, like the Europe 2020 text is an illustration of, resembles very accurately the traditional Principal-Agent theory ^[36] or the OECD image of contemporary governance ^[10], that among other advices underscores the need to ensure performance and control, manage human resources and ‘strengthening steering functions at the centre’ (ibid. page 5-6), that is often used in economic thinking about societies or organisations: The political body (in our example the EC is the principal) sets the targets and aims and the practitioners (here the researchers) act as agents on behalf of the principal in order to find solutions to those targets and aims.

One of educational research’s tasks is the demand for solutions, ideas, methods, material and procedures that can support practises in education, but as identifying the real problems and conflicts is a foundation for constructing solutions, researchers need to room for tentative and exploring investigations. Top-down governance would challenge the room for reflections, for creativity and innovation, necessary for large portions of agent driven research looking for new perspectives.

At the core of interest, political relevance: The EC attempt to make the effective, performance-orientation a part of the dominant discourse, is build as a focusing on the usability, functionality of science and research in respect to economies, and thus to delimitate any other necessity of research, like society, education or humanistic.

Incentives

The European Union, Commission and Parliament are established in order to further collaboration between all member economies and states and therefor also to strengthen a European identity. Member states have agreed on a number of instruments serving those purposes. Some of them are hard governance, like the budget regulations allowing national governments only to spend money within limits set by the union and commission. Others are soft governance, like governance of education and of research through programs and discourses attached hereto. Education is subject to the rule of subsidiarity: problems are best solved close to the people, who experience them. Research is subject to the framework programs: Incentives to develop or engage in certain kind of research or certain fields of research are being encouraged by offering both esteem and funding. Horizon 2020 has a budget of 80 Billion Euros, hence it is a major player in research politics. Getting funding from this program is attractive in itself if the national and other sources are too scarce. In the field of social science and humanities and education this is the case in most of EU member states.

Incentives or motivation are aspects of human being to authority relations, close to individuals and thus important tools for leadership and governance, which can form citizens’ minds and behaviour in many accepted forms. Intrinsic and extrinsic motivations are at the core of education.

Building on economical incentives is a common trait in neo-liberal policy making. Because it gets support from economical theories about human motivation as being primarily economic, like theories about ‘pay for performance’. In cutting down on national funding and in prescribing the direction of European research sharply, as is done with Horizon 2020, the image of the ‘economic man’ may come true. As more programs explicate more details for direction, theme and impact, they get to be in more control of the research. The Horizon 2020 perspectives are narrower than that of educational researchers and thus delimiting research from developing into new and unknown areas.

At the core of incentives is the attempt to legitimise economic incentives at individual and institutional levels and that is enhanced through the cut downs in national systems. This trend could legitimize the move of funding big parts of research from national level to European level.

Innovation

Innovation was highlighted in Europe 2020 and the following documents: If things are not running effectively and efficiently enough, we need to change the ways we do them, was the rational behind them. Thus innovation was given priority: we need to be

creative in order to produce, what we need, in ways that can help us solve the grand challenges. This means rearranging frames for production and services, re-educate the work force to produce in new ways, and so on. Therefore 'the Commission for Research and Science' was renamed 'the Commission for Research, Innovation and Science' to put innovation into the core of science and research.

Straight lines from science through innovation to production and services were^[37] drawn in Europe 2020 and the green paper and program papers, boldly coined by the Commissioner: 'from lab to market' in the Berlin speak. This linearity has at least two problematic aspects to it. Firstly, it assumes that science and research can produce outcomes that can be directly transformed into practice and production or politics. However, going from research outcomes to practice can only build on political, practical or professional decisions.

Innovation in itself can be a productive process, also in education, developing procedures, materials, ideas and practices. It is when innovation is taken into a straight line from idea to product or service that it is taken into market place thinking and governance.

The second aspect is that the starting point of the straight line will change from research to product: the need for narrowly defined solutions to grand challenges and social challenges prescribe the research interest, -focus and -field. It is a strongly top down goal-oriented governance of research and science, which may strangle both at their very foundation of curiosity, creativity and critique.

At the core of innovation is the EC move to give innovation priority over creativity and thus (in the current frame) take those human and institutional activities into economies and into the function of solving grand challenges pointed out by the EC.

Indicators

The tendency towards goal-orientation is supported by another social technology, the indicators. An indicator is most often a social goal transcribed into numbers, like the number of students finishing basic education in Europe2020. It is a global feature, prominently showcased by PISA's international comparison: on the basis of a shared set of outcome indicators, one can produce images of national educational systems that governments can use for reflections about the quality (according to the indicators) of their national educational system. They can also be used to produce learning programs and tests on a Global scale, like the OECD and Pearson does at the moment^[38] in the eduBusiness trend.

The EC has chosen the PISA as the European set of indicators for quality education at basic school level as a means to foster the Europeanisation process. It is remarkable that the global measurement is imported so prominently to the European space. Remarkable, but not unexpected, because both the OECD and the EU are working within the same global trend to develop a new model and paradigm of education: Policy makers and practitioners should build on quantitative sciences (of which the psychometric comparisons are seen as a part) instead of the traditional qualitative science of educational philosophy. These processes are named: 'The Political Work of Calculating Education'^[28]. Statistics becomes the science of the 'numerical study of social facts' and the foundation for the emergence of 'governing by numbers'^[39]. Desrosières^[40] writes:

The statistics were presented like an essential tool for the 'rationalization' of the control of the human business, by substituting the reason of measurement and calculation for the arbitrariness of passion and the play of the power struggles. In social sciences or in the management of the social world, statistics were thus invested with a comparable role of 'de-ideologization' and 'objectivization', making it possible to treat social facts like things^[41].

Over the past century, this development has been the background for the emergence of a group of 'experts' in the educational field: experts in statistics and psychometrics. In particular, politicians and policy makers are very interested in their work and results, as numbers are seen as the best and cheapest foundation for political and governance decisions. This trend is often named 'evidence based policy'. The numbers are very effortless tools for comparisons and competition that are at the core of the market logics.

At the core of indicators is the move towards 'governing by numbers' and thus away from focusing on normative aspects of education. This influences the Horizon Discourse towards functionality and numbers.

Impact

In order to ensure the connections from EC-goals and research there is a new emphasis on impact, as the Commissioner underscored in the Berlin talk and as it can be seen in the Work Programme call for applications. It seems to be a very important aspect of the research funding system to try and make sure that the societal and political aims are met through the project. This is in line with the thinking about evaluation as a systematic determination of a subject's merit and worth, using known criteria. It can assist an organisation to assess the degree of achievement of aims and objectives. The same thinking can be seen in education when the main focus shifted from evaluating input to the educational process to focusing on outcomes^[42]. The Work Programme carries this thinking further than ever known in educational evaluation programs, as it demands applicants to describe in length the impact of the research when writing the application. This will hinder creative and outside-the-box-thinking and focus researchers on interventions instead of investigations.

At the core of impact is the focus on products or services that can be used to handle the challenges in the market place economies. It emphasises that applicants like researchers and production agents have the full oversight of the innovative process from 'lab to market'. This means that the projects stop being research projects, as the idea is known on the forehand and only implementations is needed.

Interdisciplinarity

It is argued in the Horizon 2020 papers that because of the practical challenges' cross-disciplinary nature, science and research need to be interdisciplinary. Researchers need to come 'out of silos' so they can work together with one another and – first and foremost – with industry, business and services. These are the sectors in need of innovation, and they have the best practical knowledge of, what is needed. They only need some support from researchers, is the argument. This tendency is underscored by the work on making applications for support much easier, less bureaucratic, for business and small and medium size enterprises.

Interdisciplinarity in educational research is not a new invention. It has been part of our worldview for ages: We involve many branches and mix research in psychology with sociology, philosophy and education and with knowledge and methods from the disciplines as well. We also collaborate with ICT experts in hardware and software etc. But unfortunately this is not what the EC means by interdisciplinarity. It means inter-sectoral: science and research with business, industry and research, with them in the driver's seat, formulating the challenges and the 'product' of the shared enterprise.

The demand is a way of defining an aspect of the dominant discourse: all sectors, sciences and practices, politics and research, education and culture belong to one world: the market-place. All sectors thus shall be governed according to the same set of logics, the New Public Management way of thinking of market with: competition, commodities, providers and costumers, strong top-down leadership and management, and so forth. It brings commodification to all fields, so we get used to think of everything as commodities that can be produced, disseminated and consumed in the same ways ^[43,44] like in the eduBusiness mentioned before.

This demand is a way of governing research. Of course business needs to build on research and science, but if all research is being embraced by business and top down governance, one can fear that creativity and explorations will disappear and so will another pivotal feature of research: critique.

At the core of Interdisciplinarity is an attempt to have the dominant discourse telling us that all disciplines and trades should collaborate, because they are homogenous, seen through market place lenses.

Embedding of social science and humanities (SSH)

It is being argued by the Commission that SSH needs to be embedded in all projects, because the human factor is so pivotal in thinking development and change. The argument is sensible, but the practice of it is not. We can see that the budget and the section for Social Challenge no. 6 in the Commission General are seriously cut down, and that there are no functioning mechanisms for embedding.

On the one hand, we have seen how the budget of Social Challenge 6 (SC6), 'Europe in a changing world – inclusive, innovative and reflective societies' has been effectively hollowed out by other programs being folded into the challenge. At a time when Europe meets demanding economic, political, cultural and human challenges, the Commissioner, Máire Geoghegan-Quinn, decided to downsize the SSH budget from 623 Million Euros in FP7 to around 350 Million Euros in Horizon 2020, Societal Challenge 6. While the total budget of SC6 is 1300 Million Euros, so only 350 Million Euros are dedicated to SSH research on inclusive, innovative and reflective societies ^[45,46].

At the same time, the 'SSH embedding policy' promised by the Commission has not worked properly. Net4Society demonstrates ^[45] that not more than 25% of the Horizon 2020 calls are SSH-relevant; the 'Humanities Scientific Committee Opinion Paper' ^[46], argues and proves that only 10% of the calls in the Horizon 2020 Working Paper mentions the humanities. Thus, the SSH have not been fully and adequately embedded in the Work Program for 2014-15 and there are justified fears that the situation will not improve in the Work Program 2016-17.

At the core of embedding SSH is the fact that the commission for Innovation etc. is taking SSH out of its area of responsibility saying that SSH is so important that we spread it all over – in thin layers.

CONCLUSION

The Horizon 2020 program is an impressive piece of discursive, political and administrative work, but also a frightening piece of work. All of the nodal points, the i's + one e, are challenging to educational research governance individually, but seen together as one discourse, the situation becomes worse. It is in the total discourse that the individual nodal points gain significance: when indicators, impact, interdisciplinarity, embedding, incentives and innovation are seen under the direction of a political 'interesting' and market-place perspective, a discourse about a neo-liberal and New Public Management way of thinking in the European Commission is clear. Everything is seen as an aspect of a global market place and thus following its logics. This

may be an explication of why social science and humanities are invisible: they are on one hand difficult to form according to that logic that they are becoming superfluous.

The European Educational Research Association (EERA) worked in the spring of 2013 on the Horizon 2020 program text and found that a number of comments would be useful for the future work on Horizon 2020: There is a need to think in both ways: from global to individual and from individual to global. We need to build communities through people empowerment: knowledge, skills, values, competencies, opportunities; to bridge the gap between global challenges and local actions. Educational research can develop ability to (re)-interpret, critique, evaluate and transform societies through participation through informed decision making, therefore educational and research institutions must provide leadership, evidence and transformative learning ^[47].

REFERENCES

1. Dean M. Governmentality: power and rule in modern society. Sage Publications, London. 1999.
2. <https://suplaney.files.wordpress.com/2010/09/foucault-the-history-of-sexuality-volume-1.pdf>
3. Moos L. Prelude: Tuning the instrument. In: L. Moos's Transnational influences on values and practices in Nordic educational leadership - is there a Nordic model? Spring, Netherlands. 2013.
4. Pedersen D. Management room in the management state. 2005.
5. Martin HP and Schumann H. Die Globalisierungsfalle. Der Angriff auf Demokratie und Wohlstand. Rowolt Verlag, Hamburg. 1996.
6. Pedersen D. Reforms & leadership. *Ledelse i dag*. 2010;1:6-15.
7. Pedersen OK. Political globalization and the competition state. Hans Reitzel's Publisher, Copenhagen Competition. 2011.
8. Hood C. A public management for all seasons. *Public Administration*. 1991;69:3-19.
9. Moos L. From political discourses of democracy towards market oriented efficiency discourses. *Nordisk Pedagogik*. 2006;26:322-332.
10. OECD. Governance in Transition. Public management Reforms in OECD Countries. 1995.
11. <http://en-g8russia.ru/news/20060602/1151807.html>
12. http://www.europarl.europa.eu/summits/lis1_en.htm
13. Antunes F. Globalisation and Europeification of education policies: routes, processes and metamorphoses. *Eur Educ Res J*. 2006;5:38-55.
14. Lange B and Alexiadou N. New forms of European governance in the education sector? A preliminary analysis of the open method of coordination. *Eur Educ Res J*. 2007;6:321-335.
15. Moos L. A real change or a change in rhetoric? - comments to two OECD reviews on educational research: England in 2002 and Denmark in 2004. *Eur Educ Res J*. 2006;5:63-67.
16. Schuller T. Reviewing OECD's Educational research Reviews. *Eur Educ Res J*. 2006;5:57-61.
17. Lawn M and Lingard B. Constructing a european policy space in educational governance: The role of transnational policy actors. *Eur Educ Res J*. 2002;1:290-307.
18. Henry M, et al. The OECD, globalisation and education policy. Pergamon, Amsterdam. 2001.
19. https://www.wto.org/english/tratop_e/serv_e/background_papers_e.htm
20. Ball SJ. Professionalism, managerialism and performativity. In: Moos L, Krejsler J (eds.), Professional development. DPU Press, Copenhagen. 2003.
21. Moos L. What kinds of democracy in education are facilitated by supra- and transnational agencies? *Eur Educ Res J*. 2006;5:160-168.
22. Pitman A. Capacity-building in south-east Asian universities: International challenges. Korean education research association, Seoul. 2008.
23. Lingard B. It is and it isn't: vernacular globalization, education, policy, and restructuring. In: Burbules NC, Torres CA (eds.). Globalization and education. Critical perspectives. Routledge, New York. 2000.
24. Hopman ST. No child, no school, no state left behind: schooling in the age of accountability. *J Curric Stud*. 2008;40:417-456.
25. Moos L. Hard and soft governance: The journey from transnational agencies to school leadership. *Eur Educ Res J*. 2009;8:397-406.
26. Foucault M. Governmentalité. In: Burcell G, Gordon C, Miller P (eds.). The Foucault Effect: Studies in Governmentality. Harvester Wheatsheaf, Hempel Hempstead. 1991:87-104.

27. Lawn M. Governing by network in Europe: Associations, educational research and social partnership. *Crit Stud Educ.* 2007;48:79-95.
28. Lawn M and Grek S. Europeanizing Education - governing a new policy space. Symposium, Oxford. 2012;173.
29. http://csc.ceceurope.org/fileadmin/filer/csc/Social_Economic_Issues/008-10_CSC_Briefing_EU_2020_Strategy.pdf
30. http://europa.eu/rapid/press-release_SPEECH-10-549_en.htm
31. Geoghegan-Quinn M. From challenges to opportunities: Towards a common strategic framework for EU Research and Innovation funding. 2011.
32. http://europa.eu/rapid/press-release_MEMO-11-667_en.htm?locale=en
33. http://europa.eu/rapid/press-release_MEMO-17-4123_en.htm
34. <http://www.eash.eu/openletter2011/index.php?file=insert.php>
35. <http://horizons.mruni.eu/vilnius-declaration-horizons-for-social-sciences-and-humanities/>
36. Weber M. *From Max Weber: Essays in Sociology.* Oxford University Press, New York. 1958.
37. Moos L and Wubbels T. EERA: A participant or an agent in European research policy? A Governance Perspective. *Eur Educ Res J.* 2014;13:451-463.
38. Williamson B. Digital methodologies of education governance: Pearson plc and the remediation of methods. *Eur Educ Res J.* 2016;15:34-53.
39. Nóvoa A. Numbers do not replace thinking. *Eur Educ Res J.* 2013;12:139-148.
40. Borer VL and Lawn M. Governing education systems by shaping data: From the past to the present from national to international perspectives. *Eur Educ Res J.* 2013;12:48-52.
41. Desrosières A. The history of statistics as a genre: style of writing and social usage. *Geneses.* 2000;39:121-137.
42. Dahler-Larsen P. *Culture of evaluation. A concept emerges.* Syddansk Universitetsforlag, Odense. 2006.
43. Ball SJ. Education for sale! The commodification of everything? King's Annual Education Lecture 2004. University of London, Institute of Education. 2004.
44. Ball SJ. *Education Policy and Social Class.* Routledge, Oxon. 2006.
45. http://net4society.eu/_media/SSH_Opportunities_Document_2018-2020.pdf
46. https://www.scienceeurope.org/wp-content/uploads/2014/09/1-Humanities-Paper_FIN_dig.pdf
47. http://www.nuv.cz/uploads/TTnet/aktualne_od_rijna_2013/EERA_Agenda_for_Horizon2020_100913.pdf