

Title

The Answer to Complexity: The Emergence of Research Leadership as
Policy- The Case of Norway

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Keywords

Introduction

Science is viewed as a strategic asset for nation states to ensure economic and social growth. This calls for close understanding, not only of the interaction between states and science, but also other interest groups involved in the creation of research and innovation policy aiming to steer scientific knowledge production in desired directions.

The knowledge base of research and innovation policy issues has evolved in various disciplines from the social sciences and the humanities. It is established that new ideas in research and innovation policy affect the processes by which scientific knowledge is produced in universities. However, how research and innovation policy affect how scientific knowledge production is done in universities remains to be shown.

This article follows textual accounts of different stakeholders' involvement in the emergence of research leadership as a policy issue. There has been a variety of national and institutional responses to the emerging issue of research leadership (Norwegian Government, 1998-99 & Australian Government, 2011). This has been closely tied to the growing complexity in the Higher Education Sector and can be explained (although not exclusively so) in relation to growing investments in research and development (R&D) and changing economic circumstances from governments. This in turn, leads to changes in the nature of research for all disciplines. Following this argument research leadership functions fall into two categories:

1. The development of individuals to become leaders **in** research in a thematically or disciplinary area doing research themselves.
2. The development of individuals to become leaders **of** research in a university unit or group of units by coordination others in their research.

While both functions are present in policy documents, this article concerns itself with leadership **in** research. More specific, research leadership as introduced in Norway and at the University of Oslo (UiO).

In these policy documents (both at the national and organizational level) lies the reframing of research leadership from a tacit knowledge to a skill in need of formal training detached from disciplinary tradition. Moreover, the reframing introduces a stronger instrumental logic to the process of *doing* research. This logic is also identified in relation to other and previous policy issues aiming to affect the direction of the scientific outcome. Now, concerning leadership in research, the attention turns to the scientific process and how research is done. Following this, research leadership carries a tension between traditional academic values and the new logic. Despite this tension, the empirical evidence shows that research leadership is not reduced to conflict as we turn to explain how research leadership is transformed into a policy instrument.

The article shows that research leadership emerges as a solution to a diverse set of challenges on different levels in the research and innovation system of Norway. Hence, the event of research leadership serves as empirical evidence of how new ideas in research and innovation policy co- evolves between science, state and other interest groups. The

article goes on arguing that this co- evolution of research leadership may explain the success of the research leadership program at the University of Oslo in attracting researchers to develop their skill to become leaders in research.

Research gaps

The research gap lies both in the need to better understand how research and innovation policy concerning scientific knowledge production emerge, and to incorporating diagnostic literature from science as part of the political context and empirical evidence. The main argument of the article is that we cannot identify how research and innovation policy affects scientific knowledge production without answering how and why new ideas emerge. By locating research leadership in a societal context the barriers and/or the lack of barriers for policy implementation will become visible.

The article answers two questions; the first is specific to research leadership in the Norwegian context, the second address whether or not we can learn a more general lesson from the Norwegian case:

RQ1: How does research leadership emerge as a policy issue in its own right and travel within the RI Policy system of Norway?

RQ2: How is leadership in research transformed into a research and innovation policy instrument?

Structure

The argument stated above will be addressed in three empirical sections with a consolidating section at the end.

The first section introduces the evolving influences and patterns of activity often described as the increasing complexity in the Higher Education Sector. Then it turns to the diagnostic literature of change or crisis in contemporary universities by the examples of Mode 2 in knowledge production (Gibbons, 1994), the Triple Helix model (Etzkowitz & Leydesdorff, 2001) and the Innovative University (Christensen & Eyring, 2011). These narratives are often closely tied to each other, general in their orientation and the argumentation diagnostic in character. The main function of these narratives is to set the scene for presenting the state-of-things within the Higher Education Sector. Also, they provide stakeholders concerned with the Higher Education Sector with conceptual tools and a language of change and/or crisis. Few attempts are done in order to explore what this entails by following specific ideas as they are introduced in the context of university institutions. The authors report from their experiences working in highly institutionalized spaces. They are often experts in disciplinary fields related to the field of research policy or experience the norms of science as threatened by the introduction of new logics related to a more instrumental social and economic accountability. The section shows that the

reported complexity in these texts calls for new skills such as leadership in the doing of research.

The second section addresses how conceptual descriptions emerge in a context between research and innovation policy and science. The example provided is the concept of Mode 2, a concept which emerged as a way to understand contemporary modes of knowledge production. The origin of the Mode 2 concept is explored in relation to the early initiatives taken by the late FRN, the Swedish Council for Research and Planning in Stockholm. In the section it is argued that the text "*The New production of knowledge: the dynamics of science and research in contemporary societies*" (Gibbons, 1994) needs to be understood as a political document in a historical context both explaining and constructing the current state of knowledge production at universities.

The third section shows how research leadership has emerged in Norwegian policy documents; roughly at the same time, on different policy levels and as a solution to a diverse set of challenges. By tracing the process towards the development of a research leadership program at the University of Oslo the multiple stakeholder perspective becomes clear. Following, the emergence of research leadership as a policy objective is understood as one component of more general changes in the governance of universities in the past decades.

The article argues the need to see research leadership in a continuum to the diagnosis literature and conceptual understandings of the state of things e.g. Mode2. Following the outlined approach the article gives an account of how textual accounts from different stakeholders contribute to the introduction of research leadership to the university institution.

Method and Theory

Mode 2 literature and public policy documents function as textual context and empirical evidence in this article. By combining textual accounts from science, government and university management the article tells the story of the emergence of research leadership as a formal skill in Norwegian universities. The texts are read as indicators of change in the domain of scientific knowledge production and shows how research and innovation policy can affect institutions and institutional behavior.

The theoretical tools applied in this article come from organizational (sociological) institutionalism directing how to position the analytical understanding of empirical evidence (Greenwood, Oliver, Sahlin, & Suddaby, 2008; Powell & DiMaggio, 1991).

Results

Research leadership is a fairly new issue first mentioned in Norwegian policy documents around 1998-1999 (Government, 1998-99: 5). During the following years research

leadership has been established in the higher education sector as a formal skill liberated from traditional disciplinary boundaries.

The article illustrates how research leadership has been seen as a carrier of new values into scientific knowledge production. Further, it shows the messiness in the diffusion and stabilization of new ideas in Norwegian research and innovation policy and argues science as just as accountable as governance and other interest groups in the ongoing change of best practices in knowledge production. The science involvement in writing the diagnostic literature might also be an important reason behind the fairly low institutional resistance to the new idea of leadership in research.

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