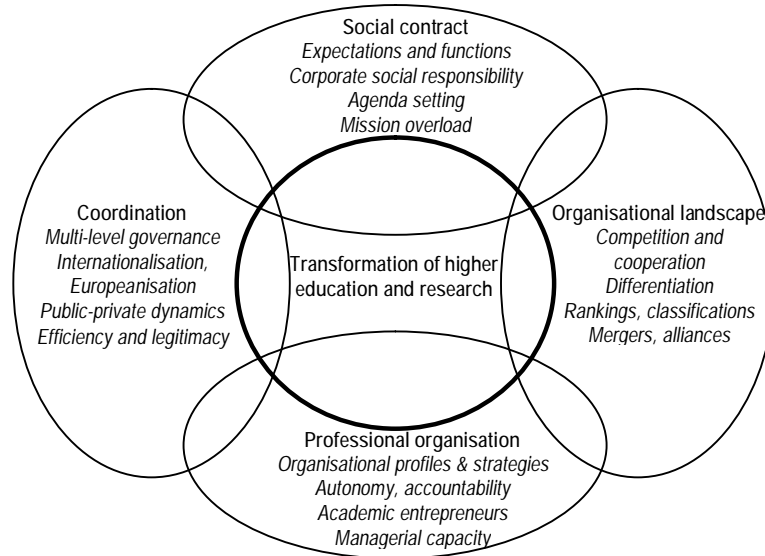


The Transformation of Higher Education and Research in the Knowledge Society



1. Introduction

In the following we present the Center for Higher Education Policy Studies' (CHEPS) 2006-2010 research programme. CHEPS is a research institute at the University of Twente, where it is part of both the Faculty of Business, Public Administration and Technology (BBT) and the Institute for Governance Studies (IGS). This research programme sets out CHEPS' research plans while also playing a role in guiding our education, training, and consultancy activities.

The overarching theme for the coming years' activities addresses the dynamics of the '*Transformation of Higher Education and Research in the Knowledge Society*'. This theme (elaborated below) stresses the ongoing reformulation of the function of higher education and research to play an important role in strengthening modern societies' innovative capacities. All basic functions - research, teaching, scholarship and the 'third mission' - are subjected to revisions in both their objectives and in the conditions under which they are carried out. Universities and colleges find themselves in a changing environment with sometimes competing claims from governments, markets, interest groups and stakeholders. In this highly dynamic context, politicians, institutional decision-makers, students, academics and other stakeholders raise fundamental questions about the further development of higher education:

- As a country or region, how to become and stay one of the frontrunners in the global competition for excellence and innovation while dealing with the breadth and scope of mass higher education?

- As an organisation, how to position itself on the international, national, or regional level and successfully network within and beyond the organisation?
- As an academic, how to find and to fund both a balance between teaching and research and between excellence and relevance in a world that is not just competitive in a traditional academic sense?
- As a student, how to find the best conditions for teaching and learning at reasonable costs that fit one's personal needs and aspirations?

The broader theme is subdivided into four research clusters:

- 1) the reformulation of the cultural and economic role of higher education in society: *The Transformation of the social contract*
- 2) the dynamic modes of governing higher education and research: *The Transformation of coordination,*
- 3) the changing patterns of stratification and networking in higher education and with other stakeholders: *The Transformation of the organisational field,* and
- 4) the developments inside the higher education organisations: *The Transformation of the professional organisation.*

In essence it is the evolutionary processes, the attempts for reform contributing to these transformations and their effects on the functioning of higher education that are the objects of our studies and activities.

As clearly indicated by the research programme's logo, connections between clusters are very interesting as well and part of the real world experience. The growing emphasis on the relevance of teaching and research (cluster 1) may, for example, have consequences for system stratification (cluster 3). New modes of governance (cluster 2) may encourage or block new networks (cluster 3) or affect organisations' adaptive capacities (cluster 4). Change within universities and colleges (cluster 4) may contribute to a redefinition of the higher education and research functions (cluster 1).

The research programme builds on our expertise and past achievements. It takes into special account the research carried out during our previous research programme, "*Higher education and the stakeholder society*". The research areas in this 2000-2005 programme turned out to be well-chosen and generated numerous valuable outcomes. These outcomes were one of the elements we built on in devising this research programme.

By addressing the themes of this research programme, we continue to contribute to the understanding of the dynamics of higher education and research. Through this document and our research activities we aim to advance higher education research, disseminate relevant knowledge and contribute to policy making and practice in the field. We invite you to have a closer look at the work we have been doing (www.utwente.nl/cheps) and to interact with us in what we want to achieve in the years to come.

2. Research clusters

2.1 The transformation of the social contract: The corporatisation of higher education and research

A new contract for higher education?

Higher education and research is transforming. While some may argue that universities and other higher education organisations have done so ever since their initial establishment, others believe that nowadays more fundamental changes are at work. Therefore, our first cluster of research questions focuses on the transformation of the social contract between higher education and research on the one hand and society on the other. We intentionally speak of a social contract here to stress the ties between higher education and its multiple stakeholders – governments, students, employers, intermediary organisations, academic staff – not just the relationship between higher education and government. The various claims that these stakeholders place on higher education may sometimes conflict, but at face value everyone wishes higher education and research could contribute more to society's innovative capacities. Teaching, research, scholarship and community services remain dominant activities but many see their interrelationships and the contributions they make to the economy and society as needing re-assessment.

Higher education is not only supposed to provide excellent education and research; it also must deliver those outputs in ways that are relevant to the region, the nation (or a collective of nations, such as the European Union), students and other 'customers'. Society today has much more demanding expectations about the outputs produced in return for public and private funding. These expectations are reflected in a revised social contract for higher education and research. The key theme of this cluster is the nature and the underlying belief systems of this contract. What core beliefs and values, whose expectations and what specific needs are we talking about? Is it really a new contract or a return to an earlier area?

Corporate social responsibility

An example of such a belief system is that a business-like contract between higher education, government and society will make for a more responsive and successful higher education and research system. Such a contract will include certain social repercussions and is stated in monetary terms with obligations for the respective contract partners, be they public or private.

In response, universities and colleges are not only expected to act responsibly (i.e. pay attention to democratic and ethical values) and deliver value for money (including improved performance) but also to work on their corporate social responsibility (CSR). CSR relates to universities and other higher education providers contributing to the solving of important problems facing society – problems that call for innovative social, economic and cultural solutions. The related questions about under which governance arrangements these contributions are best organised, how higher education organisations change their operation and present their work are addressed in other clusters (see cluster 2 and 4). For

the study of the revised social contract it is important to note that such a contract is found in a changing steering context.

The mission overload phenomenon

The reshaping of higher education and research systems is bringing about various changes, not just in the steering and accountability framework, but also in the academic workplace and in the way higher education providers interact with their students.

For example:

- (1) university staff now focus more on the learning needs of students and the community instead of on who they are as academics and what they know,
- (2) a culture of evidence is finding its way into academia, replacing a culture of unexamined assumptions,
- (3) collaboration and engagement are becoming more central in working methods, and
- (4) institution building is supplanting professional autonomy with concomitant effects for career paths of academics.

Such examples reveal where tensions and conflicts are likely to arise. Combining the various public tasks and market-oriented activities will challenge the existing norms, ethics and cultures. It calls for a rethinking of the ways in which higher education organises itself and is accountable to its many clients. For instance, the drive to create entrepreneurial universities may require universities to be more ‘private’ in terms of staff employment. At the same time, higher education needs to be an attractive employer and engaged “in science for science’s sake”. This mission overload phenomenon is also evident in other higher education areas and potentially leads to conflicts on many levels. Research is needed to look further into this issue.

What is social about the contract?

To many, the direction in which the revised social contract is leading higher education and research is a world where economic values dominate cultural ones and the advancement of scholarship. However, even in a renewed social contract the goals of access and equity can still stand up next to the more instrumental and economic values increasingly attached to higher education. One can point here to the role higher education may play in catering to underrepresented groups’ education demands as well as the demand for lifelong learning that will come with the greying of society.

Could universities and other higher education providers thus have a larger and a more visible role in contributing to the innovative capacity of their national and regional economies? A variety of education, science and innovation policies have recently been proposed to address this issue. These policies often rest, however, on unproven assumptions about the dynamics of the innovation process, the adaptability of the academic system and the ability to reliably define success, priorities and progress towards goals.

What role can the university and the non-university higher education sectors play in the innovation cycle? Should they have an explicit role and if so, are they well-equipped to perform it? Do we have adequate measurement and evaluation yardsticks for judging universities' and colleges' contributions to innovation?

Inspiration and insight

Analysis of the social contract may find inspiration in comparing higher education to other (public) policy areas. Besides the knowledge stemming from these sectors, inspiration and insights derived from theories as diverse as economics, political economy and neo-institutional analysis will be used to analyse and explain the rules of the game that underlie the new social contract. Finding answers will not just be relevant for higher education administrators, policy makers and professionals but will also add to theoretical debates on the public-private good character of higher education, as well as the roles and functions of higher education as a social institution. The playing field of higher education and research is entangled with changing beliefs, related normative statements or even claims about 'good practice'. It is a major task to challenge these normative statements, to turn them into researchable questions and to test their underlying rationales as well as their empirical reality.

2.2 The transformation of the modes of coordination: Multi-level and multi-actor governance

Governance as a veritable growth industry

The key theme of this cluster is coordinating the increasingly dynamic and complex higher education and research system. What are the distinguishable modes, how can they be measured, what are the rationales for shifts in coordination and what are the effects of such changes? This research cluster elaborates on previous CHEPS' research where steering and control in the higher education sector, changing relationships between governments and higher education and stakeholder interactions all played significant roles. The aim here is to join the latest discussions on governance, steering and coordination, both in the world of policy practice and in the social sciences.

Governance, the capacity to take binding decisions for a collective, is seen as one of the most popular concepts in the social sciences. In this veritable growth industry new forms of governance have come into vogue, immediately raising intriguing questions about the 'old' and 'new' forms of governing. According to new governance forms the role of the national government is setting goals for national higher education and research, making strategic decisions and facilitating goal achievement. A good boating metaphor is that the national government should be steering, not rowing. Instead, higher education organisations and their stakeholders should have 'maximum' autonomy to reach these nationally set goals.

'Moving up', 'moving down' and 'moving out'

Taking the traditional view on the nation state as a starting point one can observe shifts in governance in the form of ‘moving up’, ‘moving down’ and ‘moving out’. The Bologna-declaration is just one example of ‘moving up’; many European Commission initiatives and projects could be mentioned as well. At the global level the impact of World Trade Organisation policies is occasionally felt. Devolving authority from the national government to the higher education organisation, in the Netherlands for example through granting universities more opportunities to select their students, provides an illustrative case of ‘moving down’. Transferring public tasks to private organisations and the privatisation of public agencies are forms of ‘moving out’. This redistribution of authority and responsibility means that the rules of the game are changing as are the number and kind of players involved. The various levels of higher education and research systems have increasingly become intertwined, emerging into several dynamic and complex networks. Policy arenas and policy games are undergoing changes in form and function. In these multi-layer policy arenas many mutually interdependent actors operate. Traditional actors such as, for example, the ministry of education or the academic communities still play important roles in these arenas, but policy agendas and strategic choices are increasingly influenced by the European Commission, the European University Association, the ministries of economic affairs or finance, multinationals, local communities, university presidents, intermediary organisations (such as research councils), advisory bodies, representative bodies, private providers and students. The institutional inter-connectedness of several policy levels and a growing number of stakeholders make multi-level, multi-actor governance a fascinating research topic.

This does not mean that all levels and actors are horizontally equivalent to one another or that traditional governance forms disappear. The national government is continuously and consciously re-positioning itself but will continue to be one of the key players. Hierarchies are not likely to vanish, even if market-based or network-based coordination continues to gain ground; traditional governing forms will increasingly be accompanied by other forms of coordination. This holds all the more in a situation where policies aim to unlock academic systems to strengthen their function as a key engine of innovation and economic development. The new governance modes, whether adapted versions of old governance, blends of new and old, or complete new ones invite analysis about their legitimacy, effectiveness and transparency as well as about their transaction costs.

The meanings and means of good governance

The first set of questions of this research cluster focuses on the underlying rationales and the actual practices in the coordination of higher education and research. The various forms of governance, the shifts in governing the system and the reasons for such shifts are key aspects here. What do horizontal modes of steering look like in higher education? How do governments or higher education organisations define ‘good governance’ and try to create structures that meet principles of ‘good governance’? How are new steering philosophies and governance forms perceived by the various actors involved? What are the roles, views and stakes of national governments and other players in governing higher education and research? Which policy measures, instruments and strategies are used by the many actors to establish new forms of governance? We may, for example, look at the meaning behind the

European Union's 'open method of coordination' for countries that recently joined the Union. We may also look at how national and international policy networks are influencing the goals and instruments of research policies. Another interesting issue is the construction of strategic alliances and networks by higher education organisations or academic communities. The participation of students in a European higher education space is yet another example of an intriguing governance issue.

The effects of governance

The second set of questions address the effects of different and changing forms of governance on higher education and research. The way binding decisions are taken for a collective have an impact on the progress and outcomes of these decision making processes. This can be analysed in terms of efficiency, effectiveness and legitimacy. What are, for example, the consequences of growing competition for the costs and benefits of higher education? What does network governance mean for ministerial responsibility? How effective are public-private partnerships? What are the consequences of such partnerships for teaching and research? If universities and colleges manage to capitalise on their growing authority and responsibilities, what are the responses of the academic community? Studies on the effects of changing rules and regulations will thus focus on the efficiency and legitimacy of governance arrangements themselves as well as on their impact on contested criteria for goal achievement in higher education and research.

Inspiration and insight

Classic public administration theories and concepts including political economy, policy analysis and organisation theory serve as this clusters' theoretical pool, as do the emerging governance theories building on actor-centred institutionalism. In the analysis of governance arrangements, attention will need to be paid to structural, cultural and behavioural aspects addressing the 'logic of the situation' and the 'logic of aggregation' in collective interaction.

Further research in this area will also improve governance arrangements and governmental steering in a complex system. Higher education and research policies provide interesting examples in the search for innovative means of governance in experimenting in policy learning and in mimicking. Multi-level governance towards a European higher education area and a European research area – closely linked to the Bologna process and the Lisbon strategy – serves as just one popular example. Global governance (or a lack of it) in the increasingly competitive world of higher education and research and the growing role of universities and colleges in regional innovation clusters are of specific importance within and beyond Europe. Critical questions about the application of 'good governance' concepts and practices usually derived from within highly developed countries are from a scholarly and practical purpose also important for intermediate or transition countries.

2.3 The transformation of the Organisational Field: Stratification and Networking

Structures, boundaries and linkages

This research cluster focuses on the renewed interest in studying the structure and shape of higher education systems. It emphasises transforming interaction patterns as well as changing policies regarding structural issues. We build on CHEPS' past research to study the dynamics of differentiation or convergence between and within higher education systems as well as factors affecting inter-organisational cooperation and competition.

In many highly developed countries as well as in transition countries, questions related to the transformation of the organisational field continue to be a major issue because of the search for appropriate structural responses to the ongoing expansion of higher education. Here academe's educational function, the overall size and stratification of the system, access and admission, study programmes and curricula are all typically addressed. Due to the blurring boundaries between pre-career education and life-long learning for knowledge workers, the delineation between higher education and the world of work is also viewed as a major issue.

Turning to the research function, the growing expectations about universities' roles in the innovation system have stimulated policy makers to search for well-designed and competitive academic systems. Here, we can look for example at the university's role in basic and applied research, traditional disciplinary structures of research and institutionalised patterns of work division in the overall research and innovation system. With the rise of academic entrepreneurship and the increased emphasis on inter- and intra-sectoral networks, delineating the higher education system has become an issue as well.

The transformation of the organisational field in higher education and research has become a genuine multi-level arena for national, international and regional actors. In Europe the Bologna process took on board policies to promote structural harmonisation, transparency and mutual recognition via quality assurance policies. The European Research Area and the Lisbon strategy call for the construction of different innovation strategies that are no longer based on industrial age traditions. Worldwide the 'sectoralisation' between universities, other public research organisations and industrial R&D has increasingly been called into question.

Stratification and networking point to the shape and structure of higher education systems and also to how universities and colleges interact within these structures. Stratification addresses the vertical and horizontal differentiation or homogeneity of the organisational field. It draws attention to the hierarchical differences from apex universities down to peripheral colleges, as well as to the horizontal division of work between and among universities and colleges (e.g. in their mission, the coverage of teaching and research, or fields of study). The concept of networking highlights the neither fully hierarchic nor completely anarchic relations between autonomously acting higher education organisations and other actors in and around higher education systems. It is the multi-level, multi-actor system viewed not from a governmental but from a participant's viewpoint.

Diversity in higher education systems

With regard to shape and structure, one first research theme is what diversity is found in higher education systems and to what extent system boundaries remain national rather than global. From a policy perspective, how regional, national and international policies structure higher education systems is of special interest as are processes resulting from the operation of quasi-markets in higher education and research. From a European perspective we may ask more particularly: Are Bologna and Lisbon generating some form of convergence towards a European higher education and research area? Is Europe moving towards a common stratified system embracing all kinds of higher education in a certain institutional pecking order or do national traditions of diversity persist? Which processes of convergence and/or differentiation can be observed at different levels (sectors/types, organisations, programmes)? What is the role of classifications and rankings, and which capture the landscape best, concerning the character (e.g. between academic and professional), quality (in teaching, research, and the 'third mission') and range of disciplines and programmes offered?

The notion of networks

A second research theme addresses the notion of organisational networks. While the realisation of systems' self-organising capacities introduced the self-regulation idea already in the 1980s, this needs to be further researched in the increasing complexity of the globalising higher education landscape. This landscape is increasingly characterised by its blurring boundaries, new stakeholders, inter-organisational politics and exogenous developments (such as new technologies for research, education or communication; changes in demography). While there is synergy with certain perspectives on policy networks (see Cluster 2) and individual higher education organisations' strategies (see Cluster 4), at the inter-organisational level questions arise about interaction patterns in networks within and beyond the organisational field of higher education and research. Of special interest are the determinants and correlates of different types of networks, the influence exerted by different actor groups in such networks, and the impact of such networks on the shape and structure of the higher education system.

Inspiration and insight

Theoretical approaches of particular relevance to this research cluster may be drawn from organisational sociology and political science with regard to the core concepts of stratification and networks. Organisational fields can be studied from different organisational-theoretical perspectives, some of which have been alluded to as network theories, resource-dependency, neo-institutional approaches and evolutionary approaches such as population ecology.

Research into the transformation of higher education as an organisational field is expected to do more than just enhance insight into the study of system dynamics. It is also expected to contribute to the ongoing debate on the appropriate structure, boundaries and linkages of higher education systems, which in turn may lead to more effective institutional strategies as well as more effective governmental interventions in this area.

2.4 The transformation of the professional organisation: Strategies and interactions

This research cluster focuses on universities and other higher education providers as important, autonomous actors. Higher education organisations are undergoing a change process towards emphasis on individual profiles and policies, managerial capabilities and accountability, internal incentive steering and external competition. It is of great analytic interest to study how these changes are translated into organisational frameworks and responses and how they affect the academic workplace. In this context, the cluster builds on CHEPS' ongoing work on organisational change strategies, the changes in internal university governance and the changing academic profession.

New freedom – new responsibilities

One of the important elements of shifting governance arrangements in higher education are the growing expectations about higher education organisations' self-steering and management capabilities. The university — often described as an 'organised anarchy' — was in many countries for a long period of time almost invisible as an independent actor in the higher education policy arena. Organisational management in general appeared rather weak and not very professional. In countries where higher education was mostly public, the two most powerful actors were public authorities and the academic oligarchy. As a result, universities operated as bureaucratic interest organisations of their academic staff rather than as managed work organisations with hierarchical leadership.

This picture is changing, partly as a consequence of reshuffling authority and responsibilities across the different levels in the system. In many countries during the last two decades policies sought to strengthen the role of the university as a corporate organisation. Certain powers and responsibilities were delegated to universities. Academic leaders were encouraged to become managers and to enhance the strategic management of their organisations. The introduction of new management tools and devices as well as the recruitment and training of more qualified management was supposed to further develop their capacity for internal governance. As a result, universities and other higher education providers have already become, or are on their way to becoming, more important actors in their system's coordination. At the same time, the new freedom that higher education organisations now experience is by no means unconditional. In many cases, it has been accompanied by new accountability measures, the 'contractualisation' of the relationship with government, and other new regulations to control organisational behaviour and performance.

Talk, decision, and action

A central theme in this research cluster is to further researchers' understanding of intra-organisational strategies and policies to deal with internal and external change. Given the discussion about change within higher education organisations it is certainly of interest to further study which decisions have been made and which actions have actually been undertaken: which external and internal developments have had an influence on higher education organisations' responsiveness? What makes them respond to changes in their environment and within the organisation in terms of strategy making, implementation and bringing about organisational change? Why are certain (parts of) higher education organisations more successful than others in developing and implementing new strategic directions? We want to have a closer look at the competing values and interest groups that drive or hinder further organisational adaptation. The professionalisation of higher education's management and its legitimacy within organisations is of further interest in this context. It will also be interesting to study the potential and limits of change strategies for mobilising academics, students and other stakeholders and committing them to the organisation.

Equally important is the impact of managerial change on organisational identities and performance. Here the link between organisational capacities for self-steering and the primary processes in teaching and research is at stake. How do institutional policies shape efficiency, outputs, and the quality of teaching and research? An increasingly relevant object of study is whether more business-like management approaches are suitable for reaching organisational goals and how they affect the nature of faculty members' work. Does management matter in the performance of higher education organisations? If so, what is the relationship between managerial capacities and professional performance?

Conducting the creative minds

A second and related theme is the impact of changes in external and internal governance on academic professionals and their workplaces. What is the impact of the changing management of the academic profession's status, identity and bargaining power, both at the collective and individual levels? Is there an increasing rationalisation and heterogenisation of academic work? If so, what does that mean for the academic reward system and the attractiveness of the academic workplace? Job roles in academe, for example, have historically been holistic, encompassing teaching and research, management and service. Today, academics seem to be more likely to concentrate their work in teaching, research, management or knowledge dissemination while these tasks themselves are subject to a further internal division of work. Faculty also increasingly face the fact that 'gold standards' that were once applicable to the few may not be taken for granted for the many. At the same time, new opportunities for entrepreneurial academics appear in areas and activities beyond traditional job roles. New forms of cooperation, not only across academe's traditional disciplines but also between academe and other research providers and users are in the making. Research is needed to look further into these issues.

Inspiration and insight

Theoretical perspectives of specific relevance for this cluster can be drawn from sociological concepts like contingency theory, resource dependency and the more recent organisation-environment approaches incorporated in neo-institutional theory and network approaches. Theories on organisational culture may also be relevant. Economic theories of non-profit organisations and management theories have also demonstrated their usefulness in studying higher education as an increasingly market-driven and managed professional organisation. In the study of the academic profession we lean towards a dynamic concept in which academics form part and parcel of the transformation of the organisational fabric.

Studies such as those suggested above are expected to lead to a better understanding of the dynamics of higher education as a professional organisation. Equally, from a normative point of view such studies are essential to support the policy search for professional organisations that will be both solid and dynamic. This is no sinecure given the current tensions between the demands for high performance under increasingly competitive conditions and sometimes contradictory demands.