# 1 Towards Knowledge Democracy

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#### **Abstract**

The concept of knowledge democracy is meant to enable a new focus on the relationships between knowledge production and dissemination, the functioning of the media and our democratic institutions. The emerging concept of knowledge democracy moreover obliges us to realise that the institutional frameworks of today's societies may appear to be deficient as far as the above mentioned undercurrents, trends and other developments demand change. We explored the directions for institutional change during the conference.

Democracy is without a doubt the most successful governance concept for societies during the last two centuries. It is a strong brand, even used by rulers who do not meet any democratic criterion. Representation gradually became the predominant mechanism by which the population at large, through elections, provides a body with a general authorisation to take decisions in all public domains for a certain period of time. Representative parliamentary democracy became the icon of advanced nation-states.

The recent decline of representative parliamentary democracy has been called upon by many authors. On the micro-level the earlier consistent individual position of an ideologically-based consistent value pattern has disappeared. The values are present but the glue of a focal ideological principle is not any longer at stock. Fragmentation of values has lead to individualisation, to uniqueness but thereby also to the impossibility of being represented in a general manner by a single actor such as a member of parliament. More fundamentally media-politics destroy the original meaning of representation. On the meso-level the development of political parties to marketeers in the political realm destroys their capacity for designing consistent broad political strategies. Like willow trees they move with the winds of the supposed voters' preferences. And on the macro-level media-politics dominate. Volatility therefore will probably increase.

The debate on the future of democracy in advanced national societies has not yet led to major innovations. Established political actors try to tackle populism with trusted resources: a combination of anti-populist rhetoric and adoption of the populist agenda. Some of the media have responded by attempting to become "more populist than populists themselves", almost always at the expense of analytical depth.

Meanwhile, the worldwide web provides for a drastic change in the rules of the game. A better educated public has wide access to information, and selects it

by itself instead of by media filters. Moreover citizens themselves have become media. They may produce world-famous YouTube pictures.

The crucial combination of a network society and media-politics provides new problems and tensions. The political agenda is filled with so-called wicked problems, characterised by the absence of consensus both on the relevant values and the necessary knowledge and information. Uncertainty and complexity prevail.

Advanced societies are characterised by an increasing intensity and speed of reflexive mechanisms. Reflexive mechanisms in a more or less lenient political environment cause overwhelming volatility of bodies of knowledge related to social systems. As all available knowledge is utilised to facilitate reflexive processes, the result of such processes might establish new relationships that undermine the existing knowledge. Social reality has then become unpredictable in principle.

The relationships between science and politics demand new designs in an environment of media-politics, wicked problems and reflexivity. The classical theory on boundary work in order to master the existing gaps between science and politics is nowadays widely accepted among experts. The underlying insight is that scientific knowledge by its very structure never directly relates to action, because it is fragmented, partial, conditional and immunised. This observation is valid for both mono- and multi- disciplinary knowledge. So translation activities are always necessary in order to utilise scientific knowledge for policy purposes.

The literature on transdisciplinary research is dominated by process-directed normative studies. It appears clear to me that the core concept of transdisciplinarity is to be defined as the trajectory in a multi-actor environment from both sources: from a political agenda and existing expertise, to a robust, plausible perspective for action.

In this volume 20 selected and carefully edited essays represent the harvest of the international conference "Towards Knowledge Democracy" which took place on 25–27 August 2009 in Leiden, the Netherlands. The introduction to the harvest is presented in Chap. 2.

The final part of our study is devoted to observations on quiet and turbulent democracies as very different typologies of potential evolutionary patterns of knowledge democracy.

## 1.1 The overwhelming success of democracy

Democracy is without a doubt the most successful governance concept for societies during the last two centuries. It is a strong brand, even used by rulers who do not meet any democratic criterion. Democracy according to Abraham Lincoln is a very broad concept:

government of the people, by the people and for the people.

Some centuries later Schumpeter however defines it in a minimal manner:

....the democratic method is that institutional arrangement for arriving at political decisions in which individuals acquire the power to decide by means of a competitive struggle for the people's vote.

From Plato onwards, the continuous debates on the relative merits of democracy versus aristocracy, of consensual versus majoritarian typologies of democracy, of unicentric versus pluricentric concepts of democracy enrich our thinking.

In the course of the last two centuries, a group of related types of representative constitutional democracy became the predominant format of the nation-state. It enjoyed unheard popularity, and still does, all over the globe. All Western and most Southern political leaders preach democracy as an all-healing recipe. Representation gradually became the predominant mechanism by which the population at large, through elections, provides a body with a general authorisation to take decisions in all public domains for a certain period of time.

State, sovereignty, society and territory became intensely related with democracy: the formation of the nation-state was territory-oriented by nature, its violence monopoly became legitimated by representative democracy, and the population to be represented was the stable population of that same territory, gradually evolving into a society with a degree of cohesion that justified sovereignty. Of course the dynamics of this development were far more complicated than indicated here so far.

#### 1.2 The curse of success

The cognitive and emotional investments into the present democratic institutions have been large. As a consequence the stability of these institutions is embraced. However, exogenous as well as endogenous developments threaten the continuation of success of representative parliamentary democracy.

The recent decline of representative parliamentary democracy has been called upon by many authors. Both Castells (1998, 2009) and Dahrendorf (2002) explicitly refer to the rise of media-politics as a threat to democracy. The reciprocal structural dependence of politicians and media then becomes the focal determinant of political action. Their explanations are related to the waning role of political parties and the migration of the political forum from parliaments to television studios. As a result of the disappearance of compelling political ideologies, political parties have started to behave like economic actors striving to maximise the number of future voters: following sole economic marketing theory for as far as their position on the political spectre is concerned. In the absence of consistent ideologies, the main parties choose a position very close to their competitors, shrinking the programmatic space dramatically. So voters complaining about the diminishing choice options are right.

Three intertwining simultaneous developments have taken place on the macro-, meso- and micro-level of societies, with important effects. On the micro-level the earlier mentioned consistent individual position of an ideologically-based consistent value pattern has disappeared. The values are present but the glue of a focal

ideological principle is not any longer at stock. Fragmentation of values has lead to individualisation, to uniqueness but thereby also to the impossibility of being represented in a general manner by a single actor such as a member of parliament. None of the values cherished by an individual may be unique, but the combination probably is. The preference on behalf of individuals for partial representation by an NGO per value-domain therefore is no mistake, but a logical evolution. On the meso-level the development of political parties to marketeers in the political realm destroys their capacity for designing consistent broad political strategies. Like willow trees they move with the winds of the supposed voters' preferences. And on the macro-level media-politics dominate. As a consequence the epicentre of politics is shifting from parliament to the media.

Personalities in stead of programmes become the most important discriminating factor and therefore the voters choose personalities. In the attempt to maximise the number of voters, political parties are keen to use the media, as it is merely possible to actually "sell" personalities through mass media. This of course significantly increases the structural dependence of politicians on the mass media. Media and politics, a relationship based on mutual interest as on the other hand the media equally need politicians in order to produce news, one of their main products. So this dependence is reciprocal. The central position of the media – networks in themselves – with their natural focus on the production of news, causes the political debate to become superficial and short-term oriented. The classical function of democracy to protect the people against tyranny and random or arbitrary action by rulers is endangered by the stress on personalities in stead of programmes. More fundamentally media-politics destroy the original meaning of representation.

As Castells points out,

It is not improbable that people will utilise their vote at general elections to show disgust or disapproval, more than revealing their preference for the favourite representative.

To his judgement, representation does not any longer produce a sustainable mandate for the representative. It does merely register an instantaneous picture of disgust at the moment of elections, timeless, without any meaning for future trust, and certainly not for a longer time span. Volatility therefore will probably increase.

The arguments in some attempts to gain insight in the consequences of the decline of democracy, point at the under-institutionalised global developments characterised by the increasing predominance of global economic conglomerates and accompanied by the rise of a new global elite. Other comments indicate that new communication technologies create virtual worlds and weaken the relevance of a physical stable territory. The notion of state, of territory, of society, of sovereignty and therefore of democracy appear to be endangered. ICT and mass media are identified by the above-mentioned analysts as threats for the political realm with a specific negative influence on political representation as media-politics develop. All these trends appear to cause the gradual disappearance of checks and balances, among which adequate protection against arbitrary or random political action. We will digress upon these options later. Another group of far more optimistic experts indicates that ICT enables new types of democracy that could prove to deliver adequate countervailing powers against the just listed threats.

The debate on the future of democracy in advanced national societies has not yet led to major innovations. Established political actors try to tackle populism with trusted resources: a combination of anti-populist rhetoric and adoption of the populist agenda. Some of the media have responded by attempting to become "more populist than populists themselves", almost always at the expense of analytical depth.

### 1.3 Wide access to information for everyone

Meanwhile, the worldwide web provides for a drastic change in the rules of the game. Acts of harassment on weblogs become political facts; virtual allegations become unchecked urban myths and pressure groups design increasingly easier ways to find endorsement on the internet. Obama's campaign was trendsetting for the latter.

Internet, better education and other societal changes have made knowledge accessible to many more people than in the past. This leads to an abundance of knowledge that needs to be interpreted. It also leads to different types of knowledge: not only scientific knowledge but also citizens' knowledge. This is a huge challenge for policy-makers, for scientists and for the media. Politics is not just about how knowledge can be selected for political decisions, but also about how democratic decision-making processes should change in order to incorporate the different types of knowledge adequately.

Moreover citizens themselves have become media: any citizen may produce a YouTube picture that is world-famous in 2 days: icons in political turmoil with great political momentum may be created by amateurs, as the recent events in Iran showed us. The classical media suffer from the new ones: not only in a commercial sense, but also because of the influence of the new media. We call the new media the bottom-up media in order to distinguish them from the classical media, the top-down media. Many of the new media do not know an editing function: nobody accepts the obligation to select the rubbish from the trustworthy materials. This results in very high costs for the recipient of the information in order to make the aforementioned selection. The developments in and with the media are confusing. Our capacity to observe appears deficient.

The wicked character of many problems on the political agenda sheds a fascinating light on the complexities caused by the interaction of top-down and bottom-up media.

Inclusion and exclusion get new dimensions: while the official Dutch authorities promoted a campaign of vaccination in order to protect young girls against future cervical cancer in the official media, the target group itself communicated on MSN Messenger, including series of very negative rumours. As a consequence a considerable part of the target group refused vaccination. Like ships in the night, the different streams of information passed each other.

As mentioned above, we distinguish "top-down media" and "bottom-up media". Both contribute to the agenda-setting of politics. The top-down media operate in structural interdependency with politics. The expression "media-politics" is devoted to this interdependency. The bottom-up media are to a considerable degree independent from both the top-down media and politics. Participation in decision preparation and — making may be invited by public authorities, but uninvited participation takes place too, in particular with support of bottom-up media.

#### 1.4 From knowledge economy to knowledge democracy

During the last decade, an influential debate was conducted on the "knowledge-based economy". This concept even became the main policy objective of the European Union, the Lisbon Strategy. However, there are signs that the strength of the argument for the knowledge-based economy is weakening rapidly.

The current worldwide economic crisis leads to new, very challenging questions. These questions refer mainly to the institutional frameworks of today's societies. It is therefore time for a transition to a new concept that concentrates on institutional and functional innovation. As the industrial economy has been combined with mass democracy through universal suffrage and later by the rise of mass media, one might suggest that the logical successor of knowledge economy is a new type of governance, to be called "knowledge democracy".

Which challenges and threats will we be facing? How will the respectable parliamentary and new direct forms of democracy mix, and which roles will knowledge play in the transition towards a knowledge democracy? The crucial combination of a network society and media-politics provides new problems and tensions. During this conference we concentrated upon the roles of knowledge and information in today's democracies. We further developed the concept of knowledge democracy in order to analyse whether we might be able to deal with these problems and tensions.

Today policy-making in many instances is evidence- or knowledge-based, providing both legitimacy and effectiveness, according to the supporters. Effectiveness is assured as the knowledge concerns true statements on the relationships between political interventions and their societal effects. Legitimacy is furthered when the policies are based upon the "objective" truth. As Silvio Funtowicz has explained over and over again, this image of knowledge is not adequate according to the modern science model. We will elaborate upon this later.

The political agenda is filled with so-called wicked problems, characterised by the absence of consensus both on the relevant values and the necessary knowledge and information. Uncertainty and complexity prevail.

<sup>&</sup>lt;sup>1</sup> This concept was already formulated in the 1990s (Gaventa 1991) and since then survived on a moderate level. Only recently it emerges as a focal point of scientific and societal debate (Cohill 2000, Brown, 2003, Biesta 2007, Ober, 2008).

#### 1.5 Reflexivity

Advanced societies are characterised by an increasing intensity and speed of reflexive mechanisms. We define reflexive mechanisms as events and arrangements that bring about a redefinition of the action perspectives, the focal strategies of the groups and people involved, as a consequence of mindful or thoughtful considerations concerning the frames, identities, underlying structures of themselves as well as other relevant stakeholders. Defined in this manner, reflexivity has to do with a particular kind of learning potential. Reflexive systems have the ability to reorientate themselves and adapt accordingly based on available self-knowledge.

Reflexive mechanisms in a more or less lenient political environment cause overwhelming volatility of bodies of knowledge related to social systems. As all available knowledge is utilised to facilitate reflexive processes, the result of such processes might establish new relationships that undermine the existing knowledge. Social reality has then become unpredictable in principle. The efficacy of reflexive mechanisms is furthered by institutional arrangements that enable individual liberty and tolerance.

In a tyrannical environment reflexive learning may take place, but it is not transformed into a change in behaviour because that change probably is illegal, and severely punished. Insofar as tyranny is negatively correlated with democracy, a democratic environment will prove to be apt for reflexivity.

It is necessary to develop this notion further because it is of utmost importance for the design of an advanced way of thinking on policy-making: we should realise that a social theory of any kind may never be used to create policy measures without an earlier research effort on the specific issue. Such an effort should include the question whether it is probable or plausible that the theory is already undermined by reflexive reactions in or around the target group of the measure. This latter effort will never deliver results with an absolute truth claim. So uncertainty is overwhelmingly present there too. The policy dialogue will then be characterised by different layers of uncertainty, and so by a discussion on the impact of the different layers of uncertainty too.

Evidence-based policy-making as a normative concept probably bears some relevance when it concerns the application of a physical, chemical or biological scientific theory. But it becomes a hazardous pretention if the decision support comes from a theory in the social sciences for the reasons just explained. In particular the claims of economics in important fields as education and health are sometimes preposterous. More modesty would fit once the complexity jump that results from reflexive systems is internalised by the expert.

Knowledge democracy could become an emerging concept with political, ideological and persuasive meaning. The analogy with the concept of knowledge economy is clear: the latter brought political attention for the economic meaning of research and development, a focus on the quality of education and political

support for larger public budgets for the domains under consideration. The human capital theory – although deficient from a scientific point of view – became the predominating policy paradigm in educational policies.

The concept of knowledge economy has developed as a rather vague persuasive notion concerning the relationships between advanced research and education on one hand and economic prosperity on the other. The "container"-character of the concept has not prohibited favourable effects. It has proven to cause a more conscious approach to the relationships between knowledge production and dissemination on one hand and economic innovation on the other.

The concept of knowledge democracy is meant to enable a new focus on the relationships between knowledge production and dissemination, the functioning of the media and our democratic institutions. The emerging concept of knowledge democracy moreover obliges us to realise that the institutional frameworks of today's societies may appear to be deficient insofar as the above mentioned undercurrents, trends and other developments demand change. We explored the directions for institutional change during the conference.

In the perspective of new relationships between politics, media and science also classical problems demand new solutions: the concept of knowledge democracy concerns a *problematique* that relates to the intensification of knowledge in politics. We developed earlier a heuristic scheme in order to think properly about the bottlenecks that threaten optimal trajectories between the realm of politics, policymaking and useful research (Figure 1.1):

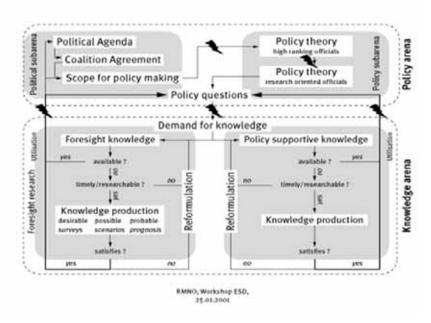


Fig. 1.1 Bottlenecks between the realm of politics, policy-making and useful research.

The thunderbolts show possible bottlenecks in the processes of articulation of the demand for knowledge, as well as the utilisation of knowledge, for instance:

- The actual political agenda may not correspond with the existing policy theories that are either laid down in existing policies, legal systems budgeting rules etc. or/and are embraced by the top civil servants.
- The translation of policy questions in knowledge demand may prove to be extremely difficult, for instance because the policy objectives bear a symbolic character, or because the policy questions are wicked in nature, lacking underlying consensus on values.
- Inconvenient truth, newly produced knowledge that attacks the existing policy theories, will probably not be applied in policy-making.
- Research will produce knowledge in the future but the need is urgent, and the political agenda is slightly volatile so there is a general problem of timeliness. In order to recognise the time lags just described on one hand and the legitimate demand for useful new knowledge on the other we should attempt to design the policy agenda in the near future in stead of only the present one, but that is a dangerous activity.

The aforementioned bottlenecks can be reformulated as problems that demand a solution or at least improvements.

The trajectory between science and politics however is only one of the relevant relationships in the triangle that was used as the basis of the 2009 Leiden conference on knowledge democracy which triggered this book (Figure 1.2):

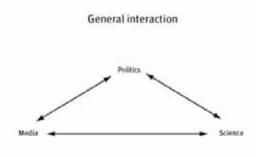


Fig. 1.2 The "Towards Knowledge Democracy" conference triangle.

The media are far from neutral or passive. The illusion that they are a neutral mirror of reality belongs to a forgotten past. We have already shed light on the relationships between politics and media. Media create realities, they also produce knowledge, and moreover report on citizens' knowledge. They are the reporters on scientific findings but also competitors of scientists. The same goes for the

relationships between media and citizens. This increasing complexity demands efforts in order to gain insight. Other important questions are for instance:

- How do media deal with scientific knowledge, and in particular how do they select the new knowledge to be reported on from the vast supply of new knowledge?
- How can scientific knowledge and citizens' science both be utilised in processes within politics?
- How can conflicts between both types of knowledge be solved?
- How do supervisors and regulators deal with citizens' science?

A number of questions concerning the functioning of the democratic institutions themselves as far as application of knowledge is concerned are very relevant:

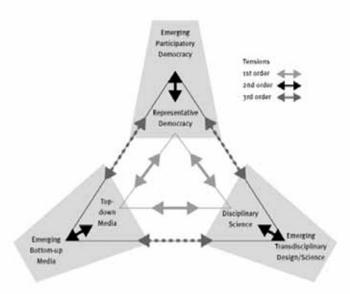
- How do parliaments deal with different types of knowledge?
- How do parliaments not only use e but also produce knowledge?
- Is parliamentary research to be trusted since parliamentary research committees never lose their power orientation?
- How do parliaments deal with their dependence on information from ministries?
- Which challenges and threats will we be facing? How will parliamentary and new direct forms of democracy mix, and which roles will knowledge play in the transition towards a durable and sustainable knowledge democracy?

We will deal with some of these questions in this volume.

### 1.6 Transdisciplinarity

Much valuable scientific work has been performed on the relationships between science and politics, in order to answer the last question partially. Jasanoff and others have argued that it would be wise to design an independent boundary function in order to foster the quality of the translation. The classical theory on boundary work in order to master the existing gaps between science and politics is nowadays widely accepted among experts. The underlying insight is that scientific knowledge by its very structure never directly relates to action, because it is fragmented, partial, conditional and immunised. This observation is valid for both mono- and multi-disciplinary knowledge. So translation activities are always necessary in order to utilise scientific knowledge for policy purposes. Pohl, Scholz, Nowotny, Regeer and Bunders, and many others have explored this vast domain and developed the concept of transdisciplinarity in a number of variations.

The literature on transdisciplinary research is dominated by process-directed normative studies. It appears clear to me that the core concept of transdisciplinarity is to be defined as the trajectory in a multi-actor environment from both sources: from a political agenda and existing expertise, to a robust, plausible perspective for action. Funtowicz's later models contain both solutions and caveats on this thorny road. The terminology of the main authors is still more hesitant and still bears the word "research" in the title. It appears fair however, to acknowledge that the core activity of transdisciplinarity is design, more than research. Researchers of course may contribute to design.



**Fig. 1.3** The emergence of the knowledge democracy concept.

This scheme (Figure 1.3) illustrates the emergence of knowledge democracy. The original institutional framework was fit for the application of the fruits of disciplinary science, in order to solve rather simple policy problems within the framework of representative democracy. Society was ordered clearly in terms of ideological patterns and classical top-down media fulfilled their roles. The first-order relationships show this picture. Each of the corners in the triangle is prone to profound change, indicated in the second-order relationships:

- The bottom-up media do not only supplement the classical media, but also compete with them.
- Participatory democracy is complementary to representative democracy but is also considered as a threat to the latter.
- Transdisciplinary design or research is not only a bridge between classical science and the real world but also produces deviant knowledge and insights.

As a consequence we are confronted with tensions, threats and opportunities that are indicated in the third-order relationships.