

STAGE Typology of Scientific Governance

taken from

Changing Conceptions and Practices of Governance in Science and Technology in Europe: A Framework for Analysis¹

Rob Hagendijk and Egil Kallerud
Amsterdam University and NIFU, Norway

The ambiguous and tangled relationship between rationality and power, discursivity and hegemony, in emergent forms of governance will, inter alia, be analysed on the basis of a preliminary descriptive taxonomy of types of governance. This taxonomy may provide a common frame of reference by which different forms of governance of science and technology may be characterized and related to each other. Each type or mode may be seen to represent typical responses and strategies in policy processes, in terms of selection and combination among options defined by the dimensions and assumptions sketched above. The typology builds upon the discussions in the previous sections and on the paper by Elam & Bertilsson. Especially important is the focus in this paper on the ambiguous relationships between educational and deliberative forms of governance, and its emphasis on ‘APUS’, i.e., acknowledging agonistic and adversarial forms of participation and governance as legitimate forms of performing scientific citizenship. These categories should, hence, be core parts of our framework for descriptive analyses and normative assessment of forms of democratic participation and governance in science and technology.

The forms of governance included in our taxonomy differ - first and foremost- in the roles and identities they assign to ‘the public’, how ‘its’ input is being defined and taken into account in the policy process. The approach does not assume that the ‘public’ is a given, stable entity that may be seen to exist independently of the processes in which ‘it’ participates and are taken account, nor that the notion of the ‘public’ may be an source and basis for assessing the appropriateness of governance conception and practices which they may reflect more or less selectively or adequately, or ‘distort’ to lesser and greater extent. Rather, the ‘public’ and its role in the processes of governance are constructed in and through the processes and modes of

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governance themselves. Each pre-define rules and criteria for the type of negotiation to be conducted, and what kind of voices that should be taken into account. These constructions define criteria of public accountability and responsibility, and make assumptions about whether an active or passive role is accorded to the public in the policy process (Hayrinen-Alestalo, Pelkonen & Snell, 2002). One may see, e.g., that, depending on the type of governance in question, ‘the public’ is constructed, and taken into account, as a basically passive *population* – e.g., in surveys of ‘public opinion’; as *human beings*, when issues are framed in terms of (universal, intuitive) values that decisions must accord with, soliciting active public response, but in a clearly circumscribed framework ; as *consumers*, when appropriate policies are assessed in terms of (possible) consumer patterns and preferences; or as (active) *citizens*, when the voice of ‘the’ public is articulated and voiced by active members of constituencies that take part in all sorts of public deliberation on the issues at hand. The performative nature of public engagement with science and technology must be brought out.

Our preliminary typology comprises the following six types:

- discretionary
- educational
- deliberative
- corporatist
- market
- agonistic.

Discretionary governance (DISC)

In *discretionary governance* policymaking takes place with virtually no explicit interaction with ‘the public’. Decisions are taken without much formal nor informal input to the process by any group outside the governing bodies themselves. For science and technology policy, this may be seen as ‘default’ practice to a larger extent than for most other societal domains, where issues are normally more politicised. The institutional structures and practices of science policy has developed under conditions in which extensive implicit public trust has prevailed, based upon an image of science as a neutral and objective basis for making policy, and where science and technology have been seen as sources and drivers of uncontroversial, quasi-universal goals and values – progress, welfare and growth –outside and above

contention within the normal political process. Thus, science policy has been able to develop, without loss of public legitimacy, in forms in which discretionary governance has played a salient role. In defining a mode of governance which take place within the confines of state politics, and in which the public – ideal-typically – plays no role at all, it falls *prima facie* outside the scope of STAGE analyses; however, it may be seen to represent a zero-value option against which all following modes are negatively defined. At the same time, forms of public participation, often agonistic, will in many cases arise in reaction to attempts to impose discretionary governance practices; the recognition of the need for broader, participatory processes may also be the direct consequence of learning – ‘the hard way’ – that discretionary governance practices will be inappropriate and inefficient.

Educational governance (EDU)

Educational governance reflects nascent or manifest tensions between prevailing policies and ‘the public’, as indicated, e.g., by characteristics of media coverage, voices in public debate, or public opinion (polls, surveys). Educational approaches assume, however, that a main source of and cause for the disturbances lies in lack of adequate information and knowledge. It is a policy approach based on the ‘deficit model’ or Enlightenment conception of the relationship between science and public/lay knowledge. Here, experts play the dominant, active part, either through information and dissemination, or by ‘contribution to informed public debate’. Educational modes of governance differ from discretionary by their acknowledgment of some form of resistance, non-acceptance or -compliance, among the public with policies that are pursued or sought by powerful players; they also acknowledge that this resistance can only be neglected at the risk of loss of political support. While part of the resistance may be excluded as expressions of extreme forms of irrationality – anti-science and -technology – that can be dismissed as outside the scope of what has to be taken into account when policies are articulated and implemented, some forms of resistance must be recognized as having a reasonable basis and needs to be taken into account in the policy process. In its pure form, however, the educational approach frames public resistance to the progress of, and exploiting the opportunities of science and technology merely in terms of ignorance and lack of information. This may not wholly be the fault of the public itself, policymakers and insider players may self-critically acknowledge having neglected their responsibility to educate the public which could have pre-empted the science/public alienation that have made science policy making ridden with complexity and conflict.

Educational approaches do not in themselves draw the policy process unequivocally towards to any one of the three dimensions of the policy process. They may be deployed in high as well as low emphasis on the public arena, as both PR- and public campaign oriented efforts, or in, e.g., educational reform. They do not either necessarily embed a preference for the state politics as against the market, and may be as well be discerned in agonistic configurations, as when NGOs see public consultation arrangements as opportunities for disseminating their message and educate the public on the science of the issue.

Educational approaches are in form and substance strongly *hegemonic*, conceiving the distribution of the essential resources in terms of haves and have-nots, and the negotiation or learning process as strictly linear, from one of the parties to the other.

Deliberative governance (DEL)

In its strong emphasis on consensus, ideals of deliberative democracy connotes a dream to reestablish the conducive socio-political conditions within which science policy could be formulated and implemented in its 'golden ages', i.e., when science and technology benefited from both strong growth and extensive autonomy on the basis of an implicit strong public support. This support was, however, to a large extent based on the black boxing of key policy issues as basically technical in nature, and for experts alone to address. However, under present conditions, there can be no consensus on the basis of black-boxing and implicit trust. The choices are no longer seen to be only or even primarily technical in nature, but have to be framed in terms of their socio-political implications and consequences, and the outcome cannot – under conditions of expert disagreement and counter-expertise – be decided on the basis of superior knowledge and 'best expertise' alone.

As indicated by Elam & Bertilsson, 2003, conceptions of discursive democracy are all-pervasive in contemporary debate about governance in science and technology. A wave of institutional innovations within this policy domain is to a large extent guided by normative assumptions derived from deliberativist conceptions of democratic politics, and focused on the creation of arrangements that may facilitate lay participation, enhance the role of rational public debate, and provide new means to achieve political consensus.

Deliberative governance unambiguously pulls the process towards *the public arena*. It is non-hegemonic in its emphasis on equal access and that no one voice should be seen as a priori more valid than others. Their impact and the outcome of the process should be determined by the *Eigenlogik* of the process itself. Deliberative forms of governance may to various extent be shaped by, and located within, formal *state politics*, as when it is emphasized that organized deliberative input should respond to and inform the political agenda of parliamentary lawmaking, of change of regulatory statutes etc.

A key issue in understanding the relationship between the educational and deliberative forms of governance is their overlap, to the extent that in many actual cases one shades into the other. These ambiguities may be detected in the familiar goal that organized deliberative initiatives should contribute to ‘informed public debate’; here, educational, i.e., dissemination of ‘correct’ information, and sophisticated arguments, create an entangled amalgam of educational and deliberative elements. There is, as Elam & Bertilsson emphasise, a tension in the process by which deficit model notions have been superseded by notions of public engagement that draw on deliberativist ideas. Ideally, deliberative processes cannot but be open-ended, no party have at the start of the deliberative process an advantage over others in terms of the expected outcome of the process; the dice may, however, be loaded in favor of those with superior resources in many ways, including through better access to customized knowledge and rhetorical resources. What is deliberation in form may thus in fact be a means to maintain hegemony. So, counting on the impact of superior resource availability alone may make powerful actors see deliberation as a low-risk approach/strategy. Remains, in any case, the fact that deliberation in most cases is about advisory input to the political process, while decisions are taken by the empowered agencies or bodies.

Corporatist governance (COR)

In corporatist governance, real differences of interests between stakeholders are recognized to be at stake, and solutions that may bridge the differences are sought within closed processes of deliberation and negotiation. Corporatist governance is a pervasive form of governance in welfare state policy, having emerged as a result of a class compromise, often with social democrat parties in a key role for ensuring the terms of the ‘contract’ or compromise. Corporatist governance is more or less exclusively located in the *state politics* dimension, its dynamics pulls the policy process away from the public arena dimension, seen as a source of

input to the process that may upset the precarious balance struck in the more controlled contexts of corporatist negotiation. Corporatist governance is hegemonic, primarily in terms of its in- and exclusion of players and interests that have their representatives in the negotiation process, i.e., who achieves the status of ‘social partner’ in the policy domain in question. The power structure of corporatist governance depends, then, essentially on to what extent corporate governance practices are inclusive or exclusive, i.e, to what extent they include, e.g., civic interests such as NGOs. Corporatist governance commit the social partners included, and the debates on the co-optation of NGOs have emerged as an issue of what price for influence in corporatist arenas to pay in terms of loss of capability in the public arena.

Corporatist governance becomes similar to discretionary governance as both pull the process state politics and away from the public arena. Actually, corporatist governance structures may form an effective basis for discretionary policy making, as a strategy for foreclosing or minimizing the - often costly, e.g, in terms of effective decision making, - detour via the public arena. British politics are often characterized in terms of a strong emphasis on discretionary policymaking, often seen as an antidote to the salient features of adversarial process in US policy; these discretionary structures may be set against, e.g., Scandinavian welfare state politics, which have strongly corporatist underpinnings. Some forms of corporatist governance that have emerged during the last decade or so, e.g., in environmental policy, are *inclusive* to the extent that they comprise extensive formal and informal consultation with civil society, in particular environmental NGOs. The tensions and dynamics of public participation that are addressed in STAGE analyses, may thus also be discerned in this mode of governance as a tension between inclusive and exclusive forms of corporatist practices.

Market governance (MAR)

The idea of market governance is based on the notion that science and technology, among other societal functions, are governed with strong attention put on market orientation. The value of science comes from the surplus value created through its commercialization and market appeal. From the side of the state this type of governance is illustrated in neo-liberal policies that emphasize results and customer orientation and competition. The notion of democracy is also infused with ideas of market competition and it is acted out in the market. In market governance, the public participates in, and on the terms of, the market - as

customers and consumers. The public assesses and influences, then, science and technology policy *post hoc*, after the completion of the innovation process, by their decisions to buy or not to buy a product. The script of the consumer role emphasizes rational choice for the public in this capacity to fulfill its integral role in well-functioning markets. Through these choices ‘the public as consumer’ play an essential and substantial role that may profoundly shape policy choices, both in the next cycle of innovation, and in the establishment of a regulatory framework that complies with consumer rationality. While consumers do not as such have access to the decision making process itself, market sensitive policy making make the consumer role a powerful instrument in exploiting its indirect leverage on decision making, including by breaking the rules, and strategically exploit the consumer role as another channel for the public voice in the decision making process.

Market governance is then characterized by its inclination to draw the policy process away from the state politics and the public arena dimensions, framing choice in terms of commercial offer and individual consumer demand and preferences. It is strongly *hegemonic*, especially in science and innovation policy, where choices are made in terms of innovative, technological opportunities and on predicted or expected, rather than existing, demand.

Agonistic governance (AGON)

Agonistic governance take place under conditions of confrontation and adversity, when decisions have to be made in a political context where positions are strongly opposed, stakes are high, compromises are not easily found, and conditions are not in favor of processes for arriving at conclusions through negotiation and debate. Then direct action, boycotts, demonstrations etc. may be salient parts of the process. This indicates the limits of interactive-deliberative approaches, where dialogue in search of non-hegemonic, common solutions have stalled. At the same time, the expressions of the ‘public voice’ do not necessarily transgress the boundaries of acceptable forms of political action in democratic politics. When policy-making takes place under conditions of agonistic politics, and publics frame their voices in accordance with APUS conceptions, less tempered and constrained by the discursive rules and deliberative democracy, deliberative processes may no longer be effective, unless as a means to enroll an undecided ‘public’ against opponents which will not be particularly susceptible to changing their views. Thus, the argument may be heard that groups that will in all probability not change their views anyway should not be party to the deliberative process

(e.g., the Dutch GM food case); they will merely exploit it as an opportunity to disseminate their propaganda, not as a context for reviewing and readjusting their positions within the process. Thus, however, the limits of deliberative politics may reflect on all parties, who have all to be questioned in terms of their willingness to change their views.

In agonistic forms of governance the main events and inputs take place in and are addressed at the *public arena*, and do to some extent adapt to the constraints set by *state politics*. Thus, focus is on efforts to address and change the given framework and its dominant framings, seen as inadequately structured in terms of key concerns of hitherto marginalised actors. Agonistic participation may, however, be compatible with and draw the process towards the state politics dimension, if agonistic participation is used for enhancing the scope and accountability of state politics decisions, as against, e.g., processes of privatization and deregulation.

Agonistic public participation is *anti-hegemonic*, since not only does it not comply with the terms of a policy framework seen to embody more or less overt forms of hegemony, but also the conflicts at the core of agonistic governance may often be over the very terms and rules of a framework seen as embodying hegemony. Thus, agonistic forms of participation will often be counteractive responses to policy agendas and processes seen as strongly hegemonic, and as too much a form of discretionary and/or exclusive-corporatist policymaking for outsider concerns to be heard and duly taken into account.

Agonistic forms of governance do, by default, to little extent pull the process towards the *market* dimension of the governance triangle; however, consumer protest to pressure corporations to act in environmentally and socially accountable ways be may counter-examples. These forms of market governance nevertheless conform with agonistic participation in bending the rules, here, as the power embedded in the consumer role is appropriated for broader civic or political purposes.