Davos 2018 Declaration

## Steffen Mau
The impudence of quantification

We are living in an age where measuring and comparing has become a central aspect of societal self-observation. One could even speak of the cult of numbers or a data rush. In fact, people have started to believe that things which cannot be represented by numbers do not exist. Interestingly, the German word for "measure" (vermessen) has three distinct meanings, each of which plays a central role in the process of quantification. The first meaning denotes an action performed in order to make a quantitative statement about an object by comparing it with an established standard (a dictionary definition gives: "to ascertain the precise dimensions of something"). The second meaning – and here the German language provides a telling hint – is to "mismeasure", or measure incorrectly. In other words, the process used to measure the object in question (systematically) produces mistakes, and the results do not reflect reality. Thirdly, "vermessen" can be used in an adjectival sense to mean "inappropriate" or even "presumptuous", which raises the critical question of where to draw the line between "good" and "bad" measurements.

The process of quantification is by no means a new social phenomenon. Its history dates back several millennia, to the early days of counting and the spread of mathematical knowledge. At first, the exploration of the world through numbers was the preserve of a small elite. Science, as a specific practice of rationalisation, has of course shaped and developed the language of numbers from the outset. The rise of modern statehood and the expansion of markets and capitalist economics brought about a massive surge in the use of numbers in everyday economic, political and social practices. The availability of figures in the form of official statistics made possible techniques of governance, which replaced the sacred with objectivity and rationality. On the markets, the spread of "calculative practices" (Uwe Vormbusch) – as in bookkeeping and accounting, or the standardisation of measurements and conversions – led to the emergence of a particular kind of economics and trade. The language of numbers has since become universalised to a degree that far transcends both these domains and that of science. A new "quantitative mentality" (Theodore M. Porter) has arisen, with profound implications for our social organisation. This mentality accords numbers an almost auratic pre-eminence when it comes to identifying social phenomena, and is now leading to an ever-widening reliance on all things numeric. Everything can, should or must be measured – nothing seems to be possible without numbers any more.

Quantification nowadays is driven by the growing popularity of concepts such as transparency, accountability and evidence-based information. These are often discussed using the collective term "economisation" in which ratings, rankings, indicators and quantified forms of evaluation play a key role. The goal is to expand the knowledge needed for governance by making data available. This is made possible by the "audit society" (Michael Power), which lives from reporting, objectives, performance observation and continually created indicators.

What does quantification mean?

First, let us consider the question of what quantification actually means, and what it does. In general terms, quantification entails an act of translation: it expresses phenomena, characteristics or states of affairs in a general, abstract and universally accessible language, that of mathematics. This can be done by measurement or by transforming qualitative judgements, insights and observations into numeric values. Quantification reduces a complex and confusing world to the standardised language of numbers, where there are clear proportional relations between large and small (or more and less). Numbers are associated with precision, one-to-one correspondence, simplification, verifiability and neutrality. As such, they are tailor-made for a prominent role in societies which regard themselves as rational and enlightened. Quantification often goes

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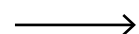
hand-in-hand with the existence of transparent and systematic operations for translating a social phenomenon into numbers. Key to the use of indicators or data series is that they should meet certain quality criteria and be largely independent of whoever generates them. At the same time, the quantification of social phenomena is a process of "disembedding" which deliberately strips away local knowledge and the context of social practices in order to obtain more abstract information that can be recombined and amalgamated with information from other sources.

This is not to say that numbers are free from any kind of bias: quite the contrary. Ever since numbers and indicators have featured in public and political discourse, they have also been battled over by interested parties. Although they abstract from concrete social contexts, numbers are more than mere mathematics. Underpinning them are value assignment processes that give numbers their meaning in the first place. Quantifications can thus be regarded as manifest forms of worth assignment, which is why it is not only the act of quantifying itself that is of interest matters, but how it is done and by whom. With this background, there have recently been important attempts to look more intensively at how value is created and how grammars of classification are produced. These approaches operate under the label "valuation studies". More narrowly defined, valuation means setting or determining value, but here the term is also understood as a socio-cultural practice of valorisation, that is, filling something with value or ascribing value. If value is viewed as something that is socially produced and not something inherent, then the basic premise of analysing such social processes is always: it could have been different!

When using numbers, prior decisions have already been made as to what is to be considered relevant, valuable or authoritative. Data suggest how things should be seen, thereby systematically excluding other viewpoints – they represent a selective construction of reality. Quantification therefore institutionalises certain "orders of worth" (Boltanski/Thévenot) that give us evaluation standards and justifications for how things are to be viewed and assessed. With this perspective, one can view very different phenomena such as university rankings, performance measurements in the professional world, assigning points for hotel personnel's friendliness, measuring daily steps or publishing mortality rates in hospitals as part of a comprehensive and interrelated syndrome. And one can also easily see how this applies to the measuring of Baukultur, where it is also demanded that things can be put into an order of worth.

Based on this, I argue that quantifying the social not only represents a specific form of social ascription but also shows effects in three sociologically relevant ways that have previously been given little consideration.

First, by quantifying the social, a new social comparison disposition is created and strengthened based on the "magical power" of numbers. From a social viewpoint, comparisons are always particularly effective and convincing if they leave the level of subjective perceptions and interpretations and are based on objective criteria (or at least criteria that are considered objective). Comparisons always assume comparability, and this can and must first be created, in part socially. Applying numbers is an act done to create commensurability and to make large scale comparisons possible. Indicators, measurement tools and standardised systems of observation aid in comparing data and give these comparisons the appearance of objectivity and fairness.

Second, the quantifying measurement encourages an expansion if not even a universalisation of competition. By transforming qualitative differences into quantitative inequalities and subjecting what was previously disparate and not comparable into a single evaluation scheme, competition is also encouraged. In many areas, it is the practice of quantification that enables competition to be staged – a competition that is carried out with the help of numbers. With data, we can now use more-or-less or better-or-worse comparisons with others in many areas of our social existence that were previously not explicitly accessible to such processes.

Third, there is a trend toward more social hierarchisation because illustrations like tables, graphics, lists or marks transform qualitative differences into quantitative inequalities. Almost no attention has been paid to the consequences this has on the structuring and legitimacy of social inequality. Quantifying ascriptions of status ranks change our inequality structure because what was previously incomparable is made comparable and placed in a hierarchical relationship. Numbers describe, create and reproduce status.

Power of nomination and the number regime

If quantification changes the mode of social ranking as described, the question must be asked: who has the
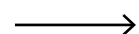
power to set definitions in the new number regime? Who defines the rules according to which the competition for ranks and/or points is carried out? Who has the "power of nomination"? With "power of nomination", Pierre Bourdieu (1985) refers to the ability to influence and authorise terms and categories as well as perception and representation schemata, giving them a quasi-official character. The term is based on the idea that symbolic forms of representation are not only a reflection of reality but are in the end re-presentations, that is, forms of representation and description that filter reality, provide interpretations and suggest certain ways of reading. Those who exercise this power of nomination make use of certain "objectification methods" (Pierre Bourdieu) to push through their interests while at the same time concealing these same interests.

As said, the process of quantification is closely linked to a stronger social orientation on efficiency, performance, competition, output and accountability. These are aspects or dimensions of evaluation that often fall under the category of "economisation". The particular strength of indicator-based governance is that hierarchical interventions are then not absolutely necessary, as these processes affect individuals and institutions by including certain relevance criteria in coding institutional structures and social environments.

Expert regimes also play a major role in exercising the power of nomination. The ability to represent a certain quantitative standard as legitimate, objectively appropriate and generalisable often depends entirely on the credibility of those who establish or support the standard. The experts' credibility is converted into an increase in legitimacy for the indicators. Today the experts' power of nomination is by no means restricted to national experts or a few specialists. An international, if not a global, scene has developed for those who define standards and help them gain recognition. "Epistemic authority" means that those who are recognised as professional experts in a field and have a good reputation can also (co)determine which understandings, approaches and classification systems prevail. Systems of indicators are a key component in establishing international norms or standards against which everyone must then be measured or that can no longer be avoided. This also challenges traditional understandings and puts them under pressure to be justified.

Moreover, in light of the progression of digitalisation and the growing importance of big data, algorithms have now become the key an important tool of the power of nomination too. Increasingly, algorithms determine who is ranked in which spot or how social constructs such as risk, health, productivity, credibility or popularity are depicted. Algorithms are in a certain sense the syntactic manifestations of the power of nomination. They may often have an aura of objectivity because they are impersonal and process data, but these calculative practices themselves are in no way neutral forms of turning social processes into data. They are based on certain models, attributions and ideas of value, which allow them to exercise "algorithmic power" that is able to code our reality in a specific way.

Most issues touched upon here are highly relevant for the measurement of Baukultur. As Baukultur is a qualitative and complex concept, quantification would automatically bring about a reductionism of criteria and a bias in favour of those parameters that can be expressed in numerical form. The core terms of the Davos Declaration, "quality", "joint responsibility" and "cultural sustainability" are highly attractive, but every step of quantification will automatically reduce the multidimensionality of these concepts to a limited set of indicators. What will count are those things that are quantifiable and offer a comparative benchmark against which things are to be measured. In my view, there is an inherent tension between the commitment to cultural diversity, regional identity and historical legacies on the one hand, and the expectation to make high-quality Baukultur a measurably core policy objective, on the other hand. The first requires a sensitivity for local contexts while the second is an exercise in decontextualising information. Hence, every attempt to measure Baukultur will be confronted with the key question or how to reconcile and combine these two demands. How this can be achieved without compromising one or the other is still an open question. However, sensitising all parties concerned to these potential pitfalls can be seen as a first step.