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Drowning by numbers: On reading, writing and bibliometrics

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The purpose of this text is manifold. The primary purpose is to look into the effects of marketization of academia on the reading habits of academics, which also demands a problematization of reading and its role in the process of creating new knowledge. The second purpose is to discuss and problematize the citation as a sign of intellectual debt. And the third, but not least important, purpose is to write a text that demands the reader to *read* in a manner that is necessary to learn, instead of writing it in a manner that is adapted to promoting "citability". And so of course, what I would like more than anything to teach the reader is that the only possible way forward, the only method of reproducing real scholarship in a commodified setting, is to *live it yourself*. This way of writing a text is my way of living real scholarship. If this does not agree with you – don't bother citing me.

What I do

Let me describe my work to you. I am not at all sure whether you are interested in my work, but I suspect that you can gain some satisfaction through comparing my work process with your own. It is always good to be given a point of reference from which you can reflect on yourself, isn't it?

I'm a historian. There are many ways of being a historian. Still, there are certain values connected to the concept of good work that are particular for a historian, and that historians in general agree on. Historians are usually solidly empirical people. It is not uncommon that they feel an obligation to analyse a particular historical context in its totality. Historians often want to turn over every scrap of paper that relates to their question before they attempt to answer it. They feel a deeper need for realism, which is bound to the issue of facticity. What do I actually know about this historical situation? Have I laid eyes on all the relevant documents that can be used to gain more knowledge of this context? Did I manage to find the relevant literature? Is something missing? Not only very old-fashioned historians, who work without questions that are theoretically anchored, fear this. I do, although I pride myself on working very consciously with questions that are anchored in general societal and existential issues, and do a lot of work with my interpretation. I think this fear resides in scholars from many disciplines. Maybe it is stronger in a historian, for reasons that have to do with our often studying something that has ceased to be and that we did not ourselves experience. What do I actually understand of Sweden in the 1930s? Am I even sure what people had for breakfast?

As information grows in sheer volume, the historian's task grows harder. Being a medievalist poses serious challenges in terms of not having a lot of information. Most things we cannot know, or we have to use our deductive powers to reason ourselves to a point where the ground seems stable enough to make a (modest) claim. A historian like me, who nowadays studies the 20th century, has the opposite problem. There is too much bleeding information! You have to narrow your focus in order to be able to satisfy your ambition to really have penetrated the subject you work with. (It is of course possible to write syntheses or course books, but then you rely on what others before you have written, so let's hope that other historians have done solid empirical work, shall we?) Not only can I, as a historian, not study the general development of party politics in Sweden or "Swedish culture during the early modern period", but it is sometimes even hard to write about one single individual. Say that I would study the Swedish economist Eli F. Heckscher (which I in fact do). Do you know how many texts Heckscher published in his lifetime? 1148.[1] In order to portray Heckscher as a writer, it seems I have to do a lot of reading, doesn't it? Do I have time to read all he has written in the three years an average research project lasts? I would have to read almost a text a day, and he wrote some very substantial works, that man. If I thought that maybe Heckscher is not so important, I would rather study the sociologist Max Weber who has had a much more profound influence on 20th century society, my problem would be even greater. So many others before me thought Weber was important, and I have to read what they have written in order to be able to stand on the shoulders of giants, so to speak. If 4000 people before me have written books on some aspect of another of Weber's works, this

[1] Eli F. Heckscher's bibliografi, 1879-1949

calls for some afterthought. To be able to reinterpret, I have to absorb previous interpretations, don't I?

So, it takes a lot of reading to be a historian, or indeed a scholar of any kind. It also takes more and more focus and specialisation, as a result of the increasing number of available texts. Some say historians have become very boring nowadays, partly for this reason. Each does a small piece of the total puzzle. There lies some truth in this accusation. Specialisation tends to diminish breadth and limit the level of generalisation. If I know everything about Heckscher's critique against mercantilism and nothing about the rest of his work, about his immediate context or Sweden in the early 20th century, there are lots of connections I can't make. If I as a historian hesitate to draw conclusions regarding anything that is socially or existentially important, because I shun speaking about what I don't think I know enough about, for the sole reason that I cannot claim to have mastered it totally, then it is no wonder if few people find what I read interesting. Contextualisation is essential to problematization. Problematization is essential to analysis. And analysis is essential to generalisation.

Reading and the hermeneutic circle

Reading. Reading is a task that is too little discussed. A PhD education often contains courses on qualitative and quantitative methodology. Some also contain courses on how to write scientific texts. But there are no courses on reading. Yet the art of reading is more fundamental, I would say, to good scholarship than all other things we do. There are many types of reading. A historian has to master a number of reading techniques: from browsing a book in order to gaining a grip on the general argument, to the application of ingenious techniques to find a particular fact that one is sorely in need of. There are even ways of reading that equal “not listening to” somebody, or even “not hearing what was said because you were thinking of something else” and that must be deemed a total waste of time. One also has to learn to deconstruct other scholars’ arguments through reading, for example to discern which concepts in a historical argument are the analytical tools of the scholar, which are historical categories, and which are simply everyday language, behind the use of which lies no problematization.

One aspect of reading that shapes the choice of texts as well as the approach to them is the motive for reading them. Looking for support for a thesis gives rise to a different type of reading from that done in order to gain a general orientation in a field. The reading process is often done with an eye to how a text can be used in one’s own work. In a very general sense, this is of course always so. Even a very general aim of furthering one’s own education means that the reader believes this is something one will benefit from, in some way or another. But to read in order to become more learned or out of curiosity is still something very different from reading only that which is of immediate use in one’s own text. The latter reading strategy is much more instrumental.

The number of texts available to the student of a particular subject influences the reading strategies. I have already mentioned that more sources and texts give rise to more specialisation, when it comes to choice of research topic. It also leads to a more focused reading strategy. Choices have to be made in order to bring the reading list down to a manageable size. This can be done in many ways, and the methods often relate clearly to the reader’s definition of good science. Empiricists tend to read everything they can find on the empirical category they are studying, say, all about medieval Swedish churches. Another strategy is to base reading on an empirical generalisation or an analytic category. Whatever strategy you apply, a choice has to be made. In my experience, most people around me combine a number of reading strategies, of which perhaps the most underestimated is the strategy to read what other people recommend you to read, and to prioritise according to how much you trust the recommender. Reading strategies also tend to vary over time. The further along you move in your work, the more instrumental the reading becomes. The most selective reader is a PhD with three months to go before the defence of the dissertation. The more time pressure there is, the more selective the reading becomes.

Reading non-selectively works for me as a kind of revitalizing bath. It often gives rise to parallels in time or space. It allows your mind to wander freely. Non-selective reading gives birth to ideas. There is no telling in advance whether an idea will come out of reading African women's history or a cookbook. I think of this phenomenon in terms of my mind being a bit like a big cupboard. Non-selective reading is like opening drawers in this cupboard that you weren't aware of before or that haven't been open for a long time. In reality, ideas are probably not "new" in the sense that they were not there before. Reading just brings them out, and it also helps you combine things in new ways. When there is resonance, something happens. What you do when you read like this is also that you store things in these boxes that can come in handy later. It is very seldom that something I read doesn't come in handy sooner or later.

A particular type of non-selective reading is essential to the qualitative analyst, as it is a prerequisite for the hermeneutic circle. To me, this type of reading is connected to archive work.

Let me take you back to Eli Heckscher in order to explain. A historian's problem, or one of them, is, as I said, time. I was born in 1967, and my first memories are from around 1970. I don't have firsthand knowledge of *anything* that happened before. Historical sources tend to emanate from organisations, as it is institutionalization and organisation that casts off documents that are preserved. Such documents tend to yield certain types of historical facts, like decisions, rules and registers, but also, if you are lucky, they can be used as a source of thoughts, actions and material conditions in a broader sense. The archive of Eli Heckscher is largely a letter archive.[2] It contains about 150 volumes of letters, all in all, I would guess, maybe 30 000 letters or so. It is possible to approach this material in a number of ways. What I am doing now, as part of the process of writing a biography, is reading all the family letters. This is of course a step in the process of understanding Eli Heckscher. But it is also like bathing in the life of late 19th century Jewish bourgeoisie. The important consequence is perhaps not primarily all the facts that are available, but the increasing feeling that I can relate them to a totality, a perceived image of this life and this time as it was seen by the historical actors. I am beginning to see sense in it, to discover patterns and to become submerged in the material. It is like stepping through C. S. Lewis' wardrobe or standing on the frame of the painting, looking into a the picture and seeing it coming alive.[3] The sheer richness of the material does this to you, if you let it.

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[2] Eli F. Heckscher's archive, L 67, Royal Library

[3] The metaphor of stepping into a wardrobe and ending up in another world is used by C. S. Lewis in *The Lion, the Witch and the Wardrobe*, 2001 [1950]. The metaphor of looking at a painting and seeing it come alive right in front of your eyes is from *The Voyage of the Dawn Treader,* 2001 [1952], by the same author.

Interestingly enough, when this happens, when I sit on the train home and feel almost invaded by the life experience of the Heckschers, it doesn't mean that details, individual facts, become blurred. It means – and this is central to the hermeneutic circle – that they become so bright and clear that they almost start to glow, that they are filled with meaning, in relation to the context. After having read Rosa Heckscher's 1290 letters to her son, I know a lot about Rosa Heckscher. I know her views on a variety of political and social topics, her shopping habits, how she dressed and a few hints of how things were between her and her husband and children. These are things that a biographer would be interested in. But I also know things that are seemingly unimportant or secondary, little details that in some cases, suddenly lead to insight. Ponder what it is to have toothache. Rosa Heckscher suffered from toothache. Knowing what it is to have toothache and how it affects you, I believe it important that she (and a lot of people around her) were actually in pain a lot of the time, because of the damned teeth, until they were pulled out. It is a insignificant thing of course, but I am not sure it was for her. Here's another detail. She always filled the paper. She really economised that way. Other letter writers leave half of the sheet blank. They don't bleeding care that they pay postage for space that they don't use for communication. Rosa does. She doesn't waste space. I have thought a lot about this. How should it be interpreted? Is she mean? Doesn't want to spend pennies? Perhaps. She certainly often comments on postage, claiming her intention not to fatten the Royal Post Office. But there is something else too. Something that is related to morals. There is an inherent moral recommendation in this. A life has to be lived responsibly. Waste of time or resources cannot be accepted. Ever. I recognize a possible similarity between me and Rosa in this instance. Her use of paper makes me think of how it feels to live a life and place all these demands on yourself. Her life becomes even more interesting because it gives me reason to think about my life.

So, all in all, I want to claim that in order to give the rest of the world texts that are filled with insight, and able to communicate this insight to the reader (presuming there is a reader who is willing to read this text on its own premises), I, as a researcher, have to do a lot of reading. Some of this reading has to be non-instrumental; it has to be undertaken not with a view of corroborating what is already known or finding support for a hypothesis, it has to be exploratory and open-minded. It must also be allowed to take time. Reading takes a lot of time. Reading necessarily includes a lot of waste. I now contradict myself. A moment ago I said that reading is never wasted in the long run. Having pondered Rosa Heckscher's world and seen myself reflected in the mirror, I want to modify and clarify. It is my experience that things you read come in handy sooner or later. But I do not think that it is good to read economically, so to speak. If you only read things that are of certain use, thinking about waste, you read too narrowly, and won't be any more knowledgeable as a result. Reading must be done lavishly and even sometimes irresponsibly, not in the manner of the "spirit of capitalism"[4] but more in the manner of the passionate amateur or the extravagant aristocrat. Reading has to be done without an eye to the aspect of efficiency.

[4] "Spirit of capitalism" is the concept used by Max Weber and Werner Sombart to analyse rationalism as a consequence of or a prerequisite to capitalism. See Hasselberg 1998, p. 19-28.

Work, time and efficiency

Let us now turn to the matter of time. “Time and tide wait for no man”, it says on a postcard I have on the door to my office. I’m an inveterate time manager. Always keeping track of time, always planning. I don’t really like this in myself. I believe it is something that has to be kept within bounds. It has to do with control, and so the problem is to try to control the need for control. Time cannot be controlled, it just happens to you. The management of time should not be allowed to govern what I do, not fully at least. I just said that above, didn’t I?

Still, time is interesting. It forms a very concrete limit to things. Researchers stretch it a lot. We are always late. This is something that is seldom explicitly stated as a central aspect of academia, but it is. We are always late. In teaching, we are not late to the extent that we are late in our research. But even there we are late. We come to class on time, but we do not always finish the lecture on time, we finish it when it is finished, that is, when we have said what we wanted to say. When it comes to research, we are quite frankly hopeless. We do not finish our research projects when we said we would. Something got in the way. Either we didn’t start them when we should have, because we were finishing something else that should have been finished a long time ago, or we discovered things (books, sources, new hypotheses, new questions that begged to be answered) along the way that took more time than they should have. This also happens when we write texts. Everybody is always late. Deadlines are seldom kept. Researchers are time optimists that act as if time can be bent to fit the internal logic of research, which is an activity that cannot be entirely planned because you go hunting for the unknown. Of course this does not affect the flow of time. But neither is the flow of time allowed to shape exactly what we do. What we do is dependent on the work process and how it evolves. Oili-Helena Ylijoki, who has written an insightful article on academics and time, calls the favourite time of academics, the time that is spent losing track of time, “timeless time”.[5]

Still. Time is there, and it certainly waits for no man. There are 24 hours in a day. No more. No less. How should these hours be spent? How do we spend them? Personally, I sleep eight hours. I know people who sleep less. This gives them more time for their research. There is an entire academic folklore relating to time. Some people are said to sleep very little. Some write articles in the airport. And this is why they are so productive. (I don’t know if it is true. But it sure renders them a tint of heroism.)

Let’s say, for the sake of argument, that work takes eight hours a day. How should these eight hours be spent? How *are* they spent? Is a historian’s working day in 2012 the same as it was in 1962? There are, that I am aware of, no quantitative studies that answer this question comprehensively. What can be stated is that university faculty spends more time writing research proposals and with certain administrative tasks that are related to auditing.[6] We spend time applying for money and we spend time being evaluated (and evaluating others). The issue of the administrative burden is hotly debated; it is one of those things

[5] Ylijoki and Mäntyla, 2003

[6] On the general trend of auditing as a tool for handling risk and making decisions, see Power, 1997. On the epistemological foundation for this trend, see Poovey, 1998. See also the article by Sven-Eric Liedman in this issue on “pseudo-quantities”. On the issue of the time spent by academics on administration and accessing funds, see for, example, Morris, 2000, Ylijoki and Mäntälä, 2003, Djelec, 2012.

we discuss during the coffee-break, and it never ceases to interest us. So, a hypothesis could be that there is less time in general for research and teaching. What then do we do with the time that we have at our disposal for research? What should we do with it? If I ask the reader this question, we could have an interesting discussion about it. This discussion would probably reveal both the scientific norms and the work norms of the discussants. Still, one thing we must agree upon. If more time is spent on one thing, there is less time for another. So, if we spend more time writing, for example, there is less time for reading.

These days we live in the age of the market; science as a market for knowledge. No, I take that back. Just saying it becomes a contribution to the victory of a great lie. We do not live in the age of the market. We live in the age of economic planning and regulation of science that goes under the "brand name" of market and gains its legitimacy from the market. To illustrate this very complicated claim, I want to compare this historical situation to the one described by Karl Polanyi in *The Great Transformation*. I read this book when I did my thesis and it has influenced me greatly ever since. Polanyi's thesis is that the freeing of the market mechanism from its embeddedness in the historical and social context of early 19th century England actually took a lot of regulation, not a lot of laissez-faire. Deregulation was undertaken to support the market mechanism, which means giving the supply and demand mechanism a chance to work according to its own logic. In that particular historical context it meant that the price of labour should vary according to the relationship between supply and demand, so that, for example, when supply rose, the price (i.e. wages) should decrease. So, in essence, as an alternative to starvation, people were willing to work for what they could get.

At the same time, and this is an important part of the argument, whenever the market mechanism needed regulation to support it, regulation followed. For example, it took a lot of regulatory effort to prevent the formation of trade unions. So whenever the market mechanism needed active deregulation it followed, and whenever it needed active regulation it followed. Laissez-faire was never part of the game.[7]

The situation in science today is very similar. Political agents and organised bodies all over the world are in the process of creating an efficient market for scientific knowledge. Knowledge, seen as the prime form of capital, is a tool for creating wealth and also the prime asset in promoting competitiveness in a global economy.[8] This does however mean that the call for management is on the rise, and not that the call for non-intervention increases. Governments want their national universities to increase their productivity. This means that they want to spend less money per unit produced. They want teachers to teach more students for less money. They want less waste of time and resources. They want researchers to be more productive in terms of publication. Above all they want research that contributes directly to the GNP. Private enterprise wants the same, but private enterprise also wants research that contributes to profit. The target for all these expectations is the institution of the university, and even more so now than 30 years ago, as big business has to some extent outsourced research to the universities, closing down their own R & D departments.[9]

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[7] Polanyi, 1989 [1944]

[8] Andersson, 2010

[9] Mirowski and Sent, 2008, Pestre, 2010, Mirowski, 2011

How does one go about creating an efficient market for knowledge? One thing that has to be done is that actors must be encouraged or even forced to act as rational market actors. This means that the suppliers of knowledge must be exposed to demand. How does one expose research to demand? If university faculty is notorious for being late and caring more about the internal demands of the investigation, it means that they are not susceptible to demand. Scholars act more like the Russian peasants in Chayanov's classical study of the peasant economy[10]; they work when they need to, not keeping certain hours, they do not especially care for planning or bookkeeping and they think of resources and time as assets that have to be assembled in order to be able to continue their studies to the point when they feel satisfied with what they have accomplished, when it is good enough. The foremost problem is seldom "How do I spend the exact amount of time and resources that I have in order to get a result?", but rather "Where do I find time and money to do this interesting thing?".

The problem with the peasant economy from the viewpoint of Stalinist Soviet Union was that the kulaks could not be relied upon to produce food for the market. (It also became Chayanov's problem when he was shot after a secret trial in 1939, his book having been understood by Stalin as a defence of the kulaks.) The problem with scientists and scholars is that they cannot be relied upon to produce knowledge for the market. In order to make this happen, it is necessary to get at the definition of quality. This is the only way that scientists and scholars can be convinced to act as rational agents in a market of knowledge. They have to be taught to redefine "interesting" or "good enough".

[10] Chayanov, 1966

This is what is going on at the moment and one of the technical devices for making it happen is the bibliometric system[11]. The bibliometric system helps in making, as Philip Mirowski so aptly puts it, “the market mechanism a processor of information”.[12] If this happens, quality will be redefined, not so that the question “Is it good?” ceases to be asked, but so that it is *understood as* “Is it in demand?” We are talking here of a conceptual change that is the necessary prerequisite of the successful commodification[13] of science.

Bibliometrics and quality

The basic node of the bibliometric system is the citation. There is a variety of bibliometric measures, and they not only measure citations, but the central measure is the citation.[14] What then is a citation? Every scholar knows this of course, but I think it important here to verbalise this tacit knowledge. A citation is when you mention what someone else has published in your own text. It is the counting of such references that is the fundament of bibliometrics.

[11] I have been made aware that my concept of a ‘bibliometric system’ is an idiosyncrasy, and so it has to be defined. I define it thus: the bibliometric system is the system centred around bibliometrics as a technique, and consisting of the main components 1. bibliometrics, 2. publications that are subject to measurement, 3. a market for scientific journals, 4. agencies and organisations that use bibliometric measures for evaluation, and 5. actors who are involved as producers or consumers in this system.

[12] Mirowski, 2011

[13] On commodification in schools and in academia, see Ball, 2004, Ball, 2007, Hasselberg, 2012a and 2012b, Ankarloo, 2012.

[14] Elzinga, 2009

The reasons for mentioning someone else's writings are manifold. I think it is not too bold a guess to conclude that there are a number of different citation cultures, according to discipline but also according to local varieties. The sheer fact that there are varieties in how references are written probably contributes to this. Does the Oxford system lead to the same references as the Harvard system? It does not, according to my experience. The technique limits expression. It is also plausible to assume that the character of the discipline and the problem affects the references. If a discipline is very cumulative, producing a lot of "normal science", it probably produces more references to other research that one directly builds on than a discipline with, let's say, contested opinions. The latter should lead to more references that are negative, i. e. showing distrust rather than trust in previous research. A well-researched area should lead to more references, but perhaps fewer per existing text treating the subject, than an area which is relatively new. To this one could add individual taste. Some people use a lot of references, and others do not. This of course – at least to some extent – has something do with reading habits. I think it is safe to say that the number of citations a text will get will depend on a number of factors, including how original and "wild" one's scientific claim is. And originality is most often not a good way of gaining social recognition. I think there are at least two possible instinctive reactions to a truly original work: incomprehension or usurpation. Neither results in references.

The crucial question is of course why people cite things. There is not a lot of work on this. Susan Cozzens, who wrote an article on this issue in 1989, claims that the majority of references have a rhetorical character. Their aim is to convince the reader that the author is right, the aim is not recognizing intellectual debt. Persuasion is done largely with the help of references.[15] People cite authorities and group them like armies ready to back themselves up. Negative citations can also have a rhetorical function. Chop someone's head off in order for your own work to seem worth more. A particularly sophisticated form for this is to give another person credit for a detail while totally neglecting the central result of the text. I also believe that many citations fill a social function; they are there to show where you belong and which other scholars you like or feel affiliated with.

I have two analytic remarks regarding the value of a citation that I have not seen previously, (and so I do not need to write a reference). One is that the quality of a citation can never be better than the quality of the reading. When people do not understand the full meaning of a text the risk of writing a very silly reference to it increases substantially. So, the mastery of reading is central to the meaning of a citation. Two is that the value of the citation to the person who is cited is dependant on the value of the work in which the citation is located. Getting a lot of praise from people whom I consider to be wrong or bad scholars, I do not rejoice. Why should I? Ergo: being cited in an appreciating way for qualities that your text does not have or as a result of misunderstanding by someone whom you do not hold in high esteem is not a good thing. It is a cause of grief and sorrow.

Bibliometrics is however a quantitative science. This means that such distinctions are not relevant. There are ways of handling certain problems with citations, such as self-citation, but there is no way of taking the intentions or habits behind a citation into account, and even less so the quality and characteristics of the

[15] Cozzens, 1989

citer. A citation is taken to be a sign of intellectual debt and each citation is assigned the same value. If you are cited people like your work and find it useful. (If you are not cited your work is of lesser value and has not contributed to the greater whole.) This makes it very easy to misunderstand citations in a very particular way. Citations in general can be taken to be the equivalent of demand in a market. Your texts are published and the number of citations they get are a tool of finding out if they are in demand. The more citations, the higher the demand and, according to the model, the higher their market value.

So, if we want to push researchers to produce texts for a market of knowledge, is there any way we can make use of bibliometrics? Yes, of course. We can tie resource distribution to bibliometrics. 1. We can start by awarding research funding according to merits measured, grossly, with the help of bibliometrics. Or we can skip bibliometric analysis and just crudely state that the more people write and the "better" their publications are in terms of the bibliometric status of the journal, the more they deserve to be funded. 2. We can do the same with tenure, rewarding people who are "well published". As a consequence of a high market value of your texts, YOUR market value rises. 3. We can award resources directly to the universities in a similar way, encouraging vice chancellors to think a little about how to make their researchers more productive. All these methods are in use in the Swedish university system today. In some disciplines, steps 1 and 2 of this process are more or less taken. 1. Funding has little to do with your ideas; it has to do with your publication record. In medicine and some natural sciences, people write proposals on the basis of studies they have already done. And then they use the funding they get to do something else, which they can use as a basis of the next application. In arts and social science, however, it is still more a matter of looking at proposals, the quality of ideas, and of reading and judging the quality of what people write, but this is changing fast. Furthermore, 2. Giving someone a job is in some disciplines a question of computing the list of publications. In other disciplines, like my own, again, judging quality is a matter of reading and assessing what is being read.

Counting solves many problems, problems that exist on various levels of the academic system. On the political level, there is a general problem with evaluation of output in the public sector, of which Swedish universities are a part. This is a consequence of changes in how government agencies are controlled (I refuse to write "governance" here, a deeply troubled and highly ideological concept). Evaluation as a practice has the general characteristic of being based on quantities. And so, output measures have to be constructed, and publications are very suitable for counting, as are citations. Inside the university, we have problems that have to do with distribution of resources between faculties and disciplines. On this point, it has become more common to solve these problems with the help of bibliometrics. And lastly there is a heap of problems on the level of the individual. There is the time-consuming job of reading and assessing the works of job applicants. It can be shortened and time can be saved by resorting to bibliometrics. And a certain sense of fairness and legitimacy can also be created on the individual level, just because counting limits individual judgment. No more do we have to rely on the "right" referees on order to be judged fairly. Mechanistic objectivity, as Theodore Porter calls it, creates a (false) sense of impartiality.[16]

[16] Porter, 1991, 1995

Wait a minute! Isn't there a problem with my argument? It seems that I am saying that assessment of scientific quality is losing out to counting citations. The counter-argument could be, well, actually, it is only a matter of rationalisation. The bibliometric system contains many readers and assessors, and they are the ones working as editors and referees for scientific journals. Judgment has not been abolished, it has just changed place in the system. Yes, that is a good argument, but it sort of leaves the monograph outside the discussion, doesn't it? And, it is only valid given that the quality of reading in the academic system in general is satisfactory, and it is only valid as long as the decision to publish a text is based primarily on scientific judgment. What do we know regarding this? Well, I should say, very little. There are no qualitative studies that I know of regarding the core of the bibliometric system: the publication decision.

There are however two potential problems that have to be addressed openly. One is a bundle of consequences connected to the ongoing commodification process. As bibliometrics has become a cornerstone in a segment of the market for scientific publication, it has also become a tool for making a profit in an oligopolistic[17] market. If a journal has an owner that is a business enterprise, this owner wants to make a profit. It is easier to make profit on commodities that are in high demand than on ones that are not. So, if the articles in a journal are in demand, that is good for business. The temptation to publish articles that seem to have a chance of gaining many references has grown stronger. In leading journals in medical science and natural science, the powerful driving force of profit has already led to problems with published results that are not corroborated

[17] Oligopolistic means that a few actors dominate the market.

or that have been falsified. Overall, the temptation to manipulate the bibliometric measures in other ways has grown stronger, both for editors and authors. Some journals now even demand openly that texts they publish have references to texts published in the journal they appear in; all to create more citations and improve their status in the bibliometric system. Listen to these two arguments:

> 1. --No, I cannot publish this because it is a thoroughly unoriginal study of the city of London. What you say here has been said before.
>
> 2. --No, I cannot publish this because it is about Stockholm, and our readers do not want to read about Stockholm, they want to read about London or Paris.

The first argument is a very strong scientific argument. You have said nothing new, why should I publish this? The second argument concerns demand. It is about satisfying the customer, the reader. It has absolutely nothing to do with scientific quality.

The second problem is however even more grave. And that is the problem of reproducing scientific judgment itself. As long as the individual actors in the academic system are in principle able to tell (according to the standards of their discipline or school) what a good text is, the problems related to commodification are primarily moral problems. But if we are in the process of constructing a perceived market for knowledge which is linked to a political sphere that places a premium on productivity raises, what then will the long-term consequences be? Can it be that the balance between “input” and “output” in the process of producing new knowledge will be altered? Can it be that in order to write more and publish better, there is less and less time for reading? And if we don't have time to read, how will we be able to educate ourselves enough to a) do original research ourselves and b) discern quality in other people's texts? And who will read, that is *use,* the ever-increasing flow of texts that is produced?

When I think about these issues, my mind starts its endless activity to try and create a pattern, and then to find words to describe these patterns with. What must eventually result from this seemingly grim scenario, when publication becomes an industry, more or less, is the loss of the *use value* of texts. Not only will reading (and thinking) be defined as activities that *ought*, as input values, to be minimised in relation to writing, output. (Absurd, I know.) But if we follow this process to its end point, there will be fewer and fewer texts that are written because their author has something to say and they are therefore worth reading. So, the entire enormous cloud of mediocre texts will in the end become decoupled from use in the sense of "read", "absorb", "learn", "gain insight from". It'll fly like a gas-filled balloon with no weight to keep it down. The present discussion concerning the "governance of universities" is absurd for many reasons, one of them being just this decoupling of publication from reading. Texts that are not read *and absorbed* totally lack meaning for the scientific community in general. The only value of a text will be its potential for yielding a reference in someone else's text, with as little time-consuming learning as possible taking place between consumption of it and producing a new text. Reading in the real sense will have to go underground.

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I decided even before I started writing it to call this text Drowning by numbers. This was mainly because I like Peter Greenaway's films and Michael Nyman's music. When I started out, I quickly realised that the metaphor of drowning was good to think with. Drowning can mean becoming submerged in, absorbed by, taken in by. Drowning in someone else's eyes is the starting point of falling in love. Drowning in a book happens seldom to me nowadays, but I cherish the moment when it happens. Drowning in the historical sources – that I've talked about.

Drowning by numbers to me implies ritual as well as quantities. Numerology, and also death, that's obvious. Ceasing to exist as an intellectual because of a ritualistic drowning in texts that do not give rise to a will to become submerged. Or ceasing to be because no-one else reads my texts in the way that I want to read other people's texts.

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