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Catch-22

How do academic libraries position themselves between top level management expectations and scholars hopes and dreams?

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Catch-22: how do academic library position themselves between top level management expectations and scholars hopes and dreams?

Abstract

Purpose – Services to researchers are a key strategic focus point for academic libraries. In many cases these services are linked to performance management systems. However, this kind of system for measuring scholarly research has unintended side effects and may demotivate researchers on a number of levels. This presents somewhat of a catch-22 for research libraries. This article describes the Bibliometric Research Indicator (BRI) in Denmark, show why the researchers may feel demotivated, outline the dilemmas and the effects on libraries, and presents a possible course of action.

Design/methodology/approach – At least 14 countries have implemented performance management systems for researchers. The impact has been the topic of several – primarily quantitative – studies e.g. in Denmark. The analysis is made by means of a qualitative study (interviews with 43 Danish researchers), using motivation crowding as well as self-determination theory to further explore their motives and experience, to determine whether these factors have any influence on their experience of the BRI.

Findings – The analysis confirm earlier studies which showed that researchers as a whole do not see the BRI as supportive and that this kind of system may have unintended side effects. Unintended side effects include pressure, limitation of freedom, a drop in the perceived standard of research, the slicing of articles, negative collegial behavior as well as borderline academic theft. In connection researchers do not see the incentives or rewards given by the system as supportive.

Practical implications – This presets potential dilemmas for research libraries, as they might become caught in the crossfire between expectations or demands from university management and the hope and dreams from individual scholars with the risk of unintentionally alienating a key target group. Thus, a possible course of action are outlined including focus points and target areas for libraries.

Originality – This article presents original research with some key findings with a focus on the dilemmas research libraries with regards to BRI-like systems, , strategic management and performance measurement.

Type – research paper.

Introduction: The argument

The introduction of performance management systems is perhaps the most common reform strategy in the public sector universally. This is also true for the Danish university sector, where the

Bibliometric Research Indicator (BRI) constitutes such a system. At least 14 countries have implemented this kind of system (Hicks 2012: 252). Services to researchers are a key strategic focus point for academic libraries and in many cases these services are linked BRI-like systems. This case study on motivation, governance and management in the Danish university sector shows, however, that this kind of system for measuring scholarly research has unintended side effects and may demotivate researchers on a number of levels. This presents somewhat of a catch-22 for research libraries who are involved in BRI-like services and the article outlines the results, addresses the side effects, the dilemmas, the effect on libraries and suggests a possible course of action including focus points and target areas.

The Bibliometric Research Indicator (BRI) in Denmark

In Denmark the university sector is publicly funded, and the BRI distributes 25 percent of the annual research budget allocation for universities (approximately 360 million USD). In practice points for significant publications are rewarded on a departmental level and the corresponding funding allocated on an institutional level (Danish Ministry of Higher Education and Science, 2016).

The purpose is to reflect the universities' research activities on a comparable scale which is achieved by measuring the number of publications. But the BRI also rewards scholars who publish in what is considered the most prestigious journals or with the ditto publishers within their field. Thus both quantity and quality is measured and the BRI is designed to accommodate all fields of research and their respective and very different publication traditions.

Every researcher thoroughly has to type in his or her publications into the PURE frontend of the system, which is maintained by the local research library through a license with Elsevier. The system allows university management and library staff with expertise in bibliometrics to analyze the research behavior of faculties, departments but also individual researchers.

This has implications on an overall strategic level but more commonly also on a day-to-day or week-to-week basis in the interaction between management and researchers with the library playing the role of mediator. In Denmark the local university libraries claim ownership of the PURE system and increasingly take on the role as the university's central analysis unit with regards to metrics. Many libraries also submit and validate publications for the researchers. Furthermore, as universities compete in terms of both ranking and attracting research funds, the system and its output is quite closely monitored by management on most levels at most universities, although there seems to be a uneven distribution of the system or a trickle down-effect¹ in play (Aagaard, 2015: 727).

¹ A trickle down-mechanism usually refers to a [situation](#) in which something that [starts](#) in the high [parts](#) of a [system](#) [spreads](#) to the [whole](#) of the [system](#). Originating from economic theory, a trickle down-effect is relating to or being an effect caused gradually by remote or indirect influences. Source: *The Cambridge Dictionary*: <http://dictionary.cambridge.org/dictionary/english/trickle-down>.

Motivation and performance: theoretical implications and key terms

Several studies show that researchers who perceive performance management systems as controlling might feel a drop in motivation and thus in performance (Mouritzen and Opstrup, 2013; Bøgh Andersen and Andersen, 2014). The psychological phenomenon is called *crowding out*. The theoretical foundation is motivation crowding theory (Frey, 1997; Frey and Jegen, 2001) as well as self-determination theory (Gagné and Deci, 2005).

The two related theories are seen in contrast to classic economic theory, or principal agent theory and the performance management paradigms insistence that by applying goal setting, performance measurement and incentives will lead to strategically rational players increasing performance (Eisenhardt, 1989).

The most significant difference is the assumption, that where economic theory suggests a direct, intentional and rational effect from performance management systems, like the BRI, motivational theory in contrast suggest that there may be an indirect and unintentional one. The determining factor is the different forms of motivation present in the individual which is seen to be either extrinsic, prosocial or intrinsic (Frey, 1997).

Intrinsic motivation involves people doing an activity because they find it interesting and derive spontaneous satisfaction from the activity itself. Extrinsic motivation, in contrast, requires an instrumentality between the activity and some separable consequences such as tangible or verbal rewards, so satisfaction comes not from the activity itself but rather from the extrinsic consequences to which the activity leads (Gagné and Deci, 2005: 331). Prosocial motivation – or altruism – is linked to Public Service Motivation (Bøgh Andersen and Pedersen, 2014).

Principal agent theory expects that harder command systems improve performance, and motivation crowding theory agrees that this will be the case, if agents perceive the command system as supportive. However, motivation crowding theory expects that a command system perceived as controlling will be less effective and perhaps even harmful to performance (Bøgh and Andersen, 2014: 84). Accordingly motivation crowding theory suggests that perceived control can lead to unintended side effects and reduce intrinsic motivation causing the crowding out effect. If the system is perceived as supportive intrinsic motivation is increased causing a *crowding in* effect (Frey, 1997; Frey and Jegen, 2001; Bøgh and Andersen, 2014).

The crowding out effect is seen in connection with potentially damaging unintended side effects that can cause a drop in intrinsic motivation and is linked to the two psychological processes of impaired self-determination and self-esteem (Frey and Jegen, 2001: 594). Furthermore a sense of non-support or perceived control with regards to the three basic psychological needs of autonomy, competence and relatedness can trigger a similar effect (Gagné and Deci, 2005: 331). On the other hand, if a crowding in effect contribute to a work climate that promote satisfaction of the three basic psychological needs it will in turn yield the important work outcomes of (1) persistence and maintained behavior change; (2) effective performance, particularly on tasks requiring creativity, cognitive flexibility, and conceptual understanding; (3) job satisfaction; (4) positive work-related

attitudes; (5) organizational citizenship behaviors; and (6) psychological adjustment and well-being (Gagné and Deci, 2015: 332).

Researchers as a whole tend to be quite strongly intrinsic motivated (Frey, 1997; Frey and Jegen, 2001; Frey and Osterloh, 2006; Mouritzen and Opstrup, 2013: 18). This potentially creates a disproportion between a performance oriented and incentive driven management culture (including the BRI) versus a culture within academia driven primarily by researcher's intrinsic motivation. When intrinsic factors are ousted by extrinsic ones in form of e.g. the BRI-system, the risk of unintended consequences or side effects are potentially significant (Nielsen, 2015: 9). Furthermore, the one size fits all-approach to governance and university management may spur very different reactions from the same groups of scholars (Mouritzen and Opstrup, 2013: 13).

In general library analyses and services to researchers based on the BRI system tend to be tightly or loosely coupled with decision making on an institutional level, ranging from grand strategy to the daily decision making with potentially huge impact for the individual researcher. Strategically this can create dilemmas for libraries with regards to living up to university management's expectations and demands versus researchers' hopes and dreams.

Method and design: opening the black box

Several Danish studies show that researchers who perceive performance management systems as controlling might feel a drop in intrinsic motivation and thus in performance (Bøgh Andersen and Pallesen, 2008; Mouritzen and Opstrup, 2013; Bøgh and Andersen, 2014). On the other hand, these studies are primarily of a quantitative nature, and there seems to be a knowledge gap within this area of research (Nielsen, 2015: 11).

So far the voice, perception and motives of researchers to a degree have been somewhat non-existent. A qualitative case study (interviews with 43 Danish researchers, the largest sample of researchers in Denmark to date) using motivation crowding as well as self-determination theory therefore tried further to explore their motives and experience in order to determine whether these factors have any influence on their experience of the BRI as set against two variables: department/faculty and job title/employment conditions (Kaarsted 2016).

In connection with choosing an interpreting strategy of analysis and thus a deductive research design this would potentially allow the motives, perception and voice of the researchers to become clearer – and ultimately scratching the surface of the black box.

Results from the Danish study

The analysis confirmed earlier studies which showed that researchers as a whole do not see the BRI as supportive, including that the one size fits all-approach to governance and university management may spur very different reactions from the same groups of scholars (Mouritzen and Opstrup, 2013: 13). In connection that the researchers' statements and motives with regards to autonomy, competence, and relatedness can be seen as important for their motivation and perception of the system (Kaarsted, 2016: 59-61). All in all app. 75 percent of the researchers interviewed felt some kind of control from the BRI-system. The study also shows that while researchers across variables are split somewhat 50/50 with regards to autonomy, a vast majority of

the researcher's statements tend to express a crowding out effect with regards to relatedness and competence – app. 80 and 90 percent respectively (Kaarsted, 2016: 24-25).

The analysis furthermore shows that two the psychological processes impaired self-esteem and self-determination can also be seen as important when identifying a crowding out-effect among Danish researchers in regards to the BRI. A majority of researchers across variables experienced impaired self-determination and self-esteem, with more than 70 percent of statements displaying some degree of impaired self-determination or self-esteem (Kaarsted, 2016: 44).

Finally, this kind of performance management systems is seen to reduce managerial complexity and anxiety among researchers (Aagaard, 2015). However, the analysis does not confirm the BRI being a pillar of support. When interpreting and measuring the statements of researchers with regard to impaired self-determination and self-esteem a majority express strong or moderately strong statements of crowding out in connection with the BRI – often showing strong negative emotional opinions – the primary example coming from a young researcher, the key quote being: “It’s really like a dark cloud hovering above your head ... you continuously need to justify yourself, and – oh – I’ve got so much energy and don’t have time for my family at home.”

In that regard the BRI is not seen a source of reducing a sense of negativity. Thus the study confirms the trickle down-effect but not in a sense of reducing anxiety (Kaarsted, 2016: 43, 50, 54).

The unintended side effects – or why the researchers may feel demotivated?

A key focus point of the study was the exploration of the unintended side effects, a potential major factor in the demotivation of researchers. With regards to the Danish BRI-system the study shows, that three key findings stand out, all of which may be significant for university libraries.

1. Life is like a box of chocolates

University management might feel a little bit like Forrest Gump when anticipating feedback from scholars with regards to the BRI: “You never know what you’re gonna get”. In this instance unintended side effects include perceived pressure, limitation of academic freedom, a drop in the perceived standard of research, unfairness with regards to the journals chosen as top journals, the slicing of articles, negative collegial behavior as well as borderline academic theft and plagiarism.

Some scholars were e.g. quite forceful in expressing how department chairs in detail were following their patterns of publication and similar outspoken with regards to the perceived drop in the standard of research in general. In the words of one professor: “You may see the same piece of research sliced and published over and over again, even including the same mistakes.” Others voice strong views on the infighting and maneuvering with regards to being primary authors on articles or suddenly find themselves excluded from the byline. One associated professor even experienced receiving the very same article he unknowingly was excluded from for peer review by a journal editor.

In connection researchers do not see the incentives or rewards given as supportive. Some universities hand out monetary rewards to scholars for publishing in top journals like e.g. Nature and Science, but on a whole rewards are given in form of points to the university or faculty which hardly make a positive impression on academic staff (Kaarsted, 2016: 33, 43-44).

2. Hard on the outside

As previously stated, a surprisingly large number of the scholars interviewed (75 percent) felt the BRI-system in some respect controlled them. While this kind of response could be anticipated from researchers within Humanities and Social Sciences (who in Denmark traditionally were unaccustomed to the measuring of scholarly impact, and who also have somewhat of a tradition for publishing monographs which is not rewarded on the same level as articles), it is somewhat surprising that scholars from the 'hard' sciences of Medicine, Natural Sciences and Engineering also tended to express a crowding out effect as well as lowered self-esteem and self-determination.

One hard scholar compared the BRI-system to "constantly having a dark cloud hovering over your head" while another elaborated: "If I don't cut these research results up in to three articles rather than one, management might kick me out. So of course I do it." It is not new that hard researchers to some degree may experience the same side effects as the researchers from the Humanities and Social Sciences, but the results indicate that Danish researchers in general might feel the consequences of the side effects harder than anticipated (Kaarsted, 2016: 26-27, 47).

3. Two's a crowd...

Finally young scholars in particular express a significant crowding out effect caused by the BRI-system. It has a lot to do with the employment- and HRM-policies of Danish universities. Scholars only get tenure when they are promoted to the level of associate professor, effectively causing PhD's, post docs and assistant professors to compete for the same jobs. These young researchers strongly feel that the BRI weighs heavily in their evaluation thus making them feel insecure.

It's all about playing the game when the rules are somewhat of an unknown. Many cite unfair competition from fellow young researchers, who optimize their publication lists to gain ground. One assistant professor put it this way: "It's a huge pressure. Maybe I can get tenure with two publications under my belt But what if one of my competitors has twenty, right?" (Kaarsted, 2016: 29-30).

Catch-22: The dilemmas and their effects on libraries

As stated in the introduction library analyses in the Danish university sector is used on the strategic level and might trickle down in various ways to the individual researcher. With that in mind it is of importance that libraries – with regards to analyses on e.g. metrics – are serving as a management tool for top level management, thus non-voluntarily contributing to the crowding out effect and to the lack of perceived support by researchers. Furthermore, there are examples where library analysis is used not only in connection with the hiring or promotion of academic staff, but also in the event of dismissal as well as suspected plagiarism by scholars. Researchers therefore might feel compelled to shoot the messenger in regards to library services – e.g. validation of research,

bibliometric analysis and the spotting of emerging trends – when used by university management to limit their freedom of research or contributing to the undesired side effects.

All in all this presents potential dilemmas for research libraries that might grow in the coming years:

Support vs. perceived control. University libraries in general are predominantly funded by the university and therefore have a crucial void to fill with regards to relevance. University management wants some bang for their bucks and in countries where these systems prevail university libraries are in some instances called upon to assist in management operations. Paradoxically this could alienate researchers, who might feel compelled to shoot the messenger when library services are used by university management to their perceived disadvantage.

Quantity vs. quality. There is no denying that the quantity of research in Denmark has increased upon the introduction of the BRI system. But at the same time researchers complain – as mentioned above – that the quality of research is going down. On the other hand a review of the BRI from 2012 stated that the system does not cause so-called ‘perverted behavior’ with regards to researchers’ publication patterns and also vindicated the system for causing the slicing of articles. (Sivertsen and Schneider, 2012; Larsen, 2014). However, the review was criticized by scholars among other things for being conducted only three years after the implementation of the system (Christensen and Kirk, 2012; CBS Observer, 2012).

Big picture vs. small frame. As stated a number of managerial decisions can be linked to library analysis and the PURE-frontend of the system. However, simple typo errors or the negligence by scholars not to submit publications are linked to the quality of data being inadequate or perhaps even flawed. This might lead to credibility issues when used both on the overall level and in connection with individual researchers. However, as submission of data has increasingly been seen as the responsibility of libraries, the quality of data will presumably improve over time. But library ownership of the system might also trigger discussions concerning who has access to the data and how they are being used.

A possible course of action

There is no doubt 3-5 years from now, that these dilemmas will present perhaps an even larger Catch-22, as universities arm themselves to become more competitive and public funding for universities in a number of countries will slowly but steadily dry out if the institutions do not contribute to innovation, employability and the enhancement of welfare, as universities has become somewhat instrumental in achieving national political goals (Slaughter, 1996; Johansen and Hansen, 2007).

In the end there are of course both pros and cons for research libraries when committing to these kinds of research support services. Overall libraries can assist universities as well as the individual researcher with increasing visibility and relevance, and furthermore potentially boost impact,

funding and international cooperation. It is also significant that researchers with tenure are not as critically inclined but does – as the researchers on a whole – articulate mixed signals of both control and support.

When dealing with the dilemmas as well as the unintended side effects perceived by academic staff, university libraries might contemplate some future strategic focus points or target areas.

1. A greater focus on transparency and service declarations

Many researchers have no clue how this kind of performance management system influence them but in general still feel crowded out. Most however are acutely aware of the perceived paradigm of mistrust, that goes with it (Le Grand, 2003; Kaarsted, 2016: 52-53). Research library could therefore consider working more in depth with service declarations and communication with in the field not only towards university management but also university staff in general.

A catalogue of services would go a long way combined perhaps with overall information on how exactly the system is working, including that e.g. in Denmark incentives are coupled very loosely to the activity of the individual scholar, and the monetary rewards given to universities are somewhat of a fixed index. Furthermore information towards university staff in general on what exactly can be extracted, who has access to the system, and how the data is used could help clear up misunderstandings.

2. Dealing with asymmetrical communication

Research libraries in general make great efforts to communicate professionally to their stakeholders and end users. Nonetheless, services that rely on performance management systems as the BRI inherit some of the dilemmas mentioned above. Upper level management on one hand demand impact studies as researchers might feel that these services are either an unwanted control mechanism or somewhat of an unknown entity.

The knowledge gap seen in connection with various stakeholders with regards to the services seem quite large with regards to content, design and implementation of these services there by tipping the scale of power away from researchers. This puts a premium on strategic communication and how research libraries can facilitate a mutual understanding of rather complex systems. In doing to, they might consider systematic mapping of input, doing surveys of expectation, continuously inserting systematic in information in the dialogue with stakeholders, aligning expectations with university strategy, and acknowledging that researchers from a communication standpoint are a very diverse target group. This kind of planning is time consuming making it suitable for the mid- or long term strategy (Dozier *et al.*, 2013: 95-101).

3. Support university management in finding new incentives for researchers: Time vs. money

As shown above, most researchers do not make any direct link from the rewards given in the form of points and the actual work they do. Thus it could prove beneficial for both university management and researchers to experiment and further explore new forms of incentives and

rewards, e.g. with more time rewarded for research activities in contrast to tasks associated with teaching, counseling and administrative duties. In close accordance with motivational theory this kind of reward could potentially promote satisfaction of the three basic psychological needs, enhance employees' intrinsic motivation and in turn yield the important work outcomes of persistence and maintained behavior change, effective performance, job satisfaction, positive work-related attitudes, and organizational citizenship behaviors (Gagné and Deci, 2005: 337).

By extension university libraries could support university management in finding new incentives for researchers by measuring impact linked to these new incentives and by contributing to the design of research studies.

4. Help facilitate future reviews

As stated the BRI-system in Denmark was reviewed some years back, but scholars on average still tend to feel crowded out. Thus, on both a political and practical level research libraries could potentially benefit from and contribute to future reviews.

Research libraries could share the workload with university administrators and, as library staff seems uniquely qualified with regards to bibliometrics and citation analysis, future reviews could perhaps be considered more credible or precise. On a political level that would help libraries insert themselves in the decision making process. Furthermore, advocacy with regards to future reviews could potentially lower the risk of alienating researchers, who express discouragement in the system with regards to the perceived drop in the standard of research, as well as the expressed unfairness, slicing and problematic collegial behavior. Finally, it could help libraries align themselves with national and local strategy.

5. Leadership style vs. impact

As universities in Denmark tend to see the day to day management of researchers as a one size fits all proposition, situational as well as transformational leadership can potentially enhance intrinsic motivation and performance (Kaarsted, 2016: 55-57).

Situational leadership refers to that there is no single "best" style of leadership. Effective leadership is task-relevant, and the most successful leaders are those who adapt their leadership style to the performance readiness (ability and willingness) of the individual or group they are attempting to lead or influence. All leadership styles are categorized into four [behavior](#) types: Telling, selling, participating and delegating, where the latter two seems relevant with regards to primarily intrinsic motivated researchers (Hersey and Blanchard, 1977).

Transformational leadership is where a leader works with subordinates to identify needed change, creating a [vision](#) to guide the change through inspiration, and executing the change in tandem with committed members of a group. Transformational leadership serves to enhance the motivation, morale, and job-performance of [followers](#) through a variety of mechanisms, and therefore also might be suited (Bøgh Andersen and Pedersen, 2014).

Looking forward it could prove beneficial for research libraries to help facilitate research studies on leadership style versus impact by the means of bibliometric analysis. Libraries could obtain new ways of relevance by introjecting themselves with research teams from e.g. the local schools of business, management or political science. In closed connection libraries could potentially help attract external funding from national research grants, a strategic target area for e.g. most Danish universities.

Limitations and future research

This BRI-study is made within only one country and as these systems tends to vary not only from country to country but also with in comparability within faculties and institutes, further studies might expose different patterns. However, as the results fit a more general trend within the research area, the takeaways could potentially prove useful for universities and research libraries in general.

Furthermore it could be beneficial to research libraries in general to get a clearer understanding of the role they play – and the possible issues connected with it. Therefore it might prove rewarding to survey a large number libraries with regards to how they feel about the role as a tool of management and the corresponding dilemmas, perhaps in the same manner that The Library Impact Data Project in the U.K. surveyed library management and staff with regards to library impact, the collection of data on students, and the construction of library monitored dashboards.²

Finally it is important to underline, that BRI-like systems are just one component in the rather complex daily life of researchers. When the sun sets on the busy lives of academic staff several other components can be identified as possible sources of crowding out. They include traveling and preparing for conferences, doing peer review, being on review boards for tenured positions, teaching, counselling of graduate and PhD students as well as trying to help cultivating new innovative interdisciplinary research areas; not mentioning raising their children, seeing friends, going mountain biking, and cooking new Asian or Italian cuisine.

The sheer complexity of researchers' daily lives – including the work-life balance of intrinsically motivated and high specialized knowledge workers – seems to hold a rather large potential of finding additional sources of the crowding out-effect. And could also be an area of future interest for research libraries in their many dealings with faculty and researchers.

So perhaps there is no immediate danger of the messenger getting shot just yet. Still, a case for libraries arming themselves for future strategic moves can be made.

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² The Library Impact Data Project at the University of Huddersfield can be followed at: <https://library.hud.ac.uk/blogs/lidp/author/librgs/>. Accessed December 3rd, 2016.

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