

Name and Shame

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Abstract

Public measures of success can motivate institutions to work harder to achieve a particular goal than investment or grant payment schemes or prizes. The *Access to Medicine Index* could be a model for motivating corporations and major state-funded institutions towards specific practical goals. The model is well suited to grading companies' efforts in translational medicine.

Text

How do you get new ideas about solutions to specific problems tested, developed and implemented?

The well-worn approach is to fund projects that aim at a specific goal. Hundreds of billions of dollars are invested worldwide in healthcare to do this, through grants, subsidies and commercial investment. The advantage of paying someone to solve your problem, whether it is repairing your car or curing cancer, is that people working on the problem that you want solved can pay their food bills, rent and so on while working on it. The drawback is that the problem-solving process becomes an end in itself. This is particularly evident in biomedical research, where the twin goals of research should be benefiting human (and to a lesser extent animal) welfare (including understanding of how the biological systems of which we are a part operate), and furthering our understanding of life and its place in the Universe. For much of the research published it is hard to see how it makes any measurable step towards either of these goals (1,2). It would be nice to believe that this Journal has a better record than others on this front, and it is my aim to make sure that every paper either has some useful practical implication or for insight into broader aspects of biology.

An increasingly popular route is via prizes (3, 4). Still quantitatively tiny compared to major research budgets in academia or industry, prizes such as the Methuselah Prize or the X Prize gain disproportionate attention because they are aimed at a result, not a process. The prize is awarded only when the end goal is achieved (although most have intermediate goals along the way). Here there is no support for the process, and consequently no encouragement for research to become an end in itself, nor for research to be confined to a self-defining establishment. The drawback is that, for projects that could take decades to pursue, only those with independent wealth can pursue the prize. Someone has to pay the rent.

With this caveat, however, prizes have worked well in the world of private and academic research. However corporate goals do not include winning prizes. So while academics may aspire to win the Methuselah Prize, and private, self-funded researchers certainly do, major companies are not motivated by this approach. As major corporations are a major route by which research ideas are turned into the products we use every day, this is a serious limitation, especially in biomedical research where launching a genuinely new, innovative product can cost billions of dollars.

I want to bring readers' attention to a third route. If the carrot of investment, grants and prizes will not work, will the stick of public competition and shame? A very successful example suggests that it can. The *Access to Medicine Index*¹ was set up simply to describe how well major pharmaceutical

1 <http://www.atmindex.org>

companies provided access to their medicines for those not able to afford Western-style healthcare, principally people in developing countries. The Index has a sophisticated scoring scheme which, however, is less interesting to us than its effects on pharmaceutical companies. While it was being created, the Index received anything from dismissal to hostile rejection from the companies that it as profiling (the founder was allegedly “practically thrown out of the building” at Pfizer (5)). But response from the investment community was different, and the Index was accepted as a valuable (if minor) way to grade companies by major investors, and as a result had to be taken seriously by the companies in which they invested. So when the Index was launched in 2008, it was not ignored (especially by those near the top), and there is the hope that the threat of not appearing near the top will drive companies to do better in providing access to medicines for the needy.

Of course, the ATM Index will be manipulated if it can. Companies will read the fine-print and decide whether it is cheaper to provide access to medicines or to do things that fit the Index's parameters but do not actually help anyone. This is an old game in fields as diverse as school examinations and tax law. Avoiding the blatant expression of this approach is the task of the examiner, the taxman or the Index.

Could this approach be extended to other areas? I am sure it can. Name-and-Shame approaches could be used to categorise companies or non-commercial research institutions on how innovative, socially relevant or progressive they are in any field, and they will work as an approach if:

1. the institutions are roughly comparable (and so look to each other as the main measure of their success)
2. there is no public perception of the differences between them in the measure that the Index is to target
3. their major source of support takes an explicit stand supporting whatever measure is created
4. there are not other, more established measures
5. the measure can be, and is, readily updated (so that institutions are motivated to improve)

The first is certainly true of the pharmaceutical industry, whose ultimate measure of success – company stock price – is all about performance relative to the market average for their industry. The second is true with respect to their provision of access to medicines – the public viewed the industry as pretty uniformly ethically challenged in this area. The third was true of the ATM Index as soon as it gained the attention of investment funds that managed \$1.2 trillion between them. The fourth was true, because although there was a lot of complaint about lack of access to medicines, each company could claim that it was doing the best it could and as much as anyone else: there was no objective measure to prove them wrong. The ATM explicitly states that it will do the fifth.

By contrast, economic performance of the EU or the UN cannot be Indexed because there is (alas!) nothing to compare them to, a software usability index comparing Apple and Microsoft would be useless as everyone already has strong views on this, an index of ethical performance of venture capital funds would be ineffective as the investors in those funds (themselves private institutions) do not care, and comparison of research output of Universities by a new index would not work, because there are a plethora of comparators from bibliometrics to students/teacher ratios to graduate employment statistics that their funders already use.

What other Indices could be created? In what area of biomedical science is progress stalled not by lack of knowledge but by lack of willingness to apply that knowledge? Areas that are ripe for such measures are in translational medicine, both academic and industrial translation of the 688,000 paper indexed in Medline for 2005 alone into something of use to people other than their authors. But what exactly? Gentle reader, I leave that as an exercise for you.

Acknowledgements

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- 1) Rees, Jonathan (2002) 'Complex disease and the new clinical sciences' *Science* 296: 698 - 701
- 2) Bains, William (2008) 'Truly personalised medicine: Self-experimentation in medical discovery' *Medical Hypotheses* 70: 714 - 718
- 3) Erren, Thomas C. (2007) 'Prizes to solve problems in and beyond medicine, big and small: It can work' *Medical Hypotheses* 68: 732 - 734
- 4) Charlton, Bruce and Andras, Peter (2008) 'Stimulating revolutionary science with mega-cash prizes' *Medical Hypotheses* 70: 709-713
- 5) Jack, Andrew (2008) 'Man who put drugmakers under the microscope'. *Financial Times* (London). From web site: <http://www.ft.com/cms/s/0/c74b0c7a-3b3d-11dd-b1a1-0000779fd2ac.html>

2 <http://www.robynscott.org/>