



Quantitative logic stimulates academic productivity, but social impact gains relevance as an indicator

Elton Hanzon / 21 de março de 2024 / In English

Science | With the necessity to render account for the resources invested in academic production and measure its reach, universities have been seeking alternative ways of evaluation

By Elton Hanzon
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Photo: Fábio Duarte/U - Prensaura (2008/2009), by INCA (Center for the Establishment of Artistic Ceramics). Panel excerpt (1m x 4m) composed of ceramic plates by several authors, located on the central campus of UFRGS

Faculty members and researchers from different universities in the country point out that the intensification of quantitative evaluation in the knowledge production based on neoliberal ideology has made universities and public research institutions adopt management policies of the private sector. In other words, devoted to minimizing costs and maximizing profits. With the market logic taking over education, the need to measure and quantify science has emerged.

In academic evaluation, the quantitative point of view emerged in the United States in the 1950s and has intensified since the end of that century. The professor of the Graduate Program in Philosophy at the University of São Paulo (USP) Marcos Barbosa de Oliveira explains that, with the implementation of an administration analogous to the one adopted by the private sector, it was necessary to find a substitute for the role of profit. This replacement was productivity; the ratio between the goods produced and the resources spent on their production. "To measure productivity, it's necessary to measure production - and basically this is the role of neoliberal assessment, which, to be complied with, needs to be quantitative." Oliveira, associate professor at USP since 1997, summarizes the consequences of this model.

"These evaluations are a characteristic of the transformation of the university into a simulacrum of business enterprise, of what is produced (especially scientific papers) into merchandise simulacra, endowed with simulacra of exchange value."

— Marcos Barbosa de Oliveira

As stated by Professor Artur Henrique Franco Barcelos, faculty member of the Federal University of Rio Grande (FURG) and author of the text "Ponta do iceberg" ("The Tip of the Iceberg", in free translation), the concept of academic production was so naturalized that it became the jargon "productivism". According to him, there is a widespread forgetfulness of what academic daily life used to be like before the advent of the curriculum Lattes, released in 1999. "It (Lattes) lets you know 'who is who'. The time had come to define 'who is more', or rather, what is the desired 'who' like", he says. The use of metrics based on scores was the path chosen. "In 20 years, we have reached Qualls (which precedes Lattes) and Qualls Books, a mechanism for classifying magazines and books based on criteria that define concepts A1, A2, B1, B2, B3, B4, B5 and C," he explains.

The criticism against the current evaluation system is very much due to the reason that it gives greater value to the quantity of publications than to their quality. Thus, researchers are compelled to reach specific work goals to advance their careers, get funding, improve their resumes and obtain academic visibility based on the number of articles and article citations, for example, often without further consideration about the social relevance of the knowledge disseminated or the time required to produce it.

Nor surprisingly this logic has been keeping women and black people in disadvantage, while privileging certain groups, according Leticia Pereira de Souza, researcher who holds a bachelor's degree in Library Studies from UFRGS, in an article recently published in JU (UFRGS newspaper). Considering the economic, racial and gender inequalities in Brazil, Leticia conducted a survey with Information Science researchers - master's students, doctoral students, and professors of graduate programs - in order to learn how they perceive themselves in relation to the search for knowledge in productivism. In conclusion, Leticia states that "the current evaluation system in science privileges a certain group of scientists which controls the scientific field and dictate the rules of the academic environment, preserving certain traditions in science".

The executive vice president for graduate studies at UFRGS, Júlio Barcellos, explains that the valorization of quantitative aspects in academic performance, based on the publication of articles in high-impact journals, was highly stimulated from 2000 to 2017. But after that, according to the professor, new scores such as the social impact of the research have been gaining greater relevance. "CAPES (Improvement of Higher Education Personnel) began to see the production of the graduate programs in its social potential. And this is a qualitative evaluation factor of academic production, far beyond the quantitative production rates," he says.

Regarding the administration of universities under the same logic adopted by private companies, Barcellos says it is a pragmatic issue - the most important, according to him, is that knowledge reaches society in the form of results, even in areas such as the social sciences. "The rules of the game are put and established and, if we can advance in the social aspect, we are doing well," he says.

According to the USP professor, the quantitative method tends to receive more attention in times of capital instability, such as the financial and economic crisis that occurred in 2008. Oliveira has also recently published an article about quantitative/qualitative polarity. The article is available on the platform Outras Palavras in two parts, published on July 13th and 20th.

Beyond Productivism

The first two decades of the 21st century have been marked by the advance of neoliberal ideology. Artur Barcelos points out that authors Pierre Dardot and Christian Laval present a consistent analysis of this phenomenon in the book *The New Way of the World: on Neoliberal Society*. "According to the authors, neoliberalism is not an economic concept or a restricted political ideology. It is a new way of thinking, a way of conceiving the human nature. Based on Foucault's biopolitics, the authors demonstrate how people convinced that we are naturally competitive can create, put into practice, defend, and expand mechanisms of social control which are independent of state actions. This control occurs through mercantilism, pricing, measurement, and attribution of value to everything, absolutely everything," analyzes the FURG professor.

The movement is even reflected in the lexicon.

"Programs are not 'closed', they are 'discontinued'. Only Language offers a plethora of terms that have overrun universities: innovation, efficiency, indicators, entrepreneurship, metrics, startups, tech as a suffix of institutions and projects."

— Artur Barcelos

Demétrio Luís Guadagnin, a professor at the Institute of Biosciences at UFRGS and a scholar of academic evaluation models, understands that there are several ways of looking at the science production system. In his opinion, the evaluation based on publications allows the application of scarce resources to be optimized and to enhance academic production. "By accepting this belief as true, it is defensible to use academic production as an evaluative criteria acquired (but not exclusively) by publications," he says. However, the professor identifies in the logic of "publish or perish" a drawback of the system, a co-opt of science by neoliberal productivism, stimulating "careerism, normative science, submission to corporations, research topics and publishing houses that have interests other than the public. In this case, deviance and corruption are interpreted as signs of disorder," he says.

The disorder of the system, according to Marcos de Oliveira, is reinforced by the indicators *Journals Impact Factor and h-index* - regarding the productivity of researchers. "The first one results from the precariousness of the indicators, which undermines the meritocracy claimed as an advantage of quantitative evaluation. The other one is in the harmful and unintended consequences of the systems, including: decrease in the quality of life of the researcher-professors; the incompatibility with the practice of the social responsibility of science; the proliferation of misconducts; the annihilation of the idea of authorship; the distortion of quotations; the decline in the quality of production; predatory periodicals; the 'fetishism' of university rankings", says the professor of USP.

To escape the conception that there is only one possible way to measure the knowledge - in the same spirit of the quote by Margaret Thatcher "There is no alternative" - Oliveira proposes, in an article published in 2014, the logic of "gift-giving as an organizing principle in science". In it, the researcher advocates an understanding based on the ideas of the American sociologist of science Warren Hagstrom, according to whom the contributions of scientists, including articles and books, work as gifts-giving, not as commodities, nor as simulacrum of commodities. "Gift-giving reciprocity also involves rights and obligations, which are, however, of a moral nature, not contractual nature: one can sue the merchant who did not deliver the goods for which they paid; one can censor, but not bring to justice the friend who did not return the birthday gift we gave him/ her," he exemplifies.

Oliveira points out alternatives to make a transition from the quantitative to the qualitative method. The main point would be the republican principle of giving explanation and showing that resources were used honestly and efficiently. Reflections on the social meaning of the researcher's work may result in publications because they take time and energy and have social impact, but they would not count as a publication in the quantitative evaluation system.

"The idea is that providing clarifications is not limited to a quantitative view. Therefore, it can be expected from the researcher that, when describing his activities for evaluation purposes, in reports and in the resume, the researcher also exposes his conception of the social meaning of his work, that is, the way he thinks that his work can result in benefit to society."

— Marcos Barbosa de Oliveira

Digital Revolution at the University

The depth of such transformation - caused by distance learning and the impact of the digital trend on science - is, according to Barcelos, comparable to the chipping of stones three million years ago or the control of fire approximately 1.5 million years ago. "Digital technology is not just another technology, which will gradually expand through society, as have the wheel, metals, gunpowder, writing or even nuclear energy. For the first time, we have a technology that is profoundly changing the very ways we human beings interact, in areas as broad as work, education, politics, leisure, love, sex, religious beliefs," he points out.

'What is learned' has now been leveled to 'how is learned'. Thus, there is a structural change in progress with the virtualization of everything. "Large universities, based on face-to-face teaching, with libraries, laboratories, vehicles, planetariums, museums, are destined to reconfigure themselves, disappear or clearly choose to serve a restricted audience," exemplifies Barcelos. As a result, there will increasingly be pressure for lean, ultra-technological, cost-effective institutions with designed-to-fit-the-market programs. "We should discuss it intensely in universities, because society has assigned us the role of producing scientific knowledge, and we have a new phenomenon going on right before our eyes. But we are filling out forms, writing reports, calculating indicators, and writing articles instead", he reflects.



Invidia (1906), by Eugenio Labour (excerpt). Dimensions with frame: 228.7cm x72cm. Oil painting. Collection of Pinacoteca Barão de Santo Ângelo/Institute of Arts/UFRGS (Photo: Flávio Dutra/JU)

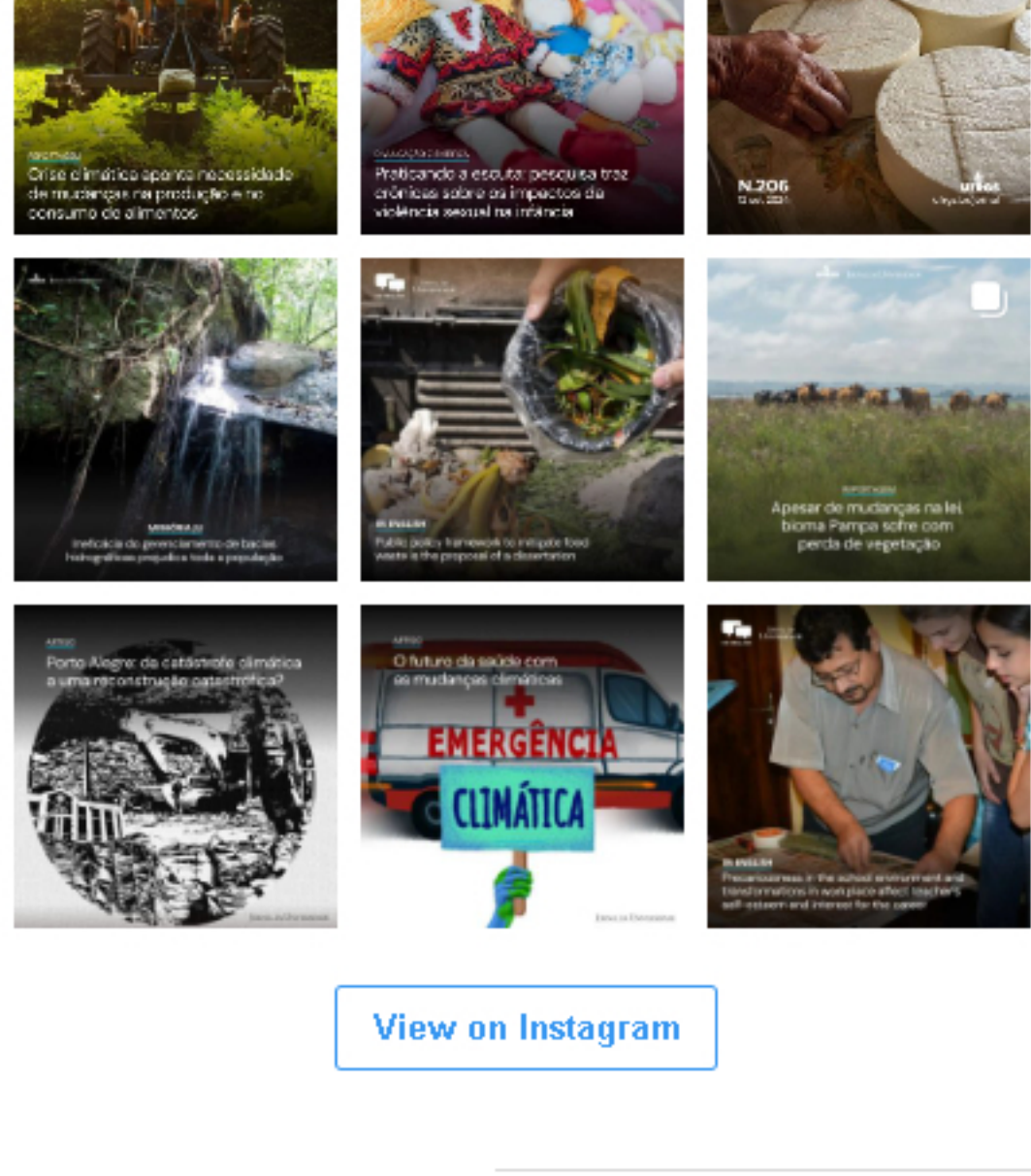
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Read in Portuguese
Lógica quantitativa fomenta o produtivismo na academia, mas impacto social ganha relevância como indicador

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