

The ‘New Flagship University’ and its relevance to Brazilian higher education

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Abstract

Universities have been a part of society for many centuries now. Their role and missions, however, have been constantly evolving and expanding, as societies changed and transformed. Recently, demands for further impact in the local/regional context, for the generation of innovation and promotion of social and economic development have been putting the universities under pressure. These developments have affected the idea of what leading universities should look like, and how these flagship institutions can influence and set an example for the other institutions within a higher education system. The New Flagship University model proposes leading universities that reflect on their relationship with society and that combine social and economic impact with academic freedom. This article seeks to explore this model of university and set the framework for the development of an instrument to understand how relevant the New Flagship University is to Brazilian universities.

Keywords: New Flagship University; Brazilian higher education; modes of knowledge production.

Introduction

For the most part of the history of universities, their main functions were knowledge production (research) and education for the elites (Harloe & Perry, 2004). Within the realm of research, the traditional university presented a disconnect with “the immediate economic and social development needs of states and localities, with research being driven by the advancement of knowledge, rather than the world of application”(Harloe & Perry, 2004, p.213). This mode of knowledge production is often referred to as Mode 1, “characterized by the hegemony of theoretical or, at any rate, experimental science; by an internally-driven taxonomy of disciplines; and by the autonomy of scientists and their host institutions, the universities” (Nowotny, Scott & Gibbons, 2003, p. 179). In this sense, for many centuries the university existed somewhat isolated from social demands, both in its research and teaching activities.

More recently, with the emergence of the new knowledge economy, where economic development is increasingly linked with knowledge production and commercialization, new demands were introduced and the question emerged of how should teaching and research within universities be organised “in a society where the ability to produce, disseminate and exploit knowledge becomes a driving force” (Harloe & Perry, 2004, p. 214). With regard to education, the hitherto limited access to higher education is slowly expanding, as knowledge becomes a prerequisite for full participation in the job market and economy. Within research, a new mode of knowledge production emerged, “in which the growing engagement of universities with their regions and localities is an important aspect” (Harloe & Perry, 2004, p. 212). The concept of Mode 2 was launched in 1994 in a book written by Michael Gibbons, Camille Limoges, Helga Nowotny, Simon Schwartzman, Peter Scott, and Martin Trow (Gibbons et al., 1994). It proposed that knowledge should be “socially distributed, application-oriented, trans-disciplinary, and subject to multiple accountabilities” (Nowotny et al., 2003, p. 179). From this point on, the roles of universities in the process of knowledge production and in society, in general, have changed. The university can no longer rely on the ivory tower Mode 1 of knowledge production to guarantee its relevance to society.

While the literature has been describing this shift in universities’ roles for a long time, there is not one single idea of how the modern university should look like. While most authors would agree that the university needs to be more engaged with society, the extent of this engagement, and exactly how it should occur, are still up for debate. In this sense, the new directions of research, teaching, and innovation are being questioned.

Additionally, the expanding missions of the universities are still not reflected in many evaluation instruments. When analysing the criteria used by university rankings, for example, it becomes clear that most of them are too narrowly focused on research performance (Hazelkorn, 2009; Righetti, 2016; Leal et al., 2018; Thiengo et al., 2018; Buela-Casal et al., 2007; Altbach & Hazelkorn, 2017), as measured by publication and citation indexes, with few or no regards to new modes of knowledge production. The quality of teaching and third mission activities are highly overlooked by international university rankings (Leal et al., 2018; Badat, 2010; Oliveira, 2018; Vincke, 2009, Buela-Casal et al., 2007; Altbach, 2015). This “can seriously undermine universities with important social, intellectual, and cultural roles related to their local, regional, and

national societies” (Badat, 2010, p.3). A study by Lee, Vance, Stensaker & Ghosh (2020) analyses the strategic plans of different Higher education institutions (HEIs) and concludes that “top globally ranked institutions are generally less explicit about their commitment to the third mission relating to their geographic setting compared to mid/low and unranked institutions” (p. 236).

Within this context, several conceptual models have emerged to make sense of the multiple demands universities are facing. In this paper, I propose a discussion of the New Flagship University. This model was chosen because it addresses the issues of how to combine a university that is relevant to society, and that meets broadly the several demands that have been put on these institutions, but that maintains its focus on research, producing knowledge that is accessible and independent, as well as promoting direct social impact. It incorporates Mode 2 of knowledge production, despite not referencing it directly.

This paper presents a system-level analysis to identify the directions Brazilian HEIs institutions are going towards and assess if the leading universities of the country are failing to address some pressing issues in higher education (HE). Bringing a system-level approach could help identify specific institutions that are possibly playing the role of the New Flagship University in Brazil, and could also help identify if the system is, in general, showing signs of harmony with the propositions of the model.

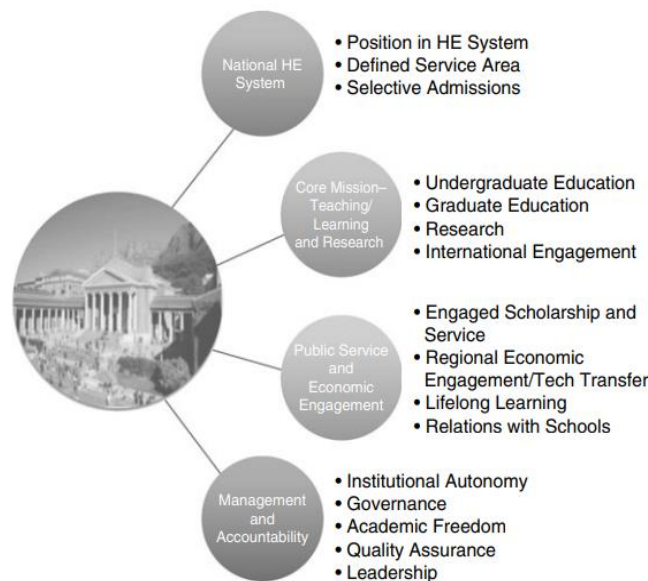
This study is divided into six parts, with the first being this introduction and the last being a conclusion. The second section will analyse how the model of the ‘New Flagship University’ approaches the main dimensions of a university, including access, relation to the broader society, research, third mission, governance, funding, quality assurance and more. These topics are addressed in the book “The New Flagship University: Changing the Paradigm from Global Ranking to National Relevancy” by John Aubrey Douglass, published in 2016. The third section of this article will present the Brazilian system of HE, preparing the context for the creation of the instrument of analysis. The fourth section will propose a model of analysis that considers the specificities of the Brazilian context and how the New Flagship University can be adapted to those characteristics. Finally, the fifth section will of the article describes a suggested methodology chosen for the application of the instrument proposed.

Describing the New Flagship University

The concept of the New Flagship University emerges as a comprehensive model for the modern leading university, one that is a reference regionally and internationally. This model values “broad access, a wide array of academic programs, purposeful engagement with local economies, and leadership in developing public education” (Douglass, 2016, p.33). It reflects on the relationship between the university and society and proposes a combination of economic and social impact, with a university that is responsive to matters of its community, but where academic freedom is preserved so that the university does not become purely utilitarian. By signalling areas of importance to a university that is a reference nationally and internationally, it leads the direction for universities to reflect on their own performance. This model does not intend on being unique, it recognizes the need for diversity within systems of HE but proposes that the New Flagship Universities should be the ones to lead their nation’s systems (Douglass, 2016).

The model works with four different spheres of analysis: (1) National HE system; (2) Core Mission–Teaching/Learning and Research; (3) Public Service and Economic Engagement and (4) Management and Accountability (Douglass, 2016). These categories are organized in the following manner:

Figure 1: The New Flagship University. Source: Douglass, 2016, p.43



It is worth detailing something about these spheres of analysis from the New Flagship University. For the first sphere of analysis, focused on the university within a national HE system, the New Flagship University proposes that universities should think of an admission system that considers “the socioeconomic background of their student body, geographic representation, and exceptions for students with special talents” (Douglass, 2016, p. 44). The idea is that universities are able to attract the best students and for that, they need developed selection procedures that avoid favouring only those with high socioeconomic status.

Considering the university's core mission of teaching/learning and research, Douglass suggests that even for undergraduate programs, the courses should be based on investigation, and research, with opportunities for interdisciplinarity (Douglass, 2016). With regard to the internationalisation of the university, Douglass suggests that “institutions generally need to focus more on the quality of the interaction and how it fits into the institution’s mission, and less on the volume of interactions and agreements” (Douglass, 2016, p.61).

In its third sphere of analysis, about Public Service and Economic Engagement, the New Flagship University highlights the various ways that the university can accomplish this role, from volunteer centres to service-learning. One of the important elements in this sphere is regional economic engagement and technology transfer. Regarding economic engagement, it is important to note the aspects of university education that prepare students for entering the workforce, with a specific focus on supporting local industries (Douglass, 2016). When it comes to technology transfer, the New Flagship University should find a point of balance where it is open to partnerships with firms that do not jeopardize academic independence. This means, for example, that the use of technologies and ideas generated in the university by outside firms should be encouraged, but that the freedom to publish should be preserved (Douglass, 2016).

With regard to Management and Accountability, the model proposes an autonomous university, with little governmental dependence, efficient leadership, and rigorous internal quality control mechanisms (Douglass, 2016). In this sense, his propositions bring the New Flagship University close to New Public Management.

It is important to stress that Douglass' model is not meant to be a checklist of what every university should have (Douglass, 2016). If we turn back to the origin of the term 'flagship', that comes from the idea of a leading ship, and so we can interpret the New Flagship University as being the one to point others in the right direction. With that in mind, when applying the New Flagship University model to analyse a specific institution, one should use it as a guide that contains examples and good practices of several activities a university could choose to engage in. If used in this manner it could be a tool for self-improvement for several HE institutions, even if they have different focuses or missions. Douglass proves to be well aware of the challenges and limitations of his model:

To state the obvious, different nations and their universities operate in different environments, reflecting their own national cultures, politics, expectations, and the realities of their socioeconomic world. The purpose here is not to create a single template or a checklist, but an expansive array of characteristics and practices that connects a selective group of universities—an aspirational model. (Douglass, 2016, p. 39)

The Brazilian system of higher education

Brazilian HEIs are a relatively new endeavour, even when compared to other Latin American countries, mainly because the Portuguese colonization, unlike the Spanish colonization in the rest of Latin America, did not allow for the creation of HEIs (Balbachevsky, Sampaio & de Andrade, 2019; Oliven, 2002). This means that the country's first HEIs were created only when Brazil began its independence process, in the 19th century, and that its first comprehensive universities were founded only in the 1930s (Balbachevsky, Sampaio & de Andrade, 2019).

Entering the 20th century, the Brazilian higher education system is expanding, with enrolments tripling between 2000 and 2016 (Sampaio, 2018), having currently 8,2 million students (INEP, 2017). This does not mean, however, that higher education in Brazil has become massified¹ because those enrolments still represent a net enrolment of 18% of Brazilian youth (Sampaio, 2018). This index is also highly dependent on regional

¹ According to Throw's criteria (1973), Brazil could be classified as going through a transition phase, between elite and mass systems.

variations, with some states of Brazil reaching 33% of net enrolment and others reaching only 10,8% (Sampaio, 2018).

The student population of Brazilian HEIs is older than usual, with an average age of 27 years (Schwartzman, 2017). White students are more heavily represented in higher education than in the general population, as they represent 55% of enrolments but only 44% of the population (Schwartzman, 2017). Still, the number of non-white students has been growing in recent years, going from 23% of enrolments in 2001 to 45% in 2015 (Schwartzman, 2017). This could be a reflection of the affirmative action policies that “culminated with a law that reserves 50% of enrolments in the public sector for quotas with ethnic and social criteria”² (Schwartzman, 2017, p. 340, translated).

When it comes to research orientation and scientific production, the Brazilian system has a very strong division between public and private institutions since “93% of the graduate programs are located in public institutions, and those are responsible for 97% of the scientific production of the country” (Grupo assessor, 2007, p. 7). This means that there are very few private institutions that are research-intensive.

The New Flagship University and Brazilian HEIs

Applying the New Flagship University model to the Brazilian context poses several challenges since the model was developed in the context of the United States, which has a very different socioeconomic and political scenario and HE system in comparison to Brazil. This means that some aspects of the model might be hard to adapt to the Brazilian context, and it is important to address those incompatibilities in the analysis.

One of the biggest challenges for the emergence of New Flagship Universities in Brazil are the funding policies and practices. The lack of differentiation between HEIs in Latin America means that the distribution of resources has to be somewhat equitable, which makes the few funds dedicated to HE be spread out too thinly, making it more difficult to create high-quality comprehensive institutions (Bernasconi, Calderón, 2016, p. 148). Additionally, in public institutions the government is directly responsible for the payment

² Law n° 12.711/2012

of faculty's salaries and, as public servants, they cannot be fired (Durham, 1998). This means that the budget of these institutions is highly committed to the always expanding expenses with salaries and retired faculty's benefits (Durham, 1998), leaving very little funds for investments and other expenses that the institutions actually have the autonomy to manage. "The budget (of those institutions) follow the general regulations of public services, with no flexibility (...) to transfer resources between staff payment, current expenses, and investments; and both the salaries and the number of professionals hired are defined externally" (Schwartzman, 2017, p.348). The low level of resources available for investments and other expenses can lead to "possible scrapping of the technological apparatus of universities" (Corbucci, 2000, p.18). This leaves a very small margin for investments in third-mission projects, including community outreach, which would bring universities closer to the broader society and increase their social impact.

This situation is aggravated by federal laws for public higher education institutions HEIs that limit their ability to use funds raised by themselves, given that "resources raised by the institution do not fully return to the institutions themselves" (Canziani, 2018, p.56). Budgetary regulations often consider the acquisition of independent resources as a reason to lower state funds from that institution, which acts as a discouragement for institutions to raise their own funds (Canziani, 2018). The New Fiscal Regime in Brazil means that:

if excess funding collection was not predicted in the institution's budget (...) these funds will be unavailable for use (...). This is due to art. 107§ 5° of the ADCT law (...) that establishes that the authorized budgetary limits cannot be exceeded even if there is an excessive collection of funds, independently of its nature" (Canziani, 2018, p. 56).

This acts as a discouragement not only to raise funds but to develop any partnerships with firms or organizations outside of the university, which could lead to greater technology transfer.

These challenges were taken into consideration for choosing the keywords to represent Financial Autonomy that were translated to terms such as "fundraising" and "partnerships" which are the few ways Brazilian federal universities can have some control over their budget. Another aspect included was "tuition for continuing education".

Federal universities in Brazil are not allowed to charge tuition fees, as stated in article 206 of the Brazilian Constitution (1988), however, in 2017 the Supreme Court decided on the Extraordinary resource (RE) 597854, which allows public HEIs to charge fees for specialisations and other non-regular courses. This could be seen as a strategy to gain control over their own budget.

The term “partnerships” also belongs to the dimension of the third mission, which plays a big part in the model, and fits the Brazilian context and necessities. Besides being a mandatory role of universities in Brazil (Chaves, 2010), the third mission gains even more importance when considering that Brazil is a highly unequal developing country, where the universities could have an important role in fostering social and economic development.

The dimension of access is one that is key both in Douglass’ book and for the Brazilian system. As explained earlier, access to higher education in Brazil is still scarce. Policies such as socioeconomic and ethnic quotas³ for public universities sought to diversify the student body, in an attempt to reflect the characteristics of the general society more accurately. However, the selection process in federal universities is still mainly based on standardised tests, with the exam “ENEM” being the most common admission exam in Brazil (Brazil, 2014). Having a single standardised exam as the main form of admission to federal universities could lead to the selection of a more uniform student body, making it more difficult to recognize different skills and talents. In this sense, the challenge proposed by Douglass is extremely relevant, and universities still need to develop mechanisms for recruiting the best students from diverse backgrounds, so this dimension is focused on assessing the initiatives of these universities that go beyond simply implementing the quotas regulations.

Latin America also presents several management issues in HE, since “leadership from the top is generally weak, or ineffective, and management is largely amateur, procedural, bureaucratic, and slow” (Bernasconi, Calderón, 2016 p. 149). The institutions are governed internally by collegiate bodies, and there are no incentives for the efficient use

³ Law nº 12.711/2012

of resources or for reaching quality standards (Schwartzman, 2017, p.348). In Brazilian federal universities, the process of choosing rectors is based on a consultation with the academic community and a final decision issued by the president of the country⁴. All these restrictions hinder autonomy and effective management, pushing those institutions further away from the model of the New Flagship University. With those rigid structures, measuring some aspects of management proposed by Douglass would be inadequate, therefore the focus of the management dimension will be to identify quality assurance processes and efficiency of leadership.

The dimension of internationalisation does not require changes from the original model, so the focus of the keywords is not necessarily the specificity of the Brazilian context, but to assess the ideals of the New Flagship University properly. This means that internationalisation should be measured more in terms of the quality of interactions than the number of exchange programs, as stated earlier in this article.

With the dimensions of the core missions of teaching and research, there is one important addition to be made, which is the term “undergraduate research projects”, because they are a common and important aspect of Brazilian scientific production, that can be seen as an expression of the teaching-research nexus (Maldonado, 1998 in Massi & Queiroz, 2014). Their importance in the Brazilian context is corroborated by public funding programs such as PIBIC-CNPq (Massi & Queiroz, 2014).

From this analysis and considerations, the keywords represented in the table below were selected. It is important to stress that hundreds of terms could have been selected for this analysis, but those in the table below were the most relevant and appropriate to analyse Brazilian federal universities. In that sense, it is important to refer to the discussions made in this section to understand why those terms and dimensions were selected.

⁴ Law n° 5.540/68

Table 1: Prototype for the instrument

Dimension	Keywords and synonyms
Financial management/autonomy	Fundraising; raise funds; partnerships; tuition for continuing education; research grants
Management/Quality assurance	Strong leadership; Indicators; Quality assessment; Strategic Planning;
Internationalisation	Quality exchange; results of internationalisation programmes; internationalisation;
Third mission	Technology transfer; partnerships; community outreach; regional economic engagement; local communities
Access	Access; underprivileged students; indigenous students; low-income students; black students; public high schools; talented students
Core mission of Teaching	Undergraduate research projects; interdisciplinarity
Core mission of Research	Undergraduate research projects; doctoral students; publications; academic freedom

Suggested methodology for applying the instrument of analysis

With more than 2000 HEIs in Brazil (INEP, 2017), it would be impossible to analyse the synergy of all institutions with the model. Reducing this analysis to only universities already brings this number down to 199 (INEP, 2017), and eliminates colleges and technical institutions that do not conduct research or that do not have a comprehensive offer of degrees. Federal universities are a good focus group within universities because they are obliged to develop an Institutional Development Plan⁵ (IDP) and make it available publicly. They also reduce the number of institutions to 63 (INEP, 2017) and provide an initial filter of being national universities, that have entrance exams in every state of Brazil, eliminating local universities that could not fully serve the purpose of leading the country's institutions. Federal universities also host a significant number of

⁵ “The Institutional Development Plan is made for a period of 5 (five) years and is the document that identifies the Higher Education Institutions regarding their work philosophy, mission, pedagogical guidelines, organizational structure and the scholar activities that it develops or intends to develop”. (Brazil, 2007, para. 9)

students, having 1,1 million enrolments out of the 4,4 million enrolments in all universities in Brazil⁶ (INEP, 2017). For those reasons, and in order to make this system-level approach feasible, I suggest the analysis of the Institutional Development Plans (IDPs) of Brazilian federal universities.

In order to understand whether Brazilian universities are approaching the main dimensions of the New Flagship University, it would be helpful to run a word frequency analysis of the IDPs. For that analysis, it was necessary to translate the concept of the New Flagship University into a list of words that were categorized into seven dimensions. The product of this will be a list of keywords and synonyms to be inserted into the chosen software of analysis.

Final considerations

The New Flagship University brings the idea of a university that promotes social change. This model reflects on the relationship between the university and society and contributes to the main debates surrounding the modern university. It is a model to analyse leading universities, but also a model for the self-improvement of any higher education institution, as it has a broad scope that can be adapted to specific missions.

In this article, the framework for assessing the resonance of the New Flagship University's dimensions in Brazilian HEIs was developed, with a suggestion for the application of the model. The next step to make the instrument ready will be to run a pilot test, using this instrument to analyse one IDP and then comment on how compatible the instrument is, and make the necessary changes. After this pilot trial, the instrument should be ready to be used in a comprehensive analysis of the IDPs of all Brazilian federal universities.

Besides acknowledging the importance and relevance of the New Flagship University model, it is important to recognize the limitations of this and any other model of university. As James J. Duderstadt puts it:

⁶ If the total number of enrolments in all HEIs was considered, it account to 8,2 million (INEP, 2017)

It would be both impractical and foolhardy to suggest one particular model for the university of the 21st century. The great and ever-increasing diversity characterizing higher education makes it clear that there will be many forms and many types of institutions serving society. But there are a number of themes that almost certainly will factor into some part of the higher education enterprise (Duderstadt, 2000).

In this sense, the New Flagship University is not the ultimate model of the 21st century, because there is no such model, but it can be a guide to those themes that have been important to modern universities, and as so, it can be an important guide to the Brazilian higher education system.

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