The University: From State Bureaucracy to Scientific Communities

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Abstract: *This article is a response to the need to consider a profound reflection on the state of higher education and a proposal for contributions to a very important and current discussion at the time. The role of education in the formation of individuals and in the development of society is unquestionable, through it is transmitted, from generation to generation, knowledge, culture, prejudices, values, among others. Education is a shared responsibility and only with our joint efforts will progress be sustainable; The citizens of the future must be trained to adapt to a complex reality and this must be oriented to the formation of values, of an individual capable of facing the different difficulties and solving problems that are presented to us. The challenges facing education are many, propose solutions and carry them out should be a social effort, joint and coordinated. From there a literature review is proposed to reflect on the current state of the university compared to what has been established from the bureaucratic processes that the system obliges to comply with, leaving aside its raison d'être as an institutional mission in the face of responsibility substantial in the development of a country and the society to which it is owed.*

Keywords: Scientific communities, bureaucracy

1. Introduction

There are a number of activities in the university: the need to improve the training and professional conditions of teachers, strengthen the area of academic management, improve the curricular content of the offer, develop linkage programs, strengthen research, among other activities . The university has been bureaucratized; It is no longer possible to understand education as a stage of life, as a continuous and constant process, so that the individual must be educated to learn to unlearn and learn. We have left aside in the curriculum the need to learn to live together, understood as the understanding of the challenges related to the achievement of a social order in which we can all live and develop, and which is another priority of the education of the future. Another of the great challenges, which has not been considered either, is to see education as integral, as a formal process, which integrates elements that allow the incorporation and adequate use of the resources offered by information and communication technologies, using the technology to expand the needs of the student to investigate and that this does not become a generator of greater social inequality. An educational system oriented towards the needs of the future must incorporate a definition of science under a research and development approach, whose purpose is to operate on reality to transform it. Understanding learning as the result of the active construction of the subject is a priority, addressing it in the discussions of academic work in university life deserves special attention.

In summary, there are many tasks and challenges that fall on the current educational system: from reviewing and updating curriculum, promoting research and studies on the implementation of educational reforms, increasing the time dedicated to learning, focusing pedagogical processes on the student, especially in the affective and emotional aspects, to value diversity and interculturality in the curriculum and educational practice, all this to face a society that is in continuous and rapid change. These activities that must be developed with the proper normality of all academic processes, are congested with the multiple evaluation processes that have bureaucratized the higher education system, leaving aside the relevance that teaching must have, often leading the educator to become in an operative and mechanistic entity of processes and evidences, leaving aside the development of the academy, research and links as substantive elements of higher education.

We intend with this article to reflect on the transition of the university, seen as a bureaucratic entity, to be understood as the scientific community in which society develops, from the perspective of knowledge community.

2. Review of the Literature

The university, as an organization, has a bureaucracy and, because of its public nature, it is part of the State, even though it is privately owned, in the sense of an ideological apparatus of the State. Its most important dimension is to be an organization or corporation, although national and international debates include those related to its basic missions (teaching, research and extension), academic and scientific, as well as the issues of inclusion, its relationship with the so called the knowledge society and its contribution to the democratic society.

On the one hand, we understand the bureaucracy as:

[...] a system of management and administration highly rationalized and of maximum technical efficiency, characterized [...] by the hierarchical-authoritarian organization, the assignment of functions by virtue of an objectively demonstrated capacity, the rigorous delimitation of competences between the different branches that integrate it, the structuring according to objective and impersonal norms and technical rules, the formal and written procedure in the processing and resolution of matters [...] update of the principle of division of labor in management and administration according to objective and certain points of view (García, 1974: 17).

On the other hand, there is a critique of bureaucracy as such, which has given negative connotations to the term itself. As a social group, the bureaucracy is characterized by lack of

ownership of the object, means and products of its management, not elected, but appointed by its superiors, be endowed with a specific knowledge, have a more or less unified profession and "Current, loyal and methodically, submitting its activity to the forms and contents of norms or precedents" (García, 1974: 19).

If we understand the university as a "spiritual community in search of the truth" we return to a formulation that possible comes from the medieval university tradition, which characterized it as a corporation of students and teachers, which was independent of the powers of the princes and the church itself.

Now, that definition has assumptions, both political-organizational (autonomy) and epistemological (the search for truth). Looking at this last aspect, the formulation starts from the fact that the truth is already somewhere, waiting for us, that is, it is already done. The place where the truth is, always, is eternal and complete, refers to the Platonic idea of the world of light, facing the sun, with which the individual who comes out of the cave, where his fellows are trapped with chains, in the dark, seeing only the reflection of the outside world, the world of eternal truths. This myth or narrative is used by the Greek philosopher to illustrate where the resplendent truths of the archetypes are.

A statement is true when it comes to the empirical, if it allows an effective technique to realize the possibilities of being. We then find efficacy as a validation criterion. The pragmatic truth is confirmed by the success of the practice and coincides with empirical truth, that of verification, but on the plane of intentional, strategic or technical action.

There is also, with other foundations, logical-mathematical truth, which is purely formal, based on the logical principles of identity, transmutation and the excluded third. In mathematics, the truth is demonstrated, generally, by reversing the operations carried out, until it is verified that the same thing has always been said, that is, a tautology.

We could point out that universities are those spaces in which the truth is sought; places where knowledge and proven science are produced, which have a functioning system and model that until now has been and is bureaucratic because it responds to a logic of an institution or corporation (public or private). Likewise, it gives an account of national objectives that are often lost in the way of the mission of the university-institution or university-organization.

In Ecuador, the Regulation of Career and Scale of the Professor and Researcher, indicates in his art. 6, the activities that must be fulfilled by the academic staff of a Higher Education Institution (IES), grouping it into three categories: a) teaching b) research c) direction or academic management, which together give 41 activities that teachers and researchers can perform . How to organize so many activities in an IES? It has been the great question that the management models of universities have tried to answer, as opposed to evaluation processes that measure the quantity of indicators achieved as a priority.

This situation of multiplying, diversifying, specifying in detail the activities of the teachers, is lost even more with the last ones identified as linking activities, which in addition reaffirm the approach of seeing a university as a bureaucratic entity generating processes, evidences, loose activities, often without clear goals and objectives in the pursuit of meeting goals and indicators. This approach has privileged competition - often disloyal - individualism, the privilege of capital over human beings, the valuation of productivity at the service of large market corporations over values and ethics at the service of society.

The search for truth, through theory, science, technological development, etc., which should privilege a university, is often lost in the bureaucracy of processes that prevent generating more knowledge for the good of humanity; on the contrary, it reinforces the reproduction of alien knowledge in local realities and the problems of the majority of citizens.

It is here to reflect on the change of vision of what a university is. With pragmatism is when the notion of community appears as a necessary element to achieve the basis of truth, which consists of consensus. Thus, the truth is in reality a horizon of agreements, never something already given and complete, among the members of the community of the "wise", who permanently maintain an indefinite dialogue. The characteristics of this dialogue, within which it is possible to get closer indefinitely to the truth, were exposed in outline by Habermas, with his theory of communicative action, which imagines an ideal situation of speech, in which several conditions are fulfilled counterfactual: sharing a single use of language, the duty to listen and the right to speak of all, sincerity, prior agreement to verify the findings.

In general terms, the epistemological discussion has tended towards relativism, inasmuch as there are positions, such as that of Popper, who maintains that a scientific theory never ceases to be no more than a system of hypotheses or presumptions. Morin (1998) points out that the contributions of Popper and Goedel's theorem, which shows that the foundation of any formal logical-mathematical system requires developing new systems indefinitely, have determined that scientific knowledge is a knowledge that is unfounded, and can only be sustained provisional way and attentive to its contradictions and empirical inconsistencies. Again, the Platonic truth disappears, and instead the provisional, critical, relative, incomplete truth that can be defined as reason appears.

The crisis of the foundations of scientific knowledge is therefore linked to the crisis of the foundations of philosophical knowledge, converging one and another in the ontological crisis of the real, to confront us with the problem of the problems: that of the crisis of the foundations of thought (Pierre Cornaire) [...] the idea of foundation must founder with the idea of ultimate analysis, of ultimate cause, of first explanation (Morin, 1998: 24).

As for the idea of a community formed in the search for truth (or, to put it in more current and, above all, different terms, in the production of knowledge), the epistemological discussion of the mid-twentieth century has taken it back

from different sources. One of them, the concept of scientific community, organically linked to the paradigm, original of the chemist and historian of science, Thomas Kuhn, helps us to interpret some updated meanings of this notion applied to the university.

The key concept of the thought of Thomas Kuhn (1983: 269) is the paradigm. The definition of this term is, for the author, circular: "A paradigm is what the members of a scientific community share and, conversely, a scientific community consists of people who share a paradigm".

That is why Kuhn (1983: 269) distinguishes two different interpretations: in one it highlights "the constellation of beliefs, values, techniques, etc., that the members of a given community share", and, the other one focuses on "the concrete solutions of problems that, used as models or examples, can replace explicit rules as a basis for solving the remaining problems of normal science ". The first would be the sociological interpretation, the other, the philosophical one.

For our purposes, we are more interested in this moment, to look at the sociological interpretation. In effect, the paradigm forms and groups scientific and professional communities, whose members [...] have had similar education and professional initiation. In the process they have observed the same technical bibliography and taken many identical lessons from it [...]. In the sciences there are schools, that is, communities that approach the same subject from incompatible points of view (Kuhn, 1983: 272).

In this way, the paradigms can be observed in several different levels: they group, on the one hand, the communities that practice the same discipline or science. On the other hand, within each science, they distinguish those who share the same way of approaching problems, forming schools or tendencies. Kuhn himself, differentiates at least four levels of communities.

There is a general tendency of Modernity towards increasingly narrow specialization. Therefore, there is a horizon that tends to the diversification and multiplication of these communities. Criticisms of this extreme specialization have been made since the late nineteenth century. Ortega and Gasset, the Spanish philosopher, associated the extreme specialization with the ignorance and decadence implied in the massification and consequent vulgarization of the spheres of culture. More current are the criticisms coming from the complex thought (Edgar Morín), the research of the world-systems (Immanuel Wallerstein) and different scientists of great importance, who have sought to develop the dialogue beyond their disciplines (Prigogine), extending the pertinence of theories that can be applied to a very varied of fields. An outstanding example of this last is cybernetics (Bateson) and systems theory (Bertalanffy, Luhmann, among others). Wallerstein, for example, argues that, in the world, the tendency towards convergence of the natural sciences and the humanities is being strengthened, taking as a bridge the social sciences.

This reconfiguration of the disciplines and their supercategories (natural sciences, social sciences, humanities), brings important consequences. The first is that a reconsideration of the universities as the only place for the production and reproduction of knowledge is being produced, practically and theoretically.

Wallerstein suggests, taking into account this global map of situations, that universities should reorganize with a single faculty of reunified knowledge. The basis of this reunification is the principle, coming from the social sciences, that all knowledge is rooted in a social context. The author leaves in suspense the detail of this reorganization of the disciplines in the new transdisciplinary university (What would then be the departments? How to establish delimitation criteria?) Or, better, result of the convergence of the two cultures.

Another variable to consider is the global connectivity capacity that information and communication technologies facilitate today. This restates the conformation of the scientific communities. Likewise, the integration mechanisms of the scientific and professional communities will be impacted by the vertiginous rhythm that the obsolescence of knowledge has reached in the last decades, fruit of the new scientific-technical revolution and the potential of registration, recovery, storage. and access to knowledge facilitated by information and communication technologies. Now knowledge should not be guaranteed by a university degree, since the trend is towards permanent education, continuous transformation. For that reason, Buarque maintains that, all these accelerating tendencies, they press to the university towards a dynamic horizon, in which it would be that:

1) Constantly and regularly revalidate university degrees.
2) Review the concept of graduate, because the relationship with the university tends to be permanent.
3) Constantly update doctorates and other third and fourth level studies.
4) Periodically evaluate the body of teachers.
5) Make the extension or duration of the courses more flexible.
6) Incorporate the books in development and direct contact with the authors, in the bibliographies in use.

These proposals of course put in check the more conservative and professionalist conceptions of the professional communities, mainly because they admit that the production and reproduction of knowledge does not occur only in university spaces. Even the notion of university space enters into crisis:

The university of the 21st century will not have walls or a defined physical field. The university of the 21st century will be open to the entire planet. Classes will be broadcast on television, radio or the Internet in a way that will no longer require students to be on the same campus or in the same city as the professor. Professorsand will be able to maintain a permanent dialogue with their students around the world (Buarque en Lanz, 2004 235).

How to become open universities, where scientific communities are encouraged to work for development, equity and the common good of humanity, without losing ourselves in the process that a system that focuses on a

bureaucratic university concept places on us. This is the great question that we must go and answer to make that quantum leap that we all hope for.

This step is essential to be compatible with the social, economic, political and, above all, scientific-technological reality of today. This is the challenge we must assume. In addition, they must "become universities without walls and connected online to distribute new knowledge to the world on a real time basis". Considers Buarque (Buarque, C. in Lanz, R. Ob. Citpag.:2002 123) that must be clearly defined with the broad masses of excluded from capitalist globalization and try to recover the role of builders of utopias.

The scientific communities in Ecuador: reflection

Our country has begun to take important steps to reflect on the horizon for which higher education should go. In order to analyze the development of scientific communities in Ecuador, it is important to point out that most of the academic offer of postgraduate courses is in the field of Administration, Information and Law. We show that there has not been an adequate connection between the planning of the country and its relationship with the academic offer to comply with what is established in the Constitution in art. 355, which states: "The Higher Education System aims at academic and professional education with a scientific and humanistic vision; scientific and technological research; innovation, promotion, development and dissemination of knowledge and cultures; the construction of solutions for the country's problems, in relation to the objectives of the development regime ".

The change in the productive matrix of the country establishes that strategic areas for development must be strengthened, however the adequate articulation between the academic offer of the higher education system and the objectives of the development regime does not determine that there is a relevant coordination so that National planning supports the public policy on higher education, with a view to achieving the achievement of the national objectives that allow articulating the relevance of careers with the National Planning System.

Regarding the existing scientific communities, we can point out that from the governing body of public policy, there have been important efforts to generate knowledge networks by themes, such as those related to gender, in attention to early childhood, etc .; as well as, from Higher Education Institutions (IES) career networks, which have served exclusively to work minimal components of the curricula of some career design projects. Likewise, HEIs have organized themselves in networks around topics such as links with the community, research and others that have worked on some contributions from inter-institutional cooperation. These require a deeper analysis of their impact, not only on curricular organization issues, but also on determinants for the definition of higher education policies, and above all in the formation of true communities that promote scientific and technological development. Important efforts exist in the conformation of scientific communities in some supported areas, in certain cases, from international entities.

We believe that far from existing national planning, directed by the State, that sustains, develops and strengthens knowledge networks, what has been done is to regulate, establishing rules that are far from promoting the development of science, technology and the conventions of truth, which should be generated from the scientific communities. Regulatory bodies, planners, evaluators and rectors of public policy exaggerated with regulation and have stifled in recent years the promotion of scientific communities in Ecuador. The bodies of the Higher Education System should be at the service of financing, motivation and the promotion of the development of science, research and technology, promoting from the autonomy the promotion of a promoter university and nest of true scientific communities.

Despite what we have indicated, truth is a convention, which becomes a paradigm in scientific communities. If assumed in social laws, paradigm of action of the people, it would be biasing a good part of the knowledge that historically has been shown that the individual is capable of generating based on their self-development and self-knowledge: the generation of new social modes. This would lead us to understand, contrary to what happened in the first western world, that the scientific community is a relevant fact when each of its members attains investigative relevance; what is more coarsely known as: vocation and free initiative.

In Ecuador, it is necessary to strengthen the scientific communities with a conscious state incentive to increase the individual values of the researcher.

Now we have the opportunity to rethink a new direction for higher education, the new Organic Law of Higher Education, establishes in article 169, that the Higher Education Council has as one of its attributions: "a) Design in a coordinated manner with the governing entity of the higher education policy and participatively with the Higher Education System, approve, reform, monitor and evaluate the Development Plan of the Higher Education System that will establish strategic objectives in terms of coverage and quality ". That is, in the construction of the plan, we must address to change these ways that have made higher education a bureaucratic system that has not allowed the total development of the system, to incorporate a vision that responds to the welfare logics based on quality and autonomy, for the common good of the global and local society.

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