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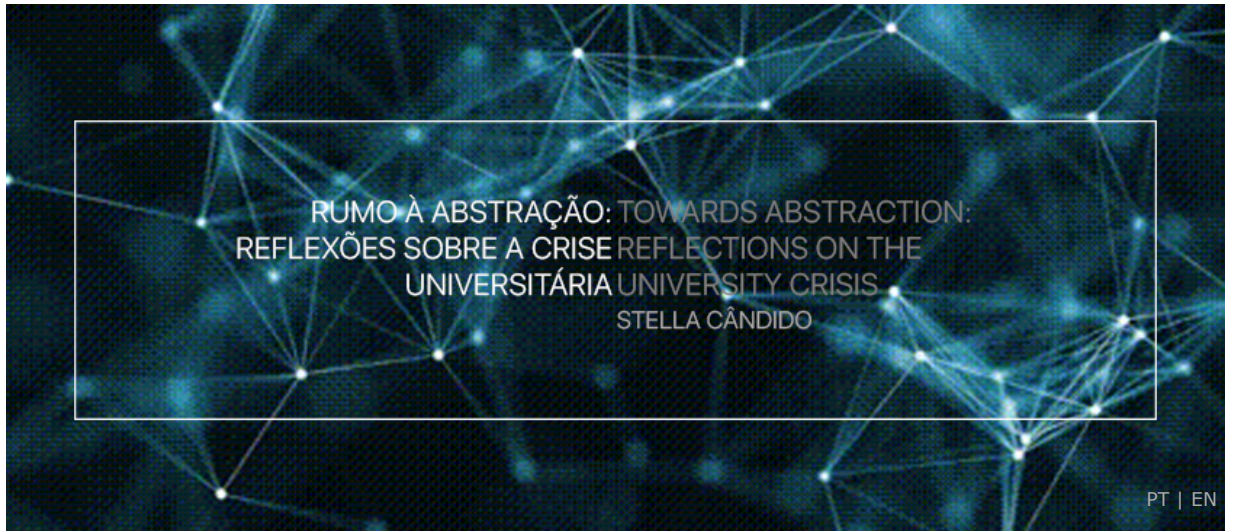
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### Abstract

Universities reached their apogee in the 19th century, though today they experience a paradoxical crisis over their adequacy and aptitude to contemporary demands. By using Vilém Flusser's concept of "technical image," this paper is related to the theme "the construction of information" by analyzing the role of images – traditional and technical – in society's informational evolution, and consequently in that of universities. This paper aims to draw a parallel between universities' evolution and society itself, seeking to elaborate hypothesis on the current university crisis that may allow further investigations and future actions. Through the dialectical method, this paper performs a literature review and critical analysis, mainly on the different phases of universities' evolution and the concepts explored by Flusser, verifying their mutual interferences. This analysis reveals that today's telematic society is built upon the rupture of fundamental university precepts, leading to question these institutions' aptitude. To adapt to this new context, universities must review from their physical and administrative structures to scientific reasoning itself. In this process, university tradition and conservatism are their greatest triumph and vice: the university must behave as an "ameba" in a hostile environment, not as a "dinosaur."

**Keywords:** University, Society, Flusser, Technical image

## 1 Introduction

Universities were established throughout centuries of existence and constant evolution. Paradoxically, their consecration in the 19th and 20th centuries seems to be replaced by a general trust crisis over their adequacy and aptitude to contemporary demands. Could this be the beginning of the end for an obsolete institution, or is it just another step in their natural evolution?

For Buarque (2014), the current university crisis exists as a result of a few factors, among which: the impossibility of the labor market absorption of the specialized workforce, graduated by universities; the departmentalization, persistent in a society with interdisciplinary demands; the shortage of financial resources; and "a strong identity crisis within the university institution itself" (Buarque, 2014, p.137, our translation):

[...] the crisis can't be blamed on external factors; when at the root of the institutional crisis lies the actual crisis of reasoning, with the real world rebelling against the rationality that the university insists on disseminating, comes to question the very reason for the university role. (Buarque, 2014, p.46, our translation)

Mota claims that there is also a "passivity" crisis in higher education, concluding that "The extra-educational world has changed extremely fast and profoundly, while the adopted educational methodologies have been kept essentially the same." (Mota, 2013, p.12, our translation). Kerr (1995) endorses by stating the university's paradoxical conservatism:

Few institutions are so conservative as the universities about their own affairs while their members are so liberal about the affairs of others; and sometimes the most liberal faculty member in one context is the most conservative in another. (Kerr, 1995, pp.74-75)

The university crisis tends to mix with the social crisis itself, due to their intimate bond, in dialectic relation: society evolved and created universities which, in turn, evolved society. Thus, this crisis factors might be seen as an echo of the contemporary society itself: the workforce swelling would be an echo of the economic system's exhaustion; the departmentalization would be a remnant of the Cartesian rationale; the demand for financial resources, a symptom of a demanding autonomy system, that yet, is not self-sustainable. Finally, the crisis of reasoning, combined with a conservative passivity, would echo the very human crisis.

For Vilém Flusser, the source of this social crisis would be the rising of a cultural revolution, produced and producer of an information society, telematic, based upon images produced by apparatus – "technical image" (Flusser, 2000).

Using concepts extracted from the work of Flusser, this paper relates to the theme "the construction of information" by exploring how images – in particular, technical images – have contributed to building the current telematic society, while drawing a parallel between universities' evolution and that of the society, searching to formulate hypothesis on the contemporary university crisis that may support future investigations and actions. In this manner, one hopes to contribute to the solution of the established crisis.

## **2 Methodology**

Through the dialectical method, this paper performs theoretical exploratory research. Gil (2019) defends that the dialectical method is "a method of interpretation of reality," based upon three basic principles: the unity of opposites, quantitative to qualitative, and the negation of negation (Gil, 2019, p.14, our translation). The *unity of opposites* proposes that any object or phenomenon presents intrinsic and indissoluble contradictions, which lead to development through constant struggle. In this process, small *quantitative* changes would lead to *qualitative* changes in evolutionary leaps. Social evolution would then occur by the *negation* of the current status, however leading to a new state and not to a return to a previous one. For the author, "Dialectics provides the basis for a dynamic and totalizing interpretation of reality since it establishes that social facts may not be understood when considered singly, abstracted from their political, economic, cultural influences, etc." (Gil, 2019, p.14, our translation).

According to Gil (2019), the dialectical method relates to the historical materialism of Marx and Engels, defined as a doctrine in which productive forces influence social fundamentals (Audi, 1999).

The adoption of this method is justified by considering that technical images are results of the productive forces. Furthermore, the dialectic relationship is present in Flusser's work, when the author claims that the society that produced technical images is now produced by them, in an absurd game. Additionally, Flusser implies the historical materialism thesis in his work:

It is a hypothesis that has been around for a long time: Human beings create tools and in so doing take themselves as the model for this creation – until the situation is reversed and human beings take their tools as the model of themselves, of the

world and of society. Hence the well-known process of alienation from one's own tools. In the eighteenth century, human beings invented machines, and their own bodies served as a model for this invention – until the relationship was reversed and the machines started to serve as models of human beings, of the world and of society. In the eighteenth century, a philosophy of the machine would simultaneously have been a criticism of the whole of anthropology, science, politics and art, i.e. of mechanization. It is no different in our time for a philosophy of photography: It would be a criticism of functionalism in all its anthropological, scientific, political and aesthetic aspects. (Flusser, 2000, p.78)

This paper performs a literature review and critical analysis of the different phases of universities' evolution and the concepts explored by Flusser, verifying their mutual interferences. In this sense, the central concept that will be used is the one of "technical image."

### **3 Discussion**

Flusser defends an evolution towards abstraction, beginning with traditional images, evolving to texts, and peaking with technical images.

The first level of abstraction, present in traditional images, abstracted volumes into surfaces, into two-dimensionality; after the invention of the written language, traditional images were translated into texts, written in lines – the second level of abstraction, towards one-dimensionality; the third level of abstraction is identified in technical images, composed by points (pixels), towards dimensionless (Flusser, 2011a).

Seen as the evolution of society itself, traditional images could be associated with the period of living magically, religiously (Prehistory); the invention of the written language (History) would eventually lead to logic, reasoning, and science, that, ultimately, would allow the development of the apparatuses that would produce technical images (Post-history) (Flusser, 2000).

Such evolution would also affect society's way of thinking, enabling the association of traditional images (prehistorical) with the finalistic thought, texts (historical) with the causal thought, and technical images (post-historical) with the programmatic thought (Flusser, 2011b). Ultimately, it is possible to associate traditional images with religious behavior, texts with scientific behavior, and technical images with cybernetic behavior. In the society resulting from these contexts, there is, respectively, the conception of religions, universities, and telematic.

Flusser also presents a correlation of this evolution and the development of four types of discourses: the first, the *theatric discourse*, is characterized by informal, familiar knowledge, passed directly from generation to generation, and it has been associated to the first phase of Prehistory; with the upgrowth of religions and the increase of social nuclei, the second type of discourse arises, the *pyramidal discourse*, authoritarian, that passes information along to be repeated, relayed without arguing; the development of texts and consequently of science, allowed the existence of the third kind, the *tree discourse*, which is specialized, scientific, used by groups that discuss subjects fundamentally related to their own knowledge, becoming as such unintelligible to outsiders; as a reaction to the tree discourse, emerges the fourth type, the *amphitheatric discourse*, that translates the tree discourse (specialized) into mass culture, possible thanks to the communication technologies developed as of the 19th century (Flusser, 2000, 2011b).

Next, comes a discussion on how these socio-cultural contexts have affected universities, dialectically.

### **4 Pre-university period**

In the 12th century, the craftsmen's guilds were places where masters and apprentices would gather to pass on knowledge and to search for autonomy from the civil and religious powers (Buffa and Pinto, 2016); the teachings were held in improvised spots, in rented rooms or at the masters' homes, and the furniture was mostly made by benches displaced in such a manner that might facilitate dialogue (Pinto and Buffa, 2009).

This description refers to the *theatric discourse*: the master found himself in a position of responsibility before his apprentices, yet the general mood was of a dialogue, similarly to Plato's practice at his Academy.

The coexistence of masters and apprentices at the same place set the rules for the first medieval schools, however, as they were improvised, the necessity for spaces more suitable to certain activities, such as exams and solemnities, persisted.

In this period, ruled by traditional images and their finalistic thought, churches and convents were still absolute references, being incorporated to the solemnities of the very autonomy seeking corporations.

On the word "school," Flusser writes:

This name, "chole," means "leisure." Its opposite, "ascholia" (absence of leisure), means "business" (denial of leisure). Such disregard for the active life and appreciation for the contemplative life characterizes the school. That is the place for contemplation of unchanging ideas, the place for *theory*. (Flusser, 2011b, p.163, our translation)<sup>1</sup>

It is interesting to note that the schools that emerged from craftsmen's guilds, that is, from the "denial of leisure," have evolved precisely to the development of theoretical thought. The first universities aimed to produce complete citizens, with a humanistic formation that would prepare them for the liberal professions established posteriorly, but that would also mold the intellectuals and society leaders. Pinto and Buffa (2009) state that the training of these leaders has led to the aristocratization of universities:

[...] significant trace of this aristocratization is the taste for luxury and the ostentation of garment, in university ceremonies, on expensive amusements, and, what most concerns us, in university buildings and, consequently, in teaching activities. (Pinto and Buffa, 2009, p.29, our translation)

This change marks the birth of universities *per se*, in the 13th century.

## **5 University advent**

While its origin has been marked by spatial improvisation and the presence of religion, the profile shift caused by aristocratization has led to a series of changes in the way university spaces were built. Primarily, there were two significant changes: the construction of buildings specific for university use, and the final detachment of religion and science, which was spatially translated in the emphasis that libraries began to receive.

In the 15th century, buildings made explicitly for higher educational purposes were located within the urban mesh, "opening a new category of urban buildings" (Buffa and Pinto, 2016, p.814, our translation). These buildings were part of the cities; their limits were the actual building limits, without further detachment from urban life (Buffa and Pinto, 2016).

Although universities were inserted in the cities and society in general, their aristocratization was already noticeable in their buildings' architectural style: a majestic ambiance, with classic inspiration, and relatively large dimensions, marked a profile shift of these teaching institutions and their members. Pinto and Buffa state that this aristocratization transformed the teaching activity into a "ceremony," changing teaching relations: "The polish style and the formal perfection became a great concern for the 15th-century professors, unlike the teachers of the 13th century, to whom the style sophistication might deform ideas." (Pinto and Buffa, 2009, p.30, our translation).

It is newsworthy to note that the teaching institutions that sought to detach themselves from religious behavior, ended up behaving accordingly: a relation of authority (master) before disciples (students) was established, a place of worship was elected (libraries), and a doctrine was installed, various in content but close in its form.

Even though universities sought to distance themselves from religion, its complete denial is impossible: here lies the principle of "the negation of negation," according to the dialectical method (Gil, 2019, p.14, our translation). And, as religions favored the rise of the pyramidal discourse, the scientific emphasis has led to the birth of the tree discourse.

For Flusser (2011b), the pyramidal discourse favored content transmission (discourse), but prevented the creation of new information (dialogue); the Renaissance provided a behavioral shift that allowed the emergence of the *tree discourse*, favoring the dialogue, the production of knowledge. However, this is not a return to the theatric discourse: though the specialties (branches) have allowed the abundant production of information, the "dialogic circles" established a specific language, codified and decipherable only by their members (specialists), which have excluded the laymen from the dialogue and "[...] 're-clericized' and 're-authorized' the discourse." (Flusser, 2011b, p.76, our translation).

As such, in the tree discourse, there is a combination of the dialogical quality of the theatric discourse and the authority of the pyramidal discourse.

Returning to the proclivity towards abstraction, Renaissance, as the advent of universities, its consequent tree discourse, and even the invention of the printing press, were all possible due to the valorization of the text before traditional images; this was the valorization of rationality, of the causal thought, and historical consciousness. Flusser writes that the printing press, combined with universal education, generalized the historical consciousness:

This took place thanks to cheap texts: Books, newspapers, flyers, all kinds of texts became cheap and resulted in a historical consciousness that was equally cheap and a conceptual thinking that was equally cheap – leading to two diametrically opposed developments. On the one hand, traditional images finding refuge from the inflation of texts in ghettos, such as museums, salons and galleries, became hermetic (universally undecodable) and lost their influence on daily life. On the other hand, there came into being hermetic texts aimed at a specialist élite, i.e. a scientific literature with which the cheap kind of conceptual thinking was not competent to deal. (Flusser, 2000, p.18)

Thus, the texts that came into being to describe the symbols of the traditional images, aligned and in lines, became more and more conceptual, abstract, and hermetic. Ultimately, the purely conceptual texts inhibit their re-imagination: texts, betraying their primary function, start to follow their own internal dynamics, that of the linearity of the discourse (Flusser, 2011b).

Universities, products of this text valorization, are, as such, influenced by this new dynamic.

## **6 University consolidation**

The first significant shift in the university concept was its location: initially, with Oxford and Cambridge being installed adjoining the urban limits, this shift was emphasized in the American experience by establishing grand lands secluded from urban centers, the university campus.

The campus is the translation of the conceptual and hermetic scientific logic: an area thoroughly planned, rational, designed to contain university activities, delimited and secluded from the rest of society – a small town, dictated by logic, and provided with any urban facilities needed. The university ideal withdrew into itself, proposing to shape complete citizens that, ironically, lived detached from society.

As of the 19th century, the university sees itself authorized to stipulate its own rules; this autonomy arises from the acquired relevance that came with the Industrial Revolution. With the change in the productive system, the university takes on a fundamental part in technical-scientific research, beginning to provide methods and workforce; the focus shifts from the humanistic formation of society leaders and “complete” citizens to providing liberal professionals that might conduct and evolve the new production means:

From this point on, the society stopped living for wisdom (for contemplation, for prayer), but for the (industrial) work achievement. This distorted school has become, during the modern era, the place for shaping science and technique, working for the industry, that is, for the machinery and political decisions’ owners. (Flusser, 2011b, pp.164-165, our translation)

Thus, new professions and market demands are born and promptly satisfied by universities: the “branches” of the trees begin to ramify thirstily, producing more specialties. The textual linearity, the mathematic rationality, and the Cartesian logic are the pillars for university consolidation.

In 1809, Wilhelm von Humboldt proposed a definitive change to the university model, creating the department and the institute. Kerr considers this change to be the “rebirth of the university” (Kerr, 1995, p.8); the German model influenced American universities still in the 19th century and has even laid down some of the principles of the 1968’s Brazilian University Reform, almost two hundred years later.

There has also been a repercussion in the campuses’ spatial distribution, with centers and institutes located separately, built distantly from the planned streets. The rationality is expressed in the modular buildings, in their well-defined activities, which separate purposes such as classrooms, laboratories, and cabinets, with posterior modernist influence – Pinto and Buffa call this model a “machine for studying and researching,” in reference to Le Corbusier’s “machine for living” (Pinto and Buffa, 2009, p.111).

Flusser also adds:

In the last stage of the modern era, there was a tendency to become outsized. Everything, from machines to empires, from sporting records to demands, grew into huge things. Now it is possible to recognize a reaction, a rising tendency toward the minute. It's something like a small mammal appearing to be a reaction against the giant dinosaurs. Even in late modernity, at the beginning of this century, tiny things – atoms, the quantum, calculus – became fascinating. In them, hopes rose and dangers lurked. It became clear that the concept of "enormity" (beyond human scale) applied not only to the very large but also to the small and that the nucleus of an atom can be more enormous than a galaxy. (Flusser, 2011a, pp.131-132)

This shrinking tendency can also be observed in the university pedagogy: it started with Philosophy hosting all sciences; then came the major scientific fields, each of them with their specific subjects; finally, the specialties were developed, more and more "shrunken," specific. The department is the atom of the university: within it lies the biggest of the smallest of the bits of knowledge, and just as with particles that form matter, there is an emptiness amongst departments.

That is the logic of the technical image; the pixel, the bit, the atom, the department: the smallest element that makes the whole. Flusser (2000) points out that:

According to Descartes, thought consists of clear and distinct elements (concepts) that are combined in the thought process like beads on an abacus, in which every concept signifies a point in the extended world out there. [...] the structure of thought is not adequate to deal with the structure of extended matter. If, for example, the points in the extended ("concrete") world grow together, leaving no gaps, then distinct concepts in thought are interrupted by intervals through which most of the points escape. (Flusser, 2000, pp.67-68)

The Cartesian quantitative logic, the abstraction of the point ("dimensionless"), of the minimum element surrounded by emptiness, shows itself inadequate to reality because it allows the loss of essence. On that, Flusser states:

Hence, the 19th-century science saw itself before an arduous dilemma: to continue quantifying, and thus resign itself to the essential loss of the phenomenon of life, or to elaborate another theory of knowledge and resign itself to the impossibility of quantifying knowledge. The 19th-century science evaded the dilemma: it divided itself into "hard" sciences (quantifying) and "soft" sciences (non-quantifying). We suffer from this indecision up to this day. (Flusser, 2011b, p.66, our translation)

That is the genesis of the current university crisis: the logic which consolidated its existence is inadequate to explain what it proposes itself to decipher. It is the "crisis of reasoning" expressed by Buarque (2014, p.46, our translation).

Flusser also points to a crisis of the contemporary culture, based upon technical images: the author states that, although scientific discourse is essential, it is not "interesting;" the scientific view exposes the superficiality of these images, making them vulgar, by showing the emptiness among the points. Thus, society would rather experience the art, and not the truth (Flusser, 2011a). As a forever truth-seeking institution, universities would then become obsolete.

## **7 University crisis**

Nowadays, the university finds itself as a victim of its past splendor – it was built over a Cartesian foundation, linear and quantitative, that shows burnout signs; and established a glorious discourse that is, however, hermetic, and fails to communicate on a large scale.

The tree discourse, although it may not be as authoritarian discursive as the pyramidal discourse, limits its dialogic nature to an elite, familiar with the language codes of each branch: "The current crisis of science must, therefore, be seen from within the context of the current communicational situation. As long as there is no space for politics and for non-elitist *circular dialogues*, the crisis of science is insoluble." (Flusser, 2011b, p.79, our translation).

In this sense, the university produced its decline: by collaborating with the invention of mass communication technologies, it allowed for the fourth type of discourse to be born, the amphitheatric discourse. Flusser explains that this discourse's function is "to translate the messages from the tree discourses into socially decipherable codes" (Flusser, 2011b, p.76, our translation), by using apparatuses that process – "transcode" – the hermetic scientific discourse into "extremely simple and poor codes" (Flusser, 2011b, p.76, our translation). As the cheapness of texts that occurred after the invention of the printing press, the mass communication technologies make information cheaper; as the printing press allowed the rising of the cheap conceptual thinking, communication technologies allowed the rising of "mass culture" (Flusser, 2011b, p.76, our translation).

A fundamental change is the way discourse is radiated: "The trees work linearly, the *media*, multidimensionally. If we admit that linearity is the structure of history, then media present themselves as post-historical communication." (Flusser, 2011b, p.77, our translation).

It is possible to perceive a series of ruptures: of the linearity of thinking, of the discourse, and historical consciousness, in short, the rupture of the university foundation. Flusser relates this rupture with a submarine:

This social structure began to appear only a few decades ago, breaking through the previous social structures like a submarine through ice. As it breaks through, social groups that bound human interaction fall apart. Families, nationalities, classes disintegrate. Sociologists and cultural critics are characteristically more interested in the fall of the earlier social structure than they are in the rise of the new. They pay more attention to the cracking ice than to the rising boat. This is the reason they speak of a decaying society rather than a new society. (Flusser, 2011a, p.61)

Shifting focus from the cracks to the submarine, what comes into being is not a university crisis, but a new evolutionary step. This possibility is defended by Flusser, by stating: "We struggle to imagine the null. It is not so difficult to imagine new things [...]. What is difficult is to imagine the vanishing of the social structures which we live in, the ultimate dissolution of our belonging groups." (Flusser, 2010, p.87, our translation).

Thus, a secular institution would not disappear in a few decades. Kerr (1995) agrees, by affirming: "Change comes more through spawning the new than reforming the old." (Kerr, 1995, p.77). Here lies the real challenge: "The current problem is not so much that the university does not fully control the direction of its own development – it seldom has – but rather that it must make what are judged to be essential adjustments so often and so quickly, like an ameba in an unfriendly environment." (Kerr, 1995, p.81).

Therefore, if the university tradition helps to preserve it in the rising telematic society, it can also be its greatest frailty: its conservativeness tends to stifle the institution into obsolete practices. According to Kerr:

George Beadle, president of the University of Chicago, once implied that the very large American university (but not his own) might be like the dinosaur which "became extinct because he [sic] grew larger and larger and then sacrificed the evolutionary flexibility he needed to meet changing conditions"; its body became too large for its brain. (Kerr, 1995, p.91)

Flusser (2011b) considers the teaching model based upon Industrial Revolution as currently being superfluous, inoperant, and non-functional: superfluous, for the contemporary apparatuses have surpassed the teaching capacity for programming society; inoperant, for maintaining an industrial structure (historical) in a post-industrial world (post-historical); and non-functional, for failing to correspond to the new social communication format (amphitheatric discourse).

The industrial model superfluity might be seen as a liberation of basic activities, similar to the one that occurred with the craftsmen during the Industrial Revolution: "[...] the school of the future shall no longer program society for functions of mechanical thought, better executed by intelligent instruments, but for functions of analytic and programming thought." (Flusser, 2011b, pp.167-168, our translation). Just as the shifting from the manufacturing system to the industrial one has represented a productive leap, now it would also be possible for a qualitative leap in social evolution.

The industrial model inoperative might be translated into its restrict department division, in a society demanding interdisciplinarity. With the exhaustion of the linear logic, the branch sorting, with specialties confined into departments, limits intellectual development. The departments form "[...] a chain that seems to work well inside each of their universes, but that makes it harder for the knowledge commitment to the real

problems, which are all multidisciplinary; and to the new knowledge, yet without departments of its own." (Buarque, 2014, p.60, our translation).

The revision of the departmental structure will have consequences not only in the universities' administrative structures but also in their physical structure. The campuses designed and built in a departmental logic will become liabilities, which will demand considerable investments to adapt them to the contemporary context.

This spatial review also relates to the industrial model non-functionality; Fusser sums the fundamental change in contemporary communication:

The industrial school demands that the receiver of the message directs himself towards the message sender. This contradicts the present communicational structure. Currently, the messages direct themselves towards the receiver, invading his private space. [...] The industrial school is an *archaic island* in the ocean of mass communication. (Flusser, 2011b, p.167, our translation)

The distance learning gives a partial response to the new communicational structure, but it fails to address the issue of the built "archaic island" on campuses.

The campus model, considering not only its construction but also maintenance and expansion, is, without a doubt, an expensive option. The campuses demand constant maintenance [...], and the lack of resources to do so makes our campuses dull, weak, ugly, where urban violence has come for quite a while. (Buffa and Pinto, 2016, p.828, our translation)

The option for an expensive model, associated with ever-growing demands for financial resources, makes it more challenging to maintain the built environment properly. The results are scrapped spaces that reinforce the impression of a crisis institution.

However, the complete eradication of this built liability is unlikely. Contradicting Flusser, who demonstrated the possibility that every human being would be linked to the rest of the society virtually, through a new communicational web – in a "global village" in the concept of McLuhan (Flusser, 2011a, p.30) –, Kerr argues that the information technology will replace traditional learning only partially: by dealing with individuals with different learning needs, it is impossible to widely use "standardized treatment" (Kerr, 2005, p.267, our translation). The author further mentions two aspects contrary to the full substitution of traditional learning: laboratories, and learning through experimentation (Kerr, 2005).

Whether due to a pedagogical impossibility, whether to the difficulty of vanishing the pre-existing social structure, the tendency is that university campuses persist over time. Nevertheless, it is undeniable that their structure must be reviewed to adapt to the contemporary context.

The emphasis of the post-industrial society has shifted from possession, from the object to information, to knowledge – it changes from quantitative to qualitative. This enables a second tendency towards "shrinking:" the physical expansion promoted in the last decades tends to stagnate, approaching the consolidation of university areas, and basing teaching and research no longer in growth, but in reviewing existing structures.

Expansion, with its Cartesian linear logic, must be substituted by a cybernetic view, circular, in which one evolves not towards progress, but in the feedback of the existing, in constant evolution.

## **8 Conclusions**

Considering images as a starting point to the construction of information, society, and universities – a social product – move towards abstraction. On the first level of abstraction, the society produced the traditional images that influenced religious idolatry. On the second level, the traditional images were once more abstracted into linear texts, which provided the development of mathematics, of Cartesian tradition, and allowed the advent and the consolidation of universities. On the third level, the mathematic logical thinking has led to the development of technical images, produced by apparatuses, which have generated a new idolatrous society, in a telematic context.

This society's main characteristic is mass culture, possible due to the technologies developed since the 19th century. Product of these technologies, the amphitheatric discourse, and the programmatic logic call into question the role of universities, by exposing the inefficiency of its hermetic discourse, and by questioning the very validity of the scientific reasoning. Thus, the university sees itself before a necessary paradigm break, that will determine its evolution or obsolescence.



Flusser states: "Contemporary revolutionaries are not actively opposed to the images themselves but rather to the integrated circuitry. They actively promote dialogical, rewired images. [...] The revolutionaries want to change not only the underlying structure but the surface of the so-called information society." (Flusser, 2011a, p.67). The proposal is to focus not on the "decaying" of the previous society (the cracking ice), but the "rising" of the current society (the submarine) (Flusser, 2011a).

Presently, the university conservatism is its greatest triumph and vice. As a consecrated secular institution, it tends to stay as a fundamental piece of society; however, its sluggishness in processing changes may implicate in its extinction – it must behave as an "ameba," not as a "dinosaur" (Kerr, 1995).

The necessary changes demand fundamental revisions that will affect not only administrative and physical structures but essentially the scientific logic and these institutions' pedagogy. It is imperative to stem from the causal view to the programmatic view, from linear thinking to cybernetic thinking. In this context, the university must review its role as a producer of "departmentalized" knowledge in a society that demands interdisciplinarity, as well as its aptitude for producing professionals and citizens in the telematic society required pace – a protocol four-year education is doomed to resulting obsolete professionals in the informational rate.

Also essential is to review how information is broadcast; in the telematic society, the receiver does not direct himself to the message sender, the message is radiated to him.

The amphitheatric discourse is primarily discursive, rebroadcasting data, without favoring dialogue and the production of new information; in that way, it is similar to the pyramidal discourse. The university must focus on its dialogic ability, for "Today, however, unwanted information that may be generated in an ordinary discussion is automatically removed from the dialogical web and fed back to the sender [...]. In contrast to the Catholic Middle Ages, discourse today automatically approaches entropy, and only in this modified sense can it be said that we are becoming more catholic [...]." (Flusser, 2011a, p.84).

This should be the role of the university, as it always has been. Should the university fail to adapt to the new context, maintaining its essential function, the technical images, in their contemporary abundance, will lead society into new idolatry, a "return" to a technologic Middle Age.

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1 In the original text, written in Portuguese, Flusser does a pun: the word “negócio” (business) is juxtaposed with “negação de ócio” (denial of leisure), in a sort of grammatical contraction. In this translation, the author of this paper has opted for keeping the literal meaning of the expressions, but another possibility would be to translate “negação do ócio” as “being busy,” maintaining some of the sense of the original pun.