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**ENTREPRENEURSHIP
IN HIGHER EDUCATION:
DEVELOPING SOCIAL
TECHNOLOGY APPLIED
TO TRAFFIC EDUCATION
AND SUSTAINABLE
MOBILITY**

Bárbara Cassandra Vita Barbosa

Founder of the `` Núcleo Interdisciplinar
Universitário de Trânsito de Pernambuco ``
- NIUT

Traffic Psychologist

Master in Sustainable Local Development
Management

Emanuel Ferreira Leite

Professor of Entrepreneurship FCAP/UPE
Doctor of Engineering Sciences
Post-doctorate in Innovation and
Entrepreneurship

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Abstract: The creation of NIUT, awarded by the Citizenship Institute 2013/2014 as a Social highlight in Pernambuco, highlights the importance of the role of higher education institutions in terms of local sustainability, understanding that the university, as a locus of knowledge and in an innovative stance, needs create interdisciplinary spaces for dialogue aimed at developing transformative educational actions. This enterprise, based on the possibility of providing opportunities for social and urban changes, is the result of the demand for new social technologies endorsed in the author's Dissertation through the Master's Degree in Sustainable Local Development Management at the University of Pernambuco - GDLS/FCAP/UPE. This innovative methodological proposal, developed within academic research, sees as a priority the active participation of the institutions of the National Transit System - SNT and all members of society in the public and political life of their locality. In other words, based on action research, NIUT involved both research and extension, seeking the construction of contextualized knowledge, as well as the application and mediation of the propagation of this knowledge from the perspective of social transformations. This innovative methodological approach had the challenge of listening to local needs, connecting SNT public bodies in a proposal to align actions and open space for the discussion of new public policies. This interdisciplinary and interinstitutional proposal highlighted the social responsibility of higher education in the face of social demands, enabling approaches and the creation of spaces for dialogue between informal knowledge and technical-scientific knowledge.

Keywords: interdisciplinary university traffic nucleus; college education; sustainable university; innovative social technologies; social entrepreneurship.

INTRODUCTION

This article highlights the undertaking of ``Núcleo Interdisciplinar Universitário de Trânsito`` - NIUT, already registered at the School of Fine Arts and the National Institute of Intellectual Property - INPI, given its objective of promoting interinstitutional articulations aimed at the development of interdisciplinary actions in the area of education for sustainable traffic. The aforementioned Center suggests that university institutions become participants in the process of building sustainability in transit, assuming their role as co-responsible for citizen mobility.

There is a problem of high morbidity and mortality rates in city traffic, and these indicators were presented in the text for Discussion 2565 IPEA 2020, when Carvalho (2020) researched the "Costs of traffic accidents in Brazil". In this study, it is revealed that society loses around R\$50 billion per year due to traffic accidents, highlighting that the costs are related to the victims' loss of production and also hospital costs. The text cited above draws attention to traffic "accidents", today called traffic "accidents" in Brazil, which kill around 45 thousand people per year (Datusus) and leave more than 160 thousand people with serious injuries in an estimate conservative.

The idea of developing this NIUT social enterprise, focused on local sustainability, corresponds to a purpose that serves our time well, as it combines years of professional experience in the area of public traffic management with the passion for a social mission of transformation through technologies innovative social media. NIUT's interest in positively impacting society on issues of human mobility focuses on the construction of new strategic management models aligned with the Sustainable Development Goals - SDGs 04 and 11.

To talk about the social impact on human mobility may seem like something new, but this focus on studying the complexity of the transit phenomenon is not. The fact is that there have always been social entrepreneurs, even if they were not specified as such. Undertaking in the social sphere is not an easy task, it requires a lot of investment in efforts to develop methods, strategies, action planning and partnerships to serve your social missions.

It can be seen that the concept of social enterprise is gaining strength and adoption nowadays, meaning that the social responsibility of entrepreneurs is growing more and more. This could be a social awakening to the need for greater investment in Brazil's numerous social issues.

One might even question what an academic enterprise with social impact would really be, and what would being a social impact entrepreneur mean? To answer these questions, we need to start by looking at the etymology of the term "entrepreneur".

For a social entrepreneur, the social mission would represent the fundamental point, and this mission of listening to pain, creating and sustaining social value would become the main point of his journey in the search for solutions and social transformations.

For Leite (2012), this proposal to undertake and carry out transformations would represent a mission that could not be reduced merely to creating financial profits. This purpose may even be part of the business model, but they are truly a means of achieving a social end, and not the end in itself.

Reinforcing the maxim of entrepreneurship, where many see problems, entrepreneurs see opportunity. The idea of social enterprise serves our time well, and can include risks like any other business, however, social entrepreneurs always seek to study the

development of new methods, through continuous social listening, to serve their missions well. However, the importance of perseverance and determination of social entrepreneurs in their missions is highlighted.

Social entrepreneurs seek continuous validation of their solutions, with the aim of creating lasting improvements. In other words, social entrepreneurs focus on studying the problem in order to validate solutions and results that can be replicated and measured.

This entire study focusing on the enterprise of human sustainability in transit initially required a conceptual basis for sustainable development, and one of the most accepted assertions for its definition emerged in the World Commission on Environment and Development, which associated such development with the ability to meet the needs of the current generation, without compromising meeting the needs of future generations. Understood this way, sustainability started to make people aware of their role as citizens, and this bias praised civic education as an important instrument to enable democracy and inclusion in the public space of cities.

NIUT highlights the complexity of the phenomenon of urban mobility with an emphasis on interdisciplinary and interinstitutional methodologies and social technologies, highlighting the evidence that education for sustainability, in this innovative perspective, needs to transcend school and institutional walls. In other words, sustainable traffic connects people/citizenship, institutions and knowledge.

Following this line of thought, and based on what was exposed in the Seminar presented at the Third International Conference on Epistemology and Philosophy (MARIOTTI, 2002), it is understood that the social space of circulation would need to be linked to an interconnected knowledge that would

require the breadth of intertwining between knowledge and the recognition of the importance of forming transformative social subjects. We remember what was mentioned when we propose to study the seven knowledges of complex thinking highlighted by Morin (2002), which makes evident the one-dimensionalization of the vision that predominates in the dominant culture, which alienates and devalues everyday life and the perception of diversities.

This awakening to new possibilities on city streets also highlights the need for new professional and institutional skills that begin to consider the importance of new curricular bases and greater participation of society in the construction of more inclusive public policies. This unveiling of new strategies in public traffic management includes reassessments of current public policies from the perspective of building new urban circulation spaces.

Based on this proposal to give new meaning to citizen circulation, NIUT also highlights the need to rethink the social space of cities as a democratic place that welcomes diversity and respects others.

The theoretical contribution of this article, based on the assumptions of Morin (2002) and Leite (2012), points to the possibilities of sustainable traffic, in order to encourage, in university institutions, as well as in institutions of the National Transit System, a critical look aimed at promoting education for sustainable traffic.

In this challenging proposal, still based on the thinking of Morin (2012), local sustainability requires the formation of interactive and interretroactive links between the parts and the whole, and between the whole and the parts. And, based on the thinking of Leite (2015), a university would need to be able to build educational responses adapted to the different expectations, needs, personal characteristics, and life projects of

our young people.

Leite (2012) considers that entrepreneurship at university is as important as a higher education diploma.

Educational systems are never able to keep pace with social transformations. It is necessary to prepare new generations to adapt to a job market and an economy permeated with great uncertainty, characterized by technical innovation, labor flexibility and economic globalization. (LEITE, 2012).

For the same, the University can no longer be a vector of finished products but rather train entrepreneurs capable of finding niche opportunities in this new society.

This text falls within the scope of the reflection made by the authors with a view to contributing to the debate on how to make the university entrepreneurial, sustainable in a process where communication plays a fundamental role in the transfer of technology and knowledge. It is intended that this article will contribute to the consolidation of changes in higher education capable of responding in a timely manner to the legitimate aspirations of modern society, which is the transformation of knowledge into wealth. Freedom and encouraging the ability to undertake would be fundamental for sustainable local development.

In this entrepreneurial line, NIUT's actions highlight the vision of interdisciplinarity, cited by Fazenda (1993) when he highlights that interdisciplinarity enables the intertwining of knowledge, seeking not merely the finished unity, but representing the bias and principle of unification. In practical terms, interdisciplinarity in the context of citizen circulation would allow the study of traffic behavior beyond the disciplinary focus, in order to consider the breadth of thought that is interconnected, contextualized, and full of its meanings.

NIUT's proposal in favor of citizen

awareness also engages with the proposal of the United Nations General Assembly, which proclaimed the period from 2021 to 2030 as the Second Decade of Actions for Road Safety. The purpose of this resolution recommends actions in this area in the decade, aiming to change behaviors and thus reduce traffic accidents by up to 50% worldwide. This movement in search of saving lives on city roads proposes joining efforts to develop actions aimed at education and traffic safety. It is understood that it will only be possible to truly reduce morbidity and mortality in traffic if all civil society and public and private institutions involved in this problem are interconnected in this process. Data from the Global Ministerial Conference on road safety in 2020 draws attention to the frightening reality of traffic accidents that claim around 1.3 million lives per year.

These innovative assumptions of NIUT, which focus on meeting the SDGs, especially with regard to SDG 04, Quality Education and SDG 11 Sustainable Cities, are also supported by the premise of administrator Bezerra (2014), cited in *Revista Brasileira de Administration*, when he highlights that education now represents an important public management tool, as it highlights the importance of the role of participatory public governance.

Not investing what is due and not being precisely aware of the action of education as an activity that transforms organizational reality constitute, in my opinion, the biggest sins still committed by employers and employees. (BEZERRA, 2014).

The Federal Constitution, through its Article 207, establishes that universities enjoy didactic-scientific, administrative and financial and asset management autonomy, and will obey the principle of inseparability between teaching, research and extension. However, in practice, it is still evident that

universities prioritize a reductionist approach to teaching, largely dissociated from a broad and contextualized view of the local reality.

For this purpose, still based on Schumpeter (1984), NIUT focuses on the importance of work that observes systemic changes and sustainable improvements.

METHODOLOGY

Understanding traffic as a systemic phenomenon, NIUT, as a product of an entrepreneurial university, in view of its social responsibility, sought to create spaces for debates, in order to expand listening to the social demands involved in the theme of traffic and urban mobility.

Through its extensionist proposal, the actions reconnected formal knowledge resulting from teaching, research and informal knowledge resulting from everyday knowledge present in the local reality, in order to enable greater participation of the population in the construction of public traffic policies.

In other words, through interdisciplinary and interinstitutional base actions, NIUT opened space for debates, interconnecting the bodies of the National Transit System, academia and local society. These activities aimed to catalyze sustainable development on public streets in cities through the proposal of integration between formal and non-formal knowledge mediated by higher education.

This way, NIUT brought the university closer to contemporary issues by making practical knowledge acquired through teaching and academic research available to society. This closer relationship between parties and greater articulation with social demands made it possible to reaffirm a proposal for the formation of critical and transformative social subjects.

As already mentioned, in the course of its actions, NIUT considered the stimulus and the principle of inseparability in teaching, research

and extension activities to be a priority, as it understood that this interconnection would greatly suit the proposal of promoting interinstitutional articulations aimed at the development of interdisciplinary education actions for sustainable traffic.

In short, NIUT's methodology was based on innovative social technologies, interrelating ecosystems and formal scientific knowledge with traditional, non-formal cultural knowledge, highlighting interdisciplinarity in opening spaces for complex interinstitutionality.

RESULT

In this context of urban reality, all actions carried out by NIUT opened space for the study of the multidimensional reality present in the context of human circulation, highlighting the importance of extension actions in sustainable development.

As a result of its actions, NIUT won the honorable award for Social Outstanding in Pernambuco 2013/2014 through the "Constructing the Nation Award". The award represented an achievement by the "Instituto da Cidadania Brasil", the Volkswagen Foundation, CNI and SESI and is awarded to projects developed by educational institutions.

It is worth mentioning that NIUT's undertaking has already led the University of Pernambuco-UPE to receive the seal, the National Award for Social Prominence in Pernambuco. This Award was granted to projects developed by educational institutions, and was granted by the Brazilian Citizenship Institute in March 2014, in São Paulo, and corresponded to an achievement by the Brazilian Citizenship Institute, the Volkswagen Foundation, CNI and Sesi.

Besides, in 2014, an article about NIUT's innovative social technologies was published in the scientific magazine *Interfaces de MG*.

In 2015, an article with reference to NIUT

was classified and presented at the International Conference of Women Entrepreneurs, and in 2017, this NIUT article was selected to appear in the e-book of that conference.

In 2015, NIUT was selected for the second stage of the Ozires Silva National Award, being among the 10 social enterprises in Brazil selected for the Ozires Silva Award. In this selection process, NIUT's actions were presented to a committee at the Instituto Superior de Administração e Economia-ISAE, in Curitiba in January 2016.

In 2016, an article about NIUT's innovative actions highlighting its proposal to create an innovation research center was presented at a congress in Mexico, and published in May 2016 in "Revista Latindex": "Responsabilidade Social em Intituciones de Educación Superior" (Social Responsibility in Higher Education Institutions).

In 2021, the Interdisciplinary University Traffic Center was selected among 1000 Brazilian studies classified by Catalisa - ICT / Sebrae. Catalisa ICT represents a journey of acceleration and promotion for researchers, involving and bringing academia closer to the market, taking into consideration, the innovation potential of the selected research.

Thus, NIUT, through Catalisa ICT, was subjected to an immersion/acceleration through Sebrae training aimed at scientific entrepreneurs who were formed by masters/masters and doctors/doctoral students, also involving a focus on the transfer of technology from researchers/universities to companies.

It is also evident that improving and guaranteeing the social function of cities required greater participation from higher education, awakening the need for a new look at new management models that take into consideration, the bottlenecks present in circulation, in order to implement new strategies for sustainable development.

It is noteworthy that the search for a new

proposal for more humanized circulation is linked to new public management mechanisms that guarantee investment in training people for democratic and peaceful coexistence.

CONCLUSIONS

Despite all the effort on the part of NIUT, it is clear that Universities have still contributed in a very insignificant way to the implementation of practices aimed at sustainable traffic. These innovative educational practices need to become more present in higher education. It can be seen that university education is still largely centered on a disciplinary model, aimed at preparing professionals, in a more productive capacity, with technical training to serve the job market.

The actions developed by NIUT invite public management involved in the National Traffic System - SNT to rethink new planning and action strategies, understanding that, contrary to direction, these institutions still see traffic as a subject centered on punitive mechanisms and inspection.

Remembering Rozestraten (1988), considered the father of Traffic Psychology in Brazil, when he highlighted that the majority of traffic accidents could be avoided, NIUT arrives with the function of signaling this important awakening of universities towards academic entrepreneurship with social impact as an educational and scientific process that articulates both teaching, extension and research in an inseparable way, enabling transformative entrepreneurship between the University, institutions of the National Transit System and Society.

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