
Formación de la cultura en propiedad industrial en egresados universitarios: vías para su tratamiento

Training of culture in industrial property in university graduates. Roads for their treatment

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Resumen: El problema de investigación: ¿cómo atender la necesidad de formación de la cultura en propiedad industrial para los profesionales en carreras tecnológicas?, se plantea con el fin de ofrecer vías para satisfacer esa necesidad, sobre la base de una experiencia con profesionales en carreras tecnológicas de la Universidad de Oriente. Este es un estudio eminentemente cualitativo, con aplicación de diversos métodos (el análisis- síntesis, la inducción-deducción, la observación, la experiencia de vida y la revisión de documentos), cuyo resultado es un sistema de postulados que argumentan la necesidad e importancia de la cultura en propiedad industrial en la formación continua.

Palabras clave: Formación continua; Cultura en propiedad industrial; Desempeño profesional; Modos de actuación.

Abstract: The research problem: how to meet the need for training in industrial property culture for professionals in technology careers? It is proposed in order to offer ways to satisfy this need, based on experience with professionals in technology careers from the Universidad de Oriente. This is an eminently qualitative study, with the application of various methods (analysis-synthesis, induction-deduction, observation, life experience and document review), the result of which is a system of postulates that argue the need and importance of culture in industrial property in continuous training.

Keywords: Continuous training; Culture in industrial property; Professional performance; Modes of action.

Introduction

Today's Cuban society seeks in its professionals the development of modes of action, from a broad profile to a specific character related to the job. This clear way in which the performance of young values in companies is shown, is oriented to creativity and technological innovation. It is a precise way that stimulates the use of mechanisms, strategies and actions that contribute to mitigate the negative impacts on scientific-technological and economic-social development. In this purpose, which seems trivial due to its repetition, pedagogy and education have a crucial role to play together with other sciences, with which the required levels of culture are created.

All this contrasts with the context of the world today, whose most profound and current manifestation –as Gómez (2013) points out is the systemic structural crisis, decorated with the simultaneous economic, financial, energy, food and environmental crises; the latter monopolizing the entire months of 2020, with a pandemic that has affected more than 150 countries throughout the world.

In the midst of these adversities, the referred current Cuban society remains unscathed; without kicking, without pauses, without haste, although –now- with a speed, imposed by the epidemiological situation itself and the new normal. The alternatives of saving and saving oneself constitute it and erect it in an irredeemable way, thanks to its first-class technological proposals in the world. Immediately, the vaccine proposal "Sovereign 1" is the latest example; But be it the branch of health or agriculture, information technology, technology itself, they configure manifestations of Cuba's constant in the search for solutions to problems for social good.

In a particular way, the Universidad de Oriente raises its institutional framework together with the companies of the territory and the communities, finding its reason for being in those spaces. This is the value of its pedagogical processes to influence the understanding of a crucial aspect: the teaching of Industrial Property (IP) in university careers, according to each profile. It is that it is a necessity to perfect the professional training of university graduates, especially in technological careers. It is clear that in this way the impacts that must be produced in scientific-technological and economic development can be better addressed, the effect of which is the result of the State-Government-University and University-Company-Society trilogies.

According to Musa (1997), the university system consists of a set of processes: those of relevance, which are those of professional training - postgraduate, research and extension-, and those of existence, where the management of human resources and the assurance of financial and materials. In other words, the university is an open system that offers the opportunity to attend and solve the problems of its processes. And particularly, the answer to the question that is formulated below becomes the argument of this essay: how to attend to the need for cultural training in industrial property for professionals in technological

careers? The subsequent analysis constitutes the theoretical basis for these arguments to be offered in this paper about why this training is required and how to do it.

It is an eminently qualitative study, by means of an exploratory, explanatory and descriptive investigation, because the topic and the research problem have been little studied. The non-experimental route is used in which the following research methods stand out: analysis-synthesis, induction-deduction, observation, and document review.

Development

The answer to the question of the problem passes, first, through the analysis of the treatment that some authors have given to this subject, according to their points of view and research interests. Thus, Idris (2003) affirms that the absence of a culture of industrial property has as a consequence the decline of the economy, the reduction of creativity and inventiveness, and influences a business environment devoid of foreign direct investment. This author raises the need for dynamic policies that help pay particular attention to human resource development, education, and the commercialization of IP assets. Although he asserts the need to achieve an adequate participation of universities in the promotion of culture in IP, he does not offer avenues for these projections.

Manrique (2007) refers that the university must act accordingly and must define the regulatory set within which the activities, processes and procedures necessary to guarantee the due recognition and protection of those rights acquired by the production derived from the activity must be framed intellectual in any of its focus. He recognizes the culture of IP as something axiological that is an expression of identity, resulting from a historical-cultural and social process. He maintains that -to speak of culture- it is necessary to declare an agreement that is sometimes not explicit, but shared by the university scientific community. However, this researcher does not propose how to achieve this, he excludes the observance of intellectual property rights and the commercialization of the results.

Naranjo (2006) considers that in the "Digital Era" the war for the commercialization of knowledge of cultural megaindustries, becomes increasingly harsh; he alleges that "cultural production" is in danger. He maintains that cultural processes are centered on knowledge, which he defines as the set of data on facts and truths stored in a person or another type of

agent, which, when transmitted, feeds back the circuit between knowledge, thought and language accelerated as a process -by means of information-, so the development of new technologies for its dissemination leads to the rise of knowledge, which expands the possibilities of human thought and culture. Its limitation is that it reduces culture to the management of digital information.

For his part, Ortiz (2016) studied the matter from the problems generated by the use of the internet, and advocates a culture of respect for industrial property rights. His analysis focuses on Copyright. Ameenah (2015) supports her criteria on the basis of knowledge on IP for any type of scientific innovation and economic development actions; but he does not provide concepts or dimensions for its measurement and evaluation. For their part, Dobrusin and Krannow, (2012), Karjala and Paterson (2017) used the term culture in IP, without alleging concepts or dimensions, or carrying out theoretical analyzes. Likewise, Guo and Li-Hua (2008) focused their analyzes on the culture of IP. They focus on management theory, but do not make pedagogical or educational arguments.

The epistemological journey through the previous authors allows us to appreciate that even though the subject has been of interest to each one, the way of addressing the problem is far from a formative treatment; for all of them the relevance lies in the recognition of cultural processes centered on knowledge, enhancing the axiological value inclusive; but its limitation consists in not offering training tools for cultural development.

Along these lines, it is worth considering Musa's judgment:

The criteria that must guide the various university processes today are related to social relevance, educational quality and internationalization of knowledge, so it must achieve the highest level of institutional competence, develop the qualities associated with vision, will and audacity, prioritize social interaction as a particular form of relationship with the local, national and international environment and to achieve quality in the selection and admission processes, professional and values training, attention to the graduate, scientific research and professional improvement. (1997, p.15)

As can be seen, this opinion makes clear the global space that the university assists for the contribution of knowledge, based on the modification of the forms of management and decision-making. This presupposes a prospective, systemic, dynamic and open vision, so that the qualitative analysis of the problems flows evolutionarily. For this, at the same time, the holistic vision of the phenomena and their consequences is essential.

So then, it is appropriate to consider, in addition, the criteria of Heijden Van (1998) who maintains the cyclical nature of the learning processes based on scenarios, which fulfill three functions: precautionary, entrepreneurial and cognitive. The first, to anticipate risks and understand the nature of the processes; the second, to discover strategic alternatives, previously ignored; and the third, to organize and understand a set of incoherent data, whose nature is economic, technical, political, social and competitive, and which must be translated into useful schemes to support and improve the design of decision makers.

The previous aspects are important to reflect that the holistic character with which the formation of the IP culture should be studied at the Universidad de Oriente, implies considering the need for change for organizational learning; that is, the opportunity to acquire and use new knowledge, tools, behaviors and values to the extent that errors are detected and corrected, or more effective ways of acting are found, which participate in solving and posing problems.

Organizational learning, when expressed in productive ways of transformation, offers a result whose process generates knowledge; Thus, at the same time that individual learning benefits, the knowledge of the institutional organization is promoted. The formation of the IP culture for professionals in technological careers represents, on the one hand, the stimulation of creativity and innovation to face conflicts and propose responses; on the other, the motivation to produce, assimilate and take advantage of successfully on the basis of what is new and diverse.

The aforementioned is the starting point to promote, maintain and stabilize an attitude of change, forged on the basis of actions, customs and procedures - seen so far in isolation - that need a vision that generates integration, strategy and relative autonomy. In this way, an increase in sensitivity in professors, researchers, editors and other professionals associated

with scientific dissemination can be achieved, in relation to a topic that takes urgency for specialized journals that sponsor the rapid assimilation by academics in universities and employer entities. With these results, it will be possible to propose teaching programs, methodologies and strategies that contribute to the insertion of contents related to industrial property within the continuous training of professionals in technological careers; all of which can contribute to the national scientific-technological and socio-economic sovereignty.

Now, this aspiration can become concrete acts, to the extent that two issues are harmonized: first, organizational learning; second: the systemic nature of communication strategies in the institution; It must be taken into account that both aspects are required to define that the academic organization originates the capacity to influence changes in the university environment (the company, the community, the society) that promote broad participation.

The marked intention of offering arguments about how to address the need for the formation of culture in industrial property for professionals in technological careers, transits by ordering these reflections from a system of postulates (see figure). In principle, it is taken as a premise that organizational learning is guaranteed to the same extent that the systemic nature of communication is inherent to it. That is: everything lies in the harmony given between the purposes of promotion, dissemination and dissemination of the transformations experienced in the cultural and axiological order, due to the use of new knowledge and tools, whose effectiveness affects the solution of problems in a creative way and innovative.

Source: self made



Fig. 1: System of postulates for the formation of culture in industrial property in technological careers.

Therefore, to obtain the postulate system, first, it is necessary to analyze the current state of the formation of culture in industrial property for professionals in technological careers.

Although these careers, in the Cuban Professional Model (Study Plan E, 2017) show the professional problem (design and manage technologies), the modes of action (technology management, design technologies, manage information and seek solutions to general problems and frequent), on the other hand, in the training process, the stimulation of professional skills such as creativity and technological innovation is insufficient; likewise, the use of Information and Communication Technologies (ICT) in the search and management of technological information and new advanced knowledge is incomplete.

Some Cuban peculiarities, although they coincide with the fact that in other areas of the world industrial property education is not part of the curriculum, they contrast with the fact that in those places there are ways for its treatment. Thus, in European countries, content is part of the common core of other subjects at all educational levels; although more emphasis is placed on copyright, to the detriment of IP. In other non-European nations, IP is taught in primary school and is generally part of the Citizenship subject. In the US, IP studies are only reserved for law schools. However, in recent years, it has grown from a narrowly specialized legal field to a major force in the social and economic life of Americans, recognizing that IP-protected innovation is the primary driver of corporate value and national economic growth. .

So far it is clear, on the one hand, that the lack of training in industrial property culture consists in the need for a systemic approach linked to organizational learning, which generates awareness to define that the academic organization develops the ability to influence in the changes of the university environment (institution, community, society). On the other hand, this need is based on the fact that some reasons that constitute driving forces in the dynamics of a process have not been taken into account, the result of which can guarantee projective actions of an institutional nature: of intention with this, it is proposed as a way for its treatment, a system of postulates as a platform for academic development.

It is worth saying that the system of postulates that is proposed represents the vision of totality in the link between organizational learning and the systemic nature of communication, which implies for the participating agents the display of attitudes to unlearn all cultural heritage that slows down the transformation necessary. The system of postulates is defined as the harmonized set of judgments, whose strategic reflection is capable of

integrating economic, political and social factors that function as catalysts in institutional, community and social behavior.

This system of postulates is essentially distinguished by the articulation of dynamic elements among themselves, which strengthen and encourage the necessary action. In this sense of stimulation, its structure offers personological components and process components, which play a strategic role, either in decision-making or in carrying out actions. Overall, the link between the personological components and those of processes, offers as a result favorable situations in the academic field, projected in the institutional vision.

Personological components

- a) Guiding role of research work by the professor
- b) Search and display of technological background by students
- c) Teaching elective / elective subjects that cover IP content
- d) Level of identification of distinctive elements associated with IP.

Process components

- a) The articulation of the undergraduate, preparation for employment and postgraduate as a consequence of the initial stimulation
- b) The search for the essentiality of the contents, based on the rational treatment of the subject programs
- c) The dynamic investigative labor practice-solutions of database problems
- d) The selection and treatment of the elements associated with IP, from the base labor entities
- e) The connection of the basic nuclei of the specialties with the social problems of the community, business and institutional settings.

Postulate system

- (I) An epistemological disposition that seeks the foundations about the formation of industrial property as a process that needs to occupy a space in favor of creation and technological innovation
- (II) A methodology that favors the link between organizational learning and the systemic nature of communication, as complex processes
- (III) The solidity in the identification of strategic objectives and means that allows the fulfillment of the specific objectives

In these propositions, in the first place, the need for epistemological foundations is alluded to, to create a scientific platform in the study of IP, as organizational learning that uses new knowledge, tools and values, while taking advantage of individual knowledge in terms of strengthening them in the organization. This postulate responds to the precautionary function of the process, because it invites us to know its nature. Second, there is the need for a methodology, which functions as an instrumental system where the interpretations resulting from the theoretical analysis are praxiologically verified. This postulate, whose character is flexible, performs the entrepreneurial function because it stimulates the discovery of substantial strategic options. Third, there is the concretion, represented by the objectives, which channel the projection of immediate and strategic actions, guarantors of the expected result. They constitute the verification of knowledge in a tactical and practical way; therefore, this postulate, whose function is cognitive, allows the logical reorganization of data of a diverse nature in the economic, technical, political, social or competitive order.

Conclusions

The Universidad de Oriente, being an open system that addresses and solves the problems of its relevance and existence processes. Specifically, this work offers ways to meet the need for training in IP culture for professionals in technology careers, starting from the epistemological path that denotes the lack of a training treatment in this regard.

The need for change is recognized, in the premise that declares the correlation between the systemic nature of communication and organizational learning, which constitutes the basis for the system of postulates that is distinguished, essentially, by the articulation of dynamic

elements among themselves , which strengthen and encourage the necessary action in the formation of the culture in industrial property for professionals in technological careers.

This system represents a holistic vision for orientation, direction, inquiry and identification; at the same time it contributes to the articulation of processes, to the investigation of unknown facts and to institutional conciliation, in order to dimension the favorable situations in the academic sphere. In short, this proposal favors the treatment of the formation of culture in industrial property for professionals in technological careers.

Bibliographic references

- Ameenah Gurib, F. (2015). *Estimular la innovación en África*. Recuperado de http://www.wipo.int/wipo-magazine/es/2015/06/article_0003
- Dobrusin, E. M.; Krasnow, Ronald, A. (2012). *Intellectual Property Culture: Strategies to foster successful patent and trade secret practices in everyday business*, 2nd ed., Oxford University Press. Recuperado de <https://books.google.com.cu>
- Gómez, S. (2013). Vínculos entre la prospectiva, el aprendizaje organizacional, la visión y el enfoque sistémico en la gestión del cambio en las universidades. *Revista Cubana de Educación Superior*. No. 3, pp.5-17.
- Guo, M. y Li- Hua, R. (2008). Conceptual framework of strategic intellectual property management: A case study of Henan Province, China. *Journal of Technology Management in China*, 3(3), 307- 321.
- Idris, K. (2003). *La Propiedad Intelectual al servicio del crecimiento económico*. Reseña de la obra *Intellectual Property- A Power Tool for economic Growth*. Publicación de la OMPI, No.888.1. Recuperado de https://www.wipo.int/export/sites/www/wipo_magazine/es/pdf/2003/wipo_pub.
- Karjala- Denis, S., Paterson, R. K. (2017). The case against property rights in old intangible indigenous cultural property, *Technology & Intellectual Property*, 15 (1). Recuperado de <https://scholarlycommons.law.northwestern.edu/njtip/vol15/iss2/1>.
- Manrique- Hernández, R. D. (2007). *Hacia una cultura de la propiedad intelectual CES Medicina*, Vol. 21, Colombia. Recuperado de <https://revistas.ces.edu.co/index.php/medicina/article/view/22>

Ministerio de Educación Superior (2017). *Plan de Estudio "E" Carrera Ingeniería en Automática*. La Habana.

Musa, J. (1997). *La Universidad, un sistema abierto*. Buenos Aires: Ediciones Nueva Visión.

Naranjo, A. (2006). *La cultura y la propiedad intelectual en la era digital*. Recuperado de <https://www.alainet.org/es/active/19367>

Ortiz López, C.A. (2016). Algunos aspectos de la propiedad intelectual en el entorno digital, Biblioteca Jurídica virtual del Instituto de Investigación jurídica de la UNAM. Recuperado de <http://biblio.juridicas.unam.mx>

Van Der Heijden, K. (1998). *El arte de prevenir el futuro*. México: Panorama Editorial.