



ORIGINAL

## Analysis of ICT policies for the social appropriation of knowledge in research groups at the University of La Guajira

### Análisis de las políticas en TIC para la apropiación social del conocimiento en Grupos de Investigación de La Universidad de La Guajira

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#### ABSTRACT

Globally, a transformation in the concept of Social Appropriation of Knowledge has been observed due to the implementation of public policies and advances in science, technology and innovation. This concept has been widely disseminated in recent years thanks to public policy instruments that promote the relationship between science and society. In addition, investment in research has been recognized as a crucial factor for the growth and advancement of science and technology, as well as for the promotion of innovation, generating a direct impact on the development and projection of higher education in Colombia. In this context, the research seeks to establish an essential connection between public policies in science, technology and innovation and the promotion of research in the research groups of the University of La Guajira. For this purpose, it has been based on theoretical contributions of several authors such as Albornoz, Escobar Ortiz and Daza-Caicedo. The research adopts a descriptive, non-experimental, field and cross-sectional approach. The results indicate that there is an effective policy to promote the social appropriation of knowledge, which contributes significantly to improve the quality and relevance of the research developed by the research groups at the University of La Guajira.

**Keywords:** Appropriation; Knowledge; Technologies; Research.

#### RESUMEN

A nivel global, se ha observado una transformación en el concepto de Apropiación Social del Conocimiento debido a la implementación de políticas públicas y los avances en ciencia, tecnología e innovación. Este concepto se ha difundido ampliamente en los últimos años gracias a instrumentos de política pública que promueven la relación entre la ciencia y la sociedad. Además, la inversión en investigación se ha reconocido como un factor crucial para el crecimiento y el avance de la ciencia y la tecnología, así como para la promoción de la innovación, generando un impacto directo en el desarrollo y la proyección de la educación superior en Colombia. En este contexto, la investigación busca establecer una conexión esencial entre las políticas públicas en ciencia, tecnología e innovación y el fomento de la investigación en los grupos de investigación de la Universidad de La Guajira. Para ello, se han basado en aportes teóricos de varios autores como Albornoz, Escobar Ortiz y Daza-Caicedo. La investigación adopta un enfoque descriptivo, no experimental, de campo y transeccional. Los resultados indican que existe una política efectiva de promoción de la apropiación social del conocimiento, la cual contribuye significativamente a mejorar la calidad y relevancia de las investigaciones desarrolladas por los grupos de investigación en la Universidad de La Guajira.

**Palabras clave:** Apropiación; Conocimiento; Tecnologías; Investigación.

## INTRODUCTION

Investment in research is recognized as a fundamental factor for social progress, scientific and technological advancement, and the promotion of innovation, which directly impacts the design and implementation of plans and programs at the national level. In this context, this study seeks to establish an essential connection between public policies in science, technology, and innovation (STI) and the promotion of research in the research groups of the University of La Guajira in Colombia.

This research is based on the need to characterize the various approaches to public policies for the social appropriation of knowledge in the context of STI, as well as the participation of research groups in generating new knowledge in higher education. This effort will guide knowledge management in this institution and serve as a valuable reference for future research in this field.

Ultimately, this study will provide relevant information to improve the implementation of public policies of Social Appropriation of Knowledge (SAC) in the framework of STI within the context of higher education. It is hoped that this contribution will promote the development of a society with higher quality in these areas and that higher education institutions will consolidate themselves as fundamental actors in this process.

## METHOD

The present study determined that a solid and integral basis to characterize the public policy of CSA in higher education research groups in La Guajira, Colombia, was established. In order to achieve this objective, a set of methodologies and key theoretical concepts that are developed globally and support the contextualization of the research will be used. Likewise, special attention will be paid to the relationship between the public policy of CSA and the framework of science, technology, and innovation (STI). Because this interaction plays an important role in encouraging and fostering research at the university level.

### Conceptual framework

**ASC knowledge** Since its emergence, this concept has been studied from different angles, giving it pluralism since no theoretical support has been accompanied. For example, we can cite a study by academics Marcela Lozano Borda and Tania Pérez Bustos (2012). They reviewed the Ibero-American literature from 2000 to 2010, explicitly mentioning the term ASCyT to define the definition. We will contribute to developing the national strategy for science, technology, and innovation, focusing on the concept of ASCyT. The evaluation results show that Colombian authors represent 45 % of the analyzed documents, followed by Spain with 20 %. However, Spanish production comes from the academic field, and Colombian production comes from the context of public policy.

From their analysis of the literature, the authors identified three trends. The first concept refers to appropriation as a social process in which the nature of scientific knowledge is understood to be incorporated into cultural and social contexts. The second trend is linked to a process that emphasizes the link between science, technology, and society as a driving force for development and growth. The last part addresses science as a public good and participatory scenario (Borda & Pérez-Bustos, 2012, p.11).

**Public policy** To introduce this study, it is important to define what public policy is in general. According to Roth (2014), public policy represents the existence of one or more common objectives and a set of measures and actions to be addressed that are considered necessary or desired and considered satisfactory or problematic, at least in part, by a government agency or institution to direct the actions of individuals or groups to correct a perceived situation. Research Hernández Sampieri (2014) defines *research* as a formal and systematic process to answer scientific questions or problems and seek to generate new knowledge. For his part, Creswell (2018) describes research as the systematic, reflective, and ethical research process that seeks to answer questions or solve problems. Researchers According to Robert K. Merton (1938), researchers are individuals engaged in the pursuit of new knowledge and the creation guided by standards of altruism and objectivity that are important in scientific research. Michael T. Clark (2004) emphasizes that researchers play a fundamental role in producing and communicating informed knowledge through research and teaching, especially in higher education.

**Technology** Christopher Freeman (1987) argues that technology refers to advances and practical applications derived from science and significantly impacts the economy and society. In the “Three Helixes” framework proposed by Henry Etzkowitz and Loet Leydesdorff (2000), technology is a key element of collaboration between academia, industry, and government.

**Innovation** Bengt-Ake Lundvall (1992) argues that innovation is a complex process involving introducing new ideas, products, processes, and organizational forms into the economy and society and is influenced by policy. Christopher Freeman (1987) associates innovation with successfully applying new technologies to an economy, contributing to economic growth and overall progress.

## RESULTS AND DISCUSSION

Characterization of the Social Appropriation of Knowledge (SCA) from the perspective of public policy:

Identification of key programs such as “Ideas for Change” and “Open Science.” Recognition of calls for proposals that finance proposals for projects related to SCA. Use the instrument for Measuring Groups and Researchers to approach the community’s needs and generate solutions to local problems. Promotion of CSA at the University of La Guajira through its research groups. Possibility of developing products related to the social appropriation of knowledge in projects financed by Colciencias and other national institutions.

## CONCLUSIONS

Recognition of the importance of promotion policies: It is concluded that policies aimed at promoting the social appropriation of knowledge in the framework of the CTel are fundamental to strengthening the linkage between the research groups of the University of La Guajira, thus facilitating the transfer of knowledge and technologies.

Impact on the quality and relevance of research: It is observed that an effective policy to promote the social appropriation of knowledge contributes significantly to improving the quality and relevance of the research developed by the research groups at the University of La Guajira by aligning their activities with social needs and demands.

Promotion of innovation and development: Implementing policies that promote the social appropriation of knowledge stimulates innovation and socioeconomic development by facilitating the transfer of technologies and knowledge generated in the research groups to the productive sector of the Region.

Need for inter-institutional coordination: It was concluded that it is essential to promote collaboration and coordination between higher education institutions, government entities, businesses, and civil society to maximize the impact of policies to promote the social appropriation of knowledge.

Challenges and future opportunities: Challenges such as the need to strengthen the culture of social appropriation of knowledge and ensure sufficient resources for its implementation are identified, as well as opportunities such as the integration of multidisciplinary approaches and the internationalization of research activities.

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The authors declare that there is no conflict of interest.

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