ICTs FOR THE MANAGEMENT OF LEARNING IN HEALTH
Drug services in the Americas

TICs para la gestión del aprendizaje en salud. Los servicios de atención en drogas en América

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KEYWORDS	ABSTRACT
Learning in Health Drug Care Public Management Training ICTs	*This study aimed to analyze experiences that consider ICTs in the management of learning in health and to identify some components that can facilitate a management mechanism to promote training and knowledge development for the care of drug use, abuse, and dependence from the perspective of evidence-based learning. To carry out this work, a community-based research methodology has been used, through an educational project with drug learning communities with 200 people from countries in the Americas such as Colombia, Mexico, Panama, Chile, and Paraguay.*

PALABRAS CLAVE	RESUMEN
Aprendizaje en Salud Atención en Drogas Gestión Pública Formación TICs	*El propósito de este estudio fue analizar experiencias que consideran las TICs en la gestión del aprendizaje en salud e identificar algunas componentes que pueden facilitar un mecanismo de gestión para promover la formación y el desarrollo de conocimientos para la atención del uso, abuso y dependencia a las drogas desde la perspectiva del aprendizaje basado en la evidencia. Para poder realizar este trabajo se ha utilizado una metodología de investigación desde la comunidad, por medio de un proyecto educativo con comunidades de aprendizaje en materia de drogas con 200 personas de países de las américas tales como Colombia, México, Panamá, Chile, Paraguay.*

1. Introduction

In the present century, it can be affirmed that in global terms, two major approaches have been followed in the American Hemisphere: first, supply reduction, as a strategy to control drug production, trafficking, and distribution, and second, demand reduction, as a strategy to avoid drug use and includes educational actions for the management and implementation of preventive programs, rehabilitation, and social and productive integration.

In the American continent, the Inter-American Drug Abuse Control Commission (CICAD) of the Organization of American States (OAS), is a promoter of educational actions from demand reduction, aimed at training human talent and actors (Marca-Francès *et al.,* 2021; Mendoza Olguín *et al.*, 2022) dedicated to the attention of drug use, abuse and addiction:

On the one hand, since 1998, the strategy of a multilateral mechanism and its intergovernmental working group focused on measuring the progress of member states in this area has been carried out, and the need for its continuity is ratified in the annual report presented in the year 2021. In addition, the assembly of member states recommends strengthening training programs in the prevention and treatment of drug use aimed at health professionals, teachers, and social workers (CICAD-OAS, 2021). CICAD also promotes the Inter-American Observatory on Drugs (OID) for research and support in collecting and analyzing data on the subject and designing more effective national policies.

In 2006, CICAD launched a regional program for institutional development and strengthening aimed at promoting the training of human resources specialized in the treatment of drug dependence. This initiative is known at the American hemispheric level as the Training and Certification Program for the Treatment and Rehabilitation of Drugs and Violence (PROCCER) (National Commission against Addictions (CONADIC), 2011).

In this logic, the design and implementation of the Universal Treatment and Prevention Curricula of the Agency for Economic and Social Development Cooperation are promoted. The Colombo Plan, an instance with headquarters in Sir Colombo, has a specific chapter on drugs and has promoted the training and certification of human talent in the field from the perspective of evidence, from the International Centre for Certification and Education of Addiction Professionals (ICCE), established in 2009, with a special collaboration with: the National Association of Alcohol and Drug Abuse Counsellors (NAADAC) of USA, for the training of the workforce in demand reduction worldwide.

Thus, The Colombo Plan, which has experience in training in the field in the regions of Asia and Africa, opened in 2017 in Santiago de Chile, to operate the training of global and regional trainers of coordinators and implementers of treatment and prevention in addictions, among other initiatives, in collaboration with the U.S. Department of Justice and Counternarcotics (INL), the collaboration of the (CICAD. OAS), (UNODC), The World Health Organization (WHO), and Governments, organizations, and experts of the Americas.

Despite previous international efforts for regional integration through drug education from a demand reduction approach:

> "The drug policy component has been a fundamental pillar of unequal and asymmetrical international relations between Latin American and Caribbean countries and the United States. Integration into the continental security system came at the price of maintaining repressive policies, with increased violence and incarceration" (Soares Carneiro, 2015).

In this sense, although penalties were mitigated, the complex universe of the phenomenon shows us young people arrested with a minimum excess of drugs arriving in prisons, and many countries in the Americas without a proposal for social readaptation for youth, accompanied by new prevention programs, education, training, or changes in other sectors (Alonso Aranda, 2015).

Now, international efforts on addictions are considered of enormous value, but in this stage of neoliberal globalization, policy is no longer exercised only and mainly from the national State, which can adopt them, but it must compete with increasingly powerful institutions at the territorial level (Romani, 2005).

Thus, there is a need for local network nodes where the generation of knowledge, services and the management of learning from public management are concentrated in order to counteract the action of criminal organizations established throughout the continent, particularly in countries such as Colombia and Mexico, in promoting the early consumption of "drugs" in populations of children, adolescents and society in general., for their capacity for innovation and application of knowledge for the production, trafficking and distribution of psychoactive substances, hand in hand with powerful and aggressive criminal organizations that see in this activity their main source of financing and have influenced the institutional framework in the countries of the Americas.

In this sense, we have the declaration of the Latin American group of studies on international criminal law in relation to the drug problem:

> "Concerned about the strengthening of criminal organizations and the diversification of illicit activities despite the policies implemented during the past decades, aware of the corrupt effects of these organizations

on the institutionalist of the states, observing a lack of scientifically founded orientation of the policy on the matter in the different Latin American states." (Ambos, *et al.,* 2017).

The above is taking place in a complex scenario in 2020 due to the onset of the COVID-19 pandemic and its impact on health, the economy, and global social reality, which serves to show the world the deficit in drug-related health services in the Americas, with greater severity in people affected by problematic drug use in Latin America due to the pre-existing conditions of social vulnerability, a population already recognized by lower possibilities of health care, and prone to experience insecurity by agencies such as the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA, 2020).

In this ecosystem, there is already a clear need to improve the infrastructural capacity, increase the number of professionals dedicated to caring, and the scientific evidence and technical quality of the services provided.

Consequently, a condition of urgency should be given; on the one hand, to the historical demand for projects of permanent updating of human talent in health for the development of competencies and scientific-technical skills.

And, on the other hand, the monitoring and social evaluation of the actions of the personnel within the organizations and proposals for rehabilitation, prevention, and maintenance with the human populations affected by problematic drug use in which they participate (García, 2022).

Thus, since 2018, the public policy department of the University of Guadalajara Mexico, in collaboration with the Famimundo Institute, has been working on an initiative to understand, among other issues, the elements that can facilitate educational and social innovation in the field of drug treatment in the communities of the Americas, through which research is being conducted on the management of learning in the training of personnel trained to deal with drug use, abuse and dependence from a perspective based on scientific evidence, and the use of Information and Communication Technologies (ICTs) in the construction and translation of knowledge for the consolidation of programs with technical rigor in terms of the different areas of action in the social systems: school subsystem, family subsystem, community, media, public policies among others.

This article presents some results obtained from the preliminary phase of research carried out with leaders of multisectoral organizations, through the implementation of the Good Harbors program in countries of the Americas.

2. Objectives

Based on the research formulated by the Department of Public Policy of the University of Guadalajara, on the mechanisms of knowledge management and educational and social innovation in drugs and associated situations, a subproject of participatory action research on the role of ICTs in the management of learning in health: in drug care services in the Americas, which responds to the following objectives, has been delimited.

2.1. General Objetive

Identify the factors required to guarantee evidence-based learning management through TIC in the Americas.

2.2. Specific objetives

- To recognize the representations of leaders of multisector organizations on the role of TICs in educational projects implemented in health in drug services 2012-2020.
- To analyze the factors that hinder the appropriation of ICTs as a tool for the management of health learning in drug treatment services.
- To delimit the components of a healthy learning management initiative through ICTs in drug care services in the Americas with a projection to 2025.

3. Methodology

This research is focused on the role of Information and Communication Technologies (ICT) in the management of evidence-based learning in the training of human talent for drug care services. It is a challenge that is becoming increasingly visible, particularly due to the lessons learned during the COVID-19 pandemic, where it was necessary to virtualize the training processes in the field, which at other times and under other conditions was considered impossible or unfeasible.

The purpose of this study was to analyze experiences that consider TICs in the management of learning in health and to identify some components that can facilitate a management mechanism to promote training and knowledge development for the care of drug use, abuse, and dependence from the perspective of evidence-based learning. To carry out this work, a community-based research methodology has been used, through an educational project with drug learning communities. It has been implemented in a face-to-face modality and with a virtual phase, in accordance with the world circumstances in public health due to the pandemic. It involved the

participation of 200 people from countries in the Americas such as Colombia, Mexico, Panama, Chile, Paraguay, and Canada.

This study is based on a form of participatory action research that draws on various experiences from different disciplines and countries, but which in essence have in common the ability to contribute to the design, implementation, and evaluation of social solutions from a community education and applied knowledge approach.

In the first place, we consider a form of research endorsed in 2015 by Colciencias Colombia with the purpose of recognizing the human and cognitive qualities of specific populations called research-creation.

This research method, among other objectives, seeks to generate new repertoires of knowledge from the place in between where the boundaries of the academic and the non-academic are broken down and to make visible the fabric of epistemic, methodological., and ontological relationships that practice produces in the formal., informal., and relational context of knowledge (Silva Cañaveral, 2021).

From the above perspective, the author (Sullivan, 2005), assumes in the experience of practice, the way in which creative disciplines produce knowledge, in this case, the person of the artist or the educator can be a catalyst of social innovations by their approach to formal and informal contexts, from an articulation to the exercise (inquiry, reflective and practical and educational) of professional practice and the creative process (Ibid).

On the other hand, (Manzini, 2015), states that social innovation should be conceived from the very design of the projects, and this should be recognized as a source of social innovation in the broadest sense.

Consequently, it is important to consider the different formats of design to move and provoke social innovations; the format that considers people, the one that takes place in communities, and the one that focuses on the systems where the improvement or new solution is sought to be delivered (Martínez, 2021).

The above is perfectly compatible with all disciplines and with the training of actors capable of doing research to improve, transform and consolidate social solutions in each field of knowledge and has coincidences with other approaches from the paradigm of action research and from approaches of community knowledge construction.

Secondly, it integrates the approaches of worthy representatives of the Participatory Action Research (PAR) approach of Fals Bordiana vision and its disruptive stance against the "positivist" research models due to their rigidity in the approach to communities:

> "The methodology participatory action research has its origins in the social struggle with liberating and emancipatory pretensions, in a multipolar, integrative and syntagmatic vision, it proposes considerations that make it proper to Latin America." (Velásquez, 2021).

In this sense, a structured study is proposed in accordance with the three dimensions proposed by PRA: the diagnostic dimension, the action dimension and the systematization and systematic return dimension.

This study is carried out in the period between August 2018 and August 2022 and involves the participation of a multi-sectoral group of Ibero-American actors with notable experience in innovation and/or research and/or project management.

Participants are interviewed in the framework of academic and social organizations meetings in the cities of Florianopolis, Campinas and Rio de Janeiro, Brazil. Cali, Medellin and Bogotá, Colombia. Guayaquil and Quito, Ecuador. Paraguay. Mexico City, Guadalajara and León, Mexico and Manitoba Canadá in Iberoamerica.

Subsequently, virtual meetings are held through platforms to achieve other discussions, cross-checking of information and variables for validation and subsequent incorporation into the educational intervention proposal called "Buenos Puertos", carried out in the action stage (January 2020-January 2022), in a semi-presential format, implemented 90% virtually and 10% face-to-face. Due to its coincidence with the COVID 19 pandemic, a situation that allows greater connectivity with the actors through digital media due to the quarantine situation of many of them.

The Buenos Puertos project incorporated in its content and structure elements of several previous theoretical and methodological proposals, which are mentioned below:

1.   The 4 phases of design thinking: are Discover, Interpret, Delimit and Propose (Beckman & Barry, 2007).
2.   The 4 diagnostic dimensions of the experience analysis method: are environmental., social., cultural., and economic, its phases, and tools (Maldonado, 2005).
3.   The methodologies and tools for the recognition of territories of the socio-community management mechanism "Iniciativa Superior", validated in several Latin American countries by th

Table 1. Management Mechanism "Superior Initiative"

Territorial management	Social Cartography.
	Life Stories and Community.
	Knowledge mapping.
	Participatory construction workshops.
	Social evaluation of communities.
	Focus groups.
Partnerships with focus	Management of seedbeds of community socio-educational innovation collectives.
	Social education of trainers, managers, and implementers (Project Science and Science of Prevention, among others).
Socially humane management.	Incubation of social networks and initiatives.
	Social education in public policy and evidence for social evaluation and international cooperation.
Learning management and technologies	Focus groups with participants of virtual drug training
	Interview with key actors.
	Content analysis of educational projects on drugs

Source: Famimundo Institute (2018)

4. Results

This study shows that there is a huge absence of knowledge management from the perspective of evidence-based learning in health management strategies on the issue of drugs in the Americas, as well as a significant gap between training provision and learning management in institutions dedicated to the provision of social services in this area.

In the first place, the collective social evaluation implicit in this participatory action research exercise with the leaders of the organizations of the Americas, shows a tendency of the educational projects implemented associated with "traditional educational" models, of knowledge delivery under old educational formats, based on large and heavy support materials printed on paper and in a few cases, the digitalization of the memories of the same.

In general terms, the materials are provided by the trainers and the institutions do not show proposals of their own educational materials, adequate for the training purposes support books for learning management with rigorous evidence in the educational and addictions topic.

However, there are some educational manuals in and from organizations that are a quick compilation of different materials collected in the training given and from government agencies that have received national or international funding for their development, but their emphasis is mostly on information for the understanding of the topics and not necessarily on the promotion of learning in human talent, organizations, and society.

In this sense, CICAD, OAS, has been a protagonist in the Americas in promoting the development of proposals for strengthening competencies in the drug issue, and led in the first instance the so-called Program for the Certification of Addiction Counselors (PROCCER) in Latin America, an initiative focused mainly on the professionalization of non-professionals dedicated from their experience and training with civil society organizations to the attention on the issue.

It is Mexico, where there is evidence of the largest number of people to whom this training is provided and where progress is being made towards the generation of a consolidated addiction counseling standard from the Federal Government Health instances in collaboration with a certifying instance of the Ministry of Public Education.

On the other hand, on a smaller scale, this experience is being implemented in some Central American countries and the consolidation is being promoted from Medellin Colombia of a training center for organizations that implement the modality of therapeutic communities and their respective Latin American certification program for addiction counselors at three levels: basic, intermediate, and advanced.

Since 2015, the (CICAD, OAS), proposes a change of route in the continent, by initiating approximations with the proposal of the Organization for economic and social development, The Colombo Plan, with main headquarters in Sir Colombo and since 2019 with headquarters in Santiago de Chile.

This last initiative appears in the Americas, leaving in the past the PROCCER and promoting the Hemispheric Curricula in Prevention and Treatment of Addictions, which based on its previous experience in Asia-Pacific, starts in a face-to-face process with a first group of trainers, trained by teams from the Eastern world and developers from the USA in the USA, Thailand, and the United States. Subsequently a second Latin American group, the

survivors of both experiences are unified and concentrated in two final trainings in 2019, in Cartagena de Indias, Colombia.

The above is a valuable effort to promote capacities in human talent for training trainers and managers of drug projects based on international standards of prevention and treatment from international scientific evidence in the region.

However, from the leaders interviewed and participants in the focus groups and the collectives generated for this research, there is a generalized perception of serious difficulties in promoting the circulation of technical knowledge on drugs, which are summarized in the following participation of one of the actors:

> "Training is no guarantee of improvement. On the contrary, actors with international credentials have been empowered, who have relapsed into drug use and unethical practices quite detrimental to social contexts and continue to present themselves as professionals endorsed, in some cases, by certificates issued by international organizations. "Concerned about the strengthening of criminal organizations and the diversification of illicit activities despite the policies implemented during the past decades, aware of the corrupt effects of these organizations on the institutionalist of the states, observing a lack of scientifically founded orientation of the policy on the matter in the different Latin American states" (Anna, s,d)

In sum, we identify a credentialism trend that does not take up from local and global participatory knowledge management mechanisms the participatory monitoring and evaluation of the appropriation of knowledge in community systems for individual., organizational., and social permanent learning.

According to the above, we are talking about an educational intervention that in its processes related to the content, structure, and mainly delivery, can generate an effect contrary to the essential intention of the same and many others that do not have content with evidence or lack structure because they are compilations without an articulating project.

On the other hand, some territorial realities are identified in the leadership and work teams from paradigms that hinder multidisciplinary and multisectoral educational processes on drugs, the knowledge received becomes an element of power for many that validate and make it functional in their locality and respond to a particular modality of attention, which is generally defended in an absolutist and not very inclusive way.

From this logic, the use of TIC can be seen with certain suspicion and caution to socialize public knowledge that is assumed as organizational secrets in some institutions, generally, those that are not in the way of evidence in their actions.

Consequently, it is necessary to address the factor of cooperative and integrative management to ensure the management of learning based on scientific evidence through TICs in the Americas and the consolidation of strategic teams for knowledge management and learning from multisectoral collaborative networks.

On the other hand, the infrastructural deficit of some countries and the need for digital literacy to promote the use of TICs as a tool for learning management should be recognized.

Finally, an initiative for the management of learning in health through TICs in drug care services in the Americas is defined with a projection to 2025, which is composed of an emphasis on distance education for scenarios with a deficit in connectivity issues and another on virtuality for scenarios with this issue resolved.

5. Discussion

In the educational issue, training on the scale of the needs of social organizations and the approach of generating lifelong learning in societies is becoming increasingly diffuse, efforts to achieve consensus and articulation between higher education systems in Latin American countries have insisted on moving from a traditional curriculum by subjects to a curriculum based on the competencies that the holders of such degrees would be able to achieve (Tuning Project in Latin America, 2017).

From another place, the study published by researchers from the National Polytechnic Institute (IPN) because of their actions with projects for training professionals in nursing health from the perspective of problem-based learning (PBL) concludes by stating the following:

"Changes in the curriculum and/or in management are insufficient to concretize an innovation process, this must be integral., so it is imperative to propitiate the paradigmatic rupture in learning, fundamental for the formation of new professionals who will put into practice competencies oriented to the capacity of adaptability before the change itself, inquiry, search for information, capacity to integrate into work teams and coexist with people from diverse cultures and professions" (Mendoza Molina & Bernabeu Tamayo, 2006).

On the topic of addictions, an article is published that gives an account of social work in addictions in the European context and unveils the need for "transdisciplinary" in this field and the existence of multiprofesionales teams for multidimensional care that benefits the people served by their synergies (Sixto-Costoya & Olivar Arroyo, 2018).

The previous authors propose a collaborative scheme for the integration of social education, with psychology, social work, psychiatry, medicine, and occupational therapy that should be considered in the current scenario of the Americas.

From another perspective, academics from the research group on Drug Dependence and other addictions -GIFA- of the Catholic University Luis Amigo, in Medellin Colombia, have identified that in the institutions of their region that offer accompaniment to people with problematic drug use and other addictive behaviors, different sources of the foundation are found:

> "Namely, the philosophy of the 12 steps and alcoholics anonymous; therapeutic communities and their diversity of models and even theoretical-practical eclecticism; as well as the advent of professionals in the social sciences and health, there are also institutions oriented by biomedical models and some with harm reduction models." (Ruiz Zuluaga *et al.,* 2021).

According to the above, they reveal the urgent priority of the implementation of strategies that put in context the scientific production of different areas of knowledge to close the gap evident in some institutions (Ruiz Zuluaga *et al.,* 2021).

In the specific field of learning in the management of addiction services in the Mexican context, it is in the year 2011, for the first time, a study is carried out by the institutions dedicated to public management in addictions with the Centers dedicated to the attention of this phenomenon, it is the first National diagnosis of Residential Services in the Treatment of addictions, and the first National Census of Residential Treatment Facilities developed by the Mexican Federal Government through the National Commission against Addictions (CONADIC), the National Center for the Prevention and Control of Addictions (CENADIC) and CICAD of the Organization of American States (OAS).

More than two thousand establishments participate in this initiative and, through it, about 7700 surveys of four different types were conducted to identify treatment models and capacity, staff profiles, prioritizing their training needs, the profile of service users, and their adherence to current regulations (CONADIC, 2011).

A census was made of 2039 centers visited and 1543 respondents and it was identified that only 5% of the people who deal with addictions have a specialty level and 2% have a master's degree, and the subjects of the training courses taken were investigated, see Table 2.

Table 2. Percentages by training topics up to 2011 in Mexico

Thematic	Percentage
General data and the conceptual basis for drugs and addictions	34%
Models of prevention against addictions	33%
Gender, violence, and human rights.	27%
Specialized addiction treatment	26%
Early detection and timely intervention	25%
Co-morbidity or concurrence of medical pathologies.	16 %

Source: Institutional diagnosis of establishments specialized in addictions (CONADIC, 2011)

From the perspective of the use of ICT in education for the training of human talent in addictions, it is found in the scientific literature the study on learning from educational strategies that are accompanied by the Autonomous University of Mexico (UNAM), aimed at training in brief interventions in addictions, reveals that the human groups that were part of training in the virtual methodology showed higher levels of knowledge acquisition and better results in the goals proposed for training (Morales-Chainé, 2019).

In sum, it can be affirmed that it is very pertinent to contribute to solving the knowledge gap in the topic of research on learning in drug management and this line of research should be a priority challenge for educational systems and health systems worldwide.

Now, technologies in education must be interpreted from a broad understanding of knowledge management, (Collinson & Parcell, 2003) in their worldwide organizational studies, reveal that the reason why people do not do their tasks properly is due to the absence of specialized learning in the task, They find, on the one hand, that one of the organizations studied (BP), dedicated to energy production, has benefited greatly from the restructuring and reduction of hierarchical levels in its companies, and that, with the approach of permanent and continuous learning, it achieves more with results with fewer people.

On the other hand, it raises the need for networks and communities that keep learning from the knowledge of the organizations, see, table 3.

Table 3. Communities and networks definition

Concept	Definition
Communities of interest	Group of people who have a common interest in a particular subject, often unrelated to work
Communities of practice (or training network)	It is built through the application of the same practices, and the negotiation of the most effective methods of doing things in the best possible way, they are the guardians of the necessary competencies in organizations.
Target communities (or achievement network)	It has clear business collectives, and the network is accountable for its goals. They are often subgroups of communities of practice, with life limited to the fulfillment of objectives.

Source: Own elaboration based on Collinson, Parcell, (2003)

In this sense, the research on networked knowledge production carried out at the Center for Research and Advanced Studies (Cinvestav) in Saltillo, Mexico, highlights the importance of the basic configuration of a knowledge network within an international consortium that connects local realities with global expert knowledge and focuses on the analysis of research projects that are developed with the sponsorship of companies from applied research units to meet regional needs and demands (Gutiérrez Serrano, 2018).

A valuable connection between international research and development units and management of business organizations is evidenced, which translates into important innovations in the industry of the sector involved, due to the flow of international knowledge for the strengthening of local micro-networks and effective attention to a global market.

However, organizations dedicated to addiction care are no strangers to this logic, which can be of great use in improving the effectiveness of service provision, especially given the global and multinational nature of this phenomenon and the need to strengthen local capacities with knowledge and learning based on scientific evidence.

According to the above, we need to implement a rigorous process of socio-educational innovation in the American hemisphere to guarantee the delivery of knowledge on drug issues in collective learning systems and educational environments to promote communities involved in the prevention of the central issue of trafficking and problematic drug use and the forms of violence that precede or follow this phenomenon. In this regard, the authors (Yen-Chih Huang - Yang-Chieh Chin, 2018) posit that importance should be placed on managers' understanding of the role of collective learning because their project teams cannot effectively acquire certain key knowledge from proposal developer source teams if knowledge transfer is incomplete.

Thus, the issue of a global knowledge management mechanism at the community level must be a priority strategic action in order not to waste the investment in education or to form actors who will adversely use the knowledge received. For example, this study collects impressions of leaders who, after several years of observing and participating in educational actions, identify that these processes have led to the empowerment of actors who have developed a culture of violence from the knowledge received about drugs, structures of power and domination with a hunger for the economic benefit of being certified actors in the subject (García, 2022).

Finally, a constant reflection in the analysis groups for the elaboration of this study is the need to involve the element of peacebuilding and violence prevention in a transversal way in the hemispheric actions on drugs and in the educational contents, because practices of aggression and territorial defense are reproduced in organizations dedicated to drug treatment and in the leaders of doctrines that dogmatically believe in having a unified and unified approach to the drug problem.

6. Conclusion

We must take advantage of the current trend of the countries of the Americas to imitate other world contexts in the promotion of economies based on social interactions and TICs, which (Nachira & Dini, 2007), have a focus on analysis based mainly on technology, and the convergence of three types of networks:
1. Information and Communication Technology,
2. Social networks, and
3. Knowledge networks.

In this sense, it is relevant institutional management from the Cluster perspective, which alludes to strategic partnerships with organizations dedicated to a specific purpose in a specific ecosystem. Authors such as (García Martinez, 2019) retake from (Santos & Teixeira, 2007), a timeline on the subject that shows an advance since 2010 in the trend of regional innovation systems towards digital business ecosystems, whose focus is on the concept of citizenship, the digital ecosystem, and economies based on social interactions and tics.

According to the above, the approach is based on resources, social and institutions that respond to the interest of economies based on industry and agriculture, economies based on industry and high technology, and economies based on knowledge.

In terms of management, addictions and learning, and the transformative two-way relationship from the global to the region in the Americas, we face a very important and challenging scenario for health-focused drug management and its relationship with learning.

It is necessary to learn from the digital world and all its technological possibilities to accelerate the use of knowledge in a subject that advances slowly from state institutions compared to the speed of criminal organizations dedicated to drug trafficking and the recruitment of minors and young people as hired assassins and consumers in many countries of the continent such as Colombia and Mexico.

Consequently, it is necessary to advocate for innovative social management of a multisectoral nature for systemic change that considers this triple vision: drugs, subjects, and institutions. (Figure 1).

Figure 1: Drugs, subjects, and institutions
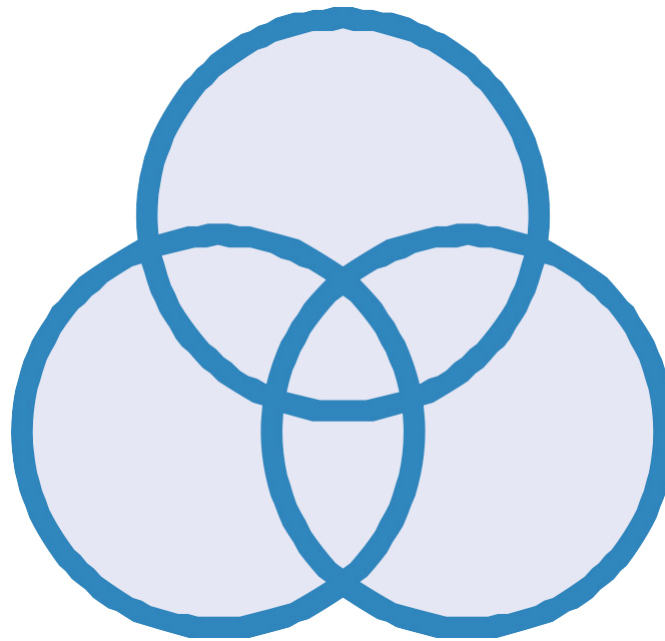
Source: Own elaboration

Accordingly, we must include the use of technologies in public management to speed up the achievement of health objectives. An example of the scope of the use of TICs and the digital ecosystem can be seen in the northern part of the continent, particularly in Canada, which, with the aim of creating new knowledge in health, created the Canadian Institutes of Health Research, which comprises 13 virtual institutes. It is a logic of knowledge networks, which can lead to greater capacity in the translation and dissemination of learning.

In contrast, many countries in the Americas are still trapped in the idea of more infrastructural institutes and centers, in the manner of traditional universities that in some cases have been left with bricks, but without researchers, due to the difficult conditions for these, mainly in Latin American and Caribbean countries.

On the other hand, the use of TICs for health education is already conceived by important universities such as the University of California, which promotes a master's degree in public health in this format, among other emerging experiences in hybrid formats in the United States of America (USA). The CICAD, (OAS), The Plan Colombo, and the Famimundo Institute are instances from different experiences that have been promoting the use of ICTs in drug training processes in Latin America, an action particularly enhanced by the COVID-19 pandemic. But the issue of knowledge management and socio-educational innovation has many challenges in the American hemisphere.

At the same time, the existence of public health management in the countries of the Americas should be monitored, the presence of key categories and actions for inclusion and peacebuilding, such as interculturality and the recognition of indigenous and diverse populations, which have specific realities to consider in traditional health practices. Another important issue is that of social capital:

According to (Mignone Javier, 2005) Reviews have suggested the need for more and better evidence regarding the impacts of social capital and how to influence it. At the same time, they have shown that social capital can be a useful framework to focus attention on the community as a whole and its dynamics.

It is a priority for public policies to integrate into educational systems a curricular proposal based on an evidence-based project for the mobilization of knowledge for social inclusion and the guarantee of the human

rights of people who are affected by drugs in the areas of prevention, rehabilitation, and treatment. According to the above, participatory social evaluation mechanisms with multisectoral participation are required to accompany the use and social appropriation of knowledge by key actors for their socio-community management and the continuous training of human talent.

7. Acknowledgements

On the other hand, this article is a recognition of all the actors who with courage and great persistence continue to promote evidence-based programs to contribute to projects that guarantee the human rights and integrity of individuals, families, and communities affected by drug trafficking and problematic drug use. As well as an opportunity to invite regional unity and the pursuit of innovation from the permanent management of learning based on the possibilities offered by TICs.

Finally, my commitment, admiration, and support for every human being who struggles every day to overcome the harsh social effects that have been generated around the issue of drugs in the Americas. This a fraternal message to the widows, orphans, and people who struggle to live in sobriety or find other paths different from the social ladder, through the service of criminal organizations dedicated to causing pain and death in our societies.

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