# CYBERSECURITY DEVELOPMENT IN THE LITERATURE FROM 2020 TO 2024

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## ABSTRACT

*Local Development is a process that aims to promote sustainability by discussing and reaching a consensus on resource allocation, opportunities, capabilities, and municipal responsibilities. The objective of this work is to establish the relationship between these aspects through a desk study. The study consists of three phases. In the first phase, we selected databases representative of Latin American sources with ISSN and DOI registration issued during the period from 2020-2024. In the second phase, we analyzed the information using content analysis to identify the topics of discussion. The third phase involves contrasting the selected information with a specific case of endogenous development. Finally, we compare the themes based on the state of knowledge.*

**Keywords:** *Local development, sustainability, governance agenda community*

## INTRODUCTION

Digital entrepreneurship involves the emergence of empathy, commitment, innovation, and satisfaction that make up a process aimed at building a global digital village (Ballester et al., 2010). In this scenario, the deregulation of the State envisions citizen participation through electronic devices to generate ideas for Human Development. However, in any of the scenarios, digital exclusion or inclusion, the differences between resources and groups exacerbate the asymmetries between individuals. This work suggests that in both contexts, gap or digital village, entrepreneurship generates Human Development, but also intensifies the defenselessness of people exposed to harassment. A review of the theoretical and conceptual frameworks, as well as the findings reported in the state of knowledge, warns that entrepreneurship is generated by perceptions of opportunity that, when associated with expectations of compatibility, usefulness, and ease, generate asymmetric relationships between cyber users. Therefore, a model is proposed for the study of both phenomena to open the discussion about the relevance of electronic devices in the diffusion of equity.

Human Development involves the intensification of education in virtual settings, but the problems related to the groups that make up digital networks exacerbate differences that inhibit the development of computational skills (Bizer, Larsen & Petty, 2010). This is the case of cyberbullying, which is a product of the usefulness and self-efficacy in the use of information protocols and electronic devices while these are complemented with strategies of ridicule, sexism, or aggression on the Internet. In this sense, human capital, as proposed by rational choice, makes up skills, knowledge, and values that not only lead to self-education but also to the establishment of asymmetric relationships with their peers and the networks they form are rather an extension of social exclusion on the internet.

In contrast, digital entrepreneurship is understood as perceptions of opportunity and management and innovation capabilities of knowledge oriented towards Human Development supposes responses of a community to the problems related to the digital divide (Campillo, 2012). Within the framework of the Information Society, digital entrepreneurship is a product of scientific and technological advances in which the intensive uses of electronic devices allow the diversification of initiatives, as well as the discussion of topics that, due to their degree of trend, will impact public opinion.

However, digital entrepreneurship, unlike social entrepreneurship, is subject to technological advancement and the adoption of lifestyles compatible with the electronic and discursive innovations of Internet users (Cardon et al., 2013). While digital entrepreneurship involves specialization and updating of knowledge and skills, social entrepreneurship involves perceptions of risk and opportunity. A review of psychological studies of social and digital entrepreneurship shows that perceptions of risk, self-efficacy, and opportunity are determinants of personal, group, or organizational initiatives, but it is the perceptions of compatibility, usefulness, and ease of use of electronic devices that explain the generation and innovation of ideas, but also harassment between users.

If social entrepreneurship determines Human Development, then the perception of opportunity, risk, and self-efficacy are explanatory factors of educational, labor, and health progress, but in the case of digital entrepreneurship, the perception of compatibility, usefulness, and ease of use not only explain the advancement of human capital, but also harassment between peers when interacting through technology or electronic device (Chuo et al., 2011).

Therefore, the objective of this work is to review the studies related to digital entrepreneurship, knowledge management, and innovation to specify the relationships between the determining factors and to discuss the scope and limits of the specified model (Danes & Juyoung, 2013). Such an exercise will allow us to anticipate scenarios of discussion, harassment, and intervention aimed at Human Development by explaining the digital entrepreneurship of human capital.

There are three scenarios that this review expects; 1) digital entrepreneurship as an indicator of the digital divide between Internet users and cybergroups. In this scenario, knowledge management and innovation are deregulated by the State and subordinated to for-profit organizations, 2) digital entrepreneurship as an indicator of informational equity between activists and Internet users. Management and innovation depend on the empathetic relationships, commitment, and life satisfaction generated by the exchange of information, 3) digital entrepreneurship as an indicator of the informational diversity promoted by the transformation of the State and the intensification of citizen participation, as well as the opening of the media and access to electronic technologies and devices.

Each of the three scenarios involves the interrelation between computer agents, cyberpolitical actors, Internet users, and artificial intelligence that, due to their degree of compatibility, usefulness, and self-efficacy, will build other scenarios of power, influence, control, and social domination (Díaz, Hernández & Roldán, 2012).

However, the perception of opportunity seems to be a key factor in the advent of some of the scenarios, since as long as the State does not guarantee access to the Internet and citizens do not self-manage their access to the Internet, the cyberspheres of the Internet users generate opportunities that when perceived by other cyber users, they represent the investigative focus in this process (Fenoll, 2011).

What would be the dimensions of the perception of opportunity in the context of the digital divide, equity, and electronic inclusion or hacktivism?

The answer to this question has not yet been elaborated by theoretical and conceptual frameworks nor has it been reported as a finding in the state of knowledge, but it has been raised by the classic undertaking in which it is possible to identify eight dimensions that could be antecedents of the dimensional factors of digital entrepreneurship. It is for this reason that this work is documentary in nature since the studies from 1993 to 2024 are reviewed following the keyword search criteria; "entrepreneurship", "innovation", "usefulness", "compatibility", "ease" or "accessibility" in three search engines considered as bastions of information for university communities.

**Issues related to the digital divide**

If Human Development involves the digital inclusion of vulnerable, marginalized, or excluded sectors and cyberbullying implies a barrier to inclusion and reduction of the digital divide, then it seems contradictory that the skills and knowledge related to electronic devices and digital protocols serve for Human Development (Flores & Mendieta, 2012).

However, social differences between Internet users are not only transferred to electronic networks but are also exacerbated as the predominant language is English, or updates require better electronic devices than only those who have the economic resources and the social recognition they could have, although there are underground networks that reduce these differences by creating their protocols, the differences intensify (Fuente, Herrero & Gracia, 2010).

However, the skills, knowledge, and values that entail the formation of the skills and abilities of cyber people are a means of inclusion that, when disseminated, could reduce the digital divide and digital exclusion (Garis, 2010). Mexico occupies a peripheral place in the problem of the digital divide, which consists of the scientific and technological advances of electronic devices with access to academic information.

In the area of Internet accessibility, Mexico occupies the last place concerning other member countries of the Organization for Economic Cooperation and Development (OECD). In contrast, Switzerland, Iceland, and Finland have 100% coverage (Groshek, 2011). Regarding Internet penetration, Mexican cities that have between 10 and 49 thousand inhabitants as well as those that have between 50 and 249 thousand inhabitants are slightly below the OECD average, but in cities with more than 250 thousand inhabitants' penetration is limited. In terms of subscriptions, Mexico ranks fifth among the economies with the fewest Internet subscribers. In this sense, Mexico is not among the countries with the greatest intensive use of electronic devices and their corresponding applications.

However, sixth place in terms of electronic commerce is occupied by Mexico, while Iceland occupies the last place in the United States, which consolidated its first place in terms of technology exports and imports (Gu & Goldfarb, 2010). The problems related to the digital divide and electronic exclusion show that intervention is required between the countries that make up the OECD to reduce the gap and promote inclusion and information equity. As the State guarantees digital services, it not only accelerates the process of inclusion and development but also generates networks of empathy, knowledge, entrepreneurship, innovation, and satisfaction that explain the differences for the same OECD countries.

**Digital entrepreneurship theory**

Digital entrepreneurship refers to freedoms and capabilities that precede agents of change. Unlike Internet users who react by saturating the servers in protest of public policies, cyber agents are the ones who 1) establish the

topics of dissemination in the media and 2) influence the electorate through the systematic dissemination of their rights to unrestricted access to information and privacy of personal data.

In this way, digital entrepreneurship is linked to social agency as it promotes change based on the digital skills of Internet users rather than using violence or civil disobedience (Hallak, Brown & Lindsay, 2012). Consequently, the establishment of issues related to the public agenda is the result of an inverse process that the media maintained to influence mass societies by attributing stereotypes to social groups, but now in the information society, social network Communication surpasses the audience levels, but above all they influence the decisions and actions of citizens by establishing an issue on the public agenda that is related to some unfortunate decision of the authorities or rulers.

If digital entrepreneurship is the result of public policies that promote the inclusion of citizens in government affairs through digital services, then the Theory of Digital Entrepreneurship would explain two processes: conformity and innovation (Hazlina, Mohd & Rohaida, 2012). If domination and social control are the purposes of a State and its citizens, then the reproduction of conformity and obedience would be two indicators that contrast with the entrepreneurship and innovation characteristic of the transformation of the State and citizen participation in policies. public.

These are four areas in which the relationship between the State and society generates representations, habitus, fields, and capitals from which equity and inclusion, but also inequality and exclusion, are reproduced (Hee & Mc Daniel, 2011). The digital divide as a product of domination and social control, conformity, and obedience is explained by the power that majority groups exercise over minority groups.

In contrast, the global village would involve the dissemination of trust, entrepreneurship, commitment, innovation, and satisfaction as central elements of State deregulation and citizen participation, but as a scenario that promotes perceptions of compatibility, usefulness, and self-efficacy that are determinants in relationships. of domination such as peer harassment (Humanes & Moreno, 2012).

In this way, the Theory of Digital Entrepreneurship explains the emergence of information agents, political cyber actors, Internet users, and electronic devices that can widen or reduce the digital divide itself, which would be indicated by equity and inequality, inclusion and exclusion, conformity and innovation, and domination. and liberation, control and deregulation, obedience and disobedience (Izquierdo, 2012). Also, the Theory of Social Entrepreneurship would anticipate the emergence of new agents, actors, and subjects as electronic devices evolve, innovation intensifies, and risks increase.

**State of knowledge regarding cyberbullying as a factor of digital exclusion**

If the definition of cyberbullying and empirical testing with other variables in a period from 1993 to 2024 are considered, returned by a search in the main data references in Spanish for Latin America, then the psychological studies of cyberbullying have demonstrated the direct, positive, and significant effect of the perception of usefulness on harassment, aggression or violence on the Internet or social networks (Jyoti & Jyoti, 2011).

Cyberbullying understood as a deliberate, treacherous, and systematic aggression by a group or individual on another group or individual in a defenseless situation (see table 7), has been explained based on differences between ethnic groups (Campbell & Smalling, 2013; Kupczynski, Mundi & Green, 2013), differences by sex (Elizalde, 2010; León et al., 2011; Buelga & Pons, 2012), differences by pairs (Quintana et al., 2012; Romera, Rey & Ortega, 2011), differences between aggressors, bystanders and victims (García et al., 2011; Mendoza, 2011; 2012; Valdés, Yañez and Martínez, 2013), by type of harassment (Martínez, & Reilly, 2013), differences by socialization (Garaigordobil, & Oñederra, 2010), by use of devices (García et al., 2010) and by speeches (Gómez, 2013). However, cyberbullying has not been explained by perceptual variables.

Although the relationships between the perceptual variables used would explain cyberbullying, it is necessary to consider one more perceptual factor, namely: the perception of harassment (Long, 2013). If cyberbullying refers to a series of actions that intimidate or ridicule the use of technology by defenseless individuals or groups, then the perception of harassment would refer to those symptoms that users of technology present when interacting with other users. that are perceived as threats that affect the adoption of a technology or in any case encourage the

development of skills and knowledge for the self-defense of a victim of cyberbullying or the intensification of harassment by an aggressor.

**State of knowledge around digital entrepreneurship**

Psychological studies of entrepreneurship warn that the perception of opportunity, derived from digital services that the State manages, or citizens self-manage, is indicated by capacity, opportunism, commitment, propensity, innovation, confidence, motivation, and dedication (López & López, 2011).

By influencing educational and organizational systems, Information and Communication Technologies (ICT) promote the development of perceptions of usefulness that are directly related to decisions of production, management, and reproduction of knowledge (Zamiri, Mahamed, and Baqutayan, 2012). Learning software involves not only expectations of benefits and gains but is also accompanied by the generation of a climate of trust and commitment within the learning group.

However, the intensive use of ICT requires technical support since it mostly involves devices that require constant maintenance. That is why the perception of usefulness increases when the technological device or software is supported by expeditious and efficient technical support (Zaidel and Zhu, 2010). When technical support is inefficient, the perception of technology usefulness is associated with the perception that technologies and teaching and learning processes are independent and that intensive use of a device or software does not significantly increase classroom instruction. In contrast, those users who consider technical support essential for the use of technologies assume that the service must be expeditious since it implies losses and costs that can be eliminated if the maintenance of the devices is carried out constantly.

Because in educational systems instructors determine the use of devices and software based on their relationship with students rather than technical support, this means that intensive use of technologies is often interrupted due to lack of maintenance (Bakabulindi, 2012). In such a situation, instructors develop perceptions of risk that gradually replace perceptions of usefulness.

Uncertainty, risk, and insecurity are factors that affect satisfaction with the use of the electronic device or software (Sharma and Abrol, 2011). In this sense, the profitability of a technological or electronic system is understood as one that reduces costs and maximizes benefits in terms of investment, time, and maintenance of the system.

However, even though organizations are exposed to contingencies, decision-makers see in chaos opportunities for development from the implementation of information technologies. The decisions that will affect the work environment are subject to perceptions of usefulness in management (Wang and Huynh, 2013). Precisely, it is these expectations of opportunity that encourage the acceptance, adoption, purchase, and implementation of devices or software in transnational companies.

By associating perceptions of usefulness with privacy and security, they determine the adoption of the technology, the corresponding maintenance, and the updating that it implies (Jalal, Marzooj & Nabi, 2011). In cases in which the handling of personal data involves the perception of risk due to the mishandling that may occur of personal information, credibility, and privacy are determining factors of the electronic capture of personal data.

About the perception of control, the perceived capacity, and the ease of use perceived at the time of training, coaching, or induction to become familiar with the technology, the perception of usefulness determines, through the three perceived skills, the use of the device. electronic (Kotaman, 2010). This is because users are motivated to use technologies. After all, they develop perceptions and skills in their intensive use.

As users guide these skills according to their objectives, meet their goals, and disseminate their achievements in their work team, trust, commitment, and satisfaction will determine efficiency, effectiveness, and effectiveness, forming a virtuous and innovative circle (García et al., 2013).

However, when it comes to the adoption, purchase, and consumption of technology, the accessibility of the device rather than its ease of use, control, or manipulation determines the implementation of the technology (Ramayah and Ignatius, 2010). Because technology is constantly changing, the inclusion of multiple functions generates helplessness or ambivalence in those users who perceive these rapid changes as barriers in their attempt to update

and specialize in technology. In the case of helplessness, users who do not adapt to technological changes at the pace they dictate end up rejecting their use. In the case of ambivalence, this is observed in those users who have positive attitudes towards electronic devices, but their use means a greater cost than benefit since without them the results vary to a lesser degree than with their implementation.

Both cases of helplessness and ambivalence are explained by the relationship that perceptions have with beliefs, attitudes, decisions, and behaviors (Tekeher, 2013). It is an automatic or linear, improvised or deliberate, spontaneous or planned, unsystematic or systematic relationship in which:

- Risk perceptions determine general beliefs, unfavorable attitudes, heuristic decisions, and unforeseen actions. O well:
- Perceptions of usefulness influence specific beliefs, favorable attitudes, planned decisions, and systematic actions.

Although the two processes explain the acceptance or rejection of a technology, when the perception of usefulness is associated with sociodemographic factors such as sex, age, occupation, and income, they predict resistance to change or updating of the technology (Mutengezanwa & Fungai, 2013). Older microentrepreneurs resist the use of electronic money while professionals with incomes greater than 10 thousand dollars are more inclined to intensive use of technologies that are constantly updated.

In the case of digital financial protocols, an indicator of economic and sustainable development, updating software to guarantee the security of investors generates uncertainty, risk, dissatisfaction, and insecurity that inhibits alliances between transnationals and SMEs in local markets or the internationalization of SMEs through multinationals in the global market.

However, compatibility appears to have a greater influence on technology acceptance (Di Russo and Douglas, 2013). Users who have accepted other technologies associated with the one they intend to adopt are closer to their consumption compared to those who have not been users of any technology linked to the one they intend to acquire. Indeed, technological services and products are not only devices or software that are updated according to market demands but are also part of networks of technologies that innovate and transform the lifestyles of users. In this sense, the technologies that have been adopted generated sufficient confidence in users to acquire a related device or software.

In organizations, trust in technology as well as in work groups is essential for achieving goals (Hsuan et al., 2013). This is a process in which users can select a technology that will enhance their performance. If users perceive a high degree of usefulness in the technology, then they approach a climate of trust that will disseminate in work groups, technology providers, and clients. In contrast, those users who have had unfavorable experiences with some technology inhibit the selection of other related technologies. This is how accessibility, compatibility, usefulness, trust, commitment, performance, and satisfaction are part of an organizational and technological process in which electronic devices or software are considered instruments for achieving goals, planning, quality control, management. of knowledge, and innovation.

These are digital ecosystems in which users, managers, suppliers, clients, and technologies are immersed in perceptual, emotional, attitudinal, motivational, and intentional environments (Wiedmann, et al., 2010). Underlying these digital ecosystems is trust in users or technological devices as an organizational dilemma. Both are fundamental for the development of the digital ecosystem, but only trust in users generates commitment. In contrast, trust in technology affects performance and satisfaction. When it comes to electronic devices, intensive use is linked to user satisfaction (Sago, 2013). An increase in the frequency and hours of use leads to an increase in levels of satisfaction with the technology. It is a compatibility between technology and the user's lifestyle since in their daily activities, technology allows them greater comfort, entertainment, performance, or satisfaction.

The intensive use of technology is related to the lifestyle of the users since the greater the number of hours in which technology is used, the more needs and expectations adjust to the changes experienced by the electronic device or computer software (Ruíz, Sanz & Tavera, 2010). However, this relationship between perceived compatibility and the use of technology, being mediated by attitudes toward technology, reduces its predictive power since the categorization of devices assumes the reasoned, planned, and systematic acceptance of the technology.

This implies prior knowledge about the possibilities of technology, which does not always correspond to life-styles.

Precisely, the formation of attitudes towards technology implies the emergence of perceptions related to the quality of electronic devices (Almahamid et al., 2012). When users perceive the usefulness of technology in improving their performance, perceived quality often emerges as a mediating factor that regulates job expectations and guides skills toward a certain product or service.

Although the perceived quality selects the usefulness of the technology, it is the perception of effectiveness that determines the usefulness of said technology (Ramírez, Rondán & Arenas, 2010). In this sense, users develop expectations not only of improvement in their functions but also of the possible results that they can obtain by accepting a certain technology.

Because effectiveness refers to the difference between the expected objectives and the results obtained in work groups, social influence underlies as a determinant of technology adoption (Kabeer and Muhammad, 2013). A decrease in the values of the expectations of the members of a workgroup affects the perception of the usefulness of the technology. Similarly, in the case of risk perception, when derived from group expectations, it also regulates the relationship between usefulness and the decision to use a technology.

The perceived effectiveness, expected usefulness, expectations of ease of use and control of the technology, as well as attitudes, intentions, and uses are aimed at user satisfaction (Thiruchelvi & Koteeswari, 2013). It is a virtuous circle in which perceptions increase as the technology produces user satisfaction or generates trust, commitment, and innovation in work groups. That is, the intensive use of technology not only makes it compatible with an individual or group lifestyle but also modifies its social appropriation.

The relationship between individuals and technology entails two perceptions of usefulness and ease of use that will influence attitudes, intentions, and behaviors. At the individual level, the effects of intensive use of technology can extend to groups. In the case of communities or societies, the perceived usefulness when associated with sociodemographic, socioeconomic, and sociocultural variables offers the possibility of explaining the conflict and social change that the acceptance of technology entails (Torres, Robles & Molina, 2011). In the first case, social conflict is observable in the resistance to technological change since societies were guided by a dominant social paradigm in which technologies were not necessary for daily or productive activities. The advent of ICT led to a social conflict that led to the acceptance of technology and with it a New Technological Paradigm, the main indicator of social change.

The acceptance of information and communication technologies could have been due to compatibility or usefulness, but it was scalability understood as the inclusion of other technologies in a single one that determined the increase in sales of electronic devices (San Martin & López, 2010). As technologies merged and included other services, portability emerged as another added value of ICT.

The inclusion of several technologies in a single device was not enough; it was essential that the companies in charge of offering digital services could compete openly without restrictions (Pepper, Aiken & Garner, 2011). This is why portability, understood as the ability of a technology to be managed by more than one company, enhanced the acceptance of mobile and electronic devices, as well as virtual social networks.

It is about the adaptation of the technology to the lifestyle of the users, or to other information technologies. When there is information adequacy, technology investment decisions intensify (Shaheen, 2010). On the contrary, distrust is the factor that inhibits investments since it implies an inadequacy of information. The available information is insufficient for decision-making, or it is biased information that requires investment in higher-cost devices and uncertain benefits. This implies that the technology is not flexible with the environment in which it is used.

Organizations that are characterized by flexible management styles and innovative collaborative networks often adopt flexible technologies that allow them to carry out multiple functions and this quality determines investment in human capital (Mehra & Omidian, 2010). The technology that will allow you to enhance your skills, knowledge, and values is that which prevents traffic or loss of information.

Psychological studies of technology acceptance have focused on perceptions of usefulness, effectiveness, control, and quality, as well as attitudes and intentions, which are considered determinants of the intensive use of electronic devices (Mao et al., 2012). Users develop technological skills that allow them to increase their performance if there is a deliberate, planned, and systematic process. This implies the formation of collaborative groups with climates of trust, commitment, innovation, and satisfaction. In this sense, the relationship between user and technology is determined by processes of compatibility, flexibility, scalability, portability, credibility, and privacy that make the adoption of a technology and its eventual use more feasible.

However, when the relationship between the user and technology is ambiguous and uncertain, there is underlying risk perception, unfavorable attitudes towards technology, and intentions to resist change that promote helplessness or ambivalence (Nisbet, Stoycheff & Pearce, 2012). When psychological variables are associated with sociological factors such as age, sex, occupation, or income, they explain individual and group situations that can be extended to the diagnosis of an organization, community, or society. In that sense, a model of dependency relationships would be relevant for the diagnosis of a social group that intensively uses ICT with emphasis on electronic and virtual social networks.

Studies related to digital entrepreneurship show that perceptions of compatibility, usefulness, and ease of use are essential to explain the process of adoption, acceptance, and intensive use of technologies (Orantes, 2011). About the Theory of Digital Entrepreneurship, the state of knowledge warns that opportunism could explain the asymmetries between Internet users and cybergroups when establishing relationships of power and influence where domination and social control would be associated with a perception of risk that would affect conformity, or perceptions of usefulness that would determine minority innovation.

However, while studies related to digital entrepreneurship warn that electronic protocols and devices as well as competencies are essential for establishing topics on a virtual public agenda, theoretical and conceptual frameworks have developed models to explain the establishment of an agenda. virtual public (Rante & Warokka, 2013). Theories have advanced towards the relationship between skills and innovations, ignoring social entrepreneurship and reducing it to the mere administration of a cyberblog.

Within the framework of the transformation of the State, the deregulation of the risks derived from information and communication technologies, as well as the right to information and privacy, digital entrepreneurship would be made up of dimensions of affectivity rather than rationality, since once the economic bias is removed, entrepreneurship would be the exercise of the freedoms, capabilities and responsibilities that transform the Internet user into an agent of social and digital change (Rojas, García & García, 2011).

**Specification of relationships between the determinants of digital entrepreneurship**

The specification of a model involves the explanation of relationships between variables that, when interacting, can be correlated with a third variable (Sandoval & Saucedo, 2010). Or the specification may refer to the dimensions that make up a construct or latent variable from which it is intended to explain the emergence of an unprecedented process such as the case of digital entrepreneurship. In this way, a model of reflective dimensions assumes that each of the indicators is linked to each other by the influence of a common process or factor that is also emergent.

The model would include those most cited variables, although the specifications of other models would also have a place in the explanatory logic of the use of electronic social networks (Shrrof, Denenn & Ng, 2011). Indeed, perceptions of control, efficiency, usefulness, and risk would interrelate with attitudes, intentions, and use of technology to explain satisfaction.

In this network of relationships, the sociocultural variables related to norms, beliefs, and values, the socioeconomic and demographic variables such as sex, age, occupation, income, and marital status, as well as the organizational variables referring to compatibility, flexibility, scalability, portability, credibility, and privacy would be excluded (Simsek, 2011). This is because the model explains the rational, deliberate, planned, and systematic processes that underlie users and technologies.

However, since satisfaction with technology and perceptions of control and risk are constructs, that psychological studies have not established empirically, the model of specified dependency relationships only included percep-

tions of efficiency and usefulness as exogenous constructs that directly affect the use of technology as well as indirectly through mediating variables such as attitude towards technology and intention to use (Summer, 2011). The model includes nine hypotheses considering the direct and indirect relationships between perceptions and the use of technology.

In this way, the interrelation between the perception of efficiency and the perception of usefulness would directly and indirectly determine the intensive use of technology (Teh et al., 2010). Consequently, the expectations of efficient functioning from the adoption of the technology would directly affect its intensive use. The perception of efficiency in influencing decisions to adopt electronic devices increases its predictive power over the use of technology. Similarly, expectations of improvement by impacting electronic consumption decisions would determine the use of technology. Now, when efficiency expectations increase due to the adoption of technology, they produce categories that will influence consumption decisions, and these influence the use of technology. Likewise, the expected benefits from the use of a technology generate favorable attitudes towards its acceptance decisions and these will improve the use of the technology.

However, the use of technology could be because consumers simply categorized a device as favorable for achieving their goals, or the use of technology could be because acceptance decisions had an emotional origin (Wirth et al., 2010). That is, technology as a product or service is susceptible to being promoted as an object of desire and it is from this phenomenon that consumers accept, buy, adopt, and use technology.

**Discussion**

The present work has exposed the problem of the digital divide to insert itself into the discussion of the topic and to review the theoretical and conceptual frameworks, as well as the most recent findings to propose a model of reflective relationships for the study of entrepreneurship with an emphasis in the perception of opportunity, a predominant factor in the documentary review.

However, digital entrepreneurship, unlike social entrepreneurship, involves perceptions of opportunity focused on electronic devices rather than trust. In this sense, it is necessary to study the impact of technological advances on the lifestyles of Internet users, their capabilities, and use decisions (Yuangion, 2011). As research specializes, it will be possible to anticipate scenarios in which Human Development will be the result of the undertaking of civil or citizen cyberspheres rather than the regulation and administration of the State since the transculturality and trans territoriality of the Internet implies a digital government that ensures the same principles of freedom, justice, and equity.

However, studies related to digital entrepreneurship, in its intensive use area, show that perceptions of compatibility, usefulness, and ease are determinants of the asymmetric relationships between cyber users and asymmetries (Zaidel & Zhu, 2010). This is because social exclusion seems to be reproduced on the Internet, but it is the information processing capabilities based on the evolution of technology that would explain the digital divide between Internet users themselves.

The difference between Internet users and cyber agents lies not only in their capabilities or competencies but in the opportunities and freedoms that the State restricts by monitoring digital protocols or deregulates by allowing the violation of privacy (Zampetakis & Moustakis, 2013). According to the theoretical and conceptual frameworks, the adoption of the Internet entailed risks that users decided to take when compared with the informational and communicative benefits. In contrast, the state of knowledge warns that cyberbullying is the main factor of exclusion, thereby reducing the problematization of electronic devices and digital skills that exacerbate digital gaps in the same users of the same generation.

Consequently, a model was proposed to correct the discrepancies between theories, models, and studies related to social entrepreneurship (Del Rio & Burguillo, 2009). In this specification of relationships, cyberbullying is only considered an indicator of the digital divide, although eight dimensions are proposed for the study of a factor associated with entrepreneurship, the perception of opportunity should have more dimensions that relate to the use of electronic devices. and the development of skills for the harassment of users who are unaware of their digital civil rights.

However, the digital divide will not be reduced only with the promotion of rights on the Internet, but with the transformation of protests or electronic demonstrations with the development of skills and knowledge that allow not only to react to exclusion but also to promote equitable relationships and not discriminatory between users of the same network or electronic protocol (Malecki, 1993).

That is, it is necessary to train the victims of cyberbullying to increase their self-esteem but also to perfect the capabilities that allow them to build virtual scenarios of respect and solidarity, commitment, and empathy towards those who do not have the computer skills or digital capabilities that the society of information demands day by day (Trigilia, 2001). The empirical test of the specified model will allow progress toward the prediction of violent and aggressive lifestyles, as well as comparing devices that facilitate empathy, commitment, and satisfaction without users being confrontational. The present work has systematized the state of knowledge focused on establishing differences between ethnic groups, sexual groups, peers, aggressors, spectators, victims, or differences in terms of socialization, devices, or speeches regarding cyberbullying.

However, these findings have contributed to the discussion around Human Development as a scenario in which perceptions of usefulness, self-efficacy, and compatibility are inherent to the differences between groups and the socialization of devices and discourses (Sforzi, 1999). As the differences are exacerbated between the groups, a debate emerges around the perceptual factors that make them different in the face of the requirements of Human Development focused on the formation of human capital and that would have a direct consequence of the differences found in cyberbullying. in the literature review.

In the study by Carreón & García (2013) in which violence is understood as a preponderant factor in the transformation of public security into perceptions of insecurity, the present work has expressed that electronic devices accelerate the transformation in question. This is because violence, according to the study cited, derives from the asymmetric relationship between authorities and citizens. Indeed, violence, being the result of perceptions related to social exclusion, implies the dissemination of beliefs, attitudes, decisions, and behaviors in technological fields such as the Internet and social networks.

However, the state of knowledge does not establish a link between differences concerning observed differences in device socialization and corresponding discourses (Kolko, 2012). For this reason, it is necessary to carry out a study regarding the differences between groups and the differences in the uses of technologies. In this process, perceptions of usefulness, self-efficacy, and compatibility will clarify the connection between groups and devices in academic training.

The differences between groups likely allow us to anticipate perceptual differences and device use, but it could happen that in symmetrical groups, perceptions of usefulness, self-efficacy, and compatibility generate or at least exacerbate the observed differences (Combes, 2000). If perceptions are determinants of the differences between groups and the uses of technologies, then it will be possible to anticipate the emergence of cyberbullying no longer as a group phenomenon, but as a phenomenon in which electronic devices generate perceptions that exacerbate harassment among peers. or shoot.

**Conclusion**

The contribution of this work to the theoretical and conceptual frameworks, as well as to the findings reported by the state of knowledge, lies in the proposal of a model for the study of exclusion and the digital divide, or the construction of a global digital village. in which entrepreneurship and innovation would be its predominant indicators.

However, the model does not include technological and organizational variables that allow us to anticipate differences between users not based on their skills and knowledge, but rather based on the resources they have and the groups to which they belong. This work has exposed the theoretical, conceptual, and empirical axes of cyberbullying around which human development has been considered as a scenario of opportunities, perceptions, and capabilities. This trident primarily explains the relationship between users and technology when establishing asymmetric relationships.

The theoretical frameworks reviewed present cyberbullying because of the compatibility between aggressive lifestyles and information technologies that potentiate bullying among peers. The asymmetric relationships that

develop in social networks imply the emergence of information technologies that facilitate anonymity and encourage the diversification of attacks. The Internet is a scenario in which opportunities and capabilities converge, factors that allow cyberbullying to be understood as a particular phenomenon of social networks whose impact on perceptions focuses attention on the individual and the devices, they can use for aggressive purposes.

However, theories, concepts, and findings are still focused on presenting cyberbullying as a psychological state between victim and aggressor. This is how the review of variables alluding to the impact of ICTs on lifestyles highlights perceptions as the determinants of the adoption of an electronic device, the main instrument of aggression against Internet and social network users.

In this way, Human Development is not only a scenario of asymmetric relationships that lead to violence and aggression but also an area of perceived usefulness in which technologies and devices become instruments of harassment.

Cyberbullying about human development implies:

Opportunities, technologies, and capacities to reproduce the asymmetric relationships that develop in everyday life. In this sense, harassment, aggression, and violence on the Internet and social networks indicate the convergence of electronic devices and computer skills used to exacerbate the differences between aggressors and victims.

Theories, concepts, and findings that explain asymmetric relationships between Internet users. In this way, the profile of the aggressor on social networks seems to have a perception of usefulness that activates perceptions of ease, attitudes, intentions, and behaviors of harassment of users who do not perceive the usefulness of the networks for their defense, or who have not learned the strategies that allow them to inhibit harassment, report attacks or prevent violence. The Internet and social networks as potential scenarios for harassment, aggression, and violence since these technologies inhibit loneliness with the continuous and permanent interaction of users.

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