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How to Influence the New Technologies in the Emotional Intelligence and Communication of Higher Education Student

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1. Introduction

Throughout this chapter we will study how new technologies influence, used as basic tools in the university education system, in the emotional domain and communication skills of college students. To do this, we will, first, detailed analysis of two separate terms, to pass, expose the data in an empirical study conducted with a sample of university students. We hope that when the reader is immersed in the next chapter not only understand in detail the terms, but at the same time, find the content of that chapter of social relevance. Finally, the ultimate purpose is to invite readers to reflect on what happened in the new system of university education.

1.1 Emotional intelligence

In our view, emotional intelligence (ie), marks the way we relate to and understand the world (Salvador, 2010). This is a personal characteristic that takes into account the attitudes, feelings and, at the same time, includes skills like impulse control, self-awareness, self-motivation, confidence, enthusiasm and empathy, or ultimately feel sorry. From our humble view, one can consider the action necessary to provide, among other things, our largest professional services.

Emotional Intelligence, although it is present, it is in our view a clear precursor to the concept of Social Intelligence of a psychologist Edward Thorndike (1920), who defined it as the ability to understand and manage men and women, boys and girls, and act wisely in human relations. For Thorndike, in addition to social intelligence, there are two types of intelligence: the ability to handle abstract-ideas-and mechanical-ability to understand and manage objects.

This idea of a double intelligence Thorndike initially launched reflects the duality that is present in humans. Surely, the reader has ever tried has felt growing inside an emotion and at the same time, tried to reason so that does not dominate and take actions that make you regret later. However, this type of situation illustrates well the internal conflicts that we can feel when they are in control of emotions and reason. It is said, usually, that man is a
reasonable, but we know that at the same time, sensitive and emotional. Sketching, we could say we have two brains, one emotional and one rational.

These two forms of intelligence seem to be related to two different mind styles. Thus, roughly as we might say that there are two types, a rational mind (works using approximations and assumptions, it is logical and pragmatic, perceive things and integrates them into a coherent and structured) and the other the emotional mind (fully irrational beliefs by taking their absolute truth and rejects everything that could otherwise). In general, a mind is responsible for thinking and feeling another. The rational mind is the way to understanding that we are typically conscious, more prominent in terms of reflective consciousness, able to analyze and meditate. But alongside this there is another system of knowledge, impulsive and powerful, although sometimes ideological: The emotional mind. These two minds fair operating in harmony, so the most part, interweaving different forms of knowledge to guide us in the world. Usually there is a balance between emotional and rational mind, which feeds and informs the emotion operations input power of emotions. However, the emotional mind and the rational mind are semi-independent powers and also reflect the operation of a separate circuit for interconnected in the brain.

As recorded by Salvador (2010), emotional intelligence could be described as emotional competence measures the ability to understand, process, control and express social and emotional aspects of our lives. In this sense, the degree to which we are capable of doing so is essential to productivity and life satisfaction. Furthermore, studies show that people find very productive workplace, and satisfied with life does not depend on the academic, emotional domain but with people (Goleman, 1995, Heath, 1991). Therefore, in our view, emotional competence is the ability to understand and express the emotional and social aspects of our lives. It is, therefore, conscious capacity, that is, thinking in one's mind, let's think about the feelings, the more precise, we feel we feel. In this line, Salovey and Meyer (1990) define emotional intelligence as a set of skills used to assess fairly and express our own emotions and those of others and to use our feelings to motivate, plan and carried out full life. In this sense, the features that come to highlight these authors are (Salovey and Meyer, 1990):

1. *Knowing one’s emotions*, it is self-consciousness, that is, recognizing a feeling as it occurs.
2. *Improve emotions* could be understood as controlling the feelings that are appropriate, which requires self-awareness.
3. *Control one’s emotions*, understand and manage emotions in the service of a goal to pay attention to self-motivation and mastery, and at the same time for creativity.
4. *Recognizing emotions in others*. Empathy is the fundamental skill of the people. Individuals who display this predisposition are often more sensitive to social cues that indicate what others need.
5. *Manage emotions*, it is understood how to master the emotions of others.

One of the pioneers in the field of emotional intelligence testing has been Bar-On. Bar-On (1997) adds that emotional intelligence is an important factor in determining one’s ability to succeed in life, to cope with everyday situations and get along with the world. In this regard, as noted by Bar-On (2006) the skills that comprise emotional intelligence and directly influence social welfare. Thus, Bar-On has developed a theoretical framework of
social and emotional intelligence consists of five factors (intra-personal, interpersonal, adaptability, stress management and general mood) that constitute the EQ-i inventory.

Petrides and Furnham (2001), following the principles offered by Bar-On, conducted an investigation which shows that emotional intelligence should be understood as a set of skills and self-perceived characteristics. These results lead the authors to coin the term emotional self-efficacy. Of this work shows significant results for the scientific community in the first place, it is stated that there are few studies looking at emotional intelligence as an element related to personality traits and skills. For example, points out that the only study that meets these requirements is performed by Davies, Stankov y Roberts (1998). Second, Petrides and Furnham (2001) indicate that emotional intelligence should know the first to know the personality traits to pass, then the analysis of cognitive abilities. In this sense, these authors make the following taxonomy (adaptability, assertiveness, emotional assessment or perception of oneself and of others, emotional expression, emotional management of others, emotional regulation, low impulsivity, relationship skills, self esteem, motivation, social competence, stress management, empathy, trait, trait happiness, optimism, trait).

Goleman (2001), for its part, says that among the characteristics of emotional intelligence are some skills that allow us to motivate ourselves and to preserve the face of frustration, control our impulses and put ourselves in position to vary our sources of gratification; regulate our moods and acting, avoiding stress affects us. It's about being empathetic and to wait in life. According to Goleman (2001), the emotionally developed, ie the people who govern their emotions properly and also know how to interpret and interact effectively with the others emotion enjoy an advantage in all domains life. These people often feel more satisfied, are more effective and better able to master the mental habits that determine productivity. Customers, however, can’t control his emotional life, are discussed in constant infighting that undermine their ability to work and prevents them from thinking clearly enough.

In summary, emotional intelligence is a learned skill that humans have that allows you to know and understand both their own emotions and those of others. This is without a doubt, an essential aspect of social-occupational adaptation of the person and at the same time, it is essential to the development and personal wellbeing.

As we have been saying, emotional intelligence is essential not only for the welfare of the individual but also to facilitate social integration. It is, in our view, a basic tool that significantly influenced even communication skills. We may consider that effective communication is related to emotional control. Roughly speaking, we could say that understanding and controlling our emotions during the speech communication, while understanding the emotions of the recipient is a key to the success of the message (Lillis and Tian, 2009).

1.2 Communication

Communication is a key event in our lives broadly speaking we could say that interpersonal communication is crucial to ensuring stability and individual survival (Mañas and Salvador, 2009). With it, we can get to know people, ie we find out what people think, feel and do. Personal dialogue is the most frequent way to exchange ideas, phrases and feelings, therefore, without it would be virtually impossible to achieve a deep knowledge about
people. The media, as Mañas and Salvador (2009), can be defined as the exchange of information between sender and receiver and the interference (perceived) in meaning between them. The analysis of this exchange reveals that communication is a two way process elements linked in a row. In a generic sense, communication can be considered as one of the basic processes of any system of interaction. Following this line, the communication could be categorized as a dynamic process fundamental to the existence, growth, change and behavior of all systems of interaction, whether individual or collective-organized-(Thayer, 1975). In this vein, makes sense to argue that communication through people establish functional relationships that allow them to work together and achieve their intended goals. It therefore seems logical to assume that the communication process is not simple and, moreover, it involved a heterogeneous set of elements.

As pointed Mañas and Salvador (2009), effective communication can be altered by a number of factors that pose a barrier to the flow of communication. Undoubtedly, the most hinders the whole process is noise, which interferes with the accurate transmission and reception of the message. In addition, there are can highlight other barriers such as those of process, personal, physical and semantic (Munduate and Riquelme, 1994).

The obstacles to the transfer process can distort the meaning on all levels of the communication cycle mentioned above (for example, receive incorrect information, use a language not known, choose inappropriate means, etc.). For its part, the personal barriers are very heterogeneous, in which we would highlight: the ability to communicate effectively, how people process and interpret the information, the level of interpersonal trust between sender and receiver, skills communication, the natural tendency to evaluate or judge a message, and the ability to listen with understanding. As far as physical barriers are concerned, we would like to highlight the distance between sender and receiver because, as you can imagine, it is difficult to communicate with a person who is nine or ten feet away without using additional accessories to facilitate communication flow. Finally, semantic barriers shown in the form of encoding and decoding errors, since it is the communication phases that are transmitted and received symbols and words.

In summary, this communication process is becoming increasingly important in the existence and stability of the organization. In this sense, today, communication becomes a cornerstone for the survival of the institution, why then we will stop at a deeper analysis of it.

The application of new communication technologies is called electronic communication (Defever, 1991). Specifically, is defined as the discipline that deals with the use of electronic media in the activities of companies and organizations. Electronic communication allows more efficient communication and offers new possibilities for interaction, especially reducing the limitations of other forms of communication coming to alter the structure of the communication process by eliminating or reducing the limitations of spatial, temporal and social, connecting people in two different locations. The electronic media bring to the traditional media new opportunities to communicate, a more immediate contact, faster and richer returns (feedback) and increase the chances of interaction. Thus, the electronic media contribute to making the organization more available, providing new forms of relationships with stakeholders and interest groups.

In a sense, the Internet has disrupted many of the paradigms so far helped us to understand the processes of public communication media. In what follows, by way of summary, we
highlight the ten paradigm shifts that lead to the e-communication, the new media landscape that emerges with Red (Orihuela, 2002): the user at the heart of the communication process, content vector media identity, universal multimedia, real-time requirement, the wealth management information, the disintermediation of communication processes, the emphasis on access to systems, the various dimensions of interactivity, hypertext as a grammar of the digital world and the appreciation of knowledge over information.

The new public communication scenarios posed by the Internet are to be interpreted as an opportunity to redefine the profile and professional requirements and the contents and procedures of their academic training. The media used are no longer the distinguishing factor of the profession, since all the carriers merge into the Red-and once again emerge as a differentiating factor content of identity and quality. However, it would make sense to consider how far this new road development affects personal communication, or whether the use of virtual communication impact in some way in basic skills for socio-professional integration of the individual.

1.3 New framework for teaching; European Higher Education area -EES-

The functions that the authors have proposed the possibilities that media vary considerably, ranging from those authors who limit their use to a few of them, even those who greatly expanded its field of action. For its part Aparici and Davis (1992) speak of four major functions and uses the media can play: a) use of media players such as transmitters, models, norms and stereotypes, from a technical perspective; b) critical use that uses the media to reflect on society and its environment; c) playful and creative use of media to children and acquire different codes and can be expressed with them, and finally, d) use more complete than unify the previous perspectives. In this line, Rowntree (1991), to analyze the functions that the media plays in self-instruction, the concrete in the following: a) To attract the interest of students; b) Make it easier to remember learning; c) Encourage new learning; d) Justify and provide learning; e) Get the student to actively address; f) Providing rapid and specific feedback to their responses; g) To encourage the practice and review; and h) To assist students in their own progress.

For his part, Martinez (1995), points between the functions of the media: a) serve as a resource to improve and maintain the motivation of learning; b) function carries information or content; c) methodological guide the learning process; d) be a means of expression of the pupil. In another angle, as indicated by Cebrian (1992), raising the curriculum integration is to recognize the possibilities that have the means to act in the curriculum as: a) academic content structure; b) solidified the curriculum in practice; c) interpreter and signifiers of the curriculum; d) of professional development facilitators; e) Cause and effect for educational innovation; f) Representatives of legitimate content; g) drivers of the curriculum established and h) exemplifies teaching models and learning.

As Toffler (1985), complex organizations, such as universities, change significantly when three conditions are met: significant external pressure, people who are members dissatisfied with the existing order and presented in a coherent alternative plan, model or vision. So, like any organization that seeks quality, the university, to carry out real change and real innovation processes should provide, first, attention to environment and messages. The
changes are affecting higher education institutions can’t be understood without reference to the context of changes that occur in different orders and that constitute the external pressure:

1. The changes in the way of organizing the university fostered by the European Higher Education, the teaching approaches in relation to powers, ECTS, etc.
2. The changes brought by ICT.
3. Changes in knowledge (in the generation, management and distribution of it).
4. The changes in the student, in the city, in what may be a person trained today, and so on.

As noted by Salinas (2004), the innovation processes concerning the use of ICT in university teaching often start with, most of the time, the availability and existing technology solutions. However, a balanced view of the phenomenon should lead to the integration of technological innovations in the context of the tradition of our institutions, institutions that do not forget, have an important educational function. We consider the idiosyncrasies of each of the institutions to integrate information and knowledge technologies (ICT) in higher education processes, too, that the dynamics of society can leave the sidelines.

In summary, we could understand that new technologies bring to education with a triple function, namely, informative, motivating and informative. It is, therefore, three basic pillars of development and human training, in our view, must be in the same proportion, ie, computer media should not only be motivating, but they should also contribute to the formation students. It is therefore imperative that academic institutions should be relaxed and develop ways of integrating information technology and communication in the formation processes (Salinas, 2004).

1.4 Objectives

From our humble view, we consider that college students succeed in their training cycle, in particular, and in your work setting, more broadly, it is essential to have excellent communication skills and optimal emotional domain. However, the new higher education system is part of the use of technologies there is little empirical evidence to demonstrate how this new way of teaching impact in individual variables (communication and emotional control).

In this sense, the fundamental objective of this work is an empirical approach to study new technologies in the context of higher education. In particular, interested in knowing to what extent the use of new technologies affect the communication process and the emotional domain. Thus, we propose the following hypothesis:

1. New technologies applied to the framework of Higher Education have basic effects on the emotional domain and communication.
2. We hope that the use of new technologies present a negative impact on the knowledge of others' emotions and emotional control.
3. We believe that the use of new technologies in the context of Higher Education had a negative impact on communication styles.
1.5 Method
1.5.1 Participants
This research presents a descriptive and cross-sectional study consisting of a total of 92 first-year university students (52% men and 48% female), aged 18-25 years (mean 20 and standard deviation of 4). For the most part, use new media technology such as mobile phone, chat, video games, among others. In addition, the average time used in these items is more than 20 hours per week, in regard to video games, 30 hours a week to chat, etc. All indications, then, that our university students are immersed in the culture of new technologies. However, as noted earlier, this new dynamic of interaction has been transferred to the classroom. This implies that the dynamics of classes using a computer platform (Web-Ct) to facilitate teacher-student interaction and at the same time, student-student. This is a computer system where, in addition to link tasks, assessment tasks, there are windows of interaction of the type chat, forum, e-mail. The number of weekly hours that students spend on this platform is 20 hours per week.

1.5.2 Instrument
The instruments used were previously adapted to Spanish, through a process of expert validation. The following table shows the characteristics of the scales and the most relevant psychometric properties of instruments used:

Emotional intelligence. This instrument includes all the items used to assess emotional intelligence, from the two traditional tools, as in Castilian (Salvador, 2008). In this sense, the total number of questions on this scale amounts to 53 which assesses the degree of agreement on a Likert scale of 5 points, indicating the value 1 "complete disagreement" and the value 5 to the contrary. The reliability coefficient in this case was .90.

Communication. The scale used was Communicative Competence Scale (Rubin, Palmgren and Sypher, 1994), which measures the ability to choose among the available communication behaviors to achieve their own interpersonal goals during an encounter, keeping your face and the line of interactants colleagues within the constraints of the situation. The analysis yielded a Cronbach alpha score of .93.

1.5.3 Procedure
The questionnaire was filled in anonymously and voluntarily. One researcher was responsible for overseeing the procedure, to ensure that there were no problems. After finishing the procedure of collection of data will be passed to the analysis of the data. This was done in SPSS 18 for Windows.

1.6 Results
We explored the correlation matrix of Pearson, noting the relationship in the direction indicated by the hypotheses, being most significant (see Table 1). After analysis of the correlation matrix provides preliminary support the proposed hypotheses. Thus, intra-dimensional analysis of the dimensions that make up emotional intelligence, it should be noted that the relationship shows a higher score is the one between IE i.e. self-knowledge.
and management \( (r = .687, \text{significance} = .001) \), followed by IE i.e. self-management and self-knowledge \( (r = .588, \text{significance} = .001) \). Similarly, it would make sense to highlight the lack of relationship between self-management and IE knowledge.

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<td>I.E. Management</td>
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\( P=.001(**); p=.05(*) \)

Table 1. Correlation matrix of the study \( (N = 92) \)

Finally, when analyzing the relationship between communication and integrate the different dimensions of emotional intelligence (self-knowledge, self-management, knowledge management), we found that all relationships are statistically significant. However, this section would be pointless to note that in most cases the relationships that emerge have a negative sign. In particular, the positive relationship is the couple that emerges from self-management, communication \( (r=.935, \text{significance}=.001) \). With respect to the negative relationship, we find that the communication is related to IE knowledge management and self-knowledge IE \( (r=-.886, r=-.344, r=-.265, \text{significance} = .001; \text{respectively}) \). In short, these data indicate that our youth are characterized by deficits in communication and poor emotional skills.

### 2. Discussion and conclusions

The main objective of this study was to determine whether college students are immersed in the culture of new technologies have emotional control and communication skills. The results show that, in general terms, the objective has been covered. In more detail, we could say that the first scenario, where we predicted that new technologies used in the context of Higher Education have crucial effects on emotional control and communication, is fulfilled. Even more broadly appreciated that all college students have certain weaknesses in communication and at the same time, some deficits in the emotional domain, especially in understanding the feelings of others. Regarding the second scenario, where we hoped that the use of new technologies present a negative impact on the knowledge of others’ emotions and emotional control, it is confirmed. Specifically, the data show no correlation between knowledge of the emotions of others and self-management.

Finally, the third hypothesis, we estimated that the use of new technologies in the context of higher education had a negative impact on communication styles, is also confirmed. Specifically, the findings show that college students have poor communication skills.

Thus, in view of the findings, we note also that the greater emotional self-management, interpersonal communication. Similarly, it should be noted that the higher the self-knowledge, the lower the communication. In another angle, the findings appear to indicate that the greater understanding of the emotions of other, lower communication and, finally,
the higher is the domain of the emotions of others, the lower the communication. In conclusion, it is interesting to note two additional results.

On the one hand, they seem to have predictive power of new technologies on communication skills and emotional intelligence. On the other hand, the great impact that the efforts and fate of emotional control. This indicates that if we train students in mastering their emotions and their communication skills should take into account new technologies.

In summary, the results show that the use of virtual systems streamlines education, although this innovative teaching-learning method has some negative consequences for students. Thus, broadly speaking, the data from our research shows that students learn computer skills, but lack other skills. Specifically, the paper presents certain shortcomings and also the emotional domain. Being a bit more precise, the weakness in the emotional control is achieved in understanding the feelings of others.

In a sense, these results would demonstrate that ICTs are not a panacea and not a "silver bullet" in the education system. Yet this is not to deny the relevance of showing the same, but on the contrary, we come to say that ICTs are a way more in the process of teaching and, contrary to popular belief, are not the only way of teaching.

We, too, emphasized the integral role of education, therefore we believe that ICTs can help the education system. As they tell (Cabero, Castaño, Cebreiro, Gisbert, Martinez, Morales, Prendergast, Romero and Salinas, 2003) education can’t be excluded from the development of new information technologies, arguing several reasons. On the one hand, new media form a new society that the education system will serve. And, moreover, the system always uses the media used in social communication, and now this happens, among other things, the use of telecommunication networks. It would, therefore, to understand ICT as a challenge in the education system.

However, given its exploratory nature, the results of this study should be interpreted with caution because our work is not without limitations. We might note that probably the most important is inherent to the study, brought about mainly by the sample size. Another disadvantage is the time to carry out the collection of data, exactly what we mean is that the results were obtained in a single moment in time which could interfere with the relationships found between variables. Therefore, we emphasize the need to continue working in this line, with the main purpose of deepening the concept of emotional intelligence, focusing our attention at the traits of personality and cognitive abilities.

So, it is important in future research that this find be replicated with more comprehensive constructs. To our knowledge, and following the arguments of Perez, Petrides and Furnham (2007), it is necessary to progress in research, breaking with the belief still exists that emotional intelligence is a unitary construct. Another relevant question refers to the elements of emotional intelligence. Similarly, as demonstrated in this paper, need to further deepen the relationship IE and new technologies, with the main purpose of achieving personal well-being and socio-cultural integration.

3. References


Emotional intelligence is an emerging construct for applied research and possible interventions, both in scholastic, academic and educational contexts, organizational contexts, as well as at an individual level in terms of people's well-being and life satisfaction. From the presented contributions, it emerges how this volume is characterized by an interest to give an international overview rich of stimuli and perspectives for research and intervention, in relation to a promising variable of current interest, such as emotional intelligence. The goal is that this book further contributes to the affirmation of a particularly promising variable, such as emotional intelligence, which requires a greater interest and attention in both research and application field.

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