

Linguistic Journey: Deciphering English with the Magic of Data and Emotions

Viaje lingüístico: descifrando el inglés con la magia de los datos y las emociones

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Abstract

In the digital age, learning English as a Second Language (ESL) has undergone an unprecedented transformation, driven both by technological evolution and by the understanding of the importance of emotions in the educational process. This article explores the intersection of technology, emotions, and learning English, highlighting the figure of the *Homo Technologicus*, a species immersed and shaped by technology, but still essentially human. Through a philosophical and pedagogical analysis, this paper argues that, even though technology offers innovative tools and methods, it is crucial to balance it with sound pedagogical approaches that consider students' emotions and motivations. Personalization of learning English as a second language, driven by algorithms and data, is a powerful tool, but it must be used in a way that fosters human connection and the holistic development of the individual.

Keywords: *Homo Technologicus*, Personalized learning, Emotions in education, Educational technology, Humanistic pedagogy, Digital English teaching.

Resumen

En la era digital, el aprendizaje del inglés como lengua extranjera (ILE) ha experimentado una transformación sin precedentes, impulsada tanto por la evolución tecnológica como por la comprensión de la importancia de las emociones en el proceso educativo. Este artículo explora la intersección de la tecnología, las emociones y el aprendizaje del inglés, destacando la figura del *Homo Technologicus*, un ser humano inmerso y moldeado por la tecnología, pero que sigue siendo esencialmente humano. A través de un análisis filosófico y pedagógico, este artículo plantea que, si bien la tecnología ofrece herramientas y métodos innovadores, es crucial equilibrarla con enfoques pedagógicos sólidos que consideren las emociones e intereses de los estudiantes. La personalización del aprendizaje del inglés como lengua extranjera, impulsada por algoritmos y datos, puede ser vista como una herramienta poderosa que debe ser utilizada de una manera tal que fomente la conexión humana y el desarrollo integral del individuo.

Palabras clave: *Homo Technologicus*, Aprendizaje personalizado, Emociones en educación, Tecnología educativa, Pedagogía humanística, Enseñanza digital del inglés.

Introduction

In the information age, education is at a turning point in history. The way in which human beings acquire knowledge and skills has undergone an unprecedented transformation, driven both by the rapid technological evolution and changes in the understanding of what it means to learn.

Learning a second language, particularly English as a Second Language (ESL), illustrates this change vividly, so it is essential to recognize the differences between ESL learners and other English learners, as ESL learners often face unique challenges and have specific needs.

The interaction between technology and human emotions has resulted in a new paradigm within the processes of teaching and learning foreign languages. Nowadays, the relationship between technology and learning is not just a matter of access to resources or efficiency in the delivery of content, it is a question of how technology can enhance, or in some cases hinder, the human experience of learning (Suhherdi, 2019).

Technological advancement has amplified globalization: countries and cultures now connect more than in any other time in history. Such convergence has led to an unprecedented incorporation of technology inside classrooms. This situation was particularly evident during the COVID-19 pandemic (Muftah, 2022). Likewise, social media platforms, which are now much more than communication tools, have globally transformed social structures and intra-social interactions, redefining education, in general, but also learning English as a second language particularly.

In the rapidly changing environment described above, it's crucial to underscore the role of human experience in education. Central to this context is the concept of *Homo technologicus*: a symbiotic entity in which biology and technology are intricately linked. Such interaction has transformed the original *Homo sapiens*, not by merely adding technology to the species, but by evolving it into a new form that experiences a distinct type of evolution in its original ecosystem (Longo, 2002; Callus & Herbrechter, 2012). Even though such species is deeply integrated with and influenced by technology, it retains its human qualities: has the ability to feel emotions, has ambitions, and specific necessities. While digital tools, such as smartphone applications, provide the *Homo technologicus* with avenues for independent and enduring learning, it is imperative that its education enhances human connections and supports the comprehensive growth of individuals (Abugohar et al., 2019).

In 1977 Heidegger warned us that technology has the potential to frame our relationship with the world in ways that can be alienating. In the context of learning ESL, this alienation could be manifested through an obsession with efficiency and quantification, which might be detrimental to reflection and depth. Although technology can be a powerful tool, it should not overshadow the rich tapestry of human experience that is essential for truly transformative learning (Biesta, 2015).

This article seeks to explore the intersection of technology, emotions and learning ESL in the digital age. Through a philosophical and pedagogical analysis, we will reveal the challenges that the *Homo Technologicus* face, as well as the advantages it has when attempting to learn a second language in an increasingly digitalized world. Recent research suggests that while technology can offer innovative tools and methods, it must be balanced with sound pedagogical approaches that consider students' emotions and motivations to ensure effective and meaningful learning.

Additionally, it is essential to interweave several themes interconnected in academic discourses on English language teaching. A key topic is the role of motivation, both intrinsic and extrinsic, highlighted by researchers such as Dörnyei (1998) and Bradford (2007). Their work sheds light on how learners' goals, along with the encouragement of peers and instructors, shape the path of language acquisition.

Another crucial aspect is the incorporation of technology in education. Although digital tools offer innovative ways to engage students, there is a nuanced debate about their potential to both enrich and challenge traditional learning paradigms. The concept of learner's autonomy also emerges in this context as a significant element because digital tools offer students the possibility of regulating their own learning, making informed decisions, and following self-directed paths of study. Within this digital context, the role of the teacher evolves as well from a principal actor to a facilitator of learning.

Finally, this paper proposes strategies for overcoming challenges and failures in learning English as a second language. Some of those strategies include emphasizing on resilience, self-assessment, and on a growth mindset to provide a comprehensive framework for understanding how setbacks can be transformed into opportunities for development. Additionally, in line with Nussbaum (2010), it is imperative that, in our search for innovation, we do not lose sight of the central objective of education: Cultivating humanity and fostering the capacity for empathy, understanding and critical reflection. In an increasingly interconnected world, these capabilities are more essential than ever.

Theoretical Framework

Emotions and English Language Learning in the Digital Era

Emotions, as Merleau-Ponty (1962) pointed out, are not mere passing states, but rather our way of being in the world and of relating to it and to others. In education, and more specifically in learning English as a second language, emotions become the bridge between the student's internal world and the external knowledge they seek to acquire.

The digital age, with its promise of personalization and adaptability, has the potential to transform education into a deeply emotional experience. Digital tools, such as the smartphone applications mentioned by Abugohar et al. (2019), are not simply means of transmitting information, they are designed to resonate with the individual emotions and the aspirations of students.

From a philosophical perspective, it is essential for people to recognize the complexity and depth of emotional experience within the process of learning. As Dewey (1938) argued, education is not simply a transmission of facts, but a living experience that involves the entire student, both cognitively and emotionally.

The integration of technology in the pedagogy of ESL presents a unique opportunity to foster this comprehensive experience. However, it also poses ethical and pedagogical challenges. How do we ensure that technology does not reduce education to a series of efficient transactions, forgetting the richness and depth of the human experience? As Aragão & Dias (2018) point out, the key lies in a humanistic approach that sees technology not as an end in itself, but as a means to foster emotional and human connections.

Heidegger (1962) had warned against viewing the world exclusively through the lens of technology, arguing that doing it could lead to treat everything, including education, as a resource to be optimized. In the context of learning ESL, this could reveal as an obsession with efficiency, speed and quantification, to the detriment of depth, reflection and human relationships.

On the other hand, Nussbaum (1997) has emphasized the importance of the humanities and the arts in developing the capacity for empathy and understanding others. In teaching ESL, this can be translated into going beyond the mere acquisition of linguistic skills and focusing on the formation of individuals capable of communicating and connecting on a human level, regardless of cultural or linguistic barriers. For this reason, as we navigate the intersection of technology and education, it is imperative that ESL teachers maintain a philosophical perspective, keeping in mind that the ultimate goal of education is human flourishing.

Algorithms and Learning Customization: A humanistic Approach

In the digital age, algorithms have emerged as the silent architects of our educational experiences. These sequences of instructions, operating in the background of our educational platforms, have the power to shape and guide our learning in ways we are only beginning to understand (Ang & Yunus, 2021). However, as Foucault (1982) pointed out, the tools and systems we employ in education have profound implications for how we conceive knowledge and power.

From a humanistic perspective, education transcends the mere transmission of information. It is a process of transformation, a journey towards self-knowledge and understanding of the world. In this context, algorithms have the potential to be powerful guides, adapting and responding to our individual needs (Javadi & Tahmasbi, 2019). However, there is also the risk that these algorithms reduce education to a series of efficient transactions, forgetting the richness and complexity of the human experience.

The integration of artificial intelligence and machine learning in education has opened doors to possibilities that were previously unimaginable. These technologies, as Munir, Vogel and Jacobsson (2022) point out, offer opportunities for the personalization of learning. However, it is essential that this personalization does not become a form of isolation. As Arendt (1958) warned, education should be a space of encounter, a place where individuals confront different ideas and perspectives, and challenge themselves and others.

From a philosophical perspective, education transcends the mere transmission of knowledge. It is a process that shapes the very essence of our humanity, influencing our ability to think, reflect and relate to the world around us. In this context, artificial intelligence and machine learning have the potential to enrich the educational process, but they also pose significant ethical and philosophical challenges. For example, Yu et al. (2017) highlight how knowledge representation tools can allow students to adjust the learning sequence according to their needs, and how virtual tutors with human traits such as curiosity and emotions, can improve the learning experience.

Personalization of learning, driven by algorithms, has the potential to create more empathetic and humanized learning environments. However, as Suchacka (2019) points out, it is essential that this personalization does not lead to an isolated or dehumanized experience. Education, at its core, is a collective and collaborative process, and technology should be used to enhance, and not replace, human interaction.

Therefore, it is imperative that educators and designers of digital educational platforms approach the implementation of algorithms with deep ethical and philosophical reflection. Technology, no matter how advanced it is, must be at the service of humanity, and not the other way around. Personalized learning, at its best, should be a tool that fosters curiosity, empathy and understanding, and celebrates the diversity and complexity of the human experience.

The Homo Technologicus and English Language Learning

The *Homo Technologicus*, a conceptual evolution of the human being in the digital age, not only symbolizes our relationship with technology, but also how this relationship has reconfigured our ontology, our way of being in the world. Heidegger (1977) argued that technology is not simply a means or a tool, but a way of revealing the world. In the context of learning English as a second language, this translates into how technology reveals new ways of understanding and experiencing language.

This deep relationship with technology has expanded the frontiers of learning, offering unprecedented opportunities for interaction and practice. However, as Dreyfus (2001) warned, overreliance on technology can lead to a loss of "embodied wisdom," that deep, contextual understanding gained through direct experience and human interaction.

From a humanistic and philosophical perspective, learning English transcends the mere acquisition of linguistic skills. It is an odyssey that invites reflection on oneself, on others and on the world. Technology can facilitate this journey, but it should not dictate its course. Linguistic exchange platforms, as Tovar & Velasco (2020) mention, offer opportunities for human connection, but it is essential that these interactions are not reduced to simple information transactions.

The challenge lies in how people navigate this digital landscape, how we balance the promise of technology with the humanistic essence of learning. As Alakrash (2021) points out, mere familiarity with technological tools is not enough. A deep understanding of how to integrate these tools into a pedagogical framework that prioritizes the human experience is essential. For this reason, philosophy of education has long debated the nature and purpose of learning. As Dewey (1938) postulated, education is not simply the transmission of information, but an ongoing experience that shapes our relationship with the world. In this context, technology can be seen both as an extension of our cognitive abilities and as a mediation that can distort our relationship with knowledge (Turkle, 2015).

Therefore, the *Homo Technologicus*, in its journey of learning English in the digital age, finds itself at a crossroads. On the one hand, technology offers unprecedented opportunities for learning and connection. Digital platforms can break geographical and temporal barriers, allowing access to global resources and communities (Warschauer, 2007). However, on the other hand, there is a risk of getting lost in the digital maze, forgetting the importance of direct experience, reflection and human connection. As Carr (2010) warns, over-reliance on technology can lead to superficiality in our thinking and understanding. Additionally, it becomes essential to consider that in this new educational context the task of the educator in the digital age is to guide the *Homo Technologicus* through this complex landscape, ensuring that technology serves as a means to enrich, and not replace, the humanistic experience of learning.

Teachers' Challenges and Perspectives

Teachers' duties in teaching the English language plays a fundamental role in the linguistic and cultural development of students. Educators are not only in charge of transmitting a series of grammatical rules that are easily found on the Internet, but rather they are guides, promoting motivation and accompaniment on a journey through cultural diversity and intercultural communication. As Smith (2019) highlights, language teaching is not just about transmitting a set of grammatical rules, it involves motivating and inspiring love for the language and its cultural context.

Furthermore, Jones (2020) argues that ESL teachers must adopt pedagogical strategies that effectively integrate technology to remain relevant in a digitalized world. Highlighting that, although

technology has eased the work of teachers, it should not be forgotten that the role of a guide is necessary, so that the English learning process is more meaningful and directed.

Considering the rapid technological integration proposed by Jones (2020), it is vital to critically consider the impact of technology in the English classroom. The wave of digital tools that have emerged lately may offer advantages in terms of access to resources and practicality. However, exaggerated dependence on technology could dehumanize the learning experience. As Brown (2018) points out, technology cannot replace the personal relationship and interaction between teacher and student. This perspective raises fundamental questions about when it is appropriate to use technology with the essence of human-centered teaching.

However, criticism of technology does not only focus on interpersonal interaction. Smith (2019) warns about inequality in access to digital resources among students, considering that not all places have access to digital tools. The overexploitation of technology could exclude those who do not have electronic devices or a stable internet connection, thus creating discrepancies in English learning. Therefore, the need for an equitable approach that considers the diverse realities of students in diverse educational environments is highlighted.

Ultimately, the use of technology in teaching English raises the fundamental question about the essence of education. Are the speed and efficiency of technology sacrificing depth and authenticity in teaching? In a world mediated in many ways by digital tools, it is essential to constantly question the relationship between technology and pedagogy to ensure that English teaching does not lose its human essence and its ability to inspire meaningful learning.

Student's Autonomy in the English Language Learning (ELL) Process

Student autonomy not only refers to the ability to study independently, but also the ability to self-regulate, make decisions, and actively engage in their own learning. As stated by Holec (1981), a pioneer in the concept of student autonomy, this goes beyond independence and is related to the ability to assume responsibility for oneself, to make decisions and manage one's time in accordance with one's own acquisition of knowledge objectives.

Specifically considering ESL learning, in which autonomous practice, constant exposure and communication are essential, student autonomy is indispensable. Warschauer & Kern (2000) highlight the importance of integrating technology to foster learner autonomy in language learning, providing access to online tools, practice opportunities, and the ability to engage in real interactions.

It is important to examine how pedagogical approaches and instructional strategies can enhance student autonomy in the process of learning English. How can teachers cultivate self-reflection, conscious decision making, and active engagement in students? The reality of it is quite simple: with the resources we have today, students can learn almost anything by themselves. However, many times, they do not know how to start or what tools to use to meet their purpose and that is where the teacher continues to be indispensable, when it comes to guiding the student to find out what tools work or how to structure their English learning process in this case.

Smith (2021) maintains that the role of the teacher is crucial in helping students learn on their own, providing them with the necessary tools and techniques to organize their own learning process. Even though student autonomy has become easier with today's media, the teacher continues to gain importance in guiding and promoting independent knowledge.

Overcoming Failure in English Learning

Learning English, despite being a valuable skill, can bring difficulties that are often associated with feelings of frustration or failure. However, it is crucial to understand that these feelings are not the end of the road, but rather a natural part of the educational process. As Dweck (2006) states, failure must be understood as an opportunity to learn that is essential for personal growth. The use of technological tools can also minimize the feeling of shame or failure in the learning process since students do not have to submit to the pressure of a classroom.

When people set out to learn English, obstacles can come in a variety of forms, from grammatical difficulties to cultural barriers. However, as Duckworth (2016) mentions, long-term effort, rather than skill, is the key to achieving the proposed goals. This perspective reinforces the importance of perseverance and a growth mindset in the process of overcoming failure.

Self-assessment also plays a vital role in this process. When reflecting on the challenges faced, as Dewey (1933) mentions, we do not learn from the experience itself, but from reflecting on the experience and what it means in the process of each individual. The ability to critically look at the difficulties encountered in learning English can transform perceived failure into a valuable source of learning that leads students to return to their learning path in a more conscious way.

Ultimately, in order to overcome failure in learning English, it is necessary to adopt a resilient mentality. Such mentality can help students understand that mistakes are opportunities for improvement and that the learning process is intrinsically personal and unique for each individual. Furthermore, it is important to avoid comparisons or give up at the first difficulty that arises.

Conclusions

Learning English as a second language in the digital age reflects the intersection between technology, emotions and humanity. This journey, driven by technological evolution, has redefined the boundaries of the classroom and expanded pedagogical possibilities. However, as Dewey (1938) points out, education is not simply the transmission of information, but a lived experience that shapes the individual.

Personalization of learning, powered by advanced algorithms, has revolutionized the way human beings teach and learn. This adaptability, as Gardner (1983) mentions in his theory of multiple intelligences, recognizes the diversity of ways in which individuals learn and process information. Furthermore, the consideration of emotions in this process, supported by research in the field of educational psychology, highlights the importance of approaching learning from a holistic perspective.

However, it is essential to remember that technology, no matter how advanced, cannot replace the richness and depth of human interaction. Vygotsky (1978) emphasized the importance of social learning and how interactions with others can facilitate cognitive development. In the context of learning English, this is especially relevant since communication and interaction are fundamental to acquiring linguistic competences.

The *Homo Technologicus*, in its journey through the digital landscape, must be aware of the opportunities and challenges that this era presents. As Prensky (2001) points out, digital skills are essential in the 21st century, not only to navigate the digital world, but also to be critical and reflective in the face of the avalanche of information. Therefore, while the digital age offers innovative tools and methods for learning English, it is essential that it is approached in a balanced manner, considering both the technological advantages and the humanistic essence of learning.

Furthermore, the crucial importance of educators in promoting not only linguistic knowledge, but also motivation and appreciation for cultural diversity in learning English is highlighted. The integration of technology in teaching, according to Jones (2020), must be managed carefully to avoid depersonalization of learning and consider equity in access to digital resources.

Student autonomy, based on the ideas of Holec (1981) and expanded by Warschauer & Kern (2000), is essential for meaningful and self-directed learning, highlighting the role of the teacher as an indispensable guide in this process. Student autonomy is closely linked to the skill of overcoming challenges and failures during learning. In this case, resilience, self-evaluation and the adoption of a mature mindset, following Dweck (2006) and Duckworth (2016), are key to transforming obstacles into learning opportunities.

Summarizing, the document concludes that teaching English as a second language in the digital age requires a holistic approach that balances technology, humanity and emotions. It also requires recognizing the diversity of learning styles, the importance of human interactions and the need to develop critical digital skills, as Prensky (2001) suggests. This reflection invites educators to be aware of the opportunities and challenges presented by the digital age, and promotes an English learning that is both technologically advanced and deeply human.

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