ELISAVA TEMES DE DISSENY

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Transmedia Storytelling: exploring its use in education

Transmedia narratives have transformed the manner in which teaching is carried out. In this context, students and teachers can express their experiences and opinions using various content creation tools shared on a mostly online environment. Currently, studies are available that support the advantages of storytelling in education. The aim of this article is to answer the question: How effective is the use of transmedia narration in education? We intend to verify its efficiency in teaching processes. For this, we have completed a bibliographical review, with the specific objective of identifying how this is being implemented in education.

Introduction

The teaching-learning process has become a challenge in schools and universities, particularly due to the ubiquity of information and communication technologies that question traditional teaching methods and provide many opportunities to work with active methodologies that permit monitoring of the learning process. In the digital era, teachers face various challenges: a changing panorama in communication media, a separation with regards to traditional teaching methods and the rapid development of technology as well as its impact on the educational context. However, it would be a mistake to affirm that the new information technologies have only brought problems, as they have also allowed for the development of another type of learning and new ways of designing educational experiences [1]. Teachers seek to combine technology, pedagogy, content and theories for learning in our classes.

The emergence of the participative culture has transformed the way in which teaching is provided. In this context, students express their opinion by using the content creation tools and shared them in a network environment. The new media have introduced a new dimension: the integration of the digital world with the physical world. To focus on the scene of media narrative is related to the experiences of integrated media, which take place on a wide variety of platforms.

There are numerous definitions of *narration*, however, all of them have common elements, and therefore, storytelling can be seen as an effort carried out to communicate something by using words and sounds, often including images or other media. Although some authors use the word as a synonym of the *story* concept, narrative can also be defined as a factual element, where are stories are reflexive, creative elements that are full of value, that generally reveal an important moment or state of the human condition. According to Fitzgibbon and Wilhelm [2], the authors that defend narration as a teaching tool, affirm that telling stories and tales favours the educational processes. The studies that support the use of storytelling mention that, thanks to narration, the teachers have the opportunity to reconceptualise what literacy and learning can contribute both inside and outside the school [3]. It also encourages students to create their own stories, expanding the knowledge and mythology of the narrative in general [4], and challenges them with a wide variety of open, non-lineal problems [5].

The objective of this article is to determine whether the use of transmedia storytelling is efficient in education. For this, we have completed a literature, with the specific objective of identifying how this is being implemented in teaching. The aim, therefore, is to explore the problem and detect the most promising frameworks.

The Transmedia Storytelling concept

There is no canonical definition of the *Transmedia Storytelling* concept and, given its wide scope of application, the researchers express their need for an interdisciplinary discussion space to propose the constitution of a totally independent field of study. Transmedia narration represents a process where the integral elements of a fiction are systematically dispersed through multiple distribution channels with the aim of creating a unified and coordinated experience. Ideally, each type of media contributes individually to the development of the story [6].

Transmedia narratives can have their origin in products of literature, television, cinema, video games or graphic novels. Henry Jenkins [7] mentions some of the most important narratives on the global scene. In cinema, for example, he mentions Star Wars, where the different parts of the saga can be understood separately, as occurs with the recent films, comics and books: Rogue One and The force awakens. Rish [8] and Scolari [9] state that the transmedia narratives are a type of account where the story unfolds through multiple communication platforms and media, and where part of the consumers form an active role during the expansion process. In the creation of the extensions, there are two important design principles. These are the principle of immersion vs extractability and that of spreadability vs. drillability [10]. The principle of immersion tries to achieve that the users or fans enter a world and interact with it, occasionally through simulation. The principle of extractability, however, consists of the fan bring the narrative world into their own world. With regard to the principles of spreadability and drillability, in the former, the spectators are encouraged to test the depth of the narration by creating magnets for participation. The

latter consists of awakening the curiosity of the fans so that they research the topics related to the story. On a commercial plane, the narrations can be seen as entry points to the world of fiction [11].

Transmedia narrative has moved to the field of education as a new teaching method. In an educational context, it is more correct to speak of users instead of consumers, a term that we will use hereinafter. To be a user does not necessarily mean to be an active audience [12], however, it must be emphasised that both the receipt and the production are active processes. For Gosciola and Versuti [13], the transmedia narrative is basically the event of telling a great story, but instead of explaining it in a linear manner, the transmedia narrative divides the story into different parts. The main story does not explain all of the details, but rather from this base all of the additional and complementary stories develop. This is to say, transmedia narrative includes some parts of the narration that are inherently incomplete because the story is told through multiple ways and channels by different authors [14]. Another characteristic of this type of narrative is that each of these stories is transmitted using different media. Returning to the example of Star Wars, the story may help to share actions, topics, the development of characters, metaphors and lessons [15]. It may even promote teaching and learning through the collaboration between teachers and students and through a first-hand narrative book that may delve into the depth of a character such as in the case of Luke Skywalker. It could also discuss martial arts, Taoism or the book The Art of War by Sun Tzu, and relate it to the Jedi traditions through a video game. In the same way, combat strategies could be learned through the cinema screen. The cataloguing of heroes could even be possible by using the wide variety of graphic novels that exist on the saga and through themed kitchen books, the culture and cuisine of other places could be detailed. Each media contributes a unique perspective and supports the narrative space. Transmedia learning permits a combination of the possibilities of technology with real experiences of the users and application of pedagogies focused on the student.

Students and educators work on the transmedia narratives to document their learning through research, discussion and analysis on multiple channels and modes. They apply narration techniques combined with the use of multiple platforms in order to create immersive learning, which grants multiple points of entry and output for teaching and learning [16]. For example, they use graphic novels, videos, mini games etc. This would imply that the students would be telling a story through a drawing, narrating plots and promoting the characters through shows with costumes. Another example would

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This would imply that the students would be telling a story through a drawing, narrating plots and promoting the characters through shows with costumes. Another example would include the fact that the students could attempt to create a stop-motion animation, a video remix or design a video game in order to tell their own version of the story. The documentation of the learning process instead of focusing on a product may take place around an entire universe that the students deconstruct, proposing what is correct and incorrect or right and wrong. Thus, teachers and students identify and feed the transmedia narration.

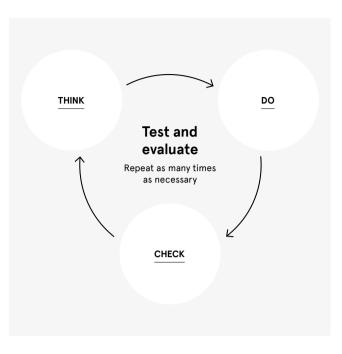


Figure 1 Iterative design process (own source). Contreras-Espinosa and Eguia Gómez.

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Star Wars is merely one example of how popular culture can be used to connect with users and to develop certain topics. Educators that are passionate about a particular type of media and subject can connect both through an iterative design process [17] guided by the student's learning objectives [Figure 1]. In the same way as with a lesson or class that is designed for work in a traditional classroom environment, the processes become cyclical. As we see in the figure, it is very important to test and evaluate, and the teachers must consider which type of learning, skills and personal qualities the students should develop. To start with, the learning goals as a basis for teaching and considering the experience that will be provided by the lesson will help with awareness of the goals that are to be reached by using transmedia narratives.

Educational frameworks

We are still seeking the best practices and discovering effective ways of gathering all of the options necessary to construct a transmedia learning experience from a wide and complex range of options. Without any doubt, the majority agrees that there is a great change in education. Hovious [18] highlights that is possible to find seven different literacies in the projects focused on using transmedia narration in education: multimodal literacy, critical literacy, digital literacy, media literacy, visual literacy, information literacy and literacy through games (problem solving, use of logical and strategic thought). This coincides with the suggestions by Jenkins, Ford and Green [19] that argue that the narratives in general encourage the students to expand their knowledge.

In the literature we have identified some educational frameworks through which a transmedia learning environment could arise. One of these frameworks is the so-called *Connected learning: an agenda for research and design*, proposed by Ito and other authors [20]. This connected learning traces topics and tensions in relation to education within an environment of media networks and provides a framework to design new learning practices. If focuses on the implications of the scenario of the communication media and on the challenges that these may present in terms of learning. Rodrigues and Bidarra [21] rescue some of the trends in terms of cre-

LEARNING PRINCIPLES	DESIGN PRINCIPLES	RESULTS IN THE MEDIA
Mediated by interest	Focused production	The users filter topics based on their interests
Supported by colleagues	Open networks	The users discover new content in accordance with what is shared on their networks and the mentality of other users
Academically oriented	Shared intentions	The communities emerge around a shared interest or objective through the conservation of the content

 Table 1 Connected learning. Based on Rodrígues and Bidarra (2014) with contributions from the authors.

ation and consumption of media content and describe them on a table in order to facilitate understanding.

The basis of connected learning is found in the active participation mentioned by Jenkins and that brings us to the principle of *immersion vs extractability* and the principle of spreadability vs. drillability [22]. This learning encourages the capacity to connect people, resources and content by assembling components and allowing the students to construct personalised ways of reaching their educational goals. The integration of experiences, collaborations and personal resources in class and outside, leads us to obtain learning experiences adapted to the specific needs of the students [23]. In the educational panorama, this learning framework considers the following challenges: 1) the lack of connection between formal education and social contexts; 2) the need for social connection and learning that makes sense when it forms part of relationships and social, cultural and identity practices are shared between the users; 3) the need to improve a civic commitment, as the learning environments and civic life prosper when all of the members actively participate and contribute. The principles that construct a connected learning experience embody various trends while channelling them in the meeting of educational goals. In Table 2, there is a description of some of the benefits obtained from transmedia learning and the principle on which they are based in order to achieve immersion-extractability or spreadability-drillability. This helps us to identify the possibilities of transmedia narrative, analyse its impact or benefits and to identify how it is being implemented in education.

The second educational framework is the so-called *T* is for *Transmedia: Learning through Transmedia Play*, generated by Herr-Stephenson and Alper [24]. It is based on identifying the links that exist between the transmedia narratives and learning, presenting the elements that the authors consider to be key in order to provide a set of principles that allow for positive experiences. The authors have obtained the information through experimentation with students.

The authors define a transmedia game as a way of thinking and experimenting that forms part of expression through the participation in communication media. According to Alper and Herr-Stephenson [25],Transmedia Play favours, in this sense, learning by the users in different ways: 1) it promotes new reading focuses, as the students must learn to read both written and multimedia texts through multiple media, in a deep manner, seeking details in the narrative; 2) it promotes joint participation of the communication media, providing opportunities to all members of a family that experience the narrative transmedia together; 3) it can support the constructivist learning objectives as transmedia narra-

ADVANTAGES	DESCRIPTION	PRINCIPLE
Attention capacity	Entertainment news and content that are consumed in small pieces and various media, days, times or spontaneously.	Immersion
Contribution	Topic filter based on the interests of each user. Participation as an active process.	Drillability
Social skills	The users discover new content as it is shared on the networks by other users, thus integrating the world.	Immersion and extraction
Sense of community	The communities emerge around a shared interest or objective. They have the possibility of forming part of it.	Immersion
Creation/remix of content	The users mix all kinds of content: photos, videos, music, art, etc. They share the creative work in contexts of time, place or events.	Drillability
Publication of constant and emerging stories	The users take care of their social network, constantly providing emerging narratives. Creates loyalty.	Spreadability

Table 2 Creation, consumption of media and content. Based on Rodrígues and Bidarra (2014) with contributions from the authors.

tive promotes the exploration, experimentation and remix, emphasising the active role of the student in the creation of knowledge by working to establish connections between the information and a specific context.

This proposal also promotes the practices focused on the student and is based on the knowledge acquired by children while they play video games, tell a story and explore the media. *Transmedia Play* develops literacy and promotes experiential learning. In Table 3 we can see which points are involved, which elements are developed and which interpersonal skills can be obtained.

The pedagogical potential of the Transmedia Play proposal resides in how we can make the most of the narratives and in which conditions they support the social skills and interpersonal skills, as well as digital, textual, visual and media literacy. From our point of view, it implies another dimension other than that proposed in the Connected learning: an agenda for research and design framework and is addressed from a more ample concept. It is principally used to refer to the ways in which the users can interact with their IP through multiple multimedia devices in a wide variety of spaces. In other words, Transmedia Play provides us with ideal moments so that the public can access multiple entry points for a transmedia world, developing literacies that go beyond reading and writing. For this framework, we can conclude that more than just a resource, the transmedia narrative is a tool that should be evaluated in the construction of learning experiences that approach some of the great challenges which are faced by education.

INVOLVES	DEVELOPS	INTERPERSONAL SKILLS OBTAINED
Resources	Creative though to solve challenges	Adaptability Initiative
Sociability	Communication between pairs mediated by media and technology	Appreciation
Mobility	Use of mobile devices and movement between platforms / media	Productivity
Accessibility	Access from different entry points and definition of a path according to the individual contexts and access types	Continuous learning
Repeatability	Act of revisiting and exploring worlds that require multiple visits	Curiosity

 Table 3 Transmedia Play. Based on Alper and Herr-Stephenson (2013)

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Integration of transmedia narratives to education

Telling stories is a resource that has been used and is commonly used in several areas. It is a process of sociocultural significance that is produced through the negotiation of meanings inside the group in which it is produced [26] and where the transmitters can be very varied. However, integrating transmedia narratives to a course it not an easy job. Experimentation with stories and characters to play, create and mix content is the first step that can be taken in order to help these students to achieve literary and profound understanding [27], whether through an existing transmedia story or one created from scratch [28].

In this article, our intention was to answer the question about how efficient the use of transmedia narration is in education. This has led us to revise various sources with the objective of identify how transmedia narratives are being implemented in education. In this sense, we have detected that its use is effective, though fledgling. The learning frameworks presented even show us that it is possible to use them as support and under agreement when it is a case of thinking about how a learning experience should be implemented. If the objective is to prepare students with knowledge and skills so that they can prosper in their day to day, first we must identify what their challenges are and adapt the learning process in accordance with this. Transmedia Play, for example, is based on the interactions of children with the media that surrounds them and the design principles for learning are in agreement with this reality. In the same way, Connected Learning gathers the ways in which users interact on social media and express themselves through the creation of artefacts online to channel these processes towards learning processes.

The information gathered on these pages also suggests that the creation of a transmedia learning environment requires an urgent redefinition of curricular learning, bring the learning processes closer to the real contexts where people socialise and learn in an information manner, obtaining interpersonal skills. Independently of the narrative or the media selected by the teacher, we must focus on the learning. The content, pedagogy, technology and teaching-learning contexts all have roles to play individually, but also as a unit, and must create a balance between all of the components. For this reason, based on the bibliography analysed, we suggest taking the following steps in a transmedia strategy:

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1. Recognise opportunities to integrate transmedia channels and content that can be used in the classroom. For example, use different parts of a story to connect the narration and extend the experience for the student.

2. Provide a simple and clear connection point for the users. For example, use a website or forum to facilitate the consumption and synthesizing of texts and channels by the readers without having to move between multiple spaces and places.

3. Gather the students to promote the discussion as they synthesise and connect elements through the transmedia flows. For example, allow the users to argue, connect and reflect upon how these narratives, and even those that are not explicitly educational, connect and can bring life to a narration.

4. Permit the response, recreation and remix of the content in a transmedia flow. For example, encourage the students to identify how they can become the authors of their own transmedia stories and extend the narratives that are aligned with the learning objectives of the course.

5. Place the focus on the narrative and not on the technology, working with media that both the teacher and the students are familiar with.

When focusing on the learning objectives, the students focus directly on the tasks to be carried out and on problem solving and critically analysing the content of the course. In the digital era, the changing panorama of the media requires separation from the traditional teaching methods. We see transmedia narrative as a new opportunity to develop another type of learning and new ways of designing learning experiences in our courses. The separation from traditional methods, as well as accelerated development of the technologies, has a strong impact on the educational context.

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