Media profiles and transmedia learning in university students

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Abstract: Taking the consideration that university students' learning occurs in both formal and informal situations as a starting point, the present study focuses on investigating the media profile of these students and the relationship this profile has with learning. The study participants comprised 733 university students who answered an online questionnaire related to their media literacy skills, transmedia practices and learning practices through transmedia resources. The main results show that those students who learn most through the media are more critical; that is, they are actively involved in the creation of transmedia content but are critical in both their consumption and production of such content. In addition, other traits can be added to the profile of students who learn in informal transmedia contexts. The results are discussed in relation to the approaches employed in this new learning ecology.

Keywords: media competences; transmedia learning; university students.

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1 Introduction

In recent decades, a large number of studies have shown the gap between the literacy and learning practices employed by adolescents and young people in relation to informal contexts (for example, fan groups on social networks, video games) and those teaching and learning processes that occur in more formal situations and contexts (Bender and Peppler, 2019; Esteban-Guitart, 2016; Gee and Esteban-Guitart, 2019; Jenkins et al., 2009; Zhang and Cassany, 2019). More specifically, and notable exceptions aside (Händel et al., in press; Page and Reynolds, 2015), prevailing educational practices at the university level are based on transferring content or developing competences regardless of the forms of learning that young people acquire in other learning situations derived from the use of digital devices (Esteban-Guitart et al., 2018; Pereira et al., 2019).

In respect of this, the notion of media convergence (Jenkins, 1991, 2004, 2006) has led to the proposed concept of transmedia learning, which refers to a new public-private

ecology deriving from the interaction of different media (social networks, television, cinema, books, magazines-comics) to construct a narrative or story distributed simultaneously in time and space (Amador, 2013). Such media convergence processes encourage the active participation of users, considered (pro)sumers (creators and consumers at the same time) of the story, narrative or cultural content, who, moved by a particular interest or passion, across the different media platforms to contribute to said story (Rayborn, 2012). It is within this context that the present study focuses on investigating the (trans)media profile of these students and the relationship this profile has with learning, as we will see in the next lines.

If we consider that this new media ecology generates new forms of learning, we must also realise that there is a special competence or set of skills required to successfully move across these media platforms and simultaneously follow the thread of the story being constructed: a transmedia literacy (or transliteracy) (Alper, 2013b; Fraiberg, 2017; González-Martínez et al., 2018; Kline, 2010), the components of which are yet to be studied and developed.

However, studying digital competence in its more general sense leads us to consider, as suggested above, that students may behave differently in more informal activities and contexts (in which digital practices may be a constant) than in their role as university students (Bullen and Morgan, 2011; Bullen et al., 2017). Moreover, just as mere access to information and communication technologies, or the mere presence of a technological or digital device, are not enough to generate learning processes (Esteban-Guitart et al., 2018; Kirkwood and Price, 2005), being competent in transmedia ecologies does not mean that these skills are used for pedagogical purposes, or to promote learning processes (Bullen and Morgan, 2011). In other words, media or digital competence does not always translate into transmedia learning processes (Raybourn, 2012), revealing the need for a more in-depth empirical knowledge of these skills and their relationship with university students' learning processes.

In the following sections the state of the art will develop the principal concepts; a methodological explanation will be offered before describing the main results. They will be discussed within the theoretical framework and them we will offer our conclusions and their implications in educational terms.

2 State of the art regarding transmedia learning

The original notion of 'transmedia', in the assertion used here, dates back to Jenkins' (1991) pioneering work on fan culture and the emergence of highly participatory media culture practices. It is within this context that we witness the appearance of the concepts of media convergence, mentioned above, and participatory culture, the latter alluding to the processes of users contributing, creating and disseminating cultural content and practices in interaction with social and digital media (Jenkins, 2006). That is, on the one hand, new cultural processes are developed via different means (hence the need to be able to navigate between them in order to follow creation flows); and on the other, people become not only consumers but creators, and said creation takes place in the community, not individual, dimension.

However, the term transmedia became widespread to a large extent, although there is not a unique and commonly accepted definition. Specifically, in the field of education, different uses and dimensions can be distinguished. For some authors it denotes a

learning strategy, linked (or not) to didactic storytelling strategies, whereby a narrative is stretched across different media as a way for subjects to face situations in which they must mobilise previously acquired knowledge and develop new skills that allow the story to continue (Benedict et al., 2013; Chung, 2014; Fleming, 2013; Pence, 2012; Silander et al., 2016; Wiklund-Engblom et al., 2013). For other authors, however, transmedia is a product, resulting (or not) from a learning process, and planned (or not) as an educational situation (Tillman et al., 2014; Conner-Zachocki, 2015; Stansell et al., 2015; Pasnik et al., 2016); a core element of the transmedia is the sequentiality of the media. Version 2.0 of the story Cinderella (FCB Global, 2013) can be considered an example of this.

However, if we return to our starting point, that of the learning subject (in the university or another context), we will also see that many of these reflections, when placed in the educational sphere, focus on conditions (characteristics, knowledge, skills, attitudes) relating to the transmediating subject (Alper, 2013a, 2013b; Anderson, 2014; McDougall and Potter, 2015; Rhoades, 2016). And this very much relates to the concept we were talking about earlier, a kind of transmedia literacy that allows the subject to participate actively and productively in the participatory and convergent culture referred to by Jenkins (2006).

In our view, this is the core of the issue. Although the first documenting of the concept of transmedia literacy is found in Kline (2010), as González-Martínez et al. (2018) noted, it does not provide a canonical definition of the concept and, as can be deduced from the above, neither can we expect operational logic in the form of relevant characteristics. That said, it does identify some skills involved in the new teaching and learning demands of the 21st century. Jenkins et al. (2009) themselves identified and distinguished between the different skills necessary to fully participate in the new digital cultural coordinates, which include transmedia navigation, as we shall see: game, performance, simulation, appropriation, multitasking, distributed cognition, collective intelligence, judgement, transmedia navigation, networking and negotiation. However, despite the important contribution of this list of elements, they are not prioritised, and neither is it clear what the most important characteristics might be in terms of learning.

As noted earlier, one of the currents of greater study of transmedia in terms of learning has to do, precisely, with this reflection centred on the subject, on the student (Scolari, 2018). In that sense, although we do not find a specific reflection on the components of transmedia literacy in the educational field per se, the different approaches have been identifying some relevant elements. Among them we can find the ability to navigate by jumping between different media stands out of the transmedia navigation, which we have already noted (Kline, 2010; Alper, 2013b; Benedict et al., 2013; Fleming, 2013; Anderson, 2014; Jover et al., 2015; Grandío-Pérez, 2016 ; Sánchez-Mesa et al., 2016; Fraiberg, 2017); or the jump from a position of pure consumption to the alternation between consumption and production (Guerrero-Pico, 2015; Gürsimsek, 2016; Jover et al., 2015; Roccanti and Garland, 2015; Gordon and Lim, 2016; Lugo Rodríguez, 2016); the necessary element of collaboration and peer interaction (Anderson, 2014; Barber, 2016; Fraiberg, 2017; Gürsimsek, 2016; Miočić and Perinić, 2014; Richardson, 2013; Roccanti and Garland, 2015) and, finally, the critical capacity to analyse and value information (Kline, 2010; Alper, 2013a; Barber, 2016; Checa-Romero, 2016; López Yepes, 2016; Moon, 2016). In short, the literature review of González-Martínez et al. (2018) highlights four elements involved in transmedia literacy, namely: transmediality, collaboration-interaction, prosumer character (which can be

defined as the shift to become a digital consumer and a content producer, from a previous position in which individuals are only content consumers), and critical spirit. In this review, other secondary elements are identified, such as the ethical component or citizenship (Soep, 2012; Miočić and Perinić, 2014; Soriano, 2016), and everything that has to do with creative writing processes from sources previous (Anderson, 2014; Pietschmann et al., 2014; Barbara, 2016; Grandío-Pérez, 2016; Fraiberg, 2017).

As already mentioned, one of the most studied transmedia elements in terms of learning is related to this very reflection on the subject, or the student (Scolari, 2018). With regard to this, although a specific reflection on the components of transmedia literacy is not found in the educational field per se, different approaches have been used to identify some relevant elements. The more notable of these include: the ability to navigate by switching between different media, which, as already noted, is at the heart of transmedia navigation (Kline, 2010; Alper, 2013b; Benedict et al., 2013; Fleming, 2013; Anderson, 2014; Jover et al., 2015; Grandío-Pérez, 2016; Sánchez-Mesa et al., 2016; Fraiberg, 2017); the leap from a position of pure consumption to alternating between consumption and production (Guerrero-Pico, 2015; Gürsimsek, 2016; Jover et al., 2015; Roccanti and Garland, 2015; Gordon and Lim, 2016; Lugo Rodríguez, 2016); the necessary element of collaboration and peer interaction (Anderson, 2014; Barber, 2016; Fraiberg, 2017; Gürsimsek, 2016; Miočić and Perinić, 2014; Richardson, 2013; Roccanti and Garland, 2015) and, finally, the critical capacity to analyse and assess information (Kline, 2010; Alper, 2013a; Barber, 2016; Checa-Romero, 2016; López Yepes, 2016; Moon, 2016). By way of an overview, the literature review by González-Martínez et al. (2018) highlights four elements involved in transmedia literacy, namely: transmediality, collaboration-interaction, the prosumer character, and critical spirit. The review also identifies other secondary elements, such as the ethical component or citizenship (Soep, 2012; Miočić and Perinić, 2014; Soriano, 2016), and everything to do with creative writing processes based on prior sources (Anderson, 2014; Pietschmann et al., 2014; Barbara, 2016; Grandío-Pérez, 2016; Fraiberg, 2017).

However, all of the above are still theoretical or aprioristic conceptualisations, the empirical literature being very scarce in this regard, and, thus, the research gap. Furthermore, these previous studies make no link between transmedia competences and learning processes. In view of this, the aims of the study described here were, on the one hand, to identify the transmedia competences and profile of university students, using two existing instruments to measure new literacy's in university students (Literat, 2014; Koc and Barut, 2016), and on the other hand, to observe the relationship between these transmedia competences and learning, through the employment of different items that will be described later on in the 'Instruments' section.

Our contribution aims to shed light on the characteristics of university students in relation to their transmedia practices applied to learning and, above all, in relation to their profile. To this end, we address the following research questions:

- What are the (trans)media characteristics of university students?
- What kind of relationship (correlation, dependence, cause-effect, etc.) is established between their personal transmedia competences and the transmedia competences that they apply in their learning?

These questions are incorporated within the following research objectives:

- RO1: to characterise the transmedia profile of university students.

- RO2: to analyse the relationship between personal transmedia practices and transmedia practices applied to learning.

3 Method

3.1 Participants and procedure

Considering the universe of undergraduate university students, it was decided to work with an accessible and incidental sample comprising students from all academic years studying any type of degree course at the University of Girona. The planning for this research was based on the previous conceptualisations and the review of the state of the art; then the instruments described below were selected and adapted and validated in Spanish); once the sample was selected, access to the field was designed and participants were recruited according to the following procedure.

Participants voluntarily answered the triple questionnaire, administered in a single online sitting, at the request of the research team and under the auspices of the Vice Chancellor for students (SVC). They were contacted twice by an e-mail sent from the SVC office. The fieldwork was carried out between the months of March and April 2018.

Table 1 Characteristics of the participants

Variable	*Frequency*	*%*
Gender		
Female	580	78.1
Male	150	20.5
Non-classified	3	0.4
Age		
18–20 y	370	50.5
21–25 y	303	41.3
26–30 y	31	4.2
31–35 y	14	1.9
36–40 y	6	0.8
> 41 y	9	1.2

From a population of 10,164 degree students, 733 respondents answered the call (N = 733). As Table 1 shows, by gender, 78.1% of the sample were female, 20.5% were male and 0.4% decided not to classify themselves (since the gender variable has not appeared significative at this point, maybe due the imbalance in our sample, and no relevant differences can be found at this point, we are not going to focus on that in this paper, but we will do in previous steps of this research, as deep as the issue deserves). Regarding the age, most of the sample was between 18 and 25 years old, while less than 10% of the participants were over 26 (which compromises the possibilities of deeply analyse this variable). For the record, not a relevant part of students from a specific field of information and communication technologies (informatics would be in our case the closest area) answered the questionnaires nor were their results significantly different from those general.

3.2 Instruments

For the purposes of this investigation, it was decided that two existing instruments should be used, both taken from the conceptual sphere of new media literacy's. On the one hand, the new media scale (Literat, 2014), which develops the categories posited by Jenkins et al. (2009), and on the other, the new media scale for university students (Koc and Barut, 2016). Despite it being an attempt to apply this same conceptual background to university students, the latter does not directly translates Jenkins' (or by extension Literat's) categories, but rather focuses on four elements that these authors consider relevant: critical consumption, functional consumption, critical prosumption and functional prosumption.

Given the limitations of both questionnaires in providing an accurate view on how much university students effectively transmediate in relation to learning, an appendix was designed to add to both questionnaires that addressed this issue. This appendix was based on the characteristic elements of both conceptual approaches and covered everyday personal practices and their application to learning processes.

These three questionnaires were composed of items with Likert scale (five points); Literat (2014) presents 60 items that are grouped in the 12 dimensions of the new media literacies (NMLs); Koc and Barut (2016) presents 36 items that give rise to the four dimensions of the instrument; finally, the transmedia learning appendix is composed of six more items that allow to collect the self-attribution of learning preferences in the transmedia context.

An analysis of the reliability coefficients found that they were acceptable for the ranges commonly admitted in the educational field. These are detailed in Table 2.

Table 2 Reliability indices

Scale	*Cronbach's alpha*
Literat (2014)	0.910
Koc and Barut (2016)	0.927
Transmedia learning	0.702

4 Results

For clarity, we have organised this section according to the previously formulated research questions and objectives.

In relation to the transmedia competences of university students, the results in Table 3 show above average scores in all of the considered competences, with the following being especially significant: 'collective intelligence' (4.12 out of 5) and 'distributed cognition' (4 out of 5) from Literat's (2014) questionnaire on new media literacy's, and 'functional consumption' (3.91 out of 5) and 'functional prosumption' (3.76 out of 5) from the scale designed by Koc and Barut (2016). Thus, on the one hand two competences stand out related to collaborating with other people and expanding one's own cognitive skills through the media, and on the other two behaviours stand out related to the functionality of the media: one referring to consumption and one to contribution to media content (prosumption).

Another issue that we have addressed is the analysis of relationships established between university students' transmedia practices in their personal activities and those transmedia strategies that transfer to learning processes, whether formal or informal. Pearson's correlations between each of the dimensions in the two questionnaires and the transmedia learning variable prove very useful to this end.

All of the correlations are positive, and the first proof that we therefore find is related to the fact that those subjects who use most transmedia practices in their personal practices also do so in their application to learning processes. However, although these are all significant and positive, they are not all of equal strength. From Table 3, we therefore see that the strongest correlations are those that include the 'critical' element (critical consumption and, above all, critical prosumption); thus, those who produce in a more critical way use more transmedia practices in their learning.

With regard to Literat's dimensions (2014), all correlations are also significant and positive, therefore confirming that the participants with the highest scores on the NMLs are those that apply them most to their learning processes (as explained in the previous sections). In this case, the strongest correlations are appropriation (related to the remix concept referred to in previous sections), transmedia navigation and those relating to the element of collaboration (networking and negotiation).

Table 3 Main descriptive results and correlations with transmedia learning

	M	*SD*	*Correlation with dependent variable*
Koc and Barut (2016)			
FuncConsum	3.91	0.61	0.523***
CritConsum	3.56	0.56	0.634***
FuncProd	3.76	0.67	0.583***
CritProd	3.26	0.66	0.681***
Literat (2014)			
Game	3.67	0.67	0.394***
Simulation	3.49	0.81	0.429***
Performance	2.96	0.71	0.391***
Appropiation	3.16	0.74	0.573***
DistribCognition	4.00	0.58	0.373***
Multitasking	3.66	0.68	0.426***
ColletIntel	4.12	0.56	0.444***
Judgement	3.88	0.59	0.460***
TransNav	3.75	0.70	0.544***
Network	3.25	0.76	0.552***
Negotiation	3.73	0.74	0.556***
Visualisation	3.82	0.56	0.450***
Learning	3.30	0.61	1

Note: ***$p < 0.001$.

As we can see, most of the variables have moderate or strong correlations (Hinkle et al., 2003).

A further step is the construction of a regression model based on these dimensions and transmedia learning, as this will allow us to determine which will be predictors of our study variable (in order to guide educational intervention in the university field, for example). As we see from Table 4, in doing this we obtain an eight-step model, with the following predictors (in order): critical production, networking, critical consumption, appropriation, transmedia navigation, collective intelligence, game and negotiation. This model has an adjusted R^2 of 0.614, the first predictor of which explains 46% of the variance, which is highly interesting from the explanatory point of view (a very powerful predictor, critical production, combines with other predictors of a lesser weight). As we can see, this is in line with what we saw when analysing the correlations, especially the correlation between critical production and transmedia learning, which was also the most relevant variable in that case.

It should be noted that despite entering the model and being explanatory, the variables 'collective intelligence', 'game' and 'negotiation' add a very low percentage to the variance (1% among the three variables).

Table 4 Contribution of eight variables to transmedia learning

Variable		*Adjusted R^2*	*Change in R^2*	*t*	*p*
Step 8					
(Constant)				–0.666	0.506
Critical production	0.225	0.463	0.463	6.046	< 0.001
Networking	0.176	0.526	0.064	5.853	< 0.001
Critical cons	0.206	0.571	0.045	5.947	< 0.001
Appropriation	0.161	0.593	0.022	5.409	< 0.001
Transnavigation	0.108	0.606	0.014	3.596	< 0.001
Collective intelligence	0.053	0.610	0.005	1.887	0.060
Game	0.062	0.612	0.003	2.326	0.020
Negotiation	0.069	0.614	0.002	2.160	0.031

Note: Stepwise regression model with predictors for transmedia learning (R^2 total for the model = 0.614, with overall significance of 0.031).

5 Discussion

The study described here was designed to meet a dual objective. On the one hand, to characterise the transmedia profile (transmedia competences) of a sample of university students. And on the other, to analyse the relationship between personal or daily transmedia practices and learning practices.

In relation to the first objective, the results suggest that the surveyed students display a strong profile with regard to these new competences. This is especially true of skills related to collaborating with others in setting common goals, the ability to significantly interact with instruments that expand mental abilities, collective intelligence and distributed cognition (Jenkins et al., 2009). Furthermore, they also display competences related to 'functional consumption', strategic and effective use of the media to search for and find content and information, understanding the dimensions involved in the media and 'functional prosumption' – understood as the skills needed to create profiles and

develop and share their own media content and that produced jointly with others, through comments or even reviews-evaluations (Koc and Barut, 2016). In this sense, our results are in line with those found in the study by Koc and Barut (2016), which also highlighted these two competences, in particular, functional prosumption and functional consumption. With regard to the study by Literat (2014), it did not describe the results obtained for the different assessed competences, which means that we cannot contrast them with the results obtained in our study. That being said, we can conclude by highlighting the strong transmedia profile displayed by the surveyed students measured using the instruments described above. A profile emerges of competences linked to collective work, networking and processes of authorship and participation in the current media ecologies characterised by collaboration with peers and based on a shared interest that allows the joint construction of content and experiences (Anderson, 2014; Barber, 2016; Ito et al., 2019). This is what Jenkins et al. (2016) summarised with the expression of a type of logic based on doing something together ('doing it together') versus an individualised logic of personal expression ('doing it yourself').

In relation to the second objective, that of linking these competences with the variable 'transmedia learning', positive correlations is observed for all of the variables. Specifically, the competences that are most linked to transmedia learning are: critical production and critical consumption, from the Koc and Barut (2016) questionnaire and 'appropriation' and 'negotiation'. From the Literat questionnaire (2014), the items 'networking' and 'transmedia navigation' also stand out with scores of over 0.5. This indicates that those students who are more critical in terms of consumption are also more critical in the production of media content. In addition, those who display skills in searching, synthesising and disseminating information, networking, or following stories and information via multiple media platforms and modes, referred to as 'transmedia navigation' (Jenkins et al., 2009), display a higher correlation with the 'transmedia learning' construct, understood as the critical capacity to use different media platforms for purposes related to learning itself. In other words, those who display critical competences and practices with regard to relationships ('networking') and transmedia in their personal and daily uses and activities are those who obtain higher scores in the 'transmedia learning' construct. This, in turn, suggests that they also make these skills available for learning purposes, leading us to suggest that a change in the role of the student can also be identified in the field of learning: from the more traditional, receptive-passive positions (based also on the use of traditional means) to a more active position committed to criticising, identifying, creating and disseminating content and information via the contribution and monitoring of different media platforms over time (Kline, 2010; Alper, 2013a; Guerrero-Pico, 2015; Barber, 2016; Checha-Romero, 2016; Gordon and Lim, 2016; López Yepes, 2016; Moon, 2016; Scolari, 2018). In summary, although all the competences considered obtain positive and statistically significant correlations with the 'transmedia learning' construct, in light of the regression model performed, in which the variable 'critical production' is the most powerful predictor of the explanatory model, critical production stands out as the most significant factor in relation to transmedia learning. And this media character implies going beyond functional use to incorporate, along with the capacity to participate and contribute in the production of new media content, one's beliefs and ideas, negotiating them with others, and considering the impacts and consequences of media participation (Koc and Barut, 2016).

However, this tendency must be contrasted by further research, both quantitative and qualitative, that explicitly analyses the impact of these competences, and especially the role of 'critical production', in learning processes.

We would also suggest that future research address the need to qualitatively contrast informal media practices, or those in everyday use, with those used for academic-educational purposes, partly reflected here by the 'transmedia learning' construct.

Regarding the limitations of the study, we would highlight the procedure for recruiting participants in the sample. Specifically, the subjects were invited to participate in the study through an institutional email in most cases, and in the classroom itself in others. This means an incidental sample was obtained that does not follow recruitment procedures such as stratified or cluster sampling, particularly suitable for obtaining representative and synchronous samples in relation to the general characteristics of the population (Silva, 1993). Furthermore, the sample included students on the information and communication technologies degree course, which may potentially act as a bias towards participants who are sensitised, knowledgeable and digitally literate compared to other students. With regard to the questionnaires used, and especially the scale for evaluating the 'transmedia learning' construct, this needs to be improved for future use, despite having been approved by a panel of experts. Although the aim of our study was not to validate the different instruments used, two of them having already been validated in previous studies, more robust instruments are required to evaluate transmedia learning.

In conclusion, this study has detected a strong profile of the so-called new literacy skills among a sample of university students, especially with regard to the following variables: 'collective intelligence', 'distributed cognition', 'functional consumption' and 'functional prosumption'. It has also revealed a positive correlation between the competences considered and the 'transmedia learning' construct, especially the variable 'critical production', but also 'critical consumption', 'networking' and 'transmedia navigation'. This tendency naturally requires further exploration using quantitative, but also qualitative, designs and approaches in future research.

6 Conclusions and implications for education

We began this reflection by referring to the gap that exists in different fields between university students' personal and academic practices: both in the more general sense and in the formal learning of higher education. In respect of this, we asked what might be the core elements of this transmedia learning that is now becoming a more regular focus of debate (and, one step further, what might be the special skills or conditions that those students who most apply the transmedia strategies present in their lives to their own learning processes). As we have seen from the results, the constructed theoretical models generally coincide with the data we collected in this study. Thus, from the correlations between our dependent variable (transmedia learning) and the different indicators in both instruments, we find that those elements with greater prominence align with the theoretical model referred to above. In reference to this, we noted four major elements of the first order (González Martínez et al., 2018): transmedia navigation, the leap to

production, collaboration and interaction and, finally, critical capacity. Two of these elements (in the form of a single indicator) were found abundantly in our data, proving to be the axis on which transmedia learning pivots: those participants who are the most critical producers (those who have made the leap from consumption to production and critical capacity) are the ones that seem most likely to mobilise these strategies not only in their personal sphere, but also in the service of their own learning. This is what we find in references to citizenship (or the critical element that regulates media action) (Alper, 2013a; Barber, 2016; Checa-Romero, 2016; Kline, 2010; López Yepes, 2016; Moon, 2016) and what emerges as the transition from a passive to an active role in the relationship with media content itself (Guerrero-Pico, 2015; Jover et al., 2015; Gordon and Lim, 2016; Lugo Rodríguez, 2016; Roccanti and Garland, 2015; Gürsimsek, 2016; Scolari, 2018). This critical element also stands out, indirectly, in the strong correlation with the critical consumption variable (not linked here to the leap to production, but to the capacity for evaluation and establishing one's own criteria). Also consistent with this model is the fact that the following significant and positive correlations in our study are transmedia navigation, which points to the idea of sequentially changing the medium in time with the narrative that confers unity on the process (Kline, 2010; Alper, 2013b; Benedict et al., 2013; Fleming, 2013; Anderson, 2014; Jover et al., 2015; Grandío-Pérez, 2016; Rampazzo-Gambarato and Dabagian, 2016; Munaro and Vieira, 2016; Sánchez-Mesa et al., 2016; Fraiberg, 2017) and the values of appropriation, networking and negotiation, which abound in the necessary collaboration with the peers with whom one coexists in the ecology of transmedia learning and with whom knowledge is constructed (in parallel, sequentially, or with concrete intersections) (Richardson, 2013; Anderson, 2014; Miočić and Perinić, 2014; Barber, 2016; Roccanti and Garland, 2015; Gürsimsek, 2016; Fraiberg, 2017).

Finally, it becomes evident that the leap to critical production is at the core of transmedia learning. In this sense, if we return to the definition of the concept itself, we will understand that "a functional prosumer is able to participate in production of new media content in various media platforms, whereas a critical prosumer can also convey his/her own beliefs, negotiate with others' ideas and consider expected impacts during media construction and participation" [Koc and Barut, (2016), p.835]. And, besides, we will see the potential this leap has in terms of its contribution to the characteristics of the prototype transmedia university student: although the sample as a whole does not especially stand out for its values in this variable, it is the one that contributes most as a predictor to transmedia learning, meaning it can be established as a possible line of action for enhancing transmedia education and taking into account the new ecology of learning, in both informal and formal contexts.

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