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Merging social computing with content: a proposal of a new film platform, Avids

ABSTRACT

Film consumers are continuously online and active in various social platforms. This phenomenon has led over-the-top (OTT) providers – empowered by social computing technologies – to establish a social media presence and incorporate elements drawn from social media into their services. However, little is known about existing OTT interfaces and their key social features. This study sought to provide a structured categorisation of the most salient social media features of the best-known applications in the OTT video business. In addition, a new social content network model, Avids, was proposed to connect individuals socially through films. Avids reaches beyond more fixed, functionality-based approaches applied in the development of OTT video sites and focuses on components related to sociality. This approach ensures a unified system in which the overall social media setting is embedded in every functional area of the platform's architecture, thereby allowing applications to trigger and support social behaviours absent from traditional OTT providers. A purpose-built international online survey was administered to 479 film lovers to assess how Avids' main features compare with traditional OTT video providers. The questionnaire was based on the technology acceptance model. The results confirm the critical role of sociality in film viewing-related activities.

KEYWORDS: Social network sites; over- the-top (OTT) providers; streaming services; film-centred sociality; prototype

1. Introduction

In recent years, consumers have been exposed to a broad stream of Web-based social applications (e.g. Letterbox, Flickchart and Criticker) and over-the-top (OTT) services (e.g. Netflix and Hulu), as well as a proliferation of individual and portable digital devices. These technological innovations make films easier to watch, thereby disrupting traditional practices in the film landscape. New services have radically transformed how individuals access (e.g. device-shifting, with services easily accessible on any device with a Web browser), watch (e.g. time-shifting and binge-watching) and interact around video content (e.g. rating, reviewing and sharing) (Bouman et al. 2008; Cesar and Geerts 2011; Vassileva 2012; Maskin et al. 2014; Balanzategui, Burke, and Golding 2018).

The practices surrounding on screen entertainment are thus going through a significant transition period driven by digital media platforms. These ubiquitous services show that a significant part of individuals' lives is now spent online, leading to increasingly individualised forms of film reception and a retraction of traditional social principles, which has further individualised contemporary society (Cetina 1997, 2009; Carpentier, Schröder, and Hallett 2013; Adolf and Deicke 2015; Ericsson 2016a). As film audiences have incorporated new media technologies into their behaviours and narrowed the focus of their consumption to pursue individualised interests and needs, many observers have become convinced that OTT video is eroding communal aspects of film viewing. Some experts are worried that these services will lead to a loss of social capital and further social isolation. This may mean that an increasing number of film consumers could experience alienation or lack a sense of belonging if they cannot find new ways to develop fulfilling social relationships with their peers (Tewksbury 2005; Napoli 2011; Tryon 2013; Helles et al. 2015; Wiard and Domingo 2016).

Many film consumers are continuously online and active in various social platforms (e.g. social networks, online forums, blogs and social media sites). Therefore, leading OTT providers – empowered by social computing technologies – have sought to establish a social media presence and incorporate elements drawn from social media into their services (Albarran and Moellinger 2013; Oestreicher-Singer and Zalmanson 2013; Lee 2014). These implementations have proven useful, but users' film viewing activities are increasingly solitary and shared social experiences are more fragmented. The present research was based on the proposal that social elements need to be more than just add-ons to traditional content and, instead, become integral parts of OTT websites. Films should thus be included in expanded conceptualisations of sociality and social relationships (Cetina 1997; Marie, Gandon, and Ribière 2011; Weide, Kevorkian, and Ireland 2011; Lee and Garg 2012; Adolf and Deicke 2015). We thus argue that collective activities motivated by a love of films serve networking's primary purpose, and film-centred sociality can be facilitated by social content networks (SCNs) (Kaptelinin 2005; Breslin and Decker 2007; Lee and Garg 2012). SCNs' development, therefore, needs to involve the fusion of OTT video provider and contact-oriented social network functions (Weill and Vitale 2001; Tapiador, Fumero, and Salvachúa 2010) so that films can be deeply interwoven with social features to create highly personalised experiences. At the root of these experiences are connections to other users, with films becoming a vehicle for connection building (Weide, Kevorkian, and Ireland 2011). To create effective social environments that expand film lovers' online social experiences, a

research-based 'benchmark' was needed to facilitate a comparison of the current social media configurations of specific OTT websites. The objective was to identify which features of cinephile users' social media experiences have not yet been covered by these sites. However, after reviewing the relevant literature, we realised that little is known about existing OTT interfaces and their key social features. The present study, therefore, sought to overcome these gaps and add to the existing literature in three main ways. First, this is, to the best of our knowledge, the first study to provide a structured categorisation of the most salient social media features of the best-known OTT video applications. Second, this research included developing a proposal for a new SCN model that reaches beyond a functionality-based approach to social software design and focuses on offering users more choices related to sociality. Last, the study's theoretical framework included the assumption that SCNs represent a step forward in the evolution of content websites, as they can provide suitable spaces in which users consume, connect and instantly share multimedia information between like-minded individuals (Nextmedia 2010). The present results are based on an extensive international online survey targeting film-lovers, which confirmed that the SCNs' sociality aspects are absent from traditional OTT video providers but are of paramount importance to this kind of user.

This paper is organised as follows. In the next section, we describe the upsurge of OTT multimedia platforms, followed by an examination of their social media strategies and a comparison of media features present in their current interface environments. Section 3 discusses the steps involved in the information technology (IT) fusion approach and discusses the core elements of a new SCN model. In Section 4, we present a conceptual blueprint of the overall social experience in the new proposed platform. We conclude by emphasising the role of SCNs in reintroducing sociality and supporting social behaviours that are absent from traditional OTT services.

2. Convergence process: emerging OTT multimedia market

2.1. Rise of social multimedia platforms

OTT video is defined as the delivery of video content over networks not managed or paid for by content providers. OTT video services are called 'over-the-top' because they are carried along or 'on top of' existing telecommunication lines and delivered to customers via the Internet (Taga et al. 2012; Maskin et al. 2014; NMHH 2014). Providers of 'pure play' video (i.e. not provided directly by telecom operators) include household names in content delivery such as Netflix, Hulu, YouTube and Amazon. These companies have taken advantage of a series of radical innovations in converging fields (e.g. digital video, compression algorithms, fibre optic transmission systems and social computing) and have developed a new type of media platform. Besides online videos, these providers offer multimodal data (e.g. text and image) simultaneously in one media platform (Pagani 2008; Papacharissi 2010; Vartanova, Makeenko, and Vyrkovsky 2013; Sang 2014). The OTT video services Netflix, Hulu, YouTube and Amazon are part of this technological paradigm, which includes access via the Internet and which supports a set of social activities (e.g. sharing content) by allowing users to interact with multimedia and with other individuals through social dialogue (Pagani 2008; Sang 2014).

Until recently, many OTT video providers were in the 'connection phase' of their IT strategy (El Sawy 2003; Oestreicher-Singer and Zalmanson 2013), perceiving the Web only as a supplemental channel to traditional content offerings (O'Reilly 2005; Oestreicher-Singer and Zalmanson 2013). With more viewers turning to OTT content (Skytide 2013) and the emergence and success of social computing, many OTT providers entered into the 'immersion phase' (El Sawy 2003; Oestreicher-Singer and Zalmanson 2013). They started to connect actively with consumers on other major social media platforms (e.g. Facebook and Twitter) and to incorporate more significant social media functionalities, thereby generating increasingly enriching consumption experiences (Alcatel-Lucent 2011; Lopasso 2011; Weide, Kevorkian, and Ireland 2011). To this end, OTT providers became platforms for multimedia content delivery and social interaction (Benevenuto et al. 2009; Tian et al. 2010; Yan, Qian, and Ji 2013). To enhance their online experiences, users were encouraged to engage with the content provided and other users by posting comments, conversing in user forums and sharing content – either on the websites themselves or through the existing popular social computing platforms (Oestreicher-Singer and Zalmanson 2013).

OTT websites have thus clearly evolved, but, according to Oestreicher-Singer and Zalmanson (2013), they still emphasise content rather than social experiences. While many consumers may find watching films is enough, others also experience pleasure from socialising with individuals who share similar tastes and interests in films. Through finding and joining clusters of people who share the same interests, film lovers can gain a sense of belonging to specific groups (Di Foggia 2012; Tryon 2013; Yan, Qian, and Ji 2013; Menarini and Tralli 2016).

In an increasingly networked world, interacting and socialising with others around films is often mediated by technology, but OTT providers remain primarily final destinations to watch video content. Film-related communal

experiences are thus dispersed through a variety of online silos, which requires users to migrate across cyberspace to various OTT websites to watch films. These individuals then switch to social platforms to network with other film lovers and engage in passionate debates about films (Weide, Kevorkian, and Ireland 2011; Oestreicher-Singer and Zalmanson 2013; Tryon 2013; Zolkepli and Kamarulzaman 2015; Shambu 2016). This process results in counter-intuitive, fragmented experiences that limit film-based social interactions and leads to a multiplicity of incoherent, disconnected relationships. Film lovers are forced to move continually from OTT sites to multiple social multimedia locations (Marie, Gandon, and Ribière 2011; Weide, Kevorkian, and Ireland 2011; Oestreicher-Singer and Zalmanson 2013; Tryon 2013).

2.2. Challenges for effective social multimedia experiences: forgotten elements

In a social age characterised by the rise of social multimedia platforms and corresponding changes in online behaviour, OTT video providers such as Netflix, Hulu, YouTube and Amazon are now facing the challenge of how to improve their business models. These providers are seeking more creative strategies to offer more engaging social experiences (Yan, Qian, and Ji 2013).¹ However, as video consumption is their core business, moving from experimenting with social tools to making these a core part of their services has various implications (Venturini 2011; Crumlish and Malone 2015).

Social media deployment has introduced extensive changes into OTT environments. Thus, the argument can be made that one of the most complex challenges content providers encounter when embracing social media or strategies for engaging with other social media sites is blending dynamic social media processes with more traditional infrastructure (Porter 2008; Crumlish 2009; Kietzmann et al. 2011; Venturini 2011; Wollan 2012). Nonetheless, what makes social media significant as a category is not technology, given that the most prominent technological features have been available for years. Instead, socio-technical dynamics have unfolded as individuals embrace these technologies and use them to collaborate, share and socialise (Ellison and Boyd 2013; Crumlish and Malone 2015).

Therefore, the present research confirmed, as have previous studies (e.g. Ackerman 2000; Porter 2008; Oestreicher-Singer and Zalmanson 2013; Crumlish and Malone 2015), that the biggest challenge for OTT providers is social, not technological. OTT services currently, on a functional level, are not designed to take advantage of social interactions, and users' need for explicit interaction, social enhancement and communication is largely ignored (Yan, Qian, and Ji 2013; Sang 2014). However, consumers are increasingly going online to watch films, and online society is essentially a system of individuals engaged in social multimedia websites, interacting online with each other. Thus, OTTs' success depends heavily on the architecture that supports social interactions in order to construct and reproduce users' social relationships (Ackerman 2000; Whitworth 2009; Sang 2014; Ericsson 2016b).

While communal film experiences are becoming less prevalent, film lovers around the world are still looking for similar individuals with whom to connect socially through films. Cinephiles continue to rely on networks of like-minded individuals to help identify other film lovers and to choose which content to view. However, OTTs have paid little attention to these consumer groups or their cravings for social integration and ways to connect socially through films (Rosenblatt 2011; Jenkins, Ford, and Green 2013; Governo, Teixeira, and Brochado 2017).

This gap between services and social interactions is unlikely to disappear if researchers fail to describe more accurately the social requirements of the ideal contemporary film experiences and the services OTT providers have to offer (Dwyer 2007). According to Pine and Gilmore (1998), film experiences encompass the two main characteristics of service experiences: customer participation and connection. The present study was based on the assumption that significant constraints could only be identified by exploring social media activity in OTT ecosystems. The proposed platform sought to close the aforementioned social-technical gap and support the social behaviours that OTT service users currently desire (Dwyer 2007; Porter 2008; Crumlish and Malone 2015). The next section describes this platform in more detail.

3. Elements of a new platform for films: methodological and practical issues

3.1. Categorisation of OTT services based on the social media honeycomb framework

As digital media technologies continue to transform video consumption patterns, the logic users follow during interactions is also changing. Consumers are using various platforms to watch, share and discuss online content (Kietzmann et al. 2011; Sang 2014; Governo, Teixeira, and Brochado 2017). This behaviour mirrors the social media phenomenon as a whole. Although social media is clearly extremely powerful and it has significantly impacted the content service industry, many OTT video services have been unable to develop effective strategies to engage with social media (Kietzmann et al. 2011). This gap in services is due to an inadequate understanding of users'

online behaviours, which can be remedied by applying the social media honeycomb framework.

The honeycomb model (see Kietzmann et al. 2011) is a framework developed to help companies interested in social media. This approach defines social media activity as having seven core functional traits (see Table 1's first column): identity, relationships, presence, sharing, reputation, conversations and groups (see Kietzmann et al. 2011; Ahn and Lee 2015).² These seven building blocks are, according to Kietzmann et al. (2011), constructs that help media companies make sense of how different levels of social media functionality can be configured.

Netflix, Amazon, YouTube and Hulu³ have allocated the necessary resources to offer more engaging social experiences through social media functions (Yan, Qian, and Ji 2013). These functionalities are based on the features and set of actions users can take in the media applications themselves (Dron 2007; Porter 2008; Dawot and Ibrahim 2014). Therefore, an investigation into these OTT providers' socio-technical context in light of the honeycomb framework, should unveil which elements support the applications' primary activity and which aspects of social media experiences have not been covered yet (Porter 2008; Yan, Qian, and Ji 2013; Dawot and Ibrahim 2014; Crumlish and Malone 2015).

To describe the socio-technical context of these websites, we examined studies that mention social media and/or network features (Boyd and Ellison 2007; Farzan et al. 2008; DiMicco et al. 2009; Kim, Jeong, and Lee 2010; Rohani and Hock 2010; Roy 2010; Holtzblatt and Tierney 2011; Tapiador and Carrera 2012; Ellison and Boyd 2013; Dawot and Ibrahim 2014; Ahn and Lee 2015). After the literature review, we connected each item to the pertinent building block and then made a list of the specific features found or not found in OTT video services. Next, after signing up on each OTT website (i.e. Netflix, Hulu, Youtube and Amazon), we performed a predetermined set of actions. These enabled us to identify, using a checklist created for this study, the available or unavailable features and to list them under the corresponding social media functional traits (see columns 1, 2 and 3 in Table 1 above). The analysis and categorisation of core features were done between September and October 2015.⁴

To carry out these tasks, we conducted on-site observations. This research methodology is, according to Porter (2008), one of the most effective ways to discover how a system functions. Contextual research involves researchers going out into users' environments to observe and gather first-hand knowledge of activities, operations and processes of systems on-site. This provides objective insights into how individuals currently perform activities on websites and what parts of those activities are not well-supported (Porter 2008; Vu and Proctor 2011). This immersion not only uncovers unexpected needs, opportunities or challenges but also offers a means of re-evaluating assumptions about what users' needs actually are (Porter 2008; Vu and Proctor 2011).

The results based on the data collected and the honeycomb model's seven functional traits reveal that no OTT video provider focuses on all elements. Instead, the surveyed sites' core structure (see columns 4, 5, 6 and 7 in Table 1 above) tends to concentrate on functions such as sharing (e.g. share buttons) and carrying on asynchronous conversations through reply buttons used to post comments.

OTTs are media-centric websites, so they do not value identity highly. User profiles are decentralised and depreciated as destinations, and users do not have opportunities to disclose their personal profile to others or the means to do any self-presentation. To these services, including YouTube, relationships hardly matter. 'Subscriber' is the type of connection used when content is more important than personal relationships (Kietzmann et al. 2011; Crumlish and Malone 2015). This term is used for a common form of one-way connection that does not require reciprocation. It is essentially a subscription allowing access to users' contributions within a system, which means that, when users follow or access another user's content, they are only expressing their interest in the other user's activity and not in a relationship with this user (Tapiador and Carrera 2012; Crumlish and Malone 2015).

While the number of subscribers and/or YouTube number of views (e.g. a film uploaded by a user) allows users to identify some level of reputation through users' tastes, the users' reputation does not have an impact on social relationships. Since YouTube does not support a social connection that indicates an explicit relationship, the degree of proximity among its users is extremely low. In addition, although films are defined as social activities meant to be shared with friends (Tryon 2013), these websites do not have a social structure that creates social circles and drives deeper user-to-user engagement. The only public visibility and interaction users can have is through reply buttons that allow them to submit new related content, such as text comments or reviews – in some cases through Facebook.

Table 1. Overview of streaming video services based on honeycomb social constructs.

Building blocks and functionalities	Actions	Social features design	Netflix	Hulu	YouTube	Amazon
Identity: Ways individuals are uniquely identified in the system	Is there a profile page? Is there any functionality to introduce users' identity with clear and appropriate information to other users?	Public and private profiles			✓	
Presence: Ways users know who is online, sharing the same space at the same time	Who is online, sharing the same space at the same time? Is there a presence indicator that conveys to the entire world or to a user's connections that this user is currently online and available for communication? Does the website include a user activity timeline or wall?	Mechanism to display presence status Activity streams/ friend's feed				
Relationship: Descriptions of how two users in the system are related or can relate to others	When another user account is found, can this user be added as a contact? How are users in the system related or able to relate to others? Does the site require confirmation from the other party (bidirectional) or not (unidirectional)?	Mechanism to show friends of friends Bidirectional (with confirmation) Unidirectional (without confirmation)				✓
Conversation: Resources for communication among users (synchronous and/or asynchronous).	How can users connect and interact? Is there any mechanism to send and receive online messages? Is real time communication between friends possible?	Live chat Message board Comments/reviews	✓	✓	✓	✓
Groups: Possibilities to form communities of interest, ideas or opinions	Can users form a community or sub-communities? Are these open to anyone (e.g. followers or subscribers) or those invited or is approval required (e.g. friends)?	Approval required Open to anyone				✓
Reputation: Ways users know the status of other people in the system (e.g. whose taste can be trusted)	Is there a functioning reputation system with stable, persistent identities? Can users rate content? Can they classify video content quality and help other users decide to watch content or not? Can users identify other noteworthy members of the community?	Ratings of user-generated content Lists Comments/reviews			✓	✓
Sharing: Ways things that are meaningful to users are shared (e.g. links and videos)	Can users contribute text comments or other types of basic content? Can they classify content quality and help other users decide to watch it or not? Are there ways for participants to convey their knowledge and opinions?	Activity streams/ friend's feed Comments/reviews Ratings Share buttons (e.g. Facebook button) Lists	✓ ✓	✓	✓ ✓	✓ ✓

Source: Authors' own elaboration.

OTT providers also do not pay attention to the principles of sociability, as they have not embedded relevant items that enable social presence and direct conversations (see Dron 2007; Yan, Qian, and Ji 2013). Based on the current study's on-site observations, these functions have not developed to the point of facilitating private conversations among users, and no OTT website has included private communication mechanisms (e.g. live chats or private messages) to facilitate users' self-disclosure and social interactions (Ren, Kraut, and Kiesler 2007). Any patterns of interaction through conversations mostly appear in the form of components of social media for public communication, such as comments and film reviews. In some cases, such as Netflix, this function even fails to display the identity of users and, consequently, to encourage interactions and communication among users (Yan, Qian, and Ji 2013; Crumlish and Malone 2015). An activity timeline with a list of actions, which keeps users aware of the activities performed by their friends and gives them a sense of what is happening in the system, is also not included.

The present on-site observations provide support for the idea that OTT video providers still perceive social computing features as complementary rather than an integral part of their platforms' offerings (Dron 2007; Wollan 2012; Oestreicher-Singer and Zalmanson 2013). In addition, although the old adage 'content is king' remains truer than ever, these providers appear to have failed to notice that consumer experiences rule in the Digital Age (Dobberstein et al. 2012; Oestreicher-Singer and Zalmanson 2013; Viviez, Firth, and Biosca 2014). Individuals use entertainment applications to do the same things they do in the real world: communicate, build relationships, gain respect, have fun and react to content (Porter 2008; Kim, Jeong, and Lee 2010; Oestreicher-Singer and Zalmanson 2013; Yan, Qian, and Ji 2013; Salminen 2014). The OTT film industry has clearly not fully grasped the implications of this reality, and, currently, there is a mismatch between what some users require socially and what these pure players have to offer.

OTT providers, to support fully individuals' desire for exciting and effective film-based social experiences, need to build their interface services based on real-world social norms and consumers' expectations of what film experiences should be (Truong 2009; Crumlish and Malone 2015; Ericsson 2016a). Thus far, despite the affordances of social computing, OTT providers are missing the opportunity to create their own video-centric social networks by failing to integrate multiple individual profiles into communities. Thus, we concluded that these OTTs need to provide more social functionalities that allow users to explore the possibility of interacting with other individuals with similar interests in films on these websites (see Digitalsmiths 2013; Junglas et al. 2013; Oestreicher-Singer and Zalmanson 2013; Yan, Qian, and Ji 2013; Governo, Teixeira, and Brochado 2017)

3.2. Merging social computing with content (fusion phase of IT)

As content consumption becomes a social experience, value becomes dependent on social environments (Oestreicher-Singer and Zalmanson 2013). The next step for OTT providers – especially new entrants – is, therefore, not merely to add a social layer to traditional content offerings, but also to develop socially oriented applications that bring films and direct conversations closer together. This is needed because direct communication creates real-time experiences that are missing in these platforms and are fundamental to bringing users together in dynamic online social environments (Porter 2008; Venturini 2011; Weide, Kevorkian, and Ireland 2011; Oestreicher-Singer and Zalmanson 2013; Yan, Qian, and Ji 2013). To do so, OTT providers should supply their users with social experiences based on shared content. This implies that users need to interact both with content and with fellow users through OTT video websites because shared experiences and meaning arise from films valued as belonging to or characteristic of particular groups (Bouman et al. 2007). This approach is content- and user-centric, positioning both users' personal experiences and content at the core of online services. This will create a shift in the role of the OTT content industry, making providers enablers of experiences rather than mere purveyors of content (Oestreicher-Singer and Zalmanson 2013).

Although social networks and streaming media services have evolved independently, they are the key entertainment 'agoras' of our time. The literature contains a few proposals that seek to merge social network concepts and features with OTT video services, taking advantage of the strengths of both systems (Marie, Gandon, and Ribière 2011; Hollywood Report 2012; Lee and Garg 2012; Oestreicher-Singer and Zalmanson 2013). For example, Lee and Garg (2012) proposed a social networking application that develops object-oriented sociality, linking people based on shared interests in objects (e.g. films) and thereby keeping users interested by implementing object-based features. Oestreicher-Singer and Zalmanson (2013) also provide evidence that the digital content industry needs to give more importance to fusing social computing (e.g. social network features) with content delivery in an age of growing user participation.

According to the fusion view of IT (El Sawy 2003; Oestreicher-Singer and Zalmanson 2013), content and, therefore, content websites are inherently social, so content cannot be separated from social computing elements. As individuals are also inherently social, they derive great value from watching the same movies that others do (Elberse 2008) and from having ongoing content-based social experiences in which individuals can fulfil different roles and form meaningful relationships (Porter 2008; Oestreicher-Singer and Zalmanson 2013). Thus,

social networks' characteristics facilitate the development and recognition of individuals' social identity and provide OTTs with opportunities to foster users' relationships. In these platforms, users can find others who share the same interests, and, by enabling socially relevant interactions, these applications can encourage creative participation and community formation around media content (Code and Zaparyniuk 2009; Ellison, Steinfeld, and Lampe 2011; Baruah 2012; Narang 2012; Herero and Medina 2013). In addition, when integrated into streaming film services, social graphs can make content spread more rapidly and constitute, due to communities' filtering properties, a good solution when providers seek to optimise and refine services in response to users' recommendations (Girieud 2010).

Thus, streaming film services based on social networks can provide powerful computational infrastructure capable of supporting consumer interactions not just with content but also with fellow users in the same online community. This makes social experiences central to these platforms and the core of OTT providers' digital business strategies (Breslin and Decker 2007; Tian et al. 2010; Oestreicher-Singer and Zalmanson 2013). The adoption of this strategy and its value proposition transforms the main role of OTTs from providing content to establishing users' content-related and IT-enabled social experiences, which can be termed 'social films' or 'social content'. The result will be a hybrid between content provider and virtual community business models (Weill and Vitale 2001; Oestreicher-Singer and Zalmanson 2013), which is, in essence, an SCN.

An SCN is defined as a multimedia system in which films are situated between individuals, acting as a connector between those pursuing sociality (Star and Griesemer 1989; Engeström 2005; Bouman et al. 2007; Weide, Kevorkian, and Ireland 2011). In a SCN, content is tightly intertwined with social features, and interactions around this content create highly personalised experiences for users (Weide, Kevorkian, and Ireland 2011).

According to Breslin and Decker (2007), one way to develop film-centred sociality on the Internet is via individuals' actions around content they watch, create together, comment on or link to – or to which they add similar annotations. Thus, approaching sociality as film-centred is to suggest that, when users can more easily create digital instances of objects, online services for networking about, through and around those objects will also emerge (Engeström 2005; Bouman et al. 2007). In this way, social content can refine the paradigm established by generalist social networks (e.g. Facebook), in which interactions with other users are central and reasons for interacting, including content interests, are secondary (Weide, Kevorkian, and Ireland 2011). SCNs' value for users is the combination of content (e.g. films, reviews and ratings) interactions, exchanges of specialised knowledge and associations with others in an immersive social context. This environment enables users to engage more deeply with films than would otherwise be possible through traditional OTTs or generalist social networks (Weide, Kevorkian, and Ireland 2011; Junglas et al. 2013; Governo, Teixeira, and Brochado 2017).

3.3. Key elements for holistic social experiences in an SCN

In Section 3.1, we used the social media honeycomb framework to evaluate the OTT systems' current social settings. This framework's usefulness lies in its understanding, on a theoretical level, of which resources are relevant when designing and/or evaluating systems that seek to foster sociality or grow through social media (see Benevenuto et al. [2009] and Kietzmann et al. [2011]). However, considering SCNs' definition and goals, as presented in Section 3.2, the honeycomb framework is a not suitable way to make viewers a part of communal film experiences because this approach ignores 'objects' and thus the expansion of object-centred environments to include promoting forms of sociality (Cetina 1997; Wal 2008; Benevenuto et al. 2009; Crumlish and Malone 2015).

Therefore, the present study adopted a user content-oriented perspective that not only includes 'objects' and 'identities' as cornerstone components of sociality (Cetina 1997; Wal 2008) but also combines them with other active components. In this section, we introduce and discuss the fusion of all these components as part of a holistic strategy (see Figure 1) that, implicitly or explicitly, triggers and expands users' complete social experiences (Crumlish and Malone 2015). Notably, contrary to the honeycomb framework, these elements are interdependent and cannot be used in isolation.

3.3.1. Object (films)

Films are a common cultural currency in contemporary society (DiMaggio 1987; Lizardo 2006; Tryon 2013). Therefore, they are conceptualised here as the core of SCNs. Although, presumably, most people will visit SCNs because of the films themselves, some might also visit the platform for the purpose of social interaction. Interactions, then, are a spillover effect. However, in some cases, this secondary motive can become a more powerful motive for visiting the platform because the consumption of films in a SCN gives individuals something to talk about and facilitates social intercourse by fostering ties that lead to social bridging (DiMaggio 1987; Salminen 2014).

In this way, films are engines of socially networked experiences and the content around which interactions and conversations happen (Simon 2010; Crumlish and Malone 2015). Thus, SCNs' interface needs to provide social functions and emphasise the social aspect of content consumption – the creation and enhancement of relationships – by gathering, at centre stage, both content and identities. This allows individuals to focus their attention on a third thing rather than on each other, making interpersonal engagement more comfortable (Simon 2010; Oestreicher-Singer and Zalmanson 2013).

3.3.2. Identity

If users want to connect online, they must present themselves to others in some form. SCNs require that users be

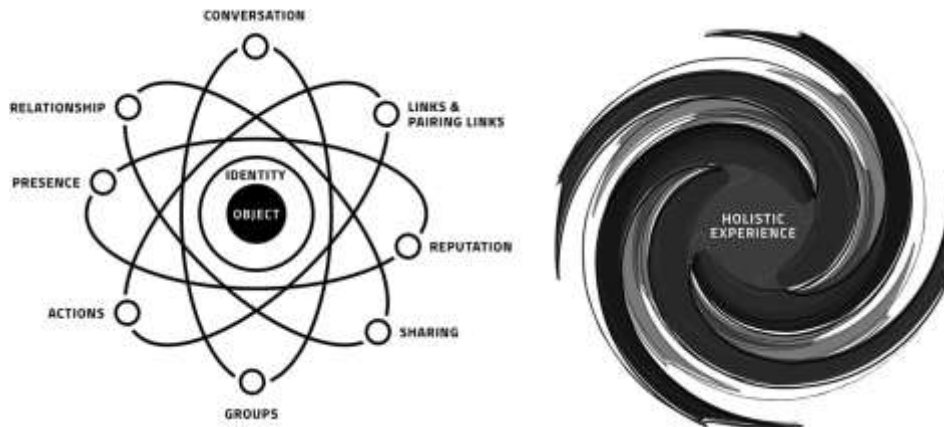


Figure 1. Fusion of honeycomb elements into social experiences in SCNs. Source: Authors' own elaboration.

unequivocally identified, as the focus of object-centred sociality is on individuals being social around films (Wal 2008; Kietzmann et al. 2011; Crumlish and Malone 2015). As in any real-world communities or other social groups, SCNs must provide mechanisms that allow users to build a clear social identity or construct relevant working self-concepts (Showers and Zeigler-Hill 2012; Crumlish and Malone 2015). Often users' identity in OTTs is built on basic profile information (e.g. name or username), but, in SCNs, identity is augmented by including multiple levels of social information (e.g. cultural identities such as 'avid fan of world films'). This portrays individuals' projection in the social world (Valkenburg, Schouten, and Peter 2005; Kietzmann et al. 2011).

This social identity is defined as part of individuals' self-concept, which derives from their understanding of their membership in social groups (Tajfel 1978). To identify with any given group, individuals look for similarities between members and themselves (Code and Zaparyniuk 2009). Consequently, if individuals perceive greater similarities with other members, they feel a greater sense of belonging (Wilkinson 2008; Lampe et al. 2010). In this way, social identity is a key element linking individuals to their social group (Tajfel 1974, 1981) because social categorisation (i.e. groups) influences people's perception of others and themselves (Tajfel 1974, 1981). As individuals' social identities evolve within social groups, these identities also facilitate the alignment or differentiation of individuals from the same group. This alignment or differentiation reaffirms individuals' social identity. Thus, identity is at the core of SCNs, playing an important role in interactions. If clear identities exist, then individuals can form links with other users through these identities.

Previous studies have concluded that individuals have a greater tendency to associate, bond and interact with others when they perceive similarities in preferences, attitudes, tastes and so on (McPherson, Smith-Lovin, and Cook 2001; Ren, Kraut, and Kiesler 2007; Bisgin, Agarwal, and Xu 2012). Therefore, in this context, films can be considered the reason why individuals affiliate with specific others and not just anyone (Engeström 2005; Porter 2008; Simon 2010). The probability that two people will interact is driven by their similar tastes (Lizardo 2006). A taste for a particular genre of films or set of films is a form of ritual identification and a way of constructing social relations. It helps to establish networks of trust relationships that facilitate group mobilisation (DiMaggio 1987; Lizardo 2006; Crumlish and Malone 2015). Interaction through this positive feedback loop, in turn, increases cultural similarities as individuals exchange their stock of knowledge about films with one another (Lizardo 2006; Crumlish and Malone 2015).

3.3.3. Links and pairing links

Besides facilitating the collection of content, user profiles and relationships between users, SCNs are also composed of links. Connections between humans create bonds, so the public display of connections is a crucial component and core element of SCNs' social experiences (Crumlish and Malone 2015). Users' links, along with their profiles, need to be visible to those who visit users' accounts – with at least some level of information without consent from the

link target. In this way, users are able to explore the social network by following user-to-user links, browsing the profile information available and connecting through links based on their interest in a specific film or sets of films. Users can also search each other's generated content (Mislove et al. 2007) such as reviews. These links connect identities, or profiles, in this context, that contain links to each friend's profile, thereby enabling viewers to traverse the network graph by clicking through friends' lists and helping users to make friends with others (Boyd and Ellison 2007; Crumlish and Malone 2015).

3.3.4. *Presence*

Another fundamental component in SCNs is the visibility of system status or resources that allow users to know whether certain identities are online (e.g. online presence indicators), sharing the same space at the same time (Smith 2007; Kietzmann et al. 2011; Crumlish and Malone 2015). Attachment in SCNs increases if members have a sense of virtual co-presence or a subjective feeling of being together with others in a virtual environment (Slater et al. 2000). In addition to communication channels (e.g. chat), awareness tools (e.g. activity streams or friends' feeds) showing who is currently online and what they are doing may help individuals gain and maintain a sense of others and their habits (Ren, Kraut, and Kiesler 2007; Crumlish and Malone 2015).

3.3.5. *Actions*

A large part of online film experiences in SCNs involve actions. Actions always include identities and objects (i.e. films) since actions are tied to the individuals who are taking action and linked to content around which users are taking action (Wal 2008; Crumlish and Malone 2015). These actions are voluntarily developed expressions of individuals' understanding, and they can take the form of ratings, reviews, comments and asynchronous and synchronous conversations, such as messaging or real-time conversations (Wal 2008; McKenzie et al. 2012). Although users may select which actions to share, SCNs need to offer mechanisms to stimulate individuals to share and trust each other's information because, when members have intensive interactions and trust one another, they tend to share reliable knowledge (Chang and Chuang 2011; Crumlish and Malone 2015). Just by becoming involved, users can create self-portraits and identities in the system, with which others can interact (Crumlish and Malone 2015).

3.3.6. *Sharing*

Individuals form communities for various reasons, including the mutual obligation of sharing particular interests or experiences (Chang and Chuang 2011). The proposed model assumes that users in SCNs are not just searching for films to watch but also attempting to develop relationships and a sense of belonging (Chiu, Hsu, and Wang 2006; Berki and Jäkälä 2010). Hence, an engagement strategy would be to make users responsible for producing much of the information available (Flanagin, Hocevar, and Samahito 2014; Crumlish and Malone 2015).

SCNs can only be formed and sustained through the participation of members and their willingness to spend time and effort creating and exchanging user-generated content (Chen and Hung 2010; Chang and Chuang 2011; Li, Yang, and Huang 2014). Sharing behaviour in this context is based on individuals' confidence that they can provide knowledge valuable to others. Users are motivated by their perception of what others (i.e. friends) would like to see (Porter 2008; Bernstein et al. 2010; Chen and Hung 2010). When individuals see themselves as representatives of a social group, they often believe that things that are of value to them will also be of value to other group members (Flanagin, Hocevar, and Samahito 2014).

Indeed, salient group identity has been found to motivate information contribution in a variety of online contexts. For example, users are more likely to rate or review a movie when this is believed to be valuable to others who like the same movie genres as the rater does (Rashid et al. 2006). Similarly, individuals are more likely to contribute to online ratings systems when their group identification with other contributors is highlighted and they are under the impression that their contributions will benefit ingroup members (Flanagin, Hocevar, and Samahito 2014). Therefore, social sharing in SCNs tends to be high-quality and personalised. Quality is vetted by individuals that users trust, and personalisation is implicit when users' groups show awareness of each member's interests or tastes by forwarding, for example, links to films (Bernstein et al. 2010).

3.3.7. *Reputation*

Individuals participating in SCNs expect to develop a reputation and hope to gain insights into the reputations of others (Kietzmann et al. 2011; Crumlish and Malone 2015). Reputation can have different meanings, and, in most cases, this is a matter of trust. However, in the context of SCNs, reputation refers not only to users but also to their

tastes. Taste has a real social utility because it represents a way of knowing what relationships need to be constructed (DiMaggio 1987; Liu 2007). Since purely mechanical tools are not yet good at determining highly qualitative criteria of tastes (Kietzmann et al. 2011), users' tastes in an SCN environment are deduced directly by the information they enter about preferences or based on their behaviour. If users' profiles are assumed to give a true representation of these individuals, reputation (cf. identity) focused on taste can be based on virtual materials that compose taste statements exhibited in profiles (e.g. lists of films users watch, rate, review and approve).

When observed at a high level of abstraction, the rich meanings found within a virtual cycle of actions and consumption imply deeper patterns of culture and taste statements (Liu 2007; Liu, Maes, and Davenport 2009; Crumlish and Malone 2015). In fact, in a culture of plenitude, individuals' identities can primarily be described as the sum total of what they like and consume (Liu, Maes, and Davenport 2009). Accordingly, taste statements need to be disclosed because the exchange of personally revealing information is both a cause and consequence of interpersonal attraction (Ren, Kraut, and Kiesler 2007; Ren et al. 2012). Individuals not only like others about whom they know more but also like others to whom they reveal more (Collins and Miller 1994). Accordingly, members of online communities are more likely to form relationships if they have opportunities to engage in self-disclosure and learn personal details about each other (Ren, Kraut, and Kiesler 2007; Ren et al. 2012).

3.3.8. *Relationship*

Having a group of users to hang out, communicate and participate with is key to successful social film experiences (Crumlish and Malone 2015). Since the focus is on meaningful relationships through reputation (cf. reputation), relationships between identities are always intended and regulated, which means they cannot exist unless they are reciprocated (Wal 2008; Hansen, Shneiderman, and Smith 2010; Kietzmann et al. 2011). Users must send requests to connect with individuals and start relationships if the desired people accept the friend requests. Ideally, before adding new friends to the 'friends' category, users should develop relationships with these other users based on shared tastes through taste statements exhibited in profiles, as discussed above in the section on reputation.

These bidirectional relationships are attached to privacy and permissions. For example, when both users accept the relationship, they are allowed to chat (Tapia-dor and Carrera 2012). The way to establish relationships in SCNs needs to be facilitated through links that connect actions to identities and through the visible and browsable relationships of each friend's profile (Golbeck 2007; Musiał and Kazienko 2013). With profiles just a click away, making requests and befriending other similar users is extremely easy.

3.3.9. *Groups*

Attachment to groups is one of the more straightforward reasons why individuals participate online (Porter 2008). Given that communities are built on a person's sense of belonging and yearning to belong (Shaffer and Anundsen 1993; Rohde and Shaffer 2003; Dasgupta 2010), it is likely that users will gather in groups of shared tastes in which these drive friendships (Dietz 2009). The more social a content network becomes the bigger the group of friends and profiles available (Kietzmann et al. 2011). Consequently, subgroups are extremely likely to form (Bos, Olson, and Nan 2009).

However, accordingly to Dunbar (1992), individuals have cognitive limits that restrict the number of stable social relationships they can have to about 150, which is the optimal group size for active members to maintain emotional closeness. These findings suggest that it does not matter how many friends users accept into their online community. The number of individuals with whom users actually interact will stay constant (Mazie 2014). Social media platforms have recognised that many communities grow well beyond this number and, for this reason, offer various categories of groups, which allow users to manage the groups' membership. According to Kietzmann et al. (2011), these choices are, nonetheless, highly contextual.

The present study's results indicate that SCNs should not permit users to build group hierarchies that extend beyond users' inner circle for four reasons. First, permissions management is inherently difficult (Kietzmann et al. 2011). Second, media consumers prefer and seek films that refer to the social groups to which they belong (Trepte 2006). Third, researchers argue that individuals are most strongly influenced by the members of their primary groups: people with whom they interact with frequently (Frank 1995). Last, maintaining connections with an ever-widening network degrades emotional closeness and interaction quality in users' inner circles (Konnikova 2014).

3.3.10. *Conversation*

Conversations make film experiences social (DiMaggio 1987; Crumlish and Malone 2015). In addition, in conversations, users will come to the point (cf. reputation) that they want more formal relationships in order to have more focused interactions (DiMaggio 1987; Wal 2008). As users entering into conversations seek to share collective

wisdom and establish co-membership, SCNs need to facilitate exchanges of knowledge with others endowed with similar tastes (DiMaggio 1987; Holt 1997; Lizardo 2006). It is, thus, critical to add systems that support synchronous live conversations for more intimate dialogues and asynchronous features that allow time ordered annotations (Wal 2008; Ellison and Boyd 2013; Crumlish and Malone 2015).

By lowering the barriers to communication and enhancing sharing activities, SCNs become not just a content provider but also a communication platform that facilitates the display of identity information and enables like-minded individuals to easily discern their common ground. This helps users cultivate socially relevant interactions and develop strong relationships and, finally, reshape the type of network that film consumers are able to build and support (Ellison, Steinfield, and Lampe 2011; Ellison and Boyd 2013).

4. Proposal for a new SCN, Avids

4.1. *Appreciative description of Avids's architecture*

Following the line of reasoning discussed in the above sections, we describe below an SCN prototype that reflects the current state of our research, including in its architecture all key functions and features needed to pursue film-centred sociality. This offline prototype illustrates the design motives that guided the development of the Avids platform and strategies for making it more social and engaging for everyone interested in films (Beaudouin-Lafon and Mackay 2002; Johansson and Arvola 2007).

We intentionally include here only a simplified description of the proposed SCN. Our goal is to provide a text description with core ideas and a detailed representation of the social component interface, rather than a formal and/or technical flow chart or a computational sequence. The main objective of this is to help all stakeholders, including individuals without technical expertise, to understand the proposed system in order to obtain feedback from potential end users (Beaudouin-Lafon and Mackay 2002; Johansson and Arvola 2007).

From a narrower perspective, we focused this hybrid multimedia platform on the three basic elements of user, content and interaction. Two important features need to be noted. First, users actively participate in generation and consumption processes. Second, interaction is a generalised principle, which consists of user–user relationships, content–content similarities and user–content social interactions (Sang 2014).

The content and features proposed for this prototype allow members of the Avids community to stream films (i.e. consume or watch) and upload two kinds of data: text files (e.g. comments and reviews) and pictures for their private page (i.e. profile). These appear in public spaces and ensure users are perceived by other users in the SCN (Crumlish and Malone 2015).

Personal pages (see Figure 2) are the main interface in the community. As some authors argue (e.g. Liu, Maes, and Davenport 2009; Crumlish and Malone 2015), central profiles are still a goldmine of information about



Maria Flynn

United Kingdom, Joined January 2015



153 movies watched



26 friends

Hi! I'm Maria and I love to watch movies. I'm currently attending cinema classes in a university in London. Hopefully one day my movies are the ones you'll be seeing in here!

You can also find me here:   

Figure 2. Users' interface (level 1). Source: Auids website.

individuals and socialisation. Thus, as Figure 2 shows, we provide a self-descriptive, free-text user representation that allows user community members to express tastes and build goal-relevant versions of themselves (Bouman et al. 2007; Liu, Maes, and Davenport 2009; Showers and Zeigler-Hill 2012). In texts, users can also provide demographic details and lists of cultural interests. Due to privacy issues, not all profile information is shown unless the parties involved are already connected (i.e. friends).

Given that the Auids platform also focuses on relationship building, users' profiles are designed to

show, through a chain of friend-of-a-friend information about who are users' friends in the network (see Figure 2, level 1). This referral system helps members find others with similar interests in films and provides immersion in peer communities. A mechanism to search connections is also available.

Users have control over whom they add to their friends' list, and users can configure their social recommendations by having the option to choose from whom they want to receive suggestions. The goal of this initiative is to allow users to organise and run their own community recommendation system – the first step toward optimising video-on-demand suggestions by using social graphs. This means that users can receive film suggestions from contacts who are part of their pairing links. Most likely, film suggestions will be personalised and both more relevant and more convincing than suggestions made by just any other user (Girieud 2010; Brown 2013; Yan, Qian, and Ji 2013).⁵

The users' interface (see Figure 3, level 2 above) also includes three elements: social activity streams, conversations and presence. By default, to respect users' privacy, their presence indicator or status is only available to those with whom they are reciprocally connected. A growing body of evidence shows that mere social awareness that others are participating and communicating directly can increase retention (Tausczik, Dabbish, and Kraut 2014). The rationale is that both social awareness and communication help individuals form social connections and attachments to each other or groups. This, in turn, keeps them engaged and committed to the larger website network (Tausczik, Dabbish, and Kraut 2014).

Livestream activities aggregate and display the latest activities of friends, such as new reviews shared, films added to a watchlist or approved elements left by contributors for all to see. By browsing this information, users can keep informed about who is consuming which content (see Figure 4) or how popular different films are. The activity status also describes the number of films users have watched, recently seen and recently commented on in Avids. As noted previously, when observed from a high level of abstraction, SCN profile lists imply taste statements, and the rich meanings concentrated in profile activities also imply deeper patterns of taste (Liu, Maes, and Davenport 2009).

Since a taste community such as Avids articulates identities according to certain values and concepts that unite or divide its membership, the platform encourages members to share their film consumption, preferences and opinions as a way to strengthen their identity (see Figure 4 above). Cultural consumption not only echoes but also actively reinforces who users can be (Csikszentmihalyi and Halton 1981; Liu 2007).

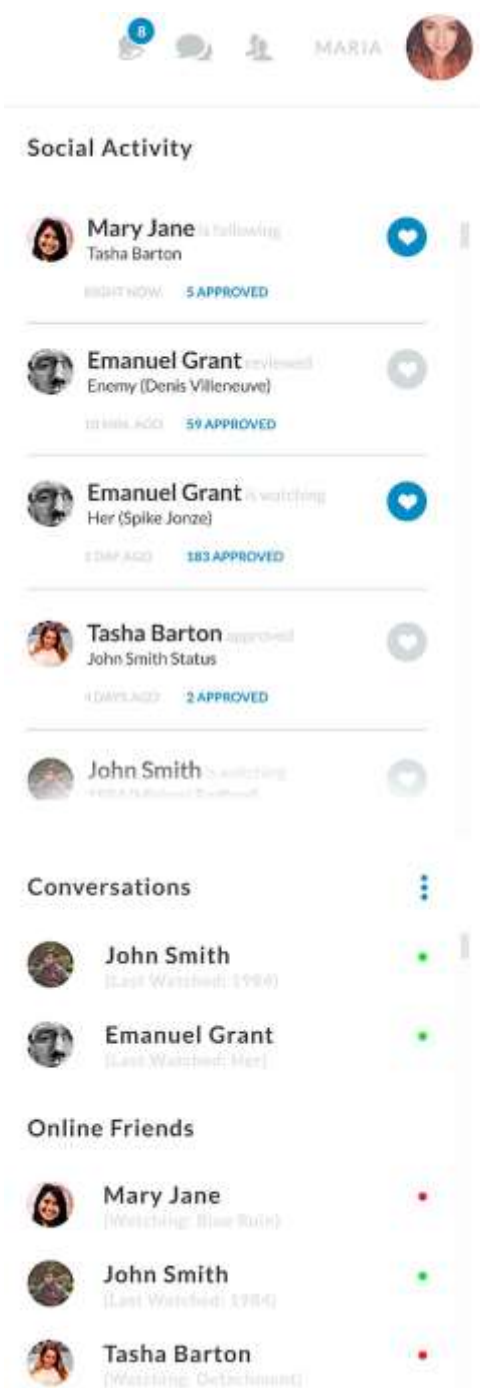


Figure 3. Users' interface (level 2). Source: Avids website.

By utilizing the SCN lists to exhibit their tastes, users can display their status and distinctive traits to an audience comprised of friends, potential friends and the overall community.

Dwyer, Hiltz, and Passerini (2007) argue that the main motivation for social networking is communicating and maintaining relationships. However, McKenna, Green, and Gleason (2002) assert that, in online communities, members' frequency of interaction with others

largely determines the extent to which they build relationships with one another. Taking into account both relationships and interactions, the Avids platform combines social and participatory functionalities and enables multiple forms of communication for cross-boundary interactions among different users. Conversation and sharing tools are visible mainly through users' homepages (see Figure 3, level 2, above), and they include online communication services that allow users to share virtual elements or even engage in real-time conversations. More exchanges among community members, through private messages, provide opportunities for members to build social connections and foster both partiality and trust (Ren, Kraut, and Kiesler 2007).

Conversation needs are also addressed via the chat resource, with which users can talk directly to other users who are online in the system. Directed communication plays the expected role of bonding social capital. Messages exchanged between friends are both a product of friendships and a means of facilitating and maintaining these friendships (Burke, Marlow, and Lento 2010).

Film homepages (see Figure 4 above), besides being resources for watching video content (i.e. embedded video player), support personalised activities and other forms of social interaction. More specifically, enabling ratings and comments allows users to influence other users' navigation and consumption decisions (Oestreich-Singer and Zalmanson 2013). Viewers are called to action by interface elements urging these users to classify films by rating them and/or recommending them through public endorsements. Users can also give explicit recommendations by commenting on or reviewing films, among other options. Each film's individual page also includes social sharing data that provide insights into taste patterns (e.g. other users who saw the film or gave the film a 'thumbs-up' verdict) and behavioural clickstream data (e.g. global statistics) that help to assess films' popularity or categorise their content. This is compatible with Shamma et al.'s (2011) finding that the way a film is consumed, interacted with and commented on is indicative of the nature of its content.

4.2. Exploratory empirical assessment and validation of Avids

If any prototype model is to be used, it needs to be validated by potential end users. To evaluate Avids' effectiveness and ensure its social components meet potential users' expectations by solving social needs unmet by traditional OTTs, we developed a purpose-built questionnaire based in our contextual research and description of the Avids prototype. This instrument was designed to find out more about what motivates users and how well they receive prototypes and/or ideas.

Given that SCNs are an innovation and no data on usage or behaviour are yet available for these systems, the current research sought to bypass this lack of information by focusing on the behavioural intentions of film consumers with prior experiences with OTT environments and communal cyberspaces. According to previous research (see Chyi 2005; d'Astous, Colbert, and Montpetit 2005; Papies and Clement 2008), past behaviours strongly influence the adoption of future innovations. Logically, users who are, in general, interested in films and, in particular, in film consumption and interactions with other film consumers in computer-mediated environments will most likely adopt new services facilitating these activities (Papies and Clement 2008; Rouibah and Hamdy 2009).

The online survey was administered using LimeSurvey between 23 November and 9 December 2017. We targeted a sample of multicultural film lovers to assess their intention to adopt Avids. These cinephiles included subscribers of our YouTube channel partners, users who made comments on the films presented, viewers who visited the channels and students enrolled in film courses at six international universities. This sample population was expected to match our research objectives well. By primarily focusing on these film lovers, we were able to formulate more realistic predictions about cinephiles' intention to use SCNs.

The online questionnaire included various questions (see Table 2) based on the theoretical framework of the technology acceptance model (TAM) (Benbasat and Barki 2007; Agag and El-Masry 2016). This framework focuses on key attributes that potential users might consider crucial because they support the users' film-centred social activities. The online questionnaire was accompanied by a video presenting Avids's key features and the ways users could use the SCN to pursue film-centred sociality.⁶

The questions were supported by statements and/or scenarios about, and visual clues to, the interface's features. We asked the respondents to evaluate the features' level of importance – using a 5-point Likert scale ranging from 1 for 'strongly disagree' to 5 for 'strongly agree' – in terms of how the components shape SCNs' social settings, including that of Avids. We also assessed the respondents' intention to use Avids based on a set of scenarios, as well as how this SCN compares to traditional OTTs (see Table 2 above). Within the theoretical framework of the TAM, behaviour intentions and effective behaviours are strongly associated (Venkatesh and Davis 2000; Agag and El-Masry 2016), so users' intentions are considered a good measure of their behaviour. The present results were based on the responses obtained from 479 film lovers worldwide who responded to the online survey and who had prior experience with OTT environments and communal cyberspaces that host comments and reviews about

films. The data collected revealed that the proposed social media affordances are considered crucial components of a film services platform, which could contribute to strengthening film lovers' intention to use Avids. Our research showed that intentions to adopt these systems – and thus the potential demand for SCNs such as Avids – are not only a function of seeking gratification through films but also of perceived interactivity and pleasure obtained from belonging to a worldwide group of film lovers with the same tastes in films.

The sample is quite balanced in terms of gender, with 51% female and 49% male respondents. They were young (i.e. 77% aged 40 years old or younger) and highly educated since 86% of the respondents have a university degree, including 13% with doctorates. With regard to these film lovers' perceived enjoyment, around 89% believe that film-based social experiences in Avids will be enjoyable due to its special features. A full 90% expect that their experiences will be pleasurable, while 84% believe using the platform will be fun.

The prototype's perceived interactivity was evaluated in terms of user control, reciprocal communication, synchronicity and participation. Around 90% of the respondents prefer a film platform in which they can have control over whom they add as a friend and can create their online identity and self-presentation. In addition, 87% of the respondents agree or strongly agree that communicating with other film lovers and reciprocating comments, reviews and ratings is extremely important, so the respondents prefer a platform in which they can develop and become involved in these film-centred activities.

Some e features related to perceived interactivity are also present in traditional OTTs (e.g. YouTube, Netflix, Hulu or Amazon) and are highly valued by film lovers. The most notable of these are 'communicating with other film lovers and reciprocating comments, reviews and ratings' and 'sharing film-related social experiences with other film lovers'. Many respondents (87%) agree that a film platform in which the interface facilitates communication between users is important. In addition, over 85% of the film lovers surveyed tend towards preferring a film provider platform that allows them to share their film-centred social experiences with others by taking part in discussions (e.g. chatting, making comments and posting reviews). However, in contrast to Avids, traditional OTTs overlook the issue of identity, with user profiles being decentralised and depreciated as destinations and users not given opportunities to disclose their personal profile to others or to do any self-presentation. Perceived sociability was assessed in terms of self-disclosure, social presence and awareness, personal attraction and social connectedness. Various key features associated with sociality, which are absent from traditional OTT platforms, are of paramount importance to the cinephile respondents. More specifically, 87% of these film lovers value a film services platform in which they can share and exchange thoughts about movies with other cinephiles, and 85% feel motivated to participate in a SCN that allows them to bond or associate with others expressing the same love for films. When directly questioned about the proposed Avids platform, 86% of the respondent agree or strongly agree that they would use a platform that encompasses a community of film lovers who share the same interests in films if this platform was available without subscription fees. Moreover, 65% of the sample asserted that, if no subscription fees were involved, they would rather use Avids than other OTT sites such as YouTube, Netflix, Hulu or Amazon. Given the scenario of a subscription charge, the percentage of potential Avids users among the respondents is still reasonably high, with 44% asserting that, even with a subscription fee, they would rather use Avids than other film services sites such as YouTube, Netflix, Hulu or Amazon.

Table 2. Features of the new and traditional OTT video providers – a comparative assessment complemented with film-lovers' perceptions.

			Answers gathered from 479 worldwide 'film-lovers'			Features of the				
						new SC	traditional OTT video providers			
Questions			Mean	Strongly Agree	Agree /Strongly Agree	Avids Amazon	YouTube	Netflix	Hulu	
Perceived Interactivity	User Control	I prefer a film platform where I can have the control over who I want add as a friend.	4.41	53.4%	91.2%	✓				
	Interactivity	Having the control to add (or not) other filmlovers as friends is very important for me.	4.30	48.0%	87.5%	✓				
Reciprocal Communication		I prefer a film platform where I can have the control to create an identity and my self-presentation.	4.23	40.7%	87.3%	✓				
		Having the control to create my identity and self-presentation is very important for me.	4.11		4.11	30.5%				
		Communicating with other filmlovers and reciprocate their comments, reviews and ratings is really important for me.	4.18	37.8%	85.8%	✓	✓	86.4%	✓	
		I prefer a film platform where I can communicate with other filmlovers and reciprocate their comments, reviews and ratings.	4.18	37.4%	86.3%	✓				
		I prefer a film platform that enables conversation among film lovers	4.11	34.2%	83.9%	✓				
		I prefer a film platform where the interface facilitates communication between filmlovers.	4.12	31.1%	86.6%	✓				
		I prefer a film platform where I can have a chat or a real time conversation with other filmlovers in my social circle.	3.98	28.8%	78.9%	✓				
		Chatting or having a real time conversation with other filmlovers that are in my social circle is really important.	3.93	27.3%	76.2%	✓				
		I prefer a film platform where I can share my film social experience with other filmlovers.	4.14	32.6%	87.9%	✓	✓	✓	✓	
		I prefer a film platform where I can take part in discussions (e.g. chatting, making comments and reviews) and share knowledge about film-related issues with other filmlovers.	4.04	26.3%	85.8%	✓				
Sociality		Engage in discussions (e.g. chatting, making comments and reviews) and share knowledge with other filmlovers about film-related issues is really important for me.	4.01	25.5%	84.0%	✓				
	Self-disclosure	I value a film platform where I can share and exchange thoughts about films with other filmlovers.	4.11	30.5%	87.3%	✓				
		I value a film platform where I can create and maintain a relationship with other filmlovers.	4.05	30.7%	82.3%	✓				
		I want to engage and to attach myself to others with the same interest and taste in films.	4.03	30.1%	82.1%	✓				
		Creating and maintain a relationship with others that have the same interest and taste in films is important for my well-being.	3.93	26.3%	78.3%	✓				
		It would be easier for me to be social and associate with other filmlovers if I could have a sense of their presence..	3.80	20.9%	73.1%	✓				
		I feel more attached to others if I sense they are present and doing the same activities that I am.	3.85	23.8%	74.9%	✓				
		Indicators of social simultaneous presence with others film lovers are important for me.	3.74	22.8%	68.7%	✓				
		It would be easier for me to be social and associate with other filmlovers if I have the awareness of what others are doing in the film platform.	3.85	23.4%	74.5%	✓				
		I probably would befriend another filmlover that share the same taste in films in Avids.	4.12	36.5%	82.6%	✓				
Personal Attraction		Personal identification with others in terms of tastes for films is important to me.	4.01	26.7%	82.4%	✓				
		I would feel more willing to interact with others when the interaction also involves a level	3.96	22.8%	82.9%	✓				

Table 2. Continued.

Questions	Answers gathered from 479 worldwide film-lovers		Features of the			
	Mean	Strongly Agree / Strongly Disagree	AvidTube	Netflix	Hulu	Traditional video
I believe the film social experience in Avids is going to be enjoyable. Overall, I believe that using Avids can be playful.	4.26	41.1% Agree, 88.5% Strongly Agree	✓	✓	✓	✓
I'll have fun using Avids.	4.25	38.2% Agree, 89.6% Strongly Agree	✓	✓	✓	✓
I'll use Avids if available without subscription fee. I intend to use Avids over the next year.	4.19	37.6% Agree, 83.7% Strongly Agree	✓	✓	✓	✓
If given the opportunity, I'll participate in the film platform Avids which encompasses a community of filmlovers that share the same interests in films.	4.15	34.4% Agree, 85.8% Strongly Agree	✓	✓	✓	✓
I intend to use Avids at every opportunity over the next year	4.10	35.5% Agree, 80.4% Strongly Agree	✓	✓	✓	✓
If available without subscription fee, I'll rather use Avids than other film sites such as YouTube, Netflix, Hulu or Amazon.	3.90	28.6% Agree, 70.6% Strongly Agree	✓	✓	✓	✓
I'll use Avids even if it entails a subscription fee.	3.10	8.1% Agree, 45.3% Strongly Agree	✓	✓	✓	✓
I'll pay a subscription fee to participate in a film platform which encompasses a community of filmlovers that share the same interests	3.00	6.5% Agree, 43.9% Strongly Agree	✓	✓	✓	✓

Note: The online survey was administered using LimeSurvey and carried out between 23 November and 9 December 2017. We targeted a sample of multicultural film lovers to assess their intention to adopt the SCN Avids. These 'film-lovers' included YouTube subscribers of our channel partners, users who made comments on the films presented, the viewers that visit the channels, and students enrolled in film courses of six international universities.

5. Conclusions

Previous researchers have asserted that the world currently is marked by individualisation and that individuals are using digital technology as a tool for reintroducing sociality into their lives. In some consumption contexts, technology is already creating new possibilities for the reintegration and maintenance of social relations (Cetina 1997; Adolf and Deicke 2015; Ericsson 2016a). The concept of object-centred sociality, as discussed previously, indicates that films can be relationship partners in embedded environments (Cetina 1997; Bouman et al. 2007; Lee and Garg 2012; Ericsson 2016a, 2016b). This approach does not overlook how certain forms of relatedness with and through films have always been available.

The present research found that, in an era of online film viewing, OTT providers' core concepts of sociality should include the proposed media functions for two reasons. First, individuals who see films as sources of personal identity and relational intimacy are still looking to connect socially – or to be socially integrated – through films (Cetina 1997, 2009; Rosenblatt 2011; Ericsson 2016a, 2016b). Second, sociality and the ability to foster relationships will continue to guide individuals' film consumption (Ericsson 2016a, 2016b).

Film consumers have always been passionate about sharing, discussing and learning about what their social peers are watching. When viewing experiences are social and thus shared, they gain authenticity (Ericsson 2016a, 2016b). This alone explains the importance of community-building in content websites and the reason the role of OTT applications needs to be more than just encouraging users to stream films (Oestreicher-Singer and Zalmanson 2013; Yan, Qian, and Ji 2013; Ericsson 2016a). This is also why OTT websites need to have a strong social component and an entire social context to compensate for the authenticity that technology itself lacks (Crumlish and Malone 2015; Ericsson 2016a).

Although OTT providers are becoming more similar to social media, the present research revealed that OTT platforms fail to provide synchronicity and enriched, shared experiences. These websites are failing to take into account the role of social computing in the creation and enhancement of on-site relationships (Ellison and Boyd 2013; Oestreicher-Singer and Zalmanson 2013; Yan, Qian, and Ji 2013). Consequently, these providers should shift their focus from delivering disconnected and fragmented social experiences to offering entertainment applications that connect well-established user identities on-site and ensure film social experiences never stop. Continuing to neglect this social component means OTTs will continue to require users to interact and socialise on other sites (Yan, Qian, and Ji 2013; Crumlish and Malone 2015; Ericsson 2016a).

As a result of the current change process, increasing individualisation is converging with the emergence of networks that re-integrate individual media users (Adolf and Deicke 2015). Thus, the present results suggest that social networks and OTT streaming services are mutually constitutive and that they can be fully fused into a unified platform that prevents users from switching to other websites (Oestreicher-Singer and Zalmanson 2013; Crumlish and Malone 2015). We would like to stress, however, that this finding is not intended to function as a one-way forward vision of the future in which all OTTs need to be revamped and forced to become SCNs. Instead, by offering new services with the social attributes incorporated into the prototype SCN, Avids, these platforms can fulfil not only the consumers' entertainment needs but also their social needs. These attributes open up opportunities for users to socialise with like-minded people and enlarge their network profile, thereby transforming film-related experiences from isolated viewings into socially engaging experiences (Jin 2009). For those film consumers who do not want to invest any cognitive effort in social interactions or relationships, SCN services can always remain only personalised, non-intrusive OTT film services.

In addition to providing a structured categorisation of the most salient social media features of OTT applications, the present study's other main contribution is the appreciative description of an innovative SCN model, Avids. This platform reaches beyond more rooted functionality-based approaches to the development of OTT websites and focuses on users' choices related to sociality. The result is a unified system in which social media settings are embedded in every functional area of the platform's architecture. This triggers and supports social behaviours that meet users' expectations of what contemporary film experiences should be and that are not yet possible in traditional streaming sources (Oestreicher-Singer and Zalmanson 2013; Chen and Lin 2014; Crumlish and Malone 2015; Ericsson 2015).

The current study's findings reveal that hedonic film providers need to maximise the extent to which their systems can include social features related to self-disclosure, social presence, social awareness, personal attraction and perceived social connectedness. These features will most likely fulfil film consumers' desire to socialise and associate with others with similar interests (Phang, Kankanhalli, and Sabherwal 2009; Junglas et al. 2013). The present research's results clearly demonstrate that Avids provides a valuable space for film-related social interactions and has attributes that are positively connected to social cohesion and the integration of film consumers worldwide. By recognising the role of sociality in users' perceived enjoyment, these findings contribute to a deeper understanding of the critical factors – other than film content – that promote the hedonic value of OTT systems.

To summarise, the present study's results can be of great value in terms of guiding OTT companies, before their websites' actual development takes place, towards applying socio-technical thinking when these firms seek to develop innovative services with media capabilities. This innovative approach can help OTT businesses to meet different film consumers' needs and sensibilities. If media companies continue to see film consumers merely as solitary information processors, these firms will be unable to find ways to create a common locus of social activities in which films are seen as anchors in communication and relationships. This would mean film lovers could continue to live lives marked by alienation.

These results should encourage media entrepreneurs to seize this innovative, value-creating opportunity and push forward towards implementing the idea of film-based social integration. Due to the innovative nature of the proposed SCN, further research on social behaviours resulting from SCNs' dynamics is required, as well as assessments of which practices can be successfully developed based on these networks' underlying social structure. Besides being an interesting topic of research, a clearer understanding of how users consume, interact and organise their relationships could be the basis on which to develop new SCNs that make social experiences even more authentic.

Notes

1. For example, to broaden its user base and satisfy the growing demand for social interactions, Netflix added the Facebook Open Graph sharing system to its site in March 2013 so that users could link their Netflix and Facebook pages. This system gave users the chance to share movie recommendations with friends in a public forum that could be seen by non-Netflix subscribers (see Knudsen, Kellman, and Jones 2013; Yan, Qian, and Ji 2013; Governo, Teixeira, and Brochado 2017). Although the integration with Facebook was a step in the right direction in terms of more social interactions, Netflix users proved to be unwilling to link their Facebook accounts, which meant that Netflix's attempt to incorporate social media failed (see Yan, Qian, and Ji 2013). People usually engage in many different social media networks simultaneously for different purposes, and not all film consumers want to log in via general social networks or to share their video viewing habits with friends on Facebook or on other larger providers such as Google+ and Twitter. Most users have a wide range of friends with different interests, with whom users maintain varied levels of intimacy, and they do not want to expose their tastes or historical streaming behaviors to all these friends (see Yan, Qian, and Ji 2013; Sang 2014; Governo, Teixeira, and Brochado 2017).
2. Later in this paper, we discuss in detail the appropriate balance between the seven functional traits in order to facilitate the design and development of a congruent social media strategy for the prototype film service provider.
3. The survey discussed below was conducted to identify key social media features of the most popular OTT video providers in the market. The present study's constraints meant we could not assess the full range of OTT video services. In addition, by the time this article appears in print, the OTT landscape will have changed further as new services emerge and others disappear.
4. It is important to underline that the present characterisation based on main features needs to be understood as ongoing because the age of social multimedia has sped up the rate of change in platforms that run multimedia applications (Naaman 2012). Given this rapidly changing infrastructure, the site at the time of data collection is likely to be quite different a few months later. Features that a scholar examines in one year may have simply disappeared by the following year. Thus, two studies of a particular website that produce different findings may not be contradictory. They may actually have examined what are, in essence, two different socio-technical contexts (Ellison and Boyd 2013).
5. Indeed, recommendations made by friends are more effective because they are a better fit for users. These endorsements are based on a personal knowledge of users' tastes, and, these recommendations also have a stronger persuasive power, since friends are considered to be an especially reliable source of information whose opinions users can trust (Girieud 2010; Brown 2013; Yan, Qian, and Ji 2013).
6. To video is available in <https://www.youtube.com/watch?v=GoUVd7rOoRU>.

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