Educators' Perspectives on Transmedia Identity Management: Refining Tele-teacher Presence

Julie-Ann Sime & Chryssa Themelis

Educational Research Dept., Lancaster University, Lancaster, U.K.

j.sime@lancaster.ac.uk, c.themelis1@lancaster.ac.uk

Visual media are now a common feature of distance education and virtual reality environments are increasingly used. This has boosted research into questions surrounding visual media and technologies for educators' professional development and teaching practice. This research explores educators' views on identity and teaching presence in visual media in distance education. We interviewed 18 experienced educators and categorised their views on identity and visual media. The findings suggest that digital identity can be seen through the lens of networks with others, and that transmedia identity management, i.e. the ability to create and manage multiple identities across different technology platforms, is a key competence for online educators as a means of building trust within online learning communities. As a result, we modified tele-proximity theory (Themelis, 2013, 2014; Themeli & Bougia 2016) by refining the concept of tele-teacher presence is refined to include transmedia identity management. The implications for practice are that the professional development of online educators should include knowledge and competence in tele-teacher presence and especially transmedia identity management.

Keywords: distance education, teacher competence, identity, visual literacy, community of inquiry, teaching presence, tele-proximity theory.

Introduction

Despite the popularity of tweets, chatrooms and discussion fora, visuals dominate online interactions and social media (99Firms, 2019; Stokes & Price, 2017). Photos, videos, e-moji, animated characters (bitmoji) and avatars seem to be shared rapidly and as a

result, visuals have a stronger impact on how people understand the concept of self-online and portray themselves as educators (Danesi, 2019; Baxter, 2012).

"In a more visual Internet environment of social media, virtual worlds, online games, blogs, web pages, photo- and video-sharing sites, Internet dating sites, and so forth, we are disembodied and reembodied as avatars, photos, and videos" (Belk, 2013, p. 481). As a consequence, online educators need the digital competence to critically evaluate the impact of their visual identity and the effects of their visual presence as role models and critical thinkers.

The concept of identity is not just about how one sees oneself but about how one is seen by others; as such, it is an on-going social process that is negotiated (Jenkins, 2008; Lowenthal & Dennen, 2017). It is also a bodily presence in visual media that can be used by educators to facilitate teaching practices (Bolldén, 2016). How others react to this presentation of self is crucial in the development of identity. Wenger (1998) sees learning and identity as interlinked. Thus, learning to become an online educator includes a process of developing one's online identity.

Izadinia (2014) claims that teacher presence as identity, or personhood, online is under-researched. Similarly, Kimmons and Veletsianos (2014) say that: "little research has been done to understand the relationship between educator identity and participation in social networking sites" (p. 292).

This study is about how experienced online educators understand and use digital technologies to express their identity through visual means, for example, in social media, blogs, vlogs, photos, and avatars used in virtual worlds. The term 'visual' is not only used to describe what users see on screens online but also to embrace the neuroscience advances that have demonstrated the connection between understanding abstract concepts and the activation of the visual section of the brain (Boaler, Chen,

Williams, & Cordero, 2016). In talking of visual literacies, literacy is made plural to point to the layers of competences an educator needs to acquire for knowing, using and creating visuals for teaching, learning or presenting oneself online. A big difference from visuals used in the past is that people generate images or curate visuals to portray presences, experiences and concepts (Poster, 2002, as cited in Nakamura 2007).

This study investigates educators' perspectives on identity and explores how identity is depicted in, and through, visuals, video and virtual reality environments. In this qualitative research study 18 educators who are experienced in teaching online with visual technologies were interviewed and the data analysed. The theoretical contribution of this study is that we refined tele-proximity theory (Themelis, 2013) by redefining the concept of tele-teacher presence to include transmedia identity management. Jenkins (2003) defines transmedia storytelling as the telling of a narrative delivered across many platforms. Similarly, we define transmedia identity management as the ability to create and manage multiple identities across different digital platforms. We argue that transmedia identity management is a key competence for online educators and recommend its inclusion in online educator professional development.

Identity reflected in visual literacies and personhood

Goffman (1959) provided one of the earliest theories of the performed self that explains how people display a series of personas to others, adopting roles, putting on a performance and monitoring the audience reaction while constantly trying to show themselves in the best light. More recently, Lee, Goede and Shryock (2010) include the concept of digital identity within their definition of the wider concept of digital personhood. They describe the process of achieving personhood as follows. A user becomes a person when they gain an address, create a profile and present themselves

online. A network of friends is established and meaning making occurs when content is shared with others. A user engages in impression management to control their social image, e.g. by adjusting their profiles, friends, and group membership. A circle of contacts is expanded and seeing this growing network of friends provides reassurance of personhood. Finally, online personhood is managed by using the available resources of the networking site.

They emphasise that digital personhood requires not just identity presentation and management but, crucially, interaction with others in a process of digital identity negotiation as part of the journey to online personhood.

Belk (1988) believes in the notion of the extended self as part of a core self that is based on core values and beliefs of personhood:

> the major categories of extended self [are our] body, internal processes, ideas, and experiences, and those persons, places, and things to which one feels attached. Of these categories, the last three appear to be the most clearly extended. However, given the difficulties in separating mind and body in philosophies and psychologies of the self . . . objects in all these categories will be treated as . . . parts of the extended self. (p.141)

Kimmons and Veletsianos (2014) use the term acceptable identity fragment in their research findings because identity was believed to be acceptable to their audiences, identity was regarded as self-expression, and it was just a fragment of their complete personhood. The sharing culture of the internet (e.g. blogs, social networking platforms and open access materials) has opened a window to greater self-expression with frequent opportunities to portray oneself as an extended or fragmented self

(Papacharissi, 2002; Schau & Gilly, 2003 as cited in Belk, 2013).

The concept of digital personhood relates identity information to being present online and interacting with others around common themes. This highlights the importance of social and professional networks where identity negotiation can occur.

The role of networks in identity and personhood

The theory of networked individualism explains the change from traditional social groups to digitally connected individuals and the increasing importance of these personal networks (Rainie & Wellman, 2012 as cited in Orzech, Moncur, Durrant, James & Collomosse, 2017).

Social networks have been investigated intensely and shape the way we live and see ourselves: "To know who we are, we must understand how we are connected" (Christakis & Fowler, 2009, p. xiii). Christakis and Fowler (2009) studied the power of networks and found that networks have a surprising power to alter norms, behaviours and information exchange. They claim that a network is greater than the sum of its parts. A network includes something more, connections that can be regarded as ties. The particular pattern of ties (i.e. topology) within the network can be regarded as responsible for achieving more in education and in everyday life. For instance, weak ties have been identified as an enabling factor in social activism and the building of *social capital* (Kavanaugh, Reese, Carroll & Rosson, 2003). The topology of the network can vary but what seems to be common are connections and the contagion which disseminates information, behaviour, feelings and norms throughout the network (Christakis & Fowler, 2009).

For the online tutor, identity is also formed while engaging in teaching in networked learning communities. Networked learning theory defines networked learning as "learning in which information and communication technology … is used to

promote connections: between one learner and other learners, between learners and tutors; between a learning community and its learning resources" (Goodyear, Banks, Hodgson & McConnell, 2004, p.1). As in personal networks, social and professional networks, a networked learning community is a place where connections are made, interactions facilitate identity negotiation and where digital personhood can be developed.

In short, digital identity can be seen through the lens of networks and connections with others, and it arises out of sharing information, especially visuals, while creating webs of knowledge and fragmented or extended self-portraits for different audiences in online spaces.

Tele-proximity theory and teaching presence

The community of inquiry model defines the concepts of teaching, cognitive and social presence in asynchronous communications in online education (Garrison, Anderson & Archer, 2000). The model shows the importance of dialogue between participants in online communities and provides a mechanism for analysing online education and improving it by enhancing the three presences. Themelis (2013) expanded this model into tele-proximity theory which is defined as online embodiment that explains the connection between educators and students when using synchronous video-conference technologies in distance education. The three presences are redefined as tele-teacher presence, tele-cognitive presence and tele-social presence.

Themelis (2013) found that experienced online educators are well-informed about the implications of transactional distance in online courses. They understand that a lack of face-to-face interaction may alienate students and educators and that communication through asynchronous media may hinder productive dialogues. The theory of tele-proximity explains the role of visual cues and face-to-face synchronous

communications in enhancing teaching presence, immediacy and trust in social interactions (Themelis, 2014). However, the tele-proximity model is based on a study of experienced educators' perspectives on synchronous video communications in online, distance education and it may, or may not be relevant to communications via other visual technologies.

Table 1. Tele-teacher presence as defined in tele-proximity theory (Themelis 2014, p. 247).

Core-category	Category	Sub-category
Tele-Teacher Presence	**Identity**	**Instructional Design/Pedagogy**
		Interpersonal Skills and Shared Academic Expectations
		Digital Literacy and Attitudes towards Synchronous Video Communications
		Audio-visual Communication and Dialogue
		Professional Salience
	Authenticity	**Institutional Credibility**

Teaching presence in asynchronous learning environments is expressed as the "design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (Anderson, Rourke, Garrison & Archer, 2001, p. 5). Tele-teacher presence extends this concept to include online teaching with synchronous video communications where identity and authenticity were found to be key themes, or categories (Themelis, 2014). Identity is further refined into six sub-categories: instructional design/pedagogy,

interpersonal skills and shared academic expectations, digital literacy and their attitudes towards synchronous video communications, audio-visual communication and dialogue, and professional salience, see Table 1. The category authenticity has the sub-category institutional credibility. The credibility of an institution is influenced by the reputation and identity of the people within it.

Methodology

This research seeks to understand current praxis from an analysis of the experiences of individuals. Epistemologically, it aims to find out how and why visual media affects identity. The methodology is informed grounded theory (Thornberg, 2012) and the research method is semi-structured interviews.

Informed grounded theory is a variant of grounded theory that is closer to the constructivist approach of Charmaz (2006) rather than the original form (Glaser & Strauss, 1967) as it integrates literature review into every phase of analysis (i.e. open, axial and selective coding). This means that the findings are informed by previous theory and frameworks (Thornberg, 2012; Dunne, 2011). Informed grounded theory embraces the idea of theoretical playfulness: "to try out pre-existing theoretical concepts and ideas in new innovative, creative and unorthodox ways" (Charmaz, Thornberg & Keane, 2017, p. 419).

Open coding is the initial stage of analysis where transcripts are read closely, and codes are assigned that describe or classify the data. Axial coding is the second stage when the relationships between codes are identified and categories defined. Finally, selective coding is when an explanation of all, or most, of the categories is created. A theoretical framework is constructed in the form of a storyline or narrative that is told by categories (from the analysis of data) and illustrated by comparison with research literature. In this study, we embrace the data-sensitising principle of

theoretical playfulness from informed grounded theory (Charmaz, Thornberg & Keane 2017, p419). This means that we engage with the pre-existing theory of tele-proximity and the concept of tele-teacher presence rather than produce a new theory.

Research Design

The research involved interviews with experienced online educators to find out their views on visual media and identity in distance education. During the interviews, participants were asked two questions:

> How could video presence affect the identity of a person? Why?
>
> How could virtual reality spaces affect the identity of student or teacher? Why?

The participants were educators who were very experienced in using online visual tools, video or virtual environments in distance education. Experienced educators were chosen, as Lloyd, Byrne and McCoy (2012) found that those who have less experience with innovative technologies tend to perceive the barriers as greater than those with the most experience. On average, the participants had over 10 years of experience in teaching online or working with visual media such as virtual worlds.

To attain an international perspective, independent of discipline, we interviewed 18 participants from different countries and a range of disciplines. The participants come from three continents: four from Greece; three from the UK; two from the USA, Norway and Denmark; and one from each of Mexico, Cyprus, Bulgaria, Netherlands and Malaysia. They also represent a wide range of disciplinary backgrounds: image/vision science, media literacy, educational research, cognitive psychology, brain-based learning, educational technology, interdisciplinary human studies and vocational training.

The participants were located via online communities, conferences, publications and were sent an invitation to participate by e-mail. The interviews were mainly conducted via videoconference (Skype) with three of the participants responding to the questions in writing. Ethical approval was obtained for the research and consent forms and information about the project provided to participants in advance.

The interviews were audio recorded, transcribed and analysed using open, axial and selective coding through a process of inductive and deductive reasoning. Finally, critical reflection on the research findings and literature on theory results in an explanation of the categories.

Findings

This section presents the findings from the open and axial coding of the data. Each sub-section describes a category from the axial coding, and it is illustrated by quotations from participants and connected to relevant literature. Pseudonyms have been used to protect the identity of participants. Many of the participants made reference to literature. The following section contains the selective coding in the form of a narrative that explains the findings and relates them to tele-proximity theory and its concept of tele-teacher presence (Themelis, 2013, 2014; Themelis & Bougia, 2016).

Open and axial coding: Codes and Categories

Video competences

This category combines codes such as “audience influence”, “wearing masks” and “leading by example” as they relate to competences in video communications.

The participants expressed the view that video presence affects identity and that the audience plays a key role in the way we present ourselves, for example, Tom said:

“Gender identity seems to change when you are with people of your gender and then if you are in a mixed group the roles are changing”.

Participants Mary and Nick pointed to Goffman’s work (1959) and claimed that people may appear and behave differently on videos as they wear different masks. Others characterized the personhood on video as a different filter of personality or reality, for example:

> It is like the Greek theatre masks you wear and then the voice changes due the structure of the Greek mask, different masks create different voices. So, in Greek theatre, different masks with different voices represent different characters. Some people take on or off these masks in different media. (Tom)

Participants emphasised the need for critical visual literacies as an understanding of how video could be used effectively. Ali also mentioned the need for understanding visual literacy:

> On video you are a persona, you are acting in front of a camera which you do not do in normal life … The persona is pursuing an identity which goes back to visual literacy, part of digital literacy, how to take care of yourself on the internet … Video could build you up or be destructive in seconds. (Ali)

On the issue of competence, Nick claimed that: “If you want your students to create video for assignments, you should be able to do it yourself as a teacher in order [for your] students to change behaviour and use video”. In other words, you need to lead by example.

Video and Identity

This category combines codes related to "building trust" and "seeing faces" as examples of managing identity.

The issue of trustworthiness or credibility was raised by several participants, for example, Jonathan commented that "by increasing channels of communication you increase the chances for trust … but it may have the reverse effect". All participants seem to agree that if a video presenter is coherent and eloquent, it enhances the credibility of what he or she is saying; if not, the video could negatively influence the identity of the presenter and the perception of the content presented.

They also explained that students want to see the faces of educators, either before registering for a course or during the course, and that video profiles are accessed more than textual biographies. However, one participant explained that video profiles could be a source of discrimination due to appearance or age, e.g. students seem to favour younger educators. The way that educators presents themselves online can be considered part of, or an extension to, their personality and can give important information about their identity as an educator. Many research participants emphasised the personalization that visuals can offer, and the students' need to see their tutors faces as it helps learners, especially those studying at a distance, to perceive their educators as real people.

Virtual world competences

Understanding how to use the technology in teaching is a key competence for online educators. Several participants expressed their understanding of how they would use the technology in their teaching practice, for example, Tom said: "I can list three [sic] reasons why I used virtual spaces. I would use it for learning languages, field trips, for

performances (role playing) and digital identity".

Virtual world identity

This category included the codes "identity tourism", "personalised avatars", "social roles" and "changing attitudes".

Participants regarded avatars as a part, or extension, of their personality that helps them understand the role of avatars as pedagogic agents and learn more about themselves as well. Participants mentioned the work of Nakamura (2002) on identity tourism and its implications for race and gender, offering the explanation that constructing different identities online helped them realise what they like about being themselves or what they would like to change:

> We always talk in VR [virtual reality] about mimicking. How to replicate myself, but I am not sure if I want to replicate myself. (Mary)

> I am a bit boring. I want to be something more interesting. In virtual world I can be whatever I want. (Tom)

Participant Peter recalled an occasion when, due a technical problem, there were only female avatars available. He claimed that he wanted to defend his choice of avatar, even though it was from a different gender. This attachment was observed by Anna:

> It is astonishing the attachment that people feel towards their avatars and their perceptions in VR [virtual reality]. They experienced a sense of belonging and perceived avatars as close friends. (Anna)

Some claimed that avatars seem to create an extension of identity that has an

impact on the way the mind works. People can express themselves in ways that are not available in the real world through personalising their avatar, e.g. with clothing or by choosing to be a cat or mythical creature. Some thought that their virtual world identity was more real than their real-world identity. The choice of avatar seems to tell a lot more about its creator than one might expect. Ben said:

> An avatar is a reflection of who someone is … people become attached to their avatars and people spend a lot of time personalising the clothes and the look of their avatar.

One participant considered avatars as clothes of personhood that have the potential to make us experience feelings and even change the way we think. Avatars also have symbolic meanings that express who we are, and society interprets them accordingly, for example, some avatars are regarded as powerful while others are seen as funny. This means that the choice of personification subtly affects our attitudes and our choice of behaviour. As an educator, one must think carefully about the image that is projected. As Ali said: "In VR, I may want to be a Pokemon but I do not want my students to see me as a Pokemon".

A participant mentioned the social implications of virtual reality spaces: "The social need to be together with other people is what defines the VR identity along with creativity" (Kostas). The avatars gave educators more freedom and opened up new possibilities for personal and professional interaction, especially if they were shy or feeling uncomfortable with video.

Research participants referred to scholars that work on VR and investigate changes in identity. For example, Peck, Seinfeld, Aglioti & Slater (2013) who refer to the unlearning of racial biases after having experienced embodiment, or how people can experience a change in attitude as well as a change in perception of the body through

the use of an avatar of a different ethnicity. Participants also mentioned Ganesh's explanation of gamers' self-identification with avatars from a neuroscience perspective (Ganesh et al, 2012).

In the field of VR, Belk (1988) uses the term re-embodiment to describe the experience of immersion and explains the formulation of the extended self as including digital possessions (Belk, 2013, p. 482). Small changes between the avatar and our real-world bodies can produce an effect that persists in the real-world. This is called the Proteus effect. It is derived from the myth of the ancient Greek god who could take on whatever form he wished. In other words, the re-embodied identity is extended into an avatar and this can make a person see themselves differently, e.g. taller, more beautiful or without physical disabilities. Research has found that these feelings persist in the identity of the person off-line: "The mind is an embodied mind, but it is also now a re-embodied mind extended into our avatar" (Belk, 2013, p. 483).

Participants stated that educators in VR platforms need to understand the consequences of using avatars so that they can make informed decisions about their role in the teaching and learning process and develop their identity while at the same time, considering their target audience.

Selective coding: An explanatory narrative

This section contains the outcome of the selective coding phase of the analysis of data – the core category of tele-teacher presence that embraces all data. The explanatory narrative accounts for data through three categories: 'transmedia identity management', 'identity management competences' and 'educators as hubs of sharing in online ecologies'. This leads to a discussion in the following section of how tele-proximity theory is expanded to include visuals and how the concept of tele-teacher presence is redefined to include transmedia identity management and critical visual literacies.

Transmedia identity management

Participants realised that different media have a different presentation style, netiquette, ethics, or values, and social interactions or connections. Seeing faces and building trust in online courses and learning communities is important to bridge the transactional distance and minimise the alienation that online students may feel (Themelis, 2013). Bolldén (2016) states that the online embodiment of teachers shows presence and can be used to predict certain teaching perspectives, for example, "their bodily positioning signalled what kind of teaching that [sic] would take place" (p. 1).

Although the concept of visual literacies originated in arts and art pedagogy (Michelson, 2017), distance education has brought about the need to realise and protect online identity as an educator and as a global citizen who creates a transmedia narrative. Transmedia storytelling (or transmedia narrative) is a technique whereby one story can be told seamlessly across multiple platforms or media (Jenkins, 2003). It is often used, now, when computer games are released at the same time as films with a single storyline that crosses the different media platforms.

Transmedia visual presence requires the critical use of visual literacies either on video or VR spaces to serve the same need. Addressing real audiences for real purposes and understanding the visual impact of transmedia presence, educators need to consider the ecologies of technologies. Hence, identity management in different media is part of the JISC digital capabilities framework where identity management is explained as:

> The capacity to develop and project a positive digital identity or identities and to manage digital reputation (personal or organizational) across a range of platforms; to build and maintain digital profiles and other identity assets such as records of

> achievement; to review the impact of online activity; to collate and curate personal materials across digital networks. An understanding of the reputational benefits and risks involved in digital participation. (JISC, 2018*)*

Identity management competences

Educators visible online can acquire symbolic leadership competences, for example, in the real-world, when female leaders take power in a society research shows that it is correlated with higher aspirations for young women in the specific location. Therefore, in the online space women that are seen as educational leaders can have a similar impact as symbols and role models (Beaman, Duflo, Pande & Topalova, 2012). Enhancing the visibility of women in leadership offline and online could consequently reduce stereotype threat and increase the number of women in leadership positions (Latu, Schmid Mast, Lammers, & Bombari, 2013). The same could be true for other minority groups related to ethnicity, race or gender. By being present and visible online, educators can inspire more people to express themselves and change the prevailing visual clichés by effective use of visual language. For example, a woman who wears glasses is seen as intellectual and undesirable at the same time, but when she removes her spectacles, she becomes desirable (Doane, 1982, p. 104).

Symbolic leadership online is a form of global citizenship that promotes scientific discourse. Thus, educators should air their voices, demonstrate critical thinking, promote scientific dialogue online and increase academic impact in the visual culture of the internet. Research data visualisation helps educators/researchers explain complicated findings and improve how audiences remember what the research was all about. In order to achieve this, educators may need to be trained in identity management so that they can share their stories, experiences and opinions online

(Lehmuskallio & Gómez-Cruz, 2016), especially as educational institutions regard images, logos, and videos as forms of symbolic leadership (Orzech et al. 2017).

Online communication competences, such as understanding honest signals (tone of voice, enthusiasm, energy, imitation) strongly affect impressions and identity (Pentland, 2008, 2010). For example, students perceive teachers to be more trustworthy and caring if they willingly disclose information about themselves (Hew 2011). Similarly, tutor-led online courses, where tutors act as role models for online presence, create more connections within the group producing a stronger sense of community than is found in peer-led courses (Phirangee, & Malec, 2017).

In brief, identity management competences consist of symbolic leadership online, management of visual presence, and visual communication. Educators, as symbols for imitation or influencers, could master the transmedia competences to communicate and understand honest signals and be more aware of their role in making an impact on research and learning. Symbolic leaders are considered as those who offer inspiration and self-expression to others and are not simply seeking attention. Sergiovanni (1981 as cited in Masiki, 2011) claimed that symbolic leaders possess "a nose for change; they sense the direction of the group and manage to get in front in time" (p. 91).

Educators as hubs of sharing in online ecologies

Online competence and identity seem to be influenced by epistemic fluency. Goodyear and Zenios (2007) define the concept of epistemic fluency as the ability to recognise and participate in epistemic games, i.e. methods through which new knowledge is constructed in a culture. They stress that epistemic fluency is gained by participation and interaction with others in online communities and cannot be gained without interaction with others. Epistemically fluent online educators can be defined as

influencers or symbols. Through the arena of online ecologies, these educators are stimulating epistemic fluency in a sharing culture and challenging individuals and institutions to adopt more innovative paths for communication, dissemination and impact.

Many theorists, such as Giesler (2018) claim that although publications and teaching are important for dissemination and research impact, they are insular and outdated forms of scholarship. Further, that many educators "become proselytizers of big ideas … manage thriving Twitter presences, and design popular MOOCs (massive open online courses)" (Giesler, 2018, para. 1). They become a hub of a sharing culture by exposing their work to critical thought and challenging the status quo in higher education over where scholarship occurs. Baxter (2012) explains that among online instructors, this kind of online presence is also important in the development of educators' "feelings of self-salience, personal efficacy and confidence" (p. 9).

Educators that have embraced the identity of game-changer, or influencer, can effectively use visuals on social media and in research and teaching practice to share information. Some of the most innovative Twitter edtech educators are listed in Top Hat (2018) or Edvocate (2018). As Larson (2017) writes in his blog:

> Why the stress over social influencers? Forbes states that 92 percent of consumers trust a social influencer over an advertisement or traditional celebrity endorsement, explaining why $255 million was spent on influencer marketing monthly in 2016. Additional research from Twitter shows that 49 percent of consumers seek purchase guidance from these social gurus while nearly 40 percent made a purchase as a direct result of an influencer's Tweet.

So, educator-influencers can have a strong impact on society and educational institutions by affecting university credibility, or reputation, and consequently university enrolment.

Redefining tele-teacher presence in the tele-proximity model

The theoretical contribution of this research is a refinement of tele-proximity theory (Themelis, 2013, 2014; Themeli & Bougia 2016), specifically, amending its concept of tele-teacher presence based on the categories that came out of an analysis of the data.

Tele-teacher presence is defined as an "expression of an embodied identity (audio-visual presence) that mirrors, or imitates thinking process, behaviours, emotions, and aesthetics for the purpose of realizing personally meaningful learning outcomes and a sense of 'place' for online students and educators" (Themeli & Bougia, 2016, pp. 150-151). The outcomes of this research suggest that a number of changes should be made to this definition.

By going beyond a focus on synchronous video communications to include other technologies such as video and virtual worlds, an additional level of complexity is introduced into the communication between tutor and student. Virtual world avatars do not have the same level of human-to-human communication as can be found in face-to-face settings or in synchronous video communications where the person can be seen. As a result, they introduce a new set of competences surrounding identity and its management across multiple media, i.e. how identity is developed across multiple media platforms, such as virtual worlds, social media, virtual learning environments and websites.

We modified the concept of tele-teacher presence within tele-proximity theory, see Table 2, and included transmedia identity management, critical visual literacies and

digital literacy. 'Critical visual literacies' replaces the sub-category of 'audio-visual communication and dialogue' as it is not just about being able to interpret audio-visual cues, such as facial expressions, but also being able to be critical of visuals (such as avatars) used in virtual worlds. This extends the category beyond face-to-face interactions. Similarly, we revised the sub-category 'Digital Literacy and Attitudes towards Synchronous Video Communications' to include the category of 'transmedia identity competences' as part of the more general sub-category 'Digital Literacy' that is inclusive of other visual technologies such as video and virtual worlds.

Table 2. The revised concept of tele-teacher presence.

Core-category	**Category**		**Sub-category**	
	Old	**Revised**	**Old**	**Revised**
Tele-Teacher Presence	**Identity**	**Transmedia Identity Management**	**Instructional Design/Pedagogy**	**Instructional Design/Pedagogy**
			Interpersonal Skills and Shared Academic Expectations	**Interpersonal Skills and Shared Academic Expectations**
			Digital Literacy and Attitudes towards Synchronous Video Communications	**Digital Literacy**
			Audio-visual Communication and Dialogue	**Critical Visual Literacies**
			Professional Salience	**Professional Salience**
	Authenticity	**Authenticity**	**Institutional Credibility**	**Institutional Credibility**

The most important addition to the model, and to the concept of tele-teacher presence is a change in the category of 'identity' into 'transmedia identity management' which participants in the study said was vital for online educators working in technology-rich environments.

We see transmedia identity management as a process of becoming, where the educator starts with the creation of a profile, builds a network of friends (social or professional), shares visual media, and engages in impression management, e.g. by adjusting their profile, posts and network. When identity is developed across multiple social media sites it becomes transmedia and the educators needs to consider their audience (i.e. their network of friends) and the global image they are projecting. Finally, visual validation of the digital personhood of self and others can occur through interacting with contacts in networks. The process evolves as people interact within networks and share media, knowledge and impressions in a negotiation of identity as they move towards personhood and a clear expression of their individuality online.

Conclusions

"The Internet is a visual technology, a protocol for seeing that is interfaced and networked" (Nakamura, 2007, p. 202). This study has investigated the role of visual literacies and identity in distance education using the methodology of informed grounded theory. We analysed data from 18 semi-structured interviews and reviewed relevant literature to investigate the perceptions of educators, on how, and why, visual technologies (such as virtual worlds) affect the identity of educators. This has led to the theoretical contribution of the research. We have expanded tele-proximity theory (Themelis, 2013, 2014; Themeli & Bougia 2016) by broadening it from its initial focus on synchronous video communications to visual media. We have redefined the concept of tele-presence has been redefined to include 'transmedia identity management' and 'critical visual literacy' which are seen as important categories of tele-teacher presence. Finally, we have provided an expanded and updated explanation of educators' views on tele-teacher presence in transmedia distance education.

A limitation of this explanation and extended theory is that it is based on the views of experienced educators, and does not encapsulate the views of novice educators, nor represent their professional journey. Further research could focus on the perceptions of less experienced educators, to expand the tele-proximity model to reflect the developmental journey. Researchers could also study the perceptions and attitudes of educators to engagement in transmedia identity management to enhance professional development activities.

The study has been based on 18 interviews with educators from many nations and disciplines so it may not include any nuances specific to disciplinary or national contexts. Further research could expand the number of interviews or focus on particular disciplinary challenges and national policy and practice contexts to expand the theory of tele-proximity and its implications for practice. The intention is that other researchers should build upon and extend this theoretical offering.

These findings could be used to enhance the professional development of educators in higher education, e.g. to provide training that helps new educators create and update their profiles on university websites, social and professional networks and to understand the consequences of their choice of avatars in virtual worlds. The expanded tele-teacher model could also be used to develop a course or training session to help educators master transmedia identity management competences and build positive profiles while exploring the power of networking as they learn to define who they are.

Thus, educators could improve their tele-teacher presence (i.e. their transmedia presence) and know more about themselves and the social implications for online connections, teaching and learning. Understanding critical visual literacy, educators could practice sharing more visuals to humanise their identity, promote rich

communication, and explore their identity through VR to build self-confidence and develop new teaching methods and digital pedagogy.

To effectively manage online teaching presence and their transmedia identity, educators need to acknowledge that visual and social media play a key role in distance education and that their students will benefit as they develop their confidence and fully engage in managing their teaching presence and transmedia identity.

Acknowledgements

This research was co-funded by ERASMUS+ Programme of the European Union under Grant 2016-1-UK01-KA203-024462. The partners were Lancaster University (UK), Danube University Krems (Austria), CARDET (Cyprus) and WIDE Services (Greece). The contents of this publication are the sole responsibility of the authors and can in no way be taken to reflect the views of the National Agency or the European Commission.

References

99Firms (2019, December 28). Facebook video statistics 2020. https://99firms.com/blog/facebook-video-statistics/#gref

Anderson, T., Rourke, L., Garrison, D. R. & Archer, W. (2001). Assessing teaching presence in a computer conferencing context. *Journal of Asynchronous Learning, 5*(2), 1-17. Retrieved from https://olj.onlinelearningconsortium.org/index.php/olj/article/view/1875

Baxter, J. A. (2012). The impact of professional learning on the teaching identities of higher education lecturers. *European Journal of Open, Distance and E-Learning, 15*(10), 1-11. Retrieved from http://www.eurodl.org/materials/contrib/2012/Baxter.pdf

Beaman, L., Duflo, E., Pande, R., & Topalova, P. (2012). Female leadership raises aspirations and educational attainment for girls: A policy experiment in India. *Science, 335*(6068), 582–586. doi:10.1126/science.1212382

Belk, R. W. (1988). Possessions and the extended self. *Journal of Consumer Research, 15*(2), 139–168. doi:10.1086/209154

Belk, R. W. (2013). Extended self in a digital world. *Journal of Consumer Research, 40(3)*, 477–500. doi:10.1086/671052

Boaler, J, Chen, L, Williams, C, & Cordero, M, (2016). Seeing as understanding: The importance of visual mathematics for our brain and learning. *Journal of Applied & Computational Mathematics, 5*(5), 1-6. doi:10.4172/2168-9679.1000325

Bolldén, K. (2016). Teachers' embodied presence in online teaching practices. *Studies in Continuing Education, 38*(1), 1-15. doi:10.1080/0158037X.2014.988701

Charmaz, K. (2006). *Constructing grounded theory: a practical guide through qualitative analysis.* Thousand Oaks, CA: Sage.

Charmaz, K., Thornberg, R., Keane, E. (2017). Evolving grounded theory and social justice inquiry. In N. Denzin, & Y. Lincoln (Eds.), Handbook of qualitative research (5th ed., pp. 411-443). Thousand Oaks, CA: Sage.

Christakis, N.A. & Fowler, J.H. (2009). Connected: The amazing power of our social networks and how they shape our lives. Harper Collins.

Danesi, M. (2016). *The semiotics of emoji: The rise of visual language in the age of the Internet.* London: Bloomsbury. Retrieved from https://www.bloomsbury.com/us/the-semiotics-of-emoji-9781474282000/

Doane, M. A. (1982, September-October). Film and the masquerade: Theorising the female spectator. *Screen*, 23(3-4), 74-88. doi:10.1093/screen/23.3-4.74

Dunne, C. (2011). The place of the literature review in grounded theory research. *International Journal of Social Research Methodology, 14*(2), 111-124. doi: 10.1080/13645579.2010.494930

Edvocate (2018). *The Edvocate's List of 20 Must-Follow Higher Education Twitter Feeds.* Retrieved from https://www.theedadvocate.org/the-edvocates-list-of-20-must-follow-higher-education-twitter-feeds/

Ganesh, S., van Schie, H. T., de Lange, F. P., Thompson, E. & Wigboldus, D. H. J. (2012). How the human brain goes virtual: Distinct cortical regions of the person-processing network are involved in self-identification with virtual agents. *Cerebral Cortex, 22*(7), 1577-1585. doi:10.1093/cercor/bhr227

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. The Internet and *Higher Education, 2*(2-3), 87-105. doi:10.1016/S1096-7516(00)00016-6

Giesler, M. (2018) The professor of the future: Digital and critical. *The Conversation*. Retrieved from https://theconversation.com/the-professor-of-the-future-digital-and-critical-98746?utm_source=twitter&utm_medium=twitterbutton

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* New York: Aldine de Gruyter.

Goffman, E. (1959). *The presentation of self in everyday life.* Carden City, NY: Doubleday.

Goodyear, P., Banks, S., Hodgson, V., & McConnell, D. (Eds.). (2004). Research on networked learning: An overview. In P. Goodyear, S. Banks, V. Hodgson, & D. McConnell (Eds.), *Advances in research on networked learning (pp. 1-9)*. Springer. doi:10.4324/9780203699188

Goodyear, P., & Zenios, M. (2007). Discussion, collaborative knowledge work and epistemic fluency. *British Journal of Educational Studies, 55*(4), 351-368. doi: 10.1111/j.1467-8527.2007.00383.x

Hew, K. F., (2011). Students' and teachers' use of Facebook. *Computers in Human Behavior, 27*, 662–676. doi:10.1016/j.chb.2010.11.020

Izadinia, M. (2014). Teacher educators' identity: A review of literature. *European Journal of Teacher Education 37*(4). doi:10.1080/02619768.2014.947025

Jenkins, H. (2003, January 15) Transmedia storytelling. MIT Review. https://www.technologyreview.com/s/401760/transmedia-storytelling/

Jenkins, R. (2008). *Social Identity* (3rd ed). New York, NY: Routledge.

JISC (2018). *Building digital capabilities: The six elements defined*. Retrieved from http://repository.jisc.ac.uk/6611/1/JFL0066F_DIGIGAP_MOD_IND_FRAME.PDF

Kavanaugh, A., Reese, D. D., Carroll, J. M., & Rosson, M. B. (2005). Weak ties in networked communities. The Information Society, 21(2), 119-131. doi:10.1080/01972240590925320

Kimmons, R., & Veletsianos, G. (2014). The fragmented educator 2.0: Social networking sites. Acceptable identity fragments, and the identity constellation. *Computers & Education, 72,* 292-301. doi:10.1016/j.compedu.2013.12.001

Larson, J. (2017). *The power of influencers*. Retrieved from https://collegiseducation.com/news/marketing/the-power-of-influencers/

Latu, I. M, Schmid Mast, M., Lammers, J., & Bombari, D. (2013). Successful female leaders empower women's behavior in leadership tasks. *Journal of Experimental Social Psychology, 49*, 444–448. doi:10.1016/j.jesp.2013.01.003

Lee, D. B., Goede, J. & Shryock, R. (2010). Clicking for friendship: Social network sites and the medium of personhood. *MedieKultur, 49,* 137-150. Retrieved from https://tidsskrift.dk/mediekultur/article/view/2585

Lehmuskallio, A., & Gómez-Cruz, E. (2016). Why material visual practices? In E. Gómez-Cruz & A. Lehmuskallio (Eds.), *Digital photography and everyday life. Empirical studies on material visual practices* (pp. 1–16). London, UK: Routledge. doi:10.4324/9781315696768

Lloyd, S. A., Byrne, M. M., & McCoy, T. S. (2012). Faculty-perceived barriers of online education. *Journal of Online Learning and Teaching, 8*(1). Retrieved from http://jolt.merlot.org/vol8no1/lloyd_0312.pdf

Lowenthal, P. R., & Dennen, V. P. (2017). Social presence, identity, and online learning: Research development and needs. *Distance Education, 38*(2), 137-140. doi:10.1080/01587919.2017.1335172

Masiki, T. (2011). Academic visual identity (AVI): An act of symbolic leadership. *Journal of Marketing for Higher Education, 21*(1), 85-105. doi:10.1080/08841241.2011.569591

Michelson, A. (2017). A short history of visual literacy: The first five decades. *Art Libraries Journal,* 42(2), 95-98. doi:10.1017/alj.2017.10

Nakamura, L. (2002). *Cybertypes: Race, ethnicity, and identity on the internet.* New York, NY: Routledge. doi:10.4324/9780203699188

Nakamura, L. (2007). *Digitizing race: Visual cultures of the internet*. Minneapolis: University of Minnesota Press.

Orzech, K. M., Moncur, W., Durrant, A., James S. & Collomosse, J. (2017). Digital photographic practices as expressions of personhood and identity: variations across school leavers and recent retirees. *Visual Studies, 32*(4), 313-328. doi:10.1080/1472586X.2017.1362959

Papacharissi, Z. (2002). The self online: The utility of personal home pages. *Journal of Broadcasting and Electronic Media, 46*(3), 346-68. doi:10.1207/s15506878jobem4603_3

Peck, T. C., Seinfeld, S., Aglioti, S. M., & Slater, M. (2013). Putting yourself in the skin of a black avatar reduces implicit racial bias. *Consciousness & Cognition, 22*(3), 779-787. doi:10.1016/j.concog.2013.04.016

Pentland, A. (2008). *Honest signals: How they shape our world*. Cambridge, MA: MIT Press. doi:10.7551/mitpress/8022.001.0001

Pentland, A. (2010, January-February). Defend your research: We can measure the power of charisma. *Harvard Business Review.* Retrieved from http://hbr.org/2010/01/defendyour-research-we-can-measure-the-power-ofcharisma/ar/1

Phirangee, K. & Malec, A. (2017). Othering in online learning: an examination of social presence, identity, and sense of community. *Distance Education, 38*(2), 160-172. doi:10.1080/01587919.2017.1322457

Stokes, J. & Price, B. (2017). Social media, visual culture and contemporary identity. In N. Callaos, A. Tremante, J. V. Carrasquero, F. Welsch and B. Sanchez (Eds.), *11th International multi-conference on society, cybernetics and informatics: IMSCI 2017 (pp.* 159–163). Retrieved from http://www.proceedings.com/51399.html

Themeli, C., & Bougia, A. (December 2016). Tele-proximity: Tele-community of inquiry model. Facial cues for social, cognitive and teacher presence in distance education. *International Review of Research in Open and Distributed Learning*, *17*(6). doi:10.19173/irrodl.v17i6.2453

Themelis, C. (2013). *Tele-proximity: The experienced educators' perspective of human to human communication in distance education*. Ph.D. thesis. Lancaster University: Lancaster, UK. Retrieved from https://ethos.bl.uk/OrderDetails.do?did=1&uin=uk.bl.ethos.718640

Themelis, C. (2014). Synchronous video communication for distance education: The educators' perspective. *Open Praxis, 6*(3). Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.840.8915&rep=rep1&type=pdf

Thornberg, R. (2012). Informed grounded theory. *Scandinavian Journal of Educational Research, 56*(3), 243-259. doi:10.1080/00313831.2011.581686

Top Hat (2018). *Innovative educators*. Retrieved from https://tophat.com/blog/edtech-social-media-twitter-youtube/

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge, UK: Cambridge University Press. doi: 10.1017/CBO9780511803932

Author Biographies

Dr Julie-Ann Sime carries out research and teaching in the field of technology-enhanced learning focusing on issues surrounding new technology and digital pedagogy.

Dr Chryssa Themelis is an educational researcher in the field of technology-enhanced learning, investigating visual literacies and digital wellbeing as manifest in educational uses of digital technologies.

Note

This is an Accepted Manuscript of an article published by Taylor & Francis in Journal of Distance Education, 41(1) on [date of publication], available online: http://www.tandfonline.com/10.1080/01587919.2020.1727292