1.4 Media and Technology Skills

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This dimension includes all the skills related to having knowledge about socio-political media economies, their own media diet, and technological features and languages. It also includes the evaluation and reflection on the qualities or characteristics of software, hardware, and apps. Finally, this set of skills also includes skills related to taking action regarding this knowledge.

Young people employ a range of media and technology skills in navigation of their online mediated lives. This indicates a number of differing strategies, both self-employed and imposed, to managing and presenting differing aspects of self. Yet a range of factors impact the scope and depth of young people's media practices. This includes media and technology skills as well as perceptions of media production aligned to binary institutional forms of perceiving how media use impinges upon the ways in which youth and digital culture circulates within a convergent media ecology.

Consumption, production and the circulation of culture

Understanding the patterns of young people's media and technology skills is complex due to the way in which "spreadability" functions as a core competent within "convergence" culture. The fluidity of the ways in which digital media tools are used facilitates multi-modal functions within convergent technologies. Moreover, the movement and circulation of content and consumers across multiple platforms work to erode the network-centred boundaries that have traditionally governed the relationships between production and consumption (Jenkins, 2006).

As content and users move across and between media - stories and media-technologies media engagement can be easily *dispersed* across social networks for *diversified* experiences, blurring the once *separate* and *distinct* roles that existed between *producer* and *audience* (Jenkins et al. 2013). Bruns' (2008) discussion of the "produser" therefore emphasizes the continuum through which media-content are situated within this convergent landscape.

However, the potentiality of authorship or the equivalent value that Jenkins (2009) argues is present within reading and writing in and through digital media is, by and large, undervalued by the Australian young people who participated in the Transmedia Literacy research. Like teens in the US and Europe (see Common Sense Media, Rideout, 2015 and OFCOM, 2016), only a small percentage of teens in Australia engage in content creation. There is a clear distinction between the value given to the creative possibilities afforded by digital media recognized by teachers and parents, and the realities of everyday media use and interest by teens (and others), and this reflects a binary. Similar to notions of "passive" media engagement (e.g. viewing a video online) that reflect "bad" media use, media content creation practices such as video-making are viewed as more productive and "active", and are viewed more positively. These kinds of binaries are also reflected in the recognition of more formal organized modes of learning that take place in classrooms and other settings, which contrast with informal learning practices that take place in settings where young people engage with online media technology (e.g. Ito et al., 2010, 2013; Sefton-Green, 2003, 2004).

As such, the use of media technology and associated skills is not simply determined by access or competence. The ways in which certain media practices are valued in relation to others shape media use as much as factors such as gender and age. The examples of youth practices discussed below serve to highlight these nuances.

Regulating and restricting use

How, when and where technologies are used are decisions that are reflected in how specific set ups, resources and technologies are made available to young people.

For example, Roger is a 12 years old boy that was born in Bangalore, India and lives with his parents and siblings in a south-eastern outer Melbourne suburb. Both of his parents were university educated and work as professionals. Roger did not use Facebook, Twitter or Instagram, because he stated that he is "too young". Throughout our interview, he repeated this constantly, the repetition of the same key words reflecting how his parents feel about his use of digital technologies. Nevertheless, we were surprised to find out that he uses WhatsApp. When asked about this he told us that his dad set it up for him because "sometimes he needs to know where I am going". This example reflects how certain technologies are banned while others are adopted and adapted, as they are understood as useful tools for maintaining household fidelity and structure.

Considering the whole survey population of 838 young people aged 12 to 18 living in the Greater Melbourne region, teen girls reported that they were more engaged with software that uses *creative expressive practices* such as drawing, writing and making music. This gender-difference with making forms of software, although consistent between boys and girls, is even more prominent between younger teens aged 12 to 14. Likewise, interest in photo-editing software follows a similar pattern in declining interest for older girls, indicating that as girls age they lose interest in using software tools. However, there are particular kinds of software that stand as exceptions to this general trend. Specifically, older girls used word processing and web-blog editing programs more frequently than younger girls. In contrast to this general declining interest in software programs as they get older, boys display very different patterns of use. Of the eight differing forms of software that participants were questioned about, half are mentioned as more frequently used among older boys (15-18) than boys aged 12 to 14. While girls appear more interested in creative-based pieces of software, survey responses suggest that boys express more interest in *technically oriented software*, namely computer coding and video-editing.

Social media and segmented identities

Teens, particularly young girls, discussed an awareness of constructing and presenting a sense of self within their use of more visually-based social network services i.e. Instagram and Snapchat. Although practices of creating, editing and sharing photos and videos on social media platforms are often overlooked as productive media practices, we see a careful negotiation of identity expression through practices such as using different social media for different practices and what one might think of as 'firewalled' identities. These are particularly tied to the imagined audiences for their public social media profiles. For example, by making use of "a main and a spam account",

as 15 year old Hailey describes her SNS profiles, highlights the benefits and pitfalls of being a socially mediated teen. As Hailey highlights, "the only reason why I'm on social media, is because I like keeping in contact with people that I can't see on a day to day basis… [however] I'm not really the kind of person who likes letting everyone see what's going on in my life. It's just not something that I feel comfortable with."

Addressing the conflict between being active and present within social media whilst tempering internal conflicts of being viewed and judged, the use of multiple platform profiles made available to different publics offers ways of strategically managing access to, and distance between onstage and backstage selves, as Erving Goffman (1959) describes the relationship of impression management. Hence for Hailey these questions of presenting the self in the everyday are characterized by the quality and depth of the relationship she has with those intended network recipients within the particular SNS platform. As she describes, "my main [account is] for people that either are just friends of friends, or people that I don't really know too well… So the people that I really care about, and I trust, basically, I let see my spam [account]".

Videogaming and fake accounts

Similar to social media use in the example of Hailey, videogaming teens also manage their social presentation and engagement with media by strategically managing identities. Twelve year old Darius, a self-proclaimed games enthusiast who aspires to work in the games industry, described himself as one of the "biggest gamers" amongst his social networks. Despite having an identity as a 'gamer', Darius used multiple gaming platform profiles as a means of differentiating between his legitimate and illegitimate gaming pursuits. Discussing the use of cheats for Riot Games' *League of Legends*, Darius recognized the value of "fake" accounts as a means through which he could access and use downloadable cheat scripts within in a game so as to avoid possible consequences the game developer may impose on these illicit activities. However, due to the complexities of managing profiles, which offer no easy demarcation between each other, Darius found himself performing cheats logged in under his main account. This meant that the system automatically and permanently banned his account resulting in the loss of previous game rankings and skins accumulated over many hours and years of game-play.

Producing culture, expressing self and making friends

For some active and self-recognisable producers of media objects, engagement, experimentation and expertise with technology is driven not by the allure of mastering digital media and software and the possible recognition and satisfaction arising from this but is instead pre-occupied by more socially-driven imperatives. Charles, a 12 year old boy whose mother describes as "special" due to his high functioning intelligence, compulsive tendencies and obvious physical tics, represents a good example of the social focus of digital media use. Although making close friends is a challenge Charles has struggled with his whole life, Charles' use of technology has helped to facilitate an ability to build strong [initially interest-driven] social relationships. At the same time, his skills have facilitated a deeper immersion in the film practices of analysis and production, one of his long-standing obsessions. Discovering a like-minded film enthusiast in his last year of primary school, Charles developed a collaborative, peer relationship with Arthur who he described as his co-producer. In this relationship where their technological competence is navigated via informal learning practices including YouTube tutorials and trial-and-error exploration, the pair have gone on to produce a number of short-films that they subsequently uploaded to YouTube. Consequently their informally learnt technological skills in video-editing via iMovie, set constriction and design, camera lighting and shooting not only enabled their interest-driven practices, what Ito et al (2010) describe as geeking out, to flourish, it also enabled the development of a peer community that came out of this collaborative relationship. Charles expressed satisfaction with the work and his ability to master it as well as its culmination in a friendship. Charles described his relationship with Arthur in particularly emotive terms: "He's my Yin to my Yang and I'm his Yang to his Yin and it's pretty cool"; a relationship that developed organically where their film-making exploits "just kind of naturally happen" and where "It's not sort of controlled, we just naturally do our strengths or whatever."

Final remarks

When equipped with responsibility to self-manage their media engagements, young people often do so in ways that demonstrate complex, inadvertent and strategic relationships between self and technology. In doing so some Australian teens display critical engagement between differing publics and the affordances these alternate personas can facilitate within social media services and videogaming respectively, as well as support rather than drive the development of social relationships and interest-based activities. But as Patricia Lange (2013) and many others have pointed out, not all young people experience equality in their mediated lives. Age and gender continue to persist as key determinants to navigating media use and engagement. At the same time the way in which youth participate in and perceive their media culture does not reflect key theoretical arguments. The value of making culture and the continuums that authors such as Jenkins and Bruns articulate in relation to culture do not correspond to the ways in which youth perceive and describe their media use. The ease at which young people such as Hailey point to when they create, send and share photos and videos via a SNS platform such as Snapchat is reflective of use that is "very normal" within their everyday media practices. This reflects the ongoing discrepancy that exists between the traditional institutions of home and school and that of academia that attributes increased value to the way in which young people participate within a convergent media landscape.

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Media and technology skills

SKILLS	SPECIFIC SKILLS	DESCRIPTION AND EXAMPLES
To recognize and describe	To recognize and describe the structures and organization of media companies and industries	To know how media lobbies work. **E.g., [Ta]** *I know that El País newspaper is a part of the Prisa Group [a Spanish media corporation] but that's it.*
	To recognize and describe the technical features of social media	To know what are the main features of social media. **E.g., [Ta]** *On Facebook you can like your friends' pictures and see the stuff people share.*
	To recognize and describe the software, hardware, games and app features	To know about the features of a specific app, device, game or software. **E.g., [Ta]** *In Wallapop you can sell and buy furniture or second-hand objects by contacting users nearby.*
	To recognize and describe videogames and consoles	To know about the features of a specific game and consoles (e.g., multi-player online mode, art and graphics, graphic card, connectivity, etc.). **E.g., [Ta]** *I only play Splatoon online. It's like playing with other people at the same time… Although in this game I can't communicate with others but it's cool anyway.*
	To be up to date on the latest media, cultural products, and events	To keep up with what's on in media and events (e.g., cinema, novels, videogames, cosplaying events, gaming conventions, board game meetups, etc.) **E.g., [Int]** *Do you attend the Manga Salon?* **[Ta]** *Yeah, I attend every year. And well, what I like the most is people cosplays. There are some really good cosplays. For example, last year there was a cosplay of the three admirals: Aokiji, Kizaru and Akaido.*
	To recognize and describe the basic rules and jargon of a community	To move through several communities following their rules and jargon (combo – videogames –, posing – Instagram –, rat kid – YouTube –, etc.) **E.g., [Ta]** *Do you know what a rat kid is?* **[Int]** *No, do you want to explain?* **[Ta]** *Rat kids, fans of YouTube, Minecraft, Call of Duty… They don't stop screaming. Super annoying. A bunch of insults you threw their way to shut them up and they get you killed in a second. They are Minecraft addicts, bloody addicts that spoil entire games… They are also fans of Vegetta, Willyrex, Perchita [famous youtubers in Spain], but these aren't the ones to blame though.*
	To recognize and describe advertising strategies	To detect the different advertising and marketing strategies. **E.g., [Ta]** *Sometimes it's too obvious they are promoting brands because the characters only wear certain T-shirts.*

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SKILLS	SPECIFIC SKILLS	DESCRIPTION AND EXAMPLES
To compare	To highlight the differences and similarities among social media platforms	To highlight the differences and similarities among social media platforms (e.g., Facebook vs Instagram; Instagram vs Snapchat; Twitter is for following celebrities while Whatsapp or Skype are for chatting). **E.g., [Ta]** *On Snapchat you can only upload pictures and messages.* **[Int]** *And Facebook?* **[Ta]** *Ah, and you can't like stuff on Snapchat.*
	To highlight the differences and similarities of types of software, hardware, and apps	To highlight the differences and similarities of types of software, hardware, and apps (e.g., Premiere vs. Final Cut; Afterlight vs. Mextures; brands of hard disks, of mobile phones, etc.) **E.g., [Int]** *Why iPhone* **[Ta]** *Because I dig its operating system and its design. I like it better because I dunno, it's more relaxed, calm, you can understand it easily, so…Android stresses me out, because everything's like… I don't see… There's no coherence. I don't like it, no.*
	To highlight the technical differences and similarities of videogames and consoles	To highlight the technical differences and similarities of videogames and consoles. (e.g., graphic features of FIFA vs. PES; PlayStation 3 vs. PlayStation 4). **E.g., [Ta]** *I need a video capture thingy to record while using PlayStation 3 whereas with Play 4 I just have to press a button and it starts recording automatically. It's much more difficult to get stuff recorded with Play 3.*
To evaluate and reflect	To evaluate and reflect on the qualities or characteristics of social media platforms	To reflect on the different social media qualities as, for example, buzz and popularity (e.g., likes, views on YouTube, being an influencer, youtubers going professional, etc.) **E.g., [Ta]** *Likes... Well, it was exciting to get the first comment and the first likes because there was a user telling us "Hey, I dig your channel, you keep it up", I dunno., it really pumped us up... like supporting us, you know? It was an experience that made me think we were on the right track and all.*
	To evaluate and reflect on the qualities or characteristics of software, hardware, and apps	To reflect on the different software, hardware, and app qualities such as, for example, usability. **E.g., [Ta]** *Windows is more prone to viruses if you don't protect it with an antivirus.*
	To evaluate and reflect on the qualities or characteristics of videogames or consoles	To evaluate and reflect on the playability of a game and other (not graphic) features. **E.g., [Ta]** *This game is so easy to play, you don't need much time to learn the basics.*
	To evaluate and reflect on the structures, business models, and organization of media companies and industries	To reflect on how media companies are organized and make profit (e.g., social media advertising – especially YouTube economies – market segmentation, channel increase, influencers, videogame pricing, videogame features, consoles that don't allow you to play older games, etc.). **E.g., [Ws]** *The group members talk about the videogame industry, they mention that it is one of the few sectors that keeps growing every year.*
	To evaluate and reflect on personal media competences and skills	To evaluate their strengths and weakness regarding media (mentioning what they do best or worse). **E.g., [Ta]** *I suck at Photoshop in general but I can say I'm very good at taking pictures.*

Media and technology skills

SKILLS	SPECIFIC SKILLS	DESCRIPTION AND EXAMPLES
To take action and to apply	To apply strategies for selecting and validating information	To trust information found online because it is popular or compare it with other sources of information. **E.g., [Ta]** *I usually say, well, this music video has so many views on YouTube it must be good.*
	To select a social media platform	To choose a social media platform over others based on one's knowledge and experience with these kinds of platforms. **E.g., [Ta]** *I like Spotify, but the free version. What's the point of paying?*
	To select hardware, software, and apps	To choose a device, program or app over others based on personal knowledge and experience with these kinds of products. **E.g., [Ta]** *So, a console is ready to play. A computer is ready to work and do other stuff. If the computer is not ready… Like the ones pros have. Those aren't work computers, they are special computers for gaming. If you don't have one of those, everything lags on, you can't see the movements well, for example.*
	To select videogames and consoles	To choose videogames and consoles over others based on personal knowledge and experience with these kinds of products. **E.g., [Ta]** *I always buy sandbox games because I don't have to follow fixed goals.*