P(l)aying Online: Toys, Apps, and Young Consumers on Transmedia Playgrounds

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This is a preprint; the final version is available at https://www.routledge.com/The-Routledge-Handbook-of-Digital-Literacies-in-Early-Childhood-1st-Edition/Erstad-Flewitt-Kummerling-Meibauer-Pereira/p/book/9781138303881

Wohlwend, K. E. (2020). P(l)aying online: Toys, apps, and young consumers on transmedia playgrounds. In O. Erstad, R. Flewitt, & B. P. Kümmerling-Meibauer, Íris Susana Pires (Eds.), *The Routledge Handbook of Digital Literacies in Early Childhood* (pp. 391-401). London: Routledge.

Abstract

Children engage their favorite media toys as interactive assemblages of virtual and real worlds, through popular characters and media narratives that ground a franchise's constitutive products--toys, video games, films, clothing, and other consumer goods. Often, toy transmedia retail websites resemble online playgrounds while advertising toys, games, and apps to young children. Children's transmedia sites are dense webs of consumer and imaginative practices, commercial products and playful desires, and embodied and digitized practices. Blurred practices of playing and paying on transmedia websites entangle children, popular toys, apps, avatars, and game mechanics as co-actants in assemblages in these contemporary play worlds.

Keywords: Online Play, Literacies, Mobile Apps, Popular Media, Toy Franchises

When children play together, they often enact and retell stories from their favorite transmedia franchises for toys, popular films, video games, mobile apps, clothing, school supplies, snacks, and so on. *Transmedia* refers to multimedia with a line of toys and consumer goods that are decorated with popular media characters and storied through a film's grounding narrative (Kinder, 1991; Jenkins et al., 2006). Examples of highly popular children's transmedia include Disney's film-based *Star Wars, Frozen, Disney Princess*, and *Avengers*; and Mattel's doll-based *Barbie* and *Monster High*. The distribution networks for commercial media franchises carry characters and narratives across film screens, fast food promotions, toy manufacturer websites, brick-and-mortar retail stores, video game consoles, and mobile phones in children's homes, schools, and communities. In this way, a film or video game materialises a core storyline through a set of toys and consumer products that pervade daily life.

At one level, children want to get their hands on appealing toys and games, to imagine themselves as beloved characters, to play favorite stories with friends, and to own the stuff that has the most cultural capital among their peers. At another level, children's play with commonplace toys tangles with the commercial strategies and profits motives of multinational media conglomerates partnered with toy manufacturers and retailers and spread across digital media, social media, and popular media on interwoven information systems and global distribution networks. Play is a productive literacy of possibilities (Wohlwend, 2008) that creates complex mergers of children's desires, imaginative resources, digital technologies, and corporate motives.

In this chapter, children's toys are examined as a site of convergence where play literacies bring together imagination, bodies, materials, actions, and spaces. A critical understanding of the assemblages of imaginative play that flow through contemporary childhoods requires more complicated explanations than binary structures that construct play as imaginary/real, material/immaterial, and so on (Carrington, 2013). Here, embracing play's ambiguity (Sutton-Smith, 1997) opens consideration of its improvisational capacity and transformational facility for cultural makings and remakings of popular media, digital media, and social media within immersive commercial play worlds. In this framing, a toy is more than a child's plaything—it's a dense site of engagement that hosts a nexus of productive literacy practices, social relationships, digital technologies, and cultural participation.

Children engage toys as assemblage that flows across in and out and across commercial spaces through everyday cultural practices:

- Paying: viewing products and encountering ads on television, retail websites, within games and apps, and making—or asking parents to make—purchases of virtual and real goods, online and in the aisles of brick-and-mortar stores.
- Playing: enacting stories with toys or video games on electronic screens in collaboration with other players, a physical environment, or an app's game mechanics. Playing involves collaborating and sharing with friends in games and apps, on social media, and in peer cultures (Burke and Marsh, 2013; Pugh, 2009; Wohlwend, 2015). T

Commercial, imaginative, and social practices tangle bodies, play, and toys, moving across the immediate spaces of children's worlds and global multimedia sites and networks that distribute consumer goods over vast distances.

Transmedia, Play Literacies, and Assemblage

Educational approaches to play have often reflected a classed preference away from over popular culture and mass market toys, toward more expensive, natural, non-commercial materials. The well-intentioned strategy to keep Barbie, Star Wars, Pokémon, and Frozen toys out of classrooms to avoid the stereotypical texts of popular culture can deny access to our most vulnerable children to familiar toys that are comforting reminders of home and to the storytelling resources they know by heart (Seiter, 1992; Pompe, 1996). However, literacy research that recognises mass-market media toys as literary resources has revealed children scripting, animating, and dramatizing with popular toys through a variety of literacy tools: 'branded fiction" in children's books (Sekeres, 2009) and apps (Marsh, et al., 2015). Further, play researchers who expand the notion of text to include multimodal multiliteracies (New London Group, 1996) have examined toys themselves as identity texts that communicate through action rather than print (Thiel, 2015, Carrington, 2003; Carrington and Dowdall, 2012; Black, Tomlinson, and Korobkova, 2016; Wohlwend, 2012, 2017; Wohlwend and Hall, 2016). This body of research complicates the ways that children's social purposes and popular media interests entangle with commercial designs and branding strategies of retailers, popular media producers, and toy manufacturers. Drawing on this work, I review transmedia toys as mobile and polycentric flows and play as a practice that engages assemblage as doings, undoings, and redoings. In the next section, the notion of toy is unpacked as an anchor that tethers expected portrayals of characters, narratives, and player roles but also as a convergence of multi-sited flows and trajectories that circulate from screens to markets to playrooms.

Transmedia and Popular Media

The stuff of play matters. Toys are material anchors for storying, thick with meanings layered into their materials by designers, writers, advertisers, retailers, and so on through all phases of productions (Wohlwend, 2012). Toys carry material meanings beyond their shiny surfaces, vinyl aroma, and bright packaging, such as expectations for particular kinds of players and toy uses, in the case of transmedia, additional identities are suggested by a toy's connection to films, television series, or video games that provide semiotic grounding for a franchise's licensed products. The child can live in-character through everyday/all day practices with toys as well as household items, from toothbrushes to technology. Multi-category marketing and global distribution networks amplify this personal immersion on a world-wide scale, engaging millions of children around the world. The mobility of transmedia across product categories has a bi-directional effect: affecting players' access and more interactions with the toys but also assembling additional uses and tangled meanings for the products. As toys move across platforms, meanings shift from film to toy to clothing to food and so on. Transmedia's core function is resemiotizing a set of consumer goods (by associating an ordinary product with a desired character, extending the product's and brand's appeal, and connecting purchases to fans' expression of their media passions. A transmedia toy, game, or other product cannot be viewed in isolation but must be considered within the range of goods that children can encounter (Kinder, 1991).

A toy, even while encased in packaging on a store shelf, invites particular players and ways of playing (Brougère, 2006). The toys materials' sensory properties-- softness of plush fleece, the gleam of metallic paint, or the elasticity of squishy vinyl-- convey cultural meanings and expectations for cuddling, zooming, or squeezing actions. Further meanings are attached to toys through their links to characters and narratives in films, television series, games, or other multimedia. Some transmedia franchises originated with toys, building on the financial success of an already popular doll or toy such as Strawberry Shortcake, Barbie, Transformers, or My Little Ponies, then spinning off animated films or television series. In other franchises, successful films inspired a line of toys, as in Disney Princesses. However today, a growing trend integrates media with toys from the outset so that films are released simultaneously with a supporting line of toys and consumer products. In 2017, blockbuster animated films dominate the transmedia market as toy merchandising merges with multimedia:

> In most years, Disney makes more money from selling branded movie merchandise than from the actual movies. A typical year sees seven or eight movies with toy tie-ins. This year [2017], there are about 25—an unprecedented number for the $20 billion toy industry. Among them: three Marvel Comics titles, two Lego movies, two DC Comics films, Cars 3, another Pirates of the Caribbean, one more Transformers, a new Smurfs, and the live-action reboot of Beauty and the Beast. (Bhasin and Mosendz, 2017, Para 3)

Research on popular franchises in children's media reveals far-reaching networks where players collaborate to imagine together in immersive multimedia play worlds that moves across digital media and social media. Edwards (2014) tracked the mobility of transmedia, mapping connections of an animated episode "Muddy Puddles" in the franchise "Peppa Pig" across video productions, toys and consumer goods, and media platforms, arguing that such trajectories constitute new configurations of "contemporary play" that emerge in the "digital-consumerist context" (p.220). Her research shows that the blurring of digital/material/social within the digital-consumerist context enables actual participation for children as bona fide consumers in markets and adult cultures, rather than sociodramatic pretense that simulates adult daily living activities associated with toys such as dollhouses and play kitchens. In other words rather than pretending to be adults who shop, children participate directly by spending money and making purchases:

> "…children are understood as representing 'three markets in one', including as (1) a primary market, spending their own money; (2) a secondary market, influencing parental spending; and (3) a future market, representing potential adult consumers (McNeal, 1987)." … When young children access and use consumer products, and move seamlessly in and out of digital media environments, they are beginning to engage in a form of 'play' which is not necessarily about the realisation of mature play. Rather, they are directly participating in the digital-consumerist context, such that their play is characterised by the possibilities enabled by the convergence between various products, digital media and digital technologies across a continuum of digital to non-digital experiences. (Edwards, 2014, p.224)

Playing with transmedia in digital spaces juxtaposes paying and playing in ways that conflate who and what is being pretended, consumed, created, and move across multiple products, contexts, roles, and bodies. When playing with a toy online, children enact a favorite character, navigate an avatar across webpages, consume in-app purchases, and more in transmedia websites

where children participate through networks, markets, and contexts. Given a toy's global scope and intimate reach, research is needed to understand play within the murky space of the digital-consumerist context.

Imaginative Assemblage in Play Literacies

The imaginative power of play assembles and reassembles identity texts in media toys: players pull threads in the tangles of bodies, props, toys, and technologies as they propose imaginary scenarios to both replay and reconfigure expected roles and stories. Play constructs imaginary and storied worlds that blur into here-and-now lived spaces. In this framing, transmedia toys are not simply texts to be read but stuff that can be built upon, made into contexts to imagine with others, and inhabited by merging pretense with practices of daily living. Transmedia materialise particular visions of childhood that circulate and converge in in these concentrations of media. Children make use of the complexity of converging meanings of toys to remake commercial play worlds for their own purposes-- in ways that both reproduce and rupture the expectations. For example, during play, children might respond to a toy's character identities but also the child's expected role as player and consumer. Contemporary play engages a range of expected identities, actions, and practices for engaging toys and producing meanings across personal and global spaces or digital media and social media platforms.

The framing of toys as assemblage posits that artifacts such as toys convey anticipated user actions, signaled in part by their previous and potential uses. Temporal and spatial trajectories of toys converge in a moment of play action as a semiotic aggregate (Scollon, 2001). This notion resonates with Latour's (2005) actor network theory premise that people and things are co-actants that move as an interacting assemblage across networks. In other words, things play with children as much as children play with things (Rautio and Winston, 2011). Rather the basis for this framing is sociocultural, but de-centered and made messier by Latour's insistence that assemblages are constantly mobile and changing. (Despite the common focus on action, materials, and fluidity, this cultural/historical definition of assemblage differs significantly from Deleuze and Guatarri's (1987) theorization of assemblage as conglomeration of disparate bodies, things, and meanings in ongoing fragmentation and active making, unmaking, and remaking.)

This play assemblage framing critically engages the convergences of toys, games, commerce, peer cultures, and social media networks through the notion of *collective cultural imaginaries* of childhood --story worlds and visions of who children should be and become—that circulate through transmedia (Medina and Wohlwend, 2014). Cultural imaginaries circulate through media franchises as children play games and imagine future or fantasy worlds together, recruiting friends and followers in here-and-now play spaces and across social media platforms. Fueled by repetitions and interconnections across time and space, toys and games are reshaped and reimagined all day, every day in local and global ways, where each playing is also a remaking of a toy's meaning. For example, I have argued that transmedia play is a key site where players can engage, reproduce, and revise stereotypical expectations for doing "girl" or "boy" that circulate through imaginaries of childhood within popular media (Wohlwend, 2012).

Using imagination as a social practice, children can remake commercially-produced media identities, change a given pretext, imagine a new context, and expand ways of belonging in their

peer and school cultures. Play provides opportunities to access, negotiate, and combine multiple contexts and blend meaning potentials for 1) characters in literary and media narratives, 2) consumer expectations in brand identity marketing, 3) social trajectories in peer culture, and 4) shared expectations in children's collaborative play. Play literacies produce complex worlds and social spaces where children collectively enact and remake cultural imaginaries (Medina and Wohlwend, 2014) with reconstructive potential for meaning and belonging.

Methods for Examining Assemblage in Children's Media Play

The tracking of convergence and trajectories in nexus analysis (Scollon and Scollon, 2004) aligns with mapping of assemblage and mobility in actor network theory (Latour, 2005). Actor network theory recognises material as well as human actants in interactions within social/technological assemblages that link, repeat, and rupture as they continually move and morph across platforms and networks. Similarly, nexus analysis tracks the mergers of materials, bodies, social groupings, and discourses that make up the nexus of expected, almost automatic practices mobilised across space and time yet clustering in a particular site or phenomenon, in this case, a transmedia franchise's official website. Nexus analysis critically examines the naturalised practices of a culture, whether peer cultures, consumer cultures, or digital cultures, that tend to normalise expected ways of "doing and being" (Gee, 1999) that uphold dominant discourses. A nexus of practice signals a shared affiliation and elicits automatic, mutual cooperation (Scollon, 2001) among a group of players, shoppers, or fans. Mapping actions and interactions of toys, players, and transmedia networks reveals repetitions and ruptures in both the content and player/computer interactions of commercially-produced media such as toys, games, and apps on transmedia websites.

In the next section, I track the actants, actions, and interactions with a mobile app in the popular doll transmedia website, *Monster High*, to identify the trajectories of expected user identities and actions and to track play actions and identities entangled in the digital-consumerist context. (The following analysis was conducted on a 2015 version of the app; the app has been discontinued and is no longer available on the Monster High website or in app stores.)

P(l)aying and Assembling Toys Across Media

Consuming Apps in Transmedia

As children play games on transmedia websites, they may encounter marketing such as retail links to manufacturer's products and product launch advertising in the form of announcements of new characters. Aligning with a larger trend, the virtual economies in these games reflect corporate priorities and can be structured to prompt real money transactions

through a range of strategies embedded in game mechanics, incentives to purchase deluxe virtual merchandise and in-game currency (Grimes, 2015a). In addition, transmedia websites offer retail shopping with wishlist and shopping cart options to order toys and merchandise, either directly from the manufacturer or from online retailers.

A common feature of transmedia websites is access to free apps where children can play with toys and engage in digital play with characters through simple games such as matching puzzles or platform games where players move up levels along a path. Before playing web games or downloading apps, website safeguards may require users to register and log-in; at one level this provide a safe site for the protection of children but at another, this enables website owners to collect customer data and enable in-app purchases of additional game features or actual merchandise. An End User License Agreement may explicitly state that the company does not collect personally-identifiable information from children but that does not mean that it is not automatically collecting user data via cookies. For example, tracking of children's browsing patterns on the website and quiz responses on likes and dislikes can provide the manufacturer with valuable data on consumer response to their products.

Some transmedia websites and apps offer free usage but require players to log in with proof of purchase code (e.g., Webkinz, McDonalds) while others subsidise free access with in-app purchases or advertising. Other sites offer a two-tiered (e.g., basic/deluxe) membership structure, a common strategy to generate revenue through subscriptions rather than advertising. For example, in Disney's now-discontinued Club Penguin,users who bought

> a paid membership, rather than use the free membership, [could] transfer offline credit into virtual credit, as it [would allow] them to buy additional clothes for the avatar and furniture and artifacts for their igloos, which then coverts into social capital, as members are invited to members only events, such as parties in igloos. Cultural capital is accrued through knowledge of the game itself, and the wider one's experience in the game, the richer one's cultural capital, which again indicates that those users who have paid membership can accrue a greater amount of social capital. (Marsh, 2011, p. 109)

Today, on many websites, children also learn expectations for consumer dispositions and practices while playing games: tokens or points buys privilege, shopping is continual, with countless purchases of goods for avatars such as clothing, makeup, hairstyles, accessories, or furniture to furnish their avatars' rooms. Players may also send virtual merchandise as gifts to one another. The variety of options for sale on children's apps (e.g., avatar costumes, food, furniture, certificates) is perhaps the archetype what Daniel Cook (2007) identifies as intransitive choice for child consumers, that is, a selection of options offered to children that provides the appearance of choice and agency but that results in no lasting or meaningful change. However, it is important to remember that despite what appears to be limited choice, literacy research also shows that children inventively use play to work around restrictive features to accomplish their goals in virtual worlds (Grimes, 2006; Marsh, 2011; Burke and Marsh, 2013).

In some franchises, the link between real world currency and virtual benefits may be transparent and direct. Websites link players to app stores where IOS games can be downloaded as free apps to tablets or smartphones: These mobile apps extend a purchased toy, creating webtoy hybrids (Shuler, 2007) that is an assemblage of physical toy, human actor, and digital avatar. A backgrounded component of this assemblage is essential to the paying/playing relationship: a caregiver/consumer, who provides technology and connectivity, purchases webtoys and loads apps, and disables or enables in-app purchases to an authorizing credit card. Because more affluent families are more apt to purchase apps, "… children in the families with lower economic capital are the ones most likely to encounter these features, which often have a negative impact on the quality of game play" (Marsh et al., 2015, p. 42).

Playing Dolls in Digital Media

The free app *Ghouls and Jewels* app that was available on the Monster High doll transmedia website is a match-three puzzle IOS game (e.g., Candy Crush), released in 2014 (now discontinued). In this platform game, avatars travel across a fixed route as players solve 130 puzzle grids along the way. Players must earn 20 out of 30 stars to unlock the next more difficult level. A content analysis of the MH narrative that provides a throughline for this game reveals a foregrounded narrative on a set of MH characters, problem-solving to retrieve lost jewels that are cursed to cause "dreamwalking" identity confusion that prompts misadventures among the MH characters.

The narrative is carried by introductory two-character comic strip panes with speech bubble dialogue that precede each of the 13 puzzles. The characters' dialogue offers a pretext for differentiating clothing and backdrops in each level that provides a gloss of diversity through stereotypical cultural markers: Slavic syntax, artic snow and ice, pink and blue pastels for Abbey Bominable; Día de Muertos motifs, pinatas, desert cacti, and Spanish translanguaging, "Mi Abuela is making tamales today" for Skelita Calaveras. Diversity here is decorative and superficial, a device to create product differentiation, or a difference that makes no difference (Orr, 2009). The story is pre-set and has no impact on game play; rather the relevant content for play focuses players acquisition of coins, pets, jewelry (e.g., bloodstones), and shopping to dress their avatars in more powerful and advantageous outfits.

Paying blurs with paying from the first moments of obtaining the app. Downloading the free app requires an Apple ID linked to a credit card, and during subsequent play, players can purchase in-app merchandise such as avatar clothing, pets, pet food, or additional points, allowing players to gain an advantage in the game. For example, each pet brings a special ability (e.g., providing additional seconds of play, enabling extra moves, or targeting and removing troublesome puzzle pieces). Games can be replayed without penalty to enable players to repeat games and earn enough stars to unlock a level. Players also earn coins in the token economy within the app, which can be redeemed in a particular level for a new outfit. Playing a game with an avatar dressed in the level's bonus outfit generates easier puzzles, making substantial bonus points possible. Players earn points, which can be spent at the "Maul" to purchase outfits and accessories for avatars or pet food. Screens that pop up just before time expires at the end of

each puzzle invite players to buy more time so they can solve the puzzle. Additionally, in-app purchases enable players to buy avatar clothing or pet food and owning these virtual goods provide additional advantages within the game: easier puzzles with more available matches for higher scores, extra turns or time to solve the puzzle, or unblocking puzzles with a pet who can destroy troublesome puzzle pieces.

However, actant interaction in games can also be analyzed by game mechanics and the complexity of game operation (Jones, 2015; Grimes, 2015a). The highly repetitive and "addictive" game develops a propensity in players for rapid scanning for matches and automatic swipes in response to the computer's grid, which requires iterative cycles of hovering and swiping in every game. There is an expectation of automaticity and repetition of physical response labor that is in tension with the need for strategic planning for the best sequence of moves to produce matches of 3, 4, or 5 jewels that lead to a series matches. Gee (2009) argues that the ability to move virtual game pieces involves more than a winning strategy; it offers a "micro-control" that provides players with satisfying and visceral "embodied power….video games, in giving players micro-control over an element or elements in a virtual world, create an effect where the player feels that his or her body has extended into and is intimately involved with the virtual world" (Gee, 2009, p. 70).

The interaction order operating here is player against/with computer, where the game mechanics are both a game structure and an actant in the game. The tensions that this produces are evident in players' expectations for fair play in the computer/player interaction through random shuffling by computer is apparent in reviewers' complaints that the game "cheats" through such disruptions and interruptions. Although the impartiality of shuffling and freeze-ups are visible and questioned on social media, the backgrounded two-tier play so common in commercial games goes unchallenged. Paying players are buying more micro-control and agency over the game design/opponent and experiencing more embodied power through purchases that give greater amounts of time for solving puzzles, power-up devices, do-overs, and other micro-controls. Players can buy their way up to the next level by real world purchases of virtual merchandise, repeatedly purchasing pets, bloodstones, or clothing, but with short-lasting benefits that do not accrue beyond the current level. While it's possible to earn enough stars to unlock each level in the game, a non-paying player progresses much more slowly.

Recruiting and Following Friends on Social Media

Paying, playing, and friending intertwine through player options to earn benefits by linking and sharing on social media. The free app does not require a toy purchase; instead the app includes in-app advertisements to other games and products, in-app purchases of extra points and virtual merchandise, or player app endorsement through Facebook posts in order to recruit co-players to unlock blocked features. For example, a locked level can also be unlocked by connecting to Facebook and recruiting friends to download the app and play.

Beyond the app, the MH website prominently displays icons to social media sites sponsored by the franchise: YouTube channels, Instagram, Facebook, Tumblr, and so on. The official websites on these social media networks serve as additional outlets for advertising messages that announce new products and build excitement around the brand. The centralised control of content intensifies the brand message through repetition and retains tight control over the brand's image, by design. They also provide marketing data as the number of views and likes on social media sites can be tracked as indicators of the success of product launches and depth of customer engagement with various products. Fan response on the official sites is limited to clicking likes (600-700 per post on FB) and adding comments to official posts, which are probably screened by the company as comments seem limited to declaring love for the MH characters or pleading for re-release of discontinued products; Mattel posts and copyrights the images and text on these sites, occasionally re-posting fan posts or related content such as MH photos from ComicCon or makeup tutorial channels on YouTube. Fan cultures are blurred in game play and social media sites where the age of participants is uncertain, but also in promotional events advertised through social media such as costume play conventions where adults and children can dress up as favorite media characters.(e.g., Comic-Con). The Ghouls and Jewels app featured tie-ins to through special avatars that matched dolls Manny Taur and Iris Clops that were available for sale only at 2014 Comic-Con.

De-Centering and Re-Assembling Research for Polycentric Play

In the previous sections, tracking the interactions in one transmedia app showed how toy meanings are configured by assemblages of players, body actions, character designs, profit motives, and game mechanics situated in a dense network of consumer goods and children's desires. These assemblages travel on trajectories that thicken and thin, tangle and detangle as they travel across websites and playscapes where children enact characters, play games, create avatars, purchase products, watch videos, and affiliate with groups on social media. Online and offline, fueled by repetition, variation, and mobilised in trajectories across time and space, toys and games are reshaped and reimagined all day, every day in local and global ways--each child's playing a remaking of the toy's meaning.

Latour (2005) notes that because this kind of repetition, remaking, and change and movement is the continual state of actants in motion on networks, it takes effort to keep things in place. Instead of looking for transformations that are everywhere, actor network theory suggests it might be better to find methods that locate places where resources cluster to keep actants immobile. In this framing, marketing strategies to protect the brand, from product licensing to game mechanics to social media moderation, are stabilizing forces that attempt to limit and control possibilities for transformation. For example, the digital game mechanics of repetitive puzzles that allow little player input or creative alterations works with other strategies within "official" spaces to guarantee a manufacturer-approved "real" product to consumers but also to limit dilution of the brand. Additionally, game mechanisms that limit players' micro-control drive more consumption of in-app purchases as players seek advantages and easier ways to progress.

Children are underestimated when the productive potential for remaking is designed out of toys and products. When toymakers create a brand persona, they invite children to interact through emotional attachment with a character, not a product. These meanings are always in flux, even in commercial spaces, as the toy persona morphs across official spaces (e.g., licensed media and products) and unofficial spaces (e.g., third party knockoffs, fanfiction and fanvid). Manufacturers seek to protect the value of their brand persona from dilution from remaking and imitations that proliferate as toys become popular. To protect persona/products, toys and websites are designed limit tinkering and remaking, although if a toy is an invitation to play, it is also inherently an invitation to improvise on the authorised meanings of objects, characters, and imaginaries.

Carrington (2013) argues for a polycentric view of transmedia that recognises that the overlaps of multiple products, actions, and purposes with toys produce slippages that open opportunities for remaking. Decentering transmedia would look for spaces of rupture among multiple imaginaries where players can re-assemble, tinker, and improvise on commercial spaces. Assemblage converges cultural imaginaries as well as digital, popular and social media platforms, creating repetitions, resonances, and ruptures, making rich sites for children who, as knowledgeable cultural participants producers, can reproduce, resist, and improvise on such practices for their own purposes. For example, when children play in virtual worlds, they take up the valued ways of participating in peer play cultures that converge and conflict with the official rules and interaction orders established by the commercial website. Players' collaboration can overcome restrictive rules and controls through improvisation, enabling unofficial possibilities unforeseen by adult designers, such as players spelling out transgressive message by arranging their penguin avatars' bodies on the screen in real time (Marsh, 2011). Digital networks and social media converge peer cultures of fans who consume and produce the franchise, the gaming cultures of players who engage through games and apps, and consumer cultures who engage through purchases and reviews on the retail sites as well as the advertisements that precede the video or banner advertisements that run along the bottom.

More research and new research methods are needed that recognise children's play with digital media as critical engagement with commercial transmedia. Questions of equity around access and participation need to be unpacked to make visible the social, material, and ideological effects of media convergence in young children's imaginative labor and cultural production: Who gets to play with the newest and most powerful toys and technologies? Whose play is limited to free apps on manufacturers' websites? Who gets to collaborate, produce, and share their own media with peers? Assemblage theory supports analytic approaches that begin with an examination of a toy for its histories, identities, and composition that then spreads out across the franchise and its networked locations to map its circulations and locate its multiple interactions; examples include nexus analysis of Lalaloopsy dolls (Wohlwend and Hall, 2012) or object ethnography of a Lego Hazmat figure (Carrington and Dowdall, 2012).

Productive play-based early literacy curriculum that recognises young children's expertise with popular media is long overdue. Expanded approaches to literacy curriculum and instruction are needed that integrate popular media and move beyond media literacy focused on critical readings or informed consumption in the digital consumerist context. Children need opportunities to play together and produce their own media, guided by teachers who recognise that children at play are already purposive cultural participants who are capable of not only remaking the meanings of

identity texts of dolls and toys but also wielding these texts to access and participate in social groups and peer cultures.

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â€¢ Transmedia Toys. â€¢ Upcoming Hollywood Projects. Appendix.Â Transmedia involves narrative threads tailored for different channels (from mobile to big screens, from social to traditional media) and audiences (gamers, readers, Tweeters, etc.). While not a new concept, itâ€˜s becoming more pervasiveâ€”and eventually will become the norm.Â Mind Candyâ€”the. online games company that developed the innovative transmedia game Perplex Cityâ€”says half of all British kids age 6-12 and one in five in the U.S. have â€•adoptedâ€– a Moshi Monster, with more than 1 million virtual items sold daily. Photo credit: moshimonsters.com. TRANSMEDIA RISING. Online. Run hosted Swift or deploy own instance with Docker. Packages. Use 3rd party frameworks. Show your code. Easy to Use. Ready to use with your own content, or customize the sources! Swift on Server.Â "Support for the SPM and custom frameworks makes this quite a flexible tool already. As far as online code editors go, this site looks very well done!" iOS Dev Weekly #336. David O. "I was sad to see the IBM Swift Sandbox get deprecated. This is a welcome addition to the world." Kacper H. "Looks nice, congrats!"