Children's Media Making, but Not Sharing:
The Potential and Limitations of Child-Specific DIY Media Websites

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Introduction

From drawing pictures to making home movies, children have long produced their own, do-it-yourself (DIY) media at the individual and local scale (Brosterman, 1997; Ogata, 2013). Today, children's DIY media creation increasingly takes place online, using digital technologies and tools that allow them to not only produce but also share their ideas with the world. A recent survey of Canadian students in grades 4 to 11 found that 38% had "posted their own story or a piece of artwork" online, 33% had posted "videos or audio files of themselves doing something," and 22% had posted a fan tribute or mash-up (Steeves, 2014: 31). Meanwhile, numerous new tools and websites aimed at children's media-making are now available, along with a multitude of apps, digital games and software programs (Goldman Getzler, 2010).

One of the most important aspects of this trend is how it has increased children's access to tools of "mass" distribution. Whereas child-made media was once relegated to refrigerator doors and classroom bulletin boards, it can now be published on shared, public venues. From an education perspective, this shift has the potential to support the development of many of the skills children need to be participants in the digital economy. Socially, it raises a number of important opportunities for the advancement of children's cultural rights, as well as new questions around issues of children's privacy and authorship (Grimes, 2014a)

The spread of children's DIY media has the potential to make media as a whole more diverse and democratic, by opening up the means of production and distribution to a group that has been systematically excluded from contributing directly to these processes. On the other hand, not all dimensions of children's media production have received the same amount of attention or consideration within the literature, or within the popular discourses and initiatives currently aimed at exploring and promoting children's DIY media-making. While academic research into children's DIY media is steadily increasing, we still know very little about the designs and structures of the websites, tools, and other artifacts that children are using to create and share media content online, or where these fit vis-à-vis broader socio-historical trends contributing to the social construction of children's creativity—particularly those promulgated by consumer product marketing (Ogata, 2013; Seiter, 2008).

This paper relays findings from the first stages of a three-year inquiry project into the opportunities and challenges associated with the rise of children's online DIY media. It starts with a brief review of the literature on children's media-making, with an emphasis on identifying key gaps in the research that has been conducted to date. Focus then shifts to the current study, which combines findings from a media scan and subsequent content analysis of 140 children's media-making websites. Among our key findings is the discovery that although there are now many websites dedicated to children's media *making*, very few enable them to share their creations. Furthermore, corporate ownership claims and a lack of features aimed at enabling user

interaction often diminish the sites' potential to advance children's cultural rights and educational opportunities. We conclude that a disproportionate emphasis on making as a form of individual learning has led to an undermining of crucial dimensions of children's DIY media.

Literature Review

In 2009, citing the then-recent finding that nearly half of all teens online engaged in digital media content creation (Lenhardt and Madden, 2005), Jenkins et al (2009) published a report announcing the arrival and implications of "participatory culture." Populated by youth, they described a "culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing creations, and some type of informal mentorship whereby experienced participants pass along knowledge to novices" (3). Among the features that made this culture unique was it's mobilisation of What You See Is What You Get (WYSIWYG) "web 2.0" tools and social networking forums (SNF), and that it often revolved around the creation and sharing of user-generated content (UGC), fan creations, and remixes.

In recent years, academic and public interest in youth participatory culture has skyrocketed. However, this interest has largely been framed in relatively narrow terms. For instance, much of the academic literature in this area is focused on the educational benefits of DIY media-making for the development of "hard" (technical) skills, such as film editing and computer programming (e.g. Kafai and Pepper, 2011). Similarly, while there are now numerous examples of out-of-school programs and other initiatives centered on young people's media-making, many of these place special emphasis on the learning of Science Technology Engineering and Mathematics (STEM) (e.g. Blikstein, 2013; Careless, 2011). In both arenas, much less attention is accorded to other critical dimensions of children's media-making such as *sharing*, or the broader implications for children's relationship to media and society. At the same time, an overly narrow framing of what constitutes as "DIY" results in the marginalisation of many of the media-making practices that children and young people already engage in.

Conversely, although making is at the heart of many of the sites and examples listed in Jenkins' report, their definition of participatory culture includes many activities that are more commonly associated with everyday, non-productive, and consumer-based uses of web 2.0, than with hard skill development. For Jenkins et al, much of the value of participatory culture can be found in its *participatory* dimensions, which are equally important to young people's development of crucial new media literacies. This category encompasses textual and traditional media literacies, but also skills relating to effectively navigating, critically evaluating, negotiating, collaborating and contributing to the fabric and culture of contemporary society. The importance of sharing has been argued by other scholars as well, including Magnifico's (2010) exploration of the value of designing or writing for a specific audience, Black's (2008) examination of giving and receiving constructive criticism, and Monroy-Hernandez et al.'s (2011) analysis of the benefits of viewing, remixing, and modding others' creations. Sharing digital artifacts, especially in contexts where others are creating similar types of artifacts, is also a key part of what links media-making to public and civic engagement (e.g. Bennett, 2007; McChesney, 2007), exercising one's communication rights (Coombe, 2010; Hamelink, 2008), as well as engaging in meaning-making, identity, and cultural belonging activities (Bourdieu, 1978; Fiske, 1991; McRobbie and Garber, 1976).

The prioritisation of sharing is reflected throughout web 2.0 and the broader, contemporary digital cultural ecology. Currently, many of the most popular websites for making and posting content are UGC-based. They involve using highly-accessible, WYSIWYG tools and posting creations to corporately-owned networks. Key examples include YouTube,

Instagram or Tumblr. While much of the content uploaded to these forums clearly meets traditional definitions of "original" or "creative," they also contain a significant amount of customised, reconfigured and reposted material (Sinnreich et al., 2012). Such materials are often made using free online tools that can be used without pre-existing technical skills or in-depth knowledge of either computer programming or media production technologies. At the same time, because UGC tools have such low barriers to access, a much greater proportion of users can use them, including groups traditionally excluded from technological intervention and media production, such as girls and youth from low-income urban communities (Lenhardt and Madden, 2005).

These trends are particularly relevant for young children, a group that until recently has been routinely excluded from most areas of mass media production. Traditionally, "children's media" has consisted of texts and artifacts made *for* children *by* adults (Kline, 1993). When children's voices were heard, it was in highly-curated contexts wherein adults retained most of the editorial power. Even with the arrival of UGC tools and social networking forums, traditional power dynamics have been slow to change. For instance, for many years, young children were often banned or formally restricted from participating in many online, and especially web 2.0, activities. As examined elsewhere (Grimes and Fields, 2012), this was partly a result of the regulatory restrictions on collecting personal information from children found in the US and various other Western countries.

Today, young children can be found contributing to online media-making in a range of formats and genres (Lenhart et al., 2010; Livingstone et al., 2011). In addition to shifting norms and regulatory requirements, numerous websites, programs and consumer products aimed at children's DIY and UGC media creation are now available. Some of these have been examined in previous research, including Kearney's (2007) discussion of girl bloggers, Bannon's (2013) analysis of the Chicago Library's *YouMedia*, Marsh's (2014) work on children's writing in *Club Penguin*, as well as the authors' own respective research on DIY programming website *Scratch* (Fields, Giang and Kafai, 2014) and UGC-based digital games (Grimes, 2014a, 2013b). To date, however, much of this scholarship has focused on a single websites, some of which were developed under highly unique circumstances—such as out of a university (e.g. *Scratch*), or through a special funding initiative (e.g. *YouMedia*).

There is thus a lack of comprehensive and comparative research in this area, leading to important gaps in our understanding of the DIY media phenomenon as a whole. There is also a lack of critical analysis of the actual technologies that children use to produce media content, particularly when it comes to the commercial, entertainment-driven tools and websites that children use in their spare time, at home and in other everyday contexts. This omission is particularly relevant given that many of these tools are corporately-owned and thus raise important questions about the commercialisation and privatisation of children's media-making.

Current Study

The current study aims to address some of these oversights, drawing on data gathered in the first stages of an ongoing, multi-method research collaboration between academics, industry, educators, non-profits, parents and children, aimed at better understanding the opportunities and challenges involved in children's online media creation. *The Children's DIY Media Partnership* seeks to identify the types of support systems—regulatory, infrastructural, and technical—that would most effectively and sustainably foster a rights-based, inclusive, child-centric approach to addressing children's cultural participation online.

The first stage of this project consisted of an extensive media scan aimed at identifying websites that described themselves as having a primary or secondary focus on media making, and were determined to be either targeted to children or were child-inclusive (i.e. did not formally ban children from participating). The sites identified through the media scan were then subjected to two forms of content analysis: first a review of the privacy policies and terms of service documents contained within each site, second an in-depth analysis of the sites' graphic user interface (GUI) designs (herein referred to as 'designs') and various accompanying texts.

The following sections briefly describe some of the key findings that emerged from these three research interventions, with a focus on those relating most specifically to the role of sharing within children's DIY media sites. Although the sites themselves contain important differences and unique attributes, for the purposes of this paper, we focus solely on dominant patterns.

Media Scan

The media scan was conducted between June and September, 2013, with the goal of finding all available, English-language websites where children could make and share media content that they themselves had created. While this included intergenerational websites, we focused on searching for websites targeting children under age 13 as this is a neglected population in research on kids online (Grimes and Fields, 2012). The scan was conducted using multiple search engines (i.e., Google, Bing) and applied search terms like "children and DIY media" but also more generic terms such as "stories by kids" and "children music websites." In an attempt to ensure the search engines were not over-customizing for individual users based on search histories, research team members repeated each other's searches using identical terms on different computers, from different locations.

The criteria for inclusion in the study were relatively open in order to identify online websites that *described or promoted themselves* as forums for children to make and share media content. We applied a broad definition of 'media,' including diverse formats and genres, from stories, news, writing, art, video, music, to computing and other DIY media. Although open to UGC as well as DIY websites, we limited our search results to sites that allowed users to contribute content beyond simple and superficial (i.e. limited, aesthetic) customisation. Furthermore, we did not include sites if there was no opportunity to share created media, if the site clearly did not allow or strongly discouraged children from participating (for instance, by formally banning them in the privacy policy), or if the site was defunct or out of date (i.e. had not been updated in several months or years).

The most important and unexpected finding to emerge from the media scan was the dearth of children's sites containing sharing features. A great number of our early search results were ultimately eliminated because they failed to provide tools or mechanisms for sharing content. These sites provided media making tools, instructions, or resources to help kids create media without any tools or support systems for distributing or sharing that media with other users, or with the broader public. A small number of the eliminated sites allowed parents to share their children's work (instead of the children themselves), and of those several problematically allowed parents to publish and sell for a profit their child's media creations.

In addition to the multitude of websites excluded during the scan itself, another 107 sites were eliminated during the early stages of the content analysis. Although sharing was mentioned in the sites' descriptions, the sites themselves did not contain any built-in support for publishing and distributing content. In other cases, sharing content was encouraged, but only by using third-party services, such as Facebook. As a result, despite the depth and breadth of the search process employed, only 140 websites met the criteria for inclusion in our study.

Terms of Use and Privacy Policies

Our media scan included a cursory review of privacy policies and terms of service (TOS) in order to ensure that the sites included for study were indeed aimed at, or at least officially inclusive of, younger children. Once the list was finalised, these documents were revisited and subjected to more thorough analysis, examining various facets using a standardised coding protocol.

The majority (90%) of the 140 sites reviewed contained a privacy policy. A quarter (25%) of these policies explicitly mentioned the US-based *Children's Online Privacy Protection Act* (COPPA), while an even greater number (approximately 70%) contained terms conforming to COPPA requirements. Only 40% stated that the site knowingly collected information from children, while another 30% claimed that it did not. Among those sites that *did* admit collecting data from children, most included explanations of when (84%) and what types (86%) of data were collected, and how it is used (73%). Most claimed that data was collected in order to provide the intended services of the website (71%) or to improve services (57%). Nearly half stated that the data was collected for advertising and direct marketing purposes (49%). Not all COPPA requirements were met within these policies. For instance, only half the sites explained how parents could obtain copies of the data collected from their child, or how to terminate future use of this data, information all sites that collect data from US children are supposed to provide.

Most of the sites reviewed contained a TOS (84%). Although none of these banned children outright from participating, many (40%) imposed restrictions on children under the age of 13 years. Nearly half (47%) required some form of parental consent for users under the age of 18 years, such as requiring that the parent become the 'agreeing party' in lieu of the child user. Given the nature of the sites themselves, special attention was paid to how ownership and copyright of user contributions were addressed in the TOSs. Unexpectedly, the vast majority of the sites (86%) stated that ownership of users' content (including submissions, creations, etc.) remained with the user.

Yet, acknowledgment of users' ownership did not mean that users retained exclusive control over their creations. Most (86%) of the sites concurrently claimed the right (or license) to distribute and sell users' contributions, without having to pay them or secure their permission. As a result, within most of the sites reviewed, users' ownership rights over their contributions were in fact quite limited. In those cases where a parent was asked to agree to the TOS in lieu of their underage child, it was unclear who exactly was being addressed as the 'owner' of the (child) users' contributions. Notably, most of the sites (68%) reviewed were themselves owned by a company or large conglomerate (such as Disney), wherein intellectual property ownership and licensing do often play a crucial role in daily operations.

Content Analysis

An in-depth content analysis was also conducted of the sites themselves. During this first stage of the research, only 100 of the sites identified in the media scan either as describing or promoting themselves as forums for children to make and share media content, or as a intergenerational site that included children, were analysed. This was the result of our discovery that 40 of the sites from the original list prohibited adults from joining the sites, and thus required additional permissions and ethical clearance before they could be accessed for coding. At of the time of writing, an in-depth analysis of the remaining 40 sites was still underway.

The contents of the 100 'open' sites were recorded using a standardised coding protocol, developed collaboratively by the entire research team over the course of four months and several

iterations. Three researchers coded the websites after achieving a 93.7% inter-rater reliability. The content analysis included elements of the sites' designs (particularly the mechanics and features involved in creating and sharing user-made media), descriptive texts (e.g. About Us pages, instructions), and advertisements. While our future research plan includes analysis of child-made media (with the informed consent of both the child and their parent), this portion of the analysis was restricted to "official" contents and features created by the sites' developers.

A slight majority of the sites (62%) contained built-in tools for creating content, and an almost equal number (60%) allowed users to upload content created elsewhere (see Table 1). Far fewer (19%) required that a software program be downloaded in order to create content that could then be posted to the site. A number of sites offered more than one way to contribute content. For instance, content could be created using built-in tools or uploaded from the user's computer, or even imported from another website.

Tools for Making	Total Number	Percentage
Software (download)	19	19%
Built-in features	62	62%
Upload function	60	60%
Media library/resources	16	16%
Submit via email	3	3%

Table 1: Tools or means of media production provided by site

Among the 62% of sites with built-in tools for creating content, a range of media forms were represented. By far the most common were text-based tools (44%), for story building (10%), text drafting (21%), text editing (8%) or creating comic strips (5%). Over a quarter (27%) of the sites provided users with built-in tools for drawing or painting doodles and artwork. Only 39% of the sites provided tools for creating "multi-media" formats that traditionally require high levels of technical expertise, including game design, film editing or animation. We generally identified only a handful of sites per multi-media format.

The vast majority (96%) of the sites included on-site sharing, meaning that content could easily be shared within the confines of the site itself, to be viewed by other users and the site owners. Only 72% provided support or features for off-site sharing. The vast majority of on-site sharing took the form of posting to an "in house" gallery (94%), as well as a personal gallery or portfolio page (90%). Only a third (30%) of the sites reviewed explicitly mentioned sharing in some way (e.g. sharing, distribution, communication) in their About Us section and other descriptions pertaining to the stated purpose of the site.

It is important to note that the prominence of sharing features found on these sites does not contradict our earlier finding that sharing is largely absent from children's media-making websites, since sharing was a key criterion of our selection process. Furthermore, the ability to share within the confines of the site did not always mean that the content was publicly available. Users often had to engage in additional steps, such as linking to the content or uploading a copy

elsewhere on the web, in order to reach a (potentially) broader audience. Moreover, not all of the sites facilitated, or even allowed, off-site sharing.

Mode of Sharing	Total Number	Percentage
Via link	28	38%
Via email	37	51%
Via third-party website	62	86%
Via embedded code	15	21%

Table 2: Site-supported functions for off-site sharing

In addition to sharing media content, we examined how the sites supported the sharing of ideas, feedback and comments with and between users (see Table 2). The ability to publicly comment on other users' creations represented the most common form of community interaction afforded (83%). Approximately half (52%) of the sites allowed users to send each other private messages. The other most common user interaction features were site-run competitions or contests (51%), as well as tools that allowed for group projects and collaborations (35%). Very few sites contained features aimed at fostering peer mentorship between users, such as providing users with access to "expert" users (25%), or allowing users to publish their own tutorials and instructions (20%). Overall, the opportunities for user interaction on these sites were quite limited, and only a small number actively afforded creative collaboration.

Discussion
Given the amount of celebratory discourse around children's DIY media we encountered in the press and academic literature, we initially expected that our study would uncover a bold new realm of children's participatory culture, made up of multiple websites, genres and technologies. As discussed above, previous research on adolescents and young adults has made a strong case for the democratizing potential of online media-making, and the key role of UCG websites and social networking forums in facilitating users' access to these activities. The advent of multiple, child-targeted and child-inclusive websites for online media-making suggested a similar development was underway within children's online culture, an especially compelling possibility given children's historical exclusion from most facets of mass media production.

However, as our findings have shown, a narrow emphasis on making and a systematic disregard for the crucial role of sharing predominate the current children's online DIY media environment. As a result, we could only identify a total of 140 active websites that supported both children's production *and* distribution. Considering that the same lack of attention to sharing can also be found in the scholarly literature focused on younger children, it is quite possible that academic discourse has helped shape (and in this case limit) emerging design standards in this area. At the very least, the existing literature does very little to challenge the lack of support and features for sharing found within the media-making tools, websites and other artifacts designed and marketed to young children online.

Even within the 140 sites that met the selection criteria, children's media-*sharing* was often undermined. While the discovery that nearly all of the sites acknowledged users'

ownership over their creations represents an important and highly promising divergence from established norms (Grimes, 2013), the limitations concurrently placed on users' control over their creations are deeply problematic. Moreover, half of the sites reviewed admitted to collecting children's personal data for advertising and marketing purposes. Through these processes, children's participation in online DIY culture is subtly transformed into fodder for new licensing initiatives and market research. While the sites reviewed certainly adopt a different stance than that identified in other areas of commercial, children's online culture, wherein children are framed as consumers first and foremost, very few of the sites reviewed fully recognise children's rights and responsibilities as full-fledged media *producers*.

The sites failed to adequately support children's media making and sharing in more immediately tangible ways as well. Only 62% of the sites provided built-in creation tools, the majority of which centered around writing text and drawing. Unlike sound mixing, game design or film editing, these are not activities that traditionally require advanced technical skills and access to specialised tools. Thus the relative absence of built-in tools and tutorials for more technical forms of media creation represents a recurring, missed opportunity. While many children do have the skills to develop multi-media without the help of built-in UGC tools, most do not. Sites without built-in tools or tutorials are therefore likely less accessible, or even inaccessible, to children without previous knowledge, existing skills, or social resources (i.e., family) in media production. Although UGC media-making technologies may not enable the same level of intervention and control over the end product as some DIY media, they do contain significant potential as tools of democratisation, both in terms of opening up public forums to include a broader diversity of voices, as well as specifically making these forums more accessible to historically marginalised voices. The narrow application of built-in tools within these sites can be understood as yet another example of the privileging of individualised "DIY" making without participatory supports.

Concurrently, many of the sites fell short of providing other types of support systems identified by Jenkins et al (2009) and others as crucial to participatory culture. Overall, most of the sites lacked adequate features for social interaction, peer mentorship and collaboration between users. Here too, the potential benefits associated with media-making were undermined as a result. As examined elsewhere, it is not uncommon for websites to limit and restrict children's communication within online forums (Grimes and Fields, 2012). In addition to special regulatory requirements, websites for children must conform with social expectations and concerns around children's safety, privacy and well-being. That said, since communication with other creators, critics and audiences represents such a core facet of so many of the benefits associated with contributing to a shared culture, failure to provide children with such opportunities has significant negative repercussions for child media-makers.

In the end, the findings from the first phase of our study demonstrate a clear need for an informed, concerted reframing of children's media-making within a rights-based, participatory approach, in which sharing and children's communication rights are positioned at the outset as an intrinsically valuable part of children's relationship to media production, development of digital literacies, as well as cultural and civic engagement.

Conclusion

Throughout the academic literature *and* the mounting public interest in DIY media participation, when it comes to young children, the importance of social interaction is often lost amidst the heavy focus that is placed on making and individual learning. As our study has demonstrated, a similar pattern has emerged within child-friendly and child-inclusive websites

designed and promoted specifically as spaces for media content creation. Across many of the sites examined, sharing content with the public and sharing ideas with other creators were not adequately supported by the sites' designs. This general oversight within the children's DIY media landscape is important because sharing is crucial to so many of the benefits associated with media-making, from contributing to the development of key 21st century literacies, to advancing children's cultural and communication rights. This points to a need for discussions with designers, businesses, and policy makers about supporting the development of richly designed websites for children's media making and sharing.

While the purpose of the current discussion was to highlight dominant patterns found across a relatively large sample of children's DIY media websites, it is important to note that our study also uncovered a number of exceptions to the general trends outlined above. For instance, we identified a handful of sites espousing unique and noteworthy approaches to children's media-making, including a site that incorporated creative commons licensing, as well as a site that facilitated peer mentoring among users. The next phase in our research is thus focused on developing a better understanding of these exceptions, not only through a more detailed mapping of their design features and support systems, but also by analyzing their daily operations and strategies for scaffolding and managing child creators. Through this process, we hope to create a typology of websites currently available for children, highlighting what effective, child-centered and ethics-based websites for children's DIY media making *and* sharing can look like.

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