

Media Ecologies

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I get up in the morning and I just take a shower and eat breakfast and then I go to school. No technology there. And then when I come home, I invited a friend over today and we decided to go through my clothes. My dad saw the huge mess in my room. I had to clean that up, but then we went on the computer. We went on Millsberry [Farms]. And she has her own account too. So she played on her account and I played on mine and then we got bored with that 'cause we were trying to play that game where we had to fill in the letters and make words out of the word. That was so hard. And we kept on trying to do it and we'd only get to level two and there's so many levels so we gave up. And we went in the garage and we played some Game Cube. And that was it and then her mom came and picked her up. I came back in, played a little more computer (tried to get that word game and tried to get more points) and, but I got bored with that and so I went in my room and I listened to a tape. And then I ate dinner and you came . . .

Geo Gem, age 12 (Silicon Valley Families)

In the spring of 2006, Heather Horst interviewed Geo Gem, a 12-year-old girl who attends a public middle school in Silicon Valley, California. The youngest of two children in a biracial family (Asian and white American), Geo Gem twirled her long, dark hair while she talked about all the things she was “into”: playing piano, singing, volleyball, the rain forest, and playing games on the computer or the Game Cube in the family’s media room, a space in the converted garage. Although Geo Gem’s family lives in a wealthy area of the San Francisco Bay Area, the media and technology she uses every day do not necessarily reflect the family’s economic status. The “kids’ computer” is a secondhand desktop computer that sits in the living room and the Game Cube is dated. Moreover, Geo Gem’s parents decided not to buy cable in an effort to shelter their kids from what they thought was the brash commercialization and high costs of cable television. While Geo Gem has accepted the fact that she can watch only the occasional movie on the family DVD player, she notes that this often presents problems when her friends come over, “since they usually watch cable.” Instead of watching television, Geo Gem hangs out in her bedroom and plays games such as basketball outside as well as online games and the Game Cube. For Geo Gem, her media ecology, and the learning that takes place within her home environment, seems unremarkable; she moves fluidly between sitting in her bedroom with her friend going through the clothes in her closet and hanging out playing Game Cube after school or sitting down for an hour to try to get to the “next level” on Millsberry Farms. Although it is unlikely that Geo Gem would describe her after-school activities with media as “learning” in the same way that she might describe schoolwork or piano lessons (see Seiter 2007), Geo Gem’s home environment, the institution of the family, rules, and a variety of other factors constitute her everyday media ecology and her social and cultural context for learning.

Young people in the United States today are growing up in a media ecology where digital and networked media are playing an increasingly central role. Even youth who do not possess computers and Internet access in the home are participants in a shared culture where new social media, digital media distribution, and digital media production are commonplace among their peers and in their everyday school contexts. As we have outlined in the previous chapter, we see technical change as intertwined with other forms of historically specific social and cultural change as well as resilient structural conditions, such as those defined by age, gender, and socioeconomic status. We emphasize that there are a diversity of ways in which U.S. youth inhabit a changing and variegated set of media ecologies. We also recognize that the ways in which U.S. youth participate in media ecologies are specific to contextual conditions and a particular historical moment. In line with our sociocultural perspective on learning and literacy, we see young people’s learning and participation with new media as situationally contingent, located in specific and varied media ecologies. Before we begin our description of youth practice, we need to map what those ecologies of media and participation look like. That is the goal of this chapter.

We use the metaphor of “ecology” to emphasize the characteristics of an overall technical, social, cultural, and place-based system, in which the components are not decomposable or separable. The everyday practices of youth, existing structural conditions, infrastructures of place, and technologies are all dynamically interrelated; the meanings, uses, functions, flows, and

interconnections in young people's everyday lives located in particular settings are also situated within young people's wider media ecologies. We also take an ecological approach in understanding youth culture and practice. As we have suggested in the case of interest-driven and friendship-driven participation, these are not unique social and cultural worlds operating with their own internal logic, but rather these forms of participation are defined in relation and in opposition to one another. Similarly, we see adults and kids' cultural worlds as dynamically co-constituted, as are different locations that youth navigate such as school, after-school, home, and online places. The three genres of participation that we introduce in this chapter—"hanging out," "messing around," and "geeking out"—are also genres that are defined relationally. The notion of participation genre enables us to emphasize the relational dimensions of how subcultures and mainstream cultures are defined; it also allows us to use an emergent, flexible, and interpretive rubric for framing certain forms of practice.

In this chapter, we frame the media ecologies that contextualize the youth practices we will describe in later chapters. Like the introductory chapter, this chapter presents contextual material that will be necessary for understanding the examples and arguments presented throughout the report. We begin this chapter by introducing the case studies and locations in which we conducted our fieldwork. The project that this book draws from was an effort to sample from a wide range of different youth populations and practices to work toward an integrated, qualitative understanding of how U.S. youth are engaging with new media. By drawing from case studies that are delimited by locality, institutions, networked sites, and interest groups, we have been able to map the contours of the varied social, technical, and cultural contexts that structure youth media engagement. After describing our case studies and our approach to fieldwork and joint analysis, we introduce three genres of participation with new media that have emerged as overarching descriptive frameworks for understanding how youth new media practices are defined in relation and in opposition to one another. The genres of participation—hanging out, messing around, and geeking out—reflect and are intertwined with young people's practices, learning, and identity formation within these varied and dynamic media ecologies.

Project Overview

The Digital Youth Project was led by four principal investigators, Peter Lyman, Mizuko Ito, Michael Carter, and Barrie Thorne. During the course of the three-year research grant (2005–2008), seven postdoctoral researchers,[1] six doctoral students,[2] nine MA students,[3] one JD student,[4] one project assistant,[5] seven undergraduate students,[6] and four research collaborators[7] participated and contributed fieldwork materials for the project. In order to gain an interdisciplinary understanding of the intersection between youth, new media, and learning, principal investigators sought out individuals with expertise in a wide range of fields, including anthropology, communication, political science, psychology, and sociology as well as computer science, engineering, and media studies. Many of the researchers also worked in industry and community organizations and built upon this experience to forge meaningful collaborations across research projects and disciplines.

Just as the examination of young people, new media, and learning called for scholars of diverse disciplinary backgrounds and arenas of expertise, our research agenda also demanded new sites and strategies of investigation. As noted in the Introduction, our project was designed to document, from an ethnographic perspective, the learning and innovation that accompany young people's everyday engagements with new media in informal settings. Specifically, our focus on youth-centered practices of play, communication, and creative production located learning in contexts that are meaningful and formative for youth, including friendships and families as well as young people's own aspirations, interests, and passions. In practice, this perspective meant that we maintained a broad commitment to understanding the worlds of our research participants by learning about and engaging in the meaningful new media practices in young people's lives. Moreover, we recognized that young people's engagements with new media were not necessarily isolated to particular media or locations. For example, social network sites such as MySpace or Facebook are often most meaningful when understood in relation to teenagers and kids at school, at home, and with their friends. Because these practices move across geographic and media spaces—homes, schools, after-school programs, networked sites, and interest communities—our ethnography incorporated multiple sites and multiple methods (Appadurai 1996; Barron 2006; Gupta and Ferguson 1997; Marcus 1995, 1998).

Alongside participation and observation, the hallmarks of ethnography, we developed questionnaires, surveys, semi-structured interviews, diary studies, observation and content analyses of media sites, profiles, videos, and other materials to gain insights into the qualitative dimensions of youth's engagement in digital media and technologies. Where appropriate and relevant, we also interviewed teachers, program organizers, parents, and individuals working in specific media industries. A series of pilot projects conducted by MA students at UC Berkeley was completed in 2005. The bulk of the fieldwork for this project was conducted in 2006 and 2007 by project researchers and PhD students. Collectively, we conducted 659 semi-structured interviews, 28 diary studies, and focus group interviews with 67 individuals. Interviews were conducted informally with at least 78 individuals and we also participated in more than 50 research-related events, such as conventions, summer camps, award ceremonies, or other local events. Complementing our interview-based strategy, we also carried out more than 5,194 observation hours, which were chronicled in regular field notes, and we have collected 10,468 profiles, 15 online discussion group forums, and more than 389 videos as well as numerous materials from classroom and after-school contexts. As we discuss in more detail below, the majority of the participants in our research were recruited through snowball sampling in person, over emails, and through institutions, as well as through the placement of recruitment scripts on websites and local community newsletters.

In addition to interviews, we administered paper and online questionnaires to develop a comparative portrait of our participants. The general questionnaire was completed by 363 respondents.[8] Based on the survey material of a significant subset of our research participants, we know that the population we have examined is distinctive in some important ways. Our survey population ranged in age from 7 to 25, with a median age of 16; 86 percent of these respondents fell between 12 and 19 years of age. Our respondents were evenly split in terms of gender identification. In terms of the ethnic identities designated by our participants, we skew from national averages in having a larger proportion of Asian participants and a smaller proportion of whites.[9] These proportions were influenced by the location of many of our research sites, which focused on online interest groups and the large metropolitan centers of California.[10] The focus of our work has been to develop a series of in-depth case studies of youth practice, not in developing a nationally representative sample. Many of our studies focused on online interest groups and youth media programs that represented media-savvy youth at the forefront in innovation of new media literacy and practice. We also sought to counterbalance this focus by developing case studies that were more focused on mainstream youth and their friendship-driven practices as well as on lower-income communities with members who do not all have the same access to technical resources. The survey material on its own does not permit us to make generalizations from the overall population we have looked at, but it does enable an understanding of some of the key variations in the different populations that we have looked at, and how they are situated in relation to other broader quantitative indicators. (See Christo Sims's sidebar on Media Ecologies: Quantitative Perspectives in this chapter for more on how our study relates to quantitative studies on youth, media, and technology.)

Media Ecologies: Quantitative Perspectives

By Christo Sims

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Our aim in this section is to contextualize our ethnographic data by connecting our work to quantitative measures collected in several recent large-scale surveys of American youth media practices. Such surveys strikingly demonstrate the pervasive, and seemingly increasing, prevalence of media in the daily lives of American youth. In 2005, the Kaiser Family Foundation published data from a nationally representative survey of 8- to 18-year-olds showing that most American youth lived in households where media technologies were varied and numerous. On average, the youth in its sample lived in households with 3.5 televisions, 2.9 VCRs or DVD players, 2.1 video-game consoles, and 1.5 computers (Rideout, Roberts, and Foehr 2005). Additionally, the Kaiser Family Foundation survey found that more than 80 percent had access to cable or satellite television. More recently, the Pew Internet & American Life Project conducted a survey that showed 94 percent of all American teenagers—which it defines as 12- to 17-year-olds—now use the Internet. 89 percent have Internet access in the home. and 66 percent

have “broadband” Internet access in the home (Lenhart et al. 2008). In 2008, the USC Digital Future Project reported that broadband was now used in 75 percent of American households (USC Center for the Digital Future 2008). Additionally, Pew reported that in the fall of 2007, 71 percent of American teenagers owned a mobile phone and 58 percent had a social network site profile (Lenhart et al. 2008). In a 2006 survey, Pew found that 51 percent of teens owned an iPod or MP3 player (Macgill 2007). In addition to access, these studies tend to emphasize the frequency with which American youth engage media, many of which have become part of daily life. The Kaiser Family Foundation study found that young Americans spend, on average, 6.5 hours with media per day: almost four hours a day with TV programming or recorded videos, approximately 1.75 hours per day listening to music or the radio, roughly one hour a day using the computer for nonschool purposes, and about 50 minutes a day playing video games (Rideout et al. 2005). Pew’s 2007 survey found that daily 63 percent of teens go online, 36 percent send text messages, 35 percent talk on a mobile phone, 29 percent send IMs, and 23 percent send messages through social network sites.

The Pew, Kaiser, and USC studies each report on the increasing prevalence of “new media” —notably the Internet and the mobile phone. Pew reports a steady increase in teen Internet use, from 73 percent in 2000, to 87 percent in 2004, to 95 percent in 2007, and a rapid increase in mobile-phone ownership, going from 45 percent in 2004 to 71 percent in 2007 (Lenhart, Rainie, and Lewis 2001; Lenhart, Madden, and Hitlin 2005; Lenhart et al. 2008). Yet while new media have increased in popularity, they have not, according to the Kaiser report, displaced other types of media, nor have they led to an increase in the overall amount of time teens spend with media.[1] The authors of the Kaiser report suggest that this is because youth engage with more than one type of media at the same time, reading a magazine while watching TV, for example. Furthermore, the Kaiser report found that media engagement does not crowd out time spent with parents, pursuing hobbies, or doing physical activity. Rather, those who engaged in high amounts of media reported spending more time on average with family, hobbies, and physical activity (Rideout et al. 2005).

When compared to participants in these surveys, our survey participants[2] appear, on average, to be more engaged with new media than national averages. While Pew’s 2007 survey found that 63 percent of American teens go online daily, 75 percent of our survey participants reported going online daily and 85 percent reported going online at least a few times a week. Additionally, only 1 percent of our survey participants had never been online, whereas Pew’s 2007 survey found a nonuse rate of 6 percent.[3] In terms of daily communications, our survey participants again outpace those found by Pew in the fall of 2007: IM (DY 50 percent, Pew 29 percent), text messaging (DY 43 percent, Pew 36 percent), talking on a mobile phone (DY 56 percent, Pew 35 percent), using a social network site (DY 46 percent, Pew 23 percent).[4] If our survey participants tend to be more engaged with media than the national average, it would not be surprising because our sites and participants were often chosen based on having already demonstrated some affiliation with new media. This was particularly true of the online and/or interest-driven sites.

While the national surveys by Pew, Kaiser, and USC tend to illustrate widely pervasive engagement with media, they also highlight ways in which media access and use vary according to demographic distinctions in age, gender, socioeconomic status, and ethnicity. In terms of variations that correspond to age divisions, Pew’s fall 2007 survey found that a significantly higher proportion of older teens (defined as 15- to 17-year-olds) go online daily, own mobile phones, and communicate daily via mobile-phone calls, text messages, IMs, and messages through social network sites (Lenhart et al. 2008). With respect to gender distinctions, the same Pew survey found that a significantly greater proportion of teenage girls than boys owned mobile phones and communicated daily via text messaging, talking on mobile phones, talking on landlines, sending IMs, and messaging through a social network site (Lenhart et al. 2008). The Kaiser survey found that girls spent significantly more time than boys listening to music and significantly less time than boys playing video games (Rideout et al. 2005).

In terms of variation in measures of access and use that corresponded to distinctions in socioeconomic status — often measured as based on household income and/or the level of

socioeconomic status—often measured as based on household income and/or the level of parental education obtained—Pew's 2007 survey and Kaiser's survey both found that youth living in the most economically disadvantaged households had significantly lower rates of Internet access in the home and tended to rely on nonhome locations, such as schools and libraries, to access the Internet. In the case of the Pew survey, 70 percent of teens living in households with an income of less than \$30,000 per year had Internet access in the home whereas 99 percent of teens living in households with earnings of \$75,000 per year or more had such access (Lenhart et al. 2008). Both Pew and Kaiser found that youth from higher-income households go online more frequently than youth from lower-income households—39 percent of teens living in households earning less than \$30,000 per year go online daily whereas 75 percent of teens from households earning more than \$75,000 per year go online daily (Lenhart et al. 2008; Rideout et al. 2005). In 2007 Pew also found that teens from more well-off households are significantly more likely to own mobile phones. Finally, in terms of variations that correspond to distinctions in ethnic identifiers, Pew's 2007 survey and Kaiser's survey both found that minorities (blacks and Hispanics) were significantly more likely to rely on nonhome locations to access the Internet (Lenhart et al. 2008; Rideout et al. 2005). Additionally, Pew found that a significantly greater share of white teens went online daily than black teens, reporting 67 percent and 53 percent respectively. Last, Pew found a significant difference in the proportion of white teens who had broadband access in the home when compared to broadband access in black and Hispanic households—70 percent, 56 percent, and 60 percent respectively.

We wish to draw attention to aspects of these national surveys that may help shed light on some of the themes noted in this report: namely the friendship-driven and interest-driven practices. In terms of friendship-driven practices, the most illustrative survey data are those that indicate patterns of ownership, access, and use of communication technologies such as mobile phones, IM, and social network sites. While the current indicators used by Pew and others do not differentiate when teenagers use these technologies to communicate with friends versus communicate with family members and other members of the youth's social world, a few trends are worth noting.[5] For one, Pew's 2007 survey finds that both gender and age distinctions map to significant differences in several factors related to communications. Girls and older teens are more likely to own a mobile phone than boys and younger teens; additionally, both girls and older teens are significantly more likely to make a mobile-phone call, send a text message, send an IM, or send a message through a social network site (Lenhart et al. 2008). Another noteworthy trend indicated by the Pew data is what Lenhart et al. (2007) refer to as "super communicators." The term is meant to refer to the finding that those who communicate using multiple technologies and channels—phone calls, text messages, IMs, social network sites—not only communicate more in aggregate than teens who use fewer channels, but they also tend to communicate more frequently within each channel.

Regrettably, there are fewer survey data for making comparisons to what we have characterized as "interest-driven" practices. USC's 2008 Digital Future Report surveyed some activities that could, but do not necessarily, indicate interest-driven practices. In its survey it asks about participation in, and attitudes about, "online communities," which it defines as "a group that shares thoughts or ideas, or works on common projects through electronic communication only" (The USC Digital Future Report Highlights 2008:8). While the overall percentage of respondents who reported participating in an online community was relatively small—15 percent of all respondents—the authors note that this rate has more than doubled in three years. Of those who participate, more than half reported that the community related to a hobby. Many of the interest-driven practices we account for in this report could be seen as reasonably fitting this definition but a few problems limit a more direct mapping. For one, we show examples of interest-driven participation that does not take place solely, or at all, through electronic communications. Additionally, the USC Digital Future report surveys adults and youth. While participation in "online communities" is on the rise, a majority of adults with children reported being uncomfortable having their children participate in online communities—65 percent reported feeling uncomfortable whereas only 15 percent felt comfortable. This last indicator suggests that spreading youth participation in online venues for interest-driven participation will likely require a change of attitude among adult populations.

Notes

[1] The Kaiser report finds that youth spend the same number of hours, approximately 6.5 per day, with media in 2004 as they did in a similar survey conducted in 1999.

[2] These comparisons are between national surveys and the share of our participants who completed our survey. Since not all of the participants at our various ethnographic sites completed surveys these figures should not be read as descriptions of our participant population as a whole.

[3] We did, however, have 11 percent of participants report going online a few times a month or less. Since Pew reports frequency only in terms of the percent who go online daily we can not compare these figures directly.

[4] Part of the discrepancy in this final figure could be due to posing the question differently. We asked our participants if they “use a social network site daily” whereas the Pew survey asks whether or not they “send a message through a social network site daily.” Since teens can use a site without sending a message, part of our figure probably includes those who visit a social network site daily but do not send messages every day.

[5] Boase (2008) has analyzed variation in communication practices based on Pew’s survey data of adults. To our knowledge, no similar survey analysis has been conducted of variation in communication among youth.

In the remainder of this section, we provide an overview of the research sites included in the Digital Youth Project. We have organized the sites into four general categories: institutional spaces, homes and neighborhoods, networked sites, and interest groups.[11] While the categories are primarily organizational, they do help to emphasize the range of sites of inquiry that we draw upon for the analysis here—20 distinctive research projects in total[12]—as well as the epistemology that shaped the ways we approached our effort to understand youth’s engagement with new media from an ethnographic perspective. As will become evident in our descriptions, many projects moved among different categories of research sites. For example, Lisa Tripp and Becky Herr-Stephenson’s study of Los Angeles middle schools and Katynka Martínez’s study of Pico Union families followed students at school and within their homes and neighborhoods. The points of intersection and divergence between the kids in the different studies were of great interest, such as when a researcher in the neighborhood cluster of studies discovered an anime fan, or conversely, when interest-based new media hobbies were notably absent among kids in a particular study. In the body of this book, we have described practices that we observed in multiple case studies that emerged through collaborative analysis, and the specificities of the research sites and projects have largely been erased. Here we introduce the individual projects to provide the reader with some of the context that is missing in subsequent chapters. Each individual study comprises an ethnographic analysis of new media in the lives of a particular population; taken as a whole, they offer a broader ecological perspective on how new media practices are distributed among diverse youth in diverse contexts.[13]

Homes and Neighborhoods

We focused upon homes and families in urban, suburban, and rural contexts in order to understand how new media and technologies shaped the contours of kids’ home lives and, in turn, how different family structures and economic and social positions may structure young people’s media ecologies (Bourdieu 1984; Holloway and Valentine 2003; Livingstone 2002; Silverstone and Hirsch 1992; see also the Families chapter). Working in the context of multicultural California (among other sites), we have taken seriously the need to understand the influence of ethnic, racial, gender, and class distinctions on many young people’s media and technology practices (Chin 2004; Escobar 1994; Pascoe 2007a; Seiter 2005; Thorne 2008). Indeed, one of the advantages of this large-scale ethnographic project is the diversity of sites that we have been able to access.

In their study of middle-school students and their families in Los Angeles, titled *Digital Media in an Urban Landscape*, Lisa Tripp, Becky Herr-Stephenson, and Katynka Martínez conducted participant observation in the classrooms of teachers involved in a professional-development

program for media arts and technology as well as participant observation in after-school programs (Computer Club Kids; L.A. Youth and Their Community Center; Animation around the Block). In addition to the work in institutionalized settings, this study also incorporated interviews with kids, siblings, and parents. The interviews were conducted in English and Spanish and took place, when possible, at students' homes, which allowed the researchers to better understand the rich contexts of neighborhood and family life (Pico Union Families). In a similar vein, but with a very different population, Heather Horst's study, *Coming of Age in Silicon Valley* (Silicon Valley Families), examined the appropriation of new media and technology in Silicon Valley, California. Drawing her research participants from a parents' email list at schools in the region, she focused her studies on the role of new media in kids' communication, learning, knowledge, and play in families with children between the ages of 8 and 18 in order to understand the gendered and generational dynamics of the incorporation of new media at home.

In their study *Living Digital: Teens' Social Worlds and New Media*, C.J. Pascoe and Christo Sims conducted a multi-sited ethnographic project in order to analyze how teenagers communicate, negotiate social networks, and craft a unique teen culture using new media. In C.J. Pascoe's case (Living Digital), she introduced herself to students in a local digital-arts program in an ethnically diverse suburban area of the "East Bay," near San Francisco, where she later interviewed many of the high school-aged teenagers outside of school. Christo Sims (Rural and Urban Youth) carried out research in homes in an area near the Sierra Nevada range of rural California with a population of primarily white working- and middle-class families. In addition, he conducted work in Brooklyn, New York, an area that boasts a significant Caribbean, African American, and Latino population, gaining access to the community with the help of a local after-school program. By looking at teens across a variety of geographic locations (rural, urban, and suburban) and socioeconomic statuses, their aim was to understand how new media have been folded into teens' friendship and romance practices.

Megan Finn, David Schlossberg, Judd Antin, and Paul Poling's study, *Freshquest* (Freshquest), also focused upon the role of media and technologies in the lives of teenagers through a study of technology-mediated communication habits of freshman students at the University of California, Berkeley. Using a survey administered to 3,161 freshman students between 2005 and 2006, their primary goal was to understand how students adopt and use information and communication technologies and how they talk about growing up with technology, both in relation to their socioeconomic status and social networks. Finn et al. also administered 140 surveys and conducted focus-group interviews with first-year students at a community college in a suburb in the San Francisco Bay Area in 2006. As noted in the individual chapters, most of the material described in this report is derived from the focus groups conducted with University of California, Berkeley undergraduates.

Alongside interviews, surveys, and questionnaires, many of the projects in our home and neighborhoods study experimented with different ways of engaging young people, using the media in kids' everyday lives to narrate and explain their varying engagements and commitments to new media. Dan Perkel and Sarita Yardi's project, *Discovering the Social Context of Kids' Technology Use* (Digital Photo-Elicitation with Kids), used digital-photography diary studies to develop a picture of the technology practices of kids entering middle school. Moving from an after-school program in the San Francisco Bay Area to the context of family life, Perkel and Yardi looked at the kinds of technologies participants used in their homes and in their summer activities, who they used them with, and what these activities meant to kids. With the assistance of Scott Carter, a PhD student at the University of California, Berkeley (Carter 2007), we also developed a diary study that used digital cameras and cell-phone cameras (camphones). Building upon recent use of diary studies to document everyday media use (Cf. Dourish and Bell 2007; Horst and Miller 2005; Ito, Okabe, and Anderson Forthcoming; Okabe and Ito 2006; Van House et al. 2005), participants used mobile phones and digital cameras to chronicle their use of new media. Combined with other interviews, observations, and participation in many arenas of young people's neighborhood and home lives, this methodology enabled researchers to develop a deeper understanding of the media ecologies that young people create and inhabit.

Learning Institutions: Media-Literacy Programs and After-School Programs

Over the past two decades, researchers interested in "informal learning" have increasingly turned

their attention to institutions such as libraries, after-school programs, and museums as sites that structure learning experiences that differ from those in school (see Barron 2006; Bekerman, Burbules, and Silberman-Keller 2006). As institutions temporally and spatially situated between the dominant institutions in kids' lives—school and family—after-school programs and spaces offered potential for observing instances of informal learning, particularly given the increasing importance of after-school and enrichment programs in American public education.

In light of the possibilities of these spaces, a number of our projects focused upon after-school programs in an effort to understand how they fit into the lives of young people. For example, Judd Antin, Dan Perkel, and Christo Sims investigated media-production classes at a San Francisco technology center for students. Assuming roles as volunteer program helpers for their project, *The Social Dynamics of Media Production in an After-School Setting* (The Social Dynamics of Media Production), Antin, Perkel, and Sims looked at how the students from low-income neighborhoods negotiate and appropriate the structured and unstructured aspects of the program in order to learn new technical skills, socialize with new groups of friends, and take advantage of the unique access to both technical and social resources that are often lacking in their homes and schools. In this case, researchers participated regularly in the program. In some instances, researchers conducted interviews with the participants in their homes or outside of the program in an effort to understand how the program, and new media more broadly, shaped their lives.

Although our project was primarily focused upon learning spaces outside of formal school contexts, we also carried out two of our research projects in structured learning contexts. Moving beyond binary questions of access, such as digital divides (Compaine 2001; Servon 2002), Lisa Tripp and Becky Herr-Stephenson's study, *Teaching and Learning with Multimedia* (Los Angeles Middle Schools), examined the complex relationships between multimedia-production projects undertaken in middle-school classrooms and students' out-of-school experiences with multimedia. Contextualizing these in-class observations with interviews in homes and schools throughout urban Los Angeles, Tripp and Herr-Stephenson aimed to understand the gaps and overlaps of media use within the contexts of home and schools. Similarly, Laura Robinson's study, *Information the Wiki Way* (Wikipedia and Information Evaluation), examined the role played by material resources in everyday information-seeking contexts among economically disadvantaged youth at a high school in an agricultural region of Central California. Project researchers primarily focused on the school sites in an effort to think about how digital and online media may facilitate productive learning environments. In addition, our work in schools and after-school programs was motivated by a desire to get to know young people across the multiple contexts of their lives. In all of our institutional projects, researchers carried out observations in the programs and provided formal and informal feedback to the organizations that provided them with access and support.

Networked Sites

Rather than restricting our focus to bounded spaces or locales (Appadurai 1996; Basch, Schiller, and Blanc 1994; Gupta and Ferguson 1997), as researchers we wanted to acknowledge the "world of infinite interconnections and overlapping contexts" (Amit-Talai 2000:6) that young people inhabit through new media. Often working in tandem with other forms of media and communication, new media provide communication venues that individuals incorporate into their lives to maintain, form, and strengthen social ties and relationships (Boase 2007; di Gennaro and Dutton 2007; Hampton 2007; Hampton and Wellman 2003; Miller and Slater 2000; Panagakos and Horst 2006; Wellman et al. 2003; Wilding 2006). Recent scholarship of online communities illustrates that significant relationships and community can be formed, even in the absence of physical co-presence (Baym 2000; Constable 2003; Hine 2000; Kendall 2002; Rheingold, 2000; Smith and Kollock 1999; Varnelis 2008; Wilson and Peterson 2002). Indeed, the Digital Future Project reveals that the percentage of individuals who report membership in an online community has more than doubled in the last three years (USC Center for the Digital Future 2008), indicating the growing importance of new media in facilitating social groupings and community in the United States. For this reason, a significant part of our research focused upon a number of the most prominent online websites with the aim of understanding the inner workings of online groups and emerging practices surrounding community formation.

Exploring a series of sites that dominated young people's media ecologies between 2005 and 2007, we concentrated our efforts on understanding practices as they spanned online and offline settings, without privileging one context as more or less authentic, or more or less virtual (Kendall

settings, without privileging one context as more or less authentic, or more or less virtual (Rennan 2002). In other words, we were not interested in establishing a boundary between online participation as distinct from offline, but rather we saw specific online sites as an entry point into a varied set of hybrid practices that flowed through these sites. For example, in the discussion of social network sites that became popular from 2005 (such as Bebo, Facebook, and MySpace), we have argued that the online contexts are largely a mirror and extension of sociability in teens' local school-based relations. danah boyd's study, *Teen Sociality in Networked Publics* (Teen Sociality in Networked Publics), examined the ways in which teens use sites such as MySpace and Facebook to negotiate identity, socialize with friends, and make sense of the world around them. Her project addresses teens' friendship-driven practices and contextualizes their use of networked publics in their lives more broadly. Dan Perkel's study, *The Practices of MySpace Profile Production* (MySpace Profile Production), investigated how young people created MySpace pages. Whereas boyd examined the sociality of MySpace, Perkel concentrated upon the sociotechnical practices and infrastructure of profile making, including getting started with the help of friends, finding visual and audio material online, and copying and pasting snippets of code. The project revealed how a MySpace profile is produced through the socially and technically distributed activity of many people and is intimately tied to the specific, local communities that the profile owner inhabits.

Two of our researchers examined the phenomenon of YouTube, the video-sharing site that became popular in 2006. Patricia G. Lange analyzed how children and youth interactively negotiate aspects of the self by creating, sharing, and watching videos on YouTube. In her study, *Thanks for Watching: A Study of Video-Sharing Practices on YouTube* (YouTube and Video Bloggers), Lange examines how and what participants learn by making videos and reacting to feedback. Through social interaction and self-comparison to other video makers, YouTubers learn how to represent themselves and their work in order to become accepted members of groups who share similar media-based affinities. In addition to conducting interviews and analyzing videos, Lange also became a video blogger and received feedback on her videos posted (and featured) on YouTube and her own research website. Sonja Baumer focused upon identity practices of American youth on YouTube in her study, *Broadcast Yourself: Self-Production through Online Video-Sharing on YouTube* (Self-Production through YouTube). Baumer's study emphasizes self-production as an agentive act that expresses the fluidity of identity achieved through forms of semiotic action and through practices such as self-presentation, differentiation and integration, self-evaluation, and cultural commentary.

Just as social network sites and YouTube emerged as central to a wide range of young people's participation in online sites during the course of our research, gaming sites also piqued the interests of kids and teens. Heather Horst and Laura Robinson's study of Neopets, *Virtual Playgrounds: An Ethnography of Neopets* (Neopets), explored cultural products and knowledge creation surrounding the online world of Neopets, one of the most popular children's websites. Looking at practices varying from authoring relatively simple webpages, participating in online auctions, writing stories, and creating galleries to showcase collections of specialized items, the study used questionnaires and interviews to examine how participants develop notions of reputation, expertise, and other forms of identification. Rachel Cody examined a very different kind of online game in her study, *Life in the Linkshell: The Everyday Activity of a Final Fantasy Community* (Final Fantasy XI). Cody's study looked at the massively multiplayer online role-playing game Final Fantasy XI. By becoming a member of a linkshell, the communities through which players organize their game playing, Cody in her research examined how the social activity extends beyond the game into websites, message boards, and instant-messenger programs. This contact strengthened the relationships formed within the game and encouraged a level of collaboration that is impossible within the game, allowing players to create strategies through videos, screen shots, and community experiences. Throughout all of the online-based research, a commitment to participation and engagement on these sites remained central to developing an understanding of these sites and practices.

Interest-Based Groups

Although social scientists have studied youth subcultures for some time, the relationship between media and youth culture emerged most cogently in the British cultural studies movement in the 1970s and 1980s.[14] Ranging from music, fashion, hairstyles, language, lifestyle, and other forms of popular culture, research emphasized youth cultural forms and agency (Hall and Jefferson

of popular culture, research emphasized youth cultural forms and agency (Hall and Jefferson 1975). Looking at differences in practices across age, class, ethnicity, race, gender, and other measures of difference and power (Hebdige 1979; Jenkins 1983; McRobbie 1980; Willis 1977), cultural studies scholars examined youth, popular culture, media, and the creation of alternative publics, with particular attention to the ways in which the meaning, or texts, resisted and subverted normative practices and structures in society (Amit-Talai and Wulff 1995; Bucholz 2002; Maira and Soepp 2004; Snow 1987). For example, rebellion and the development of an alternative lifestyle was pervasive in the Do-It-Yourself (DIY) ethos of punk culture, one of the first groups to market and circulate its own music outside of mainstream society and, in turn, challenge traditional sites of production, consumption, and copyright (Hebdige 1979). This DIY ethic continues in the remix culture of the early hip-hop and DJ movements (Gilroy 1987; Hebdige 1987; Sharma 1999). This attention to the relationship between media, popular culture, and the changing relationship between production, consumption, and participation continues in much of the work on youth and the ethnography of media (e.g., Askew and Wilk 2002; Ginsburg, Abu-Lughod, and Larkin 2002).

Recognizing the tremendous transformations in the empirical and theoretical work on youth subcultures, new media, and popular culture through the past decades, researchers across our project focused upon the modes of expression, circulation, and mobilization of youth subcultural forms in and through new media. For example, Dilan Mahendran's project, *Hip-Hop Music and Meaning in the Digital Age* (Hip-Hop Music Production), explored the practices of amateur music making on the background of hip-hop culture in San Francisco Bay Area after-school settings. Mahendran's research illuminated the centrality of music listening and making by both enthusiasts and youth in general as world-disclosing practices that challenge the assumption that youth are simply passive consumers. The commodification of digital media technologies focused on the low-cost private or personal-computing model has enabled DIY music makers to create, produce, and distribute both highly collaborative and individual works of art. Following the DIY theme inherent in many subcultural artistic communities, Mizuko Ito's *Transnational Anime Fandoms and Amateur Cultural Production* (Anime Fans) examined a highly distributed network of overseas fans of Japanese animation. She focused upon how the fandom organized and communicated online, and how it engaged in creative production through the transformative reuse of commercial media. Becky Herr-Stephenson's study, *Mischief Managed* (Harry Potter Fandom), also investigated multimedia production undertaken by young Harry Potter fans and the role technology plays in facilitating production and distribution of fan works. Herr-Stephenson's research situates young fans' media production at the intersection of interest-driven and friendship-driven participation, calling attention to the unique characteristics of this large, vibrant, and prolific fandom.

Where much of the early work on subcultures and media focused upon creative and artistic modes of expression, we are only just beginning to understand the scope and scale of other subcultural practices. C.J. Pascoe and Natalie Boero's study, *No Wannarexics Allowed* (Pro Eating Disorder Discussion Groups) examined the construction of online eating-disorder communities by analyzing pro-anorexia (ana) and pro-bulimia (mia) discussion groups. Based on participants' characterizations of anorexia as a lifestyle choice rather than a disease, the project attempts to move beyond dominant clinical narratives of eating disorders, instead highlighting participants' ambivalence around gender, body size, and offline relationality. Pascoe and Boero reveal how the "ana" and "mia" lifestyles are produced and reproduced in these online spaces. Moreover, their study demonstrates the ways new media bring to the fore other practices that previously existed but remained underground or outside of the purview of mainstream society.

Like the anorexic and bulimic communities that have found new modes of expression in online venues, gaming cultures and communities have become more public in the new media ecology. Focusing upon a local gathering place for gamers in the San Francisco Bay Area, Arthur Law's study, *Team Play: Kids in the Café* (Team Play), explored the social context in which teenagers are making use of video games at a cyber café. The study highlights two styles of game play at the café: solo teenagers playing a real-time strategy game by themselves and groups of teenagers playing first-person shooters together. Despite their differences, each style is highly social and demonstrates that online video games can be seen as a venue for maintaining friendships across vast distances or providing additional social activities on top of traditional ones such as basketball or football. Looking at the emergence of networked gaming, Matteo Bittanti's study, *Game Play* (Game Play), examines the complex relationship between teenagers and video

games. Bittanti focused upon the ways in which gamers create and experiment with different identities, learn through informal processes, craft peer groups, develop a variety of cognitive, social, and emotional skills, and produce significant textual artifacts (such as information, comments, reviews, music videos, and game videos) through digital play. Electronic gaming has become a focus for young people's social interaction, interest-driven learning, and creative production.

Genres of Participation: Hanging Out, Messing Around, and Geeking Out

In the previous section, we described the overall context of our study and the field sites in which we conducted our research. In this section of the chapter, we outline a set of genres of participation that correspond to different practices of new media engagement: "hanging out," "messaging around," and "geeking out." These genres describe differing levels of investments in new media activities in a way that integrates an understanding of technical, social, and cultural patterns. It is clear that different youth, at different times, possess varying levels of technology- and media-related expertise, interest, and motivations. Our challenge has been to develop frameworks that help us understand youth participation in different social groups and cultural affiliations. How does young people's social and cultural participation shape new media engagement, interest, and expertise? This framing is in line with approaches that see knowledge and expertise as embedded in social groups with particular media identities. For example, James Paul Gee (2003) has suggested that gaming is part of the construction of "affinity groups," where insiders and outsiders are defined by their participation in a particular semiotic domain. Similarly, a communities-of-practice approach to learning posits that the development of knowledge and expertise is deeply integrated with being part of social groups engaged in joint activity (Wenger 1998).

The genres of participation that emerged from our research can be viewed as an alternative to existing taxonomies of media engagement that generally are structured by the type of media platform, frequency of media use, or structural categories such as gender, age, or socioeconomic status. Quantitative studies customarily categorize people according to high and low media use, which is then analyzed in relation to different social categories or outcomes of interest. For example, the Kaiser Foundation report on Generation M looks at how differing amounts of media-exposure time relate to individual measures such as age, educational status, race and ethnicity, school grades, or personal contentedness. Our approach is closer to those of qualitative researchers who take a more holistic approach to media engagement by focusing upon how social and cultural categories are cut from the same cloth as media engagement rather than looking at them as separate variables. For example, Holloway and Valentine (2001) suggest the categories of "techno boys," "lads," "luddettes," and "computer competent girls" to understand how gender intersects with computer-based activity and competence. Sonia Livingstone (2002) suggests the categories of "traditionalists," "low media users" "screen entertainment fans," and "specialists" to relate frequency of engagement with specific media types to certain forms of social and cultural investments. However, all of these taxonomies are based on categorizing individuals in relation to certain practices. By contrast, our genre-based approach emphasizes *modes of participation* with media, not categories of individuals.

The distinction between a genre-based approach centered upon participation, and a categorical approach based on individual characteristics, is significant for a number of reasons. First, it enables us to move away from the assumption that individuals have stable media identities that are independent of contexts and situations. In our work, we have observed how many youth craft multiple media identities that they mobilize selectively depending on context; they may be active on Facebook and part of the party scene at school, but they may also have a set of friends online focused on more specific interests related to gaming or creative production. Secondly, the notion of genre moves away from a focus on media platform (TV, computers, music, etc.) and shifts our attention to the cross-cutting patterns that are evident in media content, technology design, as well as in the cultural referents that youth mobilize in their everyday communication. Finally, genre analysis relies on what we believe is an appropriately interpretive model of analyzing social and cultural patterns. Rather than suggesting that we can clearly define a boundary between practices in a categorical way, genres rely on an interpretation of an overall "package" of style and form. Genres of participation take shape as an overall constellation of characteristics, and they are constantly under negotiation and flux as people experiment with new modes of communication and culture. In this way, it is a construct amenable to our particular methods and approach to looking at

a dynamic and interrelated media ecology. In other words, our approach is ecological rather than categorical. In the remainder of this chapter, we turn our attention to the three genres of participation, hanging out, messing around, and geeking out, in an effort to define and describe how these genres emerge through youth practice.

Hanging Out

The interdisciplinary literature on childhood and youth culture has established that coming of age in American culture is marked by a general shift from given childhood social relationships, such as families and local communities, to peer- and friendship-centered social groups. Although the particular nuances of these relationships vary in relation to ethnicity, class, and particular family dynamics (Austin and Willard 1998; Bettie 2003; Eckert 1989; Epstein 1998; Pascoe 2007a; Perry 2002; Snow 1987; Thorne 1993), the vast majority of the middle-school and high-school students we interviewed expressed a desire to “hang around, meet friends, just be” (Bloustein 2003:166), as much and as often as possible, as part of their burgeoning sense of independence. Given the institutional restrictions and regulations placed upon young people by schools, teachers, parents, and neighborhood infrastructures, kids and teenagers throughout all of our studies invested a great deal of time and energy talking about and coordinating opportunities to “hang out.” In the first part of this section, we examine how youth mobilize new media communication to construct spaces for co-presence where they can engage in ongoing, lightweight social contact that moves fluidly between online and offline contact. We continue by discussing the ways in which new media content, such as music and online video, becomes a part of young people’s social communication. Finally, we consider how youth use new media to be present in multiple social spaces, hanging out with friends in online space while pursuing other activities concurrently offline.

Getting Together and Being Together

As we described in the Introduction, contemporary teens generally see their peers at school as their primary reference point for socializing and identity construction. At the same time, they remain largely dependent on adults for provisioning space and new media and they possess limited opportunities to socialize with peers and romantic partners without the supervision of adults. Young people also move between the context of the school, where they are physically co-present but are limited in the kinds of social activities they can engage in, and the context of the home, where they have more freedom to set their social agendas but are not usually co-present with their peers. Parental and official school rules, availability of unrestricted computer and Internet access, competing responsibilities such as household chores, and transportation frequently complicate efforts toward hanging out. Young people living at home, who have ready access to mobile phones or the Internet, view online communication as a persistent space of peer sociability where they exercise autonomy for conversation that is private or primarily defined by friends and peers. Although they would in most cases prefer to be able to hang out with their friends offline, the limits placed on their mobility and use of space means that this is not always possible.

The chapters on Friendship and Intimacy describe the many mechanisms that youth mobilize to keep in ongoing contact with their peers through social media. By moving between the browsing of social network profiles, instant messaging (IM), and phone conversations, youth experience a sense of hanging out with their peers that is unique to online interaction, but that also has many parallels to how kids hang out offline. The more passive and indirect mode of checking people’s status updates on Facebook or MySpace, or exchanging lightweight text messages indicating general status (“I’m so tired,” “just finished homework”), are examples of “ambient virtual co-presence” that in many ways approximates the sharing of physical space (Ito and Okabe 2005b). Through these modalities, youth keep tabs on one another. At other times, youth engage in more sustained and direct conversation, such as when they start an IM chat or initiate a telephone call. C.J. Pascoe’s sidebar (“You Have Another World to Create,” this chapter), for example, discusses the ways in which a participant in her Living Digital study, Clarissa, coordinates hanging out with friends and her girlfriend through MySpace and LiveJournal and how she negotiates hanging out with an expanded friend base within an online role-playing game. By flexibly mobilizing different networked communications capabilities, young people circumvent some of the limits that prevent them from hanging out with their friends.

When young people want to get together and hang out (for both online and offline meetings), they typically go online first, since that is where they are most likely to be able to connect. For example,

Java, a white 12-year-old living in the suburbs, describes how she will first get permission from her mom, and then use email or IM to find a friend and ask her over. “Well, if I just want a friend over I’ll ask my mom and she’ll say yes or no. And if she says yes then I’ll call them or ask them online or email them or something.” After that, she and her friends must coordinate with a parent to drive them to each other’s homes (Christo Sims, *Rural and Urban Youth*). Even when kids are independently mobile (e.g., if they can drive, or if they live in a more urban context where public transportation is available), online media still remain the place where they find and connect with their friends. For example, Champ, a 19-year-old Latino who lives in Brooklyn, New York, with his mom and two sisters, discusses with Christo Sims how hanging out has changed since the incorporation of MySpace within his peer group:

Champ: I guess before, before it was MySpace is, like you just go outside, whoever you bump into, you bump into ‘em. Whatever, you gotta do what you gotta do. And, now, computer like you go talk to the people and like, “Oh, what you doing?” “You wanna do this?” “All right. So, I’ll be over there in 10 minutes, five minutes.”

Christo: And that’s mostly on MySpace? You can see if they’re online now or something like that?

Champ: Yeah, like I was saying, online under their names. And, it has like a little computer there. Click on their page and then, like, “Yo, I was about to come outside.” And, if [I] tell you “coming out, wanna meet up?”

Java and Champ use new media to help orchestrate face-to-face hanging out, but their examples also reveal how proximity, or neighborhood, affects their ability to get together. In rural and suburban California, young people must mobilize parents and their vehicles for hanging out with friends who are separated by greater distances, at least until teens are old enough to drive or get access to a vehicle. By contrast, urban youth such as Champ live close to friends and rely less on their parents for transportation because they can take advantage of the more durable transportation system in New York. Champ and other urban youth more readily move between online and offline sociality. In most of the cases we have seen, youth rely to some extent on networked communication to facilitate arranging offline meetings, these networked sites and communication devices becoming an alternative hanging out site in its own right.

Sharing, Posting, Linking, and Forwarding

When teens are together online and offline, they integrate new media within the informal hanging out practices that have characterized peer social life ever since the postwar era and the emergence of teens as a distinct leisure class (Snow 1987). As we described in the Introduction, this period saw a growth in the number of teens who attended high school and the emergence of a distinctive youth culture that was tightly integrated with commercial popular cultural products targeted to teens. The growth of an age-specific identity of “teenagers” or “youth” was inextricably linked with the rise of commercial popular culture as young people consumed popular music, fashion, film, and television as part of their participation in peer culture (Cohen 1972; Frank 1997; Gilbert 1986; Hine 1999). While the content and form of much of popular culture has changed in the intervening decades, the core practices of how youth engage with media as part of their hanging out with peers remains resilient. In relation to gaming, Ito (2008b) has described how children and youth traffic in popular media referents as part of their everyday sociability. She describes how contemporary media mixes such as Pokémon enable kids to develop identities in peer culture in relation to customizable, interactive media forms. This “hypersocial” social exchange is more generally a process through which people use specific media as tokens of identity, taste, and style to understand and display who they are in relation to their peers. While hanging out with their friends, youth develop and discuss their taste in music, their knowledge of television and movies, and their expertise in gaming, practices that become part and parcel of sociability in youth culture.

One of the most common ways that kids hang out together with media is listening to music, a practice that stands as a source of affinity between friends. In fact, rock and roll was a central piece of the emergence of youth culture (Snow 1987). Technologies for storing, sharing, and listening to music are now ubiquitous among youth. Indeed, only 2 percent of the youth we

interviewed reported *not* owning a portable music player. In addition, digital music formats are increasingly dominant. Among our respondents, 88 percent reported downloading music or videos over the Internet and 74 percent reported that they had shared files (music or other) over the Internet. Two practices related to music were particularly prominent among the teens in our study: First, teens frequently displayed their musical tastes and preferences on MySpace profiles and in other online venues by posting information and images related to favorite artists, clips and links to songs and videos, and song lyrics. Second, sharing and listening to music continues to be an important practice and something that teens do together when they are hanging out. For example, 16-year-old Sasha, a teenager from Michigan who participated in danah boyd's interviews (Teen Sociality in Networked Publics), outlines how acquiring music is an important part of hanging out in her life because she can get free music from her friends. "I use like the iTunes store, but I don't have any more money, so I just go over to my friends' houses and plug in to their computer and get songs off of there." Sites such as MySpace often extend this kind of music-driven sociability online, where young people can add music to their own profiles and view each other's musical preferences. As Mae Williams, a 16-year-old teen in Christo Sims's study of rural California (Rural and Urban Youth), explains, "That's the one thing MySpace is good for, is that you can actually browse through music pretty easily. And so you can select a genre and you can go through other people's [profiles] and sometimes if I see a name that keeps popping up, I'll be like, 'Oh, this guy must be halfway good.'" As with earlier forms of music sharing, the digital music on iPods and MySpace profiles are still about the sharing of media and media tastes with friends and local peers. Digital technologies enhance these practices by making music more readily available to youth for listening and sharing in a wider variety of contexts.

Many teens also view new media as "something to do" while they are hanging out with their friends. One example of hanging out with media can be found in Lisa Tripp's sidebar (this chapter), in which she describes the media ecology of Michelle, a 12-year-old girl from Los Angeles who uses television, online media, and books for entertainment when she is hanging out at home with her mother or with friends. Like other youth, Michelle uses MySpace to connect with friends when they cannot hang out in person. As discussed at length in the Gaming chapter, boys often prefer to play games when they are together. dragon, a white 10-year-old who was part of Heather Horst and Laura Robinson's study of Neopets, illustrates that hanging out together in a game is important when friends are spread across time and space. At the time of his interview with Heather Horst, dragon had recently moved from the East Coast of the United States to California. While he was making friends at his new school, he regularly went online after school to play Runescape in the same server as his friends back East, talking with them through the game's written chat facility. In addition to playing and typing messages together, dragon and his friends also phone each other using three-way calling, which dragon places on speakerphone. The sounds of 10-year-old boys arguing and yelling about who killed whom, why one person was slow, and reliving other aspects of the game filled the entire house, as if there were a house full of boys.

Michelle

By Lisa Tripp

[Show/Hide](#)

Michelle lives in the San Fernando Valley region of Los Angeles. She is a 12-year-old girl, just finishing the seventh grade. Michelle is being raised by her mother, Rose, who immigrated to the United States from El Salvador years before Michelle was born. The two share a bedroom in an immaculately clean apartment and rent their second bedroom to a cousin. Rose works as the apartment manager for the complex where they live, and sometimes she cleans houses on the weekends. She describes herself as both a strict and loving mom. Rose explains, "Me gusta que [Michelle] ande conmigo. Yo soy con ella como su amiga, su hermana, su mamá, todo. Así lo siento yo." *"I like her [Michelle] to be with me. I am like her girlfriend, her sister, her mom, all of that. That's the way I feel."* When Michelle is not at school, she spends most of her free time at home. On weekends, sometimes she helps her mom at work, or the two do other things together, such as go to a birthday party or stay home and watch a DVD. A recent favorite was the movie *Grease*, which she and her mom have watched in both English and Spanish.

Michelle is not allowed to watch TV on school days, with two exceptions. She can watch the news if she wants to and, every night after dinner, she and her mom have a special date to

watch *La Tremenda*, a popular Spanish-language soap opera, or *novela*. At the end of the school week the TV restrictions are lifted. As Michelle explains, “On Fridays, my mom can’t tell me nothing, because I’m watching TV!”

Michelle likes watching mainstream “kid shows” such as *Phil of the Future*, *That’s So Raven*, *Danny Phantom*, *The Suite Life of Zach and Cody*, and *Hannah Montana*, as well as “little kid” shows such as *Winnie the Pooh* and *Blues Clues*. She is also a major fan of *High School Musical* and considers teen idol Zac Efron her absolute favorite. Her friends are also fans of the same shows, and sometimes she will call one of her friends and say, “Turn it on, turn it on,” so they can watch a TV show together at the same time. When Michelle gets the chance to go online for fun, her favorite thing to do is play games based on these shows, especially the “maze games” on the Disney Channel website.

Michelle listens to music around the house while hanging out in her room or doing chores and when she is in the car riding around with her mom. She has a CD player but longs for an iPod, and she claims to like “any kind of music, except country.” She gets most of her music by downloading it from the Internet, either buying it from iTunes or getting it for free from LimeWire. She often burns music on CDs to give to her friends—many of whom either do not have a computer or do not know how to burn CDs. Sometimes she says she feels “too lazy” to help them, however, so they have to wait.

Michelle is also an avid reader. She keeps a bookshelf in her bedroom stocked with young-adult literature. The books come from her mom’s boss, who regularly gives the family “hand-me-down” books. Michelle tries to read for about an hour before bed every night. This sets her apart from the rest of her friends, who engage in little to no pleasure reading. Michelle has a learning disability and reads at approximately a third-grade level, and she takes her time reading a book. When she comes across a word she does not understand, she writes down the word and asks her teachers at school for help. Some of her recent favorite books include *A Horse Called Wonder*, *Sideways Stories from Wayside School*, and *Harry Potter*—which took her about three months to read.



2.1. Michelle looking around online (Photo by Lisa Tripp, 2006)

Rose, Michelle's mom, helps Michelle with reading and doing homework to the extent that she can, but she speaks limited English and studied only up to the eighth grade in her native El Salvador. This makes providing homework help difficult. Rose bought a computer and pays for high-speed Internet, all to help Michelle complete school assignments. At the same time, Rose worries a lot about Michelle's visiting websites such as MySpace, where she fears her daughter might get into trouble, talk to strangers, or be the target of sexual predators. She also worries that Michelle will waste time playing games online instead of doing her homework. As a result, the computer is kept in the living room, where Rose can keep an eye on what Michelle is doing and, if Rose has to leave the house, she often takes the modem with her to keep Michelle from going online unsupervised. Sometimes when Rose is not looking, Michelle sneaks online to one of her favorite sites. When she gets caught, she yells back at her mom, "I'm not doing anything wrong!"

Several of Michelle's friends have MySpace pages, and Michelle has one too. From Michelle's perspective, the site is fun because it allows her another way to talk to her friends. She likes leaving messages for her friends on MySpace, or reading messages they have left for her, and sometimes she likes to "type" back and forth with them and talk on the phone at the same time. Michelle thinks her mom's fears about the Internet are misplaced and that her mom is just overreacting to scare stories on the news. "I just type to my friends. That's all I do," she explains. "Like I don't talk to people I don't know."

On other occasions, mother and daughter use the computer for more collaborative endeavors. Rose likes to send email to a friend in El Salvador and to her 26-year-old son, who lives in Texas, but she does not know how to do it without help. According to Rose, she types her own emails and then asks her daughter, "Hija ven: ¿cómo le tengo que hacer aquí?" "*Hey, come here: What do I need to do here?*" Michelle then helps her send the emails. More recently, Michelle has also been giving her mom lessons on how to pay bills online and how to create birthday cards. Rose explains, "Ella me ha enseñado a usar todo lo de la computadora . . . todo que ha aprendido en la escuela." "*Michelle has taught me how to do everything on the computer . . . everything she has learned at school.*"

At school this year Michelle has been part of a special program in which students create media art projects, such as graphic art images and short videos. The program has given Michelle her first chance to use PowerPoint and iMovie, and she has already learned enough to help other students learn the software. The class was Michelle's favorite, and she thinks that creating media projects for a school project "just helps her learn better." At the same time, she still had difficulty with the reading and writing part of the process, such as doing research online and writing a script for her video. "I did not like that part," she explains. "It was so boring." Michelle loves taking photos of her friends and family on her mom's mobile phone, and some day she would like to make more videos with her friends . . . but just of them hanging out together. She says she will skip the scriptwriting part.

During the course of our three-year study, many of the American teenagers we interviewed also became regular viewers of short videos and television programs on sites such as YouTube. Although most youth still watch television on a TV screen, there has been a rapid growth of TV viewing on YouTube. In her study *Self-Production through YouTube*, Sonja Baumer describes how TV viewing through YouTube differs from traditional viewing because of the overlay of social information and networks, enabling viewers to engage in a kind of lightweight hanging out with other viewers, even if they may not be spatially or temporally co-present. YouTube videos are contextualized by YouTube participants who provide a layer of opinion and "linking" that differs from the ways in which television has traditionally been organized by channels and networks. As KT, an 18-year-old male from suburban California, describes: "I go to the most viewed page. . . . Mostly I want to know what's up, what's cool, like what was funny on the Colbert Report yesterday, and it is just there, you can browse and look for stuff. Awesome!" Similarly, "When I start watching YouTube, I cannot stop. Each video takes me to another video. . . . It takes me to the author's profile page. . . . I like to click on related videos that YouTube gives you on the side, you know what I mean. . . . There are always pointers to other videos."

We see this hypersocial mode of video viewing in a more immediate and socially interactive way when youth view videos together offline. Video downloads and sites such as YouTube mean that youth can view media at times and in locations that are convenient and social, providing they have access to high-speed Internet. At the after-school center where Dan Perkel, Christo Sims, and Judd Antin observed students in their study, *The Social Dynamics of Media Production*, they began seeing youth gathering in front of a computer during downtime, watching episodes of *Family Guy* on YouTube. For college students in dorm rooms, the computer often became the primary TV-viewing mechanism. High bandwidth connections mean that there is little need for the added expense and clutter of a TV purchase. Ryan, a 17-year-old white, working-class student in high school in urban California who participated in C.J. Pascoe's Living Digital study, describes hanging out with his friend John while they were on a school-sponsored ski trip. He describes how they went online together and "pretty much just grabbed videos, and laughed at a bunch of shock stuff," meaning videos that involved "death, and crazy accidents, and people like, torture cams and stuff like that, just because I've never been exposed to that." Ryan was able to share his reactions to these extreme videos with a friend at an opportune moment when they returned to their rooms for the night after a school-sanctioned outing. In effect, access to rich, networked media enables youth to engage in social activity around video in the diverse settings of their everyday lives. This ready availability of multiple forms of media, in diverse contexts of everyday life, means that media content is increasingly central to everyday communication and identity construction.

Work-Arounds, Back Channels, and Multitasking

Unlike for other genres of participation we will discuss in which individuals justify that the activities are "productive" and/or possess the potential for secondary skills, parents and teachers tend not to see the practice of hanging out as supporting productive learning. Many parents, teachers, and other adults we interviewed described kids' and teenagers' inclination toward hanging out as "a waste of time," a stance that seemed to be heightened when hanging out was supported by new media. Not surprisingly, teenagers reported considerable restrictions and regulations tied to hanging out in and through new media. Sites such as MySpace, which are central to hanging out genres of participation, are often restricted by parents and blocked in schools. In their examination of schools in Southern California (Los Angeles Middle Schools), Lisa Tripp and Becky Herr-Stephenson find that schools generally provide students with the opportunity to log on to the Internet in a school library before school, during lunch or other free periods, or after school. While students in schools with media and technology resources frequently obtain access to the Internet in classrooms using mobile laptop labs or small centers with three or four desktops in an area of the classroom, gaining access to the library was a more complex process of obtaining passes and working in strict silence, and students tended to use the library infrequently aside from class periods during which the entire class would visit the library to do research. Moreover, teachers and schools attempted to determine appropriate use of those resources. The desire to restrict hanging out practices at school in favor of keeping students "on task" while using media and technology for production or research, combined with concerns about which media and websites are suitable for citation (e.g., Wikipedia and .edu sites), can prompt teachers and principals to develop rules about the appropriate use of media structures.

In response to these regulations, teenagers develop "work-arounds," or ways to subvert institutional barriers to hanging out while in school (see Thorne 1993 on the concept of underground economies in the classroom). C.J. Pascoe reports that teenagers in her Living Digital study regularly used proxy servers to get online at school. She also notes that many of the kids she spoke with seemed to know which students were experts at finding available proxy servers. During one of her interviews at California Digital Arts School (CDAS), one teen wanted to show her his MySpace profile, but he could not because the school's server blocked the site. He spent 30 minutes during the interview tracking down one of the school's experts on proxy servers. Unfortunately, when the proxy expert sat down to log on to the proxy, he discovered that school officials had already blocked the server, forcing him to start a search for a new server. Karl, a 15-year-old mixed-race student in San Francisco, attests to the fact that teenagers who want to hang out with their friends will find ways to use MySpace in the library at school even though the school bans access to the site. As Dan Perkel (*MySpace Profile Production*) describes, "while wiggling his fingers in the air in front of an imaginary keyboard, a sly look crosses his face as if to show how sneaky people are and also the big grin on his face as he confirms, 'They can't ban MySpace!'" Karl's general attitude toward bending the rules in the name of maintaining contact with

was in her room, I saw a few boys playing a console game, another carrying on an ongoing text-message conversation, and another one making food,” all in the same room together. The layering of media and social interaction is part of a changing media ecology that youth inhabit, where they are in persistent touch with friends and intimates through networked communication while accessing popular and commercial media in varied settings. The social desire to share space and experiences with friends is supported now by a networked and digital media ecology that enables these fluid shifts in attention and co-presence between online and offline contexts.

“You Have Another World to Create”

[Show/Hide](#)

By C.J. Pascoe

Tall and lithe, 17-year-old Clarissa moves with the grace and the particular upright posture of a ballerina, a lasting effect of her years of participation in dance. Her long blond hair is often braided and woven in a complicated pattern across the nape of her neck. She laughs easily, and she frequently accents her lively eyes by drawing a lacy circular pattern in silver glitter below her left eye. She lives with her parents and two younger siblings in a small unincorporated working-class suburb of San Francisco. Clarissa says that she is not a particularly avid user of technology since she “doesn’t even look” at a computer until she gets to school and laments the fact that her mobile phone is so “old school” that she cannot use it to send text messages. Clarissa represents many teens in her casual technology use—using new media as a meeting place, a place to foster romantic relationships, and a place to engage in hobbies. These digital environments have grown increasingly important as pastimes and socializing places for Clarissa because she recently suffered a debilitating leg injury that robbed her of the ability to engage in her first passion, ballet.

Like other teens I have spoken with, Clarissa and her girlfriend, Genevree, play out much of their relationship through digital media. Clarissa and Genevree share online spaces in a variety of ways. They publicly declare their relationship status and affection for one another on their social networking pages, share their passwords, and have created a blog together. Clarissa said that when she first gets home she checks her MySpace page. Her avatar features her girlfriend and her kissing on the bus on the way to their senior picnic. Her list of “Top 8” friends prominently features Genevree in addition to her other close friends. Genevree’s presence is threaded throughout the page, from the pictures of Clarissa and her at prom to the notes declaring love and support she leaves for Clarissa.

During our interview, Clarissa expressed surprise when we logged on to her MySpace and saw a new addition to her site, saying to me that her girlfriend must have added to it. Clarissa explained that because she shared her password with Genevree, “I have not done my MySpace. It’s all my girlfriend, except a very little bit of it. My girlfriend’s done all the colors and all that.” Lately, Genevree changed Clarissa’s website again, altering the background from a ballet dancer’s foot en pointe to a background of fanciful colored hearts and transforming the text from a standard font to a whimsical large script. She also changed Clarissa’s avatar to a picture of her friends. Flirtatiously, Genevree left a note on the site reading, “So . . . Clarissa was hacked. . . . Her girlfriend was bored and her MySpace was boring, so I spiced it up!”

In addition to the intimacy they created by sharing a password, the couple also created a blog together on LiveJournal. While the site itself is public, Clarissa says, “I do a lot of private entries that my girlfriend and I can read, because we know each other’s passwords.” When Genevree took a motorcycle trip for a week, Clarissa said good-bye and wished her well by posting a picture of an elaborate rose accompanied by a poem. In this way the two could remain digitally linked, a way of being together even when they were not. In addition to her MySpace and LiveJournal sites, Clarissa spends much of her online time on Faraway Lands, her preferred hangout. Clarissa describes Faraway Lands as a “really nice-quality, good, inviting, comfortable, fun place to be.” She finds it to be a community of supportive friends who have high writing standards and creativity. Members must write intricate character applications to join the site. These character applications are essentially 25,000-word descriptions of a given character, its race, its history, and its location. For Clarissa, an aspiring writer and filmmaker, this site allows her to use “words like clay to create whatever stories suit your fancy.” She finds the community to be a “nurturing” one in

create whatever stories suit your fancy. She finds the community to be a nurturing one in which she is “able to fully develop intricate personalities and plots that in computer games, sports, and academics are simply not possible.” Faraway Lands is a text-based site where members weave long and detailed tales about their characters’ quests and adventures.



2.2. *Saloria* (Photo titled “Little Red Bird” by Cathy Hookey, 2006–2008, <http://little-red-pumpkin.deviantart.com>)

In this online hangout Clarissa has made many friends and transcended her local boundaries. While people of all ages are on this site, “most of the people that I’ve interacted with are in my age group. It’s sort of cool ’cause they’re far away and sort of fun.” On Faraway Lands she is simultaneously in character and out of character as she “hangs out” and “chats” on an Internet relay channel. During these chats she has made friends all over the world, telling me “I know a guy in Spain now and fun stuff like that.” She and her friend from Spain are in the middle of planning a new role play in which his “evil” character tries to hire one of Clarissa’s characters, Saloria, as an apprentice.

Clarissa’s stories involve themes of fantasy, triumph, and escape. Her character Saloria, for instance, grew up in a poor neighborhood and was raised by a “loving community” rather than a nuclear family. As a teen, Saloria leaves this community to seek her fortune in the wider world. However, she soon realizes that, as a single woman, the world is a dangerous place. Saloria then decides to live her life as a man “because men have it better. So she spends her days as a man.” During the day, as a man, Saloria performs “roadwork around the city. She’s a happy go lucky charming young fellow.” At night “she’s a crazy lady who has fun.” Clarissa drew on her real-life experience to create Saloria. She recalled fondly stories of adventurous women. She “loved those women who would go on these voyages acting like they were boys for months, and months, and months. It was daring and crazy. And I was like, ‘I want to do that. That would be fun.’” While this sort of adventuring is not feasible for Clarissa, her characters can live out these fantasies. She sums up Saloria’s story by saying, “It just started with that, the freedom of being a boy.” Through this particular role play, Clarissa grapples with intense issues of adolescent identity work and imagines her way out of some of the gendered expectations faced by teenage girls.

Faraway Lands also provides a forum in which Clarissa can be creative and hone her writing skills. She and her role-playing friends critique each other’s writing and stories. She and a fellow role player from Oreon “had this sort of thing where we were reviewing each other’s

work all the time 'cause he just wanted all the input he could get.” The creative aspect of this site is part of what drew Clarissa to Faraway Lands. “It’s something I can do in my spare time, be creative and write and not have to be graded,” because, “you know how in school you’re creative, but you’re doing it for a grade so it doesn’t really count?” Unlike in school, where teens live in a world of hierarchical relations—where they are graded, run the risk of getting in trouble, and must obey all sorts of status- and age-oriented rules—in Faraway Lands Clarissa is evaluated on her creativity and artistic ability.

Clarissa struggles with some normal teenage challenges—finding time for her girlfriend, power struggles with her father, a lack of money, and figuring out a path to college—and some unusual challenges—a disabled brother, being involved in a same-sex relationship, and suffering a severe leg injury. While she might be particular in her use of the Internet as a space to role play, her story is a compelling one with which to think through possibilities of the Internet as a semipublic, third space for teens to hang out. These digital spaces are particularly interesting because of the variety of hangout options they afford. As Clarissa illustrates, teens can do public-identity work by setting up sites defining “who they are,” they can maintain and deepen romantic relationships, they can make new friends, play, be creative, and be treated as competent artistic producers.

Messing Around

The second genre of participation prevalent among American teenagers is a practice we have termed “messaging around.” Whereas hanging out is a genre of participation that corresponds largely with friendship-driven practices in which engagement with new media is motivated by the desire to maintain connections with friends, messaging around as a genre of participation represents the beginning of a more intense engagement with new media. If we consider messaging around as a transitional genre of participation, it makes sense that motivations for messaging around can vary from the desire to establish or maintain connections with others through new media, to aspirations to learn about new media because of an interest in the subject or in a topic that is well represented through new media. In this section, we demonstrate the ways in which young people throughout our studies engaged in messaging around and argue that these new media practices hinge upon three interrelated practices: Looking Around, Experimenting and Play, and Finding the Time, Finding the Place to mess around. In the first section, we focus upon the ways in which kids use search engines and other online information sources to find information, a practice we call “fortuitous searching.” The second section attends to the importance of experimentation and play in facilitating learning about the way a particular medium works, particularly through the processes of trial and error. The final section, Finding the Time, Finding the Place, outlines many of the “conditions” or “environments” that are conducive to young people’s efforts to engage with new media through illustrations of young people’s seeking out and taking advantage of the resources available to them at home, at friends’ homes, and at after-school programs and other institutional contexts.

Looking Around

One of the first points of entry for starting to “mess around” with new media is the practice of looking around for information online. As Eagleton and Dobler (2007), Hargittai (2004, 2007), Robinson (2007), and others have noted, the growing availability of information in online spaces has started to transform young people’s attitudes toward the availability and accessibility of information (Hargittai and Hinnant 2006; USC Center for the Digital Future, 2004). Among our study participants who completed the Digital Kids Questionnaire, 87 percent ($n=284$) reported using a search engine at least once per week, varying from Google, Yahoo!, and Wikipedia to other more specialized sites for information.[15] The vast majority of the young people we interviewed engaged in “fortuitous searching,” a term that distinguishes between searching that is goal directed and searching that is more open ended. Rather than finding discrete forms of information, such as the exchange rate between the United States and Great Britain, the color of a particular flower, or the name of the 20th president, fortuitous searching involves moving from link to link, looking around for what many teenagers describe as “random” information. As 17-year-old Carlos, a Latino from the East Bay, describes the process to Dan Perkel (MySpace Profile Production), “I was just going through Google . . . it just gives a lot of websites. So I just started finding these . . . I put Google . . . then it took me to a website and it had a lot of different stuff

finding these . . . I put Google . . . then it took me to a website and it had a lot of different stuff. . . .” Despite the seemingly roundabout method of following links described by this respondent, teens’ online research can be quite focused. Many searches involve finding information to facilitate the completion of homework and school projects, looking for a “cheat” for a particular game (see the Gaming chapter), or looking for a way to complete a particular task. However, the nature of the search engines and the organization of information on search results pages provided many teenagers with the ability to follow their own curiosity by moving from link to link when something looked interesting.

Fortuitous searching represents a strategy for finding information and reading online that is different from the way kids are taught to research and review information in texts at school. Students are taught to use tools such as identifying a purpose for reading, activating prior knowledge, predicting the content of the text before and during reading, and summarizing or discussing the text after reading in order to improve their skills in finding and comprehending information in both traditional and online resources (Eagleton and Dobler 2007; Graves, Juel, and Graves 2001). By contrast, fortuitous searching relies upon the intuition of the search engine and the predictive abilities of the reader. As Eagleton and Dobler write:

Readers of Web texts rely on a similar process of making, confirming, and adjusting predictions. However, not only do Web readers make predictions about what is to come in the text (and within other multimedia elements), they also make predictions about how to move through the text in order to find information. When a reader who wants to know more about how to do an ollie on a skateboard and clicks on the hyperlink “ollie,” she is mentally making a prediction that this link will lead her to learn more about this skateboarding trick. (p. 37)

Indeed, participants’ skills in navigating large numbers of pages and using appropriate search terms indicate proficiency at predicting the information available to them online.

Kids will often look around online to find material for creative production. For example, we have seen kids use fortuitous searching to find materials for customization, appropriation, and alteration of their MySpace pages. As Perkel (2008) notes, copy and pasting has become a prevalent practice among American teenagers who want to update and alter their MySpace pages (see also Creative Production). Many of the “tips” or “guides” for changing a MySpace page (such as embedding images and videos and uploading pictures) are online, on other people’s profiles, in online guides, and on the MySpace site itself. Others use a variety of search sites’ strategies to obtain information about their interests (Laura Robinson, Wikipedia and Information Evaluation). Nineteen-year-old Torus, an Indian and Italian who lives in the Los Angeles area, described to Patricia Lange (YouTube and Video Bloggers) how he looks on Wikipedia for information about games he was interested in. “I actually went on recently to learn about one aspect of [a particular type of mod], there’s some card game inside the game and I didn’t understand it so I went on Wikipedia and Wikipedia told me, as usual.” Similarly, Christo Sims interviewed eighth-grader MaxPower, a white 14-year-old living in a middle-class area of rural California (Rural and Urban Youth), who expressed a strong interest in music. MaxPower learned about music in some of the established ways, such as watching music videos on television. However, after a song or a band piqued his interest, he turned to online sites, searching for a particular band on iTunes, doing a Google search to learn more about them, or identifying Google images to download a picture for his binder. When he likes what he sees, he sometimes buys music, and if he really likes it, he will burn a copy for his friends.

The youth we spoke to who were deeply invested in specific media practices often described a period in which they discovered their own pathways to relevant information by looking around. Unlike MySpace profiles, where many kids can find local experts, kids with more specialized interests often need to rely upon online resources for an initial introduction to a particular area. While the lack of local resources can make some kids feel isolated or in the dark, the increasing availability of search engines and networked publics where they can “lurk” (such as in web forums, chat channels, etc.) effectively lowers the barriers to entry and thus makes it easier to look around and, in some cases, dabble or mess around anonymously. Without having to risk displaying their ignorance, they find that opportunities for legitimate peripheral participation (Lave and Wenger 1991) online abound. For example, SnafuDave,[16] a web comics creator described in the sidebar “I’m Just a Nerd” (see the Work chapter), explains how he learned many of his initial graphic skills

I'm just a nerd (see the work chapter), explains how he learned many of his initial graphics skills from online tutorials and web forums before becoming an active participant in a web comics community. Similarly, Derrick, a 16-year-old teenager born in the Dominican Republic who lives in Brooklyn, New York, also looked to online resources for initial information about how to take apart a computer. He explains to Christo Sims (Rural and Urban Youth) how he first looked around online on this topic:

I just searched on Google and I just went to . . . because I bought myself a video card. I had no idea what a video card looked like. I typed in video card image. Before I went to searching for it, image. I wanted to know what it looked like first. I seen different pictures. So Google sometimes gives you different pictures. If you type something in it gives you. . . . So I'm confused. I'm like, "I thought it looks like this but it looks like" . . . so I typed something in and I seen on Google what it looks like. So I looked at mine and I seen exactly where's it at. If you smart you don't got to search out, "How do I put in and put out." It's simple. It's just take the piece out. Have your computer off, take it out. When you get your new one if it has a fan you can't have your sound card too close to it. So you've got to put your sound card in another slot and I bought myself a sound card, too. I had no idea what none of those looked like. I thought a sound card was called a sound disk. I learned a lot on my own that's for computers. . . . Just from searching up on Google and stuff. . . . That's why I like Google.

As Derrick makes clear, looking around online and searching is an important first step to gathering information about a new and unfamiliar area. Although many of these forays do not necessarily result in a long-term engagement, youth do use this initial base of knowledge as a stepping-stone to deeper social and practical engagement with a new area of interest. As illustrated above, online sites, forums, and search engines augment existing information resources by lowering the barriers to looking around in ways that do not require specialized knowledge to begin. In other words, looking around online and fortuitous searching can be a self-directed activity that provides young people with a sense of agency, often exhibited in a discourse that they are "self-taught" as a result of engaging in these strategies (see the Creative Production chapter). The autonomy to pursue topics of personal interest through "random" searching and messing around generally often assists and encourages young people to take greater ownership of their own learning processes.

Experimenting and Play

Like looking around, experimentation and play are central practices for young people messing around with new media. As a genre of participation, one of the important aspects of messing around is the media awareness that comes from the information derived from searching and, as we discuss in this section, the desire and (eventually) the ability to play around with media. Often experimentation starts small, such as using digital photo tools to crop, edit, and manipulate images. As Gee (2003) has argued for games and other interactive technologies that have low stakes attached to making mistakes or trying multiple scenarios to solve a problem, messing around also involves a great deal of trial and error. In the Gaming chapter, we argue that the sociability around gaming combines with the affordances of gaming systems to support an ecology of playful experimentation with technology that can often lead to technical and media expertise. This kind of social play and experimentation can happen in the home, as an extension of hanging out with family and friends, as well as online in networked gaming contexts where players join in collaboration and competition through game play, practices that are buttressed by ongoing exchange and collegiality. In fact, much of contemporary gaming is built upon the premise that players will engage in a great deal of experimentation on their own in a context of social support. Many key dimensions of game play in complex games are not explicitly spelled out by designers, and players learn about them from other players either directly or through online resources such as fan sites, game guides, and walk-throughs.

Because of the ease of copying, pasting, and undoing changes, digital media-production tools also facilitate this kind of experimentation. The availability of these tools, combined with the online information resources described above, means that youth with an interest and access to new media now possess a rich set of tools and resources with which to tinker and experiment. In the chapter on Creative Production, we describe how youth media creators typically recount a period of time early in their learning about media production when they were tinkering with new media in a "self-taught" mode. They often describe getting started by messing around with home videos, modifying photos, or a program such as Photoshop. Eventually, many of these media producers

manipulating photos, or a program such as Photoshop. Eventually, many of these media producers begin to get more serious about their craft and develop a hobbyist network to support their work. Often these activities start as social hanging out modes of media creation, but young people with an interest in media production sometimes go on to play and experiment with different media beyond simple plug and play. Young people who are successful in learning advanced technology skills through messing around sometimes become experts among their families, friends, teachers, and classmates. Megan Finn describes this position as the “techne-mentor” in her sidebar in this chapter. Techne-mentors, like guides and digital tools, support learning about technology in informal settings.

The Techne-Mentor

By Megan Finn

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In conceptualizing the media and information ecologies in the lives of University of California, Berkeley freshmen, classical adoption and diffusion models, for example Rogers ([1962] 2003), proved inadequate. Rather than being characterized by a few individuals who diffuse knowledge to others in a somewhat linear fashion, many students’ pattern of technology adoption signaled situations in which various people were at times influential in different, ever-evolving social networks. The term “techne-mentor” is used to help to describe this pattern of information and knowledge diffusion. The term “technology” is generally thought to be partially derived from the Greek word *techne*, which means craftsmanship. Mentor is a figure in the *Odyssey* who advised both Odysseus and Telemachus and is the source of the modern use of the word “mentor.” Techne-mentor refers to a role that someone plays in aiding an individual or group with adopting or supporting some aspect of technology use in a specific context, but being a techne-mentor is not a permanent role. The idea of the techne-mentor is useful for expanding conversations about adoption patterns to one of informal learning in social networks.

Growing up, Joan learned about technology on her own and acted as a techne-mentor to her family and friends. Joan started as a techne-mentor when her computer got a virus. She then helped her friends get rid of the virus.

We got this one [virus] on AIM [AOL Instant Messenger] actually. It was on your user profile so whenever you clicked info, it would say, “Ha, ha, ha, I found the picture of insert your name here” and you would click on the link and then you would get this spyware. . . . It took me a day to figure it out. . . . Then I got rid of it for all my friends. It’s kind of like a little game. . . . It was a challenge, especially the first virus. . . . I just started getting into [computer] stuff.

Many students such as Joan were often driven to learn about technology on their own when they encountered problems with the technology and did not have other support to learn how to fix them. Other students started learning about computers while trying to get rid of viruses on their families’ computers. For example, Ben explained, “I did get a virus once and had to learn how to get rid of it. The damn ‘I love you’ virus. Gosh, that nailed everybody.” Once students such as Ben and Joan figured out how to get rid of a virus, they would often help the people in their social networks get rid of the virus, essentially becoming techne-mentors to others.

Joan also explicitly directed her siblings about how to use technology.

I would teach them [my siblings]. Not so much in middle school but in high school, they’re usually “Do you know how to use Photoshop?” I’ll say, “Yeah, do this.” . . . Or “Do you know to how to get rid of this spyware?” . . . for my brother at least; my [older] sister has her own tech guy.

Once Joan started at Berkeley, she found a job working for a computing help desk. Through her colleagues at work, Joan picked up a lot of information about best computing practices: “When I got my job there was this girl at work who did a yearbook and knows everything and so whenever we have a shift she will teach me all this random stuff.” In a work context Joan was mentored by her friends and colleagues, but in other social contexts, such as her family,

Joan was a techne-mentor to others. It is important to note the nonstatic nature of the techne-mentor; the status of techne-mentor is relative to the knowledge of others within a social context. The significance of the techne-mentor is that he or she provides information to others without implying absolute expertise.

Joan uses information from the work context where she has found a teche-mentor to help her friends:

I see that they are using it [AIM]. . . . [I say,] “Your AIM starts playing a movie trailer with audio every half hour and it’s just annoying.” [My friends say,] “My god, I want to get rid of that, can you help me?” and so I’ll go on like a downloading site and download GAIM or DeadAIM.

We can see here that when Joan acts as a techne-mentor to her friends, she is not teaching in a traditional way. The techne-mentor interactions are very ad hoc and informal. The mentorship can be in the form of exposure to a technology. Joan, the techne-mentor in this case, has preexisting relationships with those whom she mentors that are much more elaborate than just the techne-mentor/student relationship. It allows her to casually mentor her friends when a technology is not working.

Besides Joan, in the Freshquest study we found many cases of techne-mentors. The kind of roles they played varied from case to case and situation to situation. The techne-mentor may simply make someone aware of a technology. On the other hand, he or she may play an integral role in demonstrating the technology practice or even installing the technology and ensuring its status as operational. Sometimes students we interviewed had one primary techne-mentor in their lives, but in turn the students would take on the role when they passed this information onto other groups. In fact, it is this constant flow of information about technology between a student’s multitude of social networks that accounts for the fluidity of the role of techne-mentor. In all of these socially situated contexts, techne-mentors were an integral part of informal learning and teaching about technology and technology practices.

In the Work chapter, we describe how young people who started successful online and digital media ventures enjoyed a certain amount of time and autonomy during which they could try out different modes of working that were different from the standard forms of part-time labor that are available to teenagers. Indeed, messing around requires a good deal of time for self-directed learning. For example, SnafuDave, a successful web comics artist profiled in the sidebar “I’m Just a Nerd” (see the Work chapter), describes how school provided an important venue for developing his new media skills. While he learned few useful new media skills in his college classes, school did provide him with the time and space to be able to learn on his own. Similarly, Zelan, profiled in the sidebar Technical Prospecting in a Rural Landscape (see the Work chapter), describes how his interest in new media began with gaming when his parents let him play while they were prospecting for gold. Eventually, Zelan parlayed his interest in gaming into different forms of technical expertise, and he learned how to take apart and fix game consoles and eventually computers. Now he is a local technical expert and gets paid for his services; he sees his future in a new media-related business.

Messing around is easiest when kids have consistent, high-speed Internet access, own gadgets such as Mp3 players and DVD burners, and have a great deal of free time, private space, and autonomy. However, these are not necessary conditions for messing around. Some of the innovative experimentation we saw in youth’s messing around revolved around circumventing limited media access. Consider, for example, Jack, a 14-year-old from Lisa Tripp and Becky Herr-Stephenson’s study Los Angeles Middle Schools. Jack’s parents promised him an iPod as a graduation gift if he completed eighth grade with acceptable grades. With graduation still a few weeks off and his grades in question, Jack figured out a way to substitute the technology he *did* have for the iPod he was anticipating. Jack borrowed his aunt’s digital camera, on which he could record several minutes of video, and recorded music videos off the television in his bedroom. Getting a good recording took time and several tries, but fortunately for Jack, he had a few hours at home alone after school before his parents arrived home from work, so he could shut his bedroom door and crank the sound on the television to get a good recording without having to

worry about his parents' overhearing questionable lyrics or complaining about the volume. Although the camera's memory card held only two or three songs at any one time, it had a headphone jack and fit in Jack's pocket so no one had to know that it was not a Mp3 player. By messing around and being creative with technology, Jack was able to find an acceptable interim solution until he could get his iPod. Similarly, Melea, a mixed-race high-school student in San Francisco enrolled in an after-school program, used resources at the after-school center to devise a creative way of getting a custom ringtone for her phone. As Dan Perkel describes Melea's ringtone practices:

I saw that Melea had come in, sat down at the adjacent computer, and was using the computer. I realized that she was playing music and getting everyone else to be quiet. She was bent way over next to the Mac's external speakers with her cell phone up to the speaker recording the song that she had put on her MySpace profile. JJ at one point started talking and she shh'd him (later she said in a threatening voice, "If your voice is on that . . ."). She said it was going to be her ringtone. Then she went to the Fergie page on MySpace music. She played the Fergie song. I asked her if this were Fergie from the Black Eyed Peas and she said, "Yes." She played the song and asked herself over and over again . . . "Do I want this song? Do I want this song?" Then she said, "Yes!" and right in the middle hit the record button on her phone (or whatever) and started recording from the speakers again (The Social Dynamics of Media Production).

Melea circumvented economic costs associated with buying ringtones, costs that could have prohibited her from possessing her ringtone of choice. Despite the difficulty of getting a high-quality recording in a noisy computer lab, by recording it from the playback of a MySpace page Melea creatively acquired the media she wanted in her desired format.

Whether in media production, game play, or other mediated contexts, the opportunity to experiment and play, and to fail with minimal consequence, can provide young people with opportunities to develop problem-solving skills and learn to use resources wisely and creatively. As with looking around and finding things, the social dimensions of experimentation and play are important, as peers are able to scaffold experiences for one another based upon experience and the results of previous experimentation.

Finding the Time, Finding the Place

The ability to mess around requires access to an ecology of media and social resources that are not always available to youth. Just as in the case of hanging out, messing around is a genre of practice that is driven by young people's own interests and motivations, and it is not always fully provisioned by the adults who have authority over kids. While schools may provide structured media-production programs for youth, these programs are task focused and there is little time for unstructured experimentation and play. Most of the messing around activities that we observed occurred at home, with kids who had both well-provisioned media households and an environment where they had certain amounts of free time, and whose parents gave them a fair degree of autonomy over their media choices. The dynamics of homes and families are described more in the chapter on Families. We also found that transitioning to college was often a key moment when kids cultivated the time and space to engage in messing around, particularly if they did not grow up in a home where they were given the freedom to engage in these activities before college. The older participants we spoke to who were highly engaged with media production or gaming generally described falling in with a crowd of friends in college who shared some of these interests and then spending late nights messing around together around media interests.

For young people without access to digital media at home, after-school programs can be an important place for experimentation and play, providing technical and social resources and a time and space for messing around with technology that they do not have at home. Jacob, a 17-year-old African American high-school student in Oakland, is enrolled in a program where he can stay after school to work with computers. As he describes the program where he had the opportunity to mess around to Dan Perkel (The Social Dynamics of Media Production):

So it's fun, because they teach you all these different programs that you had no idea what they were until you get into there. And then they have nice software. They have LCD screens.

Every seat, every computer they have fast Internet service, processor. They have nice seats. I mean, the seats aren't like these. I mean, they have nice roll-around comfy sit-back seats where you can just sit back and type. It's comfortable. And then they got tables. And then they got a table where you eat. So they bring out food, like sandwiches, chips, apples, fruit. Nutritious stuff. They don't really serve fast [food] . . . they do have chips, like Doritos, but not sloppy things. And so I learned Photoshop, Flash animation, Dreamweaver, a couple of other programs like Word, Excel. They have all the latest programs. Flash. Our school has Flash [inaudible], but Tech Visions have the new ones—Flash 8 and Dreamweaver 9. And I think it's Photoshop CS and Fireworks. They got all the programs. Anything you need to do to build any kind of website, or any kind of project or picture, they have it.

Jacob recounts with delight how the program provides a whole environment that gives him a sense of empowerment and efficacy; not just the technology but the provisioning of good, nutritious food and comfortable work spaces are all part of the package that draws him to this program.

Messing around happens according to a variety of trajectories and in different settings. Although the youth in our study who had in-home, private, and consistent access to new media (particularly computers and Internet connections) tended to have an advantage in relation to those who had more limited resources, for a number of youth, the most important spaces for messing around took place at school or in after-school settings. In Katynka Martínez's study, *Computer Club Kids*, she observed a Los Angeles high school where the computer-lab instructor allowed kids to hang out and use the lab for their own self-directed activity. The kids in the computer lab set up the computers so they could engage in networked game play, launched a variety of self-directed media-production projects, and started some small business ventures as described in Martínez's sidebar *Being More Than "Just a Banker"* (see the *Work* chapter). In many ways, the computer lab was a unique context where kids could gather informally during school breaks and after school to mess around with a comfortable mix of social and technical resources.

Some teens were able to construct their own times and places for messing around in the absence of formal programs, even if they did not have a home context that fully supported these activities. For example, Toni, a 25-year-old living in New York City whom Mizuko Ito (*Anime Fans*) interviewed over an instant-messaging program, reflected upon his experiences as a student coming to the United States from the Dominican Republic and the ways in which he was able to create space to mess around at school. He was first exposed to computers soon after he moved to the United States for middle school and took a computer class. He quickly took an interest in computers and then later went back to the Dominican Republic for a year and attended a computer-training institute, all the while not having computer access at home. When he returned to the United States in ninth grade, he became part of an informal computer club.

Toni: i would stay after school and play around/help the teacher who kept the lab open for students to use

Mizuko: sounds like a cool teacher

Toni: he was except when i printed out the student database, he wasn't happy then

Mizuko: lol, but sounds like he gave you some freedom to mess around

Toni: yeah, the exposure i got both learning how parts of a computer make the whole and also helping other students was pretty good for me and i sort of do the same kind of thing these days

Today Toni is an active online participant in the anime fandoms that are the subject of Ito's study, and he is a technology expert for his family. He eventually acquired his first computer in 11th grade and attended school at a technical university. While Toni's experience of messing around informally at school is not necessarily typical, it speaks to the fact that schools and after-school programs continue to play an important role to many youths for learning about technology. In addition, it illustrates the value of informal learning, unscheduled time, and student-driven inquiry, even in a formal educational environment.

As a collection of practices and a stance toward media and technology, messing around highlights

the advantages of growing up in an era of media saturation, interactive media, and social software. Although messing around can be seen as a challenge to traditional ways of finding and sharing information, solving problems, or consuming media, it also represents a highly productive space for young people in which they can begin to explore specific interests and to connect with other people outside of their local friendship groups. As was noted in the introduction to this section, messing around can be understood as a transitional genre of participation that can mediate between hanging out and geeking out. Kids can move from media engagement that centers on peer sociability to forms that are more interest focused via messing around. Conversely, kids who are participating in more geeky interest-driven activities see messing around as a form of social play in which they engage with their friends around interests and learning. Unlike learning in more structured settings, messing around involves a more open-ended genre of participation, which often hinges on certain modes of sociability and play along with access to resources on a timely and as-needed basis. As we have outlined, even youth with well-provisioned media environments can lack the time and social resources to successfully mess around with media. Messing around is therefore a powerful modality of learning that requires a whole ecology of resources, including the time and space to experiment.

Geeking Out

The third genre of participation we have identified is what we have termed “geeking out.” This genre primarily refers to an intense commitment or engagement with media or technology, often one particular media property, genre, or a type of technology. This stance is characteristic of the young people we interviewed who were involved in a media fandom, such as the young people in Mizuko Ito’s study *Anime Fans*, in Becky Herr-Stephenson’s study *Harry Potter Fandom*, or the more committed gamers who participated in Matteo Bittanti’s *Game Play* study. The term “geeking out” can be used to describe the everyday practices of some of the gamers and media producers who participated in our project. In addition to intensive and frequent use of new media, high levels of specialized knowledge attached to alternative models of status and credibility and a willingness to bend/break social and technological rules emerged as two additional features of geeking out as a genre of participation.

Before discussing geeking out in more detail, it is important to note that although “geeking out” describes a particular way of interacting with media and technology, this genre of participation is not necessarily driven by technology. The interests that support and encourage geeking out can vary from offline, non-mediated activities, such as sports, to media-driven interests, such as music, that are larger than the technological component of the interest. That is to say, one can geek out on topics that are not culturally marked as “geeky.” We also wish to distinguish here between geeking out and other uses of the word “geek,” such as an identity category. Whereas notions of geek identity have traditionally been associated with white, affluent, suburban boys (Jenkins 2000; Thomas 2002), our understanding of geeking out as a genre of participation—a way of understanding, interacting, and orienting to media and technology—widens the definition to include activities and people outside of established understandings of what it means to identify (or be identified) as a geek. This is not to negate the potential implications of participation for the negotiation and articulation of identity. As we have discussed elsewhere, participation, learning, and identity development are contingent within communities of practice. Our point here is to call attention to examples of continued, intensive, and sophisticated interaction and use of new media that might otherwise be overlooked because the person doing it does not fit a preconceived notion of the gender, class, or race of a geek.

Expertise and Geek Cred

For many young people, the ability to engage with media and technology in an intense, autonomous, and interest-driven way is a unique feature of the media environment of our current historical moment. Particularly for kids with newer technology and high-speed Internet access at home, the Internet can provide access to a huge amount of information related to their particular interests. The chapters on Gaming, Creative Production, and Work describe some of the cases of kids who geek out on their interests and develop reputation and expertise within specialized knowledge communities. Geek cred involves learning to navigate esoteric domains of knowledge and practice and being able to participate in communities that traffic in these forms of expertise.

Mizuko Ito’s sidebar on *zalas* (this chapter) describes the case of one highly expert participant in

online knowledge cultures who has customized his media engagements in a way that focuses on developing deep expertise in a specific area of interest. Although very few of the youths we spoke to exhibited the kind of informational expertise that zalas did, it was not uncommon to find young people who customized their media environments to facilitate access to specialized knowledge. For example, one of Heather Horst's interviewees in her study *Silicon Valley Families*, a 15-year-old boy who chose the pseudonym 010101, discussed the way he keeps up with information about his interest in technology by creating a customized Google home page with various RSS feeds so he can keep tabs on different sites of interest. In addition to Slashdot, one of the most popular technology news blogs featuring "news for nerds," 010101 regularly reads a variety of technology websites specific to his interest, including MacRumors.com and Engadget.com. 010101's sources of information are sites with high status within the tech geek community, where the credibility of technology information is debated among people who identify as tech experts.

[zalas, a Digital-Information Virtuoso](#)

[Show/Hide](#)

[By Mizuko Ito](#)

My first encounter with zalas was through email, through an introduction from another anime fan. I was seeking information about my new study on fansubbing practices, and I was told that zalas was the person I should know. Initially, we corresponded over email, where I peppered him with questions about the fansub community. He seemed to have eyes and ears all across the vast web of the online fandom around anime, not just among the fansub communities. Apparently no question was too esoteric; he could come back with information about the latest anime releases in Japan, the activities of even the most minor fansub groups, and the juiciest gossip on the online forums surrounding Japanese popular culture in both Japan and the United States. zalas is a digital-information virtuoso, and I had the good fortune of having him as a key informant in my study of anime fans.

zalas and his family immigrated to the United States from mainland China when he was a child, and he grew up in a technology-rich household, with two parents who worked with computers. "I got introduced to computers early on. And, also, I just tend to be better at science and math than the arts and English and things like that. I was sort of just drawn to [the computer] because it was like this super, über toy, you know." Both his parents were in graduate school at the time, and he had online access to their VAX machine. Ever since then, he kept up with the latest online technologies, moving from AOL Instant Messenger, to Internet relay chat (IRC), and eventually to BitTorrent. He discovered the online anime and fansub scene through his contacts in IRC.

zalas participates in a wide range of fan activities. He has been involved in a variety of fansub groups and activities, including projects to fansub games and electronic visual novels. He also makes animemusic videos (AMVs), is an officer at his university's anime club, and is a frequent speaker at his local anime convention. I have seen him give talks on topics as varied as Japanese anime and game-remix videos, fansubbing, and visual novel subtitling. He describes himself as something of an elder in the online anime scene, despite the fact that he is still in his early 20s.

In my interview with zalas, he guided me through some of what was behind the curtain of his information magic. He explains that he is constantly on IRC, logged into multiple channels populated by the information elite of the online anime fandom.

I used to have just one copy of mIRC running that simultaneously connected to all these channels, and every once in a while just scroll through to see which ones have new messages, go to them, see if it's important, if it's not, go to the next one and things like that. But right now I actually have a text only IRC client that's running on my friend's web server, and I'm connected to about 20 channels on that one. It's actually down from what I'm usually connected to. And that one lights up a little number near the bottom of the screen indicating which channels have new activity, and I'll switch to it and see if it's worthwhile or something.

zalas has four computers at home: a Windows computer, a Linux computer, a Macintosh desktop computer, and a Macintosh laptop.

So, my Windows computer is there so I can play games. It's—most of my desktop processing stuff and all my video editing and things like that are on Windows computer. My Linux computer is there because I need—sometimes I need a Linux compiler, and it's also there as a server. So, it's serving my source code repositories, and it's—it has a IRC fire—file server on there as well and IRC bot on that or something like that, which controls some channel. And my OS10 one is actually my laptop, which I bring with me. It's kind of like my portable computer . . . I bought it because I wanted to be able to work anywhere, and also I bought it so I can sort of connect to IRC at conferences—at conventions.

Although zalas is an avid consumer of music and television, he rarely accesses this content through standard broadcast channels. He frequents the Japanese streaming-video site, Nico Video, in addition to using BitTorrent to download anime episodes. zalas's home base for communication is IRC. But in addition to IRC he frequently visits information websites and online forums devoted to his hobby. He does not keep a personal blog but prefers to post to shared online forums. He will often scour the Japanese anime and game-related sites to get news that English-speaking fans do not have access to. "It's kinda like a race to see who can post the first tidbit about it."

In addition to his prolific activities as an anime fan, zalas is also a graduate student in Electrical Engineering at one of the top universities in the country. He says that he mainly uses IM for people he has met in school and other real-life contexts, and IRC is for "people I met randomly online." Despite the fact that he is in a high-powered graduate program, zalas says that almost all of his online activity centers on his anime- and game-related hobbies. He estimates that he spends about eight hours a day online keeping up with his hobby. "I think pretty much all the time that's not school, eating, or sleeping." Building a reputation as one of the most knowledgeable voices in the online anime fandom requires this kind of commitment as well as an advanced media ecology that is finely tailored to his interests.

Another example of how geeking out relates to finding and producing credible information comes from a number of the gamers with whom we spoke during this project. Particularly when it comes to massively multiplayer online role-playing games (MMORPGs), the intensive engagement associated with geeking out as a genre of participation extends beyond participation within the boundaries of the game world and to the paratexts[17] that support and extend the game. Paratexts take many forms, varying from gaming magazines and official guides published by game manufacturers, to player-generated guides and tutorials, to materials more recognizable as fan texts such as fan fiction and fan art. For example, Rachel Cody notes that the players in her study of Final Fantasy XI used guides, typically on websites but sometimes in books, regularly during game play for information about quests, missions, and crafting. The guides assisted players in streamlining some parts of the game that otherwise took a great deal of time or resources. For example, guides that instructed players on strategies for leveling crafting skills could help players save on the (in-game) expense of materials by providing tips on the best way to craft items. Cody observed that a few members of the linkshell in her study kept Microsoft Excel files with detailed notes on all their crafting in order to postulate theories on the most efficient ways of producing goods. As Wurlpin,[18] a 26-year-old male from California, told Rachel, the guides are an essential part of playing the game. He commented, "I couldn't imagine [playing while] not knowing how to do half the things, how to go, who to talk to."

As Wurlpin and many other players with whom we spoke note, the information sought from guides is often used to save time, resources, or to draw upon advice from players who have successfully completed a task with which the player is struggling. In this context, user-generated guides often acquire greater credibility with players because they have been created by other players rather than by the producers of the game. Using and creating player-generated guides is an example of geeking out because it reflects an acceptance of the alternative status economy and markers of credibility that exist in many gaming communities. While not endemic to gaming communities, valuing geek cred is a unique feature of geeking out as a genre of participation and is significantly

different from the ways in which information is assessed while messing around.

Status and credibility also remain linked in alternative status economies, which represent another area of blending between interest- and friendship-driven groups. For example, in her study, *Anime Fans*, Mizuko Ito observes that fans gravitate toward particular fan sites that have credibility within the community rather than relying on industry-produced sites for information about anime. She notes that fans in specialized creative communities often avoid “official” discussion forums (for example, those provided by the media producers or otherwise sponsored by the industry), instead looking to specialized fan communities where the knowledgeable fans congregate. For example, fansubbers such as zalas generally prefer to participate in closed IRC groups or specialized forums rather than general fan discussion forums, which they see as catering to less knowledgeable fans.

In interest-driven groups built around technology expertise, media fandom, or electronic gaming, status does not have to align with the hierarchies of status at school, at home, or more general social status. Whereas family, peers, classmates, and others might contribute to a young person’s feeling of marginalization for having a particular niche interest, within an interest-driven group, the niche interest is what brings people together and therefore, knowing a lot about it, sharing unique information with the group, or producing interesting and high-quality productions (fan fiction, art, fansubs, videos, podcasts, etc.) are highly valued practices.

Rewriting the Rules

Rewriting the rules is a practice in messing around as well as in geeking out, but there are important differences in the ways in which the rules are rewritten in and between these two genres of participation. Like messing around, which involves an inchoate awareness of the need and ability to subvert social rules set by parents and institutions such as school, geeking out frequently requires young people to negotiate restrictions on access to friends, spaces, or information to achieve the frequent and intense interaction with media and technology characteristic of geeking out. Rewriting the rules in the service of geeking out, however, also involves a willingness to challenge technological restrictions—to “open the black box” of technology, so to speak. This practice is most often done in the service of acquiring media—either media that are unavailable through commercial outlets (such as anime that has not yet been released in the United States) or media that are unavailable because of the cost of buying it. Geeking out often involves an explicit challenge to existing social and legal norms and technical restrictions. In other words, it is a subcultural identity that self-consciously plays by a different set of rules than mainstream society.

Many of the geeking out practices we describe in the chapters on Gaming, Creative Production, and Work involve youth engaged in passionate interests who are concurrently innovating in ways that rewrite the existing rules of media engagement. For example, fans of various forms of commercial media have engaged in their own alternative readings of media and created secondary productions such as fan fiction, video mashups, and fan art. These activities are proliferating online, and we capture some of this in our chapter on Creative Production. Similarly, gaming represents a breeding ground for practices of code hacking, creating and exploiting cheats, and making derivative works such as machinima and game modifications. These forms of geeking out are described in the Gaming chapter.

Geeks have also been at the forefront of alternative regimes of media circulation. Fansubbing is a practice that bridges fan practices of secondary production and peer-to-peer (P2P) circulation, and it is described further in the chapter on Work. Despite attention in recent years to large numbers of youth downloading music illegally, more sophisticated downloading—particularly downloading video—continues to be associated with more intense engagement and commitment to media. Whereas figuring out LimeWire to download songs with friends might be more characteristic of hanging out or messing around, geeking out tends to require more systematic, long-term, and purposeful use of less common technology to acquire media. As Derrick in Brooklyn, New York, explains to Christo Sims (*Rural and Urban Youth*):

Christo: So when you surf on the Internet what are some of the things that you are looking for?

Derrick: Well mostly I look for... I ain't going to lie... illegal things...

Derrick: Well mostly I look for . . . I ain't going to lie . . . illegal things.

Christo: That's fine.

Derrick: I just search. I just try to get . . . if I seen a movie or I like that movie I go home, I get the movie.

Christo: You mean just find it and download it?

Derrick: Yeah.

Christo: Do you use like LimeWire or what do you . . .

Derrick: Torrent.

Christo: BitTorrent?

Friend: He's a computer freak.

What is interesting about the conversation between Christo and Derrick is Derrick's friend's comment. His act of calling Derrick a "computer freak" (even if meant as a joke between friends) indicates that he associates a particular and deviant identity with video file sharing, which is considered geekier than music file sharing. Although the publicity and legal campaign against file sharing has had the effect of curtailing some P2P practices, our discussions with youth indicate that P2P sharing (particularly of music) is still widespread. Youth such as Derrick are becoming more savvy about what practices are likely to get them in trouble socially and legally and more savvy about how to bend rules in ways that present the least amount of risk. The time and skill involved in subverting legal and technological rules is often quite intensive. For example, Federico, a 17-year-old Latino who participated in Dan Perkel's study *MySpace Profile Production*, described the process he goes through to download software:

Federico: Like if I don't want to try to pay for a software that costs \$100 and some, I just go to the website and then I download it. Probably like Nero. There's a new version. I'm like . . . I just look for it on Google or something and see the whole name, what's the name. And then just go over there to the other website and . . . then press okay. Then they'll take you to another website and then they'll go like you got to download part one, part two, part three . . . whatever. Right after that I go over there and then it takes you to another website and you press "free" and then it takes you whatever minutes, depending on your Internet. And then it opens up and it tells you if you have to put a code. Right after the code you got to put a [inaudible]; that's like another code. And you got to find it in another website. And then right after that you've got to find the serial number that I've got to download. And right after the serial code I got the software.

Dan: How much time does that take . . . the whole process?

Federico: Depending. If I'm trying to download a good software sometimes I've got to download six parts . . . that's like two, three days.

Getting around the copyright rules and software market is, in this case, quite an intensive exercise, but acquiring the software for free is an incentive for this interviewee to put forth the effort. The commitment to geeking out pays off in this ability to navigate and exploit alternative media ecologies that are counter to the given, mainstream consumer logic of new media.

Having What It Takes

The intensive commitment to new media characteristic of geeking out clearly requires access to new media. However, in many of our cases, we have found that technological access is just part of what makes participation possible. Returning to the concept of media ecologies, it is important to emphasize the interaction of different resources in determining access. Family, friends, and other peers in on- and offline spaces become particularly important to facilitating access to the technology, knowledge, and the social connections required to geek out. Just as in the case of messing around, geeking out requires the time, space, and resources to experiment and follow

interests in a self-directed way. Furthermore, it requires access to a community of expertise. Contrary to popular images of the socially isolated geek, almost all geeking out practices we have observed are highly social and engaged, although these are not necessarily expressed as friendship-driven social practices. We have also found that families provide a cultural and social context conducive to geeking out. For example, Carolina, a white female creator of AMVs in her 20s who was interviewed by Mizuko Ito in her study *Anime Fans*, learned how to access P2P networks within the context of a family of file sharers. In her interview, she described learning about file sharing alongside her parents and siblings:

I started out by using search engines to look up what I was seeing on TV, or the manga we had at the bookstore, and that inevitably led me to review sites that lead me to other series and movies. At the same time, our whole household was discovering peer-to-peer file sharing, so I'm sure you can imagine what that led to :\$[19]

Carolina notes that different interests motivated each family member's file-sharing practices. Whereas her parents and sister were most interested in downloading music, Carolina and her brother focused on finding video clips, mainly anime fansubs. Carolina and her brother navigated multiple sites for P2P file sharing. She told Mizuko, "I know my brother has gotten things for me off of IRC, but we also used Napster, Limewire [LimeWire], Morpheus, more recently any number of bittorrent [BitTorrent] clients. . . ." In this case, as well as in some of the cases highlighted in the *Families* chapter and the *Creative Production* chapter, it is evident that family support and/or participation can be an important source of encouragement and access for geeking out.

Friends form an important support structure, not only in terms of gaining access to hardware or Internet connections when one does not have them at home, but in terms of recommending media, technology, or other resources related to a shared interest. In the chapter on *Gaming*, we describe how friendships built through playing together become a source of technical expertise that often extend beyond game-specific interests. In Katynka Martínez's study *Pico Union Families*, she interviewed Dark Queen, a 17-year-old 11th-grader who told Martínez that she does not talk about her music, television, or reading preferences with friends in her neighborhood or school or with family members. However, Dark Queen likes to read manga and relies on MySpace friends for reading recommendations. She notes:

It's actually really interesting because they [her MySpace friends who are into manga] have read so many books that I haven't and I would be like—if they would give me a brief summary about like the book they have read or a movie they've seen, an anime movie, we would be like, "Okay. I have to read this book, or I have to see this movie." And I would look for it.

Having access to a community with similar interests allowed Dark Queen to pursue her interest in manga privately and to interact with a community of experts through the exchange of recommendations. In this case, exploring her interest in manga was as much about being a part of the community as it was about accessing the media itself.

Similarly, orangefizzy, a 13-year-old Asian American Harry Potter fan from California and participant in Becky Herr-Stephenson's *Harry Potter Fandom* study, described her experiences as an avid fan-fiction reader and writer on two fan-fiction archive sites. orangefizzy notes that she prefers the smaller of the two sites because it "has more of a 'community we all know each other' feeling to it than [the larger archive], which is huge." In addition, orangefizzy observes that her decision to post her own work on the smaller archive site was very much influenced by the fact that she got to know other people participating on the site through extended conversations in the site forums. The examples of Dark Queen and orangefizzy illustrate how interest-driven and friendship-driven genres of participation often overlap and become intertwined.

Conclusion

"Hanging out," "messaging around," and "geeking out" are three genres of participation we found to be widespread among the American kids and teenagers who participated in our studies. As descriptive frames, the three genres of participation are closely related to the genres of interest-driven and friendship-driven participation that we outlined in the *Introduction*, although here we

have focused upon issues of expertise and the intensity of media engagement. Hanging out tends to correspond with more friendship-driven practices and geeking out to the more interest-driven ones, although we have seen cases of kids' geeking out on more friendship-driven practices, such as in the case of kids who are intensely into Facebook or MySpace, or when kids engage in video or photo production as part of their hanging out with friends. Messing around is a genre of participation in its own right, but it is also a transition zone along a continuum between geeking out and hanging out and between interest-driven and friendship-driven participation. It describes those modes of media engagement in which kids are tinkering, learning, and getting serious about particular modes or practices, which are often supported by the social networks they have developed in their friendship or interest groups. Taken together, these different genres of participation provide a flexible vocabulary for describing the different ways in which kids engage with new media and how their engagement relates to social participation and identity.

While each genre of participation represents a different stance toward engagement in terms of intensity and level of commitment to new media, we want to emphasize that these practices do not correspond with "types" of young people. Derrick, the 16-year-old in Christo Sims's project focused upon Rural and Urban Youth, is chronicled in all three genres of participation. In the section on hanging out, Derrick describes hanging out with friends in person and trying to coordinate further plans to hang out by using his mobile phone. In the section that focuses upon messing around, Derrick participates in fortuitous searching on Google to build a computer. Finally, in our discussion of geeking out, Derrick downloads movies over BitTorrent, a somewhat obscure site used to download media and which is a site often associated with geek culture and identity. This is not to suggest that Derrick is somehow schizophrenic or "plays different roles." Rather, he is a young man born in the Dominican Republic who lives in a relatively low-income neighborhood in Brooklyn who moves through the different genres of participation depending upon his motivation and within the constraints of his socioeconomic status, age, and location. When he is with his friends in Brooklyn, Derrick participates in his friendship, or peer, group by strategizing ways to hang out with his friends through the use of their mobile phones. When he wants to gain knowledge about computers and how they work, his engagement with new media more closely involves geeking out and messing around.

Throughout this chapter our primary aim was to map the media ecologies that constitute the lives of our research participants. We have suggested that learning and participation with new media needs to be contextualized within a broader social, cultural, technical, and place-based ecology. Our work has approached this problem by examining a diverse range of cases that were selected and delimited according to different criteria, some based on location, others based on online and institutional sites, and others based on interest-based groups. We designed our research to understand the environmental and socioeconomic and infrastructural dimensions of media use. By sampling in these diverse ways, we have been able to grasp at least some of the variegated ecological factors that structure new media participation. We have suggested that the conceptual construct of genres of participation is one way of extrapolating from this material, which reflects the patterns of engagement of the young people we interviewed. These genres of participation, which are not reductive, retain the ecological context and begin to characterize how different forms of engagement and participation are defined in relation and in opposition to one another. Although our discussion has not focused on issues of the digital divide or the participation gap, we have worked to illustrate the kinds of resources that need to be present in youth's environments in order for them to participate in certain genres of practice.

In the following chapters, we will further elaborate this ecological frame and the genres of participation we have introduced here by delving into specific youth practices. Through our description, we will use the broad genre distinction between interest- and friendship-driven genres of participation, and the specific characteristics of hanging out, messing around, and geeking out, as points of orientation to bring the reader back to the ecological frame we have outlined here. In the following chapters, we will delve into some of the specific practices that make up the media ecologies of the young people who participated in our study. Although the subsequent chapters look at specific media practices, our investigation situates these practices within the diverse contexts of young people's lives—homes and neighborhoods, learning institutions, networked sites and spaces, and interest-based groups. We also use the broad distinction between interest-driven and friendship-driven genres of participation as well as the specific characteristics of hanging out, messing around, and geeking out as frames for understanding these practices within

a larger media ecology. While the descriptions in the body of the book will necessarily focus on specific populations and practices, we hope that taken as a whole they will allow us to retain a sense of context and relationality that has characterized the overall collaborative endeavor of analyzing and writing across a range of case studies, using multiple methods and disciplinary approaches.

Notes

[1] The seven postdoctoral researchers included Sonja Baumer (University of California, Berkeley), Matteo Bittanti (University of California, Berkeley), Heather A. Horst (University of Southern California/University of California, Berkeley), Patricia G. Lange (University of Southern California), Katynka Z. Martínez (University of Southern California), C.J. Pascoe (University of California, Berkeley), and Laura Robinson (University of Southern California).

[2] The six doctoral students included danah boyd (University of California, Berkeley), Becky Herr-Stephenson (University of Southern California), Mahad Ibrahim (University of California, Berkeley), Dilan Mahendran (University of California, Berkeley), Dan Perkel (University of California, Berkeley), and Christo Sims (University of California, Berkeley).

[3] The nine master's students included Judd Antin (University of California, Berkeley), Alison Billings (University of California, Berkeley), Megan Finn (University of California, Berkeley), Arthur Law (University of California, Berkeley), Annie Manion (University of Southern California), Sarai Mitnick (University of California, Berkeley), Paul Poling (University of California, Berkeley), David Schlossberg (University of California, Berkeley), and Sarita Yardi (University of California, Berkeley).

[4] Judy Suwatanapongched is a JD student at the University of Southern California.

[5] Rachel Cody was a project assistant at the University of Southern California.

[6] The seven undergraduates are Max Besbris (University of California, Berkeley), Brendan Callum (University of Southern California), Allison Dusine (University of California, Berkeley), Lou-Anthony Limon (University of California, Berkeley), Renee Saito (University of Southern California), Tammy Zhu (University of Southern California), and Sam Jackson (Yale).

[7] The collaborators include Natalie Boero, an Assistant Professor of Sociology at San Jose State University; Scott Carter, a PhD candidate at the University of California, Berkeley who now works at FXPai; Lisa Tripp, Assistant Professor of School Media and Youth Services, College of Information, Florida State University; and Jennifer Urban, Clinical Assistant Professor of Law at the University of Southern California.

[8] These respondents were those with whom we conducted interviews in our homes- and neighborhood-focused studies as well as in a number of other projects, including Patricia Lange's study, YouTube and Video Blogging, Mizuko Ito's Anime Fans study, Becky Herr-Stephenson's Harry Potter Fandom study, and danah boyd's study of Teen Sociality in Networked Publics. While some parents and other adults participated in the survey, all statistics reported here are based on survey participants who are 25 years old or younger, of which there were 363 respondents.

[9] We presented respondents with 14 ethnicity categories (one being "other") and asked them to choose all that apply to them—49.3 percent of our population identified as white and 10.5 percent of our participants self-identified as African American or black; 9.6 percent self-identified as Other Spanish-American/Latino and another 5.2 percent self-identified as Mexican/Mexican American/Chicano; 6.3 percent of our participants declared themselves Chinese/Chinese American; and just over 8 percent of our respondents identified themselves underneath the categories that in the United States are often glossed as "Asian" (East Indian/Pakistani, Filipino/Filipino American, Japanese/Japanese American, Korean/Korean American, Vietnamese/Vietnamese American, and Other Asian). Another 5.2 percent identified as Other. Because respondents were able to choose more than one category, the percentages did not add up to 100 percent. Our participants diverged from the averages calculated by the 2000 U.S. census, particularly in terms of the density of the Asian population (which is quite a bit above the national proportion of 3.6 percent) and white populations (which is far below the national proportion of approximately 75 percent).

[10] In California, whites make up approximately 60 percent of the population and Asians constitute around 11 percent of the state's population, according to the 2000 U.S. Census. Latinos, who are not clearly defined in the 2000 U.S. Census, are also prominent in California.

[11] Full descriptions of the 23 individual research studies conducted by members of the Digital Youth Project are provided online at <http://digitalyouth.ischool.berkeley.edu/projects>.

[12] Three pilot projects that we will not discuss at any length in this report were formative in structuring our

[12] Three pilot projects that we will not discuss at any length in this report were formative in structuring our research methodologies and attention to informal learning. The first, Dan Perkel and Sarita Yardi's project, *Searching for Count Whistleboy: Explorations in Collaborative Storytelling through Design Research*, used a design research approach to explore the possibilities of collaborative storytelling among fifth-graders. Through design activities, games, group discussion, and interviews, they examined the topics of collaboration, appropriation, and social dynamics around the kids' creative productions. The second project, Sarita Yardi and Sarai Mitnick's study, *Media Literacy Education: Understanding Technology and Online Media in the Lives of Middle-School Girls* investigated the role of technology and online media in the lives of girls in an after-school technology program for middle-school girls in Oakland, California. The third project, Alison Billings's project, *Wondering, Wandering, and Wireless: An Ethnography of the Explainers and Their Brief Affair with a Mobile Technology*, examined the ways in which technology could be incorporated more effectively for technology literacy. Billings explored how Explainers, or young people who are front-line educators to the visitors at a science and technology museum in the San Francisco Bay Area, used a new mobile device in an effort to improve the quality of their work by providing them access to "on-the-fly" resources.

[13] Throughout this section we reference the titles of the studies conducted by researchers. More about the full studies can be found online at: <http://digitalyouth.ischool.berkeley.edu/projects>. We have included short names in parentheses following the study or particular researchers who carried out different features of the broader study agenda (e.g. Silicon Valley Families). The short titles, designed for citation purposes, will be used throughout the report.

[14] Mintz (2004) argues that youth subcultures did not emerge until the 1950s.

[15] Although a variety of search engines are available to digital youth, across different case studies there are frequent references to Google. Some youth use various permutations such as "Googling," "Googled," and "Googler" as normative information-seeking language. The ubiquitous nature of Google may indicate that the idea of "Googling" has been normalized into the media ecology of digital youth such that for many Googling may be considered synonymous with information seeking itself.

[16] This is a screen name.

[17] "Paratext" refers to elements that surround a text. In relation to written texts, examples would be tables of contents or indexes. Mia Consalvo has described the products of the gaming industry—including guides—as a paratext for gaming. For a full discussion of paratexts, please see Consalvo 2007, Lunenfeld 2000.

[18] This is a real character name.

[19]:\$ is an emoticon meaning "embarrassed."

[Table of Contents](#)