The John D. and Catherine T. MacArthur Foundation Reports on Digital Media and Learning

We Used to Wait

Music Videos and Creative Literacy

Rebecca Kinskey

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Rebecca Kinskey

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Series Foreword

The John D. and Catherine T. MacArthur Foundation Reports on Digital Media and Learning, published by the MIT Press, in collaboration with the Monterey Institute for Technology and Education (MITE), present findings from current research on how young people learn, play, socialize and participate in civic life. The Reports result from research projects funded by the MacArthur Foundation as part of its $50 million initiative in digital media and learning. They are published openly online (as well as in print) in order to support broad dissemination and to stimulate further research in the field.

Introduction: From MTV to OMG!—Music Video as Form, Practice, and Literacy

I remember exactly the first time I saw a music video on a computer. It was 1995, and the video was Weezer's "Buddy Holly," directed by Spike Jonze, and it was shown to me by my dad, who called my brother and me to the huge monitor of our family computer, excited just for the sake of being excited about a high-quality sound and image emanating from our machine.[1] In the video, Weezer, a four-piece indie rock band from California, plays onstage at Arnold's, the diner from the 1970s sitcom *Happy Days*, transposed into the sitcom environs through careful editing and green screen effects. The band members, in blue pullover cardigans and neatly combed hair, look both perfectly in line with this cheerful, healthy world and a little outside it—their occasional arch glances underscoring the novelty of the cinematic magic at work, a feat of special effects that announced, throughout the video, that it was a product of new technologies, just as was our ability to summon it up ourselves, on the computer.

When I called my dad recently to track how this chunk of media had made its way into the basement of our home, the conversation was a confused untangling of how we could have seen the video without three of today's basic techniques of

Figure I.1
Screenshot from Weezer's "Buddy Holly," directed by Spike Jonze. The band performs on a set constructed to match the original Arnold's Drive-In from *Happy Days*, and footage has been processed to match 1970s film stock.

consumption: search, YouTube, and downloading. The actual answer to how we had this miracle screening: it was included on every installation disk of Windows 95, part of a massive trans-media rollout that a few months later would come to include Internet Explorer.[2] Microsoft had broken off a little "Buddy Holly"–shaped piece of MTV and handed it to us, to seek out and watch when *we* wanted. This memory has floated back up to the top of my consciousness in 2013 because it has become quaint. If I'm curious about a video or band or film technique, I don't need an intermediate technological or media company to help me watch it. I only need to indulge my curiosity, to type into a search field, and to sift through the results I find.

Much like MTV's relationship with music video audiences before the Windows 95 watershed, modern standardized education has been a process of imparting and receiving. Specialized instructors give specialized knowledge to students, and those instructors provide the main feedback and assessment on students' learning outcomes. The technological moment of 2013 has blurred that process significantly, and tracing how the music video has shifted—from something to be received on MTV to something to be searched out by individuals and, now, to something easily made with the touch of a digital button—helps clarify some of what is being blurred.

This report examines music video as a *form*, originally the province of professionals creating a product to be consumed and appreciated by nonprofessionals; as a *practice* increasingly taken up by amateurs (in this case, a Gen Y video director who was able to transition cleanly from dedicated amateurism in his adolescence in the 1990s and early 2000s to a paid career in music video in the mid-2000s); and finally as a *literacy* being approached and experimented with by a confluence of Gen Y professionals and younger "digital native" millennials at a summer camp called OMG! Cameras Everywhere, in the summer of 2011. The report attempts to demonstrate the evolution from external art form to internalized communicative tool that music video has undertaken over the last three decades as digital softwares and hardwares have allowed individuals to reapproach their relationship to learning and creating.

The form of music video as a contemporary art and the practice of young professional music video creators embody two fields that digital life is impacting heavily: the expressive arts and creative technology. Both fields have been regarded, especially over the last hundred years, as the domain of specialists,

increasingly bleached from the lives of responsible, sensible, ordinary adults—as well as late adolescents nearing adulthood.

The outcome of this specialization has been to introduce a sense of trepidation, anxiety, irrelevance, or unachievable talent to these activities for most laypeople. As formal education leads us to slowly specialize our skills, those "superfluous" skills that we were once introduced to but don't maintain become sloughed off as somehow beyond our talents or our ability to recover proficiency in—not just drawing, music, or dance but often also math, science, or physical education. As noted at the close of the twentieth century by Lucy Green, a professor of music education studying how popular musicians come by their craft (largely, she states, via informal processes and communities), "Whilst formal music education has become increasingly available and diverse in content, it [has not abated] the ebbing tide of involvement in music-making, particularly in the lives of adults after they have left formal education. Indeed, those societies and communities with the most highly developed formal music education systems often appear to contain the least active music-making populations."[3]

Unlike the expressive arts, however, whose practice remains dormant in or irrelevant to the vast majority of the American adult population, creative technology in 2013 has become so eminently simple and helpful, so productive beyond our own shortcomings, that we overlook our own awkwardness, weaving digital technology throughout our daily routines with imperceptible but growing fluency. The arts, being less inherently "useful" or "user-friendly" in our conception of them, haven't in and of themselves overcome the "nonartistic" population's trepidation to embrace them, though more and more of us are increasingly unafraid to try.

Green contrasts the contemporary state of the arts, where her native Britain in 1997 had "only around 1 per cent of the adult population … reckoned to be an active amateur musician, and even fewer to be a professional musician,"[4] with Britain at the close of the nineteenth century, awash in the mingling strains emanating from rural churches, amateur orchestras, farm songs, music hall trifles, professional symphonies, and middle- and upper-class home pianos. The crucial difference lies in what technologies and practices we use daily (for instance, recorded music as opposed to a piano)[5] and what fluencies we therefore assume to be natural, or at least common.

Larry Gross, a Guggenheim fellow and USC professor of communications, uses linguistics to illuminate the same society-wide shifts in musical fluency: "Although everyone will not be equally skillful or creative in his or her native tongue, by early childhood we have all acquired substantial competence in a highly complex symbol system. … There is a common pattern in the way children encounter music, say, in those societies [like pre-twentieth-century Britain, where musical practice was more a commonplace activity than a rarefied skill] and the way children encounter language in *all* societies. In both cases they are born into contexts where it is assumed that *everyone* will acquire music/speech, and they are surrounded by competent adult performers who treat their early performative efforts as potentially meaningful and respond to them as such."[6] This is exactly the interventionary goal of OMG! Cameras Everywhere, designed by Gen Y counselors to share their craft as a potential competency, rather than as a technical vocation, with a group of cinematic novices. As I explore in chapter 3, OMG!'s endgame was not to make any of their millennial campers particularly good at filmmaking but just to let the preteens take filmmaking for a spin among their

filmmaker counselors-cum-collaborators and have those efforts—regardless of their outcomes—responded to by fluent "film-speakers" as worthy.

The short life span of the music video provides an important perspective on the impact of changes in platform and production technology on a communicative cultural *form*. The first chapter provides a short history of the music video, and of MTV, to focus on the degree to which the music video and its iconic platform were assumed to be of a piece. The rise and fall of *Total Request Live* (*TRL*) illuminates how the program progressed from a harbinger of interactivity in everyday media to a cautionary example of schedule-anchored programming in the fleet era of search and its driving force, choice. The chapter concludes by discussing how music videos, which had been disappearing from MTV for years before *TRL*'s cancellation in 2008, resurged on YouTube in the first decade of the twenty-first century, buoyed by fans, on the one hand, and on the other by a young video producer culture that deploys digital production technologies and networked distribution with equal facility.

While music video's brief biography allows focus on music video as an evolving, shifting form, the music video's close symbiosis with adolescent and young adult culture provides a look at the shifts in viewing and production *practice* across a community of generations. Chapter 2 focuses on one music video director, Hiro Murai, who was born in the early 1980s, gained more than average fluency in video production as a teenager in the 1990s, and formalized his role as a music video professional in the 2000s, in a fluid move from dedicated amateurism as a film student to paid artist upon graduation. Murai and his experiences straddle the grouping of generations—Gen X ("the MTV Generation"), Gen Y ("millennials"), and Gen I ("digital

natives")—that commingle around and across the various borders that strive to define digital citizenship. I mean to position his experiences and fluencies as exemplary of millennial practitioners who instinctually collaborate, network, and leverage knowledge communities, as well as sensing themselves as part of a cultural past and future that they have responsibility for caretaking and shaping, rather than as simply the topmost layer in the accretion of generations.

Chapters 1 and 2 identify *form* and *practice* as the key components distinguishing how the migration from TV to digital media has impacted the music video. Chapter 3 focuses on music video as a *literacy*, specifically by focusing on OMG! Cameras Everywhere, a nonprofit filmmaking summer camp run on a shoestring budget by a group of music video directors, most younger than thirty, beginning in the summer of 2011. OMG!'s campers and counselors provide an intense digital case study in how cultural producers across several generations have blurred the line between professional and amateur, their everyday practices changing and expanding the notion of *literacy*—not just by instinctual and often informal interventions of collaborative and peer-based activities in achieving and imparting literacy, but also by expanding the definition of what is considered a valuable activity, worthy of dedicated, pleasurable pursuit.

The ease with which OMG!'s campers approached digital cameras, as well as the idea of telling visual stories with popular music, demonstrates an additional reason that music video specifically provides a good model for talking about digital learning and literacy. As has been discussed elsewhere[7] and will be discussed in chapter 2, cultural capital plays an enormous role in building strong self-learners; but we must also discuss the role of a lack of cultural capital—those childhoods and adolescences

that lack parents within creative professions or support of creative pursuits or the resources to provide time, space, and access to creative tools and technologies. We worry, as we should, about a growing digital equity gap.[8]

It is my hope that this report can contribute to addressing that gap by recognizing that almost all users of digital technologies, from ringtones to advanced editing software, have undertaken at least the first stages of a self-teaching process I've termed *learning to search / searching to learn / learning to learn*. I'd like to ever so slightly normalize the excitement of the Digital Media and Learning (DML) community over niche activities such as fansubbing and machinima (and, yes, music video making) in favor of discussing how more commonplace engagements with media (such as music fandom or learning a new smartphone interface) can be leveraged to demonstrate everyday engagement with the process of learning to search, searching to learn, and learning to learn. A crucial intervention that digital educators can make is to guide young people in exactly how to leverage the skills they already have to different ends.

Finally, a blanket caveat underlies this report. Commentators have spilled much ink about the democratizing forces of digital media and the Internet. Throughout this report, I stress that it is not merely by picking up a camera or uploading a video to YouTube that widespread media fluency arises. Digital media literatures often resound with bells tolling for a new era of citizen journalists, astute amateur filmmakers, and viral whiz kids cropping up in every other backyard. The vast majority of media users will likely remain in the same category as the vast majority of readers of literature, poetry, plays, blogs, and newspapers—users who do not necessarily identify themselves as capable of reproducing anything approaching the quality of what they

consume. Some digital scholars are so enraptured by the new technology's affordances for media creation that they can gloss over the struggles that literacy has always presented—time and support to practice, to be exposed, to wander, and finally to aspire to create. Digital technologies can support those endeavors but cannot transport their users past the struggle, trial, and error that are the fundamentals of true learning and fluency.

1 Form: A Short History of the Music Video

When Weezer's "Buddy Holly" flickered to life on the monitor of my family's computer in 1995, a corner was being turned—from computers as professional tools to computers as cultural appendages. Pushing and receiving were giving way to searching and sharing, as demonstrated by the choice itself to use Weezer and Jonze, flagship names in the "alternative" brand omnipresent in the 1990s—a recognition that search was already afoot as a consumer practice. The release of Windows 95 and Internet Explorer was a seminal conflation of TV and the PC, a halfway moment between our own era, where user-selected online video viewing and timeshifted TV[1] continue to make inroads against traditional TV programming, and the last launch of a watershed convergence of personal entertainment and personal technology: MTV.

As 2013 marks the thirty-second anniversary of the music video's mainstream existence, statistics demonstrate that the music video remains one of our favorite things to watch, even as it has migrated from the TV to laptops, tablets, and phones. In June 2013, comScore, the leading digital ratings service, released numbers that showed Google Sites, "driven primarily by video viewing at YouTube.com," holds the number one spot in the

United States for unique visits to a video site, with 158 million unique viewers per month, 16 billion videos viewed, and 500 minutes (over eight hours) viewed per visitor per month.[2] A large gap separates Google Sites from its closest competitors: Facebook.com has 62 million unique viewers (number two in this category), and AOL Inc. sees 775 million videos viewed. But Vevo, a music video network housed within YouTube, as well as at its own URL, holds close to the top of this pack—49 million unique visitors, 562 million videos viewed, and 39 minutes viewed per month—an average of about 16 videos sought out by each user, each month. Within YouTube partners, the numbers for music videos are more striking: Vevo and Vevo-holdout Warner Music come in at number one and number three, with 47 million and 28 million unique viewers respectively, representing almost 47 percent of YouTube's total unique visitors each month.

Visual music's path from the album cover to the television to the Internet traces not just how its platform has shifted but how the habits of its audience have, as well. In the 1980s, MTV made music into something teens watched, something to identify with and dress up along to with increasing intensity and proliferating subcultural choice. Concurrently, as video recording technology proliferated, music videos also became something teenagers mimicked in slumber party reenactments with their parents' camcorders or made in semiprofessional re-creations at amusement park "video booths" stocked with karaoke-style pop playlists and banks of rudimentary editing effects.[3] Above all else, the 1980s birthed an acute awareness among adolescents and young adults that there were more music choices and musical subcultures than could be bound within the Top 40.

In the 1990s, this trend continued and blossomed as preteens and young adults taught themselves to explore ever further

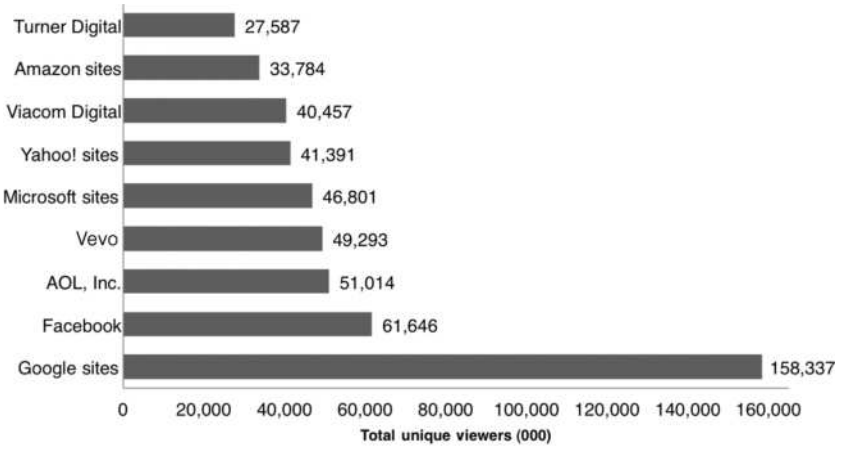

Figure 1.1
Top U.S. online video properties as of June 2013. Data from comScore Inc. Note that Google Sites, primarily driven by video viewing at YouTube, far outstrips its closest competitors; for discussion of video viewership habits in the first two decades of the twenty-first century, YouTube and Google drive the discourse as much as MTV did in the 1980s.

from the mainstream of pop—a trend reflected in the adventurous auteurship of '90s MTV's most popular video directors. This tendency was further enabled and deepened with the release of Napster and other P2P softwares in 1999, one more tool in the search arsenal.

After the turn of the century, *Total Request Live*, or *TRL*, MTV's live call-in countdown show that ran from 1998 to 2008, best exemplified how music in the form of videos became something adolescents and young adults voted on and devoted interactive partisan alliance to, normal pop cultural identification shot through with a dose of technological embodiment. At the same time, however, as I will shortly explore in detail, *TRL*'s

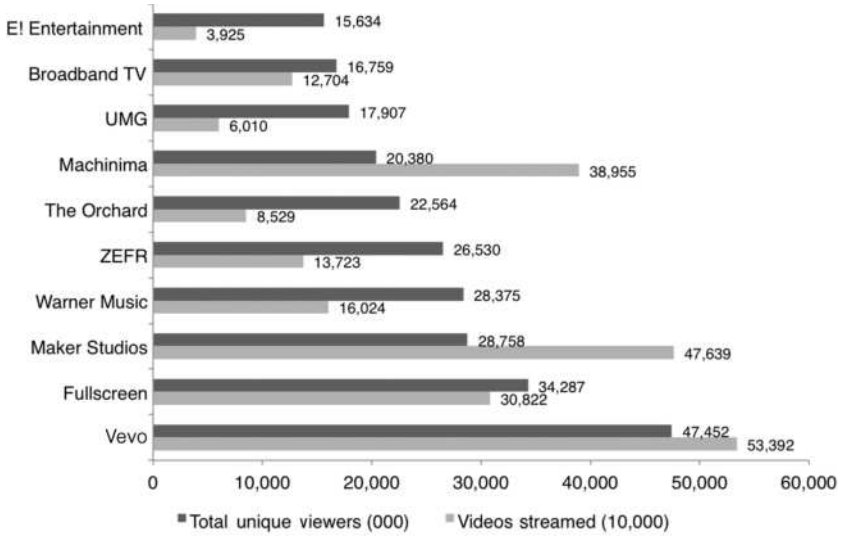

Figure 1.2

Within YouTube itself, music video viewership drives a large portion of traffic. Vevo ranks first within YouTube partners, with over 47 million unique viewers of Vevo at YouTube streaming just under 533 *million* music videos per month. Warner Music, the only major label without a partnership stake in Vevo, comes in at number four among YouTube partners, with over 28 million unique viewers streaming over 160 million videos per month. Note that Maker Studios and Machinima, which themselves create content partnerships with their users, both professional and "amateur," have disproportionate numbers of videos streamed to total unique viewers. In fact, Maker and Machinima have the second- and third-most videos streamed behind Vevo, at just under 477 million and 389 million respectively. Machinima, which traffics heavily in video game walk-throughs, instructionals, and short films made from the manipulation of video games (the titular "machinima"), has the highest viewer engagement for all YouTube partners: approximately 76 minutes per viewer, exactly 200 percent of Vevo's 38 minutes per viewer per month. This is significant and speaks to exactly what I reexplore in this report: digital audiences' desire for networked learning, self-teaching, and community. (Data from comScore Inc.)

viewership peaked in 1999 and declined steadily thereafter—an indication that search and the off-mainstream were no longer merely options for Gen Y and millennial audiences but were becoming the fundamental technique and hallmark of adolescent musical lives.

When YouTube became a household name in 2006, music videos became one more thing to be Googled rather than received at the whim of TV programmers, as well as one more thing creatable with the proverbial touch of a button on a growing diversity of devices—and not just creatable but sharable, e-mailable, uploadable, Tweetable, Tumblable, Xboxable, AdSensable, and even, on very special occasions, MTVable. This is the current state of music video—a form still appreciated in its professional variations but increasingly created (and inflected) by anyone with the willingness to navigate a camera and teach himself or herself to upload the results.

When Microsoft included "Buddy Holly" in Windows 95, it sought to underline the jump from push to search that its operating system was making possible. "Buddy Holly" itself, as a cultural text, represented a jump from simpler forms of cut-and-paste cultural pastiche toward full-scale transposition: through careful editing and shot matching, the band members of Weezer were recontextualized as part of the earnest *Happy Days* gang at Arnold's, which in turn upcycled *Happy Days* into material worthy of consideration and reference by the teenagers and young adults of the mid-1990s. It took another fifteen years for a good analogue to come along for the digital native generation: "The Wilderness Downtown," an interactive music video for the indie band Arcade Fire's single "We Used to Wait," meant to demonstrate to Google's users the jump from search to cocreation that its browser enabled.

In late 2010, as Arcade Fire's sophomore album debuted at number one on the U.S. Billboard charts[4] and went on to pick up the 2010 Grammy for Album of the Year,[5] "The Wilderness Downtown" became a multi-industry interactive media hit. While the advertising, entertainment, and music video press and blogosphere lit up with praise for, as *Time* put it, "the first video that truly harnesses the digital age,"[6] one major player remained relatively silent: MTV. The video was not nominated for a VMA, and it never aired on the channel, nor was it embedded at MTV.com. Like "Buddy Holly" before it, "The Wilderness Downtown" was released as part of a major promotional effort by a tech company—the Microsoft-style juggernaut of the Internet era, Google—and was (and still is) available only within the confines of Google's freeware browser, Chrome. There was no way to translate the form of the video—an experience that required user input to be viewed—to the TV.

"Wilderness" is accessible to viewers only after they call up its unique URL and type in the address of their childhood home.[7] Armed with the location of a house on the outskirts of Silicon Valley, my geo-personalized (!) version of the video took place in multiple browser windows that self-populated across the screen. Some windows displayed preproduced footage of a preteen in a shadowy hoodie dashing through suburban streets, while others used the address I'd provided to call up wide shots of my former neighborhood in Street View and Google Earth aerial vistas. A CGI version of the hooded protagonist came to rest at my address after a dash through the surrounding streets, spinning in place in what was once familiar terrain. Against the heartfelt insistence of Arcade Fire's song and next to a window displaying the aerial view of a home I had not seen since 2004, a new window popped up and prompted me to "write a postcard of advice

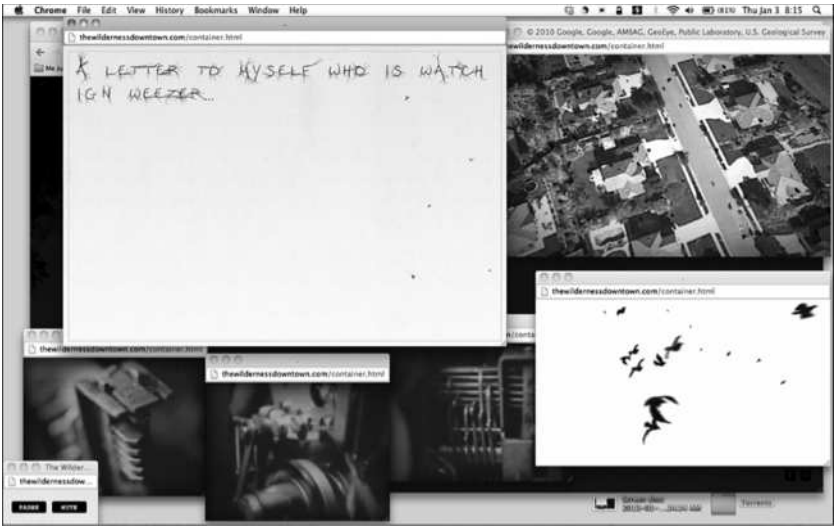

Figure 1.3
Screenshot from Arcade Fire's "The Wilderness Downtown," directed by Chris Milk. Upper left window contains the beginnings of a letter from the author to her former self, as prompted by the music video. Upper right window contains a Google Earth image of the author's adolescent neighborhood. Other windows contain computer graphic or prefilmed images created by Milk and Google's production teams.

to the younger you that lived there then." "It seems strange how we used to wait for letters to arrive," Win Butler sang as I typed a message to my twelve-year-old self, her face illuminated by images of Rivers Cuomo transported into *Happy Days*, enrapt before a screen in a basement in northern California.

The experience, pragmatically, was intended to show off Chrome's capabilities with HTML5, the much-vaunted coding language meant to change, again for the first time, how we experience media on the Web. Like the pairing of Weezer and

Microsoft in 1995, the Arcade Fire–Google project was meant as a familiar-yet-innovative demonstration of the converging horizons of music, technology, and digital culture. But Microsoft's use of "Buddy Holly" centered on viewers experiencing a technocultural product created by experts and artisans—Spike Jonze's wizardry to be delighted by, fully produced before being licensed and brought to me by a tech company that wanted to highlight its operating system's powers for content delivery. A decade and a half later, "Wilderness" tapped into a zeitgeist shifting distinctly from viewers as audience to viewers as users and coauthors of digital experience, with astounding technologies, if not fully understood, wielded by users and woven into every inch of the tapestry of their experience. Google didn't just license the video from its creators; the director, Chris Milk, conceived and created it with Google's programmers. Analogously and quite literally, though the content of the video is largely predetermined, it simply will not work without being interacted with by its viewer. Google Street View was recontextualized as a virtual environment that could connect me to a place I cannot return to in linear time, and my memories and experiences were recontextualized as available material in a fundamentally editable culture.

"The Wilderness Downtown" foregrounds one of the key shifts intrinsic in watching music videos in the early twenty-first century: it now feels, as it has always felt for 2013's fifteen-year-olds, like MTV and YouTube exist for different functions, and videos simply aren't one of MTV's. When Jake Coyle of the Associated Press characterized the music video as having been "left for dead by MTV" in 2010,[8] Vevo was already racking up a vivacious 43 million unique viewers per month, just under one-third the number of YouTube's total unique visitors in the same

period.[9] The point is not just that MTV stopped playing music videos or that the Internet makes it easier to home in on exactly what you want while cutting out the rest. The point is that the Internet is the home of search, which is the fundamental way we approach the world now—everything we can learn about or seek out is up for grabs to be sown into the patchwork project of ourselves. Tracking music video's shift from MTV to Windows 95 to YouTube also allows us to track how search became an everyday practice, blossoming by the opening years of the twenty-first century into a full-blown literacy—so let us turn now to the history of the music video and its once iconic platform, MTV.

The 1980s: Codification and Personalization

Music video in the United States can be segmented into four distinct eras,[10] most of which were synonymous, for all intents and purposes, with MTV. First, for our discussion, was the 1980s, which actually lasted into the early '90s, the era when the form was imported from the United Kingdom, codified, and largely succeeded on the back of the popularity of pop artists, as a kind of visual radio.

In its infancy, MTV had more airtime to program than it had videos available; British artists and record labels, especially of the New Romantic and New Wave persuasion, had taken to making videos as an attempt to combat accusations of synthesizer-based inauthenticity,[11] and so this available crop of content was duly broadcast.[12] As cable TV was still gaining a foothold in the United States, MTV brought this content of convenience mostly to rural markets, which suddenly exploded with a thirst for Duran Duran, Billy Idol, and Culture Club.[13] Once MTV's power to tap active audiences was clear, music videos became a

de rigueur part of the promotional campaigns of global pop stars and up-and-comers alike, true advertisements for fans still purchasing LPs, tapes, and CDs by the millions. "I Want My MTV" was as much a shrewd campaign, prompting cable subscribers to work on behalf of MTV to expand its reach, as it signified teens' assertion of cultural choice as an ever-increasing force to be reckoned with.[14] MTV both gave voice to that growing force, which demanded the cable channel's services as a pop cultural clearinghouse, and validated teenagers' growing practice of seeking out more diverse acts to be brought together under that expanding umbrella.

Where the seventies had seen fierce battles waged between rock, generically dominant, and disco, derisively regarded as lesser, and each of them precious alternatives to mainstream, mom-and-dad-oriented fare, the MTV '80s birthed genre-curated programs like *120 Minutes*, *YO! MTV Raps*, *Headbangers Ball*, and *Club MTV*. Genre programming on MTV and the burgeoning college rock and underground hip-hop movements all provided a countercultural warm-up to the full-on alternative movements of the 1990s, creating the sense of a groundswell of musical and subcultural discovery. Videos were instructionals as much as they were ads; many genres of music were being represented visually to large audiences for the first time, and music videos were a primary site for encoding how a subculture wanted to walk, talk, look, and speak. Young people watching MTV while hanging out with their friends used these routinized representations as inspiration and material in the "messing around" work of self-identification.[15]

As set out by Horst and her coauthors in the DML-landmark *Hanging Out, Messing Around, and Geeking Out*, "messing around" is the second part of a rubric of interest-based new media literacy

Figure 1.4
Logos for MTV's most prominent genre-curated programs circa 1988, displaying the distinct and routinized subcultural identities available to MTV's viewers, all under one roof. (*Club MTV* logo, "Club MTV Erasure Performs Chains of Love 1988," http://www.youtube.com/watch?v=wIDWHMS9iGU; *Headbangers Ball* logo, "Anthrax 1988 Headbangers Ball," http://www.youtube.com/watch?v=uORVPC8-Srs; *Yo! MTV Raps* logo, "yo mtv raps dope jam tour 1988 edit1.mp4," http://www.youtube.com/watch?v=ATuR9tt5Bno; *120 Minutes* logo, "sinead o'connor on 120 minutes with kevin seal 1988," http://www.youtube.com/watch?v=2fVhqvVjUCo.)

(referred to on the whole as HOMAGO) and is defined as "a genre of participation [that] represents the beginning of a more intense engagement with new media."[16] As this report attempts to conflate the notion and practices of new media literacy and

specialized literacies in the digital era, the HOMAGO rubric is one of the more useful overarching concepts I have used to break down my own thought. And "messing around"—"the beginning of a more intense engagement"[17]—is the launching pad for most of the modes of exploration and self-teaching that I discuss.

As further defined by Horst and her coauthors, "messing around" itself comprises three levels of activity: "looking around," "experimentation and play," and "finding the time, finding the place."[18] MTV in the 1980s provided a whole new looking glass for this process of exploration, emulation, and performance of the self and provided a locus and launching pad for an increasing array of self-expressive modes.

The practice of actively searching out subculture, of messing around with new modes of the self, was and is inherently peer influenced. More teens than ever in the 1980s learned to do this with and because of peers—older siblings, friends, school acquaintances, and other friend-driven networks. At the same time, MTV, by being a personal, domestic, and almost tactile domain, helped expand the notion of a peer outward or upward. As music culture became increasingly personalized, pop icons weren't just admirable but became explicitly imitatable, locatable (if distant) options for modeling oneself after. As MTV's audiences learned to search out music more actively, they were also learning to more actively seek out themselves and self-teach how they wanted to present themselves to the world.

The 1990s: Auteurship and Alternativism

The 1990s, which actually lasted into the early 2000s, saw a turn from music videos as subcultural signifiers to videos as specific, individual artistic statements. This was the era of the music video

auteur, when a slew of young directors—Michel Gondry, Spike Jonze, Chris Cunningham, David Fincher, Mike Mills, Hype Williams, Anton Corbijn, Mark Romanek, and Jonathan Glazer, among others—brought filmmaking to a place of at least equal footing with music as the potential draw to music videos. The most influential videos from this era struck a three-note chord of technical innovation, resonance between visual thematics and musical artist personality, and a distinct style brought to the production, from conception to execution, by the director. As adolescents increasingly sought out new genres of music, and the Billboard charts swung between the pop effusions of Britney Spears types and incursions of grunge, indie, punk, gangster rap, electronica, and dance music, so these auteurs and their videos rotated between two poles. Computer graphics and a steady stream of new film technologies allowed for increasingly ambitious and polished special effects, while a strong vein of visual amateurism and DIY aesthetics reflected an earnestness that purported to eschew the pop cycles of the mainstream recording industry.

Two of "Buddy Holly" director Spike Jonze's videos for the same artist display this duality: the video for Fatboy Slim's "Praise You," released in 1999, and the video for "Weapon of Choice," released one year later. For "Praise You," Jonze posed as the leader of a community dance group and led dancers in a faux-amateur routine in the middle of a crowd lined up outside a movie theater. The video was edited with pre-roll to look like a clip from a community access program and was presented in this form on MTV without explanation. The video for "Weapon of Choice," on the other hand, featured the cult actor Christopher Walken dancing a surprisingly fleet-footed tap routine through an empty hotel lobby before jumping off a balcony to take special-effects-aided flight.

Figure 1.5
Director Spike Jonze (center) leads a group of amateurish dancers in a choreographed routine in front of a captive audience of moviegoers, filing into a main street theater. Somewhere between a prank and a "happening," the routine and video tread a very 1990s line between irony and sincerity, neither attempting to truly affect the passersby nor approaching the desire to affect them, and yet claiming a certain authenticity in their recognition of

"Praise You" was not just notoriously cheap but actually visually challenging, scruffy and unpolished at a time when music video budgets reliably hit the high hundreds of thousands; "Weapon of Choice" was relatively restrained but still absolutely slick, experimental but still assured of its place in a production and distribution infrastructure that would honor its vision. Yet coursing through both videos is something transgressive, a spark of flipping off the system they were absolutely part of, a reward for wandering from the expected. This same sense of ambivalence toward authority marked another of 1999's most significant cultural milestones: the release of Napster, the first widely used peer-to-peer file-sharing network, which both abetted fans' existing alternative acquisition practices (mail order, cassette tape sharing networks, record swaps, dubbing from radio, etc.) and incubated a sense of full-fledged dissent from mainstream media.

File sharing not only enabled an uptick in widening consumption but swelled the ranks of independent musicians who were able to get their products to eager audiences. Just as more musicians than ever were able to share a widening spotlight, so the auteurs of the 1990s asserted that their individual voices were worthy of recognition, and their videos were creative works of worth beyond their ability to move people to buy records. Cunningham, Gondry, and Jonze specifically highlighted and promoted the directorial contribution to the form when they released the Directors Label DVD series in 2003,[19] manufacturing

naive stylization (reference the fake public-access-style title card, rendered in a standard "fancy" word processor font) and serendipitous suburban theatricality. Jonze would continue to mine this vein of insider–outsider stunt with the *Jackass* franchise of MTV shows and movies, which he created in collaboration with his colleagues from the world of skateboarding, itself a suburban outsider activity fluent in stunts and pranks.

Figure 1.6
Christopher Walken tap-dances on a table and effortlessly glides along the balcony wall of the empty lobby of a swanky hotel. Jonze's video was a revelation for Gen X audiences, who primarily knew Walken from a slew of sociopathic or sadistic film roles in the 1990s—his hidden, fleet-footed talents a subversion of the very films the video's audience loved.

recognition of the music video director as someone to be noticed by the general population, more than just a line of text in the left-aligned credits that showed up at the beginning and end of a video. When these directors made the firm statement that *someone* was behind the creation of these videos, they ever so slightly teased apart the seam of distant Hollywood production magic.

At the same time, technology was lowering the premium on professional media. Cameras and editing software were becoming orders of magnitude cheaper and more widely available, and the veneer of expensive CDs and DVDs was wearing thin in the face of booming P2P use. Just as more garage rockers and electronic music producers took to their 808s and sequencers when they saw artists who looked like themselves funneling into the spotlight, putative music video directors, messing around with their families' shoulder-mounted camcorders, watched Jonze and his peers beginning in the late '90s and recognized examples of what they themselves could immediately emulate and someday, prospectively, become. In the 1980s, MTV's audiences had become increasingly active self-teachers and seekers, in a messing around of the consumptively expressive self. The example of the '90s auteurs and the proliferation of peer-sharing and prosumer technologies helped a growing number of teens progress from the messing around of the consumptive self to a messing around of the creative self.

The 2000s: Stagnation and Dissent

In the first half-decade of the 2000s, videos seemed to stagnate. While MTV was, for all intents and purposes, the sole venue for music video development, and while the record and music video production industry was still intent on spending in the high

hundred thousands to low millions for videos, relatively little new infusion of talent or imagination broke through. And while videos, which had previously seen major formal overhauls every few years, trundled along in relative stasis, MTV expanded its slate of longer-format programs, especially a robust offering of reality fare, from *Real World* to *Road Rules* to *Jackass* to *My Super Sweet 16* to *Punk'd*. As I shortly explore, music video programming blocks continued to command a steady trickle of viewers, whereas reality programming was able to draw double or even quadruple ratings. Between the viewership losses as other programming squeezed out video blocks, and former viewers who had switched off MTV altogether in favor of deeper forays into more underground music, MTV, once synonymous with music video, increasingly became synonymous with a lack of music video.

MTV's most visible video vehicle in this period was the daily countdown show *Total Request Live*—eventually shortened to *TRL*—which, in contrast to genre-curated programs such as *120 Minutes* and *Yo! MTV Raps*, relied on raw viewer popularity for its playlist, in the form of votes via telephone. *TRL* aired from 1998 to 2008, a watershed period in the transition from traditional "push" media to digital interactivity, the show's life span entirely transcribed by this change. For this reason, I pause now for a careful look at what *TRL*'s shifting audience and the form of the show itself can tell us about this space in time.

TRL debuted on September 14, 1998, the product of combining two existing MTV shows—*MTV Live*, which hosted celebrity interviews and performances from MTV's studio overlooking Times Square, and *Total Request*, itself an evolution of a previous viewer request dial-in program, *Dial MTV*. Genial post-frat type Carson Daly hosted the show, softballing questions and vaguely chaperoning the frenzied in-studio audience. The program

quickly grew from a relatively demure video debut vehicle in a sparsely populated studio to a pop cultural touchstone—part king-making juggernaut, part barometer of shifting industry currents—whose audiences overflowed its studio bleachers, filling the Broadway sidewalks and even shutting down Times Square on a handful of particularly heated teen culture moments.

For Americans who happened to be tween to college age between 1998 and 2008, *TRL* was inescapable. It aired from 3 to 6 p.m., those crucial after-school hours when the extracurricular energies of middle schoolers and high school students were most likely to be both unsupervised and unstructured. The program's hallmark, voting by phone, was an element of everyday interactivity that dovetailed neatly with the other predominant teen communications tools of the time: pagers and their attendant "pager codes," which made phone keypads into runic pathways to hangouts, flirtations, and first loves; instant messaging (IM) and Internet Relay Chat (IRC), which were many teens' first experience with being online for extended periods of time, "hanging out" with local friends or new, distant, interest-based online acquaintances; and the family landline, which was still a social territory to be staked out, a shared device that promised connections outward, beyond the given culture of the family and toward a chosen culture of friends, activities, and interests.[20]

For its first eight years, *TRL* chugged along without much change; *TRL* is unanimously reported as having peaked in 1999 (the era of not only feuding boy bands but feuding boy band fans) with an average daily viewership of between 700,000[21] and 800,000,[22] around half of those in the twelve- to seventeen-year-old primary target demographic. But, as noted previously, the same year also gave birth to Napster, with other P2P programs soon to follow. Even as the pop confections of *NSYNC

and Christina Aguilera continued to dominate *TRL*'s charts, the program's relevance began to slip among teens and young adults who were taking it upon themselves to decide what was popular to them, and knew exactly how to get that music into their hands and onto their hard drives. Ratings dropped from 1999 onward, though MTV did not appear to signal any sense of danger until 2006, when phone-only voting was discontinued and replaced by online-only voting, an apparent attempt to combat falling ratings by following the migration of millennial audiences online for music and music news.

Yet this shift missed an important understanding of where *TRL*'s audiences were going, and why. The evaporation of its audience in the face of the user-determined 'net speaks not only to the breaking down of television audiences for music videos and the creation of Internet audiences for music videos but also to the breaking down of the traditional Top 40–based, top-down music industry promotional practices and the expansion of peer-to-peer, artist-to-audience, networked promotional and fandom capacities afforded by the Web. In fact, by 2006 *TRL* was barely playing music videos, often substituting short clips of the videos that had charted, and YouTube and other streaming technologies hadn't yet truly ascended. Music video audiences abandoned MTV not because MTV abandoned the music video but because MTV abandoned its most successful iteration. It stopped providing a truly valuable service, curation, an acknowledgment of sensibility and choice, in favor of attempting to ford the tide of raw data, a service that the wide-open Internet provides infinitely better than inherently focused, committal television programming.

The last two years of *TRL*'s history were a precipitous grasping at straws: daily taping was rolled back to a few episodes a week

in June 2006,[23] and in October 2007 online voting statistics were combined with MP3 and ringtone sales, the Billboard Hot 100 chart, online streaming, and radio plays to create an index for chart placement.[24] That year also saw the abortive rebranding of the show as *YouRL*.[25] By the time journalists were charting the last days of the program, Nielsen was reporting an average of 322,000 viewers a day, with only a quarter of those (79,000) in the desired twelve- to seventeen-year-old category.[26] By contrast, Ben Sisario of the *New York Times* reported that *The Hills*, MTV's flagship new-reality program, controversial for the possibility that it was scripted and popular despite only a tenuous philosophical connection to music and music culture, was routinely drawing up to four million viewers.

The irrelevance of the music video as television content was underlined in 2008, when *TRL*, at the time the network's last remaining outlet for videos, shuttered its Times Square windows, and the once iconic form all but dried up from basic cable (long live BET and CMT).[27] Sisario's article quoted the rapper 50 Cent, speaking during the festivities of "Total Finale Live," *TRL*'s three-hour sign-off-cum-house-party broadcast: "It's a big loss to all of us not to have this platform to promote ourselves. But we'll have to figure out a new way to do it." His clear-eyed assessment of *TRL*'s passing had nothing to do with audiences' interest in music videos, the form's viability as raw content, or even MTV's commitment to playing them. It had everything to do with understanding the challenge posed by what had changed in consumer practice—that there had been a drift toward a decentralized music culture, less responsive to top-down cultural determinism, aware of the superfluity of access to a wide array of artists that the net affords, and endowed with the capability to ford that tide.

The 2010s: Instability and Motivated Curiosity

And then there is now, which began sometime around 2007, when the Internet conspired, as in so many other media industries, to explode things through the roof at the same time it imploded them from the inside. Because music video's U.S. distribution network had almost entirely been restricted to one channel, the form experienced a more pronounced version of what all other ad-revenue-based and entertainment media businesses experienced. Within the life span of someone in their thirties at the beginning of the twenty-first century, music video had evolved from a mainstream birth distinctly tethered to an iconic platform, gone through a period of great auteurship supported by a steadfast venue, and arrived in a present unmoored to any dock in particular, but with the production and distribution capabilities for such uncertainty to mean freedom and choice.

The coincidence of the rise of the Internet and the rise of prosumer digital production technologies, which is both not a coincidence at all and deep, cosmic good fortune, meant that at almost the exact moment that million-dollar videos became untenable—because they no longer had an outlet and because the Internet had destroyed record sales—a new underground of filmmakers was already working. Budgets fell to the level that twenty-something directors could afford to take on, YouTube sprang into existence to display their wares, and filmmakers armed with little more than prosumer video cameras and off-the-shelf editing software were able to do more than toe the creative line, but push it forward. Just as important, audiences for these videos were as curious about new and different media and facile at searching for them as their producer counterparts were at teaching themselves to create and share them.

Both creators and viewers, by the time of YouTube's launch in 2005, had mastered the participation processes of HOMAGO. "Hanging out" provided the time and social space for teens and young adults to seek out cultural products or creative processes they were curious about. Twenty-first-century teens and millennials, inheritors of the subcultural swell of the 1980s and alternative movements of the 1990s, had had search ingrained as a primary practice and fandom process for their whole lives. From that base, they moved on to "messing around," searching not just to search but to learn, actively accreting new interests into their lives and onto their selves as producers and consumers, in a self- and peer-driven process. Finally, although not all Gen Y and Gen I consumers became cultural producers, "geeking out" was common across interest-based activities. Fluent searchers for what they want to learn, young people at the turn of the century increasingly feel free to travel deep into their personal interests, whether as an active creator or active appreciator—or both or either from time to time, depending on the individual and the interest.

This is what is significant about the shifts in the production and consumer practices of millennials: these processes have come to resemble each other. They are interest-driven, peer-based activities, whether with colocated or networked peers, which young people take upon themselves to search out, learn about, and, increasingly, learn to become fluent in. The difference between the steps taken in serious pursuit of digital filmmaking, music fandom, political activism, or foodieism in 2012 are marginal; all use a process that I characterize as *learning to search*, *searching to learn*, and *learning to learn*, which has its foundational spark in what I term *motivated curiosity*. It should be noted that this process is not restricted to Web-based or digital

activity but is absolutely shaped by the networked connotations of living in the digital era.

Learning to Search

The early history of the music video, from an audience standpoint, was the ramping up of the first step in this process, *learning to search*. Essentially analogous to the activities undertaken during "hanging out," learning to search begins with the fundamental awareness that there is *something* that *can be* sought out. The repeated, refinable skill of *learning* to search has blossomed in the mechanical and digital ages as substrains of knowledge have proliferated in everyday as much as specialized cultures. Where active musical choice was an *option* for teenagers in the 1980s that music videos and other push media abetted, for teenagers in the early years of the twenty-first century, most musical experiences start with the intermediate frame of the search field, a box and beckoning cursor nestled within Google, Wikipedia, YouTube, Vevo, Vimeo, MTV.com, Spotify, Pandora, Pirate Bay, uTorrent, or iTunes.

To understand more specifically how this acquisition shift has affected the form of the music video, in the spring of 2011 I spoke with Bryan Younce, the vice president of video and content production for Columbia Records, one of the twenty labels held under the Sony umbrella.

Younce echoed the notion that the shift in platform had caused the most recent shift in essence of the music video. "If you looked at music videos in 1988 on MTV, versus the early to mid-1990s, when all these auteurs were making videos, the medium changed a lot, and it is changing again. This time it's because the outlet has completely shifted." Younce's job consists

of matching a Columbia artist and track to a director and concept, plumbing all elements for their philosophical and aesthetic affinities. He had officially been in the music video business since 2007 but drew daily on his lifelong Gen X engagement as a self-described music video "super fan" whose encyclopedic knowledge of music videos across all eras developed during his teenage years in the pre-*TRL* prime of *120 Minutes*.

"Certainly at its most basic [the music video is] a promotional tool, another avenue to get people's attention," Younce said. "At the same time, it's also creating an identity for the band. Even if the band's not in it, it helps further establish their persona in some way. Those are the more boring ends of it, but in its most essential purpose, it's still what they're doing, which is what they've always done—it's just harder to get that attention now."

"As far as the videos are concerned, I often tell the newer bands the only risk you can take is not taking a risk," Younce said. "It will just disappear, people just won't care. Even if someone watches something and likes it or kind of likes it, they're not going to tell someone else to watch it, which is what everyone's looking for. We want to make something that people are gonna say, 'Oh my god, you have to check this out." Getting attention was now a distributed activity that depended at every level of promotion—from professional advertising and editorialism through personal recommendation—on motivating the curiosity of whoever might potentially be searching. This shift from push to pull, from presenting to finding, from receiving to searching, had, especially in the first half decade of YouTube, from 2006 to 2011, put a premium on undermining the expected.

"I feel like it's this amazing creative frontier," Younce said of the digital possibilities that shift his horizon daily. "We don't just make music videos, and that's one thing that's exciting

about the way the landscape has changed. It used to be that for MTV you had a very specific thing you had to do, at least as far as running time was concerned. It couldn't be a fifteen-minute epic or seven-part series; it had to run the duration of the single. And now all bets are off. The song could dip in and out, the song could be a punctuation to a short film, the paradigm has changed so much. It's like it's trying to find itself again." And as much as the music video form is revisiting its contours and boundaries, this renaissance is possible only because of the proclivities and allowances of millennial music video's adventure-seeking audiences.

Younce's characterization of the open-ended possibilities of music video in the digital era calls to mind the sociologist Howard Becker's explanation of how creative innovations force structural changes in art worlds, as well as how the conventional structures of art platforms and audience expectations influence the products on display. Just as "The Wilderness Downtown" could not be faithfully represented on television, Becker notes of art worlds: "When artists make what existing institutions cannot assimilate, whether the limits be physical or conventional (the weight of the sculpture versus the length of the plays), their works are not exhibited or performed. … There often exist subsidiary, nonstandard distribution channels and adventurous entrepreneurs and audiences."[28] At the moment, the nonstandard adventure is the only game in town for music video, though this will certainly shift again as expectations and distribution technologies normalize—and more crucially, as and to what degree search practices are constrained.

As Younce noted of Vevo's stabilizing viewership, "It's becoming its own MTV, in a way. This is a destination to watch music videos, but at the same time, you have the remote control

to watch whatever you want, as far as music videos are concerned; it's not like you're sitting through an hour block of programming."

We have gone through the same process as a culture that individual young people experience in their own lives. We have permanently realized there is more to be found than we have previously been presented with, and more to find than can pragmatically be presented to any one person by any one collection of formal systems, and that the technologies that have afforded us this realization also afford us the possibility to search for ourselves. It is this current wiliness of information that has made innate searchers of millennials: because search has become a fundamental competency (recall my dad's inability to understand how we watched a music video on a computer without searching the Web), the desire to search—to find knowledge that we can accrete into the cultural authorship of ourselves—has become our fundamental motivation. We *search to learn*.

Searching to Learn

On a Friday afternoon in February 2011, across the continent from Sony Music, the sidewalks of Times Square surged lightly with the end of the lunch crowd and throngs of tourists, free from any schedule in particular. It was easy to forget that a decade ago, this space at this time might have been impassable, filled with mobs of *NSYNC partisans, Destiny's Child adherents, or Eminem aficionados. The floor-to-ceiling glass studio walls that were once the windows into MTV's soul now bore floor-to-ceiling ads for *The Lion King*, the Disney musical that arrived in Times Square a year before *TRL* and outlasted the TV program by another six. Twenty-five stories above, Frank Ho,

of MTV's music, talent, and programming strategy department, sat down to explain just what relationship the network, lacking music videos, still had to music and its audiences.

"We work with all the different publicists and managers and labels to kind of bring in the new music and new projects, and then we disseminate it within the department," Ho said. "We also book onto all the different platforms," which in the United States include MTV2, MTVU, MTV Hits, MTV Jams, and MTV.com. "Anytime you see a musician or artist on the channel in any way, it came from one of the four of us in the department."

Himself a Gen Xer, Ho was raised on the same programming as industry colleagues like Bryan Younce. "When I was younger and MTV first started and it was completely video based, that's because that was how people found music. There wasn't Internet; you either had TV—and MTV really was the only music-based thing in the mid-1980s—or you had radio, and that was it." (For the record, Younce's more alternative but still MTV-centric version of this statement was "I remember growing up and being a teenager and feeling too cool for MTV and hating on it but still watching it all day long and taping *120 Minutes* every day. There were a few voices there that really profoundly impacted a generation in a way that they started listening to music"—that is, in the way that they taught their viewers to search.)

Because Ho and his MTV generation colleagues were as tied as anyone to the belief that videos should be the channel's stock-in-trade, the long, gradual decline in the format's ratings was more than a slight concern for the channel. Ho's simple, blunt answer for why MTV doesn't play videos anymore? "If we put music video blocks on our main channel, the ratings drop to nothing." His reason echoed all that I have been discussing here: "People don't need it, that's not how people consume music," Ho said. "It

actually took a long time for everyone here to realize that. It's not that people care less about x, y, and z artist; they're just not getting it in the way that we thought they were getting it."

"People are really expanding their music tastes, I think because this new generation growing up in the digital age is being taught, 'You can go find music yourself, nobody has to tell you what to listen to,'" Ho said. In other words, teenagers have learned to search, and MTV is now in the position of trying to figure out how to leverage its brand against the speed of teens' motivated curiosities. Ho swiveled his monitor to show me the MTV Music Meter,[29] an analytic tool similar to Billboard's Social 50, a weekly rankings chart launched in 2010, derived from mentions, friends, followers, song embeds, and site views on leading social networking sites.[30] "We have a much more symbiotic relationship with our audience. So you get everything from, you know, we're putting stuff out, but we're putting it out as feelers—are people biting? We're looking at traffic online; are people really coming to look at these artists on our site?"

What these Web-based rubrics have tracked, for the most part, is the increasing mainstreaming of the off-mainstream. "They compile all the data from our own online traffic. It shows the top ten artists that people are looking for within all our digital properties. And you think, 'Who goes to MTV.com?' The stereotype is that all they care about are the Britney Spearses of the world, but if you look at this—and this changes by the minute—it's much more indie than people really suspect." Ho's screen displayed James Blake, Kurt Vile, and Wye Oak all within the top ten, artists who were also prominently featured in the indie-stalwart Pitchfork.com's Most Read reviews list when I cross-checked later that week.[31] Although MTV dropped the words "Music Television" from its name in 2010,[32] it has retained,

Kleenex-like, a synonymy with teen culture; significantly and almost poignantly, MTV's brand has retained sufficient luster to still act as a first point of departure for many young people setting out to discover music.

That teens still resort to MTV to start their searching is also significant in that it points to a desire for searching to be specific, to render information that has been vetted in some way; looking for a musical artist on MTV.com carries a different weight than appealing to Google. Whatever my own misgivings about the depth of knowledge offered by MTV.com, young people looking to MTV for guidance in discovering more about an artist are doing more than searching—they are choosing a specific search tool to deepen their knowledge in a holistic context, one that will presumably separate out much digital chaff, as well. Similar needs have driven the rise in algorithm-based recommendation engines like Pandora, Last.fm, and Grooveshark and social-based aggregators and libraries like the Hype Machine and Spotify, all of which commingle math-based serendipity with occasional robotic inaccuracy or rely on social data to redouble rather than disrupt our current listening habits. Our glee at being able to leverage technology to consume more has outpaced technology's ability to understand what we want to consume, and we've cobbled together a working approximation somewhere in the middle.

It would be difficult to characterize, without a specific example, whether a given MTV.com search is closer to "hanging out" or "messing around," though I contend that music fandom in the twenty-first century now entails a *lifelong messing around*. Being a music lover in the digital era is a protracted deepening that makes incredibly complex use of a variety of acquisition patterns, from colocated peer knowledge to interest-based curated

content, and especially takes advantage of learning-to-search and searching-to-learn habits formed in adolescence through young adulthood in a renewing cycle. More importantly, this model of music fandom, widely accessible as it is, absolutely reflects other contemporary consumption and production practices. This, for me, is a more useful definition of convergence—not the notion that every viewer or listener of digital content will transition into a producer, any more than every reader in the seven hundred years since Gutenberg became a writer, but that as millennials and Generation I have learned to search, then searched to learn, they have also necessarily provided themselves a more crucial skill: learning to learn.

Learning to Learn

There's a social tic that has become widespread in first decades of the twenty-first century. Normally well-behaved, polite people, while at dinner, in a meeting, or otherwise occupied by giving their attention to friends, family, or coworkers, have a question come up that no one is quite sure of the answer to. It may or may not be crucial to settle the answer just then, but increasingly we take out our smartphones and get a Googled answer to our motivated curiosity. The ability to know is at our fingertips, and we can't resist finding it out. If we set propriety and cranky nostalgia aside, this everyday interaction should be the spark we attempt to capture and bottle at the center of learning in the digital age. What could be more exciting, in terms of education, than people who want to know so *badly* that they throw everything else aside until they have the answer or the competency?

Pedestrian as this example may be, it is exactly what lies at the heart of "geeking out," which I analogize as *learning to*

learn. It comprises not just the innate rewards of motivated curiosity but an unencumbered resort to appropriate tools and an appendage-like dexterity that uses technology toward consumptive or productive ends. Equally important, this moment of curiosity may have been part of HOMAGO activities already under way or may have constituted a deepening engagement with an unfurling interest. Where *learning to search* connotes an awareness and *searching to learn* indicates a deepening, *learning to learn* describes a fluency—the ability not just to have knowledge but to turn that knowledge back toward regeneration of both content and the learn–search–learn cycle itself. Fluency naturally seeks to deepen itself by searching out new pathways and more mature seams of knowledge.

Learning to learn brings us to music video creators like Hiro Murai, whom we will meet in chapter 2, who were preadolescent in the auteur-driven 1990s and spent their high school and college years in the hurtling instability and open-endedness of the early 2000s. These creators' professional lives exist on a continuum with their early interests and hobbies and exemplify repeated cycles of learning to search, searching to learn, and learning to learn, sometimes influenced by experiences within traditional school settings, but often with the most formative experiences occurring outside school.[33] These cycles have largely been undertaken with age peers and knowledge peers, with the chief contribution of the scholastic environment often having been to have gathered like-minded peers in one place. Crucially and almost uniformly, these continuums start with an above-average concentration of cultural capital in the home[34]: either parents with backgrounds in or affinities for creative activity (regardless of whether the parents' creative activity matches that of their child), parents supportive of the young creators'

long-term engagement with creative pursuit, or environments where young people have easy and open access to creative tools and technologies—and often all three. These creators have benefited from an enriched version of learning to learn undertaken by most millennial hobbyists, tinkerers, bloggers, and conventioneers; they have taught themselves how to teach themselves and had the benefit of growing up in environments that recognized that process in and of itself as valuable.

A final element is crucial to the process of learning to search, searching to learn, and learning to learn: *flexibility*. This particular response in millennials and digital natives is one part contemporary and of its moment, and another part holistic to the learning-to-learn process in any era. Gen Y has come of age in an era of exponentially improving technologies, as well as one of schismatic flux—open source and proprietary philosophies battle amid flourishing backgrounds of P2P use, piracy, the Creative Commons and copyright enforcement—in the face of which flexibility is as much adaptive as it is ideologically self-advantageous.

But flexibility is also born of the process of learning to learn itself, of being motivated by true and fundamental curiosity that can soak up outdated knowledge, misdirection, and even failure as part of a larger holistic process.[35] As Holly Willis has noted of leading millennials in college symposia using Seesmic, a microblogging site that no longer exists, she does not consider Seesmic's death since her original 2009 assignment to have muted her lesson plan's future relevance or her own development as an instructor. In fact, Seesmic's obsolescence may be its most useful impact for her: "Fundamental to teaching with tools that rapidly come and go is the need to teach flux and instability as constituent components of digital authoring. Students need to learn

how to teach themselves about new software applications and to discern a software's intended use as well as the way in which it might be misused. Here, flexibility, resilience, and an ability to move from platform to platform will serve students well."[36] Platform flux has become a common enough aspect of even amateur digital lives—few cell phone users have not upgraded at least once; it is rare to run into a Discman, and rarer still a Walkman—that the value of teaching the understanding and manipulation of interfaces rather than specific iterations of technology should be apparent.

So far we have explored how the history of the music video can also be traced as a history of Gen X's and Gen Y's assumption of the process of learning to search, searching to learn, and learning to learn. As we segue into a close-up examination of one music video director's journey from amateur to professional in a lifelong engagement with creative media, I stress that the learn–search–learn process illuminated by this case study absolutely applies beyond the boundaries of music video, film, media creation, and even digital technologies. Music video, as a form that unites popular music, visual communication, and changing sociocultural aesthetics, touches the everyday practices and interests of almost anyone engaged with contemporary culture. I have chosen to discuss this process in light of music video because of this normalizing effect and hope that the process is clearly applicable to those without the time, space, and access to advanced creative technologies.

Additionally, speaking in terms of music video and music fandom—the former a fairly rarefied practice, the latter a completely prosaic one—emphasizes that speaking to parents and educators in terms of the inherent value in the process of learning to learn, rather than in terms of digital fluencies, may be

more productive and have fewer barriers to break through in these audiences' own discomfort with technology. I also contend that digital instruction and learning have a great deal to contribute to and learn from nondigital activities, which benefit every bit as much as digital pursuits from motivated curiosity and dedicated self-teaching. Few parents or schools dissuade children from playing sports, formally or informally, because we all have bodies, and we understand that physical activity in and of itself provides its own reward and provides improvement and growth through sheer pursuit. To demonstrate the vast capabilities of digital technology to provide lifelong templates for learning, we should be finding more universal, tangible, everyday examples that prove that we all already understand and engage in this process, whether we realize it or not.

2 Practice: Curiosity to Fluency in the Career of Hiro Murai

On the southern fringe of Hollywood, a few blocks east of Paramount Studios, rests a modest cinderblock live/work loft complex. The building replicates itself a few times in a mile-or-so radius, presumably constructed by the same developer like so many video game landscape components, as this area attempts to refashion itself into the "Hollywood Media District." This particular cinderblock building houses, among other anonymous tenants, the office of a group of young directors, editors, and digital effects artists who cross-pollinate onto each other's music videos, films, and commercials, a loose collective since their days in college. The director standing in the doorway of the loft on a bright afternoon in March 2011 is Hiro Murai, a twenty-nine-year-old cinematographer turned director who has been working professionally since slightly before he graduated from USC, only a few miles south.

Like his fellow millennials, Murai's age means his experiences bridge the gap between pre-Internet ascendance and digital nativism—the first third of his life did not benefit from cell phones, broadband Internet, or music via MP3, but the second half of it has. His use of digital production tools has tracked with almost his entire experience in creative expression, but he is also able to understand and articulate how recent shifts in technology,

decentralized creative hierarchies, and social networking have impacted his output, as well as his life more broadly.

In the five years he has been directing, Murai has made videos for a collection of indie and hip-hop artists nestled on the hipper end of the pop spectrum: Earl Sweatshirt, The Shins, St. Vincent, David Guetta, Scissor Sisters, Bloc Party, Raphael Saadiq, Usher, Lupe Fiasco, and B.O.B., the last of which (for the single "Airplanes") received four VMA nominations in 2010, including Video of the Year.[1] Like most of Murai's other music videos, "Airplanes" was largely produced in this space.

A loft area above the living room was where the digital magic happened: four computer workstations were installed in the open area along with a black leather couch. Each station had two flat-screen monitors side by side, and at least one of them had big prosumer speakers and a subwoofer. And that was about it. The setup was in large part a maturation of the way Murai and his college friends had been working together for the past decade: sharing equipment and skills, sharing modest work quarters, and sharing in each other's development along a continuous path from teenage DIY tinkerers to young creative professionals.

The Home/Early Creative Practice: Models of Curiosity, Private versus Professional Creativity, and Cultural Capital

Murai's path began in Japan, where he was born in 1983. His father was a songwriter-composer turned music publisher whom Murai consciously viewed as having diverged from the traditional office career culture of Tokyo: "He definitely took a weird turn in college, which I sort of modeled myself after," Murai said. The model for creative ventures and exploration of a strong interest was established when Murai's father "borrowed

money from his dad and started a record store, because he just wanted to be around music, I guess." Murai characterized his father as, without guiding his children into any specific disciplines, "always a pusher for the arts, almost to a fault." Family vacations were opportunities for exposure—not just to cultural events and museums but to food and other curiosities meant to foster a global perspective and inquisitiveness. "He always had his own taste in things," Murai said, describing his father's passionate unspecificity toward broadening his children's horizons. "I didn't always eat up everything he gave me, but at the same time he showed us enough variety of things that some things stuck and some things didn't."

Murai's mother, a housewife, had a similar reserved enthusiasm and quietly abiding desire for her children's creative curiosity. Murai began drawing and painting while in elementary school, provided with sketchbooks early on by his parents when he showed an interest. "So that was kind of the norm, always. I just had a sketchbook at all times. I was the most comfortable when I had my head buried in a sketchbook." Throughout his life, Murai has become aware that his mother's support, unlike his father's career-based model of personal creative fulfillment, spoke to a private talent that hadn't been fully developed. "I've slowly discovered that she's a really good artist, like a drawer and painter, but she hides that stuff," he said. "Because I think she knew I really liked painting and drawing, so I guess she was encouraging me and not, like, flaunting her own skills." Murai's parents provided two models for creative expression that have remained potent in his own life: public, professional pursuit as well as private, sporadic self-practice.[2]

Private self-fulfillment dominated Murai's early mode of artistic practice, an affinity he repeatedly termed "obsessiveness," an

innate motivation absolutely apart from a structured, externally driven activity. "I never thought of it as a long-term goal or a skill that I was fostering. I think this is really common for kids that like to draw," he said. "A lot of times there will be a toy or a car or something that you really like or want, but obviously it's out of your hands, so you just end up drawing it over and over and over again." Murai explained that this process held from elementary age to high school as his content shifted from boxy robots to *Simpsons* characters to Pontiac Firebirds, and his skill as an artist grew naturally, unconscious and inseparable from the raw desire just to be drawing, rather than necessarily improving. "Obviously the more you draw, the better it gets, but it was also just this obsessive impulse. It's like, 'Oh, I'm thinking about this thing again,' and so naturally it goes on paper. And obviously as you do more of it, the better it gets."

When his family moved to Los Angeles when he was nine, Murai exploited this early aptitude in place of being able to speak the language of his new classmates. "When I moved here and I couldn't speak the language very well, it was a constant in my life that I could fall back on a little bit. I feel like I got more reserved when I moved out here, just naturally, but I still had the routine of just doodling and drawing," he explained. Early on he established a pattern for socializing via his abiding interest: "Whenever you draw something cool, kids in your class like it and want to talk to you. It was a weird roundabout way of communicating with people."

At the same time that he kept his sketchpad always in reach, as production technologies crept out of his dad's music studio and into the family's home, Murai's parents provided the same wide-ranging access and encouragement. Significantly, although Murai's parents had a higher-than-average engagement with the arts that they shared with their children, their fluency with

prosumer video technologies, professional-grade products available to the average consumer, seems to have been about average. Murai became the family's AV geek[3]—as he explained, "I just figured it out, I guess. My parents are not very tech savvy. In that way it was like every time they got a video camera it was, 'All right, give it to Hiro, he'll figure it out.'" Murai described how his family's vacation videos are, to this day, broken up by his impromptu stop-motion animations of oranges peeling themselves in the backseat of the family car.

These comprehensible technologies arrived in Murai's life at a time when drawing and painting were still self-motivated, gentle obsessions and carried equal weight with his earliest loves as explorable activities pursued on the behalf of innate curiosity. "I never really thought of it as learning when I was doing it on my own; it was really more of that impulse thing," he said, which carried him equally to the drawing pad and the viewfinder. The same pleasurable lack of purpose marked Murai's response to the more formal artistic learning he was provided in art instruction in school. "I liked art classes also, not because they taught you stuff but because you got to play with more toys. Having assignments and guidelines and that kind of stuff," he said, placing the emphasis of importance on having fun and exploration, with a secondary value placed on structure, explanation, and meaningfulness.

Early School/Identifying as a Creative Practitioner: Transitioning from Learning to Search to Searching to Learn, from Hanging Out to Messing Around

Just as peer-group currencies had provided the earliest external meaning to Murai's drawing routine—when his hobby provided him a way to communicate with classmates after he moved to the

United States—the complex socialization routines of high school were the site of the next deepening in his lifelong creative engagement. "I was becoming a bit of a movie geek. I was watching two, three movies a day, and going to see the opening of every bad movie in Westwood, no matter what. And I think that it was the experience of going to a movie theater with a bunch of friends, I wasn't a party kid or anything, so that was social time for me," that motivated his increased, as he put it, "messing around with cameras." The shared pursuit of movie fandom provided a context of connection for Murai and his friends, while his previous identity as an active artist, which he carried over into this new interest, set him apart within this new group. Though they were all, by Murai's account, voraciously consuming movies ("I liked watching classics, but I also liked watching horrible blockbusters too") and building a literacy of viewership, Murai became the sole active "filmmaker" in the presence of his fellow film geeks.

His role as a filmmaker, however, dovetailed with the larger group activities of searching out and learning about film, as the collaborative needs of filmmaking—particularly the need for a cast—provided an opportunity for Murai and his peers to embody their fandom. "I was the only one of my friends actually making movies, but I was always roping my friends into acting in them," he said, explaining that his early cinematic efforts in late middle school and early high school were largely re-creations of movies popular within the group, "whatever nerdy stuff *we* were into" (italics mine). Murai spent his free time learning to make movies starring his friends that were influenced by the movies that he and his friends sought out in their free time. "I almost felt like I was doing an imitation of making movies," he said. "'I wanna re-create this shot from this John Wu movie,' things that I gravitated toward. For whatever reason, you just start mimicking it"—an instinctual process of motivated curiosity that Murai

had already mastered in his days of drawing robots, *Simpsons* characters, and sports cars.

While creating media that aped their favorite media became a new way for Murai and his friends to hang out and mess around, in the days before YouTube, the product of Murai's efforts became an additional site of socialization, both within and outside the group. "Whenever I made bad movies in high school, I would take over the screening room and just drag in anyone I could at recess or lunchtime," he said. "A big part of being at the movies for me was watching how these films were affecting the crowd around me, my friends particularly. And, like, to me it was all about crowd reaction and kind of being able to guide the experience, so it was super important that when it was done I get to have that experience showing it to my friends." As noted by Buckingham and his coauthors[4] and Lange and Ito,[5] as well as by the music sociologist Lucy Green,[6] "sense of audience" is a crucial motivator in the transition from private to public creative practice—a motivator to create work in the first place, as well as to stick to the process of fine-tuning one's craft. An audience, particularly of one's peers, also promises feedback, even of the most rudimentary sort. For an informal learner of Murai's stripe, watching his high school friends and classmates react to his recreations of action films was both reward and assessment—not to mention a much more extended, active response than he'd been able to elicit with single drawings or paintings.

Adolescence/Solidifying the Creative Self: The Repeated Process of Learning to Learn, Near Peers, and Grit

In contrast to these robust extracurricular efforts, Murai also took part in a video production course offered at his high school. The class met once a week but did not provide cameras or editing

equipment, which in Murai's case presented no major setback; his parents had given him an editing system for a previous birthday, and he had been saving regularly for and purchasing cameras on his own by the time he took the course. Like his earlier art classes, the video class provided a modicum of structure in an otherwise self-guided, unrestrained informal tutelage: "For me it was more of an incentive to do something. It was just a weekly class and you had assignments, 'Do a short film that ends with someone giving someone else flowers,' really loose exercises, and you could do anything," Murai said. "I liked the lack of structure because what made it so exciting for me was the amorphousness of moviemaking. So that experience was just super great; it really was just incentive to do something rather than being an enforced guideline."

This sentiment is a repetition of what Murai found valuable about his earlier drawing and painting classes: though he may not have been able to express it at the time, what was most useful at this early stage of his creative development was the ability to take unfettered part in a process. It is important to be clear that highlighting the value Murai got from this "formal" class is not an argument against assessment, standards, and guidelines. Rather, it focuses on the importance of allowing learners to experience process; Murai derived the greatest meaningfulness from being given guidelines to wander within, to undertake a process largely of his own creation and responsibility. While this class largely lacked "serious" assessment, Murai's dedication to his hobby meant that he sought out opportunities for assessment from peers and enjoyed the film classroom for the particular advantages it had to offer his patchwork education. Importantly, he experienced process without the concern of needing to meet a certain threshold of sanctioned,

adult-imposed achievement, which in the first years of making the camera an extension of himself may have created exactly the sort of deep trust in himself to problem-solve and self-assess that he still relies on to this day.

Beyond Murai's age-peer social group, with whom he learned to search, and his film director heroes, whom he sought out to learn, and his myriad formal and informal opportunities of learning to learn, Murai's early cinematic life had an additional motivating factor: the presence and influence of what I term *near peers*, fellow young filmmakers who were just a few years beyond Murai in age and ability. Peers, as defined by Ito et al., "are the group of people to whom youth look to develop their sense of self, reputation, and status,"[7] and I would like to use *near peers* to distinguish between absolute peers—those who feel familiar and safe for socialization, comparison, and colearning activities—and peers who, while still within the social or networked orbit of learners, by the very nature of their more advanced status inherently motivate the learner to further fluency.

Murai identified two students at his high school who impressed him and whom, largely unbeknownst to them, he looked up to as role models: Ace Norton, who would give Murai his first professional job only a few years after high school and remains one of his close colleagues and competitors for music video commissions; and Dave Green, who at the time of this writing is in production for his first studio feature film. As Murai recalled, he was acquainted but not friends with them in high school, "because they were both a grade or two ahead of me. I knew Dave's stuff really well because he was the resident movie guy. I remember thinking, 'Oh, I'm gonna take him down.' I really liked the stuff he was making," in one breath in awe and in tangible competition—and connection with them.

In contrast to his Hollywood filmmaker heroes, who provided examples of *what* to make, Norton and Green provided a template for how to *be* a filmmaker. They demonstrated that Murai was on the right path and had everything he needed: "We were all working with the same resources. It's not like they had better equipment or better software" that separated their capabilities from Murai's aspirations. "We were all just using the same bad cameras with the same cheap editing software. And I think Dave's stuff especially, a lot of his stuff was parodies of big blockbuster movies," already on a seamless peer continuum with Murai's own work, "but it was done really well, and so for me, I would watch his stuff and think, 'Oh, you can do that.' It's not about resources; you can get creative and be smart about it," he said. "Because they're people your age, almost, and because you're using the same equipment, you think, 'Oh, I could do that.'" The older boys were Murai's role models for geeking out, providing implicit assurance within his own orbit that his instinctual process was a good one and would likely bring him to their level of competence.

It is this grit—this long-term engagement with messing around and geeking out, with searching to learn and learning to learn—that Murai, now an accomplished director, still identifies as the common link among his creative peers. "The film kids that I know have always been film geeks and tech geeks," Murai said. "We've always wanted to make these films that we watched and admired growing up, by any means necessary. Whether that meant putting filters on in Final Cut or After Effects, or buying cheap lens attachments for your soccer mom camcorder, we were always looking for ways to make it look like we wanted it to look."

Most significantly, though Murai can be forced to admit that he's become a more advanced filmmaker since high school, he feels his practice is fundamentally the same. "I haven't really changed anything about the way I do it. I think I do it better now, and I'm more confident," he said, allowing that he's more technically adept and more efficient at expressing himself with the tools of film. But the process of *being* a self-recognized filmmaker has depended more on the fact that he is doing it than whether he is a different filmmaker than he was before. "There was never a point when I'm like, 'Okay, now I'm for real, now I'm legit.' You just kind of keep doing it and every once in awhile realize, 'Oh, people like the thing I'm making.' There was never a clear divider point." Though the intervening years have occasionally challenged Murai in the disparity between his personal relationship to creativity and the relationship to it that he was being taught, he still creates on a continuum with his eight-year-old and sixteen-year-old selves, drawing and making movies because it interests him, because it interests his friends, and because it is a pursuit that he still hasn't found the end of.

Late Adolescence and College/Problematizing the Creative Self: Practice versus Production, Communities of Practice, and Professionalization versus Personal Practice

True to form, Murai's artistically inclined upper-middle-class parents were broadly supportive when he decided to attend film school at USC. As he recalled, while he still saw filmmaking as "this way to escape from real-life responsibility," his parents subtly guided his obsession toward the notion of a profession. "They would say, 'You know, you should think about film school,' or 'you should think about doing this for a living,'" he said. "Or

at least like, 'You should follow through with this and see what happens.'" The distinction between private and professional pursuit would be the mark that college left on Murai's life as a filmmaker and a distinction that I contend digital life blurs and heightens more than ever.

When Murai matriculated at USC in 2002, he encountered twin shocks to his conception of himself as a creative artist: a great deal more structure than he had been used to, and fellow students who had all been the "resident movie guy" before arriving at college. Both facts challenged Murai's preference for working mostly in happy isolation, pulling in others only when he needed or wanted. USC, like many undergraduate film production programs, focused on traditional production hierarchy, assigning students to work in groups, with each student rotating through each craft role—director, cinematographer, production designer, sound recordist, editor, and so on. While Murai chafed against the siloing of these different disciplines, he also found that his instincts against such compartmentalization guided him toward students who had similar habits and backgrounds. "I realized we were doing the exact same thing," he said of what had occupied his fellow USC film geeks in high school, "illegally downloading software and trying to figure it out, messing around with different things." As his group of collaborators at USC gradually drifted together, they found themselves creating together within the bounds of the school's system, as well as continuing extracurricular projects in the way they had been used to doing before arriving at college. "It's like, 'Oh, we get to have the DIY mentality, but we get to do it with a group of people who are all capable of thinking independently.' So it's like a power in numbers even though, structurally, you're basically doing the same thing."

Murai and his peers implicitly trusted the process they had self-developed from their motivated curiosities, and extended the practice of learning to learn further into their young adulthood. And once it was clear that peers could help rather than hinder that instinctual process ("I think we all definitely learned from each other. And all of us had different strengths as well. We all had done everything, and we all could do everything; it's just that when we crewed up, some of us were better at some things"), the notion of collaborative work was implemented into the larger process of self-teaching and creating. Murai ultimately reflected on this discomfort as an important maturation: "I think that was also a good transition point from being a one-man army to learning how to collaborate with people, and finding people who were like-minded." It is significant that Murai began college before streaming technology and social networking took hold; it is likely this initial sense of displacement at finding peers would not have been so acute had his adolescence included a wider sense of audience or the opportunity to define his community more broadly than what was available to him geographically.

While Murai was easily able to absorb peer collaboration into his process in his first two years of college—after all, he had not been a socially isolated kid; he'd just been a filmmaker among film geeks, rather than one filmmaker geek among many—the quandary posed by USC's emphasis on training students to pursue "professional," big-budget, studio-style careers proved a larger stumbling block, particularly by the end of his sophomore and junior years. According to Murai, "There was a period where I felt like I needed to format what I was doing into something that fit" the stratified production process or traditional career orientation being imparted by his department. "That always

gave me anxiety, though," he said, preferring instead "the idea that you can just follow through with an impulse. So if you have an idea, even if it's really stupid, if it's just you and the camera, you can do it and see what happens. There's no pressure if it doesn't work out," he said. "There isn't such a thing as a mistake." Murai felt he was being asked to realign his process into the context of future success—to extend his production timeline past the impulsive and immersive and to move from a process of exploration and experimentation to a dialectic of achievement or failure.

As with Murai's earlier ambivalence about formal assessment, focusing on his (fairly normal) late collegiate anxiety isn't meant as an argument against professional training programs. However, it is important to think through the implications of Murai's concerns; he was lucky enough to have an abiding passion, and one in which he was confident in his own abilities. Yet the question of where to derive meaning knocked him off balance. Was he supposed to value the process or the monetization of the end result? Could he continue to value making mistakes, or would mistakes cost him his future livelihood? Most important, why did there seem to be an inherent polarization between private pursuit and public career?

Murai admits that this nervous period "was a natural process. You have to transition from it being your personal hobby to it being a job somehow, and it's not going to be a pretty process regardless of how it happens." However, this was a kid who had blithely carried himself along a creative continuum from preadolescence to young adulthood but was suddenly at a loss. What had changed—or what would need to change, in only the space of a year—for Murai to go from suddenly stricken student to paid professional?

Early Adulthood and Early Professionalization: Apprenticeship Learning

Having learned to learn anything he needed to know creatively, Murai was running into a domain of knowledge that he had never pursued and for which he had no peer models: how to create a career. Where Dave Green had provided an everyday example for how to be a high school filmmaker and Murai's director heroes set a distant goal to be theoretically attained, there was a large gap in between—and the gap was precisely where his university was telling Murai he should jump. "We all had our own personal filmmaking heroes," Murai said. "But in a more, like, romanticized, truncated, you know—like a legend format rather than a tactile real person."

Reenter Ace Norton, Murai's other high school role model, who had also attended USC but dropped out while Murai was a sophomore. At twenty-three, Norton had made enough short animations for local buzz bands that he'd attracted the attention of a music video and commercial production company, which signed him. "Even though he was only a year older than us," Murai said, "he'd been out in the battlefields, and we also related with him on all the things that kind of bummed us out about film school." When Norton and his producer needed cheap animators for a low-budget music video for an indie artist, a mutual friend of Norton and Murai put out the call.

"We did our very first job with Ace when we were juniors in college," Murai said, "a video for The Faint which was 90 percent stop-motion and a three-day DIY-fest in this weird artist loft. Which was great, you know, because it felt so refreshing, because it felt exactly like how we used to do things." The craft hierarchy promoted by USC, which kept students from taking

part in shared job functions at the same time,[8] was replaced by an impromptu knowledge community where each crew member brought a different skill and taught a different skill to the others. As Murai recalled, "I wasn't an animator at the time, but because we were working with a skeleton crew and it was stop-motion, everybody was animating something. I was doing, like, moving these little figurines and taking one shot at a time, and it really felt like—it didn't feel like a job at the time, it didn't have a structure that I was so afraid of."

Much of what Yasmin Kafai posits about apprenticeship learning illuminates the peer relationships at work on Norton's set—her "user/newcomer/oldtimer" structure was activated as a diverse grouping of young artists from the same generation worked furiously alongside one another.[9] "Unlike formal schooling, in documented studies of apprenticeships explicit instruction almost never happens. … Rather than engaging in 'how to,' oldtimers and newcomers … jointly participate in a common task. The way in which labor is divided in an apprenticeship may vary based on the participants' skill levels. … However, they work together toward the same goal."[10]

Murai's only hazy awareness that the fun he was having was, in fact, a job indicates that his work with Norton provided the link Murai needed to conceptualize how to exploit the process he knew for professional ends, rather than replacing it for another process, as his college studies had indicated he should. Elisabeth Soep's definition of "converged literacy,"[11] developed over the course of her work with youth radio producers, helps clarify Murai's earlier anxiety and its evaporation in the Norton-led community of practice. Converged literacy entails three nesting skill sets: first, the ability to *make and understand* "boundary-crossing and convention breaking texts," a skill Murai and his

peers had been mastering for years; second, the ability to *draw and leverage* "public interest in the stories they want to tell," an attendant skill that was rudimentarily achieved in Murai's high school screening rooms and other peer communities, a skill that YouTube would radically alter in the year after Murai's first job with Norton; and third, the ability to *claim and exercise* "their right to use media to promote justice, variously defined." In Murai's case, his formal instruction heightened the premium on making a living via his creative practice but did nothing to empower his ability to do so; though Soep writes in a social justice context, not only the ability to claim "point of voice"[12] but also the right to declare a long-term pursuit a "valuable" activity and even a livelihood is a worthy application of her construct. Murai's time at USC, until his informal extracurricular work with Ace Norton, had provided him only two-thirds a fluency in digital professionalization, and he had taken on the apprehension of a traveler with only a partial translation dictionary.

"When I started working with Ace, it became a lot more tangible," Murai said of his early career. Murai and his classmates would continue working for and with Norton through and after their graduation from USC a year and a half later. "It was five people running around, just shooting whatever they can, coming up with ideas on the spot. I was shooting, Steve [Drypolcher] was shooting, BDL [Brandon Driscoll-Luttinger] was editing. We all lived a block away from each other, so everything was in-house, we got to see everything step-by-step," a setup not remarkably different from the one perpetuated in the rooms below Murai's current patio. Indeed, Murai and his former classmates co-own the business they run out of the loft, which grew naturally out of their time working for Norton, which had in turn grown naturally out of their previous individual pursuits.

As this report promotes the process of learning to search, searching to learn, and learning to learn as a model for creative expression and work in the digital era, it is critical that the skills of seeking out and creating apprenticeship learning experiences and communities of practice be considered vital parts of a professional skill set. As Andrew Ross has noted, many decentralizing industries are being remodeled in the traditional image of the creative industries: "the eponymous struggling artist, whose long-abiding vulnerability to occupational neglect is now magically transformed, under the new order of creativity, into a model of enterprising, risk-tolerant pluck."[13] Murai's early tremors traced the void of information where the studio system once stood, a lack that was a precursor to the continued disintegration of big media and what steady employment structure still exists. Through luck, reputation, and ability, Murai was able to make a straight transition from school to work, but if he hadn't, no particularly robust training system would have been available to him. His most likely work would have been freelance, without benefits, without a union or other trade group to back him or guarantee fair pay for almost certain overtime work, often without pay at all, most likely tangentially related to his chosen discipline (being a PA as opposed to a cinematographer), and certainly without mentorship. It is one thing to acknowledge that this is a growing reality for young people entering many industries, with or without college degrees. It is another thing, in the age of networked publics and interest-based social groups, not to teach young people how to exploit informal apprenticeship opportunities and communities of practice. Providing access to near peers, navigating roughly the same patch of swiftly changing employment currents, helps young people conceive of employment and networking in the same frameworks of motivated curiosity and learning to learn

that they have so studiously but pleasurably applied to their informal self-identities, and helps place them as newcomers in a holistic network of old-timers and current users.

Adulthood and Career Fluency: The Continued Importance of Learning to Learn, the Return to Private Creative Practice, and Freedom versus Resources

The advances made in digital production technologies in the last decade of the twentieth century and the first decades of the twenty-first have been crucial to the early success of Murai and his peers. The reason his knowledge was on equal footing with his near peer Norton's is the same as the reason both were able to embark on professional careers before even finishing college: there was no significant difference between the equipment they used as amateurs and professionals (if there was any difference at all), and they needed only a limited amount of technical refinement to make professional-quality work. "The industry itself has adapted this lo-fi, not-multi-million-dollar equipment," Murai said. "There's definitely a gap that's shrinking between the backyard movie kids, who we are, and the helicopter-shots-of-Mariah-Carey-running-down-the-beach guys." Murai laughed, possibly because a world where any pop single big enough was an occasion for helicopters and cranes seems so far away now. This is part of why Murai and his colleagues—young, dyed-in-the-wool alternative, and most importantly digital and flexible—are advancing so quickly.

"Technology widens the vocabulary of filmmakers," he said. "Because more things are available to us—you can get better-looking images, you have more finesse of the visual vocabulary—it's branching out in different directions. I've seen a lot

of videos that are low budget but are still very nuanced and cinematic, things that wouldn't have been able to be done with just a camcorder ten years ago."

Although more is possible now than ever, these days Murai doesn't tinker with his digital skill set as much as he used to; his small-business-cum-knowledge community is doing well enough that someone is always around who knows the newest software or technique and can either specialize in that work or quickly explain it to the others. Assured of his filmic vocabulary and grammar, Murai instead works to hone his expression. "There's a limitation to how much you can refine mechanics, and also mechanics without intent is boring. So I think it may be just maturity, but at a certain point I think I should focus on how all these different things work together, rather than trying to make the shiniest thing," he said, obliquely referencing his bygone days as a tech geek. Yet the language of learning to learn is still present; the process of deepening his fluency still remains his chief motivation, rather than whatever external assignment he is actually fulfilling. "I feel like I'm doing something and learning something new every time. And I think that for me that's super important. If I do something and I know that I can do it, then it's no longer for me, because it's for the job or the client. Because if I'm not getting anything new out of it, then it doesn't have any purpose for me, doesn't have any excitement for me."

Murai's lifelong habitation of the border between personal and public creativity has served him well as his career matures. Careers that grow out of geeking out and messing around have the same sort of blurry boundaries as independent contracting work: "Especially with freelancing, it's so difficult to know when you're not in work mode, because it's so close to something you do in your off time anyway. But you can't live healthy if you're on work mode twenty-four hours a day," he said. "I've learned

even in the past two years how to regulate my life so I can be a functioning human being and make work that I really can be proud of." As opposed to the rhythms of the "three-day DIY-fests" of his early jobs, Murai said, "The trade-off is that you get smarter about the way you do things. It doesn't have to be an end-of-the-world experience every time you do something." This sense of fighting off fatigue is a repeated theme among other young music video directors I have talked to, who all begin to reassess what their career is asking of them after only two to five years of artistic recognition and relative financial stability—one more thing they have taught themselves rather quickly.

For Murai, a return to "meaningless" private art making has been a way to cycle back to what he cares about most: learning and indulging his interests outside the needs and compromises of employment and professionalization. "That's how I ended up getting back into painting and drawing more, just because I kind of missed having a very private thing," he said. "I have drawing pads just laid out on the floor of my bedroom right now, and I sit on the floor stomach-down. … I feel like a child, just art supplies sprawled everywhere. But there's something about that experience that's just very calming for me, just reminds me of everything that I liked about doing that stuff when I was a kid." As digital technology and networked publics help us expand the definition of what can be considered a "valuable pursuit" worthy of attempting to make a career, and as technology and interest networks make these pursuits available to a growing number of people, many more of us will likely experience Murai's confusion at where his personal and private creativity separates, and the need to help learners define these separate practices will become more important. "I think it's hard for a lot of people. It was hard for me when I started doing moviemaking as a job, because there are just so many external pressures. It becomes

something you try to retain that personal aspect of as much as possible. But it can be heartbreaking if you approach it like a personal project and the time comes that it's just out of your hands. It's terrible," he said.

The ambivalence toward structure and authority displayed by the likes of Spike Jonze in the nineties has become part of the creative DNA of Murai's contemporaries—both as producers and as consumers. But where Jonze still needed the distribution capabilities of the major broadcasters and film studios, millennials "only" have to untie the trick of making a living. "It's almost like you'd rather have the freedom than the money, because you'll always figure out some way to do it, on the creative end," Murai said, sounding so utterly un-Hollywood it was hard to believe we were a stone's throw from a major studio. "A lot of people who've been through the regime change are like, 'Man, we're so screwed, we can't do this with this money.' And it's like, well, no, if we shoot in our backyard, and use work lights from Home Depot, we can do it."

That Murai's language of possibility is still anchored in the DIY, even as he operates at the mid- to high end of music video budgets, matters. Murai operates not just within film and music but within a culture that is increasingly user driven and self-tailored. This is why, when asked about music video no longer having a place on MTV, he told me, "I like it. I never liked the weird, untouchable lore of music. I like it being more personal and approachable, you know? With the Internet, there's a lot more ways that people can find music or their own pockets of music. They don't necessarily have to watch *TRL*. A lot of music videos and bands that I like would never be on MTV; you'd have to watch MTV7 or something." This was more than the blithe blush of youth talking—it is the ethos of an era.

3 Literacy: OMG! Cameras Everywhere

Two figures in silhouette sit in a modest suburban rec room, arranged as the set of a TV talk show. A title card appears of a thumbs-up and the phrase "You Can Do Anything!"

Hostess Hi, I'm Kristina Nichols. I'm a photoblogger!
Host And I'm Roger Knight, an independent filmmaker.
Hostess And welcome to "You Can Do Anything!," the only show that celebrates the incredibly high self-esteem of the YouTube generation.
Host 'Cause now, thanks to technology and everyone being huge [wimps] about everything, it doesn't matter if you have skills, or training, or years of experience—you can do it.
Hostess You can do anything!
Host So let's welcome our first guest, Liam Terry!
Liam Hi everyone, I'm Liam Terry from liamterry.com.
…
Host Tell us, what'll you be doing today?
Liam I'll be juggling ten bowling pins.
Host So you're a juggler?
Liam Nope.
Hostess But you have juggled before?
Liam Never.
Hostess and Host Then you can do it!
Liam stands up from his chair and throws the juggling pins in the air.
Liam I juggled!

—*Saturday Night Live*, season 37, episode 12, aired January 14, 2012

Everyday Digital Literacy: Where the "Decline" of Creative Expression Meets the "Rise" of Creative Technologies

In late August 2011, the cramped quarters of a central Los Angeles office had been converted, for one week, into a mini–movie studio. Half-eaten marshmallows wilted on a desk, deflating in the summer heat, as four preteen girls—three unsuccessfully pretending to be asleep on a sofa bed, the fourth filming the scene with a DSLR camera—shot a climactic scene in a modest music video of their own conception.

This was the fourth day of OMG! Cameras Everywhere, a nonprofit summer camp set up and run with as much improvisation as earnestness, conceived in the spring of 2011 by a small, loose collective of young music video directors and realized by late August. The campers attended at no cost, recruited through an e-mail sent to a loose network of arts nonprofits in L.A., and the counselors donated their time and equipment. Raised among friends, family, and industry acquaintances on Kickstarter, $4,500 provided food, a passenger van for outings and location shoots, and insurance.

Hiro Murai was there, flitting between bobbing thought bubbles on sticks over the heads of the couch-bound actresses and instructing the young camera operator—the DSLR camera was, in fact, Murai's own. Two other twenty-somethings helped Murai to gently focus and negotiate with the girls.

"Don't mess it up, girls. We gotta do the wide so we see all of you at once with the thought bubbles," said Benjamin Kutsko, a music video director who is part of the music video collective the Masses, which normally occupies the space currently doubling as the girls' dreamscape.

"Continuity, guys," echoed Alex Pelly, another Masses director who, in addition to her technical role as a marshmallow wrangler, had been cast as the girls' mother. Another spasm of laughter rippled through the lumps on the sofa bed before twin squeals prompted Kutsko to intervene: "She shouldn't bite you, and you shouldn't react like that, because you're a professional actress."

In rooms beyond Murai's, a fabric whale was being manipulated by two twenty-four-year-old directors while two nine-year-olds shook a shimmering blue fabric in front of the digital camera being wielded by a fifteen-year-old camper, the oldest of the group. Other campers and their counselors were on location at a nearby park or in the alley behind the office.

Over the course of the week, the campers (referred to as directors on the group's website) conceived, directed, and performed in five music videos, a live performance music video, and dozens of ultrashort films, ten seconds or less in length. The professional directors pulled an all-nighter on the evening after my visit, furiously editing the raw footage captured throughout the camp, and at 2:30 p.m. on the sixth day, they hosted a screening for their young collaborators, complete with a directors' Q&A.

The basic idea for the camp, as well as the source of its raw energy, was the merging of the older group's professional literacy and the kids' potential literacy as music video producers. The twenty-somethings and the preteens shared an everyday familiarity with consumer digital camera technologies, as well as the pop cultural form of the music video itself. As OMG! explained on its website: "We'd hoped that by looking through the lens of a camera, they'd be able to expand their worldview and start seeing the universe as a place subject to their own creativity, open to manipulation by their imagination. After all, the program was

founded upon the belief that the increased accessibility of cameras to everyone today can potentially give kids the tools they need to create and communicate like never before. We chose music videos not only because it's what we know, but because it's also something that they are all familiar with."

The camp had largely been the brainchild of Isaac Ravishankara, a twenty-seven-year-old music video director who had enjoyed working with kids previously, as a tae kwon do instructor in high school and as a math and physics tutor for high schoolers during his undergrad years at Harvard. Speaking six months after the August 2011 camp, Ravishankara pinpointed two direct influences on OMG!'s creation. First, the success story of a fellow video director, Matt Amato, who had wanted to tell a video from a child's perspective and so hired a plucky twelve-year-old as his cinematographer. The experience informed Amato—and shortly Ravishankara—that the largest gap between his young peer's knowledge and his own was more technical than conceptual. The second impetus was Ravishankara's growing fatigue, like Murai's, at professional work that he felt was distancing him from what he had enjoyed about making films as a teenager. For Ravishankara, Amato, Murai, and another dozen of their colleagues, the answer for how to enjoy their jobs as if they were kids again was to round up some kids and put themselves back on their level.

To a large degree, the lessons about digital media literacy that OMG! has to teach are more interesting in the context of the counselors than the campers. Murai and his fellow counselors, all between twenty-four and thirty, are at a thoughtful halfway point between the traditional methods of instruction that dominated their collective educations and the informal, networked methods and possibilities widely available to their millennial

campers with the tap of a touch screen. Just as Ace Norton's stop-motion film set had been a crucial intervention for Murai at a moment when he most needed a link between his personal creative practice and his future professional one, so the directors of OMG! treated the camp as a referendum on what they felt were the most valuable parts of their creative educations. And the directors choose, partly consciously and part instinctually, to embody their self-interrogation by mentoring mostly preadolescents. This choice identifies the developmental stage that Murai and his peers collectively value as their creative core: the age just before instinct and curiosity begin to be overcome by expectations of meaningfulness and productivity.

Murai, who supplemented his lagging English fluency with an aptitude for communicating with his peers via drawing, reflected on the overall experience of OMG! with a notion of linguistic competence: "It reminded me of when you learn a new language. You can either learn grammar and vocabulary from textbooks, or you can just be with people who speak that language and then just learn it verbally. And OMG!, I thought, was the latter, and film school, at least in my experience, was more the former. It just felt really intuitive, and at that age, with the kids, they shouldn't be worried about how to pull focus or, like, worry about sequencing or editing. It should be all about what idea they have and how to execute that, or what is more from the gut."[1]

In so many words, Murai was contrasting process with product, intuition with pedagogy. As a professional artist teaching in an extracurricular setting, his concerns and priorities are more in line with those of an art school than a computer lab and represent an important alternative to educators with backgrounds in standardized, outcome-centered education leading projects on digital media production.

Making Things That Are Just Okay: Process, "Wrongness," Meaningfulness, and the Path to Fluency

Which is not to say that OMG! was an "art for art's sake" riot of anarchic, free-associative creation. It *is* to say that the final films presented at the screening were more than a little rough around the edges. A representative ten-second short film called "Horsie" plays as follows: Open with a medium shot of a girl in a red shirt sitting astride a bear statue at the La Brea Tar Pits. Girl says, "Look, Mommy, a horsie," as the shot cuts to a close-up on Girl's face, delivering the line. Cut back out to a medium, with the bear statue replaced by Dugan O'Neal, one of OMG!'s counselors, the Girl now astride him. O'Neal says, "Can someone get this kid off of me?" Close-up on O'Neal's face as he asks. Cut to a close-up of the Girl screaming. Cut to a close-up of O'Neal screaming. Cut to medium of Girl astride O'Neal, both of them screaming. Blackout.[2]

It is easy, syllabus style, to enumerate the cinematic and storytelling techniques learned by the campers in making "Horsie": different types of shots, shot composition, shot progression, cutting, match cutting, use of audio to obscure visual cuts. It is also easy to get excited and say that, having created this fundamentally fun but "professionally" underwhelming short, the young directors achieved a new level of digital fluency. In fact, often with multimedia programs designed for kids, we do just this: lay out a reduced rubric of skills to be mastered in a given amount of time and declare something to have been learned at the finish. This formal model obscures the most important parts of long-term learning—self-led questioning, experimenting, repetition, and retention. Not only are these kinds of informal processes important for kids' learning, but they are exactly how we, as

Figure 3.1
Screenshots from one of OMG! Cameras Everywhere's ten-second shorts, "Horsie." Figure should be read from left to right, top to bottom. As "Horsie" runs ten seconds even, these six images actually represent the entirety of the short fairly faithfully.

adults, come by our own limited proficiencies as everyday, functional users of the various technologies that propel us forward, from cars to computers to mobile phones. And yet these competencies suffice to earn us livings, keep roofs over our heads, and even occasionally afford us some degree of self-expression.

O'Neal and his young fellow directors had a Flip Cam and roughly fifteen minutes to create "Horsie," and O'Neal or another counselor edited it in the middle of the camp's last night while the campers were fast asleep at their homes throughout Los Angeles. The most potent lessons that O'Neal's codirectors are likely to have taken away from "Horsie" are, first, "[A] grown-up let us make a movie that was basically just a dumb joke, and didn't say there was any problem with that," and second, "We said we wanted to make a short about a horse that turns into a man, and then we figured out how. Dugan helped."

No one at OMG! believed that, after one week, the campers would be "fluent"—or even mostly fluent—in the wide range of production processes and technologies that were touched on over the course of the five days. Moreover, the counselors didn't even *attempt* to have the kids truly engage with editing, a crucial part of the film storytelling process. As Ravishankara recounted, that decision had been made during a feverish midnight planning session only days before the camp got under way. "What came out of it was, 'Editing? Screw editing.' Editing's not going to happen, it takes too much time, it's a waste of time. You can teach editing; kids will be able to teach themselves editing if they need to." Instead the adults wanted to narrow in on the proactive core of simply having ideas and finding the means to convey them through the chosen medium—exactly as Murai and his fellow counselors had done themselves at their campers' age, with complete faith that their millennial peers could

search to learn any skill that they might become interested to acquire. "Our definition of 'making' became if we're shooting ideas that we've fleshed out, we as the director group will work to flesh those out in the editing," he said, focusing instead on "how much can we just shoot and create under the context of a camera being the paintbrush. Just shooting is the end goal for the kids on the day, knowing that they're shooting and having an idea and directing it."

Ravishankara and company were, as highly fluent digital storytellers, distinguishing between fluency and being literate, and they placed the balance of OMG!'s value to its campers on their gaining a rudimentary knowledge of an expansive, translatable working process over mastering a more limited, prescribed set of definable skills. This matches up well with James Paul Gee's proposed rubric of literacy, where "we can say that people are (or are not) literate (partially or fully) in a domain if they can recognize (the equivalent of 'reading') and/or produce (the equivalent of 'writing') meanings in the domain"[3]—as long as we understand and acknowledge that in a networked era, "producing" may not always depend on any given user's absolute fluency with every step of the production process. The kids arrived at the camp as proficient readers of the "semiotic domain"[4] of music video and by the end had imagined, analyzed, experimented, and collaborated their way through "writing" examples of pop culture's most accessibly gnomic form. "The fact that we did the editing, I don't think it took away anything of the kids' vision," Ravishankara said. "It was actually really empowering because I don't think kids would have been as free to be like, 'Okay, well then I'm going to eat these marshmallows and all of a sudden go flying down the hallway.' I don't think they would think of that if they were thinking, 'How do I make that?' So the fact that

they knew that they could make that because of the resources that they had, they really were just truly being very creative and directing without any pretense of 'Is this possible?'"

It's likely that three novice adults given fifteen minutes and a Flip Cam wouldn't have made anything much better than "Horsie"—the difference being that the kids weren't embarrassed by its rough-hewn fun, nor did they dwell on how much better they "should" theoretically have been at making it despite their status as newcomers. One of the sharpest differences between formal and informal learning lies in how assessment takes place, and the ways in which processes of assessment are internalized in learners. Notions of rightness and—especially—"wrongness" are critical in understanding both why, over the last century, the majority of the population has skirted a working relationship with the arts as well as with creative technologies, and why digital technology holds such power to reorder these relationships.

In the first place, a pass–fail dialectic has crept into what should be qualitative and open-ended fields. Specialization and professionalization have marked a portion of the population as "artists" and the rest as "nonartists," and we have come to believe that a special, innate talent fires those select few so born or designated. As Larry Gross notes in relationship to children acquiring language, while our mothers and fathers might not encourage our early mispronunciation of a word, they still continue to encourage our overall efforts at mastering our mother tongue. Similarly, a small thought experiment reveals how early the pass–fail attitude is ingrained in many of us: ask any adult to draw a picture—any picture—and, more often than not, abashedness ensues. As Gross explains, quoting the Canadian art educologist David Pariser, "In the most general sense—and this applies for children around nine to twelve years old—'photographic

realism is the commonplace criterion for being a good artist. The ubiquity with which this standard is upheld and the relatively low priority given to drawing instruction result in most children giving up on artistic expression in despair and disgust.' Thus it is that inside most adults in our society there hides a nine-year-old, who only emerges when and if the adult is forced to try to draw something."[5]

The arrival of "wrongness" in the creative process was half of what had given Murai tremors in college ("If you have an idea, even if it's really stupid, if it's just you and the camera, you can do it and see what happens. There's no pressure if it doesn't work out. … There isn't such a thing as a mistake"), and most of OMG!'s counselors seem to have sheltered themselves and their passions from "wrongness" in a similar way to Murai throughout adolescence. OMG!'s core purpose was to re-create the same experience for their campers: Ravishankara's dialectic of "How do I make that?" (where meaningfulness rests in the process of figuring something out) versus "Is this possible?" (where the weight of meaningfulness relies on the outcome, even before the task is undertaken).

James Paul Gee's writings on video games praise their value in providing a safe venue for kids to experiment and fail.[6] While the notion of experiencing failure safely is important, retaining "failure" as part of the diction of process puts a positive spin on a spectrum that has a limited number of outcomes: failure or success. Much like Gee's realizations about video gamers and gaming, what Murai taught himself and what OMG! tacitly imparted to its campers is that failure doesn't even really exist when an activity is undertaken as part of a process. Not that assessment doesn't exist or that assessment is not still valuable but that "failure" in the temporal context of sustained progression or the

social context of a knowledge community can actually be a first step.[7] As Lucy Green observes:

> Assessment is by no means missing from informal music learning practices. Rather, learners assess themselves throughout the learning process, in relation to their progression measured against their own past and projected performance, that of their peers and that of the models they are copying. Not only do they assess themselves in relation to such factors, but they also assess their peers, and they seek assessment from their peers. The decision to make their music public, on a stage at school, in a youth-club setting or in a more professional environment, is based on their own and their peers' assessment of how well their music sits in relation to its overall style and with this, the likely expectations of the audience; and of course when they do play in front of an audience, the latter will very soon let them know if the decision to make their work public was a mistake. However, as enjoyment is so much a part of popular music learning, the informal assessment that goes with learning is rarely punitive.[8]

And Green was writing in 2002, a year before the founding of Myspace, the first monster social network, three years before YouTube uploaded its first video, and at a time when high-quality digital photography and video were first making inroads with consumers beyond professionals and the most committed hobbyists.

Digital technology, its media almost infinitely rewritable and daily more efficient and affordable, continues to lower not just the barriers to entry but the costs of early, clumsy efforts. And as digital tools become not only simpler to use but more thoroughly woven into our lives, they become more and more like pencils or paintbrushes—extensions of our expressive appendages, rather than interfaces to be wrestled with. As Murai put it, in a slightly different spin on his reverie about filmmaking and language, "I learned English by being here, so I'm not thinking

about grammar and I'm not thinking about vocab. There's less of a machine between my intent and what I say. I took French for four years in high school; I can't say a sentence in French without thinking, 'All right, so the conjugation for that word is …' I think it's all about removing all the filters between intent and what you're expressing."

Indeed, in his lifetime, Murai has seen technology brought to a point where a camp like OMG! is possible with little planning or funding. He conceded that such a camp might not have been possible when he was twelve: "Technology-wise, probably not. I mean, maybe, maybe. It would have been a lot harder, and I think part of what made … OMG! work was just that we did approach a lot of things in a haphazard way just because we were just starting out and we had to make things work. And the only reason that worked is because we had the technology to kind of back us up. If we thought of doing something spontaneously one day, we had the ability to kind of gather up cameras or iPhones or GoPros, and all we have to do is just sit in the editing room with five laptops and get it done." (A flashback from the opposite end of the spectrum: the blogger Douglas Klinger, who attended and wrote about OMG!'s second session in 2012, recalled a filmmaking camp from his own Gen Y childhood: "I don't know about you guys, but when I was a kid, I went to a camp that was also supposed to teach kids how to make movies. And the main thing I remember about that camp was kids weren't allowed to touch the cameras.")[9]

More important, according to Ravishankara, was not just that a critical mass of technology was easily harvested from among the directors' (and sometimes campers') personal inventories but that counselors and campers alike were able to take a large degree of familiarity for granted. "There's a certain degree to

which the technology is just there, it exists, but you don't have to understand it, and you don't have to be a master of it," he told me. "Fast-forward a few steps [and] it really becomes apparent, where these kids just have cameras and have things that can make stuff, and they don't really ever have to understand how it works, and they don't have to respect it as technology in the way that we were raised respecting technology as this valued product of science."

"Valuable" Activities

Digital technology also provides more opportunities than ever before for these experiments and processes to be normalized and supported by interest-based networks, where peers and near peers can help learners place their early efforts on a continuum of progress toward fluency rather than a dialectic of all-or-nothing mastery. These "peer-based economies"[10] range from the well-known (YouTube, Funny or Die, Machinima, SoundCloud, MAKE) to the less well-known (YOUmedia, Vimeo, Skate Videos Online, Antville) and on some occasions include real economies, as in the case of Kickstarter, Etsy, Bandcamp, or Lulu. As networks that value economies of experimentation accrete around common interests, the experiences of individuals in that network, who have given serious, pleasurable pursuit to activities that might seem "meaningless" to culture generally, are writ large. The macro thrust of this accretion is the realization and assertion that these activities are "valuable"—and often, to translate that value into the most common form of "aspirational trajectory"[11] that modern culture has, the most serious practitioners of these activities begin to find a way to make a living at them.

From pickling to quilting to electronic music to Arduino, as the economics journalist Adam Davidson remarked of a Brooklyn-based boutique beef jerky retailer in the *New York Times Magazine* in February 2012, "We're entering an era of hyperspecialization. Huge numbers of middle-class people are now able to make a living specializing in something they enjoy, including creating niche products for other middle-class people who have enough money to indulge in buying things like high-end beef jerky."[12] The remarkable thing about OMG!, however, is that even as its counselors have benefited from the cultural forces that allow this hyperspecialization, the second thing OMG! was deliberately trying to do—after creating a culture that valued process and eschewed "rightness" or "wrongness"—was to *avoid* any sense that the campers were engaging in skills that could lead to a career.

As Ravishankara explained, "When we were trying to figure out what age of kids to reach out to, one thing I felt was really important was how young can we get kids involved so we can be productive making things?" In other words, "I wanted to be as far away from any sense of thinking, 'I want to do this for a living' in a tangible way or an advantageous way. … So we settled on ten to twelve. … How young can we get kids so they're not thinking about it being a professional thing?"

But why? Ravishankara, Murai, and all of OMG!'s other directors are just as pleased as the picklers, quilters, and jerky vendors to be making a living at what they love. But again and again, the counselors touched on wanting to work with kids to sidestep the trappings of professionalization. They repeatedly invoked a sense of needing reinvigoration in their craft, and specifically that the need for their artistic considerations to be intertwined with business concerns weighed on them over time—despite

none of these directors being more than eight years out of college, let alone into their careers. If they've figured out how to translate a lifelong hobby into a stable career, why wouldn't they want to pass along that skill as much as the rudiments of cinematic problem solving?

The *Saturday Night Live* sketch quoted at the beginning of the chapter provides a stark example of what Ravishankara and company felt they were working against; our current conception of process-oriented creativity blurs when shot through with the notion of a livelihood. Where OMG! aimed to strip notions of success or failure away from process and to ignore the looming question of employability, "You Can Do Anything!" communicates more mainstream notions of what constitutes a "valuable" activity. When one of the guests states that he'll be performing a song he wrote based on a poem he wrote, the hostess beams, replying, "Oh, good, because the world needs more singer-songwriters, and fewer doctors and engineers."

To even consider this statement on its own merits, we first have to ignore that it was delivered by a career actress and written by a professional comedian operating at the apex of his or her field—which makes this unfortunately unsurprising formulation all the more maddening, and saddening. In it, expression is cast as diametrically opposed not just to practicality or systematic knowledge but to the ability to make a living, and specifically one that benefits others. As Gross puts it, his parents' undiscriminating acceptance of his early paintings and drawings, while kind, still carried a firm and lasting secondary message: "I understood very well my father's sympathetic comment that although being involved in art was nice, I did need to understand that it wasn't possible to make a living at it (I was about seven at the time and not yet pressed to make a living)."[13]

Gross further observes: "The acquisition of sophisticated competence in any symbolic mode requires an enormous investment of time and effort. The basic modes we all learn absorb most of our time and energies as infants, but, of course, we do not assess the activities of young children in terms of productivity. Beyond infancy, however, time is a scarce commodity and must not be squandered too freely on the acquisition of nonremunerative skills (as my father informed me)."[14]

As digital technology makes creative expression simpler, less dependent on specialized training, yet no less improved by dedicated practice than ever, more and more adolescents, students, and adults will likely turn toward creative pursuits for their livelihoods. The fact is that many more could find satisfaction in creative careers than will, and many, many more could find satisfaction in just plain creative pursuits-as-pursuits—but we must find a less frivolous basis on which to discuss, encourage, and support these endeavors. This is what OMG!'s avoidance of the language of professionalization contended: not that their campers couldn't be ready to think of filmmaking as a job but that they shouldn't have to; that at the center of any successful, truly engaged pursuit or livelihood should be process, a lack of "wrongness," and the ability to explore before meaningfulness is necessarily apparent. And as digital technology helps dissolve the borders between personal hobbies and professional careers, the critique made by OMG! is already being echoed by the jerky makers, picklers, quilters, and Arduino devotees, just as it was instinctually experienced by Murai in his time at USC—all recognizing that hyperspecialization differs from traditional professional specialization in its recognition of process as much as of a viable hyperniche market. As James Paul Gee notes, "There really is no such thing as learning 'in general.' We always learn

something."[15] And we learn it in the presence—whether physical or digital—of others. Creative communities of practice are blazing the trail toward a new model for learning—reinventing apprenticeship via networked, informal knowledge communities. What if budding astrophysicists had a way to experiment and imagine in the digital presence of NASA engineers, or putative architects had a safe way to make their first halting efforts in the company of near peers—as repeatedly as is possible for digital producers any second of the day on YouTube, Vimeo, Machinima, Funny or Die, SoundCloud, or Etsy?

Collaboration and Reciprocity, Habituation and Holisticism, and the Cultural Capital of Creative Lifelihood

Whether peer and near-peer learning communities unite around film or pickles, marathon running or alternative fuels, such communities evidence a joint-undertaking process between learners and more experienced practitioners. OMG!'s fundamental language evoked this: both campers and counselors were called directors from the moment the camp began, a system that, to quote Elisabeth Soep, "violated the most traditional conceptions of teaching and learning, where the teacher holds and hands over knowledge, and the learner receives that information and then awaits a teacher's evaluation and grade."[16] Indeed, as Ravishankara recounted, the first two days of the camp entailed an unworking of the one-way instruction routines the campers expected.

As he told it, on the first day of the camp, selections of the directors' work were played, meant to provide fodder for ideas or curiosity about specific techniques. After the screening, Ravishankara said, "We were like, 'Hey, what do you want to do?, And

the kids were like, 'I don't know,'" not only timid but used to being provided with activities by their instructors. "So you had people like Dan Scheinert," a twenty-six-year-old director who, in the five years since he and his directing partner graduated from college, has won the UK Music Video of the Year award,[17] been nominated for a VMA[18] and a Grammy,[19] and become something of an all-around music video, comedy, and VFX community darling, "who were like, 'Cool, I'm gonna take this camera, I'm gonna shoot this, you go over there and run toward it and jump at a specific time. You're gonna jump in a specific place, and we're gonna run around you and shoot a bunch of pictures so it'll be animated.' The kids were like, 'I don't know what that means, but okay, you're telling me what to do,'" pleased to fulfill what was being asked of them.

Ravishankara was the only director who wasn't actively involved in the directing groups, which provided an externalized organizing voice that allowed the kids and the rest of the adults to work in relative parity, posing problems and proposing solutions in a give-and-take between all group members. By "the second day, the kids were like, 'We did that special effect yesterday, I want to do this and that.' The amount of response that we had to this method of working *with* kids was way different to anything I'd ever seen before in any tutoring or teaching situations," he said. "It was because we had groups of five kids—two of them happened to be professional directors, and three of them happened to be twelve-years-old—and they're all doing the same thing. I would give them projects, and the group of five people would make the project. … By the third day everyone was on board, and it was literally collaboration rather than top-down instruction. They're learning by doing as opposed to learning by teaching."

In its weeklong life span, OMG! displayed every facet of this kind of networked collaboration, which doesn't just stop at letting younger partners make decisions but demands full "reciprocity"[20] in multiple directions: feedback not just between learners and near peers but between peers themselves; an onus on more experienced practitioners to share knowledge with, experiment with, and give guidance to their less experienced peers; providing the self as audience (and therefore motivation) for others' learning and accomplishments; all participants' recognizing and promoting good work within the knowledge community; and providing "aspirational trajectories" by example of what can be accomplished by advanced learners, from hobby to informal recognition to formal mastery to employment.

This, of course, is Yasmin Kafai's "users/newcomers/oldtimers" rubric enacted through intuition by a group of creative practitioners.[21] It is also closely akin to Elisabeth Soep and Vivian Chávez's theorization of the production of learning, "collegial pedagogy."[22] Even an exercise as simple as "Horsie" evinces all three conditions that Soep and Chávez lay out as necessary for collegial pedagogy, and theirs is a particularly useful tool to unpack what was happening between the counselors and campers, directors all, at OMG!. Soep's first concept, "collaborative framing,"[23] occurred in two steps: when Ravishankara delivered the assignment—take fifteen minutes to create a ten-second short film—and when the campers landed on a story about a horse that turns into a man. As O'Neal worked with the campers to confront the challenges of their story's development—when it was determined that a bear statue was a perfectly suitable replacement for a horse, and O'Neal a perfectly useful replacement for a bear statue, and as O'Neal efficiently guided capturing the minimum shots needed to tell the story—"youth-led inquiry" took

precedence.[24] Soep's final condition, "public accountability,"[25] is trickier but not impossible to identify in "Horsie."

Beyond delivery of a final media product, Soep strives to inculcate "strategic thinking about the potential intended and unintended consequences of the story young people and adults collaboratively produce," and of a "need to find the language to express a rationale for [editorial] choices, in public, to convince collaborators that their judgments are right."[26] In working with an adult as a peer from the conception of their story, OMG!'s adolescent directors took on the difficult process of defending, promoting, or reconsidering their ideas and impulses in front of an audience that, in a more traditional setting, would have held a more inequitable amount of power. It is significant, however, that OMG! largely lacked Soep's more social-justice-oriented accountabilities—most likely because much of media and media education does as well.

If OMG!'s counselors do not see these accountabilities as a majority responsibility of their roles as creators, it is largely because, as shoddy as the instruction toward process rather than product might be in standardized education, conversations about social accountabilities, and the way media carries these messages, are even worse. The preponderant social concerns of early twenty-first-century America trickled down into OMG! as much as OMG!'s counselors had absorbed them into their working mind-sets: all but one counselor was male, but half of the recruited campers were female; a minority of campers were Caucasian, reflecting the makeup of the Los Angeles Unified School District, though the ratio of minorities was higher among the campers than the counselors; Ravishankara insisted the camp be free not just to accommodate underserved students but to take cost out of the equation for all students; and storytelling was free

but not required to reflect on its social impacts, negative or positive. Soep's concerns are an area ripe for improvement as both learning and hegemonies of privilege rapidly decentralize—and her insistence in the conscious inclusion of these concerns at the core of collegial pedagogy is a correct prescription for education in the digital era, which has the potential to grow "as a process of guiding kids' participation in public life more generally."[27]

This is the final, quietly revolutionary, gift that communities of practice offer: not just something to learn, and people to learn it with, but how to make it part of one's life, fully, meaningfully, and long term. Just as we speak of cultural capital in terms of exposure to creative activities and technologies within the home, so there is the capital of *habituation* and *holisticism*, which will only increase in value in the borderless digital age. The skills of how to habituate oneself to new experiences and how to draw knowledge from one area of experience to another only become more precious among cascading hyperlinks, social networks, apps, and interfaces.

Directly to this point, Ravishankara traces his impulse toward collaboration and reciprocity not to the craft-laden world of music video sets but to his childhood as the son of scientists. "My mom's a doctor and my dad's a chemist, but I just grew up, especially with my dad, just always being asked questions about stuff. Always asking him questions, and he always knew the answer to everything, and then him always asking me questions, never just telling me, 'This is how you do it,' but asking me, 'Hey, how do you do this?'" Whether children grow up with this in the home or not, interest-based networks can and do provide this grounding; recall the critical intervention that Ace Norton's DIY film set provided for Hiro Murai, who had superlative creative support from his parents but still needed a near peer to

show him how to bridge his advanced technical skill sets back to a process-based creative practice in the context of an interest-based community. Both these young men, along with their fellow OMG! counselors, sought to provide their process as tacit examples not of specific *livelihoods* for their young campers to pursue but of *creative lifelihoods* they could translate into any path they chose to follow.

The example of OMG!—of Gen Y creative professionals retracing their learning by reaching out to digital native tweens and adolescents—provides a significant lesson about content. In education in the digital era, just as in digital entertainment, production, and communication, the most fungible component is content. The irreplaceable components are processes—how to search, how to learn—and function best when they are self-motivated, or motivated by interest-based networks that feel only marginally removed from the borders of the self. OMG!'s example, borne out not just in the success of its counselors' careers but in their struggle to make those careers philosophically satisfying, begs that we trust that our digital natives are already literate in searching for what they want to learn, and that we find new words—beyond right, wrong, meaningful, meaningless, job, inessential, serious, or frivolous—to describe and support the diverse outcomes of the processes they undertake on the path to fluency.

4 Conclusion

The goal of this report is to marry my empirical experiences as a film and music video producer and those of my Gen Y creator-peers with a theory of how learning happens in the digital era. What began as an observation on the changes of a pop cultural form that had migrated from the television to the Internet led quite naturally to discussing the media habits and practices of millennials and digital natives. As I found myself reading theories on digital media consumption and literacy, I felt something lacking in the conversation: not the interviewed voices of Gen Y and Gen I gamers, cosplayers, fan fiction authors, and machinimists, who have been canvassed broadly in DML literature, but a wider conversation addressing how the same practices are actively engaged by and benefit more than the hallowed "geeks."

I have often wished I was a geek, but the geekdoms of my acquaintance were decidedly more analog or mainstream. As a teenager, I watched friends who were able to pick up any guitar or sit down at a piano and pick out a tune. I spent whole summer nights, which turned into weeks, in a haze of mystification and boredom, watching guy friends effortlessly flip hacky sacks or determinedly master a new skating trick. After college, I witnessed the friends who never stopped playing in bands, editing

Web videos, or doing stand-up comedy transition almost overnight into paid professional musicians, music video directors, and sitcom writers. Digital technologies and communities absolutely helped these geeks deepen and leverage their crafts.

At the same time, however, friends who have pursued "normal" careers or lead "nondigital" lives are still availing themselves of the same digitally abetted practices—committing themselves to learning about and improving at a range of activities from gardening to triathlon to woodworking, as well as deepening long-term consumptive interests, from music to cinema to art criticism. I developed a skeptical boosterism about the geeky bias of the DML community—as someone who has experienced the changes wrought by digital technology over the entirety of my conscious life, I felt a sharp disconnect between the niche specializations being aptly described and the more prosaic ways the majority of my peers access and exploit digital capabilities. How can we use the findings of the DML community to benefit all if we are discussing an extraordinary few? Or how can the informal digital practices of two generations—at root a process of searching, and almost always a process of learning—be used to ask for new modes of formal education?

In response to these self-imposed questions, I have attempted to break down the arena of my own professional specialization into three universal modes of activity: form, practice, and literacy.

Form describes music video as a communicative object. Here the object is seen as an exteriorized product, whether it is being consumed or created; it is a product that changes according to the cultural preoccupations of the time in which it is created. The form of music video, more than many related cultural forms, has always been heavily impacted by the active media habits of its

consumers. In the 1980s and '90s, when music video was a product of an other for the vast, vast majority, the codes and rules of the form were dictated in lockstep with the production cycles of music video's communicative relatives: the recording, television, and film industries (codification and personalization). Over the course of the nineties, as independent recording and film proliferated—as the objects of music and film were created by an other increasingly close to the self—and gained mainstream market footholds, the expectations for the form shifted and got weirder, wider, and woollier (auteurship and alternativism). The advent of P2P technologies in the late nineties, which allowed audiences to seek pop cultural interests even farther afield with greater ease, broadened this verdant rift in and draft away from the mainstream music video form (stagnation and dissent). In the first decade of the twenty-first century, the ease of digital production for the average user caught up with digital consumption; the object could now, in fact, be produced by the self without specialized knowledge or technology. Commensurate with this shift, the bleeding edge of the form became less predictable, more adventurous in concept, but often at odds with the notion of an avant-garde we would usually expect to see at a time of formal innovation, attempting to appeal to as many people as possible (instability and motivated curiosity). At the time of this writing, a cultural form is still largely described as the product of its professional creators but is increasingly inflected by the productive capabilities of its consumers.

I have attempted to legitimize these productive capabilities by terming them *practice*. Where *form* describes a product external to the self, *practice* describes a process intrinsic to the self. As exemplified by Hiro Murai, music video makes the leap from form to practice during the sustained pursuit of its creation. This

process begins in moments of motivated curiosity—the desire to learn about something, and specifically a desire strong enough that the self can absorb any obstacles to this desire as part of the process of learning.

I call the first step in this process of self-education "learning to search," and it is achieved when learners become aware of their desire and begin to implement answers to their curiosity. Learning to search happens within the frame of a Web navigation bar, in the physical wilds of printed or recorded media, and among the expertise of interest-based acquaintances, as well as in other contexts. It connotes an openness of commitment—that the attitudes and allegiances of the searcher can remain undecided until their initial curiosity is satisfied, at which point the searcher can deepen or abandon the search. Most important, learning to search is a refinable and redeployable skill; searchers can become more proficient in searching in a given domain or can recontextualize their skill as a searcher in domains beyond their expertise.

Once learners have learned to search, they have given themselves the basis of the second step in this process: searching to learn. Where learning to search helps satisfy initial curiosities or identify paths to be explored, searching to learn uses the skill of searching in the name of deepening a curiosity or navigating farther down a path. Searching to learn often connotes an existing commitment to these interests or skill sets, a familiarity with the given domain that can now be exploited to help focus this deepening. However, like learning to search, searching to learn is necessarily a skill that can be refined and redeployed, and as such, a learner does not necessarily require familiarity with a domain to begin this process—he or she can carry over search-to-learn skills from previous domains to more efficiently plumb a new one.

The repeatable and complementary processes of learning to search and searching to learn combine into a third step in self-motivated knowledge: learning to learn. This is the process of teaching oneself how to learn: how a learner identifies something he or she wants to know, how to seek out methods or information about that subject, and finally how to supervise himself or herself into literacy—and potentially fluency—in the given subject. Learning to learn connotes a commitment to knowledge in itself, beyond the first stirrings of curiosity, and farther than the continued strains of effort. Mastery and comprehension are the goals of learning to learn; whether the learner has sought the finite answer to a simple problem, a skill that can be used as part of a larger project, or a sweeping philosophy or undergirding technology, the goal of learning to learn is necessarily the initial motivated curiosity's being made whole. Just as in the first two steps of the process, so learning to learn self-perpetuates. Literacy begets fluency, fluency begets nuance, and nuance creates curiosity.

Which leads to discussing the difference between literacy and fluency, especially in our techno-educationally excited moment. James Paul Gee's definition of literacy is deeply useful and is a revelation that inspired much of my own thinking. By Gee's definition, I am literate with a camera: I understand or at least feel I am capable of interpreting the communicative intent of formal and informal photographic images, and I can take pictures not just with some modicum of technical skill but in a way that can point a viewer toward my own communicative agenda. This is a worthy employment of the term "literacy," as it legitimizes the intent and achievements of my informal efforts, which are on a par with the vast majority of those with whom I am likely to be communicating. I am not, however, fluent with

a camera; I cannot, or at least don't feel confident that I can, use complex photographic technologies or communicate complex meanings with a camera. To intervene with help from Elisabeth Soep, I am not confident of my "point of voice," and so I am unlikely to exercise my artistic, economic, or political rights via photography.

Standardized education has long focused on literacy, because it is easy to break into rubrics: lists of skills and benchmarks that together make up competency. I argue for a distinction between literacy and fluency not because literacy is insufficient but to demarcate those skills we all take up because we are asked to and those that we take up because we ask ourselves to.

All learners understand the processes that lead them to fluency, largely because a desire to be fluent motivates us to true comprehension—and in the digital era, children, tweens, and teens have made themselves fluent, time and again, in a variety of technologies, communicative modes, interfaces, interests, and activities. The cycles of learning to search, searching to learn, and learning to learn are used universally to everyday "informal" digital and nondigital ends: music, fashion, sports, TV, cooking, travel, socializing, fund-raising, and so on. In much the same way as practice, informal activities are usually intrinsically motivated, though these motivations are often peer influenced and part of a social context of the self. Because of this intrinsic curiosity and the site for social contact these activities provide, informal activities are often more deeply experienced and explored than formal learning; compare the average teenage video game player with the average high school French student, and compare the average high school French student with the average Francophilic, Paris-besotted French student.

Educators and parents must draw parallels between the value and processes of informal activities and formal learning and working in the digital era. I propose the term "valuable" activities to denote interests that might otherwise fall outside the spectrum of formal education or prospective employment but are nonetheless the object of a learner's sustained, pleasurable pursuit. The quotation marks remain around "valuable" to remind us of our knee-jerk response to dismiss such activities as frivolous or superfluous and thereby often miss whether they are being undertaken by our learners in a meaningful process (habituation) or with the force of a practice (holisticism)—both of which are skills, themselves literacies, that are transferrable to an infinite number of contexts and contents.

We must also give due weight to the impact of the interest-based networks that collect around "valuable" activities. Cultural capital in the home provides not only access and space for technological and expressive fluency but also models—in the form of parents and often siblings—for how to search, learn, sustain a pursuit, and develop a practice. Near peers, who fill the gap between tangible colleagues and distant idols, provide the same modeling but with the advantage of providing it in the exact domain to which a learner aspires, which may or may not be the case within the family. Near peers and learners together make up the process of apprenticeship learning, which is a dialogue with productive and reflexive value for all participants, and which occurs in informal knowledge communities more readily than in the traditional hierarchies of formal employment and education. Near peers also model more than a literacy but a method of meaningfully integrating that literacy into one's life, which can be achieved through a livelihood but does not have to be—a state that I term *lifelihood*.

Near peers, apprenticeship learning, peer economies, knowledge communities, communities of practice—all derive their collective regenerative force from the same source as each individual participant. Motivated curiosity brings a learner to a community, and a community toward itself. It can bring a learner to a science lesson on wavelengths of light as easily as to a camera, to a history textbook with as much force as to a Facebook timeline. Digital technology has reduced the borders between literacies to hyperlinks and touch screens. It is our job as educators in the digital era to analogize what our learners do on their own to what we would like them to do—to understand and value what their curiosity has motivated them to search out, and to learn.

Notes

Introduction: From MTV to OMG!—Music Video as Form, Practice, and Literacy

1. The sense of awe my family had at watching a video on a computer was not unique: on the YouTube comment thread for "Buddy Holly," one user writes, "Windows 95! I still remember being so amazed 'The computer can play … videos?!!!!!'" A commenter on the thread for Edie Brickell's "Good Times, Bad Times," the other video included on the CD-ROM, writes, "I love this song and video, mostly for the Windows 95 nostalgia it brings. When I first saw this video, it was still an amazing thing to see full-color, hi-res video playing on a computer." Another user writing on the same page boils his entire commentary on Brickell's video down to two words: "Windows 95."

2. Stephen Manes, "Personal Computers: What Is Windows 95 Really Like?" *New York Times*, August 1, 1995.

3. Lucy Green, *How Popular Musicians Learn: A Way Ahead for Music Education* (London: Ashgate, 2002), 5.

4. Ibid., 2.

5. Ellen Seiter, "Practicing at Home: Computers, Pianos, and Cultural Capital," in *Digital Youth, Innovation, and the Unexpected*, ed. Tara McPherson, the John D. and Catherine T. MacArthur Foundation Reports on Digital Media and Learning (Cambridge, MA: MIT Press, 2008), 28–35.

6. Larry Gross, "Art and Artists on the Margins," in *On the Margins of Art Worlds*, ed. Larry Gross (Boulder: Westview, 1995), 6 (italics in original).

7. Seiter, "Practicing at Home," 27–52.

8. "It makes no sense to add 'converged media literacy' as yet another requirement young people need to meet if they are to qualify as full-blown citizens, without addressing the vast disparities in their access to the tools, networks, and experiences that prepare them to exercise that citizenship. When young people are only selectively initiated and integrated into the processes and practices of converged literacy, their lives and stories are missing or misrepresented in the public sphere." Elisabeth Soep and Vivian Chávez, *Drop That Knowledge: Youth Radio Stories* (Berkeley: University of California Press, 2010), 47.

1 Form: A Short History of the Music Video

1. "Timeshifted TV" was a phrase I had not encountered before Nielsen used it in their quarterly Cross-Platform Reports, available at http://www.nielsen.com/us/en/reports/2012/state-of-the-media--cross-platform-report-q1-2012.html.

2. "ComScore Releases June 2013 U.S. Online Video Rankings," comScore Inc., http://www.comscore.com/Insights/Press_Releases/2013/7/comScore_Releases_June_2013_U.S._Online_Video_Rankings.

3. YouTube user raygunsally has curated a great playlist of these video booth karaoke videos, spanning from 1990 to more recent recordings, and from Brockton, Massachusetts, to Georgetown, West Malaysia. I have a personal soft spot for YouTuber richfoty's upload of his family's version of the Rolling Stones' "Satisfaction," recorded in 1990, at an amusement park noted as "Wonderland": http://www.youtube.com/playlist?list=PL44AB115AEE7D5947.

4. "Billboard 200: Week of August 21, 2010," *Billboard*, http://www.billboard.com/charts/billboard-200#/charts/billboard-200?chartDate=2010-08-21.

5. "Nominees and Winners: Album of the Year," the Recording Academy, http://www.grammy.com/nominees?year=2010&genre=All.

6. Josh Sanburn, "The 30 All-Time Best Music Videos," *Time*, http://entertainment.time.com/2011/07/28/the-30-all-time-best-music-videos/slide/arcade-fire-we-used-to-waitthe-wilderness-downtown-2010/#arcade -fire-we-used-to-waitthe-wilderness-downtown-2010.

7. "Arcade Fire, 'The Wilderness Downtown,' an interactive film by Chris Milk, featuring 'We Used to Wait,'" http://www.thewilderness downtown.com).

8. Jake Coyle, "Left for Dead by MTV, Music Videos Rebound on the Web," *Associated Press*, September 12, 2010, http://www2.ljworld.com/news/2010/sep/12/left-dead-mtv-music-videos-rebound-web/. Coyle is not the only journalist to beat the dead video horse; this theme crops up again and again in music video journalism, including Sanborn's *Time* piece from 2012. Sanborn introduces his write-up for OK Go's 2006 viral hit "Here It Goes Again" thus: "In 2006, the state of the music video was bleak. MTV had all but abandoned the art form."

9. "ComScore Releases January 2010 U.S. Online Video Rankings," http://www.comscore.com/Insights/Press_Releases/2010/10/comScore_Releases_September_2010_US_Online_Video_Rankings.

10. There are actually five eras, if we include the proto- or pre-MTV musical visual forms of Vaudeville's illustrated song, the post–World War II Scopitone, and the midcentury pretaped promotional clip—none of which will be discussed here but make for a fantastic rabbit hole for the reader to explore. Amy Herzog's essay "Illustrating Music: The Impossible Embodiments of the Jukebox Film," in *Medium Cool: Music Videos from Soundies to Cell Phones*, ed. Roger Beebe (Durham: Duke University Press, 2007), is a great place to start, as are http://www.scopitonearchive.com and http://www.youtube.com/user/ScopitonesDotCom.

11. Andrew Goodwin, *Dancing in the Distraction Factory: Music Television and Popular Culture* (Minneapolis: University of Minnesota Press, 1992), 30–37.

12. Ibid., 35–36; as well as Roberta Cruger, former senior clip evaluator, MTV (1981–1984), conversation with author, March 15, 2011.

13. Roberta Cruger, conversation with author, March 15, 2011.

14. Any number of the iconic "I Want My MTV" promos are viewable at YouTube, all beginning with Cyndi Lauper, David Bowie, the Police, or other durable pop icons exhorting viewers, "Turn it on, leave it on," or "America, demand your MTV!"

15. I use the terms "hanging out" and "messing around" here in the sense defined in Mizuko Ito et al., *Hanging Out, Messing Around, and Geeking Out: Kids Living and Learning with New Media*, the John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning (Cambridge, MA: MIT Press, 2010).

16. Heather A. Horst, Becky Herr-Stephenson, and Laura Robinson, "Media Ecologies," in Ito et al., *Hanging Out, Messing Around, and Geeking Out*, 54.

17. Ibid.

18. Ibid., 54, 57, 62.

19. "Spike Jonze, Chris Cunningham, Michel Gondry, and Palm Pictures Present the Directors Label," *Business Wire*, June 12, 2003, http://www.thefreelibrary.com/Spike+Jonze,+Chris+Cunningham,+Michel+Gondry+%26+Palm+Pictures+Present...-a0103111975.

20. An indulgent personal digression: My own strongest memory of *TRL* dates from 1998—I would have been fourteen and already fancied myself a committed punk and so never cast a vote; still, *TRL* was on in the background as my friends and I whiled away the time after school. Though I didn't deign to contribute to *TRL*'s polls, I fittingly recall that I was online, talking via IM to a boy in Minnesota, making fun of the pop acts trotting across the stage, and hatching subversive fantasies that nevertheless engaged the *TRL* system—specifically how amazing it would be to be able to summon enough votes to push the bands we *did* love to the top of the countdown. Occasionally bands that we approved of did make it onto the *TRL* charts, which provided polysemic moments

of vindication and revulsion, visions of a world we wished could exist while we took pride in carving our own world out of what we were given.

21. Ben Sisario, "Totally Over: Last Squeals for 'TRL,'" *New York Times*, November 18, 2008.

22. Anne Becker, "MTV Favors 'YouRL' Swap for 'TRL,'" *Broadcasting and Cable*, April 30, 2007, http://www.broadcastingcable.com/news/news-articles/mtv-favors-'yourl'-swap-'trl'/82534, reports 782,000 as a peak in 1999, while Erin Carlson of the *Huffington Post* reported a peak of 757,000, also in 1999. Erin Carlson, "TRL Canceled: MTV's 'Total Request Live' to Conclude in November," *Huffington Post/Associated Press*, September 15, 2008, http://www.huffingtonpost.com/2008/09/15/trl-canceled-mtvs-total-r_n_126619.html.

23. "The TRL Archive: Recap, June 2006," ATRL.net, http://atrl.net/trlarchive/?s=recap&y=2006&m=06.

24. "The TRL Archive: About TRL," ATRL.net, http://atrl.net/trlarchive/?s=about.

25. Becker, "MTV Favors 'YouRL' Swap for 'TRL.'"

26. Yvonne Villareal, "Fans rocked the vote on MTV's 'TRL,' which wraps Sunday," *Los Angeles Times*, November 15, 2008.

27. Ibid.

28. Howard Becker, "Art Worlds and Collective Activity," in *Art Worlds* (Berkeley: University of California Press, 1982), 28.

29. "MTV Music Meter BETA," Viacom International Inc., http://www.mtvmusicmeter.com.

30. "Billboard Charts—Social 50," Billboard, http://www.billboard.com/charts/social-50#/charts/social-50.

31. "Pitchfork Reviews, Recent, Most Read" (sidebar), Pitchfork Media, http://pitchfork.com.

32. Denise Martin, "MTV Drops 'Music Television' from the Network Logo," *Los Angeles Times*, February 8, 2010.

33. Green, *How Popular Musicians Learn*, 5.

34. Seiter, "Practicing at Home," 33, 34.

35. James Paul Gee, *What Video Games Have to Teach Us about Learning and Literacy* (New York: Palgrave Macmillan, 2007), 120–121, 124–125; David Buckingham, Rebekah Willett, and Maria Pini, *Home Truths? Video Production and Domestic Life* (Ann Arbor: University of Michigan Press, 2011).

36. Holly Willis, "Voice, Performance, and Transience: Learning through Seesmic," in *Learning through Digital Media: Experiments in Technology and Pedagogy*, ed. R. Trebor Scholz (Institute for Distributed Creativity, 2011), 172.

2 Practice: Curiosity to Fluency in the Career of Hiro Murai

1. "VMAs 2010: Lady Gaga and Eminem Top This Year's Nominees," Viacom International Inc., last modified August 3, 2010, http://buzzworthy.mtv.com/2010/08/03/2010-mtv-vma-nominee-list-lady-gaga-eminem.

2. It seems likely that with the Murai family's overall cultural aptitudes, they would have created much the same atmosphere even if Murai's father was not explicitly making a living in a creative field. "In some cases, parents lend support to their children's endeavors by helping to provide material and emotional infrastructures that enable them to develop their skills and visibility." Patricia G. Lange and Mizuko Ito, "Creative Production," in Mizuko et al., *Hanging Out, Messing Around, and Geeking Out* (Cambridge, MA: MIT Press, 2010), 288.

3. Horst, Herr-Stephenson, and Robinson, "Media Ecologies," in *Hanging Out, Messing Around, and Geeking Out*, 167–170.

4. Buckingham, *Home Truths*, 65. "In terms of identity, participants who video mainly for more private purposes tend to see themselves as family archivists rather than as video makers; whereas participants who are more publicly oriented seem more comfortable taking on the identity of a 'serious' video maker. And in terms of learning and film gram-

mar, private practices tend to be less concerned with components such as composition, editing, or even lighting, whereas public practices tend to involve a more developed form of media literacy."

5. Lange and Ito, "Creative Production," in *Hanging Out, Messing Around, and Geeking Out*, 280–281, 284.

6. Green, *How Popular Musicians Learn*, 209–210.

7. Mizuko Ito, introduction to *Hanging Out, Messing Around, and Geeking Out*, 16.

8. Martin Lucas, "The Virtual Cutting Room," in *Learning through Digital Media: Experiments in Technology and Pedagogy*, ed. R. Trebor Scholz (Institute for Distributed Creativity, 2011), 206–207.

9. Yasmin B. Kafai and Cynthia Carter Ching, "Children as Instructional Designers: Apprenticeship and Evaluation in the Learning Science by Design Project," in *Curriculum, Plans, and Processes in Instructional Design: International Perspectives*, ed. Norbert M. Seel and Sanne Dijkstra (Mahwah, NJ: Erlbaum, 2004), 116–117.

10. Ibid., 116.

11. Soep and Chávez, *Drop That Knowledge*, 24.

12. Ibid., 89. Indeed, Soep expands the notion of "point of voice" away from the specific arena of social justice and toward the general ability for coherent expression, a fundamental component of personal *and* political fulfillment: "To form a point of voice, young people need sustained opportunities to make meaning and media from their experiences—not to stop at a single story, a single burst of expression, a single chance to reach an audience. Media production is nothing if not iterative, and so is any effort to create social change. The one-shot approach not only limits the impact of the product; it also stops the learning process at a point when there is more to say and do."

13. Andrew Ross, *Nice Work If You Can Get It: Life and Labor in Precarious Times* (New York: New York University Press, 2009), 21.

3 Literacy: OMG! Cameras Everywhere

1. Hiro Murai, interview with author, February 10, 2012.

2. "Team Blue Glue," OMG Everywhere, http://www.omgeverywhere.org/shorts/team-blue-glue.

3. Gee, *What Video Games Have to Teach Us*, 20.

4. Ibid., 19.

5. Larry Gross, "Art and Artists on the Margins," in *On the Margins of Art Worlds*, ed. Larry Gross (Boulder: Westview, 1995), 14; quoting David Pariser, "Child Art," in *International Encyclopedia of Communications*, ed. Erik Barnouw (New York: Oxford University Press, 1989), 258–262.

6. Gee, *What Video Games Have to Teach Us*, 36–37, 175–176.

7. Yasmin B. Kafai, "The Classroom as 'Living Laboratory': Design-Based Research for Understanding, Comparing, and Evaluating Learning Science through Design," *Educational Technology* 45 (2005): 31–32.

8. Green, *How Popular Musicians Learn*, 209–210.

9. Douglas Klinger, "How I Spent My Summer Vacation: OMG! Cameras Everywhere 2012," IMVDb.com, http://www.filmedinsert.com/blog/2012/08/how-i-spent-my-summer-vacation-omg-cameras-everywhere-2012.

10. Mizuko Ito, "Work," in *Hanging Out, Messing Around, and Geeking Out*, 334–335.

11. Lange and Ito, "Creative Production," in *Hanging Out, Messing Around, and Geeking Out*, 284–290.

12. Adam Davidson, "Don't Mock the Artisanal-Pickle Makers," *New York Times Magazine*, February 15, 2012.

13. Gross, "Art and Artists on the Margins," 7.

14. Ibid., 8.

15. Gee, *What Video Games Have to Teach Us*, 23.

16. Soep and Chávez, *Drop That Knowledge*, 54.

17. "UK Music Video Awards 2011: Daniels, Canada, Us, Jonas Akerlund and Barry Wasserman take big honours at euphoric fourth UK MVAs," Promo News, http://www.promonews.tv/news/2011/11/09/uk-music-video-awards-2011-daniels-canada-us-jonas-akerlund-and-barry-wasserman-take.

18. "2011 MTV Video Music Awards: Best Editing Nominees," Viacom International Inc., http://www.mtv.com/ontv/vma/2011/best-editing.

19. "Fifty-fifth Annual Grammy Awards Winners: 80. Best Short Form Music Video," the Recording Academy, http://www.grammy.com.

20. Ito, introduction to *Hanging Out, Messing Around, and Geeking Out*, 22. "Peer-based learning relies on a context of reciprocity, in which kids feel they have a stake in self-expression as well as a stake in evaluating and giving feedback to one another. Unlike in more hierarchical and authoritative relations, both parties are constantly contributing and evaluating one another. Youth both affiliate and compete with their peers." Ito further notes: "When kids have the opportunity to gain access to accomplished elders in areas where they are interested in developing expertise, an accessible and immediate aspirational trajectory that is grounded in an organic social context can be created" (351).

21. Kafai and Ching, "Children as Instructional Designers"; Kafai, "The Classroom as 'Living Laboratory.'"

22. Soep and Chávez, *Drop That Knowledge*, 57.

23. Ibid., 58–63.

24. Ibid., 63–69.

25. Ibid., 69–78.

26. Ibid., 58.

27. Ito, conclusion to *Hanging Out, Messing Around, and Geeking Out*, 353.