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Digital Storytelling and Authoring Identity

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<u>Introduction</u>

In this chapter, we explore how one form of multi-media self expression, digital storytelling, presents new possibilities for identity formation. Today access to complex digital authoring technologies are available to a growing number of people who are now able to present stories about themselves and their communities to a potentially huge audience through the internet. Through these stories, places once strange and impersonal take on a human face, individuals previously identified to local majorities mainly through categories such as "undocumented immigrant" or "HIV positive" emerge as individuals to new audiences, and the creators of the stories acquire greater agency in respect to their own identity at the same time that they learn about digital authoring. Our interest here is mainly in how the processes of authoring these stories and their distribution to audiences become a resource in the authoring of identity and changing the relationship of author and audience.

<u>Digital Storytelling</u>. The term *digital storytelling* arose from a grassroots movement that uses multi-media digital tools to help ordinary people tell their own "true stories". The term has come to be used in journalism and media studies to refer to a broad variety of emergent new forms of digital narratives (web-based stories, interactive stories, hypertexts, and narrative computer games). In this chapter, our interest is mainly in the creation and dissemination of multi-media digital stories by groups and individuals outside of the commercial professional media.

Digital storytelling as an organized practice arose from the collaboration of Dana Atchley and Joe Lambert in Berkeley, California (Lambert, 2006). One of the stories in their initial workshop in 1993 was about Tanya, a woman struggling with AIDS, who died shortly before the story's screening. From that beginning, with its context of empowerment, the workshop approach to digital story production evolved into the Center for Digital Storytelling (CDS), making use of intensive workshops to enable people who normally lacked technical expertise and access to digital editing equipment to make

digital stories. Joe Lambert estimated that by 2008 some 12,000 digital stories had been produced in association with the Center for Digital Storytelling alone (Lambert, 2008).

Digital storytelling loosely inspired by the model of the Center for Digital Storytelling has expanded worldwide, but especially in the United States, Europe, and Australia, places rich in multi-media resources. Production often takes place in schools, universities, community youth centers, and multi-media centers such as CDS. The practice was introduced into the United Kingdom by Daniel Meadows of the Cardiff University School of Journalism after visiting the Center for Digital Storytelling in Berkeley. Beginning in 2001, Cardiff University and the BBC sponsored *Capture Wales* (Meadows, 2003), which at the time of this writing has some 404 digital stories available online. A subsequent BBC project throughout the UK, *Telling Lives*, is currently creating a large collection of digital stories by UK residents and making them available through the internet. There is also a project of the American History Workshop which supplies digital recording equipment in a small booth to museums, cultural centers, and libraries in which visitors can record their own personal stories (in "talking head" format) in relationship to exhibits. These digital stories can be made available online (www.tellinglivesblog.com). Telling Lives is also the name of an exchange of digital stories between a school in Norway and a school in Finland sponsored by the EU.

Digital storytelling that is facilitated in workshops usually has intentional social aspects to its development and performance. In the Center for Digital Storytelling, for example, ideas for stories arise and are shared in a "story circle" of individuals who frequently share a common experience (e.g., refugees from Somalia, teachers in urban schools, women who have experienced abuse) with strong norms of trust and mutual support (Lambert, 2006). At the end of the workshop, the individual stories are screened before the story circle. However, digital stories can range along a continuum of social involvement, from the story authored mainly alone as an act of autobiography or self-expression, to a collective effort to portray community or assert a shared perspective. Those emphasizing digital storytelling as an act of autobiography tend to view the activity as being primarily of service to the individual telling the digital story, an act linked to long traditions of theory and inquiry into the function of narrative in the construction of memory and identity. Those emphasizing the collective function understand digital storytelling as an act of group representation serving a political purpose for that group in being able to define who they are and to counter stories and impressions of them created by others, often others with greater power and resources. A recent example is a collection of digital stories by Somali Bantu refugees in Baltimore, Maryland (American Friends Service Committee, 2008) portraying shared history and personal experiences of that community. Both of these perspectives are linked by common themes of technology, learning, and identity, but there is a tension between the individual focus of the first and the collective focus of the second.

The collective practice of digital storytelling emphasizes the expression of shared identity. Participants may come together to create a single story, or parallel stories reflecting common features of their experience, culture, and political perspective. The practice is well represented by Thenmozhi Soundararajan, a woman of Tamil Dalit

heritage living in the United States. She developed a framework for community-based digital storytelling, and has worked with over 200 communities around the United States developing new media practices for that work (Lambert, 2006). She expresses concern that mainstream media portray negative images of third world communities and promote passivity and powerlessness, and she argues that third world communities need to produce their own media and define what images portray their experience. According to Soundararajan in an interview with Lambert (2006, p. 135), "The individualism of computer design is a reflection of Western heritage. It is part of the legacy of consumerism where there is an expectation that people will use their technical devices in the privacy of their homes, alienating and separating people from each other. The emphasis should be on communal use, sharing the resource, and on multiple users designing and integrating their work in relationship."

The Importance of Medium

At its core, a story is a sequence of events. But the same sequence of events, expressed as a written text, an oral telling, or a digital story combining voice narrative, visual images, and perhaps music and sound effects, can convey different messages to an audience. Each of these modal elements – voice, image, sound track – draws on its own implicit semiotic "grammar" (Kress, 2003; Kress & van Leeuwen, 2001). The same sentence spoken in rap cadence to a hip hop rhythm track conveys something about the speaker that is very different than the same words spoken slowly and very quietly. The phrase, "And then he left" illustrated by an image a man in a sports car conveys a different feeling than the same phrase illustrated by close-up an image of a drop of water slowly sliding down a rusty gate or a child sitting alone. In short, the multi-modal format potentially provides a much richer symbolic palette than written text alone.

Screen media have become ingrained in the figured worlds of youth as an arena of shared experience (Jenkins, Puroshotma, Clinton, Weigel & Robison, 2006); Alvermann & Hagood, 2000; Kitwana, 2002). Fashions, popular culture heroes such as athletes, musicians, and actors are known to youth primarily through screen media, and the importance of these media as new literacies are increasingly recognized by educators (Jenkins et al., 2006; Hull & Schultz, 2002). Messages communicated through screen media have a strong impact in shaping youths' opinions about fashion, sexuality, and status, and provide a rich source of narrative motifs which young people take up in their own storytelling to address issues in their own lives (Diamondstone, 2004; Dyson, 1997). For these reasons, there is evidence that youth associate screen media with high interest and high status. Digital storytelling taps into youths' associations with screen media as preferred means of communication.

Digital stories have additional features that set them apart from other types of narratives as resources for identity. A digital story becomes "fixed" in a way that is not true of oral stories or written text. The oral story can vary each time it is told, and allows the author the opportunity to re-construe with each telling. The digital story, in contrast, involves a complex linking of narrative and imagery, and is difficult to change. Once it is complete, its "telling" does not require the participation of the storyteller: it stands as a work of art,

a representation apart from the teller, an "object" for reflection and critique. A digital story can also require significant planning and several days to complete, and the time spent with the story can add to its significance to the teller. These themes are explored more fully later.

Purpose and Perspective. Our own work, and the perspective of this chapter, represents a middle ground in respect to the social production and sharing of digital stories. In our collaboration, with Davis as primarily as researcher and Weinshenker primarily as digital story facilitator, we have worked in after-school multi-media clubs, neighborhood art associations, and an alternative high school with youth in the central neighborhoods of Denver in the western United States. The youth we have worked with have been between the ages of 11 and 19, nearly all of African American or Latino ethnicity, and nearly all from very low income homes. A primary goal of our use of digital stories with low income youth has been to support agency and the potential for transformative experience (Holland, Lachicotte, Skinner, & Cain, 1998; Bruner, 1990) through the reflective processes of personal story authoring within a socially supportive community.

The objective of this chapter is to examine how the social context in which digital stories are developed and shared can mediate the ways in which the stories support the development of agency and identity for youth facing challenging transitions in their lives. We explore two cases. In the first, Marion, a 12-year-old African American youth, creates a digital story which helps him to crystallize various activities involving airplanes into an ambition to become a pilot. In the second, Isaiah, a 13-year-old African American youth, creates a digital story reflecting competing pulls towards taking risks and being cool vs. becoming more serious and reflective. Follow-up interviews with these young men, now both 19 years old, provide a retrospective interpretation of the role of digital storytelling in shaping their identities.

Background and Theory

Researchers and theorists examining digital storytelling have largely approached the phenomenon from two traditions of inquiry: sociological media study, and education research informed by sociocultural theory and cultural psychology. In addition, much of the inquiry into digital storytelling embraces its potential for democratization and empowerment, drawing at times on postmodern critical theorists including Foucault (1980). Here we will briefly summarize the orientation of sociological media study, and then describe in greater depth the orientation of sociocultural theory in education, the primary conceptual framework we draw upon in this chapter.

Inquiry into digital storytelling from the perspective of sociological media study is well represented in the recent anthology edited by Knut Lundby (2008), *Digital Storytelling, Mediatized Stories*. A central concern is the relationship between new developments in media and social practice. Stig Hjarvard (2004) has used *mediatization* to focus attention on how communications media come to impact (*mediatize*) the social practices that they play a part in representing. Political campaigns are shaped by the constraints and

affordances of television coverage. Weddings take on features that make them ready for re-mediation or imitate television versions of such events (Couldry, 2008). In respect to digital storytelling, how do the features of the medium itself impact the practice of storytelling, including the sorts of stories people tell? Access to digital screen-based media has greatly increased interest in disseminating personal stories. Limitations of bandwidth and storage impose pressures to limit their length, and awareness of the possibility of unintended and undesired audiences, both present and future, may lead storytellers to hold back personal material (Couldry, 2008).

But the relationship between activity and tools, including communications media, is neither linear nor uni-directional. In general, the introduction of a new meditational means creates a kind of imbalance in the systemic organization of mediated action, an imbalance that sets off changes in other elements such as the agent and the mediated action in general (Wertsch, 1998). Researchers in the tradition of sociological media studies are interested in how digital storytelling's contexts and processes of production become associated with styles of interpretation and meaning, associated social linkages, and implications for power and legitimation (Couldry, 2008; Drotner, 2008).

Educational researchers addressing digital storytelling (cf Hull & Katz, 2006; Davis, 2005; Hayes & Matusov, 2005; Kulla-Abbott & Polman, 2006; Paull, 2002) are primarily interested in how digital storytelling can serve as a developmental resource. Digital stories are examples of new literacies, and many scholars have called for schools to prepare students as informed critics of electronic communications as in the past they have prepared them to analyze written texts (Luke & Freebody, 1997; Buckingham, 2007). Gunther Kress and Theo van Leeuwen (Kress & van Leeuwen, 2001; Kress, 2003) have focused on the multi-modal aspects of screen media, exploring how different modes (image, movement, speech, print) are combined in new acts of meaning. Multi-modal authoring tools previously available almost exclusively to professionals working in media organizations are now available to the general public, and have particular appeal and potential for youth (Lambert, 2006; Hull & Schultz, 2002).

Many scholars working from an educational perspective, including ourselves, have emphasized the narrative structure of digital storytelling. This inquiry tends to adopt a sociocultural perspective, attending to how the social and reflective processes of storytelling employing digital media become part of a dynamic process of changing relationships in the course of participating in social activity (Lave & Wenger, 1991, p. 53). Among these changing relationships are change in the relationship of storytellers to their stories (Hayes & Matusov, 2005; Davis, 2005), change in how storytellers think about their past and future life trajectories (Davis, 2005; Hull & Katz, 2006) and their agency in respect to advocating for themselves and pursuing their ends (Hull & Katz, 2006); change in how storytellers identify and interpret changing points in their lives (Davis, 2005; Hull & Katz, 2006); change in how they represent themselves to others and in the relationships among those exchanging stories (Lambert, 2006), and change in the relationships between the storytellers and the information they convey in their stories (Kulla-Abbott & Polman, 2006).

Narrative and Identity. Our focus here is on digital storytelling involving personal narratives: portrayals of self and self-in-community. This is the genre most frequently facilitated by the Center for Digital Storytelling because of its potential for self-definition and reflection. Here, the relationship between story and self is of particular interest, and calls for a consideration of identity and the relationship between identity and narrative. We begin with narrative.

Elinor Ochs and Lisa Capps (1996, p. 19), in their comprehensive review of literature on narrating the self, argue that narrative, the telling of events in a chronological sequence, is a fundamental genre that is universal and emerges early in the communicative development of children everywhere. Jerome Bruner (Bruner & Lucariello, 1989), analyzing transcripts of the night-time soliloquies of baby Emily alone in her crib between 18 months and 36 months, found that about a quarter of her soliloquies were straightforward narrative accounts: autobiographical narratives about what she had been doing during the day or what she thought she would be up to tomorrow. Bruner (1990) suggests that humans have a predisposition to organize experience into a narrative form, and that the framing of experience in narrative form is fundamental to making sense of experience and retrieving it later in the form of memory. Experiments conducted in the 1980s confirmed that experience that is not structured in narrative is much less likely to be remembered (Mandler, 1984).

Classic studies of memory undertaken by Bartlett (1932) first demonstrated that not only does our framing of memory in narrative terms serve to recall and make sense of experience, the narrative framing also shapes the memory by altering our recall of events to conform to canonical representations of the social world. Shotter (1990) found that this framing served a social function, so that memories can be more readily shared with others. The process of recall and sharing involves both literal memory and interpretation (Bruner, 1990). As we narrate, we interpret what things mean, evaluate their significance, and infer why they happened. For the story to be "interesting," we emphasize discrepancies: something happened that deviated from what was expectable. Kenneth Burke (1945) formalized this into a "grammar" of dramatic narrative, arguing that a good story has five elements: an action, an actor, a goal, a scene, an instrument -- plus Trouble. Trouble consists of an imbalance or contradiction between any of the five elements. The immediate function of a story is often to make sense of a deviation from what is culturally expectable, and to infer the intentions of the participants (Bruner, 1990).

Ochs and Capps (1996) offer an extensive analysis of the relationship between narrative and identity. Personal narrative is at once born out of experience and gives shape to experience. One's reflective awareness of being in the world, including one's sense of one's past and future, is shaped by one's narrative framing of experience.

> Spinning out their tellings through choice of words, degree of elaboration, attribution of causality and sequentiality, and the foregrounding and backgrounding of emotions, circumstances and behavior, narrators build novel

understandings of themselves-in-the-world. In this manner, selves evolve in the time frame of a single telling as well as in the course of the many tellings that eventually compose a life. (Ochs & Capps, 1996, p. 22)

These "novel understandings" of self serve as *symbolic tools* (Vygotsky, 1934/1978) for narrators in the sense that they become available to mediate future activity. How one goes about pursuing one's ends is mediated by "who one understands oneself to be" in an unfolding chronology of experience. In this way, learning can be transformative as well as incremental: we learn from experience by internalizing symbolic representations drawn from experience, which in turn allows "qualitative transformations of one form of behavior into another" (Vygotsky, 1934/1978, p. 19). Narrative is a means by which we learn from experience by reflecting upon experience, declaring what it means, and distilling it into a symbolic form to be expressed and remembered. The process is essentially reflexive, folding back on itself: experience is distilled into narrative, and the narrative itself becomes a tool which shapes memory and mediates future experience.

The sort of "reflecting upon experience" involved in the production of personal narrative can range from a seemingly direct rendering of memory into words, to a self-aware evaluation and interpretation of experience, often constructed in interaction with another. At its best, it involves the sort of critical reflection in which experience is recalled, considered, and evaluated in relation to a broader purpose. It is a response to a past experience that involves conscious recall and examination of the experience as a basis for evaluation and decision-making and as a source for planning and action (Kegan, 1994; Bandura, 1995; Schon, 1983).

The power of narrative to shape interpretations of life experience has also led to the formal use of narrative in psychological therapy. In the United States, Donald Spence (1984) and Roy Schafer (1981) explored the implications of a person re-framing his own understanding of events from his past. The Australian clinical psychologist Michael White (1990) describes narrative therapy as a process through which an individual in interaction with a trained therapist relates her "presenting problem" as a narrative, and then works with the therapist to analyze the narrative and re-frame it in order to arrive at an affirming understanding of self. The act of telling the story aloud "externalizes" it, and this externalization allows the story to become an object of reflection:

> The underlying premise of narrative therapy is that as persons become separated from their stories, they are able to experience a sense of personal agency; as they break from their performance of their stories, they experience a capacity to intervene in their own lives and relationships. The discovery of unique outcomes, as well as the externalizing of the problem, can then be further assisted by encouraging persons to map their influence, and the influence of their relationships with others, on the "life" of the problems. (White, 1990, p. 16)

One might argue that Alcoholics Anonymous is a form of narrative therapy. The role of personal story is central to the therapeutic approach of Alcoholics Anonymous. A repeated ritual at AA meanings is the telling by participants of the story of how they lost

control of their lives to alcohol, reached a low point that led them to acknowledge that they were alcoholics, and turned their lives over to a higher power to enable them to go forward without alcohol one day at a time. One reason the AA story has power in shaping identity and action is that it is supported socially in regular meetings of peers who define themselves as alcoholics and recognize one another as people with whom they share a connection (Holland, Lachicotte Jr., Skinner, & Cain, 1998).

The example of Alcoholics Anonymous serves as a reminder that the role of narrative in shaping identity is social, interactive, and also contentious. George Herbert Mead theorized that one's sense of who one is reflects how one is seen by others, and involves "taking the attitude of the other towards oneself" (1934/1974, p. 47). Our stories are shaped by the audiences to whom we tell them in several ways. The story we choose to tell is developed with an awareness of its hearer. The interpretations we bring to our own stories are shaped by the cultural models available to us and reinforced by our closest associates. And hearers may dispute the telling, or may reinforce the interpretation we offer. We are positioned by others, and in important ways we experience ourselves differently in different situations, as we move from one figured world into another (Holland, Lachicotte, Skinner, & Cain, 1998). The sincere narrative we choose to tell at a given moment reflects our perception of experience at that time and place, but may be different in the company of others at another time and place.

From a sociocultural perspective, recognizing that there is no single "identity" in an essentialist sense, it is reasonable to define identity in respect to personal narratives. Dorothy Holland and her colleagues offer such a definition:

> People tell others who they are, but even more importantly, they tell themselves and they try to act as though they are who they say they are. These self-understandings, especially those with strong emotional resonance for the teller, are what we refer to as identities. (Holland, Lachicotte, Skinner & Cain, 1998, p. 3)

Sfard and Prusak (2005), drawing on Holland, similarly define identity in terms of "stories about persons" that include stories one tells about oneself and stories others tell about oneself. The most significant of these, they argue, are the stories one tells to oneself about oneself:

> "There is one special identity that comprises the reifying, endorsable, significant first person stories that the storyteller addresses to herself. … Being a part of our ongoing conversation with ourselves, the first-person self-told identities are likely to have the most immediate impact on our actions. (Sfard & Prusak, 2005, p. 17).

Drawing on Holland and on Sfard, we define identity as "the enduring, sincere, and significant first-person accounts of who we are, that we tell ourselves and to others." We clarify that by "first-person accounts" we do not intend to bring to mind mainly formal accounts, such as memoirs (although we clearly include them). Rather, we refer to the

brief narratives that we use to make sense of our lives even though we normally don't think of them as narratives ("I grew up on the South Side, and that made me tough"; "I came to California with my parents from India when I was only three, and when they took me to India when I was 12 to meet my grandparents, I realized I was much more American than Indian"). This definition privileges the perspective of the teller because, as Sfard and Prusak claim, it is the agent's own perspective that is most likely to impact his or her actions. But even the most intimate and private of self-assertions are social and relational. They cannot avoid employing the interpretations made available to us through participation in culture, and they are construed relative to a figured world of social life (Holland et al., 1998, p. 68).

Are digital stories enactments of identity by definition? Certainly digital stories may fail to be sincere, significant, or enduring for the teller. Produced for a grade as a class project, or to amuse an unknown audience on the Internet, they often fail on both counts. Without the ongoing support of a community, the self-realizations they report and the personal transformations they testify to are likely to fade from consciousness without translation into action. The challenge for the educator and for the researcher is to determine what the story and its production mean to the person producing the story and how the potential self-knowledge and agency are subsequently sustained in social interaction.

Research on Digital Storytelling and Identity
Empirical studies of the relationship of digital storytelling and identity development point to the importance of the social context in which digital stories are authored and disseminated. Drawing on cultural-historical activity theory, it is useful to categorize the contexts of digital storytelling in respect to the social negotiation of a shared object or purpose of the activity. In the original conception of the Center for Digital Storytelling, the purpose of the workshops was to enable individuals who lacked technical expertise and equipment to tell digital stories for whatever reasons they might bring to the activity (Lambert, 2006). Authorship in this model typically takes place in an intense workshop setting rarely lasting more than three days, with expert assistance aimed at helping the author arrive at a vision for a story and to translate that vision into the digital multi-modal format. This format is most typically a two to three minute video with a narrative voice track, visual images keyed to the voice track, and sometimes additional sound effects or a music track. The CDS format emphasizes the use of still digital images, often with animation, instead of camcorder sequences, because of the time and training usually required to obtain quality production with the latter. The recent BBC projects Telling Lives (Lundby, 2008) and Capture Wales (Thurmin, 2008) are also of this type.

The expansion of this model into youth centers and after-school programs for low-income youth (e.g., Hull & Katz, 2006; Davis, 2005; Hayes & Matusov, 2005) generally involves an opportunity for youth to engage in digital storytelling over a period of several weeks or even years (e.g., Hull & Katz, 2006). To the extent that such programs are sustained, they are supported by a belief that they accomplish educational purposes of positive identity development and agency, and that youth become skilled in the use of digital technologies which they may employ for broader purposes, including earning a living.

The model remains voluntary, and the institutional goals may be implicit rather than explicit. Youth who do not come to share these goals abandon the activity or find ways to appropriate it for their own purposes (Hayes & Matusov, 2005).

A third context for digital storytelling with youth has been school and religious settings in which institutional goals are explicit. Kaare and Lundy (2008) studied a digital storytelling activity sponsored by the Church of Norway which directed youth in the authoring of "digital faith stories". Rina Benmayor (Weis, Benmayor, O'Leary & Eynon, 2002) has employed digital storytelling as an assignment in a course on Latina Life Stories. The Australian Centre for the Moving Image (ACMI) and the Center for Digital Storytelling have trained hundreds of teachers in Australia and the United States (respectively) to employ digital storytelling in the classroom as a means of accomplishing established educational goals (see McWilliam, 2008). All of these social contexts are distinct from informal, self-initiated efforts of groups and individuals to create digital stories as "home videos," blogs, and social networking profiles for dissemination through the internet (Brake, 2008; Lundby, 2008).

Very few empirical studies have examined the relationship between digital storytelling and identity representation and construction within the classic structure of the short workshop format. Nancy Thurmin (2008) conducted observations and interviews with participants in the Museum of London's *London Voices* project, and BBC Wales' digital storytelling project, *Capture Wales*. She found that participants perceived varying purposes for their participation: learning about multi-media tools, making a record for private use, hearing others' stories, and "having a voice" through giving the public access to their own stories (p. 95). Thurmin reported that some participants talked about the process as "therapeutic" (p. 97) and some mentioned the value of thinking about their own and others' stories.

Kulla-Abbott and Polman (2008) and Banaszewski (2002) have studied digital storytelling in K-12 classroom settings, with some attention to self-representation. Kulla Abbott and Polman analyzed the digital stories of 41 seventh grade students created in a public school in the Midwestern United States. Children authored personal stories, and stories about an environmental issue. The most frequent topics of the personal stories (sports, vacation travel, pets) did not seem to involve the sort of reflection that might contribute substantially to identity consolidation or change. Nonetheless, the researchers found that students were much more invested in their personal stories than in the stories about the environment. Banaszewski (2002) found a strong increase in the proportion of his fourth and fifth grade students who embraced an identity as "writer" after responding to an assignment to develop a digital story about a place that was special to them. Banaszewski modeled the activity first with a personal story of his own about a place special to him, and worked to create an atmosphere of trust.

Evidence that the process of digital storytelling can serve transformative purposes in respect to identity formation has come primarily out of settings in which individuals (usually youth), united by shared experience such as non-dominant status in respect to a larger social context, have spent an extended time authoring stories in a supportive and

trusting community. Most of these have been in extended after-school and community settings in which the self-reflection and self-representation goals have not been confounded by grading and the need to accomplish defined educational objectives (Davis, 2005; Hull & Katz, 2006). However, examples come as well from university classrooms. Rina Benmayor (Weis, Benmayor, O'Leary & Eynon, 2002) provides this description of digital storytelling in her Latina Life Stories course at California State University at Monterrey:

> In the class, students also see the digital stories produced by previous classes. Suddenly, they feel authorized to inscribe their voices and create their own digital texts. They begin to envision their own digital contributions to the testimonial literature on cultural identity. Many students find that in constructing this digital story, they are reconstructing a self, resituating their subjectivity within broader social frameworks. The stories link their tellers to real and imagined communities of meaning and belonging. (Weis, Benmayor, O'Leary & Eynon, 2002, p. 160)

Glynda Hull and Mira-Lisa Katz (2006) documented the role of digital storytelling in the construction of identity and development of personal agency by Randy and Dara, participants in the Digital Underground Story Telling for Youth (DUSTY) center in Berkeley. Randy, a 20-year-old African American youth, believed that digital storytelling at DUSTY had helped save his life by helping him replace his involvement with a street life involving drugs and violence with a different focus (Hull & Katz, 2006). His digital stories were "intensive acts of self-articulation and self-construction" (Hull & Katz, 2006, p. 56) exploring Randy's relationship to family, art, and social critics like Malcolm X. And in the course of their prolonged social production and performance, Randy enacted an identity of digital artist. Years later he was working at a computer company and continued to create digital stories and videos.

Dara, a 13-year-old Latina participant in DUSTY, reported hating school and receiving failing grades. One of her teachers reported that she did "no homework, no schoolwork, nothing" (Hull & Katz, 2006, p. 62). In contrast, at DUSTY other youth sought her out as an expert in the techniques of digital story authoring. In the digital stories she authored there, she often drew parallels between herself and figures from popular media including fictive cartoon character Sailor Moon and Tejana vocalist Selena. Hull and Katz understood her to be constructing a positive, agentive identity in contrast to her passive, failing school persona.

Context and Methods
In this chapter we draw on two ethnographic case studies[*] that address the general question: how does digital storytelling serve as a resource for sustained identity development for youth? Both cases are drawn from a study of seven middle school youth who completed digital stories in an after-school technology club (the Cyber Cougars) facilitated by the two authors in an urban public school over a six-week period. Five of the youth, all male, were of African American ethnicity, and two, both female, had

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[*] Earlier versions of these cases were previously published (Davis, 2005) and are used by permission.

immigrated from Nigeria. The cases reported here were selected because the youth were available for follow-up interviews five years after the completion of their digital stories.

Both cases draw on ethnographic traditions of participant observation and micro-ethnography of interaction. Weinshenker led the facilitation of the digital storytelling, and worked closely with each youth as they constructed their stories, discussing the process periodically with Davis. Davis also assisted in facilitating the activity in the role of participant observer, recording daily field notes throughout the process of creating the digital stories and afterwards, when youth screened their finished products to audiences in the Cyber Cougar club and later at the University of Colorado Denver. These observations aimed at providing detailed descriptions of how the youth went about producing their stories, and at inferring the meaning and significance of the stories to their authors. Davis also recorded notes on conversations with parents of the youth regarding the meaning and significance of the stories as well as their perceptions of what the process of creating them had meant.

During the initial phase of the activity, when the youth were deciding on the script that would be turned into the voice track of their digital story, we employed methods of microethnography of interaction, especially as developed by Frederick Erickson (1986; 1992). We recorded and later transcribed each conversation with the youth as they began working on their story scripts. We then drew upon the transcripts and the various drafts of the scripts to create a chronology of changes, and analyzed these to infer decision points accounting for each change from initial conversations to initial drafts and eventually to the final wording of the narrative.

Both authors participated in follow-up interviews with the youth five years after the completion of the digital stories. With the first youth ("Marion"), these involved relatively informal conversations with field notes, because we had been in periodic contact with him over the years, and the role of digital storytelling in his identity formation had settled into a consistent story, described below. In the case of the second youth, where the significance of the digital story as a resource for identity development was much less clear, we conducted a recorded 90 minute interview. The interview followed the form of the ethnographic interview described by Spradley (1979), beginning with "grand tour" questions first (What are you up to these days? What do you remember about working with us in the technology club?) followed by "mini-tour" questions narrowing in on more specific aspects of the activity ("What do you remember about the digital story you made?). After eliciting his memories with minimal prompting, we then showed him the script he had written and played the digital story he had produced, and asked further questions about what he could remember about the experience and its subsequent importance to him.

We invited 8th-grade youth who had participated in our Cyber Cougars activities in previous years to participate in digital storytelling after school, and seven chose to participate on a regular basis. Second author Daniel Weinshenker explained that a digital story was a short movie, about two minutes long, that told a true story about some change in one's life. The story "tells how you changed, or how something changed for you." Daniel began by creating a "story circle" with the shared understanding that it had to be safe for everyone to tell stories without fear that anyone would make fun of them or criticize their ideas or work. Digital stories produced by youth in other settings were shown, and each of these dealt with experiences and interpretations of emotional significance to the teller. An expectation was established that digital stories dealt with matters of importance, and that it was not acceptable to turn on peers who made themselves emotionally vulnerable by revealing what they cared about.

The first author, who had little previous experience with digital storytelling, imagined that the process of settling on a story to tell would be mainly one of selection. I imagined that each of us has a store of significant events to relate, and the process of personal story telling would be initially mainly a matter of selecting which one to portray. As the process unfolded, I realized that the initial processes of narration were more complex. Youth were reluctant to share first-person accounts, and the accounts initially focused on a noteworthy event or topic, but did not associate the event with change or consequences. The rendering of these kernels into a narrative emerged in a highly interactive process, a series of conversations and story drafts and revisions before the "final" story emerged and was recorded. This process raised questions about the nature of authorship and the role of others in the formation of identity, and the description of this process became a second focus for inquiry.

When we finished, we suggested holding an informal film festival within our club. The students agreed, and we projected the finished stories onto the wall of the computer lab and broadcast the narrative soundtracks on speakers. We hadn't advertised the event, but two teachers came because one of the authors had invited them. All four youth wanted DVDs of their work to take home, and all four reported to us later that they showed them to adults in their homes. Marion, one of the youth, was surprised at his father's response. "My dad, he even got back there and watched it *again*, like you watch a movie!" he reported.

Case I: Marion and his Airplanes

Marion, a 13-year old African American young man, agreed that doing well in school was important to his future, and he acted accordingly. He turned in homework and received grades of A, B, or occasionally C in academic subjects. His older brother had attended college, and Marion also spoke of attending college as well. On the other hand, he did not focus on any particular career goal or academic interest, and did not have a well-organized sense of a future identity apart from the idea of going to college.

Marion was eager to author a story two days after we introduced the idea to the Cyber Cougars. "I want to tell about airplanes," he said, "and about the Ace Combat computer game that I play." Before he began to write a script, he and the first author talked about the story.

Marion: I started playing Ace Combat 4, and I got real good at it. That's what I want to tell about.
Alan: What is it, a computer game?
Marion: Yeah, my mom got it for me because I got good grades.
Alan: But you don't want to make a story just about a computer game, do you? What's important about it?
Marion: I do all kinds of things about planes. I have an F16 Tomcat, and an F18 Hornet, and a P-51 Mustang, and I know all about them, how fast they fly, what armaments they have, everything.
Alan: What do you mean you *have* them? You have models of them?
Marion: Models, yeah.
Alan: Are they connected to the Ace Combat game?
Marion: Sort of, yeah. I learned about the F-18 Hornet playing Ace Combat, and then one day I saw a model of one in Walmart, and I said to my mom, "Can I buy that plane?" and she said "Yeah," and I bought it, and I made it, and then I got more.
Alan: Wow, that's interesting. And you were telling me about that Jim Meyer guy who makes models. Do you ever see him?
Marion: Jim, yeah, he's my friend. He just sent me a book about planes.
Alan: Doesn't he make models that actually fly?
Marion: Yeah. We flew RC planes together in the summer.
Alan: RC?
Marion: Yeah, RC, Remote control.
Alan: So do you think that the Ace Combat game led to all that?
Marion: Sorta. And my dad's interested in planes.
Alan: He is?
Marion: Yeah, he flew in them in the war. He looks at my models and stuff.
Alan: Was your dad a pilot?
Marion: No, he just rode in them.
Alan: Wow. So, an interesting story is how just this computer game sort of led to a really big interest you have, and also a connection with your dad. You know, most people think that computer games are pretty much a waste of time. You could say that in your story.

Two days later, Marion produced a script for a story:

My mom bought me Ace Combat 4 because I got a good report card. I started to play Ace Combat every day. The more I played it the more I gained interest in planes. One day I was in Walmart and I saw they had a model of an F-18 Hornet that I recognized from Ace Combat game. I built it and put it on a shelf above my desk.

My mom asked me," Where on earth did you learn about planes?" I said, "From my video game that you got me."

At the end of school last year I overheard a guy talking about radio controlled planes. Two days ago he sent me a book about them. Now we are good friends. I could end up in the Air Force, like my Dad was, except he didn't get to fly.

All of the elements of the story were evident in the conversation from the preceding week, but before that conversation these elements did not make up a story. They lacked a chronology, and the identification of a change. The causal sequence, from the acquisition of the game, to the purchase of the first model, to the association with a remote control plane club, then the connection to his father's military experience and imagining a future as a pilot, was constructed interactively in the conversation, and then became fixed in the plot of a story. The change that was suggested was that a simple computer game had started Marion down the road to becoming a pilot. This was not an idea that was crystallized in Marion's mind before the conversation.

Alan met with Marion on October 14 to work on the script, reading one line at a time aloud, and then asking questions and making suggestions. Based on those suggestions, the script expanded. All of the model planes were listed, and details that Marion had learned about them were included. The ironic twist that "most people think that video games are just for fun" was added as an introductory sentence. Then Marion recorded the script, and at that point the story line became fixed.

Marion turned next to collecting images to illustrate the story, and took the digital camera home, returning with pictures of all of his models, a picture of his father, and a picture of his father's Air Force hat that was retrieved from a closet. The interaction with his father seemed significant:

Alan: Marion, what about your Dad? Does he know you're doing this?
Marion: Yeah, he's the first one I told.
Alan: Really? What did you tell him?
Marion: I told him I was doing this digital story telling, and I was doing it on the planes, and stuff like that. And he said, "Ooh!"
Alan: And was he around when you took any of the pictures?
Marion: Yeah.
Alan: Did you ask him if he had any old pictures of himself?
Marion: He's got a picture, but he's not in uniform.
Alan: Does he know about Jim Meyer?
Marion: Yeah! He met him.

Over the following weeks, Marion discussed the possibility of joining JROTC in high school, and joining the Marines or the Air Force. He worried about being "fragile" and told me about his injuries and allergies. The possibility of flying was becoming more real to him, and he was weighing the possibilities. The sharing of the story at home on the

family DVD player was an important event for him, as already described. When our club was visited by the director of the Arts Street project of the Mayor's Office, Marion told her that the value of making a digital video was that he had "learned that I have an interest in planes." Clearly he knew that he had that interest before making a digital story, yet the digital story crystallized that interest into a narrative that he could use in conceiving of his future. After Marion showed his story about airplanes, it occurred to Daniel that Marion could fly in a two-seater plane through the Young Eagles program. We arranged for that to happen through Cyber Cougars, and Marion made a video about the event, and closed it with a picture of himself labeled Future Pilot. He went on to make a third video about a famous black aviator. For him, the sequence of stories made during the year seemed to be coalescing into an imagined life trajectory.

Six years have passed since Marion made his first digital story. During the intervening years, we have kept in touch with him. Marion joined Air Force ROTC in high school, maintained his interest in becoming a pilot, graduated, and enrolled in the aviation program at Metropolitan State College in Denver. In the fall of 2009 he obtained his private pilot license, and joined the Air Force.   In a telephone interview he said that his participation in digital storytelling with the Cyber Cougars had had a lasting effect on his life. "It helped me figure out who I was, and what I was interested in," he said. "Before, I knew I was interested in planes. But the digital stories helped me figure out that I wanted to be a pilot".

Case II: Isaiah Gets Serious

Isaiah was a 13-year-old African American youth at the time he began participating in digital storytelling. He seemed to be trying to juggle the competing expectations of his parents and teachers, on one hand, and his friends, on the other. Isaiah was popular, a successful player in the hip-hop world of his friends. He wore name brand jerseys, expensive athletic shoes, and would occasionally "bust a move" from his hip-hop dance repertoire with athletic grace. His grades were all over the place. When he began his digital story, he was receiving a failing grade in his Language Arts class, and was almost failing in math as well – mainly, it appeared, because he didn't turn in assignments or pay much attention in class. He described himself as capable but not trying to do well in school. He said he enjoyed "clowning around."

After the introduction to digital storytelling, Isaiah said he wanted to tell a story about his birthday parties. He would show pictures of balloons, and cakes and candles, and of him "being crazy." Daniel Weinshenker reminded him that the story needed to show a change from the beginning of the story to the end. After a week, Isaiah, produced this script:

> I've been bragging about my birthdays I've had since my 11th birthday. Since my 11th birthday, I don't have a lot of memories. I've been pretty different because I have not been as straight up as before. I'm more loose, and not so boring. I make sure I'm polite to people. Like on my 12th birthday I learned how to do magic tricks, so I would be nice to people. I've been pretty informed that I make the best decisions on my birthday selections.

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The main message of this initial script seems to be that Isaiah takes pride in having good birthday parties. The only change he identifies is becoming "more loose, not so boring," and becoming "more polite to people," a phrase that sounds suspiciously gratuitous, like a morsel thrown in to appease an adult sensibility. Daniel pressed him for a deeper recognition of change.

Daniel: So Isaiah, let's talk about your script a little bit, okay?

Isaiah: Okay.

Daniel: What's the change from the beginning to the end?

Isaiah: Uh, let's see. I got older.

Daniel: So we all get older. What makes you getting older different from everyone else getting older?

Isaiah: Umm, I got longer hair, uh, I got bigger, I got taller ...

Daniel: Right. So those are all physical things. What about the emotional things? What about the changes inside you? How you think? How you feel about things?

Isaiah: Uh, I think before I act now.

Daniel: Give me an example.

Isaiah: Like, um, if I was really really angry, and I wanted to fight somebody, I probably wouldn't fight them.

Daniel: What else? Are you different about school? Do you take school more seriously?

Isaiah: Yes, more seriously, and when I watched those really really drama, pulled-out movies with my mom, I get all weepy eyed.

Daniel: Really? It is kind of cool that you'll go and sit with your mom now. Did you used to do that too?

Isaiah: Oh, no. I used to be just so Isaiah ...

Daniel: Tell me about the old Isaiah.

Isaiah: The old Isaiah was always running around, bumping his head, yelling, screaming, crying, all over the place. Yeah.

Daniel: I think your assignment is, under Old put one thing that you used to do, or one thing that you used to feel, the Old Isaiah, and then put how the New Isaiah feels about that. And then your job, after you do that, is to think about ... give me one or two examples of those things. Because that makes a really good story. What we really need to hear from you, Isaiah, is what happened, besides just getting older, that made you change from the Old Isaiah to the New Isaiah.

Isaiah: I think I will be writing about that stuff.

Daniel: I think that would be really good. Maybe you'll show this, and some other students will see it and say, "Man. He became this new guy. And he got to be a little cooler, and stuff. I wonder how did he do that?"

In pressing Isaiah to build his story around a recognition of changes in how he acts and feels, Daniel seemed to be arguing from two assumptions. One was that the identification of a change, illustrated with specific examples, would make for "a really good story." The

other was that if he thought about it, Isaiah would realize that he really had changed. Isaiah offers several possibilities of change: he thinks before he acts, he fights less, he takes school more seriously, he cries watching "really drama pulled-out movies" with his mom. Daniel doesn't settle for any of these, and assigns Isaiah to think about changes and write them down with examples.

It is tempting to dismiss this exchange as contrived. Isaiah at this point really doesn't appear to be aware of any significant way in which he has changed over the past three years, and one might suspect that whatever he comes up with will be merely an attempt to comply with an adult's assignment, and not an authentic assertion that will be internalized. On the other hand, Isaiah is in the process of authoring his own identity, and there is no "true" version of who he is, or how he has changed. Any interpretation he arrives at will be significant to the extent that he embraces it and others accept it.

Like most of the participants in the Cyber Cougars, Isaiah participates in multiple figured worlds, in which he receives conflicting messages daily about who he is and what should matter to him. In the hip-hop world that nearly all of his peers participate in to some degree, name-brand fashion, athleticism, toughness, and street-wise savvy are key to status; crying while watching movies with your mom and "being polite" are not. Isaiah is successful in the hip hop world. He has friends. Other youth think he is funny. On the other hand, his father urges him to be self-disciplined and prepare for college, and expresses concern about Isaiah's low grades. Teachers tell him that he needs to settle down and work hard. What Isaiah makes of these conflicting messages no doubt changes from place to place and from day to day. But by putting one version into a digital story and presenting it as a finished object, he takes a step towards embracing one potential identity over another, freezing it in time, and externalizing it as a possibility to contemplate.

Isaiah returned with this version of the script, which was recorded for his movie:

> On my 11th birthday we had different colored balloons and when I'd get a couple of the same color I'd pop them and suck helium out. Then, on my 12th birthday I discovered that I really liked vanilla ice cream with sprinkles. And on my 13th birthday I had the biggest party ever with tons of friends and family. My mom took all of us to the movies.

> Now, looking back on it all I remember how wild and crazy I was, not just on my birthday, but all the time. How I grew my hair out long and wasn't really polite to people at all. Like one time I talked back to a lady at the zoo for no reason, or I'd do crazy stunts without thinking about how hurt I could get.

> Back then I didn't spend a whole lot of time with my family. I'd just go play basketball or hang out with my friends. I didn't care.

> This year my friend Marcus got into a car accident and my mom drove me to go see him at the hospital. When I saw him in the hospital bed it made me think about all the dumb and stupid things I did. I didn't say anything to my mom, but I knew it inside.

I don't spend so much time away from my family anymore. Not long ago I sat at home with my mom instead of going out to play. We watched a movie together in the basement. I even got a little teary eyed.

The transformation of the story from the initial version to the final script is striking. Now the Old Isaiah is set out in detail, with persuasive examples. The contrast with the New Isaiah is well defined, certainly beyond what we would expect if the changes had been produced simply to comply with an adult's assignment. Most persuasive of all, the change is attributed to a powerful event, the visit to see his friend in the hospital who had been injured in an automobile accident.

Isaiah did not repudiate or ridicule this story when it was shown to other students in the club. He later reported taking it home and watching it with his parents, and his father subsequently came to the club on his own initiative to tell us how important this activity was for Isaiah. Three weeks later, Isaiah presented his story projected onto a large screen and spoke about it publicly in a conference on digital literacy at the University of Colorado, accompanied by his father. At that moment, he appeared to embrace the story and its making as a confirmation of his newly confirmed "maturity". He also turned in literature logs and improved his grade in Language Arts. But after that, Isaiah began to drift apart from his association with the Cyber Cougars. He made a humorous video about the club, and then started to make a murder mystery video, but this project was never finished, and by the beginning of May he and his close friend Evan had quit coming despite the fact (or perhaps because of it) that his father insisted that he attend, saying that the Cyber Cougars was the best thing happening for Isaiah.

Five and a half years after the completion of his digital story, we interviewed Isaiah at length about the experience. In contrast to Marion, what Isaiah remembered first was not the story line of his digital story, but the bright colors of the visual images he had used, the process of editing, and the excitement of using the digital technology. "I definitely loved video games, and computers," he said. "And then we started making our own videos and stuff [in the club] and that just got me hooked. And then, when I ended up in high school, I already had a nice push." He explained that this had led him to take a film class in high school, and then to courses in web design and a video production class at a vocational school following graduation. He now aspired to a career in film making.

Isaiah said that the attraction of the screen technology had led him to work harder on his digital story than anything he had worked on previously. "That was actually one of the hardest times I worked in my life," he told us. "I was actually trying my best to make (the digital story) come out right. It put a nice big work ethic into me. Seeing your finished product that you put all that work into, that you thought was just for fun, or whatever, and when you actually look at it, you're like, 'O wow! I did that piece!' … After editing, and playing with all the tools, you don't want to stop."

And what about the transition described in the final version of the digital story, from doing "stupid things" to getting serious? "What we couldn't figure out," we told Isaiah, "was whether you just fixed the script for us, or whether you actually believed it."

Isaiah's response confirmed our sense that there was no simple answer to that question. "This was mostly me believing it," he said. It was the end of the eighth grade. Getting ready to go to high school had been on his mind. "My dad was pushing me to buckle down on my homework, everything like that." And Marcus's accident had been a very big event in Isaiah's life. "It definitely like stamped a point in my life," he said. But the impact didn't last. "Not too long after, we were riding bikes, and I ended up getting his arm broken. We were still doing stupid things *after* that." And during his first year of high school, Isaiah rarely turned in homework, continued to cut classes, and ended up failing a couple of classes. The conflicting urges to mess around and to buckle down had not been resolved in the way suggested by the digital story.

Was the story sincere? According to Isaiah, parts of it – being rude to the lady in the zoo, getting "teary eyed" watching movies with his mom – had roots in actual experience, but had been "amped up" to make a stronger point about personal change. The change he had described was something he wanted to believe and knew was somehow best for him, but it was a change he was not yet able to realize in behavior. It was not until his junior year in high school, when the possibility of not graduating began to loom large – that he really began to buckle down and do what had to be done. But doing the digital story made him more aware of the choice. "I started actually thinking about it. The older I got, the less stuff I started to do. Still, I was still doing some pretty crazy stuff."

The experience of digital storytelling had been a resource for identity development for Isaiah in different ways than we had thought. By connecting with his interest in other screen technologies such as video games, it had led him to what he looked back on as the most sustained and concentrated effort of his life (apart from sports) up to that time, a blend of "fun" and effort that resulted in a product that gave him a sense of accomplishment and an inkling that this was something rewarding to continue to do. His newly found "work ethic" was connected with his claim in the story that he had become more mature, but in the short run, that new maturity was mainly a realization that he had found an interest that he could connect, on occasion, with school. He discovered that he wanted to be a film maker, a professional creator of digital stories.

Conclusions
These two cases are illustrative of fundamental and interconnected ways in which digital storytelling can serve as a resource for identity construction for youth and low-income youth in particular: as an introduction to multi-media authoring, opening up new possibilities for self-presentation and story-telling in general, and as a means of identity developing through the process of constructing, presenting, and reflecting upon a particular first-person story.

For nearly all of the several dozens of youth from low-income homes Weinshenker has worked with through the Center for Digital Storytelling, digital storytelling has served as

an introduction to multi-modal digital authoring, and the appeal of the medium has drawn youth to the activity. The youth who participated in our middle school after-school club came initially because they wanted to use multi-modal digital technology. If we had proposed a project of telling personal stories only through text, we believe most would not have persevered. Before they engaged in digital storytelling, screen media had been a major source of messages that shaped their values and their view of the world. To author their own multi-modal messages opened new possibilities of personal agency. For Isaiah, ongoing participation in digital storytelling has become an element of identity, as he expressed in his interview: "We started making our own videos and stuff [in the club] and that just got me hooked." We know that many of the youth who first encountered digital storytelling through CDS have continued to gain skill in digital authoring.

The transformative potential of digital storytelling also lies in the reflective process of discovering and objectifying the story itself. Digital stories that have transformative potential for the author begin with the willingness of the storytellers to identify significant experiences, reflect on them, and share the reflections with others. These are actions that involve risk and call for safety, especially when the process is carried out in a group. For Marion and Isaiah, that process began with the facilitator creating a norm of safe disclosure, including the presentation of stories by other youth dealing with experiences with personal emotional significance. The establishment of norms of safety and self-disclosure through the development of a "story circle" (and the understanding that violators would no longer participate) allowed exchanges that would have been risky in the ordinary environment of an inner city middle school.

Stories that are significant for young authors are rarely initially well-formed in their authors' minds. As in the cases described here, they may begin as an event or person or topic that is salient for the teller, but with little sense of either a narrative structure or an awareness of potential meaning. Self-reflection is a developmental accomplishment. Robert Kegan (1994, p. 27) pointed out that for adolescents to be able to identify inner motivations, hold onto emotional conflict internally, or be psychologically self-reflective they must step outside of their immediate categorical reality. Their experience must be transformed into an *object* of contemplation (Kegan, 1994, p. 32). Many adolescents cannot readily do this without the scaffolding of an adult. Marion began with his interest in airplanes, Isaiah with his pride in his birthday parties. These initial images and themes gradually were shaped by the storytellers into narratives. They developed in the course of telling mini-stories to the adult facilitators, who elicited interpretations, repeated them back for confirmation, suggested links between one mini-story and another, pressed for authenticity, and probed for elaboration and detail until the over-arching story emerged for the teller working in anticipation of an audience.

These stories emerged over a period of more than six weeks from beginning to end. In the course of producing them, the storytellers returned to their stories perhaps a hundred times, first reviewing what they had written and considering changes to the script, then recording themselves reading the script, and later adding mages and a second sound track to the narrative track. This process encourages the dual processes of accepting or

appropriating the story as an interpretation of life experience (Wertsch, 1998) and at the same time externalizing the story as an object of reflection (White, 1990; Kegan, 1994).

The combining of multiple modalities, particularly spoken narrative and visual images in digital stories distinguish them from written text in important ways. After completing their scripts, Marion and Isaiah rehearsed reading their scripts aloud many times, and then recorded them in sections, listening to the recordings as they emerged. For both youth, this was the first time they had heard a recording of their own voice, and it sounded to them almost as though someone else was telling their story. Isaiah depicted his former "crazy" self by using Photoshop to make his hair blond and animation to cause the image to spin. He used a contrastingly serious photograph to emphasize the change he had undergone. Marion ended his story with the image of his father's Air Force hat. These elements of image and voice serve both to externalize and objectify the story and to link its themes to visual images with strong emotional associations.

The role of digital storytelling as a tool in the authoring of identity is clearer in the case of Marion than in the case of Isaiah, but there is evidence that each story served as a tool in the process of self-authoring in different ways. In both cases, the youth reflected on events of his or her life and organized them into a coherent narrative that had not existed beforehand as an object of contemplation. Each of these narratives held the potential to contribute to a more developed "imagined life trajectory" for the teller. For the time being, Marion saw himself as a future pilot, and Noah tried to embrace the idea that he had moved on from his former "wild and crazy" self. Each of the story tellers had also developed proficiency with a variety of technical tools, from scanning and digital photo editing to video editing, and these newly acquired tools also became incorporated into a more competent sense of self. From that point on, however, the significance of these realizations depended on how they were reinforced and re-shaped in the ongoing process of positioning and answering (all within the constraints of larger, slower-moving systems) through which lives are authored.

Future Trends
The model of workshop-assisted digital storytelling expanded enormously between 2004 and 2009. Growth took place within the United States in a variety of institutional contexts, including schools and universities, museums, and the expansion of field offices of the Center for Digital Storytelling. But more significantly, large projects were undertaken with institutional sponsorship in Scandinavia, the United Kingdom, Australia, New Zealand, and the Netherlands. Despite a worldwide economic downturn at the time of this writing, it seems likely that such projects will continue and expand in the long run, especially as a means of exploring the relationship between individual and group identity (e.g., *Capture Wales*) and the linking of historical experience to personal story (e.g., *Somali-Bantu Project Voice*).

There is also evidence that digital storytelling is expanding in K-12 education, in response to a recognition of the importance of digital tools in the world economy (*technology*) and, to a lesser extent, in recognition of a need to expand the concept of

literacy to include both authoring and critique involving screen media. Ironically, the latter initiative is still referred to as "alternative literacies" in an age in which people under the age of 35 receive most of their long-distance communications digitally (Hull & Schultz, 2002). The attention to identity development and life trajectories that has characterized digital storytelling outside of schools is less evident in K-12 initiatives, and seems likely to remain so, given the current focus of schools in most countries on mastery of standards that have little to do with art or the interpretation of life experience.

The most important trend in respect to digital storytelling is the de-institutionalization of the form and its place with other forms of Web 2.0 expression. Technological developments in the past five years have made digital storytelling available to millions of individuals in the first world without the need for schools, workshops or multi-media centers. Digital cameras and voice recorders are now incorporated into most cell phones, and easy-to-learn video editing software now comes as standard applications with Apple computers (in the form of iMovie) and Windows-based computers (in the form of Movie Maker). In short, nearly anyone with a cell phone, a computer, and an internet connection can potentially create a voice-narrated digital story and upload it to the internet. The production of such stories remains "mediatized" by the technological tools required for their production and dissemination. How will the format of such stories evolve, and how will the reciprocal relationship of messages and technology continue to shape one another? What is the nature of the social networks in which they are exchanged? How do these digital stories shape outsiders' perceptions of groups who previously had no direct access to their stories? How do they contribute to the enactment of agency by individuals who previously were voiceless outside of their immediate social circles?

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