Identity and digital media production in the college classroom

Abstract: We sought to understand whether digital media production in the freshman college classroom could afford students the opportunity to engage with identity. Specifically, students were tasked with producing autobiographical radio documentaries in the style of This American Life. We used the development of metarepresentational competence (MRC) as our measure for how effectively students engaged with identity in their production process. We found three types of MRC trajectories: Students who demonstrated MRC throughout the process, students who demonstrated MRC late in the process, and students who never demonstrated MRC. Students who demonstrated MRC created pieces that took advantage of the affordances of radio as a mode for self-representation as they communicated their personal stories and reflected on the relationship between tools and ideas in sophisticated ways. Our findings can inform the design of learning environments within fields of artistic production as well as other content areas emphasizing the importance of “identity work” in learning, a focus in recent design-based learning sciences research.

Identity in the Learning Sciences
Over the past 15 years, identity has emerged as a focal concept in education research (Sfard & Prusak, 2005). Identity has become a bridge between student engagement and learning goals – that is, if we want students to succeed (and to be motivated to succeed) in academically valued domains we must attend to students’ identity development as an integral part of the learning process. In the Learning Sciences, we are particularly interested in how identity influences the design of learning environments. Design researchers have described three mechanisms for engaging identity in learning environments: 1) bringing students’ out-of-school lives vis-à-vis their cultural practices formally into the teaching and learning space (Nasir & Hand, 2008); 2) making explicit the adaptive identities that are necessary in order to be successful in a more traditional academic context (Lee, Spencer, & Harpalani, 2003) and; 3) designing experiences explicitly for the purpose of exploring students’ psychosocial identities (Halverson, 2010; Bers, 2001). Regardless of approach, bringing an identity focus to the design of learning environments has been linked to improved academic outcomes.

We focus on the ways in which adolescents develop positive, adaptive identities (Lee et al., 2003) through their engagement with artistic production processes. In prior work, we have found that artistic production supports adolescents in exploring possible selves and in affiliating with traditional stigmatized identities in adaptive ways. Furthermore, artistic production processes support both individualistic and collectivistic conceptions of identity, opening up the possibility that multiple models for development can be accommodated within the same type of instructional setting (Halverson, 2010). This paper explores a college freshman seminar classroom as a design space for explicitly addressing the development of adaptive identities. Specifically, we ask whether students learn to construct and represent adaptive identities through participation in an autobiographical digital art production process.

Digital Literacy, Identity Representation, and the Transition to College
Digital media production has become an essential outlet for many adolescents to think about and represent their changing identity as they progress from adolescence to adulthood; many young people make this transition in a collegiate environment. While the literature chronicling new college students’ participation in digital media literacy and production activities is sparse, the literature on out-of-school media production organizations who work with adolescents aged 14-20 shows the value of these opportunities for empowering young people through digital media literacy (e.g. Halverson, 2010; Hull & Katz, 2006; Soep, 2006).

In this paper we focus on the use of radio as a digital medium for self-representation for first year college students. Research on radio production as literacy and representation has thus far been studied in out-of-school settings (Chávez & Soep, 2005; Walker & Romero, 2008). Radio production as a medium for expression has empowered young people to represent ideas that matter to them and bring these issues to a public audience (Chávez & Soep, 2005). Through the process, young people learn valuable literacy skills, most notably the ability to monitor the quality of their own work through critique (Soep, 2006). The organizations and programs that work with youth to create digital radio productions target adolescents in middle and high school, despite a growing understanding that college-aged young people are struggling with issues of identity and representation (Arnett, 2000).
The use of representational trajectories for design and assessment of learning

One way to research students’ competence with digital production processes and technologies is to focus on the artifacts that students generate as measures of learning. The ability to construct an external representation of a complex idea is the marker of intelligence across disciplines (Enyedy, 2005). Producing external representations that demonstrate mastery of a topic is often taken as evidence for learning in a constructivist-oriented curriculum. di Sessa and Sherin (2000) call this, “metarepresentational competence – the ability to select, produce, and productively use representations but also the abilities to critique and modify representations and even to design completely new representations” (p. 386). Metarepresentational competence (MRC) explicitly draws on students’ intuitive understanding of how to create representations of systems and marks learning through their increasingly reflective and sophisticated understanding of the relationship between concept and external representation.

The development of MRC as a guide for the design of learning environments has been taken up across several domains. Enyedy (2005) describes “progressive symbolization,” a pedagogical strategy for developing robust mathematical understanding by beginning with students’ intuitive understandings and building increasingly more formalized representations. Emerging work in composition indicates that recursive attention to the relationship between ideas to be represented and the tools of the medium that afford appropriate communication is a method for improving the quality of student writing (Magnifico, 2010). In our work, we have found that learning to produce autobiographical art can be taught and documented through a series of representations that begins with a focus on content, moves to a focus on how the tools of the medium afford a representation of the content, and end with a consideration of and a reflection on the relationship between content and tools – the two key components of art making (Halverson, in press). We call this path from initial idea to final product the “representational trajectory”. The content students engage with in the development of representational trajectories ranges from mathematics (as in Enyedy’s work) to observations of the natural world (as in Magnifico’s work). In our case, identity was the content of interest; our instructional aim was for students to engage with the tools of the radio medium, specifically the tools of the radio documentary genre in order to represent themselves. We measure students’ learning in terms of how they use (and reflect on their use of) the radio medium in order to represent their autobiographical identity stories.

Methodological Approach

Our interest in this paper is to assess whether students creating digital media products in the formal learning setting of a freshman seminar classroom were engaged in a representational trajectory that allowed them to explore the relationship between identity and digital media production. To do so, we asked the following research question: How do students display metarepresentational competence as they create their radio pieces?

Data Collection

The data were collected in the context of a course designed by Halverson entitled, “Representing self through media: A personal journey through This American Life.” The major assignment and primary outcome for the course was the creation of radio documentaries in the style of the popular National Public Radio show This American Life. Each student was required to produce one ten-minute segment of their own and to help create an episode around a theme that married three or four of their segments. To capture the digital media production process and students’ evolving understanding of identity and representation, the researcher (Bass) engaged in three primary data collection methods: (1) ethnographic observations during each 75-minute course period, twice weekly for 15 weeks; (2) collection of all student-produced artifacts including representations created during class discussions, written reflections on the major content topics in the course, and all representations of students radio segments and episodes, from initial idea to final product; Additionally, (3) semi-structured interviews were conducted throughout the course. The purpose of these interviews was to understand how participants represented their identities independently of and through the creation of their radio pieces.

Data analysis

In order to focus on students’ representational trajectories we employed what we have termed “bi-directional artifact analysis” a framework for analyzing young peoples’ creative production processes through ethnographic observations of participants in situ, the artifacts they create, and interviews with participants as they describe their activities over time. Bi-directional artifact analysis involves: a) Identifying a learner-created artifact; b) documenting relevant data around the artifact and; c) constructing narrative threads across the data types that trace the core ideas and tools present in the final product back through their development. This framework echoes Enyedy’s (2005) description of bi-directional analysis: “go[ing] ‘backwards’ in time in an attempt to trace the origins of this
intervention and ‘forwards’ in time to examine what subsequent impact it had on the way other students reasoned” (p. 437).

Since the primary outcome for the course was the creation of autobiographical digital art in the form of This American Life-style radio documentaries, we conducted a bi-directional artifact analysis of the radio production process. We examined the radio show itself, the artifacts students produced along the way, and their oral and written reflections on all of these artifacts. We identified the core ideas of students’ pieces over time and traced the changes in the representation of their ideas through the segments’ various instantiations. We also conducted a thematic analysis of students’ reflections including interviews, written reflections, and class discussions, to trace students’ awareness of their evolving representations of their personal stories.

**Major Findings**
In conducting a bi-directional analysis of students’ radio documentaries over time, we found student work fell into one of three categories: 1) Trajectories that demonstrated early MRC; 2) Trajectories that demonstrated growth in MRC and/or converged on MRC at the end; 3) Trajectories that never approached MRC. Table One describes how many students fell into each of the MRC categories, separated out by the episodes in which their pieces appeared.

Table 1: The development of MRC through representational trajectories.

<table>
<thead>
<tr>
<th>Episode Title</th>
<th>Early MRC</th>
<th>Late MRC</th>
<th>No MRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>The American Dream</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>...And One For All</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Wisconfidential</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Sex in Perspective</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Where the Heart Is</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL NUMBER OF STUDENTS</strong></td>
<td><strong>4</strong></td>
<td><strong>11</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

**Multiple representational trajectories**

**Early MRC**
Four of our students demonstrated MRC early and then throughout the radio production process. That is, they seemed to understand the relationship between the representational tools afforded by the This American Life genre and their interpretations of their own adaptive identities from the beginning of the course. Chris, for example, was aware of the affordances of radio from the first artifact he created about his radio piece. He knew he wanted his story to be about his parents’ influence on him and how their following their American Dream to the United States from Jamaica has allowed him to live his own American Dream. During his first episode group meeting, he described several ways to make explicit connections between his story and his parents’ through the use of voiceovers, script and music. For instance, he planned on, “asking both of my parents questions at the same time so that it would feel as if I am sitting around a table having a conversation with them instead of the feeling of just an interview”. These choices were reflected in Chris’ final piece, which used all of these modalities individually and in combination. Chris’ piece allowed him to explores the relationship between how he sees himself, how his parents see him, and how he fits into the multiple communities to which he claims membership, including the Jamaican American community.

**Late MRC**
The majority of our students (11 of 19) converged on MRC at the end of their processes. This is the trajectory we expected; We designed the course with explicit checkpoints toward the development of MRC, anticipating that these checkpoints would serve as formative feedback for students along this path. Bryan’s trajectory is representative of the developmental path for students in the course and the one we had designed for. He began his production process by identifying a compelling narrative without consideration for how that narrative was explicitly connected to identity or how the radio medium would afford him the opportunity to communicate the narrative. After many discussions with classmates and the instructor Bryan settled on, “An Improbable Dream,” the story of his
grandfather’s life, specifically the, “years trying to come from Mexico and become a citizen of the United States,” and his grandfather’s trials in the US including losing a finger working in a factory and being shot while delivering pizzas. As the initial idea moved into a more formal story pitch, Bryan accomplished three tasks: 1) he expanded the narrative of his grandfather in greater detail; 2) he linked his piece to the “American Dream” theme and; 3) he began to identify the ways in which he could use the radio medium to communicate his story. In describing the tools of the radio medium, Bryan said: “And then I wanna interview my grandma but have her speak Spanish but have my mom do the English voiceover for her about the whole experience coming to America.” The decision to interview his grandmother, to use his mother as a translator, and to include both of their voices in the radio piece begins to demonstrate an understanding of how to transform an oral narrative of personal experience into a multimodal representation.

Bryan’s understanding of the relationship between his story and the tools of the radio medium continued to develop as he put his piece together. During an editing session, Bryan discussed with Bass some representational options for his piece. In one section, he wanted to include his uncle’s reflections on the day he took his own father to the hospital but also wanted to respect his uncle’s request not to use his actual voice. Bryan puzzled through how to aurally represent emotion without acting like his uncle. He decided to transcribe and read his uncle’s words in his own voice, incorporating longer pauses into the responses yet balancing the time constraints imposed on a This American Life segment.

During this editing session, Bryan discussed whether to include music with his reading of his uncle’s responses: “I was wondering if I should put music to that at all, since it’s just gonna be my voice? Or should I just have it be like, just the voice?” The tone of his question implies that he thinks “just” his voice might sound boring and that the inclusion of music could be more aesthetically pleasing to the audience. Bass scaffolded him to think more explicitly about the narrative, the characters, and how the radio medium might serve the story by asking him, “Is there music you associate with your uncle?” After a short pause, Bryan reflected: “Every time we talk about my grandpa my uncle really likes to play ‘Viva la vida’…that’s the song we played at his funeral a lot and stuff.”

For the first full version of his piece, Bryan used his own voice as his uncle’s narration. There was no music in the background and Bryan did not alter his normal speaking voice while voicing his uncle’s words. In the final version of his piece - re-edited and shared during the second semester - Bryan had a classmate read his uncle’s narration. He added melancholy piano to the background of the narration and used meaningful pauses, sighs, and intonations to express feeling. The editing between the narration is crisp and Bryan made the exchanges sound more like an interview; he tells the audience the question he asked his uncle and then uses his classmate’s narration to provide the answer compared to his first iteration of the piece where it he just reads off his uncle’s words without a break in the dialogue. Additionally, Bryan is able to more clearly distinguish his thoughts on his grandfather from his uncle’s by using a different voice. His reflections heartfelt expression is supported through the uplifting piano selection playing as Bryan speaks. It is clear when Bryan is talking about his grandfather and when his uncle is reflecting on the day his father was shot and how his father affected his life.

No MRC
The final group of four students in our study did not display MRC at any time during the course, or in their final radio pieces. The lack of MRC was characterized by few changes from initial project ideas to final pieces. Stacy’s initial idea, for example, was to focus on the people in her life who inspire her the most: “my father, my boyfriend, and Katie Couric.” Stacy did not make any significant changes from her initial idea to her pitch; this is marked both by the similarity in discourse features between multiple descriptions of her piece over time and her lack of response to instructor prompts in the online discussion board asking her to reflect on her initial idea in greater depth. In her pitch, she does allude to the need for understanding how the audio medium might afford her telling the story of her personal influences: “Mine is more focused on me and I’m just going to talk about the three people who influenced me, and I just figured out how I’m gonna do it.” Her follow-up description, though, is more about the features of the narrative she plans to focus on – “I’m gonna open up with a line from one of the stories my dad used to tell me” – and not on the features of This American Life or audio more generally.

Stacy’s script outline did represent some narrative changes. Included in the outline is a basic attention to the features of the audio medium for creating multimodal representations of self. She states: “I will not be interviewing people, I will set the scene for each of [the] stories through noise and music… In each story, I will tell how each person inspired me to be a journalist…” Here she described opportunities (or rejections of opportunities) to engage with the tools of the radio medium to represent her identity piece. Stacy made the decision a priori not to interview the people in her life who inspire her and later decided not to include anyone’s voice other than her own. The story of her grandfather has some underscoring, though the decision of when the music fades in and out does not seem connected to the story itself, nor is the song loud enough to be discernible. The other two stories she tells
are underscored by two different songs, “Beauty and the Beast” for her father, and, “My Heart Will Go On” for her boyfriend. These two songs have symbolic value for Stacy, and during an editing session she refers to her use of them as, “oh my god, so cool!” However, there is no attention to the relationship between the music and her monologues, as we see in pieces that demonstrate MRC. Rather, the music choices are purposeful but non-reflective and do not seem to contribute to an understanding of the function of the representational medium.

Conclusions & Implications

Though “identity” has become a focal concept in learning sciences research, few studies have documented identity development as integrated in a learning process (Halverson, 2010; Bers, 2001; Nasir & Hand, 2008). While our earlier work provided an existence proof for the relationship between identity development and artistic production (Halverson, in press), in this paper we attended to the scope of representational trajectories students engaged in as they learned to produce digital art about the stories of their lives. We found that the majority of students followed the expected path, from an initial focus on what story they wanted to tell, to a focus on how to use the tools of the digital audio medium for representing their ideas, to an understanding of the relationship between their identity stories and how the digital audio medium affords representation of self (MRC). We also found that some students displayed MRC at the beginning of the process while others never seemed to get there at all.

Our work has the potential to inform the design of learning environments within fields of artistic production as well as other content areas emphasizing the importance of “identity work” in learning, a focus in recent learning sciences research, particularly with respect to science. Understanding how to design for an integrated relationship between identity and learning processes allows us to take seriously the role of identity in learning. Furthermore, the use of identity narratives as content for the development and display of MRC could expand access to a complex cognitive process and potentially interest more students in fields of study that require the development of MRC. Finally, we hope our work can speak to the importance of transitional times such as the first semester of the freshman year of college as design spaces for identity work. We know that identity work in learning is important, especially during times of transition; our work can help interested designers to create experiences that engage, rather than minimize, that transition.

References


