Mediated discourse analysis (MDA), sometimes called nexus analysis (Scollon & Scollon, 2004), is an action-oriented approach to critical discourse analysis that takes sociocultural activity as its primary focus, looking closely at a physical action as the unit of analysis rather than an ethnographic event or a strip of language (e.g., utterance, turn of talk). In this way of thinking about activity, every action is simultaneously co-located within a local embodied community of practice (Lave & Wenger, 1991) and a far-reaching nexus of practice, the expected and valued ways of interacting with materials among people. The purposes of MDA are

1. to locate and make visible the nexus of practice—a mesh of commonplace practices and shared meanings that bind communities together but that can also produce exclusionary effects and reproduce inequitable power relations
2. to show how such practices are made up of multiple mediated actions that appropriate available materials, identities, and discourses
3. to reveal how changes in the smallest everyday actions can effect social change in a community’s nexus of practice.

To accomplish these goals, the analyst locates a rich site for ethnographic study, which eventually leads to close discourse analysis of core actions with most significance to the people participating in that site. These actions must also be situated in their pertinent histories, global trends, cultural studies, and current news and media. Mediated discourse analysis opens up the circumference around moments of human action to begin to see the lines, sometimes visible and sometimes obscured of historical and social process by which discourses come together at particular moments of human action as well as to make visible the ways in which outcomes such as transformations in those discourses, social actors, and mediational means emanate from those moments of action. (Scollon & Scollon 2002)

For example, let’s consider a moment of play with a popular iPad app.
A one-year-old in a pink fuzzy sleeper bends intently over an iPad that wobbles on her lap. She bounces and coos as she swipes her finger across the screen, an action which launches animated an “Angry Bird” from a large slingshot. She launches another and another, giggling when each bird explodes into a mass of feathers. What are the cycles in and out of practices, materials, and discourses that come together in this moment? How do these cycles shape our interpretation? Is she precocious or just playing? An innocent at risk from over-exposure to games and media? Or a technotoddler with a digital headstart in the race to learn more faster and earlier?

In this chapter, I demonstrate methods of mediated discourse analysis (Scollon, 2001; Norris & Jones, 2004) as a way of unpacking and tracking how the smallest actions, like a baby’s wordless swipes and taps on a tablet, constitute key meaning-making practices (e.g., talking, reading, writing, playing, viewing, designing, filming, computing, etc.) that signal literate abilities and identities. This action orientation distinguishes mediated discourse analysis from other types of critical discourse analysis through a recognition that

- Activity is often neither narrated nor accompanied by text or talk; however, such activity is still packed with discourse that is invisible and submerged in familiar practices that have become routine, expected, and unremarkable.
- The ways we use everyday materials are shaped by discourses and histories of practices that underlie our shared expectations (e.g., who may use an object and how it should be used).
- Such tacit expectations influence what seems possible, affecting future actions with artifacts and potential identities in the cycles that flow into and emanate from a single action.

To explain how actions with things create meanings, Scollon (2001) drew upon theories that situate literacy and language in sociocultural histories of practices and identities that are shared among members of a culture. This theory of mediated discourse merges constructs of mediation and situated learning in cultural-historical activity theory (Leont’ev, 1977; Vygotsky, 1935/1978) with constructs of social practice and habitus in Bourdieu's practice theory (Bourdieu, 1977). For example, Scollon’s foundational work came from an ethnographic study of a one-year-old learning intercultural meanings attached to physical actions in the practice of handing. He micro-analyzed actions in the video data to understand how she learned
to reciprocate in handing interactions: taking an object from and/or giving an object to another person. Depending upon the surrounding cultural-historical context, the same action of handing over a toy could be interpreted as different social practices: giving a gift, cleaning up a play area, or sharing with a friend. The meaning of an action signals something different within particular trajectories of histories or emanations across a lifetime: for example, this trajectory can travel from a baby’s handing to an adult’s handing out flyers on a street corner or handing in assignments in a university classroom:

This little practice of handing, seen within the very wide circumference that includes a timespan from the first year of life through to being a teacher or a student, remains a pivotal means of organizing an inter-agentive human contact, and—this is the point—this inter-agentive human contact serves as a very important enabling practice upon which further social interactions and discourse are built. In summary, a traditional classroom is constructed as the physical trajectories of teachers and students (and books and other objects) which converge in a suitable place which they then progressively transform from being simply a place with people in it to being a university class through such inter-agentive practices as handing objects, showing joint and mutual attention to the smooth flow of the talk which is directed to the point of the syllabus or the teacher-determined topic. While the discourses of text and topic are visible and focal for this type of social encounter, the discourses of interpersonal social interaction are deeply submerged in a life history of practice. (Scollon & Scollon, 2002)

In my research on the nexus of literacies, play, and technologies in early childhood (Wohlwend, 2009, 2011, 2012), I look closely at the mediated actions in children’s handling of toys, literacy materials, and digital technologies. However as suggested by Scollon and Scollon, the analytic potential of mediated discourse analysis extends far beyond early childhood research. Mediated discourse analysis provides excellent tools for examining issues from critical sociocultural perspectives (Lewis, Moje, and Enciso, 2007): it has been used to reveal strengths in an African-American family’s literacy practices with technology (Lewis, 2008), to support collaborative writing practices in secondary English education (Rish, 2011), and to reconstruct critical literacy practices and racial power relations in teacher education (Mosley, 2010; Rogers & Mosley, 2008) and graduate classes (Rogers, 2011).

Mediated discourse analysis aligns with the turn toward embodiment in interdisciplinary linguistic and multimodal approaches to the study of social practices,
including interactional sociolinguistics (e.g., Goffman, 1983), linguistic anthropology (e.g., Gumperz & Hymes, 1964; Scollon & Scollon, 1981; Scribner & Cole, 1981), and critical discourse analysis (e.g., Gee, 1999). For example, Scollon and Scollon’s study (1981) of intercultural communication pioneered an interactional approach to the analysis of multimodality in literacy, aligning with ethnographic work in New Literacy Studies (Heath, 1983; Street, 1984; Gee, 1996) that reconceptualized literacy as ideological practices that can reproduce or remake extant power relations.

Like critical discourse analysis, mediated discourse analysis recognizes mutually constitutive relationship between language and power. Critical discourse theory posits that discourse (as language) is always doing something, a *discourse as action* perspective. By contrast, mediated discourse analysis examines *discourse in action*, that is, the focus is on activity in a material sense that puts practices with artifacts on equal footing with discourses. Second, the analytic goal is to not only deconstruct but to reconstruct the activity in a place or community. Social action is at the forefront as researchers work with participants to promote social change. Mediated discourse analysis makes visible the ways that everyday actions realize power relations and identifies those actions that have potential for remaking identities, discourses, and institutions (Norris & Jones, 2005).

**Questions for Mediated Discourse Analysis**

Here’s a set of questions I’ve adapted to track literacy practices in a nexus of practice:

**Site of Engagement**

1. What is the mediated action of interest used by social actors with this set of materials?

**Social Histories of Practices:**

2. Which social practices for meaning-making (semiotic practices) seem routine (natural, expected) and necessary for participation? Which valued and typically backgrounded practices are foregrounded in order to be explicitly taught to novices so that they can participate?

3. How do social actors wield these routine practices? How do they combine actions with other actions to show expertise and exert power over others?
4. How do these actions and semiotic practices fit into cycles of histories and anticipated futures of social practices in this culture? For example, how did these practices become routine?

**Cultural Meanings in a Community of Practice and Discourse:**

5. Who belongs here? What past identities are expected? What future identities are imagined?
6. Which identities are valued in this discourse? How do identities relate to each other?
7. Who decides what matters? Who authorized the rules and roles that operate here?

**Material Histories of Use and Access:**

8. Who gets access? Which identities get access to the materials needed for this mediated action? How?
9. Who produces what? How are expert/novice relationships established through artifact production?
10. How did these materials get here?

In the next section, I use these questions to follow cycles in and out of a nexus of mediated actions --pressing and swiping--to examine the issue of young children’s relationships to technologies and participatory social media cultures. It is important to point out that the current analysis is an illustration; a complete mediated discourse analysis requires researchers to personally engage the nexus in order to deeply understand how discourses, practices, and artifacts mold people’s lives and everyday practices (including our own practices).

**Illustrating Mediated Discourse Analysis: A Baby Thinks a Magazine is a Broken iPad**

Despite rapidly-changing technologies, burgeoning social media (e.g., Facebook friends, twitter followers, chat groups), and widespread availability of mobile technologies, early childhood education remains a digital desert, or perhaps an oasis, depending upon your discursive perspective. Although very young children’s direct and independent engagement with digital cultures appears restricted in school or after-school settings, babies and toddlers are highly visible on YouTube as subjects in productions, created with and posted by their families to the digital
video-sharing site. In fact, infants are featured in a large portion of “cute” videos, which is arguably the dominant genre on YouTube where clips of babies, kittens, or puppies go viral and prompt thousands of likes, lol’s, and smiley face emoticons. You can easily find similar technotoddler (Luke, 1999) videos through a YouTube search; the term “iPad baby” recently returned over 16,000 results. Often in these amateur videos, the producers add text, in the form of subtitles or adult narration that describes what the children are doing. A common trope in such narration is to provide script that imagines what the child might say.

Currently, the top result for iPad baby is the meme “A Magazine is an iPad That Does Not Work” which at the time of this writing has had 3,484,116 views since it was posted on Oct 6, 2011 (http://www.youtube.com/watch?v=aXVyaFmQNk). In this video, a toddler uses her fingers to press, tap, swipe, and pinch across the screen on an iPad. Next, she tries using the same finger movements on several magazines and appears puzzled when nothing happens, stopping to test her finger by pressing on her knee. The final scene returns to iPad apps that respond instantly to her finger touches. The subtitles imagine her monologue as she babbles, squeals, and interacts with the two texts. Figures 4.1-4.3 show screenshots with parental captions from the video:

Figure 1. “This One Works” caption follows baby pressing one finger on an iPad to open an app
Figure 2. “Useless” caption follows baby pressing down on print on fashion magazine

Figure 3. “Yet My Finger Does Work” caption follows baby pressing one finger on own knee
For my 1 year old daughter, a magazine is an iPad that does not work. It will remain so for her whole life. Steve Jobs has coded a part of her OS.

Figure 4. Final caption

How does mediated discourse analysis of this viral video that foregrounds one mediated action—a toddler's finger tapping an iPad, a magazine, and a pudgy knee—unpack dense aggregates of taken-for-granted discourses and commonplace practices cycling into this onscreen nexus of practice? The toddler's action with the iPad and the magazine is a mediated action: a concrete, here-and-now physical handling of materials to make sense of and participate in the physical, social, and cultural environment. Pressing an icon or swiping a finger across the screen changes the image and constitutes the mediated action turning a page. Here, several mediated actions—gazing at a lighted glass screen, pressing down on an icon to open an app, pinching and spreading thumb and fingers to size a page—combine to create a recognizable pattern that we can interpret as online reading, a social practice: a set of mediated actions that become categorized as a recognized way of behaving and interacting. The social practice of online reading is a way of accessing and making sense of a text by using a mediational means: the material artifacts as well as the semiotic systems (Wertsch, 1991) that provide us with meaningful words, gestures, images, and so on: in this case, the mediational means is literacy. This depiction of a baby using an iPad happens in a real-time moment or site of engagement: a social space where practices come together along with mediational means to make a mediated action the focus of attention (e.g., a baby swiping an iPad screen sitting at home on a wooden deck). Every site of engagement occurs in a moment, a point in time, located in a convergence of histories but also within trajectories of discourses,
materials, and identities that gel in this action in this place: a baby playing with an iPad at home, is a moment made durable and transportable through filming in a video captured by a parent, uploaded to Youtube, viewed by millions, and commented upon by thousands. For the analyst, the challenge of examining a mediated action as one point in the intersection of multiple dynamic trajectories means that one must follow these cycles in and out of the present moment. We examine a mediated action in the context of overlapping cycles to locate opportunities to open up access and create far-reaching transformative practices through small changes in ordinary activity.

...these nexus are constructed out of a very large and diverse number of discourses and practices (as submerged discourses) and any change of either the discourses or of the mechanisms by which they are linked in the physical world brings about a new set of affordances and constraints which constitute a change in the activity itself. (Scollon & Scollon 2002)

Figure 4.5 illustrates how I've adapted an activity system as a map for analyzing the interaction among key elements in a particular mediated action: the top triangle represents the real-time site of engagement, a moment that focuses on some who-doing-what-with-which-materials in order to make a meaningful artifact. In the model, mediated discourse analysis expands the focus from examination of this here-and-now moment to consider three simultaneously social, ideological, and material forces: 1) practices and their social histories/possibilities, 2) discourses and identities, and 3) use of and access to artifacts and their material trajectories. Each of the smaller triangles along the bottom of the model provides an entry point for examining practices, discourses, or artifacts to analyze the site of engagement and trace the circumferences of the focal mediated action.
Tracking the Circumferences of an Action Through Discourses, Practices, and Artifacts

To track the circumferences (past and potential affordances and constraints) of a baby’s finger swipes in the iPad video, we must look beyond the moment of filming that captured a toddler’s emergent digital reading to consider the context of a video-sharing site: the captions and the following written description that accompany the clip explicitly situate this moment in a shift between past/future, mind/technology, and paper/touch screens.

Technology codes our minds, changes our OS. Apple products have done this extensively. The video shows how magazines are now useless and impossible to understand, for digital natives. It shows real life clip of a 1-year old, growing among touch screens and print. And how the latter
becomes irrelevant. Medium is message. Humble tribute to Steve Jobs, by the most important person: a baby. (YouTube description)

Contestation is evident in the contrasting number of likes (6,385) and dislikes (3,303) and in the content of viewers’ comments (2,853). To connect these data to discourses, it is helpful to consult cultural studies and critical discourse analyses to identify the range of discourses prominent in technology, early childhood, and literacy. A sampling of viewer comments shows discourses of developmentalism (Burman, 2008), nostalgia (James, Jenks, & Prout, 1998), childhood innocence (Jenkins, 1998), and the risk of alienated techno-subjects (Luke & Luke, 2001).

Table 1. YouTube Comments and Discourse

<table>
<thead>
<tr>
<th>Sample Comment</th>
<th>Discourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blaming Steve Jobs for your child doing something that is average for her age is ridiculous. Along with blaming him for you presenting the iPad to your child as a toy. It’s not his creation that created behaviour you are identifying as bad when it’s normal.</td>
<td>Developing Organism</td>
</tr>
<tr>
<td>Oh... and come to think about it, why would you expose your precious baby’s eyes and brain to the radiation of an iPad - it’s literally 10cm away from her face. You have shown nothing here but really bad parenting and a really weird point of view. Terrible.</td>
<td>Vulnerable Innocent</td>
</tr>
<tr>
<td>Oh the terror! The children of today will tomorrow read and educate themselves through devices instead of having to cut down billions of trees to do so!</td>
<td>Digital Future</td>
</tr>
<tr>
<td>I thought I said (about 4 lines in) that I didn’t play with computer stuff UNTIL I was almost 12 years old. I think most of what seems wierd [sic] to me is that old era toys (what my 60 year old mom played with) basically were my childhood toys and those seemed to be getting dropped out of toys stores because some new computer thing will make learning innovative. So much for coloring books and crayons and lite brites and simple outside toys. Apparently those aren’t cool enough anymore.</td>
<td>Nostalgia</td>
</tr>
</tbody>
</table>

How is the action of touching images on a page interpreted variously through conflicting and overlapping histories and discourses in ways that influence who gets access to social practices with valued materials and which ways of acting matter in this site? Here, whether a baby’s handling of an iPad is viewed as dangerous or precocious depends upon discourses that circulate assumptions about the safety or developmentally appropriateness of technology or the aptitude of a new generation of digital natives (Prensky, 2001). Further comments refer to viewers’ own reading
and computing histories, marketing and manufacturing safety specifications for mobile technology, the histories of paper books and some viewers’ beliefs that books will and should persist into the future. This incitement to discourse over whether or not the emanations of this swiping action lead to better preparation for the future pits “headstarts and accelerated skills” against “natural” interactions with picture books.

Close analysis of the moment-by-moment actions in the video reveals the practices and identities that are submerged through routine practices or “frozen” in artifacts through regular use. In this case, the iPad evokes reading practices with page-turning taps and swipes that simply won’t work with a glossy magazine page: a swipe to search or scroll, a pinch to size, a tap to select. There is an expectation here that a one finger touch should be the primary mode for interacting with text and that a screen will respond to this touch. These are the tacit expectations that make up the “intuitive” skills of a “digital native” identity. The expectation of independent exploration in this technoliteracy nexus of practice conflicts with the expectation of a need for close monitoring and protection for a “developing organism” to prevent overexposure to screens (e.g., as in a recent prohibition by the American Association of Pediatricians) or the scaffolding for an “emergent reader” within developmentally appropriate nexus of practice. Mediated discourse analysis uncovers the roots and trajectories of these tensions so that other interpretations are visible and possible. This analysis is recursive and generates further questions for ethnographic study: who is privileged by discourse in this nexus of practice? Who gets early and easy access to 24/7 mobile devices? What builds on—or becomes difficult without—these early literacy experiences? Exploring these timescales may be a career long endeavor when we consider the time it takes to follow multiple cycles of relevance spinning out from one tiny mediated action.

Clearly, mediated discourse analysis provides useful inquiry tools for tracking complexity in digital literacies in overlapping contexts of online sites such as YouTube. In addition, this approach offers new ways to analyze a range of embodied and spatialized literacies that converge in face-to-face contexts. Finally, this approach to sociocultural inquiry is productive as well as critical. In the current example in this chapter, I use mediated discourse analysis to emphasize action over speech (e.g., tapping images rather than naming alphabet letters) as a critical move away from dominant print literacy and skills mastery discourse. This shift reveals the embodied literacies in a toddler’s play that would be typically backgrounded in linguistic transcription and identifies the mediated actions with potential for reconstructing the nexus of practice. In this way, mediated discourse analysis links the taps and sweeps
of tiny fingers to issues of wider access to touchscreens for young children that could produce far-reaching ripples in their life-long literacy practices.

REFERENCES


Wohlwend, K. E., & Handsfield, L. (2012). Twinkle, twitter little stars: Tensions and flows in interpreting social constructions of the technotoddler. Digital Culture
& Education, 4.
http://www.digitalcultureandeducation.com/uncategorized/dce_1058_wohlwendl/