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# Language Games, Digital Writing, Emerging Literacies: Enhancing Kids' Natural Gifts as Narrators and Notators

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## SUMMARY

*Children express themselves in a “hundred languages” (Malaguzzi & Al., 1987). They speak in gestures, words, images, and they use whatever they know in one language as a means to understanding others. Children also mix-and-match expressive media, such as drawing, writing, or acting. This paper focuses on the paths that bring the growing child to literacy: from being a narrator to being a notator, from being a listener to being a reader. While this is a fascinating journey, it is also be a hurdle to many children. The contention of the paper is that digital technologies can be instrumental in helping youngsters bridge the gap between oral and written communication, and mediate their expressions in novel ways. Digital media and narrative-based environments offer new grounds to re-assemble and re-contextualize text, and to link voice to word and author to audience. Manipulating “programmable” story-bits to create story lines (edit speech) and, conversely, engaging in written dialogues with remote pals, or fictional interlocutors (write to speak) are some of the promising venues that I explore in this paper<sup>1</sup>.*

**KEYWORDS:** *Language games, digital writing, literacy, narrative competence, (con)text.*

## INTRODUCTION

To a 3 years old, it is not very different to enact a scene, to mimic a character, or to tell a story. In their pretense play, children set the stages and build the props that enable them to revisit, recast, and play out their fears and fancies. Children also like to tell and listen to stories and, before they know to read or write, become fascinated with the marks they leave behind and the signs around them. Preschoolers scribble and recite, and they treasure their first books for the stories they conceal (Ackermann & Archinto, 2001)

Obviously, there is more to being a narrator than engaging in pretense or role play, and there is more to becoming literate than casting speech in stone or encrypting on a piece of paper the voice of the story teller (Bruner, 1984). Intuitively, we all know that inspiring story-tellers can be average writers, and that the best conversationalists are not always the most motivated when it comes to learning to read and write (Teale & Sulzby, 1989). This is especially true at a time when zapping, surfing, and digital editing challenge the very notion of what we mean by literacy.

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<sup>1</sup> An extended version of the paper appears in Ackermann E. (2001). *Bambini Digitali, Strumenti narrativi, scrittura dialogica*. In *.TD.Tecnologie Didattiche*, n.24, numero 3, 2001, pp..24-48.

Child psychologists and linguists have long studied children's ideas about—and spontaneous uses of language, both spoken and written (Bettelheim & Zelan, 1982; Bruner, 1984; Ferreiro & Teberosky, 1982; Ferreiro, 1988; Karmiloff-Smith, 1992; Sinclair, 1988). And many great educators have opened venues to help children speak "in a hundred languages" while, at the same time, learning to appreciate *from within* some of the benefits that being literate entails (Freynet, 1969; Malaguzzi & Al. 1987, 1989; Strickland & Mandel Morrow. Eds., 1989).

The approach I propose, then, is to take an incursion into kids' own views and uses of speech and writing, in different contexts, or language games, and to discuss some of the ways in which playful language games and narrative-based environments can enhance children's natural abilities to speak in "a hundred languages" (Malaguzzi, 1987), while, at the same time, building upon their equally strong fascination with keeping tangible traces of meaningful events (Sinclair, 1988). Drawing from Ong's concept of "secondary orality" (Ong, 1982), I then gauge the potentials of digital technologies to support "literacies beyond print" (Olson, 1994). Digitally mediated narrative transactions, such as Netting, Mudding, interactive story telling/building, and E-Puppeteering provide new opportunities for many children, otherwise at a loss, to indulge in dialogic writing, or text-based speech, using their strengths as narrators as a lever to overcome their fears as writers (Lankshear, 1997).

The paper is divided into two sections. In a first part, I speak to children's natural talents as narrators and notators and I discuss some of the trade-off between orality and literacy, as seen through a child's eye. What becomes of the Malaguzzian claim ("kids speak in a hundred languages"), I wonder, as youngsters enter school and are enticed, sometimes *the hard way*, into learning to read and write. How do youngsters reconcile the competing worlds of speech and writing? How do they move from one to the other?

In a second part, I address the potentials of digital technologies to help children simultaneously play, build narratives, record stories, and experiment with media. Digital media and narrative environments, such as text-based social virtual environments, electronic puppeteering, tangible story-tellers and story builders, I show, support what Ong refers to as "secondary orality", or dialogic writing, a seamless—and hopefully joyful—journey in the interstices between narration and notation, text and context, voice and word.

## **WRITINGS BEFORE THE LETTER<sup>2</sup>**

Children primarily use words, written or spoken, because they want to be heard. They tell their stories to those willing to listen—and they soon become silent if their gift is not received, if their words echo in a vacuum. Children also use words to evoke distant or imagined events, to elicit desired responses from those whose opinion counts, and to give and negotiate orders.

Before they enter school, most children are fairly good *narrators* and eager *notators*. Both of these competencies evolve in conjunction. On the one hand, children like to be in touch with things and in tune with people. They like to belong. On the other hand, children are equally eager to explore the excitements of doing things from afar, and for later uses. Preschoolers start to scribble before they know how to write, and they recite before they know how to read. They are fascinated with traces and trails, and they put their marks on any support able to register their

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<sup>2</sup> "Writing before the letter" is the title of a paper by Ferreiro (in French: *l'écriture avant la lettre*)

strokes. Early on, children develop on their own theories on what it takes for a mark to be a word, and icon, or a digit (Ferreiro, 1988).

Speaking in a hundred languages, in sum, requires that the child achieves a viable balance between two apparently competing quests: that of remaining connected or in tune with people and things—speak or act in situ—and that of doing things at a distance, or for later uses.

### **Language games**

Children's engagements in dialogic transactions are multiple and varied: from casual dinner table conversations to self-speech with imaginary companions, from bedtime story-reading/telling rituals to pretense and role-playing games with dolls and other children. Each context comes with its own rules and constraints, and offers unique occasions to explore the power of speech. Each calls for its own level of engagement and trust that the words, spoken or written, will be heard, and used to evoke the ineffable and to elicit desired responses from interlocutors, real and fictional. Allow me to give a few examples in the form of short vignettes.

- Vignette 1: To participate in a dinner table conversation requires learning a set of rules that govern who gets the floor, initiate a topic, what kinds of gestures can and can't be used, who can interrupt whom, who has the final word, where slang might be appropriate.
- Vignette 2: Playing with other kids or with dolls, on the other hand, a child may well bend all the rules and conventions of the dinner-table conversation and explore the *performative* power of words. The child now asks her playmates to fall to the ground when she declares them dead, and to slavishly comply when she gives them orders, giving in to her wish for omnipotence.
- Vignette 3: Story telling rituals offer yet another dialogic setting: a very special time when children, comfortably installed in their mothers lap, are guided into imaginary worlds through a combination of sounds, their mother's voice, strings of world on a page, and images. That's when children learn to recite texts they can't yet read, and to use words or images in a book as placeholders for the stories they conceal. That's when kids, as young as 3, insist: I'm gonna 'read' it to you, and start improvising by following with their finger the marks on the page. They become fascinated with pretense reading.
- Vignette 4: During the same time, many children also engage in pretense writing and, as mentioned earlier, become fascinated with leaving traces behind. They scribble whenever they can, wherever they can. Their productions resemble bundles of curvy curly lines that in their minds stand for letters, words, numbers, or sentences. "Can't you see", they tell you: this [my scribble] says: "the cat". It doesn't show: the cat, it says: "the cat" (karmiloff-Smith, 1992). Kids are no fools: they know the difference between a word and a picture. This doesn't mean that we, adults, will be able to tell the difference, or that they won't use both word and image, side by side, to augment their expressive power.
- Vignette 5: Later, starting about age 4, children start writing shopping lists, letters to friends, using onomatopoeic strings of scribbles. Studies by Ferreiro and Teberosky show that these "writings before the letter" are indeed very principled to those who know how to decipher them (Ferreiro and Teberosky, 1982). Still later, starting at age 6, kids move into "invented spelling". Again, these productions may be hard to decipher to an untrained adult, but they constitute a legitimate convention as long as they are understood within a targeted audience

of 'readers'. Note that it is only when children are genuinely interested in addressing their messages to a wider audience that they become eager to play the game of tightening conventions (Freinet).<sup>3</sup>

Without playfully experiencing the powers of words, spoken or written, in many contexts, little incentive later on, to go through the pain of deciphering all those enigmatic graphies cast on mute sheets of paper (Ackermann, 2001, Archinto, 2002).

### **School literacy**

Now, what happens to many children when enticed *the hard way* into the world of print, the silent and inert trace of their sensuous speech or playful scribbles, divorced from any dialogic context? Well, the passage can be abrupt and, contrary to widespread belief, it is especially hard for good conversationalists. Many youngsters who have happily learned to ground word in speech and performance, and to modulate speech according to audiences, are suddenly at a loss. Their abilities to express themselves in "a hundred languages", picking whichever medium best captures their ideas won't suffice. In Stevenson's words: "to pass from hearing literature to reading it, is to take a great and dangerous step (...) Those who once read aloud to us sang to their own tune the books of childhood. Whereas once we can read for ourselves, we have to approach the silent inexpressive type alone" (Donaldson, 1984).

From a child's perspective, it is perfectly legitimate to wonder, when faced with the hardships of producing or deciphering print: Why should I write it when I can say it? Why read it if I can be told? Obviously, from an adult's perspective, things look different. Adults know that access to literacy fosters personal and societal growth, and that people's ability to put the word on paper has paved the way to entirely new forms of reasoning, otherwise impossible (Olson, 1994). This is why many adults, parents and caretakers, get upset when their children question their passion for books, or challenge their views on the benefits of the printed word.

The passage from oral to written communication, while bringing about priceless gains, also entails deep losses, often ignored by educators, researchers, or parents (Ackermann, 1990). Writing separates author from audience, audience from the site of the plot, and word from voice. Print is silent and cold. It casts speech in stone. Speech, on the other hand, is an integral part of human performance, and punctuates a narrator's action as it unfolds. Speech bridges what is said to who says it, and who says it to how it is voiced. Speech allows narrators to sing their tunes, to respond to their audiences, to be actors in a conversation (Ong, 1982).

### **LITERACIES BEYOND PRINT**

The passage from speech to writing can be a difficult passage, not just for kids who grew up in dominantly oral traditions but, closer to home, for "digital" kids who zap, surf, converse over the phone, and chat on-line with their virtual (geographically removed) net-pals. In what follows, I highlight some new forms of literacy that emerge from kids' spontaneous interest—and growing fluency—in digital technologies. These literacies, referred to as written speech or dialogic writing, are *hybrids*. Their characteristic is to bring text back to context, utterance back to speech acts, word to voice, author back to audience.

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<sup>3</sup> Note 1: A more detailed presentation on the genesis of children's spontaneous appropriation and uses of writing and notations can be found in Ackermann (1990, 1992, 1993, 2001 )

In a narrow sense, one may say, a text is a passage of print, or a slice of speech frozen in time and space, and largely cut off from its uses. In a broader sense, however, a text is always embedded in a dialogic context. This is why becoming literate requires an awareness of pragmatic issues, such as who "speaks" to whom, and why. This is also why, beyond syntax and semantics, being literate involves both de-contextualizing and re-contextualizing "text".

Of particular importance in this discussion is Ong's concept of *secondary orality*, "in which a new form of orality is sustained by telephone, radio, television and other electronic media that depend for their existence and functioning on writing and print (Ong, 1982).

### **Digital tools for dialogic writing**

In the remaining sections, I speak to the potential of digital technologies as a means to foster literac(ies) beyond print, using "secondary orality". Of particular relevance in this context are text-based story telling and role playing environments, as well as environments that enable to switch from text to voice (ex: type words and get sounds) and to use text as commands (ex: edit a story). All provide new ways of integrating speech and writing and navigating between oral and literate (Ong, 1982). All do so by reconnecting authors to their audiences / interlocutors, and by bringing audiences back to the site of a plot.

. To illustrate my point, I present two kinds of digital *playpens* designed to contextualize writing while, at the same time, allowing to record and/or register speech [keep track], and edit spoken or written story elements (build linear sequences of re-arrangeable story-bits). Based on research by Bruckman (1999), Umaschi (1986), Umaschi, Ackermann, & Al (1998), Annany (2001), and Montemayor, Druin & Hendler (2000), these playpens are both engaging to children and help us shed light on *how* text-based and text/voice-based environments for distant-chat, story-telling and role-playing facilitate authorship through dialogic writing.

- **Tangible Toys: Story-tellers, Story-builders, Story-writers, Story Readers**

To communicate successfully, whether through spoken or written language, kids must acquire the ability to sequence story elements in a linear coherent manner (Annany, 2001). This, in turn, calls for elaboration spaces (playgrounds) in which children can mess around with story elements, combining and recombining them until they form meaningful configurations (or sequences). For younger children, the available story-fragments gain to be tangible for the purpose of rearrangement [easy manipulation] , and digital for the purpose of responsiveness [immediate reliable feedback]. Tangible story-tellers/builders/listeners/readers can help younger kids, age 3 up, to create and organize narrative events embodied in tangible building blocks, like digital tiles, images, cards. The following are two good examples of kids' tangible Tale-Telling-like-Toys: **Tell-Tale** (Annany, 2001), PETS –Personal electronic teller of Stories [see in Robots for Kids. Allison Druin and James Hendler. P.73-107].

- **Virtual Worlds: Netting, Mudding, Electronic Puppeteering**

E-mail and other on-line "messaging" services allow older kids (7 up) to join in virtual communities. Participants can send and receive messages using text editors, which allows them to compose/edit on screen, move text around by cutting and pasting, reconfigure, rearrange text. Kids can also send images, sounds, and build composites. Netting is often used in schools as a way to help kids who like to be "connected" to engage in writing. In social virtual environments, or MUDs, participants engage in anonymous role-play, enacting multiple characters, putting on different masks, exploring aspects of themselves otherwise unveiled . What's particular about MUDS, as compared with other role playing games, is the intricate connection between users and

their avatars, or VR inhabitants, and the immediacy and unpredictability of other player's response to one's virtual appearance. Attached to their avatars like a puppeteer to her string puppets, players act and feel through them. Avatars are both built by the puppeteer and brought to life by her. Players can endorse multiple personae and launch them into different habitats at the same time. People's ability to put on multiple personae is not new in itself, and has its off-line equivalents in adult psychodrama and face-to-face role play. What's different in VE, is the ubiquity of self-appearances. It's like being in two "bal masqués" at once or maintaining parallel streams of conversation. Along with Turkle, I think that text-based SVE, enriched MUDS of sorts, can be used to help older children engage in playful dialogic writing with removed players under disguise.

- EX. 1: MOOSE Crossing is a text-based mud created by Amy Bruckman in which kids can converse, exchange gestures, and express emotions in real time. Kids describe places using words. They use typographic conventions like emotrons to replace physical gestures and facial expression, and they use onomatopoeic expletives and often ignore spelling errors<sup>4</sup>. In Moose Crossing, words and programs are intimately connected. Words are used to describe things, and as commands to trigger interesting event. Words here are used as keys to trigger actions and events. Children's experiences on MOOSE Crossing take place in a web of social relations. Their writing is both multi authored, ephemeral, and a string of verbal commands to transform the world. All happens *in situ*.
- EX. 2: E-Puppets Story-writer/teller SAGE. Designed by Marina Umaschi Bers and Justine Cassel at the media lab, SAGE is a digital puppet show of sorts, in which children are the users as well as designers of storytellers. They interact, through a text-to-speech conversation, with existing characters (with their repertoire of stories). They can also create their own characters. In order to create a believable storyteller, children need to situate the character in context, to plan what it will say, give some background information about its persona, create the underlying conversational structure and set the conditions in which the exchange of stories will happen. One of SAGE's characters is a soft rabbit that lives outside the scene..

A pilot study that Marina and I conducted at children's hospital, using Sage, has allowed us to group children's creations into three categories depending upon "What persona the narrator choose to take on", or to "embody into other characters", i.e. "what stance in the world the narrator takes. These characteristics seemed to vary with the mindset and health condition of the children.

- In direct mode, kids use first-person description, and want the rabbit to speak back to them in their own voice. The represents them to tell their stories to the world.
- In mediated mode children embody aspects of them selves into another character. They use the second-person descriptions and favor anonymous computer-voices to render "its" narration. They then interact with it.
- In differed mode, kids became playwright or choreographer of two character's interaction. They created characters who may have represented aspects of themselves that they wished to control—as if they were not me.

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<sup>4</sup> Note that while most adults deplore youngsters' increasing indifference to spelling errors, kids nowadays learn to spell in new ways. Like many of us, they set the spell checker of their word-processor on "signal" mode and fix underlined words as they write along. Sometimes they find the right spelling by themselves. Sometimes they look it up. More often than not, they learn quite a bit, and effortlessly, as a result of using a spell checker.

..The importance of voice: Children generally liked to hear their stories read by the different text-to-speech voices in the computer. Yet, moreso than in schools, some patients in the hospital who want to speak in the first person requested a way of recording the stories in their own voice.

## TO CONCLUDE

Unlike the word cast on paper, digital text is configurable, recyclable, which has as a side effect to break down the classical reader-writer distinction in dramatic ways. Readers/ writers can easily add, delete, incorporate textual scribbles as part of text, re-edit, rearrange paragraphs. Digital texts, in this sense, are built like a patchwork or montage: You don't need to start from scratch but you can assemble existing pieces and bits. As Lanham well put it: "the interactive reader of the electronic world incarnates the responsive reader of whom we make so much" (Lanham). Digital texts also allow for simultaneous processing of words, images, which can help kids express themselves in their own hundred languages...More important, digital text allows for entirely new genres of writing to emerge. Writing becomes informal, multi-authored, multi-threaded. By allowing users to incarnate multiple voices, cyber-writing re-installs the possibility for multilogues. This being said, digital alone is no warranty for enhancing young children's creative / critical reading, writing, thinking. It can only provide new occasions for exploring the bumpy road leading from spoken and written language, and bridging the gap between text and context, author and audience, words, images and sounds – in new ways.

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