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## **A Frontloaded Literacy: Reading in a Time of New Media**

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## **Abstract**

This speculative article considers whether an increasing loss of prose complexity in written texts in the present age might point to readers' increased dependence upon extratextual or prior ideation, generated in part by vivid new media, to determine meaning. In considering what sort of literacy these new media might birth, ancillary questions are posed as well; namely, whether standing mental objects as compelling and involved as any before can allow for real fidelity of thought to actual objects or situations; and whether unequal distribution of means for fabricating and disseminating such mental objects—songs, images, logos, de facto paradigms or templates of all kinds—might afford already powerful parties an undue influence over the interior lives of their fellow human beings.

*The first draft of this paper was written in November 2012 to fulfill a course requirement for Dr. Richard Speaker's Psychology of Reading class at the University of New Orleans.*

“CAT!”—“HAT!”—“FOOD!”—“SWEETIE!”

—Wyndham Lewis, “The Dumb Ox: A Study of Ernest Hemingway” (1934)

As he smoked...he noticed a grasshopper....He realised that the fire must have come the year before but the grasshoppers were all black now. He wondered how long they would stay that way.

—Ernest Hemingway, “Big Two-Hearted river” (1925)

### **Lotta 'Splainin'**

The present Information Age could as revealingly be called the Frontloaded Age, with backstory or “shared knowledge” playing an ever larger part in informational commerce to compensate for perceived want of bandwidth. (The term “bandwidth,” borrowed from signal processing and its meaning broadened for use in computer science and networking, might be further extended to the areas of interpersonal speech and written expression to denote the practicality—given time-constraints, forbearance of one’s audience, etc.—of including in a given message the information the sender would *like* to impart.) We might think of the many digressions a schoolboy includes in explaining to his mother a disparaging note from his teacher. There is a limit to how much backstory she is liable to allow before cutting him off and moving the matter to its (probably punitive) conclusion. Ideally for our schoolboy, any mitigating information (Ms. Crabtree’s nearsightedness, evidences of her imminent senescence, Susie’s uninvited disruption of his rule-abiding quietude, etc.) would all have been sewn in his mother’s mind ahead of time; so that by the time Mrs. Jones reads the note, its import has already been more or less determined for her—that is, *predetermined*—and in a manner favorable to our

young hero. Johnnie and his mother's interaction might then be quite concise, and his otherwise quite involved account substantially less intricate.

Just so does the political messenger of our day prop his bicycle against sudden whole buildings of supposition.

Nicholas Negroponte illustrates the point more starkly yet by an anecdote in his *Being Digital* (1995), relating how he might telegraph to his wife a considerable freight of meaning with a single wink. Suppose that the two, sitting with other guests at a dinner party, are privy to a rather involved backstory concerning a man who happens to be under discussion by the other guests. The "data-bit" of the husband's wink thus causes this background knowledge, unknown to the others, to unfold anew in his wife's head, and Mrs. Negroponte smiles knowingly. "...I fire a certain bit through the ether," he writes, "and it expands in her head, triggering much more information."

This one-bit-for-100,000 interaction is analogous, observes Negroponte, to data compression techniques quite commonplace in this digital age. "We are likely to see more and more such techniques," he adds, "when we trade bandwidth against shared knowledge."

### **The See Saw of Literacy**

Writes Frank Smith in *Understanding Reading* (1994), "...[T]here is a reciprocal relationship between [visual and nonvisual information]....The more nonvisual information a reader has, the less visual information the reader needs. The less nonvisual information that is available from behind the eyes, the more visual information is required." Writes Frank Smith in *Understanding Reading* (1994), "...[T]here is a reciprocal relationship between [visual and nonvisual information]. Within certain limits, one can be traded off for the other. The more

nonvisual information a reader has, the less visual information the reader needs. The less nonvisual information that is available from behind the eyes, the more visual information is required.” Perhaps it would not be unreasonable to talk about this relationship as it characterizes the literacies of whole peoples or societies; so that we could imagine their occupying a place on a spectrum according to what proportion of meaning is derived during acts of reading from prior information. If we can (taking some license) consider the spectrum of writing systems, from logographic through hieroglyphic to alphabetic, as a progression from nonvisual to visual predominance—that is, a movement toward more and more determination of meaning by the information on the page and, accordingly, less by the reader from his own stock of sensory impressions or experiences—then perhaps the last hundred years may be considered a sort of reversal of that trend, albeit (it may turn out) perhaps a relatively small and brief one, with less information being supplied by the page, and more and more of it by the reader’s prior experience.

A reader of a logographic text might require little more than an understanding that the images in the written text refer to the things of which they are likenesses. Even knowledge of the writer’s tongue would be no prerequisite to such “reading”: “One doesn’t have to know the spoken language in order to decipher it,” write Keith Rayner et al (2011). “As long as one knows what the symbols mean, one can decode the written language.” A circle with some lines radiating from it would be sufficient to conjure for the reader his own word for “sun,” as well as his or her remembered experiences of the sun.

The import of a message, however, may be determined for the reader by the text to a far greater degree of specificity when the terms employed have been selected from a vocabulary of hundreds of thousands of words. A logography of the past, necessarily bounded by such practical

considerations as ease and speed of depiction, differentiability among symbols, and so on (Rayner, 2012), could hardly compare with an alphabetic system of writing for the number of human utterances it can convey. In fact an alphabetic system's expressive potential must almost infinitely exceed the existing vocabulary of any language that it might serve as a vehicle.

There is surely a general principle to be deduced from this (I am sure that it has been, likely in several disciplines), that the smaller and more limited in scope the informational load of symbols, the greater the number, clarity, and complexity of messages they can be used to convey. (Think here of movable type as against whole-page woodblock prints.<sup>1</sup>) In other words, the more "fidelity" the system is capable of. We could think of bits of paper used in a mosaic as offering a visuotactile analogy. Out of tiny pieces of construction paper one could, given the requisite artistic talent, compose a mosaic that partook of impressive shadow, depth and, all in all, realism. The bigger and more variegated the scraps of paper one used, however, the more the project would lose in fidelity to whatever it was supposed to be a picture of: the *shaggier* it would become. I would suggest that such bits of paper could serve as analogs for informational chunks of all kinds.

### **Reading Deep and Shallow**

By all accounts, the reading of some texts is faster and less taxing for the reader than that of others. Light fiction and newspaper articles "can be read relatively quickly, in poor light, despite small type and poor quality printing....because of what we know already; we have a minimal need for visual information" (Smith). Of course, we do have to know things in order to

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<sup>1</sup> The word "stereotype," it is interesting to note, now used to label fixed and often "low-fidelity" thinking, has its derivation in the name for a kind of metal-plate likeness of composed type. Unlike the movable-type elements of the model it was taken from, the stereotype necessarily admitted of few meaningful combinations with other print elements and did not allow for mistakes to be corrected.

read any kind of text. Even when reading a difficult text completely outside our purview, we draw parallels to the (for us) strange, new ideas from among things that we do happen to know about, and so proceed through analogy. We might say that in doing reading of this kind we are pulling together many small bits of paper, many discrete bits of information; whereas in reading light fiction, the bits are already aggregated in fair-sized chunks for us. We know that the character's house will likely contain more than one room, and that one of them is liable to be a kitchen, and that the kitchen will probably have a tiled floor rather than a carpeted one. Likewise, we know roughly how *we* would respond to certain events, whether with anger or delight or embarrassment.

American writer Robert Olen Butler, winner of the 1993 Pulitzer Prize for fiction, spells out the difference between popular and literary fiction with reference to the kinds of on-the-page and reader-brought information discussed above. To the extent that it can be called successful, he says, literary fiction determines for its audience the character of the reading experience, offering truly vicarious experience (which may or may not be reminiscent of previous experiences of the reader). Popular fiction, on the other hand, relies upon what Butler characterizes as “abstract, summarizing, generalizing, and analytic language [that] induce[s] the reader to fill in the blanks and thereby distances her from the work and the characters”; the literary equivalent of a pair of square braces that invites the reader to insert his or her own prior experience.

In other words, literary fiction, understood in this fashion, aggregates for the reader “fine” bits of information in fresh and unexpected ways that resonate convincingly with his own experience, or that approximate what he imagines would be his experience in a given set of unfamiliar circumstances; while boilerplate fiction—generally in long-familiar linguistic

formulations—gives the reader only his own already extant aggregates of empirical data.<sup>2</sup> If it does even that much: to say that a character “felt terrible,” after all, is hardly to do more than suggest that the reader call up for himself his own gross impressions of malaise. So higher forms of writing, according to this model, draw from much deeper, as it were, pulling together smaller bits of information and rendering a more faithful picture of whatever they choose to represent; and the reader for his part experiences this as a more challenging reading task that, if he is successful, rewards him with a deeper satisfaction, comparable perhaps to that which we take in being confronted by the new and unexpected.

### **The Prose of Benjamin Button**

Probably most literate people feel intuitively that writing in the present era is shrinking. Not that there is less of it: the number of new books published each year in the U.S. grew by something like 325% between 2002 and 2009 (Bowker Report, April 14, 2010), and this was in addition to the new worldwide venues of blogs, websites, and email (126 million blogs, 234 million websites, and 90 trillion messages respectively, by 2009) (Pingdom). Yet is it not our general sense that prose has grown less complex, less nuanced, than that of our forebears? If we can consider the spectrum of writing systems as a progression from nonvisual to visual predominance—that is, a movement toward ever greater determination of meaning by on-the-

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<sup>2</sup> In rather the same vein, American novelist John Gardner counsels would-be writers to avoid absorbing and reusing the “molds and formulas of TV,” which are essentially “false to life” (*On becoming a novelist*, 1999). Such derivative work, says Gardner, “lacks something we expect of good writing: the writer seeing with his own eyes.” This is presumably as opposed to what Stephen Nachmanovitch calls “the most common form of improvisation...ordinary speech. As we talk and listen, we are drawing on a set of building blocks (vocabulary) and rules for combining them (grammar)...But the sentences we make with them may never have been said before and may never be said again” (*Free play*, 1991, pg 17). Here, surely, is an instance of the principle proposed above, of smaller-load symbols allowing for more highly-nuanced, faithful renderings of reality than larger; or, in this case, of new arrangements of words making possible a nicer sensitivity and responsiveness to the infinite variability of things than could most any prior configuration of words. “It is by *combining* words in multiple ways,” writes David Chandler in his popular *Semiotics for Beginners*, “that we can seek to render the particularity of experience.”

page information and, accordingly, less by the reader from his own stock of impressions or experiences—then perhaps the last hundred years may be considered a sort of small reversal of that trend, with relatively less information being supplied by the page, and more and more of it by the reader's prior experience.

Hemingway, perhaps the most widely emulated American stylist of the past century, made signature use of short words in simple sentences:

He stepped into the stream. It was a shock. His trousers clung tight to his legs. His shoes felt the gravel. The water was a rising cold shock....Rushing, the current sucked against his legs. Where he stepped in the water was over his knees. He waded with the current. The gravel slid under his shoes. He looked down at the swirl of water below each leg and tipped up the bottle to get a grasshopper (1925).

A far cry, certainly, from the periodic sentences and Latinate vocabulary favored by the likes of Poe, Melville, and Henry James in the previous century. Writing in 1934, Wyndham Lewis suggested that Hemingway's prodigious influence had been due not only to his inarguable literary talent but, in at least equal measure, to his works' being in especial accord with the spirit of their time. Indeed, "...the modified *Beach-la-mar* in which he writes," wrote Lewis, "...is a Volapuk which probably will be ours tomorrow." (Interestingly, he seemed to relate the probability of this outcome, at least in part, to the wide popularity of American movies. Lewis saw the cinema as a channel through which the speech of the lower classes was busily overtaking and supplanting that of the upper. Certainly it might with equal cogency be maintained that the relative simplicity of language in movies has mostly been due to the fact that visual and other

non-lingual aspects of the medium assume so much of the burden of explication.) In

Hemingway's prose, then, Lewis saw a prefigurement of the future of English:

... [T]his...marionette [Hemingway's fictive I]—peering dully out into the surrounding universe...—pointing at this and pointing at that—uttering simply “CAT!”—“HAT!”—“FOOD!”—“SWEETIE!”—is, as a companion, infectious.

If Lewis's intuition was right, we should see signs elsewhere in the culture of whatever need or proclivity was answered by the characteristic features of Hemingway's work.

Assuming that it is among youth we see in germ what, as to our culture, most probably lies in the offing, we might consider the case of Nancy Drew. Beth Walker, in a doctoral thesis on the American teen detective series, describes the late 1950s revision of the bestselling Nancy Drew mystery novels as resulting not only in the elimination of outdated language and stereotypes, but in “choppy...prose,” with “entire passage[s]...built from stock phrases” and marked overall by a “simplistic style...built upon brief scenes, short sentences, and clichéd action and description.” In shortening the books from twenty-five chapters to twenty, “[k]ey action scenes became shorter. Long descriptive passages and dialogue exchanges were shortened or cut altogether.”

As an index of prose complexity, I analyzed the first seventy-five sentences of the 1930 and 1960 editions of *Nancy Drew Mystery Stories: The Bungalow Mystery* for average number of words per sentence (WPS) and average number of syllables per word (SPW). Congruent with Walker's observations, WPS dropped by 15.9% and SPW by 11.8% from the original novel to the revised version.

*The Bungalow Mystery*, 1930 edition*The Bungalow Mystery*, 1960 edition

Sentence	Words	Syllables	Dialogue/No Dialogue	Sentence	Words	Syllables	Dialogue/No Dialogue
1.	8	8	D	1.	28	33	D
2.	20	23	D	2.	14	17	N
3.	28	35	N	3.	16	22	N
4.	28	43	N	4.	25	34	N
5.	32	55	N	5.	10	13	N
6.	20	26	N	6.	21	24	D
7.	11	14	D	7.	15	20	N
8.	8	9	D	8.	8	11	D
9.	5	10	D	9.	4	7	D
10.	4	6	D	10.	5	6	N
11.	9	12	D	11.	15	25	N
12.	11	12	D	12.	15	22	N
13.	15	18	D	13.	14	22	D
14.	15	21	N	14.	22	29	N
15.	15	19	N	15.	12	16	D
16.	11	16	N	16.	4	6	D
17.	23	31	N	17.	11	12	D
18.	5	8	N	18.	6	9	N
19.	9	12	D	19.	10	14	N
20.	14	15	D	20.	17	26	N
21.	7	9	N	21.	16	21	N
22.	26	29	N	22.	5	7	D
23.	16	24	N	23.	8	11	N
24.	16	23	N	24.	18	20	N
25.	11	15	D	25.	17	33	N
26.	10	11	D	26.	6	9	N
27.	6	9	D	27.	27	33	N
28.	8	12	D	28.	15	19	D
29.	6	7	D	29.	6	6	D
30.	9	9	D	30.	8	11	D
31.	13	21	N	31.	8	13	N
32.	23	31	N	32.	9	13	N
33.	22	33	N	33.	15	20	N
34.	26	38	N	34.	10	14	N
35.	17	28	N	35.	13	17	N
36.	6	11	D	36.	9	12	N
37.	9	10	D	37.	13	22	D

38.	6	7	D
39.	13	19	N
40.	16	18	N
41.	12	17	N
42.	19	39	N
43.	6	8	D
44.	5	5	D
45.	15	23	N
46.	9	11	N
47.	16	21	N
48.	18	23	D
49.	7	7	D
50.	22	32	N
51.	26	32	N
52.	39	50	N
53.	16	25	N
54.	9	14	D
55.	7	7	D
56.	8	9	D
57.	15	18	N
58.	33	43	N
59.	10	13	D
60.	33	43	N
61.	9	17	N
62.	13	18	N
63.	7	8	N
64.	6	10	N
65.	4	8	D
66.	24	29	N
67.	5	5	N
68.	4	7	D
69.	7	8	N
70.	7	11	N
71.	8	10	N
72.	8	10	N
73.	10	13	N
74.	9	12	N
75.	11	12	N
TOTALS	998	1375	30/45

Average words per sentence: 13.306  
Average syllables per word: 1.378

38.	4	5	N
39.	12	20	N
40.	16	21	N
41.	12	13	N
42.	8	10	N
43.	11	16	N
44.	6	6	D
45.	4	4	D
46.	11	12	D
47.	5	8	N
48.	10	13	N
49.	17	20	N
50.	5	9	N
51.	5	7	D
52.	9	9	D
53.	13	16	N
54.	10	13	N
55.	10	17	N
56.	21	25	D
57.	11	15	N
58.	15	19	N
59.	10	12	D
60.	7	7	D
61.	7	8	D
62.	11	13	N
63.	19	26	N
64.	14	19	N
65.	13	24	N
66.	6	6	N
67.	5	6	N
68.	5	7	N
69.	5	5	N
70.	7	10	D
71.	5	6	D
72.	13	18	N
73.	12	14	N
74.	4	5	N
75.	6	7	N
TOTALS	839	1020	24/51

Average words per sentence: 11.187  
Average syllables per word: 1.216

Flesch Reading Ease: 76.65061

Flesch Reading Ease: 92.606595

While the two books open with substantially the same events, the 1960 edition would indeed seem to represent a net loss in specificity. The thunderclap in the original version makes the girls “cower involuntarily” (p. 3), while the same thunder in the revamp makes them “jump” (p. 2). Whereas in the 1930 version Helen “triumphantly [brings] out a mass of sticky yellow garments” (of which Nancy’s happens, memorably, to be “several sizes too large for her”), in the new, Helen simply “[finds] two plastic coats” which the girls then get into. For that matter, the “unseasonably torrid day [in] early summer” upon which the first book opens—the girls have just been “cruis[ing] aimlessly about for several hours, enjoying the lake scenery and, particularly, a cool, refreshing breeze”—becomes an afternoon on any day, with no sketched-in recent past, in virtually any season. That Nancy’s quaint and eye-catching southwester [rain bonnet] in the 1930 version has disappeared entirely from the new telling we might be tempted to ascribe simply to the relative unfamiliarity of the term—if not for the fact of the girls’ half-tank of *gasoline* (specific *and* familiar) having been changed to a half-tank of *fuel* (less specific, slightly less familiar).

The single respect in which the new *Bungalow Mystery* might be said to surpass the old for specificity of detail is in its description of the heroine (an eighteen-year-old girl, “blue-eyed, with reddish-gold glints in her blond hair”) and her sidekick (“dark-haired and petite”), which is given on the very first page. (The original does mention—three pages in, and then only in passing—that it is “over her curly, golden bob” that Nancy dons the aforementioned southwester.) It is as though, special care having been taken to establish for the reader a figure through whom to interface with the story—what we might these days call an avatar—the book

now in large part leaves it to the reader to supply from her own imaginative resources the fictive world's reifying sensory details.

Walker reasonably speculates that the revisions, undertaken without fanfare, were meant not only to cut the publishers' overhead but also to add elementary-aged readers to the series' existing middle school audience. Of course, it then follows that the publisher believed it could hold a sizable share of its teenaged readership with books markedly reduced in stylistic complexity.

Lewis called the voice of Hemingway—and, by extension, his epigones—an “infantile, dull-witted, dreamy stutter.” The more critical of those qualifiers I will pass over; it is that word “dreamy” I find interesting. *What* dreams leave those “big lustreless ruminatory orbs” of theirs unfocused? What phantoms *are* they that arrest the modern *I*?

### **Reading Across the Five Senses**

What I am proposing is that the current direction of literacy is toward a greater determination of readers' understanding of texts by prior mental states. If we seem to be seeing a profusion of less complex, less nuanced, less sophisticated texts; perhaps we might consider the possibility that our natural drive to find and share meaning has not really been diminished, but that the changes we are seeing in the texts of our day may merely reflect a notable movement of modern literacy's center of gravity toward the non-visual, “not-on-the-page” side of Smith's complementary relationship.

Perhaps these developments have their provenance in a general recognition of the power of alternate media in our culture, and a partial shifting of the burden of meaning-carrying to these media. (Historical parallel might perhaps be looked for in the wide abandonment of realism in

the visual arts alongside the rise of photography.) According to this model, the payload of meaning, insofar as it remains present through, and is transferred via, the interaction of interpreter and artifact, is delivered at levels of information-processing *besides* or *in addition to* the loading of words from page to brain. The reader may apprehend such meaning partly through reference to graphic images, videos, sound-memes, or other objects of recollection. Sadoski et al (1990) write that, exposed to fictive narratives, their reader-subjects not only “formed...visual and affective images that...elaborated and synthesized portions of [the text], but also constructed images involving importations from other experiences” which “may be powerful enough to override [in memory] verbal, literal elements of [the text]” (Sadoski et al, 1990).

I think it worth noting that all of the modern changes in literacy I am addressing date from times since the rise of cinema. For that matter, the retooling of Nancy Drew closely followed the decade of television’s proliferation in the West. One may imagine that we are living even still through a sort of cultural interregnum; that the exaggerated genre-consciousness of post-modernism is but one sign of a still dawning awareness of expressive possibilities, and a casting-about for new and apter means.<sup>3</sup>

Signs of a general change in our discourse to include extratextual images are all around us. Who anymore does *not* have screaming, short violin notes brought to mind by encounters with the terrifying? Who does not find himself making frequent reference to recent memes—verbal expressions (e.g., “YOLO,” “True story,” “You mad, bro?” “It’s over 9,000!”), sight gags

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<sup>3</sup> A protoexemplar of this intermodal shift may have been “Humpty Dumpty.” The rhyme makes no explicit reference to its titular character’s status as an egg, so that the reader depends for this datum upon whatever illustration accompanies the text. Worthy of note, perhaps, is that it has been published in at least one place with an illustration of Humpty as a little boy! Could not the common assumption that the rhyme began as a riddle have arisen simply *because* the ovoid nature of the hero is left unspecified in the text, and must be apprehended through reference to something else? (If “Humpty” was indeed originally a riddle, then it intentionally left it to the audience’s wits [which is to say its prior knowledge and facility with same] to fill in the blank—which makes it scarcely less interesting.)

(Dramatic Chipmunk, planking, equinox brooms), or vogueish topics (flash polls, flash mobs, *Kony 2012*)?

Clear evidence of just such a broad shift in literacy can be found in the advent of what Sekeres (2009) calls the Market Child in branded fiction—a figure in youth literature that may at the same time appear under such diverse guises as television character, website image, magazine mascot, and toy action figure. We might expect even less informational content—less detail, less explication of scene and character—in a book about familiar television character Hannah Montana, than Nancy Drew’s publishers insisted upon in cutting their books by some twenty percent. And indeed, while a Nancy Drew novel of even the latest generation typically gives some description of Nancy’s character and hair color, a Hannah Montana chapter book makes no further effort in this direction than quickly to sketch the double-life situation of the heroine that is at the crux of the series. After all, the look and sound of a character, her expression and tone of voice when angry or amused, have already been settled for the reader/viewer far more clearly on television than the novelist could hope to do through words alone. Why slow the narrative down with needless exposition?

My quick-check of the opening of *Hannah Montana: Truth or Dare* (2007) for average sentence- and word-length indicates an average SPW roughly comparable to that of 1991’s *Nancy Drew Mysteries: Mystery of the Jade Tiger* (a 3% increase over the latter), and 15% fewer words per sentence.

*Nancy Drew: The Mystery of the Jade Tiger, 1991*

*Hannah Montana: Truth or Dare, 2007*

Sentence	Words	Syllables	Dialogue/ No Dialogue	Sentence	Words	Syllables	Dialogue/ No Dialogue
1.	9	11	D	1.	21	29	N
2.	15	18	N	2.	16	24	N
3.	14	19	N	3.	6	6	D
4.	16	21	D	4.	9	13	D
5.	4	4	D	5.	13	17	N
6.	3	7	D	6.	12	17	N
7.	14	16	N	7.	7	10	N
8.	5	5	N	8.	15	26	N
9.	8	10	N	9.	5	5	N
10.	12	18	D	10.	10	12	D
11.	7	9	D	11.	3	3	D
12.	7	9	D	12.	2	2	N
13.	2	2	N	13.	4	5	D
14.	19	23	D	14.	4	5	D
15.	10	14	D	15.	1	1	N
16.	6	6	D	16.	9	10	D

17.	20	22	N	17.	3	3	D
18.	10	14	N	18.	1	1	N
19.	8	11	N	19.	2	2	N
20.	12	16	N	20.	3	3	N
21.	16	24	N	21.	3	3	N
22.	7	8	N	22.	11	12	N
23.	10	16	N	23.	1	1	N
24.	10	10	D	24.	14	19	N
25.	8	15	D	25.	10	13	N
26.	9	11	D	26.	12	14	D
27.	8	8	D	27.	2	2	N
28.	11	16	N	28.	11	14	D
29.	13	18	N	29.	6	6	D
30.	17	21	N	30.	17	26	N
31.	9	15	N	31.	6	10	N
32.	12	16	N	32.	14	17	D
33.	6	7	N	33.	7	7	D
34.	10	12	N	34.	5	5	D
35.	14	15	N	35.	16	21	N
36.	2	2	D	36.	6	8	N
37.	5	7	D	37.	14	17	N
38.	3	3	D	38.	5	7	N

39.	21	27	N	39.	7	8	D
40.	7	8	D	40.	15	18	D
41.	4	5	D	41.	9	13	N
42.	7	11	D	42.	10	16	D
43.	5	6	D	43.	10	12	D
44.	15	16	N	44.	4	4	D
45.	8	16	D	45.	6	7	D
46.	13	15	N	46.	1	1	N
47.	15	18	D	47.	10	11	N
48.	13	16	D	48.	8	11	N
49.	8	8	D	49.	5	8	N
50.	8	13	D	50.	12	13	D
51.	3	4	D	51.	3	3	N
52.	7	7	D	52.	5	6	N
53.	7	8	D	53.	8	19	N
54.	17	20	D	54.	6	7	N
55.	11	13	D	55.	22	37	N
56.	8	11	D	56.	16	26	N
57.	10	13	D	57.	12	17	N
58.	20	21	D	58.	7	8	N
59.	7	12	D	59.	12	16	N
60.	12	15	D	60.	4	5	N

61.	7	8	D	61.	8	10	N
62.	10	13	D	62.	4	4	N
63.	11	13	D	63.	3	4	N
64.	9	15	D	64.	14	17	N
65.	10	12	N	65.	5	6	N
66.	13	20	N	66.	4	4	N
67.	12	15	N	67.	3	3	N
68.	12	14	N	68.	5	6	N
69.	13	20	N	69.	25	36	N
70.	14	15	N	70.	19	20	D
71.	8	8	D	71.	4	5	D
72.	9	11	D	72.	3	5	N
73.	2	2	N	73.	6	7	D
74.	5	5	D	74.	19	23	N
75.	8	16	D	75.	7	8	N
TOTALS	740	948	44/31	TOTALS	627	824	24/51

Average words per sentence: 9.867

Average syllables per word: 1.281

Flesch Readability Ease: 88.447395

Average words per sentence: 8.36

Average syllables per word: 1.314

Flesch Readability Ease: 87.1852

The prose style is characterized at once by a breezy vagueness (“From the looks of it [sic], Miley appeared to be your average eighth-grader”; with no suggestion being made as to what “your

average eighth-grader” might be like) and by a comfortable referentiality toward nontextual media (“But Miley, mild-mannered junior high school student by day, had a secret”). The word “awesome” is used three times and the word “awed” once in those first seventy-five sentences. The words are meant not so much to limn any particularity which the reader is then to apprehend, as they are to activate prior data or other mental items of the reader. In other words, a greater than ever share of the task of reading is being accomplished by activation of the reader’s prior experience. Given the power and wide prevalence in today’s culture of nontextual referents, perhaps a continued overall loss of text complexity is to be expected.

Cynthia Lewis et al (Instant messaging, literacies, and social identities, 2005) describe young people engaged every day in hours of elective communication with multiple partners through multimodal messages—predominately text, but making use also of photos, videos, and emoticons. In a manner consistent with the trend I have sought to trace in literature, “the linguistic elements of texts are becoming less complex,” write the authors, citing Kress (2003), “...while the visual elements are becoming more so, shifting the focus from linguistic features to elements of design.” Lewis’s youth have begun to avail themselves of the *non-discursive symbolism* that Susanne Langer called more complex and subtle than speech, saying it performed “an office that no language-born thought can replace...[namely] that of conceptualizing the flux of sensations, and giving us concrete *things*” rather than their mere accidents (Langer, 1954). As I meant to suggest above through the example of Nancy Drew, might it not be here, in the practices and predilections of our youth, that we have the clearest auspice of future trends? Those skeptical as to whether unaided written words, with all their potential for incisive, cogent, and powerful expression, could be even partially supplanted as a means of expression by

nontextual images, might consider whether they judge by the values of a literacy form already passing into obsolescence.

None of this is intended to suggest, of course, that the general lessening of prose complexity I posit here should be expected to progress in a steady and unbroken fashion. Speculative thinking about the future and direction of literacy should itself admit of sufficient complexity to allow for the many movements and fashions that impinge upon a living literature. Prose complexity *will* be reached for, and not uncommonly, as a stylistic choice; whether the writer means his relatively involved expression as a foil to his themes (think here perhaps of Dave Eggers as memoirist) or whether an erudite and periodic style is matched with equally complex subject matter (Thomas Pynchon, David Foster Wallace). I would maintain that these represent but rips and eddies, as it were, in the general stream of literacy; notwithstanding which the downstream flow moves, in this age of multisensory media, in the direction of linguistic simplicity.

At the furthest point yet along the trend I have tried to establish might be the youth described by D.E. Kirkland et al in “‘We real cool’: Toward a theory of black masculine literacies” (2009). To these young men, whose written artifacts are sparse indeed—a scrap of narrative next to a hand-drawn cartoon, a line scrawled on a tennis shoe—the authors effectively ascribe a literacy whose “center of gravity” has migrated further than ever toward a position “behind the eyes.” For with but scant reference to conventional written texts, they “operate within multiple symbolic systems to define themselves and shape what they [see] as ‘cool.’” Their predominant means of purport is commercial brands: their “phat gear” is conferred its authenticity and power to “say something” in large part by the corporate brands that it bears.

Here we have, in effect, Negroponte's wink institutionalized, with considerable prior information or backstory activated by a logo or slogan.

Doubtless the most compelling referents today—logos, jingles, memes appealing to any or all of the senses—tend to be ones purveyed by corporate and government concerns with the design resources to make them so, combined with media access to disseminate them. Granted, many private citizens now have unprecedented access to such means; they do not however typically enjoy such almost unimaginable wealth as collective entities in business and government have at their disposal.

### **The Children of Larry Tate**

I am now led, in this discussion of likely directions of literacy today, to what seem to me a couple of alarums. First, probably the preponderance of those informational components of our discourse that lie “behind our eyeballs,” and that are possibly less susceptible to the ministrations of reason than artifacts would be that were made all of words (see footnote 2 re Sadoski), are manufactured for us by already powerful concerns: ad agencies, television networks, film studios, which are owned and controlled by increasingly centralized corporate entities. And if parties particularly influential in communications of all kinds can ensure wide currency for preassembled configurations of data favorable to their own interests, would they not? There is little reason to suppose they would be less self-interested than our schoolboy; or to imagine that, in a world where public relations and advertising are backed by high-dollar research, they would not be up to the task. (If the memes I have instanced above—catch-phrases, visual jokes, etc.—happen to have sprung from the inventiveness of individual citizens, it seems likely that they occurred to me precisely *by virtue of* their standing apart from the corporate-woven landscape;

the latter having long since become so familiar as to have been taken utterly for granted.) We cannot but suspect that it is referents deriving in particular from big-budget movies and commercials, Top-40 lyrics, and slick-covered magazines that furnish our dumbstruck inner spaces and set for us our (mostly unspoken) parameters of faith and belief.

Father of public relations Edward Bernays, in undertaking an explanation of propaganda, manages to afford some insight into its inevitability: “There is no means of human communication which may not also be a means of deliberate propaganda, because propaganda is simply the establishing of reciprocal understanding [how mutual he makes it sound!] between an individual and a group” (Bernays, *Propaganda*, Ch 11). Sekeres for her part quotes an interview with M.T. Anderson, author of the compelling and most apropos novel *Feed* (2002), to great effect: “No longer can we imagine ourselves exterior to...sales-oriented image complexes—because these things formed us. Our hopes, our dreams were scripted at least partially by ad campaigns” (Shoemaker, 2004, p. 101).

That is one concern we probably should have—that so many of the data-aggregates serving us as mental hooks or scaffolding for further thought were likely forged and propagated to serve one or another all-but-unheralded agenda. Another is that anything very centralized in human affairs has pretty dependably been less sensitive and responsive to real-world circumstance than its counterparts that are more localized in space and time. (One recalls accounts from the Soviet Union of recurring zipper shortages, and of the secret dumping of superfluous loads of government-ordered fertilizers into handy rivers.) While they may offer us ease and convenience of thought, fixed constellations of data as such, particularly the larger they are, tend in the long run to outlast any fidelity to reality they may have had at their inception, and so are the very essence not just of poor fiction but of prejudice of all kinds. The sort of

frontloading of information I have discussed here doubtless makes cognition of a sort faster and easier; but surely it is possible, as Gide had it, to understand too quickly. To meet the world as it is likely requires as *fine* a data-set as we can manage with.

### **Implications for Teachers**

Given the supposed trend I have thought to adumbrate above (toward greater information frontloading and consequent diminishment of text complexity), several measures for teachers of reading and writing would seem to recommend themselves. Some old-school ideas first:

*Putting a moratorium on the familiar enjoinder that student writers think of their audience as a friend or close acquaintance.* Authorities on communication tell us that the further removed ones audience, either geographically or temporally, the more standard and less colloquial must ones usage be to ensure understanding.<sup>4</sup> Putting this dictum in terms of our trend, the less two people or groups share in the way of familiar experiences, the more of the informational load in reading must be carried by the page. The body of vivid experience that may be widely shared in the computer age may seem to have obviated such effects. The lack of detail endemic in student writing, however, should convince any teacher that a greater distance from the audience should be assumed by the writer-in-training. It might be a helpful discipline for students to presume as

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<sup>4</sup> “The wider the spatial setting between sender and receiver is, the smaller the shared context and higher the formality of the text produced will be. The same happens when the time span between sending and receiving is longer...[L]ess will remain of the original context in which the discourse has been produced, while a more explicit, precise and context-independent textual production will be needed” (Elia, A., 2009; citing Heylighen and Dewaele). The writer implicitly makes the very point I have sought to make here, but as it were from the opposite direction: *less* shared knowledge necessitates *more* complex writing.

little commonality with their readers as they are able to imagine. Let each hold up his *own* bike; or whatever, metaphorically, he rode in on.

*Avoiding abstract, summarizing, or generalizing language in narrative.* Instead of simply characterizing emotional effects of story elements, perhaps by reference to familiar images from TV, film or the Web (“It was really scary”; “He looked like *Scream*”), students should instead practice trying to induce the actual emotions in the reader through recreation in text of the sensual data that give rise to them (“Besides the flash of fangs, his mouth was black as the spaces where his eyes would have been”). Classmates might be asked to see if they can name the intended emotion. Students should also be encouraged to be on the lookout for instances of abstract, summarizing, or generalizing language in other writers.

*Making students aware of brands.* If we wish our students to use *words* to greater effect, a proscription against resorting to the allusive power of brands, as well as common verbal formulations from commercial artifacts (e.g., “new and improved”; “value” or “quality” used as an adjective) in writing might prove not only helpful, but essential. Students might be asked to be aware of brand names and commercial clichés in others’ writing, and to consider what role they meant to play.

A couple of “newer-fangled” rules come to mind, too:

*Looking for and sharing examples of multimedia “texts,” and joining students in trying to emulate them.* It should not need to be said, perhaps, but the fact that a mode or practice is new

does not make it a harbinger of decline! Teachers should stay current with new media, even recruiting students as mentors when helpful, and should spread and promote the “new literacy” in its best forms wherever possible.

*Encouraging students to be “smart consumers” in literature.* Students should be taught to make cost-benefit comparisons of series and market fiction with traditional one-volume fictional works. What is gained in convenience and reading ease in the former? What devices are relied upon to supply background information? What if anything that is featured in traditional fiction is absent in series fiction, and how does the lack alter the reading experience? Teachers might consider developing paper instruments to assist students in making such comparisons.

### **Now and Tomorrow**

What lives, changes. Considering the great number and magnitude of changes brought to bear on human information-sharing technology in the last hundred years, it should come as no surprise that our literacy has shown itself to be as prone to mutation as any living thing. Even as we help to work subtle changes by the ways we ourselves practice literacy, both as readers and as writers; still we may be astonished, looking up, to notice the seemingly whole-cloth alteration to which these have added up.

I find it striking that some of the West’s most popular spiritual teachers of the last fifty years, from Alan Watts to Ram Dass and Eckhart Tolle, have urged a specifically *non-*frontloaded approach to life; extolling the virtues of the beginner’s mind (*shoshin* in Zen) and cautioning (to use such terms as I have been using here) against letting our larger data-clumps stand in for *real* reality. As with Hemingway, it need take nothing away from their intrinsic value

to suggest that their popularity may point up a particular contemporary need or circumstance which they seem to answer.

If ever we hoped that our linguistic approximations could eventually render us something interchangeable with reality, now our words and wordy intellects seem duller, vaguer; they make us dissatisfied. Perhaps these teachers lately arisen point to a state of things soon to come, when the texts we make and share are truer to the world, more imbued with immediacy, than our words alone could ever be. Who knows but that the new media may yet give new lease to our literacy and new light to our understanding of the world around us—*if* we can live with whatever discomfort is entailed in not understanding too quickly.

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## **Pre-service teachers' attitudes toward using technology in schools**

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## **Abstract**

The purpose of this study was to examine pre-service teachers' attitudes toward the use of technology. There were 62 participants who answered an attitude technology survey, containing 29 questions about usefulness, competence and attitudes toward technology. Since the data contained older and younger students, the researcher investigated whether there were any significant differences between the two groups with respect to their attitudes toward technology. The researcher found that the mean of students' attitudes for the older students was slightly higher on almost all questions, but significant on only three questions of the survey. The study ranked the means for all questions in the survey and found five questions with the highest mean, indicating better attitudes, and five questions with the lowest five means, indicating the lower attitudes toward technology.

## **Introduction**

The National Council of Mathematics Teachers (NCTM) in its Principles and Standards for School Mathematics has stated six important principles needed in teaching mathematics effectively, and one of them is the technology principle advocating the use of computers and calculators in the classroom (2000). However, Forgasz (2006) has stated several factors that discourage teachers from using technology in the classrooms: 1. Lack of teachers' knowledge in using technology 2. Requiring teachers to spend more time preparing their lesson plans. Forgasz has also found students need to have experience using technology effectively in the classroom; therefore, there is a need to utilize a proper model of using technology in a variety of teaching strategies. Leatham (2007) has stated that teacher preparation colleges need to provide adequate knowledge in the use of technology in teaching a concept in a classroom. The use of technology in classrooms helps teachers create a constructivist learning environment. A research study has shown that students tend to be more motivated to participate in classrooms with constructivist learning (Shirvani, 2007). Rovi and Childress (2003) have stated that technology has become essential in the lives of students, and has shown to improve children academically and enhance their learning; however, its use has been limited in schools due to teachers' refusal to incorporate them in their teaching. In a research study of 10,000 schools in high risk areas, researchers have discovered that teachers either infrequently used technology or used it for non-critical events such as drills in contrast to critical thinking problems (Ross, et al., 2004).

The purpose of this study is to investigate pre-service teachers' attitudes toward the use of technology in classrooms. Teachers' attitudes are comprised of their beliefs, the usefulness of technology in classrooms, and self-confidence in learning and using technology. The investigator

will also examine whether older pre-service teachers have significantly different attitudes toward technology than younger pre-service teachers.

### **The importance of teachers' attitudes**

Huang and Liaw (2005) have found that the determining factor in selecting technology should be based on its usefulness. Researchers have also found two instrumental factors in selecting technology; the degree of its usage in a given situation (Sadik, 2006) and teacher's anxiety (Yildirim, 2000) toward the particular technology. A study examined whether secondary and elementary preservice teachers differ in their attitudes toward the use of technology, and it found that in regards to technology, preservice teachers at the secondary level had a higher self-efficacy compared with elementary teachers. Moreover, their study showed that secondary teachers were more willing to try challenging computer-related tasks (Shapka & Ferrari, 2003). Spaulding (2007) compared the knowledge level of technology of preservice and in-service teachers with respect to their attitude toward technology. The study found that preservice and in-service teachers with higher knowledge in the use of technology had better attitudes toward it compared to those with lower knowledge in technology. Carlson and Gadio (2003) have found that instructors' acceptance of the use of technology is very critical if they want to implement technology in their classrooms; otherwise, spending a significant amount of the budget that schools allocate in buying this equipment could be a waste of money that administrators should avoid.

### **Effect of technology on achievement**

Meta-analyses research studies during the past decade have found that the use of computer technology has improved students' attitudes toward technology and understanding of the subject matter (Kay, 2007). The use of a collaborative computer experience for elementary-school science teaching also resulted in improved academic achievement (So, Seah, & Toh-Heng, 2010). When computer-based instruction was implemented in teaching elementary-school children about diffusion, it resulted in significantly higher test scores for students with technology compared to children taught with traditional instruction (Tekos & Solomonidou, 2009). Moreover, in another study, which included 2000 students using computers to do their work, results showed higher academic achievement, but there was no significant impact of technology for students with technology on the performance of the word problems (House, 2011). Muir-Herzig (2004) showed that computer usage for at-risk students had no positive impact on their achievement. Furthermore, a research study of TIMSS 2003 assessment showed the use of technology for eighth grade students in mathematics was positively correlated with their algebra scores in the United States, but negatively correlated with students in Japan (House & Telese, 2008). In addition, Yang and Tsai (2010) found that students scored higher in sixth grade math classes in understanding number sense when technology was implemented in the classrooms.

Another study discovered that students in Japan who showed high levels of science achievement also indicated that they used computers at school (House, 2012). Finally, Ng (2009) found that the use of the pocket computer did not have a positive impact on elementary and secondary

teachers, but they reported that technology was motivational and a facilitator in learning concepts.

### **Effective use of technology**

Even though technology use has become popular for the past several years, its implementation has been limited because many teachers are refusing to include them in their classrooms (Rovai & Childress 2003). Researchers have shown that when preservice teachers are trained in the use of technology, based on a set of criteria, teachers were less willing to use technology in a classroom. However, when teachers were trained in general use of technology, they were more willing to use it as an effective tool in the classroom (Scheeler, et al., 2009). Palak and Walls (2009) have stated that university teacher trainings should prepare students with a focus on technology use in student-centered classrooms rather than concentrating on isolated technology use. Furthermore, they found that training in the use of technology should not be based on a specific model that is applicable for all situations. The use of technology must be based on a contextual situation that is specific to a problem.

### **Technology Barriers**

Ertmer (1999) has stated that there are two types of barriers in the use of technology. The researcher stated the barriers are intrinsic and extrinsic. Extrinsic barriers refer to having insufficient time to use technology in a classroom, having insufficient training in the use of technology, and lack of access to it. The intrinsic motivations include teachers' beliefs and attitudes. This researcher also mentioned that even if the first barrier is overcome, the use of technology will not be effective. Gibbone (2009) in a study, which included 616 public school

teachers, found that no instructors felt proficient in the use of technology; however, they did not use computers in the classrooms due to other factors such as size of the class, budget, and training. Eichenold (2009) found the reasons for teachers' unwillingness to use computer technology are due to lack of time, unavailability and unreliability of technology. This study also supports Ertmer' findings that teachers tend to hesitate when using technology in the classrooms due to lack of time, inadequate training and support from the school administration.

### **Teachers' beliefs**

Teachers' beliefs in effectiveness of technology are a decisive motivator in integrating it in their classrooms. Ropp (1999) has found that many student teachers have shown competencies in the use of technology; however, they most probably will not use technology in their classrooms because they believe that it is not beneficial in teaching a subject matter. Watson (2006) examined whether the use of technology increased teachers' self- efficacy, even several years after getting intensive training in a technology course. The study found that teachers who had positive attitudes toward technology had used technology more effectively. The research also showed that computer self-efficacy was an important factor in implementing technology in their classes. This investigator discovered teacher's gender to be a significant factor in the use of technology (Sang, et al., 2010). Furthermore, a study has found those teachers' beliefs to be very influential in their judgment, perception, and its usefulness of selecting an instructional tool in a classroom (Pajares, 1992). Moreover, teachers' beliefs guide the decisions that teachers make and the actions they take in the classroom (Fullan, 2003).

## **Technology anxiety**

Technology anxiety is a major factor that determines a person's usage of technology in education (Gurcan-Namlu & Ceyhan, 2003). Studies have discovered that teachers' computer anxiety was related to teachers' avoidance of it, which resulted in having negative feelings, worry, and fear toward using these tools (Mcilroy & Bunting, 2003). Teachers who used computers in their homes and had computer experience tended to have lower anxiety and more positive attitudes toward technology than those who had less experience with computers. Moreover, their study showed that female teachers had a higher degree of anxiety toward use of technology than male teachers (Kian-Sam & Chee-Kiat, 2002). Gurcan-Namlu (2002) found that there is a correlation between personality type of a person and technology anxiety. The researcher found that introvert students had a higher level of anxiety toward the use of technology compared with extrovert students. Moreover, anxiety in using computers has been found to be a significant problem for in-service teachers. This anxiety causes lower confidence in the use of technology, which results in the ineffectiveness of the implementation of it in the classrooms (Hallam, 2008).

## **Methods**

For this study, the researcher selected senior students from two pre-service elementary education classes. In one class, the average of students' ages was around 22 (group 1), and in the other class (group 2), the average of students' ages was around 30. Students in group 2 are currently teacher aids and most have been working for several years in their respective elementary schools so group 2 could be called older students and group 1, and students without experience could be called the younger group. These two groups were taught by the researcher

in a university located in the southern part of the United States. There were a total of 62 students with 32 in group 1 and 30 students in group 2. The number of female student was 60, while the number of male student was 2. The researcher used a teacher attitude survey with 29 questions, which was based on 5-Likert Scale, 1. Strongly disagree, 2. Disagree, 3. Not applicable, 4. Agree, and 5 strongly agree. The searcher used SPSS to find an average score on each question for all students. Some of the questions were negatively worded so the researcher used the formula 6-n in SPSS to find the proper scores for them. The researcher used SPSS to find descriptive means on each question for each student in both groups. Moreover, an ANOVA test was performed to find whether there were any significant differences in attitudes toward technology between the two groups. The results showed that there was a significant difference between two groups so the researcher used an Independent t-test with .05 significant level for both groups to examine on which questions the two groups responded significantly differently.

**Results**

Table 1 and Table 2, which are descriptive analysis of the SPSS, show the means for two groups of students on 29 questions of the survey. The range of the mean is from 2.8 to 4.47, indicating students showed positive attitudes toward technology.

**Table 1. Students’ average means for both groups question 1-14 of the attitude survey**

Questions	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14
1-14										0	1	2	3	4
Mean	4.1	2.8	4.0	3.3	3.6	3.7	3.6	4.1	3.9	3.9	3.3	3.5	3.5	3.7

	0	2	8	0	5	3	3	2	8	2	2	0	5	5
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**Table 2. Students' average means for both groups in questions 1-14 of the attitude survey**

Question	Q	Q1	Q1	Q1	Q1	Q2									
15-29	1 5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
Mean	4 .2 8	3.1 3	4.4 7	3.4 3	3.8 2	4.1 2	4.0 7	4.2 8	4.1 7	3.7 7	4.0 5	4.0 7	4.1 5	3.9 0	4.0 5

Table 1 and Table 2 show five questions with the highest means (number inside the parenthesis indicates the mean), and these are as follows: Q17 (4.47), Q15 (4.3), Q22 (4.30), Q23 (4.2), Q27 (4.15):

Q17: Technology is useful in managing student data such as attendance and grades

Q15: Technology is a good tool for collaboration with other teachers when building unit plans

Q22: I like searching the internet for teaching resources

Q23: Computers can be a good supplement to support teaching and learning

Q27: If I have training, I would like to try out instructional computer technology innovations in my teaching

The findings above show that pre-service teachers agree that technology is an important tool in a classroom; it also suggests that teachers believe training is essential in the use of technology.

The questions with five lowest means are Q2 (2.82), Q16 (3.13), Q4 (3.3), Q11 (3.22), Q18 (3.43)

Q2: There are more discipline problems

Q16: I learn new technologies best by figuring them out myself

Q4: Students go to inappropriate sites

Q11: Students are more knowledgeable than I am when it comes to technology

Q18: Technology is unreliable

From the questions above, (Q2, Q16, Q4, Q11, Q18), one can surmise that some teachers are essentially between agreeing and disagreeing with these questions, or that they are undecided about these questions.

The research also showed that on only one question, Question 2, younger students had a higher mean than older students and on questions 7 and 24; the means for both groups were the same. Moreover, this study showed that the means for all other questions were higher for the older students than the younger

The SPSS used the AOVA test to examine whether the two groups (group1, the younger group, with no experience, and group 2, the older group, with teaching experience) were significantly different with respect to their attitudes toward technology. The SPSS showed that the two groups were significantly different with respect to attitudes toward technology; thereby, the researcher used ANOVA test to examine on which questions of the survey the groups were significantly different. The SPSS ANOVA showed the groups were reported significantly different on three questions, which were Q12, Q13, and Q14. The levels of significance for these questions were Q12 (.004), Q13 (.001), and Q14 (.02). All these levels are below 0.05, which indicate significant differences on these questions between two groups.

In Q12 (School systems expect us to learn new technologies without formal training), the mean for the younger class was 3.10 while the mean for the older class was 3.96, indicating that older students had stronger beliefs that school systems should provide sufficient training for teachers when compared with younger students.

In Q13 (there is too much technological change coming too fast without enough support for teacher), the mean for the younger group was 3.12, and the mean for the older group was 4.04. This indicates that older students had stronger beliefs that technological changes are happening at a faster rate than they can become familiar with. In Q14 (Technology has left many teachers behind), the mean for the younger class was 3.47, and for the older group was 4.10. This indicates that older students had stronger beliefs about technology leaving teachers behind.

## **Conclusions**

This study investigated attitudes of pre-service teachers toward technology. It also examined whether two groups of participants, the younger pre-service teachers and the older pre-service teachers significantly exhibited different attitudes toward the use of technology. This study found that on almost all questions, the mean of older students was higher than the younger students, indicating better attitudes of older pre-service teachers toward technology. Moreover, Spaulding (2007) has found that preservice and in-service teachers with higher knowledge in the use of technology had better attitudes toward technology compared to those with lower knowledge in technology. This may explain the reason why older students had higher mean attitudes for each question in the survey. Furthermore, the analysis of data showed the five questions with the highest means for the survey, indicating teachers' higher attitudes and five questions with the lowest mean, suggesting the questions on which pre-service teachers had the least positive attitudes toward technology. One such question was teachers stating the need for being trained in the use of technology. The analysis also showed the five questions with the lowest mean, indicating the least important attitudes. One such question was reliability of technology; students did not feel that technology was reliable. Moreover, the study found that on three questions, there were significant differences between older pre-service teachers and younger ones. These questions were about the need for training of teachers and lack of technology influence in schools. This researcher understands the reason that the older teachers had such a response because they had more experience in schools and have observed the weaknesses and strengths in using technology in classrooms. The limitations of this study were that over 90% of the students identified themselves as Hispanic; thereby, there is a lack of representation of diverse groups of students. Therefore, this could jeopardize generalization of this study to other preservice teachers. Another limitation of the study is having a smaller

number of participants in which could affect the results. However, the findings from this study supports researchers (Spaulding, 2007; Leatham, 2007) that between preservice teachers, those with experience in using technology showed better attitudes toward technology than inexperienced ones.

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### Attitude Toward Technology Survey

For the following items, please **circle** the answer that best shows your opinion  
 1=strongly disagree 2=disagree 3= undecided 4=agree 5=strongly disagree

When using technology.....					
1. Student create products that show higher level of learning	1	2	3	4	5
2. There are more discipline problems	1	2	3	4	5
3. Students are more motivated	1	2	3	4	5
4. Student go to inappropriate sites	1	2	3	4	5
5. There is more student collaboration	1	2	3	4	5
6. Plagiarism becomes more bigger problem	1	2	3	4	5
7. The abundance of unreliable sources is disturbing	1	2	3	4	5
I believe					
8. Electronic media will replace printed text within five years	1	2	3	4	5
9. Most technology would do little to improve my ability to teach	1	2	3	4	5
10. Technology has changed the way that I teach	1	2	3	4	5
11. Students are more knowledgeable than I'm when it comes to technology	1	2	3	4	5
12. School systems expect us to learn new technologies without formal training	1	2	3	4	5
13. There is too much technological change coming too fast without enough support for teacher	1	2	3	4	5
14. Technology has left many teachers behind	1	2	3	4	5
15. Technology is a good tool for collaboration with other teachers when building unit plans	1	2	3	4	5
16. I learn new technologies best by figuring them out myself	1	2	3	4	5
17. Technology is useful in managing student data such as attendance and grades	1	2	3	4	5
18. Technology is unreliable	1	2	3	4	5

19. I perceive computers as pedagogical tools	1	2	3	4	5
20. I generally have positive attitude towards using computer technology in teaching	1	2	3	4	5
21. I like using computers for teaching purposes	1	2	3	4	5
22. I like searching the internet for teaching resources	1	2	3	4	5
23. Computers can be a good supplement to support teaching and learning	1	2	3	4	5
24. I believe I can take risks in teaching with computer technology	1	2	3	4	5
25. If I have time I would like to try out instructional computer technology innovations in my Teachings	1	2	3	4	5
26. If I have access to resources I would like to try out instructional computer technology Innovations in my teachings	1	2	3	4	5
27. If I have training, I would like to try out instructional computer technology innovations in My teaching	1	2	3	4	5
28. I am not the type to do well with computerized teaching tools	1	2	3	4	5
29. I am not prepared to integrate instructional computer technology in my teachings	1	2	3	4	5

**Literacy and Identity when Approximating African American Language on  
Social Network Sites**

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### **Abstract**

This study includes responses from two sets of focus group participants, comprised of African American Language (AAL) interlocutors who communicate using digital AAL in online spaces. Participants shared their thoughts about language, identity, and research regarding AAL. Focus groups were recorded and transcribed so that topics could be coded and categorized. Five core topics emerged: 1) *History of AAL*, 2) *Digital Composing Choices*, 3) *Digital Research Methods*, 4) *Racial Issues*, and 5) *Personal Stories*. The data obtained from the focus groups sheds light on participants' initial feelings of mistrust when discussing their language as well as their learned dislike for and unawareness of a language that they use every day.

*Keywords:* African American Language, literacy, identity, social network sites, focus groups

## **Introduction**

African American Language (AAL) (Banks, 2006; Baugh, 2001; Billings, 2005; Crawford, 2001; Delpit, 2004; Gilyard, 2001; Green, 2002; Labov, 1969; McWhorter, 1998; Palacas, 2001; Rickford & Rickford, 2000; Smitherman, 1977, 2001, 2006) was first and foremost a spoken form of communication that has taken written shape in a digital environment. Given new technologies and ways to correspond easily with members of this particular Discourse (Gee, 2001, 2011), interlocutors are afforded a sense of camaraderie and shared identity in an online space, employing a hybrid literacy that combines elements of AAL, Standard Academic/American English (SAE), and digital language in a specific and unique way. The exigence (Bitzer, 1968) for communicating in AAL for these participants is a desire to create a written style more akin to their home language and visually different from SAE. In many ways, participants in this study use digital language features afforded them through a keyboard, the SNS environment, and their literacies (SAE, digital language, and AAL) as a color palette, of sorts, choosing specific features to compose creative linguistic works of art. Their compositions—their messages—become a representation of who they already are. This kind of new language construction and new literate practice can be seen across time, especially in American history, as so-called stories of literacy crisis (Graff, 1986, 2011). However, this study argues that social languages like AAL and digital language allow for a more robust linguistic and literate repertoire. New digital language practices and the emerging written form of AAL are examples of the ways that technology and identity are collaboratively creating and exposing

different literacies, preparing communicators for a rapidly changing, increasingly diverse global village.

### **Participants and Sample**

To better understand a specific kind of hybrid literacy that exists in online spaces, I conducted two focus groups comprised of interlocutors who communicate in digital African American Language (AAL) on SNSs, explaining to participants that I study the kinds of writing people use to communicate in digital spaces when composing in AAL. I conducted the first focus group at a large, Midwestern, research university with over 19,000 undergraduates, 11% of whom are African American. Participants included a 19-year-old female and former student, a 21-year-old female and member of the church, and a 21-year-old male who was a friend of the church member.

In order to find participants for the second focus group, I contacted a colleague at a large, Midwestern, urban community college with over 24,000 students, 30% of whom are African American. Four students agreed to participate: a 20-year-old male, a 29-year-old female, a 22-year-old female, and a 20-year-old female. Both focus groups met for one hour in a classroom on their respective college campuses and were videotaped to help with transcription. All participants signed a consent form with the understanding that the videotapes would be kept confidential.

### **Method**

After conducting and visually-recording both focus groups, I transcribed each video, coding and categorizing (Glaser and Strauss, 1967) possible themes or topics among the focus

groups. Topics were counted based on turns, which is a common method employed in conversation analysis (Sacks, Schegloff, & Jefferson, 1974). As seen in Table 1, for example, the following conversation, although comprised of nine sentences, consists of seven turns.

Table 1.

*Coding Focus Group Transcripts According to Topic*

Turn	Participant	Dialogue
1	Me	So you do, on purpose, make it look like how you would say it?
2	Participant 1	Right.
3	Participant 2	Yeah, because I don't want the expression to be lost.
4	Participant 1	Yeah, because some people will know it's not you like how you type. Like what you say and how you say it. They're going to know it's not you...
5	Participant 2	When you're writing papers, that's a totally different thing.
6	Participant 1	You have to pay attention to how you spell.
7	Participant 2	Not to be offensive, but you have to adapt to the Eurocentric way.

The above conversation remains focused on the topic of the *Composing Choices*, and each time a participant (myself included) begins speaking, one turn ends and a new turn begins. In this way, one turn can be comprised of a single word or one or more sentences. Each turn is then categorized according to topic.

In order to sort data generated from the transcripts into topic categories, I systematically coded and categorized according to general patterns and overarching topics that emerged before collapsing and streamlining categories and topics that overlapped. Of course, the topic categories were affected by my guiding questions and several times topics overlapped. For example, while a participant was discussing issues of race, he also included personal stories to reinforce his point. Also, it is worth noting that the idea that some participants discussed their desire to “sound like [they] talk,” was categorized as *Digital Composing Choices* rather than *Racial Issues* because choosing to write in a way that represents how a person speaks is a specific composing choice. The topic *Racial Issues* is more closely related to points of racial contention that have less to do with AAL linguistically or as a written form and more to do with African American history and culture more generally. The topic *History of AAL* suggests both the general history of the language as well as participants’ personal history learning to speak and write AAL. After coding and categorizing, five core topics emerged: 1) *History of AAL*, 2) *Digital Composing Choices*, 3) *Digital Research Methods*, 4) *Racial Issues*, and 5) *Personal Stories*. Table 2 includes categories, codes, and explanations.

Table 2

*Focus Group Topic Categories*

Topic Category	Topics and Subcategories	Example
History of AAL	Explanations of spoken and handwritten AAL  Slang v. language  Improper v. proper  Precursors to digital writing in AAL (e.g., note writing)  AAL related to pedagogy  Places AAL is found other than digitally	A participant talks about using AAL when writing a note to his friend in junior high.
Digital Composing Choices	Spelling  Personal history  Composing habits  Shortenings  Logograms	A participant describes how she employs zero copula (in not so many words) in order to “sound like [she] talk[s].”

	Texting  Email  Facebook	
Digital Research  Methods	Obtaining consent  Researching online  Private v. Public	A participant expresses the need for a researcher to obtain consent before collecting data from her MySpace page.
Racial Issues	African American History  Racism  Language ownership  This research project	A participant discusses specific historic instances when African Americans have felt that White culture has appropriated their style or customs.
Personal Stories	Digressions unrelated to AAL	A participant discusses what he is going to do after the focus group ends.

Based on the discussions about language, literacy, and identity as they relate to AAL in a digital environment, focus group included the topics of 1) *History of AAL*, 2) *Digital Composing Choices*, 3) *Digital Research Methods*, 4) *Racial Issues*, and 5) *Personal Stories*. See Table 3 below for examples of the topics included among the focus groups.

Table 3

Topic Category	Example
History of AAL (explanations of spoken and handwritten AAL)	I don't think that it should be called "slang." I don't think slang should be considered Black English, because there are so many different parts.
Composing choices (digital use)	I write the same way that I would text.
Digital research methods (ethics)	What's wrong with actually saying, "Hey," or first requesting and then sending a message letting them know what's going to be done. To me, it's just a respectful thing. Because if mine was not private and I saw that I'd be like, "Dang, you stole my..." You know, I'd be kinda upset. So I think it's more of a courtesy thing.
Racial issues (related to African American history)	But when White people use [AAL], they're considered "acting Black."
Personal stories (digressions unrelated to AAL)	There's broken words. Like when I lived in Arizona, and people spoke Spanish, it would be classified to someone who's Puerto Rican, because they're more Mexican down there then it was broken

	Spanish, which is slang Spanish.
--	----------------------------------

*Topic Category Examples*

**Reliability**

As when determining inter-rater reliability when coding the textual data, I selected a random sampling of 10% of the turns (30 turns out of 295 total in Focus Group 1). Using Excel's RAND function, I generated 30 random numbers and listed each respective turn in a blank document. I emailed a colleague who also helped me when determining reliability during my textual analysis. I attached the document with the 30 random turns along with Table 7 and Table 8 (making certain that no turns included in Table 8 were also included in the document with 30 random turns). I asked the coder to cut each turn and paste it under one of the five topic categories. The simple agreement for placing each turn within one of the core categories was .95 with a Cohen's Kappa of .7 ("Online Kappa Calculator"). I expect that the Cohen's Kappa was slightly low because turns were acontextualized and, therefore, it might have been difficult to determine a specific topic pattern if a particular turn was relatively short (i.e., "That's how mine is.").

**Language, Literacy, and Identity in a Digital Environment**

Linguists and educators, in the past and more recently (see specifically: Crawford, 2001; Green, 2002; Rickford & Rickford, 2000; Smitherman, 1977, 2001, 2006), have had to dispel the ideas that AAL is comprised of nothing but Standard academic English (SAE) errors. Digital language features are currently being discussed and supported in a similar way by writing scholars (Baron, 2000, 2008; Crystal, 2001, 2008, 2011; Haas & Takayoshi, 2011). Given its burgeoning visibility and use among SNSs, digital AAL—and its users—will have to face similar challenges. These specific non-academic languages and literacies are related in the way

that scholars try to educate and change the stigmas surrounding these different forms of communication and ways of being. Many scholars (Cook-Gumperz, 2006; Gee, 2004, 2011; Gilyard, 1991, 2011; Labov, 1969; Stubbs, 1980; Trudgill, 2000) point out the important connection between language and identity. Because AAL is a literacy, devaluing it as a language and form of spoken and written communication goes much deeper than simply discrediting a language. AAL, specifically, is linked to identity because of its tied to an African American culture and history in the United States. By discrediting a person's language we also discredit his or her identity, which is tied to that person's childhood, home, family, culture, and, in a very intimate way, to his or her self.

New digital language practices and the emerging written form of AAL are examples of the ways that technology and identity are collaboratively creating and exposing different literacies. Brandt (2001) asserts that "what is new in literacy learning comes not merely from new technologies and their implications but from the creation of new relationships to older technologies and ways of writing and reading" (p. 11). SNSs are one way that technology is bringing together new "ways of writing and reading" (i.e., digital language) with older ways of writing and reading (i.e., SAE). AAL seems to be a phenomenon that can blur the lines between what is "new" and "old" because it has been spoken for decades, yet has never been as observable in written form as it is now that people can more easily communicate in alphabetic and logographic text via the internet. As Lewis and Fabos (2005) write, "It is not the computer or the Internet itself that is central to literacy but the way that these tools of technology shape social relations and practices" (p. 475). Likewise, it is not SNSs or digital language or AAL, but all of these factors working together with the appropriate audience, purpose, and rhetorical experience to produce written AAL.

### Participants' Acquisition and Understanding of AAL

Something worth noting that became apparent during the focus groups is participants' apparent lack of literacy and linguistic understanding of their home language. Even though participants were able to discuss times when they could identify AAL features within their writing (e.g., note writing, communicating on SNSs, and text messaging), they were unaware that the way they spoke also incorporated AAL features. One participant discussed her disdain of AAL, reducing the entire language to "slang." However, this reduction is understandable and somewhat expected, given the general valuation of AAL among the United States and the fact that a person's home-language knowledge is tacit and not overt. While discussing her dislike of the language and how she discouraged her daughter from using it, one participant's speech incorporated many AAL features: "Ain't is improper to me, and I tell my daughter, 'You say what?' and she be like, 'Am not.' No, I do not like the word *ain't* . . . I'm not big on Ebonics." What this participant failed to notice was that as she discredited AAL, she incorporated AAL features like *Zero Copula* and *Habitual be*. As Figure 1 below shows, there is an explicit difference between AAL and SAE and the use of *be*.

Fig. 1

#### *Habitual Be in African American Language*

A. SAE	→	I am swimming right now.
AAL	→	I swimmin.
B. SAE	→	I swim every day.
AAL	→	I be swimmin.

In order to suggest that someone is

doing something at the moment, in SAE, a communicator would use the conjugate *am*, as shown in example A, whereas AAL interlocutors adhere to *Zero Copula* or the absence of *to be* and its

conjugates. Example B, on the other hand, is an example of *Habitual be*, demonstrating that, in SAE, interlocutors must indicate explicitly that they are doing an act regularly or consistently by including a phrase such as “every day” or “all of the time.” AAL, however, uses *Habitual be* to indicate regularity. Students and participants who communicate using AAL consistently incorporate *Zero Copula* and *Habitual be*, often without any awareness (because after all, our home language and grammar are innate and we are not cognizant of the ways we conjugate verbs or order nouns and adjectives until we learn a second language).

Another participant explained her disapproval of AAL, saying,

“My mother raised me good, real good. Like, my faults is my faults after that, but my mother always taught me how to use English and to pronounce words and stuff like that, but when I look at some of my friends and some people that is coming up under me, they have no structure at home so it is all they know is *dat* and *da* and that is how they talk . . .”

This participant is discussing *Voiced and Voiceless th*. As Figure 2 shows, AAL follows specific phonological rules relevant to words that begin and end with *th* in SAE.

Fig. 2

*Voiced and Voiceless th in African American Language*

A. Voiced <i>th</i>	SAE	→	those, this, they
	AAL	→	dose, dis, dey
B. Voiceless <i>th</i>	SAE	→	with, tooth, breath
	AAL	→	wif/wit, toof, breaf

The *th* sound found in SAE is one of the most difficult sounds to pronounce if English is not a person's first language, because the *th* sound is rare among other languages, including West African languages. In that way, AAL interlocutors replace the *th* sound according to specific linguistic rules. If a word includes a voiced *th* sound (e.g., *this*) where the act of pronouncing the *th* sound vibrates a speaker's vocal cords, another voiced sound (typically a *d* in AAL whereas French typically uses a *z*) is chosen to replace the *th*. In AAL, voiceless *th* sounds (e.g., *with*) that do not vibrate vocal cords are replaced with other voiceless sounds (most often *t* or *f*).

When I pointed out the fact that this participant was using AAL (i.e., *Agreement*: “my faults is my faults”) as she discounted it, she went on to say, “Right, but it is embedded in me, but it is not fully who I am though.” Her comment serves as an excellent example of how language is tied to identity—it is innate. She recognized that how she spoke is part of who she is, even though it is not “fully” who she is. It seems as though this participant (and several others) had a difficult time accepting her home language and identity while trying to assimilate to academic standards and norms that discount her home language and literacy.

Although participants can speak about audience awareness when composing, unfortunately, they seem less cognizant of their home language and literacy. Participants tended to reduce AAL to “slang” and often did not realize that they were using AAL to discredit it. This emphasizes the travesty occurring when our society considers a particular language and literacy worthless. AAL communicators are relegated to believing that their home language—their identity—is somehow undesirable and unworthy of being counted as valid. In that same breath, however, participants were quick to encourage me, as a white researcher, to learn more about their language and help linguistically validate it among other instructors, students, and community members. Likewise, participants also discredited digital language as a valid form of

communication. Although they enjoy the creative freedom and concise nature of communicating in digital language, participants were quick to judge negatively the literacy in the same manner that they regard their home language as “slang.” Rather than understanding and valuing all forms of communication for what they afford interlocutors alone and when combined, these participants seem to be immersed in rich literacies with the innate ability to make composing choices based on audience and context, yet, given the hegemonic push for SAE, these participants blindly discredit their own abilities.

### **Issues of Race and Identity**

Given the intrinsic link between digital AAL and language, race, and identity, focus group participants also disclosed culturally sensitive ideas and opinions. Discussing ethical issues provides a lens from which to better understand the ways that language use is related to and inseparable from identity. The emerging patterns found for the purposes of composing a digital hybrid literacy give a window into the ways that a specific group of people are incorporating several social languages in order to make meaning while also establishing a particular online cultural identity.

In speaking about how he acquired AAL, one participant articulated, “It’s just like how you would learn Spanish in your house. You just learn it because everyone else is doing it, and you just kind of pick it up.” Another participant explained language acquisition and context in her own words, saying,

I dealt with [acting white] because I was born here [in the Midwest] but I grew up in Phoenix, Arizona and Louisville, Kentucky so I was taught to ‘talk proper.’

So, it’s like the way that you use it, I can talk proper at home and have the most

educated conversations. Then, I could be down in the hood hollerin at my girls and doing like that. It's being versatile.

These participants understand that language acquisition is related to where a person grows up and, further, they innately seem to understand the ways that language is related to context and identity—with whom they associate. As Gee notes (2010) language and identity are intrinsically linked; the acquisition of language is innate, unconscious, and what helps tie our language to our identity. The language we acquire as children—our home language—becomes more than a way we communicate; it becomes our way of being, knowing, thinking, and doing. In this way, when discussing these participants' home language (i.e., AAL), issues of ownership, mistrust, and respect arose because participants were doing more than explaining their language use—they were defending their identity.

### **Ownership, Mistrust, and Respect**

When discussing whether I, as a white researcher, needed to obtain consent from people who compose using digital AAL on an SNS, and who are, therefore, likely African American, one participant said,

Yes [how you approach this research matters]. Because, and I don't want this to sound bad, but you're white. Black people are very protective and territorial, so like this is my stuff and like this is my language and you want to study it and you have to tell me that you want to study it before you can take my stuff and study it. And this is kind of what I was getting to when I was like, because I guess I'm very territorial and I feel like I don't, I'm kind of torn, because I don't know if I

want people studying our language, because [another participant finished the sentence: they'll try to take it].

This participant went on to explain that he was hesitant about joining the focus group in the first place and only did so because of my relationship with another participant who “said it was cool.” Otherwise, he went on to say, “I would not discuss this, because it’s like I don’t want to help you take my language . . . I kind of have to be wary because everybody ain’t as nice as you.” This conversation is rife with language that suggests concern over ownership (e.g., *protective, territorial, my language, my stuff, our language, take*) as well as mistrust of whites (e.g., *you’re white, black people, wary*). This participant’s admission that his involvement was only because of his relationship with another participant is important and has been represented in other language studies (Labov, 1969).

After I explained that the purpose of my study is not to co-opt AAL, but to understand it as a legitimate form of communication, this participant commented, “That’s cool. I get where you’re coming from with language and not necessarily worry about someone co-opting my language. I’m worried about the discrediting of it.” Here, he suggests that he does not want his language “taken” by white people, but that if a white person wants to understand his language—without taking it or “discrediting” it—that would be acceptable. This desire for validation was reiterated among other participants.

Participants either felt leery of my research in fear of having their language co-opted or felt empowered, hoping that more people would understand and respect AAL. One participant explained,

I would basically encourage you to find out, because what's left unnoted and misunderstood is left to ignorance. So, if you understand, you can pass the word along and, therefore, other people won't look at it in a derogatory kind of way.

This quote speaks somewhat to Cushman's (1996) notion of reciprocity because, by taking part in my focus group, participants were able to voice their opinions and concerns about my study and analysis and, possibly, have their language further understood if only on a small scale; I was able to gather responses that would help me triangulate my data and enrich my study.

With both focus groups, participants were leery of my intentions at first, which may have happened regardless of a researcher's race. One participant's comments sum up the sentiment of both groups:

See, now I look at you differently, because I feel like you are on the right track with what you doing. I can respect it, because you know, I mean there's so many, like, I wish that you could just come with me, like, if I could just video tape. Because there are so many people who speak Ebonics and never learn how to speak correct English and then when they get to school they're not accepted or it's people who—but I think if you keep going where you're going to get people used to Ebonics and then standard English then Ebonics will be accepted if you can intertwine with both.

I would expect that the fact that I am a white researcher investigating a racially and culturally stigmatized language, exacerbated participants' feelings of mistrust and reluctance to participate. After I "proved" myself, however, participants were quick to note their hope that I could help validate their language and, thus, their identity.

## Conclusion

According to the focus group data, the privacy of participants' digitally-composed messages seemed to be of little concern and they had mixed opinions about whether or not consent was necessary when collecting textual data from social network sites. After further discussion, participants were more aware of social, racial, and privacy implications, but had little regard for such issues without being prompted to consider these matters.

Although there were no current guidelines regarding ethical procedures related to digital textual data (e.g., messages on social network sites) during the data collection for this current study, McKee and Porter (2008) establish the importance of recognizing that we are studying texts *and* people (p. 717). This research is especially sensitive because I studied a particular group of people who compose texts that are intrinsically connected to their racial identity—an identity that has been misrepresented and undermined by white culture. I believe that, because these members suppose a certain amount of privacy and may not even be aware of the implications of being research subjects, and, further, because SNS comments (those written in AAL, especially) are not only texts but represent the Discourse of a specific, stigmatized community of people, SNS comments should be treated as private texts that represent a specific group of people. I argue that it is the ethical duty of researchers to protect and keep research participants' privacy in mind, even if they are not aware or mindful of the possibilities of risk or exploitation.

My research warrants more attention to educate young people about ethical privacy. For me, the cognitive dissonance lies in the fact that participants from my study typically set their privacy settings as "private," yet seem to think that if an interloper (e.g., non-SNS friend, stranger, researcher) views their page and even collects data from their public walls, then that is

acceptable and not worth scrutinizing. Speaking to this issue, Ess (2009) explains this problem as a generational disconnect, writing,

it is frequently noted that younger people seem less concerned about protecting their privacy, at least as traditionally conceived. Perhaps as having grown up in a cellphone culture—along with the many other digital means of communication that saturate our lives in the developed world—young people have simply had less *experience* of the sorts of privacy available in the pre-digital era? (p. 49)

Further, Ess discusses unfortunate circumstances when younger generations realize, perhaps all too late, that “what they believe to be (at least relatively) private information is oftentimes far more public than they would like” and that “generations may disagree on the nature and limits of privacy” yet “we all nonetheless expect, and, in some cases at least, require, some form of privacy and data privacy protection” (Ess, 2009, p. 50). I argue that it is our ethical duty as researchers to protect our participants’ privacy, even if they do not understand the importance.

Within my focus groups, participants were less skeptical of someone reading or copying and pasting what they had written online than someone studying what they had written as an example of AAL. This leads me to another issue brought up by McKee and Porter (2008): Are the digital texts we study only examples of alphabetic or logographic communication or are they also representations of the people who compose those texts? And, in that way, are we studying texts only or texts and people? Again, a case-by-case consideration might best answer that question. As far as this study is concerned, I argue that, given the intrinsic connection between language, literacy, and identity as well as the racial and cultural importance of the literacy being

studied, I am examining both digital AAL (i.e., the text) and the people who compose it. The two are inseparable.

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**Book Review: *Methods for Analyzing Social Media***

**Klaus, B., Hunniger, J., & Jensen, J. L. (Eds.). (2013). *Methods for Analyzing Social Media*. New York: Routledge.**

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Klaus, B., Hunniger, J., & Jensen, J. L. (Eds.). (2013). *Methods for Analyzing Social Media*. New York: Routledge.

In an era when so many books offer basic instructions and tips for using only one social media outlet without offering the reader much insight on the individual, social, and cultural implications that accompany the creation and usage of such media, the editors of “Methods for Analyzing Social Media” take a refreshingly comprehensive and inclusive yet accessible approach to the genre. The book’s introduction, and the 10 chapters or articles that follow, focus on case studies of social media methodologies encompassing several popular brands, in an effort to comprehensively answer the many questions regarding how to develop methods and strategies for effectively analyzing social media both qualitatively and quantitatively. Indeed, the series’ strong point and mass appeal comes in its interweaving and illustrating the equally important contributions of the qualitative and quantitative elements of social media communication that are often overlooked, discounted, or discarded altogether.

Having been originally designed and published as individual articles and case studies by different authors and editors throughout Europe primarily as well as the United States, the texts have been thoughtfully compiled to guide students and scholars of social media alike to simplify and make sense out of what might seem like a daunting but inevitable process, given the perpetually changing nature of the internet in general and social media in particular. The first two articles-turned-chapters, written respectively by Fabio Giglietto, Luca Rossi, and Davide Bennato, and Axel Bruns and Stefan Stieglitz, discuss three of the current moment’s most

popular and prevalent social media platforms – Facebook, Twitter, and YouTube – in terms of their abilities to offer opportunities for comparative research for ethnographical, statistical, and computational purposes using specific cases as examples. Likewise, the last two chapters, authored individually by Matthew Crick and Tara La Rose, are dedicated to analyzing the impact of YouTube on youth learning, neighborhood communication patterns, and human service work.

Recognizing that in order to fully understand and apply the outlets themselves requires a nuanced knowledge of the contexts and users involved in the process, the third, fourth, and seventh, articles – titled respectively “Communities of Communication: Making Sense of the ‘Social’ in Social Media” by Pascal Jurgens, “Talking of Many Things: Using Topical Networks to Study Discussions in Social Media,” authored by Tim Highfield, and “Employing Creative Research Methods with Tweens in Estonia and Sweden: Reflections on a Case Study of Identity Construction on Social Networking Sites,” written by the team of Andra Siiback, Michael Forsman, and Patrik Hernwall, are devoted to analyzing the participation levels and intent of individual and young users and by gender, and how such individuals form, influence, and are influenced by these “social communities.” Other chapters, written respectively by Stine Lomborg, and Marco Lunich, Patrick Rossler, and Lena Hautzer, discuss the usefulness of topics ranging from web archiving to online news media and news sharing, in rounding out the elements necessary to fully understand individual social media use.

The book concludes, perhaps appropriately and in final defense of the often-criticized benefits of social media, with a chapter by Martine Bouman, Constance Drossaert, and Marcel Pieterse, titled “Mark My Words: The Design of an Innovative Methodology to Detect and Analyze Interpersonal Conversations in Web and Social Media,” that attempts to apply a

methodology also called “Mark My Words” to interpersonal communication on social media, in order to “measure the potential impact of new digital health communication formats.” This case study in particular serves as a clear sign of how social media can be used to bridge even the most technical differences in language between people to literally improve health and save lives.

The volume carries great appeal with its diversity of regional and international voices and perspectives on social media research and methodology. The inclusion of articles and studies from scholars on opposite ends of the globe, all of which include clear description and explanation of relevant background, methodology, analysis, and conclusions, reinforces the reality that the internet has its own “language” that bridges all others and allows people with different goals and outlooks to nevertheless find commonalities to work together for personal, professional, and social benefit and for the mutual global good. In addition, the book’s discussion of several of the most popular and useful yet often criticized social media outlets of the moment demonstrates that the editors recognize the nuances and purposes of each outlet rather than a one-size-fits-all approach. Additionally, the inclusion of ample and well-placed and labeled illustrations, graphs, and charts helps to ensure complete understanding of the material for more visual learners.

On the other hand, the ever-changing nature and design of the internet and of individual social media outlets, driven in part by enhancements and changes in technology as well as by the fickle and always ambitious and competitive attitudes of the public, means that much of the book’s content has a relatively short or limited shelf life, although it does serve as a valuable snapshot of where we are now. Thus, it provides a solid starting point for those involved in

social media research who are hoping to better and more fully understand where we are, how we got here, and where we might be headed next.

The 187-page hardback Routledge book was released in July 2013 and is priced at \$145.00.