

3AP / E4AP English Language and Composition
Summer Reading Assignment 2023-24

Welcome to AP Language and Composition! We look forward to the year ahead; this course not only offers a challenging, thoughtful, and inquisitive language experience, but it also serves to provide a strong foundation for the types of reading and writing you will do in college.

To that end, we have designed assignments to prepare you to begin your exploration of English Language and Composition. Your response must be typed, printed, and ready to be submitted on the first day of class in September.

It should go without saying that all work must be entirely your own; this is not a collaborative assignment nor is it one that necessitates any type of sourcing or Internet research.

In this packet you will find 10 essays about the process and craft of writing:

[3AP Lang Summer Reading Essays](#)

1. "What Writing Is" by Stephen King (from his memoir *On Writing*)
2. "Why I Write" by George Orwell
3. "Why I Write" by Joan Didion
4. "Learning to Read and Write" by Frederick Douglass (from his memoir *Narrative of the Life of...*)
5. "The Perfect Essay" by John Kaag
6. "The Importance of Writing Badly" (excerpt) by Bruce Ballenger
7. "Write to Not Print" by Nate Kreuter
8. "The New Literacy" by Clive Thompson
9. "I Type, Therefore I am" by Tom Chatfield
10. "Can an Algorithm Write a Better News Story than a Reporter?" by Stephen Levy

Assignment: Choose three of the essays, and for each:

1. Highlight what you consider to be the main idea/purpose of the essay. (This means that you will need to print the essay packet.)
2. Write a reflection on each of the three essays you have chosen which reflects on the following points. Each reflection should be a well-developed paragraph:
 - What is the author's main point about the writing process?
 - What does the author suggest about the relationship between author and audience?
 - What are your thoughts on the writer's philosophy about the craft of writing? Where do you agree? Where might you disagree?

*Each reflection will count as a homework grade.

“What Writing Is” (excerpt from *On Writing*)
By Stephen King (2000)

Telepathy, of course. It’s amusing when you stop to think about it—for years people have argued about whether or not such a thing exists, folks like J. B. Rhine have busted their brains trying to create a valid testing process to isolate it, and all the time it’s been right there, lying out in the open like Mr. Poe’s Purlloined Letter. All the arts depend upon telepathy to some degree, but I believe that writing offers the purest distillation. Perhaps I’m prejudiced, but even if I am we may as well stick with writing, since it’s what we came here to think and talk about.

My name is Stephen King. I’m writing the first draft of this part at my desk (the one under the eave) on a snowy morning in December of 1997. There are things on my mind. Some are worries (bad eyes, Christmas shopping not even started, wife under the weather with a virus), some are good things (our younger son made a surprise visit home from college, I got to play Vince Taylor’s “Brand New Cadillac” with The Wallflowers at a concert), but right now all that stuff is up top. I’m in another place, a basement place where there are lots of bright lights and clear images. This is a place I’ve built for myself over the years. It’s a far-seeing place. I know it’s a little strange, a little bit of a contradiction, that a far-seeing place should also be a basement place, but that’s how it is with me. If you construct your own far-seeing place, you might put it in a treetop or on the roof of the World Trade Center or on the edge of the Grand Canyon. That’s your little red wagon, as Robert McCammon says in one of his novels.

This book is scheduled to be published in the late summer or early fall of 2000. If that’s how things work out, then you are somewhere downstream on the timeline from me ... but you’re quite likely in your own far-seeing place, the one where you go to receive telepathic messages. Not that you *have* to be there; books are a uniquely portable magic. I usually listen to one in the car (always unabridged; I think abridged audio-books are the pits), and carry another wherever I go. You just never know when you’ll want an escape hatch: mile-long lines at tollbooth plazas, the fifteen minutes you have to spend in the hall of some boring college building waiting for your advisor (who’s got some yank-off in there threatening to commit suicide because he/she is flunking Custom Kurmfurling 101) to come out so you can get his signature on a drop-card, airport boarding lounges, laundromats on rainy afternoons, and the absolute worst, which is the doctor’s office when the guy is running late and you have to wait half an hour in order to have something sensitive mauled. At such times I find a book vital. If I have to spend time in purgatory before going to one place or the other, I guess I’ll be all right as long as there’s a lending library (if there is it’s probably stocked with nothing but novels by Danielle Steel and *Chicken Soup* books, ha-ha, joke’s on you, Steve).

So I read where I can, but I have a favorite place and probably you do, too -- a place where the light is good and the vibe is unusually strong. For me it’s the blue chair in my study. For you it might be the couch on the sunporch, the rocker in the kitchen, or maybe it’s propped up in your bed — reading in bed can be heaven, assuming you can get just the right amount of light on the page and aren’t prone to spilling your coffee or cognac on the sheets.

So let’s assume that you’re in your favorite receiving place just as I am in the place where I do my best transmitting. We’ll have to perform our mentalist routine not just over distance but over time as well, yet that presents no real problem; if we can still read Dickens, Shakespeare, and (with the help of a footnote or two) Herodotus, I think we can manage the gap between 1997 and 2000. And here we go — actual telepathy in action. You’ll notice I have nothing up my sleeves and that my lips never move. Neither, most likely, do yours.

Look — here’s a table covered with a red cloth. On it is a cage the size of a small fish aquarium. In the cage is a white rabbit with a pink nose and pink-rimmed eyes. In its front paws is a carrot-stub upon which it is contentedly munching. On its back, clearly marked in blue ink, is the numeral 8.

Do we see the same thing? We’d have to get together and compare notes to make absolutely sure, but I think we do. There will be necessary variations, of course: some receivers will see a cloth which is turkey red, some will see one that’s scarlet, while others may see still other shades. (To colorblind receivers, the red tablecloth is the dark gray of cigar ashes.) Some may see scalloped edges, some may see straight ones. Decorative souls may add a little lace, and welcome --- my tablecloth is your tablecloth, knock yourself out.

Likewise, the matter of the cage leaves quite a lot of room for individual interpretation. For one thing, it is described in terms of *rough comparison*, which is useful only if you and I see the world and measure the things in it with similar eyes. It’s easy to become careless when making rough comparisons, but the alternative is a prissy attention to detail that takes all the fun out of writing. What am I going to say, “on the table is a cage three feet, six inches in length, two feet in width, and fourteen inches high”? That’s not prose, that’s an instruction manual. The paragraph also doesn’t tell us what sort of material the cage is made of—wire mesh? steel rods? glass?—but does it really matter? We all understand the cage is a see-through medium; beyond that, we don’t care. The most interesting thing here isn’t even the carrot-munching rabbit in the cage, but the number on its back. Not a six, not a four, not nineteen-point-five. It’s an eight. This is what we’re looking at, and we all see it. I didn’t tell you. You didn’t

ask me. I never opened my mouth and you never opened yours. We're not even in the same year together, let alone the same room . . . except we *are* together. We're close.

We're having a meeting of the minds.

I sent you a table with a red cloth on it, a cage, a rabbit, and the number eight in blue ink. You got them all, especially that blue eight. We've engaged in an act of telepathy. No mythy-mountain [stuff]; real telepathy. I'm not going to belabor the point, but before we go any further you have to understand that I'm not trying to be cute; there is a point to be made.

You can approach the act of writing with nervousness, excitement, hopefulness, or even despair --- the sense that you can never completely put on the page what's in your mind and heart. You can come to the act with your fists clenched and your eyes narrowed, ready to kick [butt] and take down names. You can come to it because you want a girl to marry you or because you want to change the world. Come to it any way but lightly. Let me say it again: *you must not come lightly to the blank page.*

I'm not asking you to come reverently or unquestioningly; I'm not asking you to be politically correct or cast aside your sense of humor (please God you have one). This isn't a popularity contest, it's not the moral Olympics, and it's not church. But it's *writing*, damn it, not washing the car or putting on eyeliner. If you can take it seriously, we can do business. If you can't or won't, it's time for you to close the book and do something else.

Wash the car, maybe.

“Why I Write”

By George Orwell (1946)

From a very early age, perhaps the age of five or six, I knew that when I grew up I should be a writer. Between the ages of about seventeen and twenty-four I tried to abandon this idea, but I did so with the consciousness that I was outraging my true nature and that sooner or later I should have to settle down and write books.

I was the middle child of three, but there was a gap of five years on either side, and I barely saw my father before I was eight. For this and other reasons I was somewhat lonely, and I soon developed disagreeable mannerisms which made me unpopular throughout my schooldays. I had the lonely child's habit of making up stories and holding conversations with imaginary persons, and I think from the very start my literary ambitions were mixed up with the feeling of being isolated and undervalued. I knew that I had a facility with words and a power of facing unpleasant facts, and I felt that this created a sort of private world in which I could get my own back for my failure in everyday life. Nevertheless the volume of serious — i.e. seriously intended — writing which I produced all through my childhood and boyhood would not amount to half a dozen pages. I wrote my first poem at the age of four or five, my mother taking it down to dictation. I cannot remember anything about it except that it was about a tiger and the tiger had ‘chair-like teeth’ — a good enough phrase, but I fancy the poem was a plagiarism of Blake's ‘Tiger, Tiger’. At eleven, when the war or 1914-18 broke out, I wrote a patriotic poem which was printed in the local newspaper, as was another, two years later, on the death of Kitchener. From time to time, when I was a bit older, I wrote bad and usually unfinished ‘nature poems’ in the Georgian style. I also attempted a short story which was a ghastly failure. That was the total of the would-be serious work that I actually set down on paper during all those years.

However, throughout this time I did in a sense engage in literary activities. To begin with there was the made-to-order stuff which I produced quickly, easily and without much pleasure to myself. Apart from school work, I wrote *vers d'occasion*, semi-comic poems which I could turn out at what now seems to me astonishing speed — at fourteen I wrote a whole rhyming play, in imitation of Aristophanes, in about a week — and helped to edit a school magazines, both printed and in manuscript. These magazines were the most pitiful burlesque stuff that you could imagine, and I took far less trouble with them than I now would with the cheapest journalism. But side by side with all this, for fifteen years or more, I was carrying out a literary exercise of a quite different kind: this was the making up of a continuous ‘story’ about myself, a sort of diary existing only in the mind. I believe this is a common habit of children and adolescents. As a very small child I used to imagine that I was, say, Robin Hood, and picture myself as the hero of thrilling adventures, but quite soon my ‘story’ ceased to be narcissistic in a crude way and became more and more a mere description of what I was doing and the things I saw. For minutes at a time this kind of thing would be running through my head: ‘He pushed the door open and entered the room. A yellow beam of sunlight, filtering through the muslin curtains, slanted on to the table, where a match-box, half-open, lay beside the inkpot. With his right hand in his pocket he moved across to the window. Down in the street a tortoiseshell cat was chasing a dead leaf’, etc. etc. This habit continued until I was about twenty-five, right through my non-literary years. Although I had to search, and did search, for the right words, I seemed to be making this descriptive

effort almost against my will, under a kind of compulsion from outside. The ‘story’ must, I suppose, have reflected the styles of the various writers I admired at different ages, but so far as I remember it always had the same meticulous descriptive quality.

When I was about sixteen I suddenly discovered the joy of mere words, i.e. the sounds and associations of words. The lines from *Paradise Lost* —

So hee with difficulty and labour hard
Moved on: with difficulty and labour hee.

which do not now seem to me so very wonderful, sent shivers down my backbone; and the spelling ‘hee’ for ‘he’ was an added pleasure. As for the need to describe things, I knew all about it already. So it is clear what kind of books I wanted to write, in so far as I could be said to want to write books at that time. I wanted to write enormous naturalistic novels with unhappy endings, full of detailed descriptions and arresting similes, and also full of purple passages in which words were used partly for the sake of their own sound. And in fact my first completed novel, *Burmese Days*, which I wrote when I was thirty but projected much earlier, is rather that kind of book.

I give all this background information because I do not think one can assess a writer's motives without knowing something of his early development. His subject matter will be determined by the age he lives in — at least this is true in tumultuous, revolutionary ages like our own — but before he ever begins to write he will have acquired an emotional attitude from which he will never completely escape. It is his job, no doubt, to discipline his temperament and avoid getting stuck at some immature stage, in some perverse mood; but if he escapes from his early influences altogether, he will have killed his impulse to write. Putting aside the need to earn a living, I think there are four great motives for writing, at any rate for writing prose. They exist in different degrees in every writer, and in any one writer the proportions will vary from time to time, according to the atmosphere in which he is living. They are:

(i) *Sheer egoism*. Desire to seem clever, to be talked about, to be remembered after death, to get your own back on the grown-ups who snubbed you in childhood, etc., etc. It is humbug to pretend this is not a motive, and a strong one. Writers share this characteristic with scientists, artists, politicians, lawyers, soldiers, successful businessmen — in short, with the whole top crust of humanity. The great mass of human beings are not acutely selfish. After the age of about thirty they almost abandon the sense of being individuals at all — and live chiefly for others, or are simply smothered under drudgery. But there is also the minority of gifted, willful people who are determined to live their own lives to the end, and writers belong in this class. Serious writers, I should say, are on the whole more vain and self-centered than journalists, though less interested in money.

(ii) *Aesthetic enthusiasm*. Perception of beauty in the external world, or, on the other hand, in words and their right arrangement. Pleasure in the impact of one sound on another, in the firmness of good prose or the rhythm of a good story. Desire to share an experience which one feels is valuable and ought not to be missed. The aesthetic motive is very feeble in a lot of writers, but even a pamphleteer or writer of textbooks will have pet words and phrases which appeal to him for non-utilitarian reasons; or he may feel strongly about typography, width of margins, etc. Above the level of a railway guide, no book is quite free from aesthetic considerations.

(iii) *Historical impulse*. Desire to see things as they are, to find out true facts and store them up for the use of posterity.

(iv) *Political purpose*. — Using the word ‘political’ in the widest possible sense. Desire to push the world in a certain direction, to alter other peoples’ idea of the kind of society that they should strive after. Once again, no book is genuinely free from political bias. The opinion that art should have nothing to do with politics is itself a political attitude.

It can be seen how these various impulses must war against one another, and how they must fluctuate from person to person and from time to time. By nature — taking your ‘nature’ to be the state you have attained when you are first adult — I am a person in whom the first three motives would outweigh the fourth. In a peaceful age I might have written ornate or merely descriptive books, and might have remained almost unaware of my political loyalties. As it is I have been forced into becoming a sort of pamphleteer. First I spent five years in an unsuitable profession (the Indian Imperial Police, in Burma), and then I underwent poverty and the sense of failure. This increased my natural hatred of authority and made me for the first time fully aware of the existence of the

working classes, and the job in Burma had given me some understanding of the nature of imperialism: but these experiences were not enough to give me an accurate political orientation. Then came Hitler, the Spanish Civil War, etc. By the end of 1935 I had still failed to reach a firm decision. I remember a little poem that I wrote at that date, expressing my dilemma:

A happy vicar I might have been
Two hundred years ago
To preach upon eternal doom
And watch my walnuts grow;

But born, alas, in an evil time,
I missed that pleasant haven,
For the hair has grown on my upper lip
And the clergy are all clean-shaven.

And later still the times were good,
We were so easy to please,
We rocked our troubled thoughts to sleep
On the bosoms of the trees.

All ignorant we dared to own
The joys we now dissemble;
The greenfinch on the apple bough
Could make my enemies tremble.

But girl's bellies and apricots,
Roach in a shaded stream,
Horses, ducks in flight at dawn,
All these are a dream.

It is forbidden to dream again;
We maim our joys or hide them:
Horses are made of chromium steel
And little fat men shall ride them.

I am the worm who never turned,
The eunuch without a harem;
Between the priest and the commissar
I walk like Eugene Aram;

And the commissar is telling my fortune
While the radio plays,
But the priest has promised an Austin Seven,
For Duggie always pays.

I dreamt I dwelt in marble halls,
And woke to find it true;
I wasn't born for an age like this;
Was Smith? Was Jones? Were you?

The Spanish war and other events in 1936-37 turned the scale and thereafter I knew where I stood. Every line of serious work that I have written since 1936 has been written, directly or indirectly, *against* totalitarianism and *for* democratic socialism, as I understand it. It seems to me nonsense, in a period like our own, to think that one can avoid writing of such subjects. Everyone

writes of them in one guise or another. It is simply a question of which side one takes and what approach one follows. And the more one is conscious of one's political bias, the more chance one has of acting politically without sacrificing one's aesthetic and intellectual integrity.

What I have most wanted to do throughout the past ten years is to make political writing into an art. My starting point is always a feeling of partisanship, a sense of injustice. When I sit down to write a book, I do not say to myself, 'I am going to produce a work of art'. I write it because there is some lie that I want to expose, some fact to which I want to draw attention, and my initial concern is to get a hearing. But I could not do the work of writing a book, or even a long magazine article, if it were not also an aesthetic experience. Anyone who cares to examine my work will see that even when it is downright propaganda it contains much that a full-time politician would consider irrelevant. I am not able, and do not want, completely to abandon the world view that I acquired in childhood. So long as I remain alive and well I shall continue to feel strongly about prose style, to love the surface of the earth, and to take a pleasure in solid objects and scraps of useless information. It is no use trying to suppress that side of myself. The job is to reconcile my ingrained likes and dislikes with the essentially public, non-individual activities that this age forces on all of us.

It is not easy. It raises problems of construction and of language, and it raises in a new way the problem of truthfulness. Let me give just one example of the cruder kind of difficulty that arises. My book about the Spanish civil war, *Homage to Catalonia*, is of course a frankly political book, but in the main it is written with a certain detachment and regard for form. I did try very hard in it to tell the whole truth without violating my literary instincts. But among other things it contains a long chapter, full of newspaper quotations and the like, defending the Trotskyists who were accused of plotting with Franco. Clearly such a chapter, which after a year or two would lose its interest for any ordinary reader, must ruin the book. A critic whom I respect read me a lecture about it. 'Why did you put in all that stuff?' he said. 'You've turned what might have been a good book into journalism.' What he said was true, but I could not have done otherwise. I happened to know, what very few people in England had been allowed to know, that innocent men were being falsely accused. If I had not been angry about that I should never have written the book.

In one form or another this problem comes up again. The problem of language is subtler and would take too long to discuss. I will only say that of late years I have tried to write less picturesquely and more exactly. In any case I find that by the time you have perfected any style of writing, you have always outgrown it. *Animal Farm* was the first book in which I tried, with full consciousness of what I was doing, to fuse political purpose and artistic purpose into one whole. I have not written a novel for seven years, but I hope to write another fairly soon. It is bound to be a failure, every book is a failure, but I do know with some clarity what kind of book I want to write.

Looking back through the last page or two, I see that I have made it appear as though my motives in writing were wholly public-spirited. I don't want to leave that as the final impression. All writers are vain, selfish, and lazy, and at the very bottom of their motives there lies a mystery. Writing a book is a horrible, exhausting struggle, like a long bout of some painful illness. One would never undertake such a thing if one were not driven on by some demon whom one can neither resist nor understand. For all one knows that demon is simply the same instinct that makes a baby squall for attention. And yet it is also true that one can write nothing readable unless one constantly struggles to efface one's own personality. Good prose is like a windowpane. I cannot say with certainty which of my motives are the strongest, but I know which of them deserve to be followed. And looking back through my work, I see that it is invariably where I lacked a political purpose that I wrote lifeless books and was betrayed into purple passages, sentences without meaning, decorative adjectives and humbug generally.

"Why I Write"

By Joan Didion

Of course I stole the title for this talk, from George Orwell. One reason I stole it was that I like the sound of the words: *Why I Write*. There you have three short unambiguous words that share a sound, and the sound they share is this:

I
I
I

In many ways writing is the act of saying *I*, of imposing oneself upon other people, of saying *listen to me, see it my way, change your mind*. It's an aggressive, even hostile act. You can disguise its aggressiveness all you want with the veils of

subordinate clauses and qualifiers and tentative subjunctives, with ellipses and evasions—with the whole manner of intimating rather than claiming, of alluding rather than stating—but there's no getting around the fact that setting words on paper is the tactic of a secret bully, an invasion, an imposition of the writer's sensibility on the reader's most private space.

I stole the title not only because the words sounded right but because they seemed to sum up, in a no-nonsense way, all I have to tell you. Like many writers I have only this one "subject," this one "area": the act of writing. I can bring you no reports from any other front. I may have other interests: I am "interested," for example, in marine biology, but I don't flatter myself that you would come out to hear me talk about it. I am not a scholar. I am not in the least an intellectual, which is not to say that when I hear the word "intellectual" I reach for my gun, but only to say that I do not think in abstracts. During the years when I was an undergraduate at Berkeley I tried, with a kind of hopeless late-adolescent energy, to buy some temporary visa into the world of ideas, to forge for myself a mind that could deal with the abstract.

In short I tried to think. I failed. My attention veered inexorably back to the specific, to the tangible, to what was generally considered, by everyone I knew then and for that matter have known since, the peripheral. I would try to contemplate the Hegelian dialectic and would find myself concentrating instead on a flowering pear tree outside my window and the particular way the petals fell on my floor. I would try to read linguistic theory and would find myself wondering instead if the lights were on in the bevatron up the hill. When I say that I was wondering if the lights were on in the bevatron you might immediately suspect, if you deal in ideas at all, that I was registering the bevatron as a political symbol, thinking in shorthand about the military-industrial complex and its role in the university community, but you would be wrong. I was only wondering if the lights were on in the bevatron, and how they looked. A physical fact.

I had trouble graduating from Berkeley, not because of this inability to deal with ideas—I was majoring in English, and I could locate the house-and-garden imagery in "The Portrait of a Lady" as well as the next person, "imagery" being by definition the kind of specific that got my attention—but simply because I had neglected to take a course in Milton. For reasons which now sound baroque I needed a degree by the end of that summer, and the English department finally agreed, if I would come down to Sacramento every Friday and talk about the cosmology of "Paradise Lost," to certify me proficient in Milton. I did this. Some Fridays I took the Greyhound bus, other Fridays I caught the Southern Pacific's City of San Francisco on the last leg of its transcontinental trip. I can no longer tell you whether Milton put the sun or the earth at the center of his universe in "Paradise Lost," the central question of at least one century and a topic about which I wrote 10,000 words that summer, but I can still recall the exact rancidity of the butter in City of San Francisco's dining car, and the way the tinted windows on the greyhound bus cast the oil refineries around Carquinez Straits into a grayed and obscurely sinister light. In short my attention was always on the periphery, on what I could see and taste and touch, on the butter, and the Greyhound bus. During those years I was traveling on what I knew to be a very shaky passport, forged papers: I knew that I was no legitimate resident in any world of ideas. I knew I couldn't think. All I knew then was what I couldn't do. All I knew then was what I wasn't, and it took me some years to discover what I was.

Which was a writer.

By which I mean not a "good" writer or a "bad" writer but simply a writer, a person whose most absorbed and passionate hours are spent arranging words on pieces of paper. Had my credentials been in order I would never have become a writer. Had I been blessed with even limited access to my own mind there would have been no reason to write. I write entirely to find out what I'm thinking, what I'm looking at, what I see and what it means. What I want to what I fear. Why did the oil refineries around Carquinez Straits seem sinister to me in the summer of 1956? Why have the night lights in the bevatron burned in my mind for twenty years? *What is going on in these pictures in my mind?*

When I talk about pictures in my mind I am talking, quite specifically, about images that shimmer around the edges. There used to be an illustration in every elementary psychology book showing a cat drawn by a patient in varying stages of schizophrenia. This cat had a shimmer around it. You could see the molecular structure breaking down at the very edges of the cat: the cat became the background and the background the cat, everything interacting, exchanging ions. People on hallucinogens describe the same perception of objects. I'm not a schizophrenic, nor do I take hallucinogens, but certain images do shimmer for me. Look hard enough, and you can't miss the shimmer. It's there. You can't think too much about these pictures that shimmer. You just lie low and let them develop. You stay quiet. You don't talk to many people and you keep your nervous system from shorting out and you try to locate the cat in the shimmer, the grammar in the picture.

Just as I meant "shimmer" literally I mean "grammar" literally. Grammar is a piano I play by ear, since I seem to have been out of school the year the rules were mentioned. All I know of grammar is its infinite power. To shift the structure of a sentence alters the meaning of that sentence, as definitely and inflexibly as the position of a camera alters the meaning of the object being photographed. Many people know about camera angles now, but not so many know about sentences. The arrangement of words matters, and the arrangement you want can be found in the picture in you mind. The picture dictates the arrangement. The

picture dictates whether this will be a sentence with or without clauses, a sentence that ends hard or a dying-fall sentence, long or short, active or passive. The picture tells you how to arrange words and the arrangement of the words tells you, or tells me, what's going on in the picture *Nota bene*:

It tells you.

You don't tell it.

Let me show you what I mean by pictures in the mind. I began "Play It As It Lays" just as I have begun each of my novels, with no notion of "character" or "plot" or even "incident." I had only two pictures in my mind, more about which later, and a technical intention, which was to write a novel so elliptical and fast that it would be over before you noticed it, a novel so fast that it would scarcely exist on the page at all. About the pictures: the first was of white space. Empty space. This was clearly the picture dictated the narrative intention of the book- a book in which anything that happened would happen off the page, a "white" book to which the reader would have to bring his or her own bad dreams- and yet this picture told me no "story," suggested no situation. The second picture did. This second picture was of something actually witnessed. A young woman with long hair and a short white halter dress walks through a casino at the Riviera in Las Vegas at one in the morning. She crosses the casino alone and picks up a house telephone. I watch her because I have heard her paged, and recognize her name: she is a minor actress I see around Los Angeles from time to time, in places like Jax and once in a gynecologist's office in the Beverly Hills Clinic, but never have met. I know nothing about her. Who is paging her? Why is she here to be paged? How exactly did she come to this? It was precisely the moment in Las Vegas that made "Play It As It Lays" begin to tell itself to me, but the moment appears in the novel only obliquely, in a chapter which beings:

"Maria made a list of things she would never do. She would never: walk through the Sands or Caesar's alone after midnight. She would never: ball at a party, do S-M unless she wanted to, borrow furs from Abe Lipsey, deal. She would never: carry a Yorkshire in Beverly Hills."

That is the beginning of the chapter and that is the end of the chapter, which may suggest what I meant by "white space."

I recall having a number of pictures in my mind when I began the novel I just finished, "A Book of Common Prayer." As a matter of fact one of these pictures was of that bevatron I mentioned, although I would be hard to tell you a story in which nuclear energy figured. Another was a newspaper photograph of a hijacked 707 burning on the desert in the Middle East. Another was the night view from a room in which I once spent a week with paratyphoid, a hotel room on the Colombian coast. My husband and I seemed to be on the Colombian coast representing the United States of American at a film festival (I recall invoking the name "Jack Valenti a lot, as if its reiteration could make me well), and it was a bad place to have fever, not only because my indisposition offended our hosts but because every night in this hotel the generator failed. The lights went out. The elevator stopped. My husband would go to the event of the evening and make excuses for me and I would stay alone in this hotel room, in the dark. I remember standing at the window trying to call Bogotá (the telephone seemed to work on the same principle as the generator) and watching the night wind come up and wondering what I was doing eleven degrees off the equator with a fever of 103. The view from that window definitely figures in "A Book of Common Prayer," as does the burning 707, and yet none of these pictures told me the story I needed.

The picture that did, the picture that shimmered and made these other images coalesce, was the Panama airport at 6 A.M. I was in this airport only once, on a plane to Bogotá that stopped for an hour to refuel, but the way it looked that morning remained superimposed on everything I saw until the day I finished "A Book of Common Prayer." I lived in that airport for several years. I can still feel the hot air when I step off the plane, can see the heat already rising off the tarmac at 6 A.M. I can feel my skirt damp and wrinkled on my legs. I can feel the asphalt stick to my sandals. I remember the big tail of a Pan American plane floating motionless down at the end of the tarmac. I remember the sound of a slot machine in the waiting room. I could tell you that I remember a particular woman in the airport, an American woman, a *norteamericana*, a *thin norteamericana* about 40 who wore a big square emerald in lieu of a wedding ring, but there was no such woman there.

I put this woman in the airport later. I made this woman up, just as I later made up a country to put the airport in, and a family to run the country. This woman in the airport is neither catching a plane nor meeting one. She is ordering tea in the airport coffee shop. In fact she is not simply "ordering: tea but insisting that the water be boiled, in front of her, for twenty minutes. Why is this woman in this airport? Why is she going nowhere, where had she been? Where did she get that big emerald? What derangement, or disassociation, makes her believe that her will to see the water boiled can possibly prevail?

"She had been going to one airport or another for four months, one could see it, looking at the visas on her passport. All those airports where Charlotte Douglas's passport had been stamped would have looked alike. Sometimes the sign on the tower would say 'Bienvenidos' and sometimes the sign on the tower would say 'Bienvenue,' some places were wet and hot and other dry and hot, but at each of these airports the pastel concrete walls would rust and stain and the swamp off the runway would be littered with the fuselages of cannibalized Fairchild F-227's and the water would need boiling.

“I knew why Charlotte went to the airport even if Victor did not.

“I knew about airports.”

These lines appear about halfway through “A Book of Common Prayer,” but I wrote them during the second week I worked on the book, long before I had any idea where Charlotte Douglas had been or why she went to airports. Until I wrote these lines I had no character called Victor in mind: the necessity for mentioning a name, and the name “Victor,” occurred to me as I wrote the sentence. *I knew why Charlotte went to the airport* sounded incomplete. *I knew why Charlotte went to the airport even if Victor did not* carried a little more narrative drive. Most important of all, until I wrote these lines I did not know who “I” was, who was telling the story. I had intended until that moment that the “I” be no more than the voice of the author, a 19th-century omniscient narrator. But there it was:

“I knew why Charlotte went to the airport even if Victor did not.

“I knew about airports.”

This “I” was the voice of no author in my house. This “I” was someone who not only knew why Charlotte went to the airport but also knew someone called “Victor.” Who was Victor? Who was this narrator? Why was this narrator telling me this story? Let me tell you one thing about why writers write: had I known the answer to any of these questions I would never have needed to write a novel.

“Learning to Read and Write” (excerpt from *Narrative of a Life...*)

By Frederick Douglass

I lived in Master Hugh's family about seven years. During this time, I succeeded in learning to read and write. In accomplishing this, I was compelled to resort to various stratagems. I had no regular teacher. My mistress, who had kindly commenced to instruct me, had, in compliance with the advice and direction of her husband, not only ceased to instruct, but had set her face against my being instructed by any one else. It is due, however, to my mistress to say of her, that she did not adopt this course of treatment immediately. She at first lacked the depravity indispensable to shutting me up in mental darkness. It was at least necessary for her to have some training in the exercise of irresponsible power, to make her equal to the task of treating me as though I were a brute.

My mistress was, as I have said, a kind and tender-hearted woman; and in the simplicity of her soul she commenced, when I first went to live with her, to treat me as she supposed one human being ought to treat another. In entering upon the duties of a slaveholder, she did not seem to perceive that I sustained to her the relation of a mere chattel, and that for her to treat me as a human being was not only wrong, but dangerously so. Slavery proved as injurious to her as it did to me. When I went there, she was a pious, warm, and tender-hearted woman. There was no sorrow or suffering for which she had not a tear. She had bread for the hungry, clothes for the naked, and comfort for every mourner that came within her reach. Slavery soon proved its ability to divest her of these heavenly qualities. Under its influence, the tender heart became stone, and the lamblike disposition gave way to one of tiger-like fierceness. The first step in her downward course was in her ceasing to instruct me. She now commenced to practise her husband's precepts. She finally became even more violent in her opposition than her husband himself. She was not satisfied with simply doing as well as he had commanded; she seemed anxious to do better. Nothing seemed to make her more angry than to see me with a newspaper. She seemed to think that here lay the danger. I have had her rush at me with a face made all up of fury, and snatch from me a newspaper, in a manner that fully revealed her apprehension. She was an apt woman; and a little experience soon demonstrated, to her satisfaction, that education and slavery were incompatible with each other.

From this time I was most narrowly watched. If I was in a separate room any considerable length of time, I was sure to be suspected of having a book, and was at once called to give an account of myself. All this, however, was too late. The first step had been taken. Mistress, in teaching me the alphabet, had given me the _inch,_ and no precaution could prevent me from taking the _ell._

The plan which I adopted, and the one by which I was most successful, was that of making friends of all the little white boys whom I met in the street. As many of these as I could, I converted into teachers. With their kindly aid, obtained at different times and in different places, I finally succeeded in learning to read. When I was sent of errands, I always took my book with me, and by going one part of my errand quickly, I found time to get a lesson before my return. I used also to carry bread with me, enough of which was always in the house, and to which I was always welcome; for I was much better off in this regard than many of the poor white children in our neighborhood. This bread I used to bestow upon the hungry little urchins, who, in return, would give me that

more valuable bread of knowledge. I am strongly tempted to give the names of two or three of those little boys, as a testimonial of the gratitude and affection I bear them; but prudence forbids;--not that it would injure me, but it might embarrass them; for it is almost an unpardonable offence to teach slaves to read in this Christian country. It is enough to say of the dear little fellows, that they lived on Philpot Street, very near Durgin and Bailey's ship-yard. I used to talk this matter of slavery over with them. I would sometimes say to them, I wished I could be as free as they would be when they got to be men. "You will be free as soon as you are twenty-one, _but I am a slave for life!_ Have not I as good a right to be free as you have?" These words used to trouble them; they would express for me the liveliest sympathy, and console me with the hope that something would occur by which I might be free.

I was now about twelve years old, and the thought of being _a slave for life_ began to bear heavily upon my heart. Just about this time, I got hold of a book entitled "The Columbian Orator." Every opportunity I got, I used to read this book. Among much of other interesting matter, I found in it a dialogue between a master and his slave. The slave was represented as having run away from his master three times. The dialogue represented the conversation which took place between them, when the slave was retaken the third time. In this dialogue, the whole argument in behalf of slavery was brought forward by the master, all of which was disposed of by the slave. The slave was made to say some very smart as well as impressive things in reply to his master--things which had the desired though unexpected effect; for the conversation resulted in the voluntary emancipation of the slave on the part of the master.

In the same book, I met with one of Sheridan's mighty speeches on and in behalf of Catholic emancipation. These were choice documents to me. I read them over and over again with unabated interest. They gave tongue to interesting thoughts of my own soul, which had frequently flashed through my mind, and died away for want of utterance. The moral which I gained from the dialogue was the power of truth over the conscience of even a slaveholder. What I got from Sheridan was a bold denunciation of slavery, and a powerful vindication of human rights. The reading of these documents enabled me to utter my thoughts, and to meet the arguments brought forward to sustain slavery; but while they relieved me of one difficulty, they brought on another even more painful than the one of which I was relieved. The more I read, the more I was led to abhor and detest my enslavers. I could regard them in no other light than a band of successful robbers, who had left their homes, and gone to Africa, and stolen us from our homes, and in a strange land reduced us to slavery. I loathed them as being the meanest as well as the most wicked of men. As I read and contemplated the subject, behold! that very discontentment which Master Hugh had predicted would follow my learning to read had already come, to torment and sting my soul to unutterable anguish. As I writhed under it, I would at times feel that learning to read had been a curse rather than a blessing. It had given me a view of my wretched condition, without the remedy. It opened my eyes to the horrible pit, but to no ladder upon which to get out. In moments of agony, I envied my fellow-slaves for their stupidity. I have often wished myself a beast. I preferred the condition of the meanest reptile to my own. Any thing, no matter what, to get rid of thinking! It was this everlasting thinking of my condition that tormented me. There was no getting rid of it. It was pressed upon me by every object within sight or hearing, animate or inanimate. The silver trump of freedom had roused my soul to eternal wakefulness. Freedom now appeared, to disappear no more forever. It was heard in every sound, and seen in every thing. It was ever present to torment me with a sense of my wretched condition. I saw nothing without seeing it, I heard nothing without hearing it, and felt nothing without feeling it. It looked from every star, it smiled in every calm, breathed in every wind, and moved in every storm.

I often found myself regretting my own existence, and wishing myself dead; and but for the hope of being free, I have no doubt but that I should have killed myself, or done something for which I should have been killed. While in this state of mind, I was eager to hear any one speak of slavery. I was a ready listener. Every little while, I could hear something about the abolitionists. It was some time before I found what the word meant. It was always used in such connections as to make it an interesting word to me. If a slave ran away and succeeded in getting clear, or if a slave killed his master, set fire to a barn, or did any thing very wrong in the mind of a slaveholder, it was spoken of as the fruit of *abolition*. Hearing the word in this connection very often, I set about learning what it meant. The dictionary afforded me little or no help. I found it was "the act of abolishing;" but then I did not know what was to be abolished. Here I was perplexed. I did not dare to ask any one about its meaning, for I was satisfied that it was something they wanted me to know very little about. After a patient waiting, I got one of our city papers, containing an account of the number of petitions from the north, praying for the abolition of slavery in the District of Columbia, and of the slave trade between the States. From this time I understood the words *abolition* and *abolitionist*, and always drew near when that word was spoken, expecting to hear something of importance to myself and fellow-slaves. The light broke in upon me by degrees. I went one day down on the wharf of Mr. Waters; and seeing two Irishmen unloading a scow of stone, I went, unasked, and helped them. When we had finished, one of them came to me and asked me if I were a slave. I told him I was. He asked, "Are ye a slave for life?" I told him

that I was. The good Irishman seemed to be deeply affected by the statement. He said to the other that it was a pity so fine a little fellow as myself should be a slave for life. He said it was a shame to hold me. They both advised me to run away to the north; that I should find friends there, and that I should be free. I pretended not to be interested in what they said, and treated them as if I did not understand them; for I feared they might be treacherous. White men have been known to encourage slaves to escape, and then, to get the reward, catch them and return them to their masters. I was afraid that these seemingly good men might use me so; but I nevertheless remembered their advice, and from that time I resolved to run away. I looked forward to a time at which it would be safe for me to escape. I was too young to think of doing so immediately; besides, I wished to learn how to write, as I might have occasion to write my own pass. I consoled myself with the hope that I should one day find a good chance. Meanwhile, I would learn to write.

The idea as to how I might learn to write was suggested to me by being in Durgin and Bailey's ship-yard, and frequently seeing the ship carpenters, after hewing, and getting a piece of timber ready for use, write on the timber the name of that part of the ship for which it was intended. When a piece of timber was intended for the larboard side, it would be marked thus—"L." When a piece was for the starboard side, it would be marked thus—"S." A piece for the larboard side forward, would be marked thus—"L. F." When a piece was for starboard side forward, it would be marked thus—"S. F." For larboard aft, it would be marked thus—"L. A." For starboard aft, it would be marked thus—"S. A." I soon learned the names of these letters, and for what they were intended when placed upon a piece of timber in the ship-yard. I immediately commenced copying them, and in a short time was able to make the four letters named. After that, when I met with any boy who I knew could write, I would tell him I could write as well as he. The next word would be, "I don't believe you. Let me see you try it." I would then make the letters which I had been so fortunate as to learn, and ask him to beat that. In this way I got a good many lessons in writing, which it is quite possible I should never have gotten in any other way. During this time, my copy-book was the board fence, brick wall, and pavement; my pen and ink was a lump of chalk. With these, I learned mainly how to write. I then commenced and continued copying the Italics in Webster's Spelling Book, until I could make them all without looking on the book. By this time, my little Master Thomas had gone to school, and learned how to write, and had written over a number of copy-books. These had been brought home, and shown to some of our near neighbors, and then laid aside. My mistress used to go to class meeting at the Wilk Street meetinghouse every Monday afternoon, and leave me to take care of the house. When left thus, I used to spend the time in writing in the spaces left in Master Thomas's copy-book, copying what he had written. I continued to do this until I could write a hand very similar to that of Master Thomas. Thus, after a long, tedious effort for years, I finally succeeded in learning how to write.

"The Perfect Essay"

By John Kaag (2014)

Looking back on too many years of education, I can identify one truly impossible teacher. She cared about me, and my intellectual life, even when I didn't. Her expectations were high — impossibly so. She was an English teacher. She was also my mother.

When good students turn in an essay, they dream of their instructor returning it to them in exactly the same condition, save for a single word added in the margin of the final page: "Flawless." This dream came true for me one afternoon in the ninth grade. Of course, I'd heard that genius could show itself at an early age, so I was only slightly taken aback that I had achieved perfection at the tender age of 14. Obviously, I did what any professional writer would do; I hurried off to spread the good news. I didn't get very far. The first person I told was my mother.

My mother, who is just shy of five feet tall, is normally incredibly soft-spoken, but on the rare occasion when she got angry, she was terrifying. I'm not sure if she was more upset by my hubris or by the fact that my English teacher had let my ego get so out of hand. In any event, my mother and her red pen showed me how deeply flawed a flawless essay could be. At the time, I'm sure she thought she was teaching me about mechanics, transitions, structure, style and voice. But what I learned, and what stuck with me through my time teaching writing at Harvard, was a deeper lesson about the nature of creative criticism.

First off, it hurts. Genuine criticism, the type that leaves an indelible mark on you as a writer, also leaves an existential imprint on you as a person. I've heard people say that a writer should never take criticism personally. I say that we should never listen to these people.

Criticism, at its best, is deeply personal, and gets to the heart of why we write the way we do. Perhaps you're a narcissist who secretly resents your audience. Or an elitist who expects herculean feats of your reader. Or a know-it-all who can't admit that stylistic repetition is sometimes annoying redundancy. Or a wallflower who hides behind sparkingly meaningless modifiers. Or an affirmation junkie who's the first to brag about a flawless essay.

Unfortunately, as my mother explained, you can be all of these things at once.

Her red pen had made something painfully clear. To become a better writer, I first had to become a better person. Well before I ever read it, I came to sense the meaning of Walt Whitman's "Song of Myself." And I faced the disturbing suggestion that my song was no good.

The intimate nature of genuine criticism implies something about who is able to give it, namely, someone who knows you well enough to show you how your psychic life is getting in the way of good writing. Conveniently, they're also the people who care enough to see you through the traumatic aftermath of this realization. For me the aftermath took the form of my first, and I hope only, encounter with writer's block.

It lasted three years.

Franz Kafka once said: "Writing is utter solitude, the descent into the cold abyss of oneself." My mother's criticism had shown me that Kafka is right about the cold abyss, and when you make the introspective descent that writing requires you're not always pleased by what you find. But, in the years that followed, her sustained tutelage suggested that Kafka might be wrong about the solitude. I was lucky enough to find a critic and teacher who was willing to make the journey of writing with me. "It's a thing of no great difficulty," according to Plutarch, "to raise objections against another man's oration, it is a very easy matter; but to produce a better in its place is a work extremely troublesome." I'm sure I wrote essays in the later years of high school without my mother's guidance, but I can't recall them. What I remember, however, is how she took up the "extremely troublesome" work of ongoing criticism.

There are two ways to interpret Plutarch when he suggests that a critic should be able to produce "a better in its place." In a straightforward sense, he could mean that a critic must be more talented than the artist she critiques. My mother was well covered on this count. (She denies it, but she's still a much, much better writer than I am.) But perhaps Plutarch is suggesting something slightly different, something a bit closer to Cicero's claim that one should "criticize by creation, not by finding fault." Genuine criticism creates a precious opening for an author to become better on his own terms — a process that's often excruciating, but also almost always meaningful.

My mother said she would help me with my writing, but first I had to help myself. For each assignment, I was to write the best essay I could. Real criticism isn't meant to find obvious mistakes, so if she found any — the type I could have found on my own — I had to start from scratch. From scratch. Once the essay was "flawless," she would take an evening to walk me through my errors. That was when true criticism, the type that changed me as a person, began.

She chided me as a pseudo-sophisticate when I included obscure references and professional jargon. She had no patience for brilliant but useless extended metaphors. "Writers can't bluff their way through ignorance." That was news to me — I'd need to find another way to structure my daily existence. She trimmed back my flowery language, drew lines through my exclamation marks and argued for the value of understatement. "John," she almost whispered. I leaned in to hear her: "I can't hear you when you shout at me." So I stopped shouting and bluffing, and slowly my writing improved.

Somewhere along the way I set aside my hopes of writing that flawless essay. But perhaps I missed something important in my mother's lessons about creativity and perfection. Perhaps the point of writing the flawless essay was not to give up, but to never willingly finish. Whitman repeatedly reworked "Song of Myself" between 1855 and 1891. Repeatedly. We do our absolute best with a piece of writing, and come as close as we can to the ideal. And, for the time being, we settle. In critique, however, we are forced to depart, to give up the perfection we thought we had achieved for the chance of being even a little bit better. This is the lesson I took from my mother: If perfection were possible, it wouldn't be motivating.

“The Importance of Writing Badly” (excerpt)

By Bruce Ballenger

In my course evaluations, in classes ranging from freshman English to advanced nonfiction, one of the more common comments is that “Professor Ballenger taught me to write badly.” It is intended as a compliment. I take it as one. It is the same thing I might have said nearly twenty years ago after finishing my first course, a graduate seminar in nonfiction writing, with Donald Murray. Don taught me (and continues to teach me) many things, but the importance of writing badly is the idea I most took to heart. It changed my writing forever.

Of course, I don’t mean that I *try* to write badly but that I have learned to create the conditions that make it possible to write badly without feeling badly about it. More to the point, though, is that giving myself permission to write badly makes it much more likely that I will write what I don’t expect to write, and that from those surprises will come some of my best writing. Writing badly is also a convenient alternative to staring off into space waiting for inspiration, a habit many of my students seem to like. As a result, they don’t get much work done. I’ve removed the excuse that “I just wasn’t in the mood” from my own writing process and I want to remove it from my students’ writing processes as well.

There are several conditions that make it possible for me to write badly. One is that I have learned to write fast enough to outrun my internal critic; that is the gift of freewriting. The other condition is that I need to be able to cultivate the illusion that the only audience for my writing is me. I know, in theory, that this is difficult to do, that to some extent *all* writing is performance, and that a writer always invents a reader, even if that reader is the self. But I’m all in favor of serviceable illusions, and that I can write solely for this self seated in this chair and that the writing will be more “honest” because this is a self I don’t need to impress, well, that is an illusion I find helpful. The journal makes this possible.

One reason that I never collect student journals is that I don’t want to shatter that illusion that the writer can be his or her only audience. (After the midterm, I also make journals optional because no matter how infatuated I am with my own methods they simply may not work for some writers.) I’ve had many, many journals over the years and the only thing that made them finally work for me was the absolute freedom to write absolute crap. When I sit down to write in the journal I never feel compelled to know what I want to say before I say it. I never apologize to myself for blathering on, saying stupid things and asking stupid questions because I know that if I have faith in the process even the most dung-littered trail may lead to surprise.

I’ve taught the importance of writing badly for some time now, and I find that many students embrace the idea, discovering a new way to think through writing in situations where they want to discover what they think. (Writing badly is far less useful when you already know what you want to say; in that case, an outline might do.) But I’ve often been disappointed that students seem to ignore the approach when faced with one of the more common academic writing assignments—the research paper. I’m not sure why. Perhaps the default program for the research paper is so powerful that when faced with the assignment students fall back on what they know: be objective, take prodigious notes on cards (but don’t explore what the notes mean through writing), dream up a thesis before you start, hunt for examples that support your point of view and ignore those that don’t, and generally avoid anything that complicates the steady march toward a conclusion. Or perhaps students didn’t make the connection between bad writing and research papers because all of my examples of how bad writing can lead to good writing came from personal essays....

“Writing to Not Print”

By Nate Kreuter (2013)

Recently I had the opportunity to attend a conference with an old friend. The conference was at a relatively remote, logistically inconvenient campus. So we made the best of it. On my own way up from western North Carolina through the Shenandoah Valley and onward to our destination, I detoured off my route, picked him up at a regional airport, and we turned the rest of the journey into a road trip. The time in the car afforded us a much-needed opportunity to catch up socially, but also to update one another on our scholarly projects. Like many people, we both have a tendency to be very good at starting projects, but are not always as adept or timely about finishing them. Now that we live in different cities, it is a little harder for us to hold one another’s feet to the fire, as we had in the past.

Much of our conversation focused on writing, and how much writing has to be done in order to complete even an article of modest length. My friend expressed frustration that so much writing he does never makes it into his finished product, or needs to be generated in order to allow him to create a finished product. I understand his frustration, and suspect that it is common. He worries that he is inefficient or unfocused. I believe he is neither.

I believe, though -- and research supports the idea -- that even the preliminary, never-to-reach-a-public writing that we produce is cognitively important, and indispensable in terms of how it moves us closer to and allows us to generate the additional writing that does go into our finished products. I want to suggest here that even the preliminary, we're-not-sure-where-this-is-going writing that we produce is necessary and important, and not something that we should resist. The writing we don't ever print enables us to create writing to print.

Writing is simultaneously a physical activity — the product of scrawling or typing — and a cognitive activity. Empirical research overwhelmingly shows that we learn and synthesize new information and connections during the actual act of writing, no matter how much we may think we already know what we want to say when we actually sit down to write. Too often though we are taught, wrongly, that writing is only a physical act, the mere transcription of ideas already hatched and thought through. Such a mental model could not possibly be further from the cognitive truth. And this mistaken mental model can be damaging to our scholarly productivity.

One of the myths of writing that many of us have become victim to is that we need to have planned out our writing, to have planned precisely what it is that we want to say, before actually sitting down to start hammering out words on a keyboard. Nothing could be less true. No advice could be more counter to how the act of writing and human cognition intertwine. For both freshmen undertaking their first legitimate research project and for experienced, accomplished scholars, the act of writing itself is one of the critical moments within which we actually learn and synthesize new knowledge.

Writing is an act that refuses to be efficient. This is the strength of writing, not its liability. We make new connections and learn what we want to say, even make new discoveries, in the act of writing itself. I am wary of universals, but 30 years of research into the cognitive act of writing shows that we discover new information when we write. This holds true in every discipline, from the humanities to the hard sciences. The "inefficiency" of writing is that these acts of cognitive discovery that occur during the act of writing can make the act itself halting and non-linear. Unlike many of our professional tasks, it can be maddeningly impossible to predict the time we need to complete a particular writing task. Some days the discoveries and words roll out, and on other days they must be wrenched forth.

Waiting until you know precisely what it is you want to say to begin writing is low-productivity, low-discovery writing strategy. You must write in order to learn what it is you want to say, no matter how sure of yourself you are when you begin. Then, of course, the writing must be revised, many times.

Sometimes we need to write something that will not go into our final, finished piece of writing, in order to get — so to speak — to the writing that will eventually circulate to readers. For example, in my own work, I find myself constantly asking a "so what?" question, wondering why the phenomenon I'm looking into matters, wondering why fellow experts, or anybody, should care. As a result, I frequently find, particularly when beginning a project, that I have to write a brief narrative of how I came to be interested in the topic, of why it matters to me. When I was a less experienced scholar, I thought that such narratives could be part of an introduction.

But that is rarely appropriate. Such narratives do not engage the scholarly conversations that make an individual piece of scholarship relevant. I still need to write the narrative in order to launch myself into the larger research and writing task at hand, but experience has taught me to lop off the unnecessary and personal narrative before I begin circulating my draft to journals. This is the definition of writing to not print, and a relatively trivial example of how it can help us reach a larger task.

By allowing ourselves, or forcing ourselves, to generate writing that we know will not make it into a final product, we also open up a strategy for preventing or circumventing the writing blocks that many academics sometimes encounter. Worrying that the writing you are doing is unimportant or irrelevant is a fast track to derailing your own productivity. Just write. Then step back and take stock and sort out what writing has promise, and what doesn't, later.

The writing we produce that will never actually make it into a finished piece of writing is still productive, productive because it gets us to a cognitive point we could not have otherwise reached. The process may feel inefficient at times, but that process is essential to the production of knowledge, no matter what our discipline, and no matter what form our writing takes.

**“The New Literacy”
By Clive Thompson (2009)**

As the school year begins, be ready to hear pundits fretting once again about how kids today can't write—and technology is to blame. Facebook encourages narcissistic blabbering, video and PowerPoint have replaced carefully crafted essays, and texting has dehydrated language into "bleak, bald, sad shorthand" (as University College of London English professor John Sutherland has moaned). An age of illiteracy is at hand, right?

Andrea Lunsford isn't so sure. Lunsford is a professor of writing and rhetoric at Stanford University, where she has organized a mammoth project called the Stanford Study of Writing to scrutinize college students' prose. From 2001 to 2006, she collected 14,672 student writing samples—everything from in-class assignments, formal essays, and journal entries to emails, blog posts, and chat sessions. Her conclusions are stirring.

"I think we're in the midst of a literacy revolution the likes of which we haven't seen since Greek civilization," she says. For Lunsford, technology isn't killing our ability to write. It's reviving it—and pushing our literacy in bold new directions.

The first thing she found is that young people today write far more than any generation before them. That's because so much socializing takes place online, and it almost always involves text. Of all the writing that the Stanford students did, a stunning 38 percent of it took place out of the classroom—life writing, as Lunsford calls it. Those Twitter updates and lists of 25 things about yourself add up.

It's almost hard to remember how big a paradigm shift this is. Before the Internet came along, most Americans never wrote anything, ever, that wasn't a school assignment. Unless they got a job that required producing text (like in law, advertising, or media), they'd leave school and virtually never construct a paragraph again.

But is this explosion of prose good, on a technical level? Yes. Lunsford's team found that the students were remarkably adept at what rhetoricians call *kairos*—assessing their audience and adapting their tone and technique to best get their point across. The modern world of online writing, particularly in chat and on discussion threads, is conversational and public, which makes it closer to the Greek tradition of argument than the asynchronous letter and essay writing of 50 years ago.

The fact that students today almost always write for an audience (something virtually no one in my generation did) gives them a different sense of what constitutes good writing. In interviews, they defined good prose as something that had an effect on the world. For them, writing is about persuading and organizing and debating, even if it's over something as quotidian as what movie to go see. The Stanford students were almost always less enthusiastic about their in-class writing because it had no audience but the professor: It didn't serve any purpose other than to get them a grade. As for those texting short-forms and smileys defiling *serious* academic writing? Another myth. When Lunsford examined the work of first-year students, she didn't find a single example of texting speak in an academic paper.

Of course, good teaching is always going to be crucial, as is the mastering of formal academic prose. But it's also becoming clear that online media are pushing literacy into cool directions. The brevity of texting and status updating teaches young people to deploy haiku-like concision. At the same time, the proliferation of new forms of online pop-cultural exegesis—from sprawling TV-show recaps to 15,000-word videogame walkthroughs—has given them a chance to write enormously long and complex pieces of prose, often while working collaboratively with others.

We think of writing as either good or bad. What today's young people know is that knowing who you're writing for and why you're writing might be the most crucial factor of all.

**“I type, therefore I am”
by Tom Chatfield (2013)**

At some point in the past two million years, give or take half a million, the genus of great apes that would become modern humans crossed a unique threshold. Across unknowable reaches of time, they developed a communication system able to describe not only the world, but the inner lives of its speakers. They ascended — or fell, depending on your preferred metaphor — into language.

The vast bulk of that story is silence. Indeed, darkness and silence are the defining norms of human history. The earliest known writing probably emerged in southern Mesopotamia around 5,000 years ago but, for most of recorded history, reading and writing remained among the most elite human activities: the province of monarchs, priests and nobles who reserved for themselves the privilege of lasting words.

Mass literacy is a phenomenon of the past few centuries, and one that has reached the majority of the world's adult population only within the past 75 years. In 1950, UNESCO estimated that 44 per cent of the people in the world aged 15 and over were illiterate; by 2012, that proportion had reduced to just 16 per cent, despite the trebling of the global population between those dates. However, while the full effects of this revolution continue to unfold, we find ourselves in the throes of another whose statistics are still more accelerated.

In the past few decades, more than six billion mobile phones and two billion internet-connected computers have come into the world. As a result of this, for the first time ever we live not only in an era of mass literacy, but also — thanks to the act of typing onto screens — in one of mass *participation* in written culture.

As a medium, electronic screens possess infinite capacities and instant interconnections, turning words into a new kind of active agent in the world. The 21st century is a truly hypertextual arena (*hyper* from ancient Greek meaning 'over, beyond, overmuch, above measure'). Digital words are interconnected by active links, as they never have and never could be on the physical page. They are, however, also above measure in their supply, their distribution, and in the stories that they tell.

Just look at the ways in which most of us, every day, use computers, mobile phones, websites, email and social networks. Vast volumes of mixed media surround us, from music to games and videos. Yet almost all of our online actions still begin and end with writing: text messages, status updates, typed search queries, comments and responses, screens packed with verbal exchanges and, underpinning it all, countless billions of words.

This sheer quantity is in itself something new. All future histories of modern language will be written from a position of explicit and overwhelming information — a story not of darkness and silence but of data, and of the verbal outpourings of billions of lives. Where once words were written by the literate few on behalf of the many, now every phone and computer user is an author of some kind. And — separated from human voices — the tasks to which typed language, or visual language, is being put are steadily multiplying.

Consider the story of one of the information age's minor icons, the emoticon. In 1982, at Carnegie Mellon University, a group of researchers were using an online bulletin board to discuss the hypothetical fate of a drop of mercury left on the floor of an elevator if its cable snapped. The scenario prompted a humorous response from one participant — 'WARNING! Because of a recent physics experiment, the leftmost elevator has been contaminated with mercury. There is also some slight fire damage' — followed by a note from someone else that, to a casual reader who hadn't been following the thread, this comment might seem alarming ('yelling fire in a crowded theatre is bad news... so are jokes on day-old comments').

Participants thus began to suggest symbols that could be added to a post intended as a joke, ranging from per cent signs to ampersands and hashtags. The clear winner came from the computer scientist Scott Fahlman, who proposed a smiley face drawn with three punctuation marks to denote a joke :-). Fahlman also typed a matching sad face :(to suggest seriousness, accompanied by the prophetic note that 'it is probably more economical to mark things that are NOT jokes, given current trends'.

Within months, dozens of smiley variants were creeping across the early internet: a kind of proto-virality that has led some to label emoticons the 'first online meme'. What Fahlman and his colleagues had also enshrined was a central fact of online communication: in an interactive medium, consequences rebound and multiply in unforeseen ways, while miscommunication will often become the rule rather than the exception.

Three decades later, we're faced with the logical conclusion of this trend: an appeal at the High Court in London last year against the conviction of a man for a 'message of menacing character' on Twitter. In January 2010, Paul Chambers, 28, had tweeted his frustration at the closure of an airport near Doncaster due to snow: 'Crap! Robin Hood Airport is closed. You've got a week and a bit to get your shit together, otherwise I'm blowing the airport sky high!!'

Chambers had said he never thought anyone would take his 'silly joke' seriously. And in his judgment on the 'Twitter joke trial', the Lord Chief Justice said that — despite the omission of a smiley emoticon — the tweet in question did not constitute a credible threat: 'although it purports to address "you", meaning those responsible for the airport, it was not sent to anyone at the

airport or anyone responsible for airport security... the language and punctuation are inconsistent with the writer intending it to be or to be taken as a serious warning’.

The phrase a ‘victory for common sense’ was widely used by supporters of the charged man, such as the comedians Stephen Fry and Al Murray. As the judge also noted, Twitter itself represents ‘no more and no less than conversation without speech’: an interaction as spontaneous and layered with contingent meanings as face-to-face communication, but possessing the permanence of writing and the reach of broadcasting.

It’s an observation that speaks to a central contemporary fact. Our screens are in increasingly direct competition with spoken words themselves — and with traditional conceptions of our relationship with language. Who would have thought, 30 years ago, that a text message of 160 characters or fewer, sent between mobile phones, would become one of the defining communications technologies of the early 21st century; or that one of its natural successors would be a tweet some 20 characters shorter?

Yet this bare textual minimum has proved to be the perfect match to an age of information suffusion: a manageable space that conceals as much as it reveals. Small wonder that the average American teenager now sends and receives around 3,000 text messages a month — or that, as the MIT professor Sherry Turkle reports in her book *Alone Together* (2011), crafting the perfect kind of flirtatious message is so serious a skill that some teens will outsource it to the most eloquent of their peers.

Almost without our noticing, we weave worlds from these snapshots, until an illusion of unbroken narrative emerges

It’s not just texting, of course. In Asia, so-called ‘chat apps’ are re-enacting many millions of times each day the kind of exchanges that began on bulletin boards in the 1980s, complete not only with animated emoticons but with integrated access to games, online marketplaces, and even video calls. Phone calls, though, are a degree of self-exposure too much for most everyday communications. According to the article ‘On the Death of the Phone Call’ by Clive Thompson, published in *Wired* magazine in 2010, ‘the average number of mobile phone calls we make is dropping every year... And our calls are getting shorter: in 2005 they averaged three minutes in length; now they’re almost half that.’ Safe behind our screens, we let type do our talking for us — and leave others to conjure our lives by reading between the lines.

Yet written communication doesn’t necessarily mean safer communication. All interactions, be they spoken or written, are to some degree performative: a negotiation of roles and references. Onscreen words are a special species of self-presentation — a form of storytelling in which the very idea of ‘us’ is a fiction crafted letter by letter. Such are our linguistic gifts that a few sentences can conjure the story of a life: a status update, an email, a few text messages. Almost without our noticing, we weave worlds from these snapshots, until an illusion of unbroken narrative emerges from a handful of paragraphs.

Behind this illusion lurks another layer of belief: that we can control these second selves. Yet, ironically, control is one of the first things our eloquence sacrifices. As authors and politicians have long known, the afterlife of our words belongs to the world — and what it chooses to make of them has little to do with our own assumptions.

In many ways, mass articulacy is a crisis of originality. Something always implicit has become ever more starkly explicit: that words and ideas do not belong only to us, but play out without larger currents of human feeling. There is no such thing as a private language. We speak in order to be heard, we write in order to be read. But words also speak through us and, sometimes, are as much a dissolution as an assertion of our identity.

In his essay ‘Writing: or, the Pattern Between People’ (1932), W H Auden touched on the paradoxical relationship between the flow of written words and their ability to satisfy those using them: Since the underlying reason for writing is to bridge the gulf between one person and another, as the sense of loneliness increases, more and more books are written by more and more people, most of them with little or no talent. Forests are cut down, rivers of ink absorbed, but the lust to write is still unsatisfied.

Onscreen, today’s torrents of pixels exceed anything Auden could have imagined. Yet the hyper-verbal loneliness he evoked feels peculiarly contemporary. Increasingly, we interweave our actions and our rolling digital accounts of ourselves: curators and narrators of our life stories, with a matching move from internal to external monologue. It’s a realm of elaborate shows in which status is hugely significant — and one in which articulacy itself risks turning into a game, with attention and impact (retweets, likes) held up as the supreme virtues of self-expression.

Consider the particular phenomenon known as binary or ‘reversible language’ that now proliferates online. It might sound obscure, but the pairings it entails are central to most modern metrics of measured attention, influence and interconnection: to ‘like’ and to ‘unlike’, to ‘favourite’ and to ‘unfavourite’; to ‘follow’ and ‘unfollow’; to ‘friend’ and ‘unfriend’; or simply to ‘click’ or ‘unclick’ the onscreen boxes enabling all of the above.

Like the systems of organisation underpinning it, such language promises a clean and quantifiable recasting of self-expression and relationships. At every stage, both you and your audience have precise access to a measure of reception: the

number of likes a link has received, the number of followers endorsing a tweeter, the items ticked or unticked to populate your profile with a galaxy of preferences.

What's on offer is a kind of perpetual present, in which everything can always be exactly the way you want it to be (provided you feel one of two ways). Everything can be undone instantly and effortlessly, then done again at will, while the machinery itself can be shut down, logged off or ignored. Like the author oscillating between Ctrl-Y (redo) and Ctrl-Z (undo) on a keyboard, a hundred indecisions, visions and revisions are permitted — if desired — and all will remain unseen. There is no need, ever, for any conversation to end.

Even the most ephemeral online act leaves its mark. Data only accumulates. Little that is online is ever forgotten or erased, while the business of search and social recommendation funnels our words into a perpetual popularity contest. Every act of selection and interconnection is another reinforcement. If you can't find something online, it's often because you lack the right words. And there's a deliciously circular logic to all this, whereby what's 'right' means only what displays the best search results — just as what you yourself are 'like' is defined by the boxes you've ticked. It's a grand game with the most glittering prizes of all at stake: connection, recognition, self-expression, discovery. The internet's countless servers and services are the perfect riposte to history: an eternally unfinished collaboration, pooling the words of many millions; a final refuge from darkness.

There's much to celebrate in this profligate democracy, and its overthrow of articulate monopolies. The self-dramatising ingenuity behind even three letters such as 'LOL' is a testament to our capacity for making the most constricted verbal arenas our own, while to watch events unfold through the fractal lens of social media is a unique contemporary privilege. Ours is the first epoch of the articulate crowd, the smart mob: of words and deeds fused into ceaseless feedback.

Yet language is a bewitchment that can overturn itself — and can, like all our creations, convince us there is nothing beyond it. In an era when the gulf between words and world has never been easier to overlook, it's essential to keep alive a sense of ourselves as distinct from the cascade of self-expression, to push back against the torrents of articulacy flowing past and through us.

For the philosopher John Gray, writing in *The Silence of Animals* (2013), the struggle with words and meanings is sometimes simply a distraction: "Philosophers will say that humans can never be silent because the mind is made of words. For these half-witted logicians, silence is no more than a word. To overcome language by means of language is obviously impossible. Turning within, you will find only words and images that are parts of yourself. But if you turn outside yourself — to the birds and animals and the quickly changing places where they live — you may hear something beyond words."

Gray's dismissal of 'half-witted logicians' might be a sober tonic, yet it's something I find extraordinarily hopeful — an exit from the despairing circularity that expects our creations either to damn or to save us. If we cannot speak ourselves into being, we cannot speak ourselves out of being either. We are, in another fine philosophical phrase, condemned to be free. And this freedom is not contingent on eloquence, no matter how desperately we might wish that words alone could negotiate the world on our behalf.

"Can an Algorithm Write a Better News Story Than a Human Reporter?"

By Steven Levy (2012)

Had Narrative Science — a company that trains computers to write news stories—created this piece, it probably would not mention that the company's Chicago headquarters lie only a long baseball toss from the *Tribune* newspaper building. Nor would it dwell on the fact that this potentially job-killing technology was incubated in part at Northwestern's Medill School of Journalism, Media, Integrated Marketing Communications. Those ironies are obvious to a human. But not to a computer.

At least not yet.

For now consider this: Every 30 seconds or so, the algorithmic bull pen of Narrative Science, a 30-person company occupying a large room on the fringes of the Chicago Loop, extrudes a story whose very byline is a question of philosophical inquiry. The computer-written product could be a pennant-waving second-half update of a Big Ten basketball contest, a sober preview of a corporate earnings statement, or a blithe summary of the presidential horse race drawn from Twitter posts. The articles run on the websites of respected publishers like Forbes, as well as other Internet media powers (many of which are keeping their identities private). Niche news services hire Narrative Science to write updates for their subscribers, be they sports fans, small-cap investors, or fast-food franchise owners.

And the articles don't read like robots wrote them:

Friena fell 10-8 to Boys Ranch in five innings on Monday at Friena despite racking up seven hits and eight runs. Friena was led by a flawless day at the dish by Hunter Sundre, who went 2-2 against Boys Ranch pitching. Sundre singled in the third inning and tripled in the fourth inning ... Friena piled up the steals, swiping eight bags in all ...

OK, it's not Roger Angell. But the grandparents of a Little Leaguer would find this game summary—available on the web even before the two teams finished shaking hands—as welcome as anything on the sports pages. Narrative Science's algorithms built the article using pitch-by-pitch game data that parents entered into an iPhone app called GameChanger. Last year the software produced nearly 400,000 accounts of Little League games. This year that number is expected to top 1.5 million.

Narrative Science's CTO and cofounder, Kristian Hammond, works in a small office just a few feet away from the buzz of coders and engineers. To Hammond, these stories are only the first step toward what will eventually become a news universe dominated by computer-generated stories. How dominant? Last year at a small conference of journalists and technologists, I asked Hammond to predict what percentage of news would be written by computers in 15 years. At first he tried to duck the question, but with some prodding he sighed and gave in: "More than 90 percent."

That's when I decided to write this article, hoping to finish it before being scooped by a MacBook Air.

Hammond assures me I have nothing to worry about. This robonews tsunami, he insists, will not wash away the remaining human reporters who still collect paychecks. Instead the universe of newswriting will expand dramatically, as computers mine vast troves of data to produce ultracheap, totally readable accounts of events, trends, and developments that no journalist is currently covering.

That's not to say that computer-generated stories will remain in the margins, limited to producing more and more Little League write-ups and formulaic earnings previews. Hammond was recently asked for his reaction to a prediction that a computer would win a Pulitzer Prize within 20 years. He disagreed. It would happen, he said, in five...

Narrative Science's writing engine requires several steps. First, it must amass high-quality data. That's why finance and sports are such natural subjects: Both involve the fluctuations of numbers—earnings per share, stock swings, ERAs, RBI. And stats geeks are always creating new data that can enrich a story. Baseball fans, for instance, have created models that calculate the odds of a team's victory in every situation as the game progresses. So if something happens during one at-bat that suddenly changes the odds of victory from say, 40 percent to 60 percent, the algorithm can be programmed to highlight that pivotal play as the most dramatic moment of the game thus far.

Then the algorithms must fit that data into some broader understanding of the subject matter. (For instance, they must know that the team with the highest number of "runs" is declared the winner of a baseball game.) So Narrative Science's engineers program a set of rules that govern each subject, be it corporate earnings or a sporting event. But how to turn that analysis into prose? The company has hired a team of "meta-writers," trained journalists who have built a set of templates. They work with the engineers to coach the computers to identify various "angles" from the data. Who won the game? Was it a come-from-behind victory or a blowout? Did one player have a fantastic day at the plate? The algorithm considers context and information from other databases as well: Did a losing streak end?

Then comes the structure. Most news stories, particularly about subjects like sports or finance, hew to a pretty predictable formula, and so it's a relatively simple matter for the meta-writers to create a framework for the articles. To construct sentences, the algorithms use vocabulary compiled by the meta-writers. (For baseball, the meta-writers seem to have relied heavily on famed early-20th-century sports columnist Ring Lardner. People are always whacking home runs, swiping bags, tallying runs, and stepping up to the dish.) The company calls its finished product "the narrative."

Occasionally the algorithms will produce a misstep, like a story stating that a pinch hitter—who usually bats only once per game—went two for six. But such errors are rare. Numbers don't get misquoted. Even when databases provide faulty information, Hammond says, Narrative Science's algorithms are trained to catch the error. "If a company has a 600 percent rise in profits from quarter to quarter, it'll say, 'Something is wrong here,'" Hammond says. "People ask for examples of wonderful, humorous gaffes, and we don't have any."

Forbes Media chief products officer Lewis Dvorkin says he's impressed but not surprised that, in almost every case, his cyber-stringers nail the essence of the company they're reporting on. Major screwups are not unheard-of with flesh-and-blood scribes, but Dvorkin hasn't heard any complaints about the automated reports. "Not a one," he says...

The Narrative Science team also lets clients customize the tone of the stories. "You can get anything, from something that sounds like a breathless financial reporter screaming from a trading floor to a dry sell-side researcher pedantically walking you through it," says Jonathan Morris, COO of a financial analysis firm called Data Explorers, which set up a securities newswire using Narrative Science technology. (Morris ordered up the tone of a well-educated, straightforward financial newswire journalist.) Other clients favor bloggy snarkiness. "It's no more difficult to write an irreverent story than it is to write a straightforward, AP-style story," says Larry Adams, Narrative Science's VP of product. "We could cover the stock market in the style of Mike Royko."

Once Narrative Science had mastered the art of telling sports and finance stories, the company realized that it could produce much more than journalism. Indeed, anyone who needed to translate and explain large sets of data could benefit from its services. Requests poured in from people who were buried in spreadsheets and charts. It turned out that those people would pay to convert all that confusing information into a couple of readable paragraphs that hit the key points.

Narrative Science, it so happened, was well placed to accommodate such demands. When the company was just getting started, meta-writers had to painstakingly educate the system every time it tackled a new subject. But before long they developed a platform that made it easier for the algorithm to learn about new domains. For instance, one of the meta-writers decided to build a story-writing machine that would produce articles about the best restaurants in a given city. Using a database of restaurant reviews, she was able to quickly teach the software how to identify the relevant components (high survey grades, good service, delicious food, a quote from a happy customer) and feed in some relevant phrases. In the space of a few hours she had a bot that could churn out an endless supply of chirpy little articles like “The Best Italian Restaurants in Atlanta” or “Great Sushi in Milwaukee.”

And the subject matter keeps getting more diverse. Narrative Science was hired by a fast-food company to write a monthly report for its franchise operators that analyzes sales figures, compares them to regional peers, and suggests particular menu items to push. What’s more, the low cost of transforming data into stories makes it practical to write even for an audience of one. Narrative Science is looking into producing personalized 401(k) financial reports and synopses of World of Warcraft sessions—players could get a recap after a big raid that would read as if an embedded journalist had accompanied their guild. “The Internet generates more numbers than anything that we’ve ever seen. And this is a company that turns numbers into words,” says former DoubleClick CEO David Rosenblatt, who sits on Narrative Science’s board. “Narrative Science needs to exist. The journalism might be only the sizzle—the steak might be management reports.”

For now, though, journalism remains at the company’s core. And like any cub reporter, Narrative Science has dreams of glory—to identify and break big stories. To do that, it will have to invest in sophisticated machine-learning and data-mining technologies. It will also have to get deeper into the business of understanding natural language, which would allow it to access information and events that can’t be expressed in a spreadsheet. It already does a little of that. “In the financial world, we’re reading headlines,” Hammond says. “We can identify if some company’s stock gets upgraded or downgraded, somebody gets fired or hired, somebody’s thinking of a merger, and we know the relationship between those events and a stock price.” Hammond would like to see his company’s college sports stories include nonstatistical information like player injuries or legal problems.

But even if Narrative Science never does learn to produce Pulitzer-level scoops with the icy linguistic precision of Joan Didion, it will still capitalize on the fact that more and more of our lives and our world is being converted into data. For example, over the past few years, Major League Baseball has spent millions of dollars to install an elaborate system of hi-res cameras and powerful sensors to measure nearly every event that’s occurring on its fields: the velocities and trajectories of pitches, tracked to fractions of inches. Where the fielders stand at any given moment. How far the shortstop moves to dive for a ground ball. Sometimes the real story of the game may lie within that data. Maybe the manager failed to detect that a pitcher was showing signs of exhaustion several batters before an opponent’s game-winning hit. Maybe a shortstop’s extended reach prevented six hits. This is stuff that even an experienced beat writer might miss. But not an algorithm.

Hammond believes that as Narrative Science grows, its stories will go higher up the journalism food chain—from commodity news to explanatory journalism and, ultimately, detailed long-form articles. Maybe at some point, humans and algorithms will collaborate, with each partner playing to its strength. Computers, with their flawless memories and ability to access data, might act as legmen to human writers. Or vice versa, human reporters might interview subjects and pick up stray details—and then send them to a computer that writes it all up. As the computers get more accomplished and have access to more and more data, their limitations as storytellers will fall away. It might take a while, but eventually even a story like this one could be produced without, well, me. “Humans are unbelievably rich and complex, but they are machines,” Hammond says. “In 20 years, there will be no area in which Narrative Science doesn’t write stories.”

For now, however, Hammond tries to reassure journalists that he’s not trying to kick them when they’re down. He tells a story about a party he attended with his wife, who’s the marketing director at Chicago’s fabled Second City improv club. He found himself in conversation with a well-known local theater critic, who asked about Hammond’s business. As Hammond explained what he did, the critic became agitated. Times are tough enough in journalism, he said, and now you’re going to replace writers with robots?

“I just looked at him,” Hammond recalls, “and asked him: Have you ever seen a reporter at a Little League game? That’s the most important thing about us. Nobody has lost a single job because of us.”

At least not yet.