The Theory and Practice of Flu Blogging
by Crawford Kilian
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Introduction: My entry into flu blogging

In early 2005, media reports about the return of H5N1 avian influenza caught my attention. My initial interest in blogging had been sparked by blog coverage of SARS, which had struck me as faster, wider, and more informative than most mainstream media stories.

Thereafter I had begun to build blogs about writing for the web and writing fiction, as well as for the courses I was teaching, and I had acquired some skills with TypePad, a simple platform for blogging. I enjoyed the experience of blogging, and had learned a great deal. So a blog about bird flu seemed like a good way to educate myself about a little-known disease with the potential to cause a pandemic.

By 2005 I had spent over a decade studying how people read and write online. I had taught in my college's first (pre-web) computer-based multimedia program, and the nature of online discourse fascinated me. Jakob Nielsen's early research influenced my thinking and tended to confirm my own experience with my students and online correspondents. In addition, I could see we all had much to learn about handling information online: finding what we needed, organizing it, and making it available to others in useful forms.

So when I began building my own blogs, I tried to apply what I knew to make them readable. By the time I started H5N1, I knew what its basic design should be. It has not changed much since then.

Display issues and text design consequences
From Nielsen and my own experience, I knew that people read more slowly on the computer screen than they read on paper. That is largely a problem of low-resolution screens: the brain takes longer, and works harder, to decode low-res text.

Moreover, visual and sound cues on the screen create what I call "jolts": stimuli produced by sensory appeals as much as by textual content. People go online as much for jolts as for information; finding the information you want is itself a jolt. So text on the web must deliver both.

Another principle guided me, one I had promoted as a teacher of business communications: *The writer's job is to make the reader's job effortless.* This implies a respect for the reader that the structure of the blog would also have to convey, by making it easy to navigate as well as easy to read.

So a blog like H5N1 would have to be as welcoming as possible, even if its content was highly technical. This dictated some design decisions, but not all.

Websites in the 1990s and early 2000s were notorious for running text clear across the screen, with disastrous results for readability. So I created a three-column layout: a main column in the middle, flanked by two narrow columns of links. This would ensure that text in the main column would run about 10 to 14 words per line, making it easy for readers to track from line to line. (Newspapers lay out their columns on the same principle.)

This basic layout worked well, but I changed it slightly when a reader pointed out that it made access from a mobile phone harder: The phone would open the site on the left-hand column of links, which the visitor would have to scroll through before reaching the latest posts. It was a simple matter to create a slightly different layout, with posts in the left-hand column and links in the middle and right.

Typographic theory dictates that headlines should be in sans serif font, and text in serif. Nevertheless, my subjective impression was that a sans serif text font worked well on H5N1, so I adopted it.

Nielsen and others had pointed out the difficulties of long sentences and long paragraphs in online text. This print-based format poses some online problems.

First of all, when the online reader's eye sees a block of solid text, it recoils and looks for relief. Short sentences in short paragraphs provide this relief, especially if broken up with white space between paragraphs.

Secondly, readers (at least native English speakers) tend to pay most attention in two places: at the beginning of a sentence and the end. In the same way, they pay most attention at the beginning and end of paragraphs. So the strongest, most important words should appear at the beginning and end of sentences and paragraphs. These are the "hot spots" of text, where readers invest the most interest and gain the most reward. Short sentences and paragraphs mean more hot spots, and therefore more reader engagement.

Ironically, tabloid newspapers follow this pattern very closely; technical and scholarly journals do not. Having worked for years as a columnist for a Vancouver tabloid, I found it easy to use strong, emphatic, short sentences and paragraphs in blog posts. But the most credible articles are those from journals, not tabloids, and this posed some editing problems.

Editing issues

As a kind of online clipping service, I was providing excerpts from news stories with links to the original reports. So I was at the mercy of the text I was clipping. In some cases, this was not a problem; many news reports could go unchanged into blog posts.

In other cases, however, I was excerpting from scientific and technical reports, or from abstracts. These tended to be written in a very different style, often with long sentences. Abstracts could be a single massive paragraph. However fascinating to their intended specialist readers, these would baffle laypersons. So I would try to break up such excerpts into shorter paragraphs, simply to make them more readable. Originally I explained that I had re-paragraphed them for greater readability. Now I rarely bother.

A third issue was reports written by journalists for whom English is a second language. These could include grammatical errors, typographical errors, or eccentric usage that might be accepted locally. Here I chose silent

corrections of at least the worst mistakes, simply to spare readers from needless distractions.

Finally, I had to consider reports translated by computer from other languages. These are still far from fluent, and their accuracy is open to question. So in general I avoided such reports. (Using Google Translate to follow the German media's coverage of the *E. coli* outbreak of 2011 strengthened my resolve to use computer translation only as a last resort.)

Readerships
H5N1 began with the assumption that readers would be like me: interested laypersons. But as it began to acquire a readership over the summer and fall of 2005, I realized that I had joined a "community of interest" (now calling itself Flublogia) whose members came from varied backgrounds. Many were indeed laypersons. But others were media professionals, like Helen Branswell of The Canadian Press. Others were experts in public health, like "Revere," the pseudonym for a husband-and-wife team. Still others were medical researchers or health bureaucrats.

As I realized that all these readers were visiting my blog, I had to decide on a particular tone and vocabulary. As a total non-expert, I could not adopt a technical language I don't understand, or claim some special knowledge of the subject; the blog had been inspired by my ignorance, not my expertise.

So credibility was a major issue. I chose to keep my posts in plain English, with my own text as simple as possible to make it clear to speakers of other languages. Many of my readers are also non-native English speakers, making plain language even more necessary. I tried to find reliable authorities: peer-reviewed journal articles, qualified news reporters, and news sources close to events. Then, to a great extent, I let those authorities speak for themselves. I might not always agree with what I posted, but I tried to let readers judge for themselves.

(I'm not always successful. Sometimes a story cites a politician who's clearly lying, or telling only part of the story, and I point it out. Or the reporter evidently doesn't know the difference between a virus and a bacteria. Or a news report upsets me so much I use harsh language in

response. I hope such outbursts are rare, and I do try to explain my personal biases.)

The exformation issue
The Danish science writer Tor Norretranders coined a useful term some years ago: *exformation*. This is the information that we leave out of a message because we know our reader/listener already knows it. Exformation is what we implicitly share, and we rarely need to be explicit about that shared knowledge. Quite the contrary — our impatient readers will think we're belaboring the obvious, or that we consider them ignorant.

Moreover, a minimal allusion to that shared knowledge reminds our readers that we are on their side, part of the same group. A brief mention of some family joke reminds all family members of their relationships to one another. A reference to some earlier issue reminds colleagues of their experience together.

This use of exformation has a couple of important effects. First, it inspires confidence: We trust those who seem to share our experience or some part of it, and we feel allied to them. We are therefore prepared to believe them.

Second, an allusion that triggers a memory seems to produce an "aha!" moment. For Marcel Proust, the taste of a madeleine brought back a lost world. We clutter our lives with souvenirs and mementos precisely because they too can powerfully evoke a time or place. The detective's identification of the killer causes mystery readers to "flash back" to the critical clue at the beginning of the story, and to see it with sudden new understanding. This seems to be a powerful reward our brains give us for putting two facts together. In literary criticism, the term for this experience is "anagnorisis," literally "learning up," a sudden vision of the real world hidden behind our illusions.

The technical language of, say, epidemiology creates a community feeling among those who speak and write it, reminding them of their shared exformation. The shared terms of a flu blog do the same. Allusions to earlier events or cases can produce plenty of "aha!" moments among those who share experiences discussed on a blog like H5N1. Siti Fadila Supari hasn't been Indonesia's minister of health for several years, but Flublogians

know who she is; mention her name and they recall her suppression of H5N1 reports and her refusal to share H5N1 samples.

But mention her to newcomers and they will have only a "huh?" moment. They won't know anything about her, and they will feel somewhat excluded. If the blog's language is really technical, or terms seem to have different connotations from those generally accepted, visitors may simply decide to leave. (Many autism-related blogs understand the word "vaccination" very differently from most medical practitioners.)

By the same token, language that is very non-technical can annoy experts; they may feel that it's been "dumbed down" so laypersons can understand it, while the key details of the subject have been sacrificed.

On balance, I've tried to stay with non-technical language, and to repeat details so newcomers will know what I'm talking about . People come to the site to learn about some health-related issue, and most will be laypersons. The experts will understand too, even if they think the treatment is oversimplified. And if they do, I'm always delighted to have them correct me.

The blog as workspace
TypePad is a fairly simple platform, and as a non-expert in computers I suspect I'm missing some ways to exploit it. But it works as a place where I can scan for potential posts as well as offer similar access to visitors. And part of the service I offer visitors is the opportunity to explore Flublogia on their own.

So I've created a number of "TypeLists" to organize the links that I most often use, as well as links that visitors might find useful. At present the lists include News Gatherers, Hot Zone Sources, Bloggers, Forums & Discussions, Technical Sources, etc. These classifications are not hard and fast, but they enable me to focus on particular issues (such as Ugandan media during an Ebola outbreak) without scrolling through scores of unrelated links.

Some of these links have been on the blog for six or seven years; others are very recent. Some I consult daily, others almost never. This can result in

"link rot," where the original page has been taken down or has been inactive for months or years.

To deal with link rot and "cobweb sites," I periodically do some housekeeping, checking links and eliminating those no longer useful or functioning. Ideally I would do this every month or so; in practice, it happens more rarely, and sometimes only when a reader alerts me to a dead link.

When events are happening fast, as with the outbreak of cholera in Haiti, I add new links that seem likely to be useful. To find them I rely on Kidon Media-Link, a compendium of links to news sources around the world. It has its share of link rot, however, and many news sites are in languages I can't read. The same is true of ABYZ News Links, which I've recently added to the site. But they are worth the trouble, since I try to find reports from as close to the outbreak as possible.

Such sources are also available through Twitter hashtags, Google Alerts, and Google News. Google News in particular has been useful recently: It can be personalized to deliver recent reports on such words as *encephalitis* or *cholera*. Google Scholar provides links to journal articles, and Google Translate—while I hesitate to use it for extended translations—is a godsend for individual words and phrases in Spanish- and Portuguese-language reports, which I translate personally. Without Google, I couldn't operate.

Blogging a report
TypePad automates much of the process of creating a post including a news report, but it's still a fairly manual task. The procedure generally runs like this:

Having found a useful item for a post (such as an ECDC rapid risk assessment, for example), I select part of the text. I click on "QuickPost" in my browser toolbar; this is a "bookmarklet" that creates my new post in a new window, including a headline based on that of the original item as well as the text that I have excerpted. I can use that headline or revise it. The new window also includes icons for basic text formatting (boldface, italics, create link, etc.).

I create an introduction, usually something like *Via ECDC,* in front of the link to the original item. In some cases I have to edit or shorten the text in the link itself. I then add a term like *Excerpt:* or *The abstract:*

TypePad has formatted the excerpt as a single block of text, so I have to restore (and often increase) the paragraphing of the original. I may insert an explanatory note in the excerpt, such as a definition of *crore* [10 million] or a conversion of local currency to US dollars. If the excerpt includes a boldface subhead, I will boldface it in the post as well. In cases where the original report has been distractingly written by a non-native English speaker, I will do some silent editing—replacing *decease* with *disease*, for example. If it seems needed, I may add a few comments at the end of the excerpt: some background on the story, or my personal response. But in general I let the story stand on its own.

Once the blog post is done, I click on the *Save this Post* button at the bottom of the window. A new window pops up to tell me the item has been published, and it also has a link to *Edit*. I click on this and find myself "backstage," where I can edit the post a bit more and make it more useful. (Backstage is also where I can create and modify lists, tinker with design, and so on.)

The backstage editing window offers many more options. Apart from further revising the post and headline, I can upload graphics and documents, or video and audio clips. In practice, I rarely do so: I don't want to get tangled in copyright questions. (I have never had a complaint from a news source about my use of text, however—perhaps because I take pains to cite sources and link to them.)

Using social media
In addition, I can now put the post in any of several categories: *influenza, H5N1, cholera, NGOs, travel & health*, and so on. I hope this will be useful to anyone using the site for research.

I can also share the post on social media. I used to do so on Facebook, but gave it up as too time-consuming. I do use this function, however, to tweet about each post, often inserting a hashtag in a key word (#*H5N1,* #*noddingsyndrome*) to ensure that the tweet will add to discussions using

those hashtags. I can then preview the post if I wish, or simply publish it and then click on the *View this blog* button to see how the post looks.

If a typo has slipped through, or the headline now seems unclear, I can return to the editing window, make the correction, and republish very quickly. In very rare cases, the excerpt in a post may be oddly formatted and ruin my blog's layout—for example, by pushing the link columns to the bottom of the post column. When this happened recently with an Antara report, I simply deleted the post on the editing page. This restored formatting instantly.

Twitter has enhanced my blog in several ways. First, it enables my followers to know a new post is up, and I often see a jump in traffic after tweeting two or three posts in succession. Some of my followers regularly retweet my posts, distributing them to their own followers. Even better, most of those I follow are themselves tracking outbreaks or advocating for particular diseases, and their links are useful for new posts. (I always try to give them credit.) I also notice that some people aggregate tweets and blog posts into specialized "newspapers" on various health-related issues.

Twitter also offers me a way to inform my readers without creating my own blog post: If I find a tweet with news of interest, I simply retweet it, thereby (I hope) sending my followers to the original tweeter and the story.

Hazards of the blogosphere
Blogging on health issues since 2005 has taught me about its hazards—some predictable, others less so.

After a year or two, I noticed that some readers were emailing me to ask for medical advice. As a science-fiction novelist and teacher of business writing, nearing retirement, this alarmed me. Both privately and publicly, I tried to make it clear that I was not a medical authority. In hindsight, those readers' anxiety stemmed from not knowing what a pandemic is: They were imagining deserted cities, corpses in the streets, and all the images of bad science-fiction movies.

I eventually had the wit to point out that we have experienced several pandemics in living memory: HIV/AIDS and cholera, to name just two.

Declaring an official H1N1 pandemic was widely scorned as a mistake by WHO, but the anticlimactic absence of billions of dead (and a total absence of zombies) at least resulted in some public calm. The lesson I learned: If the mainstream media don't predict we're all going to die by next week, the public doesn't think we have a problem.

More practical problems are easier to deal with. H5N1, like several of my other blogs, has become the target of comment spam: supposedly legitimate comments on my posts that were really just links to commercial websites. Fortunately, TypePad allows its bloggers to receive email notice of every comment, and to delete such spam. When such spam became a real nuisance several years ago, I set my comments so they would not be published until I'd approved them. This means comment spam never reaches the blog.

Comment abuse—insults and politically motivated criticism—has not been a major problem. Strikingly, Flublogia has been free of the abuse common to most North American political websites. The closest I've come to that was five or six years ago, when one or two right-wing American commentators criticized WHO and flu researchers as promoting H5N1 simply to acquire research funding, like evil climate scientists warning of global warming. It was entertaining to rebut them, but not a serious problem. (My major flu critic has since recanted his allegiance to the American right wing.)

More recently, I notice a growing number of emails offering to "contribute" posts to H5N1 on some health subject or another. The wording of these emails is uniform, and they are clearly trying to get some link onto my site. I delete them without responding. Similarly, a number of publicity agents send me invitations to interview doctors with a new solution for obesity or an answer to some other unrelated health issue.

Dealing with disaster porn
Another hazard is actually ethical: When a severe outbreak draws world media attention, I usually track the story closely. This was true of H1N1, the early days of Haiti's cholera outbreak, and the *E. coli* outbreak in Europe in 2011. I also see that such posts attract a lot of traffic; sometimes visitor numbers will spike from perhaps 30/hour to 200/hour, with daily

totals around 2,000. I suspect that much of this traffic is due to what I call "disaster porn"—an unhealthy interest in other people's suffering.

The problem is compounded by the kinds of stories I find on such outbreaks. They are often lurid, emphasizing the death tolls and human-interest aspects of the outbreak. I feel obliged to link to at least some of them, but I feel uncomfortable doing so. The media doing the reporting are clearly giving their audiences what they want, repeated jolts of other people's misery. In such cases I try to present the story with some objectivity, sticking to numbers and facts. But the politics of events like Haiti are hard to be objective about.

The problems that routinely concern me are housekeeping issues. Some links go unvisited for months or years, and then I discover they're dead. On a site with numerous links, maintenance becomes a real problem.

I also worry, probably more than I should, about consistency of style. I italicize the names of newspapers and magazines, and not the names of blogs and purely online new sources. But what about the websites like Borneo Post Online, the web presence of a print newspaper? Similarly, I italicize the names of bacteria like *E. coli*, even though doing so is a tedious manual task. My purpose is to present a consistent, professional appearance that will not distract readers from the content of the posts.

The need for more bloggers
Flublogia is a very small country. While I draw on many blogs connected to newspapers and other news sources (like Nature News Blog), the number of active bloggers in this field is minuscule. Moreover, we tend to be in North America, like Mike Coston in Florida, Vincent Racaniello in New York, and me in British Columbia. Arkanoid Legent, in Malaysia, has not posted since August. A very competent blogger in the Netherlands gave up last year after attracting little traffic. The forums like FluTrackers do remarkable work, but they rely heavily on computer translations that I don't trust.

So occasionally I send out a plaintive appeal for other bloggers, especially in hot-zone countries like Indonesia and Haiti. Few reply, though I sometimes get news from tweeters in such countries. At best, I may find an

occasional relevant post on a blog usually concerned with other topics. Zeinobia, an Egyptian blogger, did a good job of reporting on H5N1 outbreaks in her country; but with the Arab Spring, she turned her interest entirely to politics.

I'm not surprised by the lack of interest. Traffic is generally low, around 500 visits per day, with an occasional spike if a spectacular outbreak occurs in North America or Europe. If I wanted to earn advertising revenue from H5N1, I would be sadly disappointed. (So would those hopeful persons who want to advertise on the blog.) So the job is left to individuals like Mike Coston of Avian Flu Diary and me, who wandered into Flublogia and decided to stay.

We have very few resources apart from other Flublogians, who include the readers who occasionally email us a tip. Ideally, public health agencies and NGOs would run similar blogs that could draw on experts and report right from the lab or the cholera tent. But I understand why such blogs are scarce.

Problems for corporate bloggers
In the late 1990s I was researching the first edition of my book *Writing for the Web*. It was an exhilarating time, before the dot-com bubble popped, and many people were trying to learn how to write for this new medium. But some webwriters were having serious trouble. They were the people writing content for corporate websites, whether private companies or government agencies.

Such writers understood the key points about writing for the web, but they found it impossible to persuade their employers—public or private—to adapt their content to the medium. The bosses usually considered web text identical to print media like advertisements or brochures, requiring no special editing or display. A few suspected that web content could be a major hazard, carrying a constant risk of embarrassment for their organization.

Either way, such organizations were posting dull, unreadable, but safe content. For a time in the late 1990s and early 2000s, Jakob Nielsen found that commercial websites were actually driving customers away. Matters

have improved somewhat since then. Some company websites now feature a blog by the CEO or other senior person, giving the company an individual voice and personality. Customers can even interact with the company blogger, posting questions, comments or complaints, and get a response.

In the world of government agencies and NGOs, this use of blogs is still rare, though some senior people will venture onto Twitter from time to time. Like tweeting politicians, such people seem determined to maintain a bland, upbeat image. Richard Horton, editor of *The Lancet*, is a rare exception. He has developed a new genre, the essay composed in multiple 140-character tweets, in which he says critical and sometimes outrageous things about medicine and health care. He may often annoy or infuriate his 5,000 followers, but I doubt that he ever bores them.

This kind of personal commentary on health issues is evidently abhorrent to most healthcare professionals, who appear to accept the old Chinese saying that the nail that sticks up is hammered down. Unfortunately, the silence of the officials conveys a loud nonverbal message: My organization and I are more important than the health problems we are supposed to fight.

Another way to "personalize" an agency website is to put the CEO on the site, issuing yet another statement. The UN's Office for the Coordination of Humanitarian Affairs (OCHA) does this, putting the face of Under Secretary-General Valerie Amos on its website every day. Since Lady Amos never expresses a personal opinion or feeling, the tactic fails and OCHA's website looks like a vehicle for publicizing its leader, not the problems that OCHA is dealing with.

No doubt a sufficient number of committee meetings may eventually resolve this problem and free some health bureaucrats to speak their minds. Until then, individual bloggers will have to fill the gap. I hope more of them will appear, and help us all to keep our publics informed.

Crawford Kilian
North Vancouver, BC
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