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In Conversation With… Robert Hirschtick, MD

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Editor's note: *Dr. Hirschtick is Associate Professor of Medicine at Northwestern Medicine, and the author of a number of prominent articles—many quite amusing—about the changes wrought by information technology. We spoke with him about new technologies and what it means to be a clinician in the modern era.*

Dr. Robert M. Wachter: The piece that first brought you to my attention was the copy-and-paste piece. What gave you the idea to do that?

Dr. Robert Hirschtick: Reading electronic notes every day. Those of us who were raised with pen and paper had ingrained in us a certain way to write notes. Those traditions were totally shattered when we went to the electronic medical record. And I get it. As physicians, we all want to be efficient. Copy and paste is extremely efficient. Unfortunately, at least initially, copy-and-pasted notes were a horrible way for clinicians to communicate with one another.

RW: Was there a particular note that you saw one day where you said to yourself, "I have to write about this. This is too crazy and too different from what I expected"?

RH: The note that really pushed me over the edge was when a heart patient was admitted at night and the intern wrote at the end of her note, "We'll consult cardiology in the morning." Then cardiology came by and consulted and copied and pasted her entire note, including "We'll consult cardiology in the morning." So, talk about a circular chain of consults. I said, "This is ludicrous." So that really propelled me.

RW: Those of us of a certain vintage have been waiting for computers to come into medicine for a long time. What did you think it would be like, and how did it turn out differently?

RH: I thought it was going to be great. As you remember, there was only one physical chart. If that happened to be downstairs in radiology with the patient, you couldn't see that chart. You could write a note, but there was no guarantee that loose piece of paper was going to find its way into the chart. I thought the electronic medical record would end that, and indeed it has. I thought trying to decipher illegible handwriting would be gone forever, and it is. So all of these good things have happened. Even though I and others have written about some of the downsides of the electronic medical record, we would never want to go

back because the paper chart had its own problems. In hindsight, it seems obvious that copy and paste would occur. But frankly, I never saw it coming. I thought people would write notes just like we did with pen and paper, just using a keyboard instead. But that didn't pan out at all.

RW: One thing I've taken from your writing is there's something about copy and paste that is operational. People are doing a task in different ways, and the computer is facilitating it. But it also seems to be a window into the human soul, the nature of doctors and how they work and think. Are there deeper lessons from what you've observed in how we use our electronic tools than simply that, if you give people the capacity to copy and paste, they will do it?

RH: The deeper meaning may be this: It's possible for a clinician to write a note and never really say what he or she is thinking. You're just putting in a lot of words, and if it's a long note, it looks like this is a really diligent clinician but there's no meat there—it's all empty calories. If you're going to write a note by hand, the tradition was you would then *commit* yourself to say: I think this is the most likely thing, here's maybe the second or the third likely thing, and I propose addressing this by doing such and such. Statements like that are conspicuously absent in electronic notes. They just repeat the same thing day after day. No one is really saying what they think is happening. The thought process has been squeezed out of electronic notes.

RW: That's an interesting observation. Is there something about the act of handwriting and putting your actual John Hancock on something that creates a level of ownership that engenders that commitment and personalization? Or is it just that we've created the easiest path—to hit a button and spew in a whole lot of stuff?

RH: You may be onto something there. Abe Lincoln said when he was learning something he liked to write it down and say it out loud, much to the chagrin of his office partners, because he felt like that reinforced not only his memorization but also his understanding. I'm a very slow typist. But I like that because my fingers never get ahead of my thinking. Before I sign my electronic notes, I go back and edit them to make sure they say what I mean them to say. On the flip side, some people are really fast at typing. You're in the team room and you hear the person next to you just flying across the keyboard. But you wonder how deeply are they thinking about it. Is that person really coordinating the thought process with their finger activity?

RW: Implicit in what you've written is that we're committing fraud to some extent. We are testifying to things that didn't actually happen, physical exam findings that we didn't do, or consults that we've almost plagiarized. By virtue of how easy it is to do that, is it exposing a dark side of our personalities that somehow wasn't fully exposed in the paper world?

RH: I agree with the implication of the question that fraud has become more efficient. Here's what I see a lot: 14-point review of systems with negatives as follows, and 80 items are listed. And I'm scratching my chin and wondering were these 80 questions really asked? It's efficient because a single click gets those 80 items in the note. If someone wanted to commit fraud in the paper-and-pen day, you had to write those things by hand. That was a disincentive. I think very few people sit down and say "I'm going to commit fraud" or "I'm going to commit plagiarism." But I agree with your implication that it sort of seeps in at a subliminal level.

If I see a student or a resident blatantly copying the intellectual assessment of someone else, I call them out on it. I say this is intellectually dishonest and potentially even plagiarism. More frequently, however, I'll see students do a thorough physical exam on day 1 and their note will document that. But that same note is copied and pasted every day with that same neuro exam on days 2, 3, and 4. And I say wait a minute. This is not right because they didn't really do the neuro exam on days 2, 3, and 4. They'll say, "I didn't realize I shouldn't write that." Because they think, "For any new readers or consultants reading the chart today, I want them to know my neuro exam." No, I tell them, today's note should represent what you did today.

RW: Is there a slippage in ethical norms here? It sounds like you call people on it, but I'm guessing most people don't. People now are getting used to the idea that the chart will contain a mix of fiction and nonfiction. People probably view this as a victimless crime. Part of the reason I'm pulling forward that neuro exam day after day or that review of systems is because the billing rules are stupid, and chances are the neuro exam *didn't* change. If it did, I'd probably know about it. So is it kind of a bunch of rules that we're skirting in order to get our work done and be paid fairly?

RH: I would be reluctant to say that, as a group, practitioners and clinicians are less ethical now than they were back in the day because there were plenty of ways to cheat and game the system back then. I don't think we were more ethical or righteous back then. I think there's been a shift in the ways to game the system. As I said earlier, perhaps even ways to do it more efficiently and in a less time-consuming way now.

RW: Yeah, I'm glad you brought that up in terms of the days of the giants. As you're thinking, speaking, and writing about this stuff, how do you get around sounding like you're a Luddite or a curmudgeon, or like we were so much better in the old days, versus these young whippersnappers—all they do is copy and paste stuff?

RH: I don't think I do get around it. People have called me a Luddite. But I'd like to think that some of the younger people get it. One of my most gratifying moments occurred during intern bowling night when the interns are given the night off. They bring the old people in to act like interns overnight and admit all the patients. It's kind of fun, but it's kind of scary. I did this a few years ago, well into the electronic era. The interns and the residents came in the next day, and I told them about the patients. I saw them the next day and they said, "Wow, you write the best notes. We could read them from start to finish and really get a good sense of what was happening with the patients. The notes were really short and you just said what you thought and what you recommended." I was 10-feet tall that day. It reminded me that I can talk and talk and talk, and it's not going to have much impact. But I guess that gets back to role modeling. If you're doing it and demonstrating what it can be like, that has a lot of power.

RW: Yeah, by the way I've been called a Luddite many times as well; so you're in good company. What are the solutions? You brought up training people as to what represents a useful note in this era. Are there technological solutions that we should be thinking about to try to improve the situation?

RH: I think there are tech ways to do it. I'm told it's not that hard to highlight text that has been copied and pasted, either italicize or color code it or in some way to make it obvious to the reader that this text has been lifted from another source. As an aside, those of us who have done this awhile can usually identify

such text anyway. But for the uninitiated, I think it would be wonderful to identify text that is copied and pasted, and I'd like to think a subtle or maybe not-so-subtle disincentive for doing it.

RW: So you're specifically not saying you can or should abolish copy and paste, because the same technology that allows you to highlight could make it impossible.

RH: Correct. In places that have done that, it's my understanding that the physicians have totally revolted, been very unhappy, and expressed their displeasure. The more relevant point is copy and paste is not all bad. There's good copy and paste and bad copy and paste. I tell the students an example of good copy and paste is I see an inpatient on Tuesday and write my progress note. After I see the patient on Wednesday, I copy and paste my Tuesday's progress note and use that as a template for Wednesday's progress note. Then I start at the top and delete and add and modify things. That's a time saver for me. It's honest because before I sign it, I read and edit it again to make sure it's all relevant and important for what's happening today, Wednesday. That's good copy and paste. You don't want to abolish it altogether.

RW: Your story of the residents seeing your note and saying they didn't even know what a good note looked like makes me wonder: Why aren't we training people to write notes like you write?

RH: I think many places are. I know we're doing it at Northwestern, and we're not the only ones. It's a tough sell. It's kind of dull, frankly. I do it a lot with students. I monitor their notes and give them a lot of feedback, then hopefully we'll see improvement and give feedback on that. At the senior resident level, I feel like I've already missed the opportunity.

RW: They're too advanced to want to be talking about that.

RH: Right. Maybe I shouldn't be hesitant with senior residents, but I feel like they've already gotten to the major leagues with their bad habits. We need to work on them earlier in their training. For individual students, I've seen what seems like significant progress, and that helps me stay optimistic.

RW: What are some of the unanticipated consequences of technology that you've seen and you worry about?

RH: Physical exam deterioration, and I recently wrote about deterioration in physical exam skills and devaluation of it as an important part of data gathering. A very common scenario on the inpatient side is we'll be rounding in the morning. The intern, for example, has already reviewed the medical record. She knows what happened overnight. She knows what the labs are. Let's say it's a heart failure patient, and she'll say, "BUN and creatinine are up a little bit. Let's back off on the diuretics." This is before we've actually seen the patient. I'll say all right, that sounds legitimate, but let's go see the patient. Let's talk to him. Let's weigh the patient ourselves. Let's look at his neck veins. Check his edema, then make some decisions about where we go with medications today. It seems like decisions are being made based on computer information only and not the physical examination.

The other example I see a lot is the patient who spikes a fever overnight. Again, in the hallway before we see the patient, the intern will say, "My plan—we're going to get a chest x-ray and a urinalysis." Those are reasonable. But before we finalize the plan, let's go examine the patient, get the story from her. Let's look

at her arms, maybe she has an inflamed IV site. Let's roll her on her side. Maybe she has a pressure ulcer that's red, inflamed. But trainees don't prioritize those things. Their thought is *everything I need to know is in the computer.* We're going to say hi to the patient and do this drive-by physical exam because it's traditional. But I don't expect to find anything. And of course, that's self-fulfilling because if you don't expect to find anything you've diminished the chances of finding anything.

RW: Diminished because you're not looking carefully or because you're not good at it?

RH: Both, absolutely.

RW: So, have we entered a death spiral where people have devalued the physical examination so they don't do it, so they're not good, so they won't do it because even when they do it, they won't find anything?

RH: I wouldn't say death spiral. I'm more optimistic about physical exam skills than I am about note-writing skills. Demonstrating physical exam skills at the bedside is inspiring, fun stuff. It's one of the happy things I do. I sense genuine enthusiasm and excitement on the part of trainees when we inspect neck veins or skin findings. These are jaw-dropping moments when they'll say wow, that's so cool. So that inspires people to get better at it themselves. There's a groundswell of support from what I see and hear in talking to people throughout the country.

RW: Abraham Verghese has pushed that hard, and I think that's been helpful having someone of his stature put his nickel down about how important it is. When I've spoken to him, it's interesting, he talks about it like it's partly data gathering and partly sacred ritual and partly a way to establish a connection with the patient. How do you see it?

RH: Very much so. The proverbial laying on of hands sends a powerful message. Even if we examined someone and didn't glean anything significant from it in terms of changing our plan or changing our diagnosis, I think the patient feels very reassured. On the other hand, there is this phrase, the *quick physical exam*—I literally grate my teeth when I hear that. The student or the intern will say, "Let's do a quick physical exam." I believe the intern means "We don't want to inconvenience you too much, so we're going to make it quick." But I'm sure that patient hears: "We're going to do a sloppy exam right now because we don't think there's anything more to it than just tradition and we'll move on from there." It's important to remember that patients can be very reassured and comforted by a thorough, methodical exam even if it doesn't yield any new information.

RW: There are times where, in doing the physical exam, it feels a little bit like a charade in that you *know* you're not going to find anything in listening to the lungs in someone who has no pulmonary symptoms. If I hear something, I'm not going to believe it because the pretest probability was so low. I sometimes feel like I'm doing it because the billing rules make me do it. Do you struggle with that at all in terms of the actual clinical value of the exercise? Clearly, when the patient has symptoms of heart failure or shortness of breath, you need to listen to the lungs and the heart and look at the neck veins. But the daily ritual sometimes feels like we're doing it because we're supposed to do it and the billing rules make us do it.

RH: I agree that we should pick our spots. If we don't know what's going on, which is a lot of the time, then we need to thoroughly examine the patient and get more information. But if I'm pretty sure what's going on

and the patient seems to be doing fine, then laying a stethoscope on their chest when they're here for a foot infection or cellulitis of their legs, yeah, I don't feel strongly about that.

RW: What is your vision of the future? Clearly there will be more technology; one hopes the technology is going to get better. Some people talk about a future where we won't need physicians, but I'm imagining a time where technology will actually get better and will help physicians do their work. How do you see this playing out over the next 5 or 10 years?

RH: I'm optimistic. I think that the increase in nurse practitioners and physicians' assistants will free up physicians to focus on sicker people who really need their skills and attention. This may even allow physicians to spend more time with their patients, to do more thorough exams, and to write more thoughtful notes. The whole system will become more efficient in allowing physicians to spend more time on those things where physicians' skills are needed.

RW: Do you think young physicians truly want to do that? That if they have some time reclaimed because the technology gets better or other people are practicing at the top of their license, do you think physicians will choose to spend more time with patients?

RH: I believe they want to and I think they will because that's one of the great joys of our profession.

RW: I'm with you and I'm also hopelessly optimistic. But you wonder whether this generation has become used to all of their inputs coming in technologically and whether freed-up time will be spent at the bedside or freed-up time will be spent with more technology.

RH: We've both seen the pendulum swing a lot in medicine. There's no doubt it's swung over the last decade or two toward technology. I'm optimistic it's going to swing back where we use technology thoughtfully and combine it with our more traditional skills.