

dear residents

From Margins to Metadata

October 5, 2025

Dear Residents,

I belong to a generation that straddled two worlds: we trained with paper charts, and we now practice in the era of the electronic health record (EHR). Paper charts were imperfect, handwriting was often illegible, charts went missing, orders were delayed, but they also pulled us together. Physicians, nurses, and clerks huddled around the same set of notes and x-rays. The inefficiencies sometimes created friction, but they also fostered spontaneous conversations, quick clarifications, and a sense of shared responsibility.

[Ross Koppel](#), a sociologist who studied the EHR's effects, reminded us that "technology is not neutral; it reconfigures the relationships among people, their work, and the organization." His [landmark study](#) on computerized order entry showed that systems designed to prevent medication errors could also *facilitate* them, concluding that "CPOE may facilitate 22 types of medication error risks." In other words, technology intended as a safety net also reshaped our behavior in ways that created new vulnerabilities.

Bob Wachter, in [The Digital Doctor](#), offers a similar caution. He writes that EHRs "solved some old problems but created entirely new ones: notes bloated with meaningless copy-paste, alarms that sound so often they are ignored, and physicians spending more time staring at screens than at patients." Perhaps most poignantly, he describes the lost relationship with radiologists: "Once we gathered around light boxes, debating films and learning from one another. Now images simply appear in the EHR, pristine and immediate, but the conversations are gone."

Another subtle consequence of digitization has been the rise of overordering through order sets. What began as a safety feature to ensure important labs and imaging were not missed can, in practice, encourage clinicians to check boxes for dozens of tests without much reflection. As **Thomas Lee** notes in [Chaos and Organization in Healthcare](#), the unintended effect is that "systems designed to standardize care sometimes amplify variation and waste, producing more data than insight." Every lab drawn and every image obtained has downstream effects: more false positives, more incidental findings, more consultations, and sometimes more harm. The problem is not malevolent intent, but that convenience lowers the threshold for action.

Consider the typical **chest pain order set**. With a single click, it may default to a broad panel: CBC, BMP, magnesium, phosphorus, serial troponins, BNP, lipid panel, thyroid tests, PT/INR, chest x-ray, serial EKGs, telemetry, echocardiography, and even anticoagulation or statin therapy. These defaults make sense if you are managing an unstable patient with suspected acute coronary syndrome. But when applied indiscriminately, the same order set may trigger unnecessary testing in a young patient with musculoskeletal pain or in someone with clearly non-cardiac chest pain. The result is more blood draws, more incidental findings, and more downstream testing that may add little value to the patient in front of us.

Another unintended distortion comes from the way our notes are built. Templates and structured fields may be efficient, but they can also create a false narrative of what a patient has or has said. For example, a templated review of systems might automatically state “ROS negative for chest pain” even if the patient was never asked the question. A default “normal” physical exam might document intact cranial nerves, when in fact only pupillary reflexes were checked. These shortcuts can imply conversations or examinations that never happened, creating misleading records that are difficult for others to interpret.

In contrast, what excites me about large language models is that their outputs often sound more conversational, more like us. When applied carefully, [ambient listening AI](#) has the potential to capture not just the facts of what was said, but the essence of the patient’s story and the texture of our clinical reasoning, something paper charts once did naturally, but which the EHR has often muffled. AI may finally allow us to spend less time searching, clicking, and documenting, and more time at the bedside. Instead of notes that all look the same, we could return to records that capture our reasoning and our patients’ stories, and order tests and imaging that are nuanced and deliberate rather than the automatic result of pressing an order set button.

This is why I am especially excited that **Dr. Donald Berwick** will be [visiting UT Southwestern on October 10](#) and delivering a lecture entitled “Rescuing U.S. Health Care: Principles of Redesign.” Dr. Berwick has long reminded us of Deming’s quote that “every system is perfectly designed to get the results it gets.” If paper charts fostered connection, and EHRs sometimes foster isolation, it is because those were the systems we built. His visit is a timely reminder that as we enter the age of AI, we have a chance to shape systems that are not just efficient, but humane. The tools themselves are not destiny, it is how we design, implement, and use them that will determine whether technology widens the gap between us and our patients, or closes it.

You are the first generation of physicians truly native to the digital landscape. My hope is that you will help shape how new and emerging tools are adopted, and how they can be leveraged to reclaim the human connections that technology once pulled apart.

Warm regards,

Dino