

Copy-and-Paste

THE ELECTRONIC MEDICAL RECORD (EMR) ARRIVED AT our teaching hospital one year ago and the resultant changes in medical student and physician notes have been remarkable. While EMR is highly efficient in producing notes, virtually all of its notes are longer, recombinant versions of previous notes. Even notes of different authors are morphed by EMR into clones of one another. As physicians have become more adept with the time-saving features of EMR, their notes have been rendered incapable of conveying usable information by their bloated and obfuscated nature.

There are two features of EMR that contribute to the increased length and decreased effectiveness of notes. The first is automatic insertion of prion-like phrases into notes such as "The patient complains that . . .". Authors are oblivious to these automatic phrases when their notes are created and, although the resultant statements may be true, their syntax is awkward:

Hospital day 1: "The patient complains that The patient has been transferred here from St Eligius at her request."

The second and more virulent feature of EMR is "copy-and-paste." The copy-and-paste command allows one day's note to be copied and used as a template for the next day's note. Ideally, old information and diagnostic impressions are deleted and new ones added. In reality, however, there is no deletion, only addition. Daily progress notes become progressively longer and contain senescent information. The admitting diagnostic impression, long since discarded, is dutifully noted day after day. Last month's echocardiogram report takes up permanent residence in the daily results section. Complicated patients are on "post-op day 2" for weeks. One wonders how utilization review interprets such statements.

Hospital day 2: "The patient complains that The patient is angry that the night float doctor didn't know her test results."

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EMR also allows the copy-and-paste function to be used across hospital admissions, so that the last note from the previous admission can be used, with additions, as the first note for a readmission. Moreover, EMR encourages everyone to copy-and-paste the notes of everyone else so that notes become the same from author to author as well as from day to day. Even consultants are assimilated into the oneness of the EMR Borg. A cardiology consultant recently copied-and-pasted the intern's note into his own, even including "consult cardiology in AM" in his recommendations. Perhaps he meant consult a more thoughtful cardiologist.

Hospital day 3: "The patient complains that The patient complains that she got angry with night float last night and was given Ativan and Haldol."

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Occasionally, mutations in the form of erroneous statements are incorporated into the propagating note chain. The

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errors repeat endlessly and become Newspeak-like truths. A patient who seizes from haloperidol is forevermore labeled with seizure disorder. An episode of lorazepam-induced delirium is transformed into chronic dementia. Yes, the patient does seem fully coherent now, but EMR says she's demented and who are you going to believe, EMR or a demented patient? By the power of repetition, everything in EMR becomes true.

Hospital day 4: "The patient complains that The patient has decided to return to St Eligius. A CD copy of her EMR will be sent with her."

Because it is a wonderfully efficient replicating machine, EMR is creating logistic difficulties as it spreads globally. No longer bound by constraints of space and time, EMR notes have the ability to propagate and grow exponentially, as if by polymerase chain reaction. The sheer volume of these Agent Smith-like notes threatens to create storage problems within the information technology matrix. Neo-cons in the Department of Health and Human Services have proposed a privatization plan to address the projected storage deficit.

It should be pointed out that EMR has some laudable aspects. Notes can be created quickly with minimal cogni-

tive effort, and their impressive length implies diligence and attention to detail. Assimilation of such detail into its notes helps EMR fulfill its prime directive: procurement of maximum reimbursement. Moreover, EMR helps house officers stay within mandated work hour limits. It obviates the need for the time-consuming task of reading student notes by creating phrases that can be spliced into the record with a single mouse click. Though a student's note might contain such seemingly incongruous plans as "Buck's traction for hip fracture" and "screening Pap smear," a quick click by a resident inserts the official imprimatur: "I have reviewed the excellent note above and agree with the findings."

Despite its virtues, EMR recognizes that it must evolve. Like 2001's HAL, it has learned that minimization of human input is essential to achievement of its mission. Thus, EMR 2.0 will automatically and intelligently delete 90% of text processed by copy-and-paste.

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I can evade questions without help; what I need is answers.

—John F. Kennedy (1917-1963)