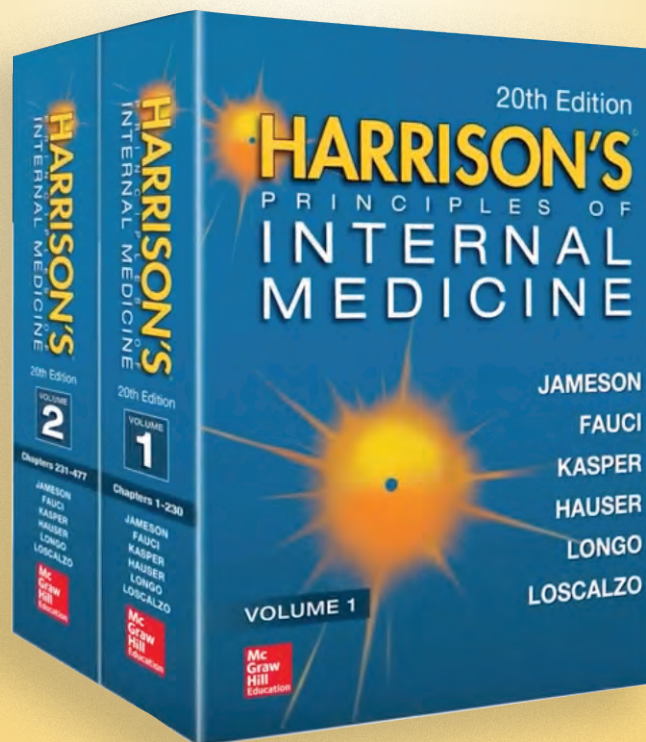


ON LOOKING INTO *HARRISON'S* *PRINCIPLES*



Steven A. Wartman, MD, PhD, MACP

Dr. Wartman (ΑΩΑ, The Johns Hopkins University School of Medicine, 1970) is President Emeritus, Association of Academic Health Centers, Washington, DC.

I recently had a somewhat strange and visceral reaction when I received a gift of the 20th edition of *Harrison's Principles of Internal Medicine*. Published by McGraw-Hill in 2018, it is a *tour de force* in two volumes, consisting of 447 chapters, 3,528 pages, and more than 600 authors. The index is 214 pages. How daunting mastery is! Where and how to begin to absorb and digest this information?

I thought of Tinsley Harrison (ΑΩΑ, The Johns Hopkins University School of Medicine, 1922) as I gazed at the covers of the two volumes.¹ Following in the footsteps of several generations of physicians—his father had befriended Sir William Osler—Harrison had a distinguished career in academic medicine.² His lasting achievement was conceived and edited in 1950, and was no small effort, consisting of 276 chapters and 1,590 pages. He presciently advised readers “to use technical skill, scientific knowledge, and learned understanding...with courage, humility, and wisdom.”³ As I contemplated plunging into the work, I hoped to evince some of these characteristics. I felt humbled by the task, brave to consider it, and perhaps knowledgeable enough to begin.

The challenge of medical information

The amount of medical information long ago exceeded the capacity of the human mind. I doubt there was anyone in 1950 who had completely mastered the textbook. In the 21st century, the medical information available is truly shocking, not just for members of the profession, but also

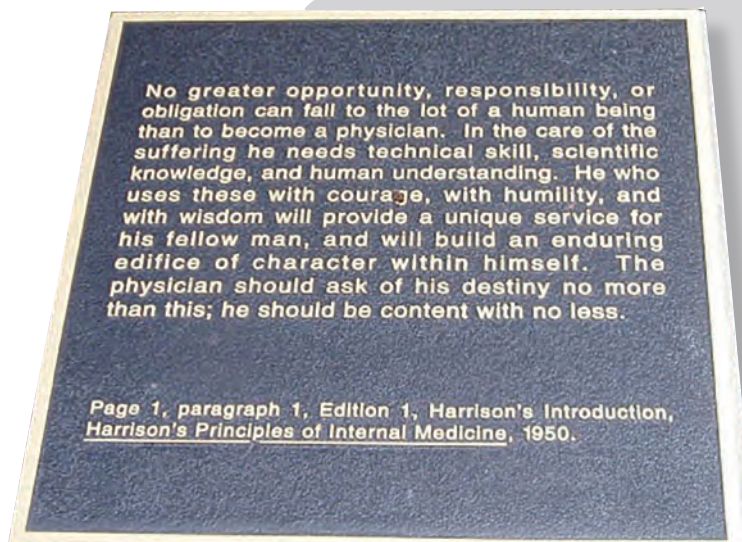
for the general public. Just Google any medical condition and note the number of hits, the order of which are determined by proprietary algorithms. The concept of “do no harm,” while deeply embedded in the medical profession doesn't exist as a central tenet on the Internet as most of the postings have not taken this pledge. How, then, does the non-medical professional distinguish amongst the cacophony of facts, opinions, suppositions, social chatter, claims, or unproven alternatives? And, what responsibility does the medical profession bear to enlighten the public?

Possessing information in this regard needs to be distinguished from possessing knowledge. Having knowledge implies an understanding of the information that is at hand. An important role of the medical profession, consistent with past experience, is to serve as the expert curator of medical information by selecting, organizing, and presenting information through the use of expert knowledge. This has defined for millennia the role of the medical professional: to have exclusive access to a body of knowledge that is applied for the benefit of the patient. In this age of unlimited information, the exclusivity franchise on medical information is fraying. How can the profession enable the “Googler” to distinguish information from trusted knowledge? How is expert opinion defined and executed in a technology-based Internet society?

Readers of Harrison's textbook, or any other established source of medical information, assume rightly that the authors and editors have done their due diligence. We in the field of medicine, therefore, are confident that our textbooks, journals, professors, authorities and leading experts are the trustworthy curators of the vast sea of medical knowledge, distinguishing what is best practice and trending. But the



Tinsley Harrison sculpture by Cordray Parker, University Boulevard, Birmingham, Alabama. Public domain.



contextual basis of the traditional doctor-patient relationship is itself being transformed as the general public expertly sails through the ocean of information.

What can the profession do?

Because the medical profession has the responsibility and privilege of being the trusted source of medical information, it must step up its curation efforts beyond the traditional mechanisms mostly geared toward practitioners and researchers. The profession must reimagine approaches and methodologies in the face of public information overload in order to fulfill its primary missions of relieving suffering, preventing disease, and treating illness. Approaches must go beyond traditional “self-curation” to utilize a forward-thinking and coordinated strategy for knowledge curation directed at the public.

This requires leading medical organizations to plan and fund a curation summit with the goal of initiating a major effort to develop a coherent and implementable strategy to address this existential issue. Summit participants should include health providers and the general public; national associations; academic enterprises; journal editors; information management experts; textbook editors; and social scientists. The summit should produce a work product that transitions to an ongoing effort that becomes part of the profession’s mission.

This is clearly a tall order, as “...professions seem to share the bias of finding difficulty in imagining any thoroughgoing reengineering of their own discipline.”⁴ But the consequences of failing to do so leave the profession vulnerable to social and economic forces that threaten its hegemony as the trusted source for medical information and decision-making. Recognizing the existential threat posed by the Internet of all things is the first step toward unified action, perhaps on an unprecedented scale for the profession.

Equally important is the need for substantial reform of medical education to train future practitioners in information curation among other skills necessary for 21st century practice. Knowledge management and information curation need to be front and center in the curriculum, along with the probabilistic reasoning and communication skills necessary to effectively help patients make decisions that are best aligned with their needs, values, and priorities.⁵ Curricular reform to date, while significant, has not yet addressed substantively these pressing issues.

A shining example of the profession at its best

Harrison’s Principles features an astonishing graded strong blue cover with an ophthalmic yellow blot

prominently inserted in its midst. My reaction upon looking at it reminded me of John Keats’ enthusiasm in his poem *On First Looking Into Chapman’s Homer*, where he describes the emotion of explorers as they gaze at the Pacific Ocean for the first time:

...Then felt I like some watcher of the skies
When a new planet swims into his ken;
Or like stout Cortez when with eagle eyes
He star’d at the Pacific – and all his men
Look’d at each other with a wild surmise –
Silent, upon a peak in Darien.⁶

On looking into Harrison’s textbook, I see a shining example of the profession at its magnificent best. Perusing the chapters, there may be concern that some of the information may be out of date, but much of the knowledge presented is built on a long timeline of scholarly study and scientific publication. It is a coherent blend of the old and new, and there are standards enunciated to which practitioners should always adhere.

In the age of the Internet of all things, we need to bring this dedication and skill to the management of medical information for the general public. Inaction, in the face of unremitting and unsubstantiated information flows, bodes ill for the future of the medical profession, its public trust, and the sacrosanct doctor–patient relationship.

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The author’s E-mail is swartman@aahcdc.org.