

**EDITORIAL****COMMUNICATION OF KNOWLEDGE**

In 1436, Johann Gutenberg invented the printing press. Almost 600 years later, it is hard to fathom what effect this invention has had on the dissemination of knowledge and ideas. Or is it? Within the last decade, we have witnessed the almost unimaginable growth of the Internet, and with it, a second revolution in the distribution of information. In both cases, these technological developments have been fundamental in facilitating the expansion of scientific knowledge.

The continuous transfer of knowledge from one's predecessors to one's successors is crucial, for without this, each new investigation must start from scratch and the extent to which one can advance knowledge is extremely limited. Sir Isaac Newton expressed this best: "If I have seen further it is by standing on the shoulder of giants" (1). The continuous progression of knowledge relies on building upon a foundation of facts and ideas already available. The importance of recording and transmitting knowledge becomes obvious. Using an example within the medical realm, one could ask how much longer Galenism would have persisted if the anatomical observations of Andreas Vesalius had not been recorded and widely distributed as *De humani corporis fabrica* (1543). Vesalian anatomy and the observations of others such as Realdo Colombo, Michael Servetus, and Andrea Cesalpino were the groundwork for William Harvey's revolutionary ideas on the circulation of blood published in 1628 (2).

Today, scientists and clinicians are inundated with information. Scientific articles published each year number in the thousands; PubMed lists 424,636 articles with a 1999 date of publication. Though sometimes a daunting task, the first stage of any research project involves familiarization with the relevant literature, first, to size up the current state of knowledge, and second, to identify what question(s) one could address in order to advance that knowledge. Unfortunately it seems like this important stage is frequently given too little credit by scientists-in-training and, in turn, too little attention. How many student projects are begun with no clear question or with one that has been unknowingly answered and already published? How many students proceed through their projects with such a superficial knowledge of the subject that they could not effectively explain the rationale behind their study

design without the help of their supervisor? More so now than ever before in history, knowledge is widely available, but it is still the individual's responsibility to become familiar with it and to use it effectively.

But assuming that a successful project begins with a well thought proposal stemming from adequate familiarity with the literature, what is the benchmark for successful completion of a research project? Publication. More specifically, publication in a peer-reviewed journal appropriate for the subject. With publication, the findings are available for the world to read, to evaluate, and to build upon. However small the contribution, each author adds to an ever growing body of knowledge. Information not communicated to others is, ultimately, information lost.

Expressing one's understanding and composing a paper for distribution to a broad audience is a skill separate from conducting experiments and analysing data, a skill that must be developed and honed to assure academic success. The *McGill Journal of Medicine* was conceived to help students (most of whom are also first-time authors) practice this skill and attain the goal of publication. In fact, since its beginning, the *MJM* has striven to meet dual objectives: to encourage and aid the development of student authors and to produce a peer-reviewed journal of high quality that brings together information on all aspects of medicine, from receptor pharmacology and molecular biology to public health and medical ethics. This issues represents completion of the first five volumes of the *MJM* and, as I hope both authors and readers will agree, we have stayed true to our goals.

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Editor-in-Chief

**REFERENCES**

1. Newton I. Letter to Robert Hooke dated February 5, 1676. Cited from: <http://www.win-uk.net/~jherbert/giants.html>.
2. Porter R. *The Greatest Benefit to Mankind*. New York: HarperCollins Publishers; 1998.

**Steven Prescott** is the fifth Editor-in-Chief of the *MJM*. Having completed a B.Sc. and M.Sc. in Biology at McGill University, he is now in his third year of the M.D./Ph.D. Program. His current research is conducted in the Department of Pharmacology and Therapeutics, and involves the electrophysiological investigation of neurons in the superficial dorsal horn of the spinal cord and the characterization of biophysical properties that may be important for understanding chronic pain. He is a recipient of an MRC studentship.