This year, the senior editorial team of Hypothesis met and discussed the origins of the journal with three of its founding editors, Wissam Assaily, Bart Kus, and Mariano Loza-Coll. With a certain nostalgia, the founders revisited and explained the forces that drove them to create Hypothesis, including an aspiration to establish a forum for scientific discussion free of limitations inherent in the established scientific literature. Peering over the horizon, this year’s editorial also considers the future of the scientific publishing ecosystem and Hypothesis’s niche within it.

The Excitement of Science

“Our initial mission for Hypothesis was to create a journal that could be used as a forum to disseminate new ideas—especially great ideas that did not have any experimental backing at the time,” stated founding editor Kus. This ideal has withstood the test of time and become the journal’s explicit raison d’être. Yet, as Assaily pointed out, one motivating factor that led to the conception of Hypothesis was somewhat simpler: a passion to be part of the excitement of science.

In the broader sense, the scientific community is predominately occupied with relative banality. In these calm periods, referred to by philosophers as “normal science,” scientists refine and elucidate the intricacies of knowledge, but do not expand beyond an accepted array of assumptions. Flanking these scientific lulls are short phases of monumental change, termed “paradigm shifts,” during which certain assumptions are discovered to be untenable. It is these paradigm shifts, when a discipline’s landscape is suddenly rewritten at breakneck speed, that constitute the major excitement in science.

In a way, every individual scientist’s career mirrors this greater trend: an incremental, “normal science” procession with occasional bursts of significant, and often unanticipated, innovation. If you are not part of the bursts, you may feel a little empty. “I belonged to a camp that was more romantic about science and loved talking about evolution, Dawkins and Gould. We found [that our work was] entirely lacking in stimulation and did not satisfy that part of our minds,” reminisced Assaily. Loza-Coll echoed this sentiment describing how a desire to fill a void motivated the creation of a new vehicle to communicate scientific ideas. “I think that another, albeit often unspoken goal of Hypothesis, was to provide an outlet for the passion for science that had continued to grow inside many of our colleagues…but that was so difficult to let out by conventional means.” Thus, in part at least, Hypothesis was humbly born from a longing to be part of the excitement of science, without necessarily making a landmark discovery. Hypothesis was the consequence of curiosity, anxiety, anger with the status quo in the publishing industry, and an awesome need for the...
founding editors to provide their peers with a vehicle for the publication of passionate, big ideas – to be part of the excitement.

On the Future of Scientific Communication

While Hypothesis solidifies a place in the landscape of scientific literature as a champion of provocative ideas, it will be affected by the same dramatic changes currently impacting the entire world of scientific communication. The decline of print journalism and rise of cutting-edge communication methods stands to impact science publishing in ways we can only speculate. Founding editor, Kus formulated the question that many in the industry are pondering: will scientific publishing be affected by the current revolution in social media? If so, how?

Some insight into these questions can be found in an article published in Hypothesis’s inaugural issue (1). Discussing the importance of impact factors, Dr. David Rose argued that with the advent of online indexing and online access to journal articles, quality scientific work would be noticed and recognized irrespective of where it was published. Rose argued that the attraction of publishing in a high-impact journal had less to do with broadening distribution and more to do with “public relations” and the benefit of being associated with a prestigious journal. Indeed, the scientific career incentive to publish in high-impact journals remains firmly entrenched despite a near universality of access to online journal content.

Despite the progress in scientific publishing, much of the print paradigm has been retained, and though the mode of access has changed, articles are still published in the same formal format. If online journals have not significantly altered the traditional scientific publishing paradigm, will blogging or social networking bring about any greater change? This issue may be best cast as a generational question rather than a technological one. A generation of scientists that grew up with blogging and social networking is beginning to populate laboratories around the world. Might we enter an age of live reporting of data, experiment by experiment, Twitter style?

The true power and impact of social media will be to facilitate scientific collaboration, and to allow for a more open, inclusive and instantaneous discussion of science than ever before. In recent years, social networking communities, such as Nature Network and ResearchGate, have emerged specifically for scientists. Stephen Hawking and Richard Dawkins use Twitter. Many journals now help readers share links to articles of interest with their colleagues. Some journals also allow online readers to rate and comment on journal content. One could envision a future era in which a manuscript’s aggregate rating of quality by the online scientific community replaces “journal name prestige” as the primary measure of impact. In light of these exciting developments, Hypothesis, Volume 8, has a string of special focus articles on science communication.

Science communication encompasses infinitely more than the traditional publication of data and ideas in reputed journals. As a critical influence on public policies, societal debates, personal decisions and intimate details
of our health and well-being, science communication is an integral part of a stable society. As such, the opportunities and responsibilities to accurately and efficiently communicate science multiply and diversify. We have the great pleasure of presenting, in this issue of Hypothesis, articles authored by specialists spanning the very broad range of the science communication spectrum (2-9).

Do new tools like online social networking have the potential to radically change the scientific communication landscape in the years to come? Come what may – as its founders intended – Hypothesis is ideally poised to be at the forefront of this conversation.

Hypothesis was founded in 2003 by Wissam Assaily, Bart Kus, Christina Lee, Mariano Loza-Coll and W. Wei-Lynn Wong.

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