Let me congratulate Lindsay Waters on his splendid talk to begin this forum. Today, as in his previous writings, Lindsay has challenged us to focus on aspects of academic life that we often take for granted or conveniently ignore.

Since I am the only scientist or information scientist on the program for this forum, my remarks will emphasize the relationship between the humanities and other disciplines. To begin with the conclusion: from my viewpoint, it appears that the differences between the humanities and sciences are often overstated. If we wish to differentiate among the various areas that are found in a university, the fundamental distinction is between the intellectual disciplines – sometimes called the liberal arts and sciences – and the professional, applied disciplines. If there is a crisis in scholarly communication, it is a crisis shared by all the arts and sciences.

Lindsay Waters has pointed out that the manner in which academic careers are rewarded does not merely influence publication; it determines the intellectual questions that scholars ask and how they address them. In the humanities, he bemoans the pressure to write monographs rather than essays. In the sciences, the pressure is to publish large numbers of papers every year. One would hope that the goal of scholarship and research would be to advance the frontiers of knowledge and then to publish the results in the manner that is most appropriate for the topic. The good researchers do just that, but even they are constrained by the conventions in their fields. The humanities scholar extends an essay into a monograph; a scientist publishes a highly condensed paper in a technical journal rather than a more accessible article, or writes several overlapping papers on a single piece of work.

Academia is huge. There are hundreds of universities, with hundreds of thousands of faculty, postdocs, and graduate students. In the sciences, each of these people is expected to publish several papers a year. Tomorrow, we have a session about reading in the humanities. In the sciences, outside the leading journals, most papers are rarely read and never cited. They do not advance the frontiers of knowledge.

The role of peer review is often misunderstood. At its best, peer review is a marvelous system, but in practice it often falls far below the quality levels that we would hope for. Some of the reasons are intrinsic to specific disciplines; a reviewer has to take on faith that an experiment or a clinical trial was done well. But the most serious problem is that many reviews are superficial. Because of the huge number of papers, many reviewers
have too little time to be thorough. They skim through heavy mathematics and assume that is it right, or accept that a computer program is bug free.

What about the quality of the writing, which is another of Lindsay's themes? People write for their audiences. It is reasonable that a highly technical research paper is written in terms that only other specialists will read, so long as it are well written. But in the world of publish or perish many papers have no readers except for the reviewers. Too many papers dress up some trivia in pompous terminology or heavy mathematical notation. Lindsay criticizes the humanities, but similar criticisms apply to the sciences.

Writing really does matter. A colleague uses the term "science-attentive citizens". I would consider myself a "humanities-attentive reader." In both the humanities and the sciences, we need to regain the attention of the serious reader. When politicians are proud of their ignorance of basic science, we are all in trouble. When school boards cannot distinguish between religion and science we are in deep trouble.

Lindsay used the metaphor of connecting the dots. With few exceptions, humanities monographs and scientific papers are highly specialized dots. But the attentive reader – whether of the humanities or the sciences – needs the books and articles that connect the dots. There is an archaic British term "teledon", which I will translate into American English: "tele" is slang for television; "don" is a faculty member at Oxford or Cambridge. Teledon is term of abuse: somebody who prostitutes their scholarship by making it interesting to the public. By this definition, Herodotus was the first teledon followed by most of the great humanities authors throughout history. How did we reach a situation where making scholarship or science accessible to the public has low prestige, while the almost incomprehensible paper or monograph is praised? Lindsay Waters laments on the death of newspaper criticism. I fear for the future of the New York Times science section.

One final point: we need to be explicit about money. Our universities are frighteningly expensive. Every week I talk to Cornell students who are worried about money. The situation gets worse every year. Why should students go deeply into debt to pay for what we do? The liberal arts and sciences – together with the fine arts – are the heart of our culture. But calling ourselves humanists or scientists does not give us an inalienable right to do whatever we want and demand to be paid for doing it.

Lindsay, thank you again for your stimulating remarks. Despite your criticisms, your enthusiasm for the humanities is infectious. In all the liberal arts, there is splendid work being done and academic publishing is a vital part of it.