Brief Bio and (PR)^2: Problems & Pitches – Rants & Raves by *Zvi Biener*

An Assistant Professor at Western Michigan University, I work primarily on early-modern conceptions of the unity of science and the large-scale structure of fields of knowledge. When not an academic, I work on web-related projects or code, compile, and generally make a mess with programming languages. My computer concerns mirror my academic concerns: I like thinking about how knowledge is organized in the computer age, and spend way too much time exploring database and information management technologies.

My training is in philosophy and physics, but before my current life I was a network engineer and a database designer and developer. Thus, I am quite keen on information technology independently of my academic concerns.

Besides teaching and researching, I am currently a consultant for the Philosophy of Science Preprint Archive (philsci-archive.pitt.edu). It is one of the most popular document sharing sites in the Philosophy of Science community.

Publications:

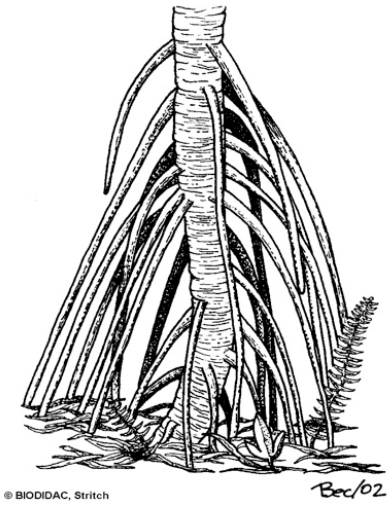
Biener, Zvi and Smeenk, Christopher (*forthcoming*). “Cotes' Queries: Newton's Empiricism and Conceptions of Matter” . In Janiak, Andrew and Schliesser, Eric (eds.). *Interpreting Newton*. Cambridge University Press.

Biener (2008) “The Unity of Science in Early-Modern Philosophy: Subalternation, Metaphysics and the Geometrical Manner in Scholasticism, Galileo and Descartes”. Ph. D. Dissertation. University of Pittsburgh.

Biener, Zvi (2004). "Galileo's First New Science: The Science of Matter", *Perspectives on Science* 12 (3): 262-287.

I am currently designing an “Intro to Philosophy” course to be delivered both face-to-face and online. It will make use of live survey taking, and, hopefully, some collaborative document and time-line creation.

As a consultant for the Philosophy of Science pre-print archive, I am also always keeping my eye open for relevant technology for document mapping and sharing.



http://www.wmich.edu/philosophy/biener/index.html

General Questions

1) What is (are) your main interest(s) in attending the workshop? and 2) What would you like to learn / achieve at the workshop?

My research concerns the development and interrelations of fields of knowledge in general and in particular their development in the 17th century. This development and these interrelations are always complex and involve a multiplicity of actors and conceptual dimensions. Technology that allows one to represent these complex interrelations---e.g., the paths of transmission of a text or the geographical/temporal incidence of certain ideas with technological inventions, political and religious parties, texts themselves, etc.---would instantly increase the worth of my own research as well as my ability to make it available to others. How can we do this? Call this the “representation problem”. Moreover, such tools would also me and others to collaborate more easily. In a sense, current academic work is limited by the fact that true large-scale collaboration is just not possible. Each academic weaves existing research into his/her own necessarily limited tapestry and is ordinarily restricted to a single medium through which his/her tapestry may be modified and expanded by others. Nevertheless, it seems possible to create tools that allow research to be presented modularly and thus to be easily combined with the research of others. For example, a map of temporal/geographical text transmission could be built by many people, each working on a single text in a circumscribed time and geographical area. The information contained in that map would transcend the knowledge of any single participant, but still be perspicacious presented to all of them. How can we do this? Call this the “tapestry problem”. My interest in the workshop is in the possibility of tools that can solve both the “representation problem” and the “tapestry problem”.

In addition, I find visual tools particularly useful for teaching. A personal anecdote: for several years now I’ve been trying to find a time-line generator that can represent temporal development along several dimensions. These just don’t exist in a mature form. In classes, however, representations of temporal development (political events, transformation of ideas, inventions, etc.) often take the bulk of an instructor’s effort. Having a tool that can convey such progression to students would be a pedagogic miracle.

3) ***If you are a philosopher of an historian of science:*** In what ways might people that study and map science benefit from your work?

I study interrelation of field of knowledge in the 17th century. Apart from raw materials that can be mapped, my work concerns what sorts of considerations need to be accounted for in a mapping of science. In particular, I believe it shows that a map of science has to be sensitive to a broad-range of concerns, some of which are not "scientific" in any modern sense. It also shows the importance of thinking about transmission, transformation, and the coincidence of certain forms of knowledge of other forms.

Please send the completed document by June 1th, 2009
to Katy Borner <katy@indiana.edu> and Mark Price <maaprice@indiana.edu>