

Metanomics from Cornell: What The Wall Street Journal Missed

by Surfdaddy Orca



Surfdaddy Orca, editor-in-chief of The Seventh Sun, is a real world surfer with a love for science and technology writing. A scientist and former Intel employee, he is a veteran of several Internet startups.

When you Google the search term “metanomics,” the first link you click takes you to a company that pioneers the discipline of Metabolic Functional Genomics, “the direct linking of genes to functions in metabolism and physiology.” If you stop there, you’ll miss links that take you to something entirely different: an emerging field of academic study that deals with the economic, legal, and regulatory issues of virtual worlds.



Metanomics Banking Policy Forum

The weekly Metanomics event series is broadcast from Second Life and can be streamed live or viewed as machinima on the [Second Life Cable Network \(SLCN\)](#).

The Metanomics series, freshly spun off from the popular [Metaversed](#) blog, is the brain child of Professor Robert Bloomfield (avatar Beyers Sellers) and Nick Wilson (avatar 57 Miles). Entrepreneur Wilson has moved on to start a new venture called [Clever Zebra](#) to facilitate the entry of corporations into virtual worlds such as Second Life. Professor Bloomfield will continue to grow the fascinating [Metanomics](#) series from Cornell University’s Johnson School of Management, where he is a tenured professor and director of Graduate Studies.

See the accompanying exclusive interview with Beyers Sellers.

A recent Wall Street Journal article, “[Cheer up Ben: Your Economy Isn’t As Bad As This One](#)” by Robin Sidel talks about the collapse of banking in Second Life, “Linden officials won’t say how

much money has been lost, but a run on another virtual bank in August may have cost Second Life depositors an estimated \$750,000 in actual money.” See the associated Seventh Sun articles for an in-world perspective on the pursuit of “[fool’s gold](#)” in virtual worlds and a description of the [ensuing panic](#).

Robin Sidel quotes Professor Robert Bloomfield, “there is not a whole lot that is fake about this [the loss of real dollars]” In the next breath, she calls the Metanomics series “a pretend television show in the online game [Second Life] about virtual economics.” But, what is “fake” or “pretend” about losing \$750,000 and then talking about the complex issues of how it happened (that is, metanomics) using the broadcast medium of streaming video and machinima?

Professor Bloomfield has a response to this, both in his interview for *The Seventh Sun*, and in a letter he submitted to *The Wall Street Journal*. Whether you’re a denizen of virtual worlds, or a Manhattan investment banker with little or no time for Internet exploration, it helps to have a little understanding of Metanomics for context.

Metanomics in a Nutshell

Metanomics, to quote Professor Bloomfield, is “the economic study of business and policy in the ‘metaverse’ of virtual worlds.” These emerging “worlds” (note the plural) should be quite familiar to readers of *The Seventh Sun*. They are actively being used for collaboration and communication by IBM, Sun Microsystems, Dr. Dobb’s Journal—along with millions of broadband Internet users worldwide—and they are being cataloged and studied by the Federation of American Scientists.

Professor Bloomfield distinguishes three ways to look at the economics of virtual worlds. Each is really a separate vantage point, and each is equally valid. First, as a virtual real estate agent or fashion clothing designer, you have one view of the world: making a living. Second, as a corporation or school, you have another view: most likely a strategic goal like communication or collaboration. Third, as a scientist or researcher, you have yet another view: the virtual world becomes a laboratory to test hypotheses.



The following definitions are drawn from an unpublished paper describing Professor Bloomfield’s activities in virtual worlds.

Immersionist Metanomics

Immersionist metanomics examines virtual worlds from the perspective of residents who pursue their economic interests. These include not only virtual world financial markets, but also other businesses as well. Examples from the series include Raven Pennyfeather, who quit her job as a mortgage compliance officer to create a very successful line of Goth and Victorian clothing in Second Life; Nyla Cheeky, a real-life designer who is extending her brand by developing copies in Second Life; and Stroker Serpentine and Temporal Mitra, who market largely to the adult entertainment industry.

Augmentationist Metanomics

Augmentationist research examines how real-world enterprises are using virtual worlds to pursue their strategic goals, and how real-world policy makers must respond. Examples from the series include Sandra Kearney, IBM’s Global Director of 3D-Internet and Virtual Business; Chris Carella, the Electric Sheep Company’s Chief Creative Officer; and Robert Gehorsam, President of Forterra Systems Inc. Some of the legal and regulatory sessions in the series deal with “augmentationist” concerns:

- “Anti-Social Contracts” with law professor Joshua Fairfield, explored the limitations of the current state of contract law in virtual worlds.
- “Taxation of Virtual Worlds” with Bryan Camp of Texas Tech University’s School of Law, explored the tax implications of virtual commerce, in both game worlds (like World of Warcraft) and unstructured worlds (like Second Life).
- “US Congress Looks at the Metaverse” with Dan Miller, Senior Economist of the Joint Economic Committee, explored the possibility that the IRS and Department of Homeland Security (and perhaps the SEC) might do something unwise in trying to regulate the metaverse.

Experimentalist Metanomics

Experimentalist research in metanomics views virtual worlds as laboratories in which to conduct research to study real-world issues in business, economics and policy. The 2008 season of Metanomics will include a number of academic researchers pursuing experimentalist agendas.

Economic Simulations and Gaming

Since the 1960s, economists have experimented with incorporating computerized economic simulations into their classes. According to Tod S. Porter of Youngstown State University, the simulations have taken three different forms in microeconomics: “optimization exercises (in which students must maximize profits or utility given some fixed parameters), exploratory environments (in which students try to identify different aspects of a simulated economy), and market simulations (in which prices are determined endogenously).”

In the case of macroeconomic simulations, these involve students “selecting policy variables to try to control inflation, unemployment, and, in most cases, interest rates.” Supporters of simulations, like proponents of classroom experimentation, argue that simulations give students the opportunity to apply economic theory, however, “there have been very few controlled studies of the effectiveness of simulations.” Porter goes on to argue that increased support by software publishers may lead to wider use of computerized simulations in the near future.

Robert Bloomberg’s paper, “[Worlds of Study](#)” outlines his views on virtual worlds as a venue for research and education in business and related disciplines. This falls under the category of experimentalist Metanomics. His Terra Nova blog explores his views on the use of virtual worlds for experimentation:

- “Studying Real-World Business in Virtual Worlds” lays out the basic goal of experimentalist metanomics—to use virtual worlds to study real worlds, rather than to use them for entertainment, or to study them in their own right.
- “The Glovebox and the Glovatar” addresses some of the difficulties of embedding controlled research games into unstructured virtual worlds.
- “Will we ever see this on a resume?” Describes his vision of certifying educational achievement in business from virtual world activities, while learning objectives are best achieved when tied to real-world (not in-world) factors of production elaborates on the practicalities of making that happen.
- “Inducing Value in Virtual Worlds” discusses the difficulties of bridging the gap between the tenets of experimental economics and the traditions of massively-multiplayer online role playing games.

- “Property Rights in Virtual Worlds” describes how commerce in virtual worlds can be implemented through the design of transferable authorities over the consumption, production, modification, transportation of world assets, and information about those assets.
- “Contracting in Virtual Worlds” discusses the possibilities of scripted contracts that allow world residents to transfer those authorities, giving rise to exceptionally complicated problems in accounting for those contractual rights and obligations.

A [Business Week](#) article gives an excellent overview of running complex experiments online.

Anime, Manga, and Machinima As Media

The Metanomics series uses SLCN TV to broadcast over the Internet (the 2D web) from the 3D virtual world of Second Life. These broadcasts are recorded as machinima, a way of capturing computer-generated imagery (CGI) that is rendered using real-time, interactive 3D engines. Here is a recent [episode](#) from the series.



Metanomics Guest Robert Gehorsam, President of Forterra Systems Inc.

Because it looks like animation rather than, say an HDTV CNN newscast with Wolf Blitzer, it might not seem as “real” as HDTV when used to convey issues like property rights, regulatory control, and contracts in virtual worlds. This does not mean that these issues are any less valid or somehow “fake” or “pretend.”

Take the example of Anime, a popular form of animation originating in Japan. According to Wikipedia, while anime had entered markets beyond Japan in the 1960s, it grew as a major cultural export during its market expansion during the 1980s and 1990s. The anime market for the United States alone is worth approximately \$4.35 billion, according to the Japan External Trade Organization.

TV networks regularly broadcast anime programming. In Japan, major national TV networks, such as TV Tokyo broadcast anime regularly. Smaller regional stations broadcast anime under the UHF. In the United States, Cable TV channels such as Cartoon Network, Disney, Sci-Fi, and others dedicate some of their time slots for anime.

In Japan, manga (comic books) are widely read by people of all ages, so that a broad range of subjects and top-



The representative styles of “classic” and “modern” anime art. —Wikipedia

ics occur in manga, including action-adventure, romance, sports and games, historical drama, comedy, science fiction and fantasy, mystery, horror, sexuality, and business and commerce, among others. Manga can also refer to animation.

Anime tends to borrow many elements from manga including text in the background, and borrowing panel layouts.

Many Japanese, and an increasing number of younger Americans, rely heavily on anime and manga to probe interesting future-probing ideas using a stylized, artistic format. There is no reason that machinima, one of the easier ways to capture events in a virtual world, cannot be used in the same way — as it is with the Metanomics series. ☸

Robert Bloomfield Responds to The Wall Street Journal

To the Editor:

I am glad to see the Wall Street Journal covering the banking crisis in the virtual world Second Life (Cheer Up, Ben: Your Economy Isn't As Bad as This One, Robin Sidel, January 23, 2008; Page A1). Having spent a good deal of time virtual world economies, I would caution that terms like “make-believe,” “game” and “pretend” obscure the nature of these new bastions of entrepreneurship.

To take one example of particular interest to me, Ms. Sidel notes that I host a “pretend” television show in Second Life. The show, called “Metanomics,” airs live on Second Life Cable Network every Monday; see <http://metanomics.net> for info).

I am not sure which aspect of the show is not “real.” The guests seem pretty real, including faculty from Stanford, Emory and various law schools; top-level executives from tech giants like IBM and virtual world developers Linden Lab, There and Forterra; and senior government officials from Congress, the Federal Reserve Bank and NASA. My audience seems real as well. The Second Life Cable Network reaches close to half of all Second Life residents, and Metanomics is nearing the top of the ratings, while appealing to a pretty desirable demographic of entrepreneurs and academics. This has made the show seem real enough to our sponsors, who include Sun, Cisco Systems, SAP, Saxo Bank and Generali Group.

Are we providing real insights into the future of business and policy in virtual worlds? Tune in and decide for yourself.

Robert Bloomfield
Professor of Accounting
S. C. Johnson Graduate School of Management,
Cornell University