What Should Atomic and BITonic Learn from Each Other?

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We are in the midst of a journey. We are moving from an atomic world, where physical stuff is critical to a bitonic world where things made of bits are critical. The atomic world is not going away. It is here to stay. The atomic world is augmented by a bit-like, digital, often called virtual artifacts. As researchers our goal is to connect the two. Facilitate learning from one setting to another. At the forefront of this learning we find the legal and governance perspectives.

In my mind, these “legal and governance challenges” highlight at least three points about (a) the maturity of our field, (b) the special legal perspective on virtual worlds and (c) the early stage of our work (and yes, there is a bit of a contradiction with the first point). Let me elaborate:

**Maturity** – The introduction section by the editors (Melissa de Zwart, Dan Hunter, Greg Lastowka – and let me thank them, and especially the main editor Melissa, for a smooth ride in making this issue) depicts a 10 year advancement of legal thinking about bitonic virtual worlds. What began as an esoteric discussion about legal issues in games, have moved into real legal battles about virtual goods. As you examine the issue, you can get a good sense of a field that uses past discussion to advance new issues.

**Legal Perspective** – The challenges that we met in the bitonic virtual worlds glided into the atomic worlds as the difference between atomic and bitonic worlds started to blur. As technologies like Augmented Reality and Glass emerge, we need to examine the definitions and meaning of Avatars, a modified WOW sword, and a re-mixed YouTube movie. We are celebrating 10 years of legal thinking about virtual worlds. What seemed like basic research at the time (for example about virtual money), is now a tax issue (with BitCoin). What seemed like a pure theory (e.g., anonymity) is now CNN news (e.g. Snowden, in Wikipedia). What affected millions of users in a game (e.g., World of Warcraft), now affects more than a billion users (e.g., Facebook).
**Early Stage** – What is “atomic” and what is “bitonic”? I am not sure there is a clear answer (See for example Negroponte, *Being Digital*, 1995). I am sure that the ratio between atomic and bitonic is changing. We are spending more and more time in virtual worlds (including Facebook, twitter, and the likes); More and more work is being done in virtual worlds (including Skype, WebEx, and Google Drive); we augment our life with virtual lends (from smart phones, to tablets, to watches and glasses); more of what we produce and do results in virtual artifacts (including this issue, the course that I was teaching in HKUST a day ago, and the 3D design that may or may not be printed – finally a real item).

To fully support the link between the atomic and bitonic I would like to invite you to our real atomic event in Milan, Italy, on December 16, 2013. We plan to have an engaging workshop including live demos of Google Glass, Oculus Rift; talks by researchers in the field, and social connections with colleagues and friends. For details see [JVWR site](http://jvwresearch.org). We look forward to seeing you there.

### References
