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Toward the Futures of Real AND Virtual Worlds

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This issue presents six papers each reflecting on one angle to the future of virtual worlds.

We cover four concrete views relating to bots, head mounted displays (HMD), neuroscience and meditation, and eSports; as well as two theoretical views relating to the focus of virtual worlds research, and looking at virtual worlds as a mediator between "technology trends" and the "digital transformation of society and business."

Before we present these six papers, some background about this special issue.

This year (2015), the Journal of Virtual Worlds Research (JVWR) celebrates its 8th year anniversary. In 2008, when Jeremiah Spence founded the JVWR, the excitement of a flexible, user-generated world was high. It seemed that the world of Second Life had taken years of hardware, software, and social-ware experience to a new level; that it will "change" the real world.

Let us consider if and how the world has changed from 2008 to 2015 (See Table 1).

Table 1: Changes from 2008 to 2015 along the four factors of 3D, Community, Creation and Commerce

Year / Factor	2008	2015
3D	Screen with 3D presentation.	Augmented reality with Google Glass and Oculus Rift.
Community	Users, business analysts and academics alike, used to be at awe because Second Life had millions of users (and there are criminals in the form of Grievers in virtual worlds).	Facebook, as one virtual world AKA social world, has almost 1.5 billion monthly active users (Statista, 2015) (and Cyber criminals are attacking firms.)

Year / Factor	2008	2015
Commerce	Commerce was done virtually using virtual money like the Linden Dollar or IMVU credits.	Commerce is done with a fingerprint via e.g., Apple pay. In some areas of the world like China, the default buying is done via a virtual store. Bitcoin (and other virtual currentices) are used as payment method for real goods.
Creation	Cars, shirts, houses etc. are being created by semiprofessional users.	People are 3D printing their own outfits and objects.

Alas, much has changed. The 2015 common notion of virtual world(s) development ("more graphics, more visual, more inside the computer") did not forecast the actual development. In actuality, from the point of view of 2015: **the virtual is becoming the real and the real is becoming the virtual**.

It seems that the term "virtual worlds" as a key term for an academic domain, needs to evolve.

Thus, in early 2015 it was time for us, as an academic journal, to take an "academic sabbatical" to define the future of our journal in light of the possible futures of both worlds (real and virtual). Of course, this was an active Sabbatical where we grappled with several questions that revolve around the nature of the field, asking how we best advance JVWR as an academic journal.

As part of our sabbatical we:

1. Published the Handbook on 3D3C Platforms: Applications and Tools for Three Dimensional Systems for Community, Creation and Commerce (with Springer,) as a summary of the field's state of the art that concluded the work we did in the 2014 with the Lantern issues (JVWR issues 7:1. And 7:3).

2. Examined the emerging nature of academic publishing asking questions like:

    2.1. Do we need to move away from the term "Virtual Worlds"? What will be the term we use?

    2.2. Do we serve academics? Industry? R&D? Users? Developers?

    2.3. Do we want to publish less or more?

    2.4. What are the relations between the journal, the site and the community (Facebook, LinkedIn, newsletter etc.)?

    2.5. Should the business model be changed? How to pay for the production and editing: Connect with a publisher? Sponsorships? Conferences?

3. Presented the call that generated this special issue on "futures."
    http://jvwresearch.org/index.php/component/content/article/10-cfps/67-cfp-futures

The call generated 41 proposed papers. Of them we chose six for a rigorous peer double open review. Each paper was reviewed by 2-3 reviewers as well as overall review by the editor in chief. We find the results appealing:

1. **Three Real Futures for Virtual Worlds** by Tom Boellstorff postulates three theoretical affairs with regard to the future of virtual worlds (and thus our research on virtual worlds). First, the false opposition between "virtual" and "real" fails to capture the many ways virtual worlds are real (and the many ways that not everything in the physical world is real). Second, virtual worlds are valuable to study regardless of their size. And third, virtual worlds share features with each other and with other online socialities, but also have specific aspects that

differ; studying both these similarities and differences is valuable to comprehensive and comparative research.

2. **Is a Technological Singularity Near also for Bots in MMOGs**? by Stefano De Paoli offers some reflections on the possible future of bots in Massively Multiplayer Online Games (MMOGs). The paper starts by briefly introducing the notion of Technological Singularity as the advent of a super-intelligent Artificial Intelligence that could threaten human existence. Assuming that bots are rudimentary forms of Artificial Intelligence that also pose a threat to MMOGs and their players, the paper presents some evidence-based trends of the future evolution of bots and the implications of these for Virtual Worlds research.

3. **Conceptualizing Factors of Adoption for Head Mounted Displays: Toward an Integrated Multi-Perspective Framework** by Ibrahim Halil Yucel and Robert Anthony Edgell who used a literature review and discourse analysis approach to conduct exploratory research, thus contribute a conceptual HMD framework which includes diverse adoption factors from each of three differing perspectives: producer firm-level, general product-level, and HMD-specific.

4. **Being There: Implications of Neuroscience and Meditation for Self-Presence in Virtual Worlds** by Carrie Heeter and Marcel Allbritton describes how discoveries in neuroscience show that the human brain and body work together to experience and evaluate emotions and thoughts, and to create a felt sense of presence in the material (or virtual) world. The authors explain how presence is a dynamic, ongoing internal process that is the active result of sustained directed attention.

5. **The eSports Trojan Horse: Twitch and Streaming Futures** by Benjamin Burroughs and Paul Rama argues that one potential future in gaming and virtual reality can be found in streaming media and technology. The streaming space of Twitch.tv is both "real" and "virtual", blurring the boundaries between the game space, social networks, and face-to-face communication. Streaming ruptures a hard distinction between the real and virtual worlds. Scholars of virtual spaces need to take seriously streaming media as a site of research, and the affordances of streaming as networked, mobile, and curated. Twitch represents a space for unpacking the social and commercial realizations of an emergent streaming culture.

6. **The Metaverse as Mediator between Technology, Trends, and the Digital Transformation of Society and Business** by Sven-Volker Rehm, Lakshmi Goel, and Mattia Crespi discusses the potential of recent developments in virtual worlds for offering novel value propositions for the digital transformation of society and business. In particular, the authors examine the role of virtual worlds and outline how current technology trends can be linked with high-value added application scenarios, through the Metaverse as a mediating design space.

On the next year (2016), we plan to continue our work, based on the insights gained in our thinking this year. We are committed to advance the state and purpose of real and virtual worlds' research. Stay tuned and follow our site, where we call for papers, issue editors, and general participation in designing the future of our world.

Note: The best way to follow is to be on our mailing list. If you are not a member of the JVWR-list yet, register in our web site and join. We email a maximum of one email per week. Another way to connect with us is to join our Facebook community see www.facebook/thejvwr or twitter @thejvwr.

References

Statista (2015, October 30). Number of monthly active Facebook users worldwide as of 2nd quarter 2015 (in millions). Retrieved from http://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/