Immersive Internet Storytelling Series, Issue #4

Gathering Insights via 3D Brainstorming

ThinkBalm Innovation Community Looks at Future of Journalism

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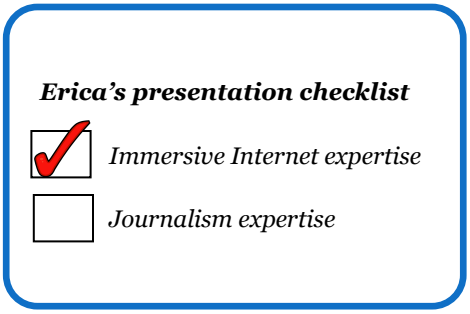
Presentation Prep Requires Insight Gathering

Historically, journalists would go to a location and take notes about the scene or event or would interview people with relevant information, perhaps writing with a pencil in a ringed notebook. They would then return to the office to write the story. Nowadays, journalists use computers to write and mobile devices to collect and evaluate information. They have access to a wide range of tools to help them, including Google search, Wikipedia, email, blogs, wikis, and social networking tools. How will the Immersive Internet change all this? How will today's journalist move on to take advantage of the next generation of technology and tools?

One of the ThinkBalm principals — Erica Driver — is delivering a presentation in early April about how the Immersive Internet (e.g., virtual worlds and campuses, immersive learning environments and 3D business applications) will change the way work gets done. This is a topic on which ThinkBalm principals have presented many times. What makes this talk different from the others? The focus of the meeting where Erica is speaking is the Virtual Journalism Summit, being held by The Edward R. Murrow College of Communication at Washington State University in partnership with the McCormick Foundation. The event is dedicated to exploring the influence of the Immersive Internet on the practice of journalism — journalism not exactly being ThinkBalm's core area of expertise.

The objective of this issue of the ThinkBalm Immersive Internet Storytelling Series is to paint a picture of the future of journalism, as affected by the Immersive Internet, while using the insight gathering process as a vehicle for demonstrating how work will change. This report is both a take on the future of journalism from the perspective of Immersive Internet advocates, implementers, and explorers, and a discussion about how 3D brainstorming can aid in support of development of ideas and presentation content.



The two ThinkBalm principals, Erica and Sam Driver, along with the 250+ members of the ThinkBalm Innovation Community, have collectively participated in dozens of 3D brainstorming sessions both as members of this community and in various other settings. Community members work in a wide variety of business sectors and some are, or have been, members of the press. This team brings a vast array of experiences to any discussion about how the Immersive Internet will change not only the way work gets done, but also what the broader socio-cultural implications are for this new technology. Having been asked to present at the Virtual Journalism Summit, we convened members of this distinguished group and conducted a brainstorming session.

We could have held this brainstorming event in a variety of ways. Most of us have been trained to think that the best option would be a face-to-face meeting. But this isn't always practical; it certainly wasn't in our case. So the alternative was to use technology, and most of the technologies available to us would have failed us in one of two important ways:

- **Asynchronous collaboration tools can be energy sinkholes.** A vibrant discussion about a forward-looking topic like the effect of the Immersive Internet on journalism requires concentration and a burst of energy. We could have collected insights from community members asynchronously by setting up a wiki, soliciting comments on a blog post, or starting a discussion thread on the community Web site. But asynchronous modes of collaboration just don't compare to the flow of energy you get when you put a bunch of smart people from different backgrounds in a room together and encourage them to bounce ideas off each other. Not even close.

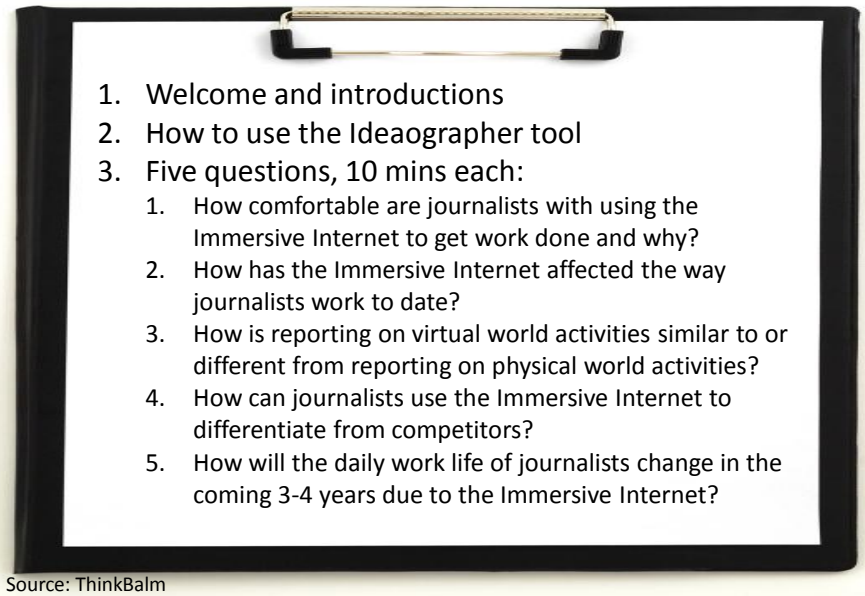
- **Most real-time collaboration tools tax the ability to concentrate.** Community members could have assembled via Web conference (for the screen sharing capability) and phone or could have used a real-time collaborative text editing tool. But what's compelling about getting on the phone with a dozen and half people and trying to generate ideas? Not all that much. These synchronous modes of collaboration don't give participants the feeling of being together in space as well as time. Each person would be taking separate notes, if taking notes at all — unless we used something like EtherPad, in which case up to 8 of us could have taken notes in the same online document simultaneously. Our concentration would be taxed by talking, listening, trying to discern who is speaking, reading notes, and trying to fit our thoughts into a hierarchical and linear structure. Video conferencing would have helped us feel more like we were together but couldn't have worked, given the resources we had, as we were in 17 different locations.

THE SOLUTION: BRAINSTORMING IN 3D

On February 6, 2009, seventeen members of the ThinkBalm Innovation Community assembled for an event called "Brainstorming Session #5: Impact of the Immersive Internet on Journalism." We brainstormed five questions for 10 minutes each, ranging from, "How comfortable are journalists with using the Immersive Internet?" to "How can journalists use the Immersive Internet to differentiate from competitors?" (see Figure 1 for the agenda). We met in an immersive environment — an "Idea Globe in the sky" that community member Leslie Ehle created for us in Second Life (SL).

Our objective was to generate and record as many relevant, insightful ideas as possible in an hour's time. Each participant was represented by an avatar. We used voice over IP (VoIP) and text chat to communicate. We also used an interactive, collaborative, 3D mindmapping tool that ThinkBalm Innovation Community member Jeff Lowe created, called the Ideaographer (see Figure 2 and Figure 3). All participants could add nodes to a 3D mindmap, in support of the brainstorming activity.

Figure 1: Agenda for ThinkBalm Innovation Community brainstorming session "Impact of the Immersive Internet on Journalism"

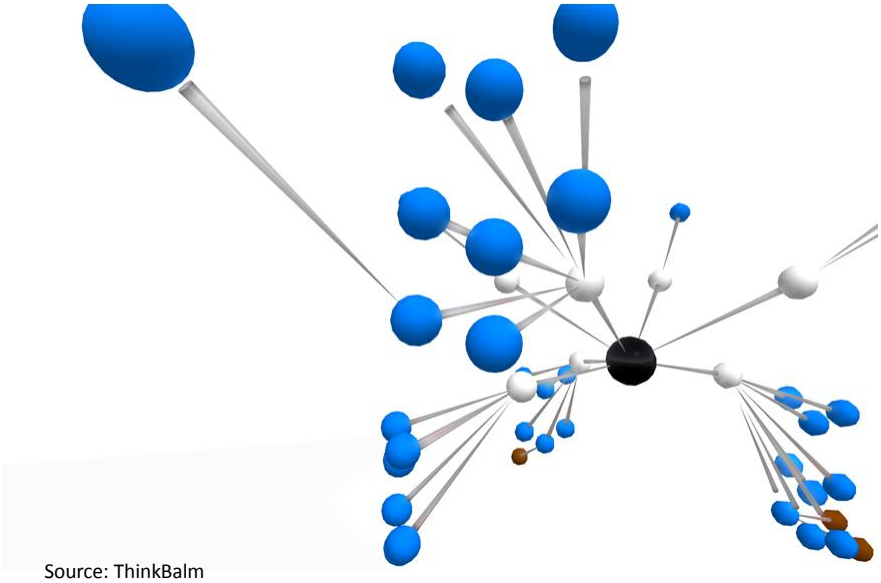


Source: ThinkBalm

Figure 2: Group snapshot in front of completed 3D mindmap

Source: ThinkBalm

Figure 3: The completed 3D mindmap for "Impact of the Immersive Internet on Journalism" brainstorming session, minus text labels



Source: ThinkBalm

Key Finding #1: Immersive Internet Presents Multiple Barriers to Adoption

The first question we discussed was, "How comfortable are journalists with using the Immersive Internet to get work done and why?" While we didn't conduct a scientific experiment to prove it, the general consensus was: not very. ThinkBalm's take is that work-related use of the Immersive Internet in general is still in the "innovator" stage of adoption.[1] So it's not surprising that it seems most journalists, even those who sometimes report on virtual world activities and events, don't use immersive technologies for work. In our view, this is to be expected because:

- **Most people aren't technology innovators or early adopters by nature.** While a small subset of the population gets great joy out of trying the latest and greatest new technology, they aren't the norm. The vast bulk of the human population falls into the "early majority," "late majority," or "laggards" categories. One of the hurdles is that even if a cutting-edge journalist uses immersive technologies to create or deliver work product, his or her sources and audience might not have the skills to engage in this way.

- **The Immersive Internet is a new experience for most people.** People who play massively multiplayer online role-playing games, or spend time in virtual worlds, have experience interacting with others in 3D space where people are represented by avatars. In many ways, this is a very different experience, requiring new skills, compared to interacting with people face-to-face or via phone, Web conference, or video conference.

- **Non-verbal communication works differently in immersive environments.** People who conduct interviews for a living are trained to pay attention to other peoples' emotional responses. Avatars don't communicate emotion the way humans do, with facial expressions and body language. Until desktop motion-capture technology matures, which will allow avatars to mimic peoples' head movements and facial expressions, people in immersive environments communicate emotion via their voices, conscious choice of avatar gestures, and text chat (including emoticons).

- **Proficiency in immersive environments takes training and practice**. Because the Immersive Internet is so new (with dozens of competing technologies, each with different navigation mechanisms, account setup process, and avatar-selection procedures), it presents a troublesome learning curve. To experiment with immersive technology, journalists need to install and run the appropriate client software, create a user account, configure their VoIP, select an avatar, and learn to navigate in 3D space. At the end of all this, in order to conduct an interview or participate in a meeting, they then have to convince others to jump through the same hoops. Training is paramount.[2]

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[1] For more insights on the state of Immersive Internet adoption in the enterprise, see the November 17, 2008 ThinkBalm report, *The Immersive Internet: Make Tactical Moves Today for Strategic Advantage Tomorrow*.

[2] For more suggestions on what to include in a training program for new Immersive Internet users, see the February 24, 2009 ThinkBalm report, *ThinkBalm Storytelling Series Issue #3: How To Give New Users A Good First Experience*.

On an encouraging note, Rita J. King of Dancing Ink Productions said, "I am personally extremely comfortable in virtual worlds as a journalist. I was an investigative reporter covering physical-world issues such as the energy industry and post-Katrina corporate profiteering when I discovered Second Life in November of 2006. My initial feeling, on the ride home from hearing about SL, was, 'How can anybody even consider creating an avatar and messing around in a virtual world when there's so much that needs attention in the physical world?' But then I discovered a Muslim woman in a Jewish synagogue and the global implications were immediately clear. I often joke that I jumped from Pac-Man to SL. I am not a gamer, but I jumped right in and I now think virtual worlds are one of the greatest tools available to modern journalists."

Key Finding #2: The Immersive Internet Will Change the Face of Journalism

Credibility with new technology arises out of experience. One of the takeaways from the ThinkBalm Innovation Community brainstorming session is that by embracing immersive technology, journalists will be able to create a cutting-edge and tech-savvy persona, thereby setting themselves apart from the pack. With this technology, journalists will be able to tell stories visually and in 3D. They'll be able to conduct interviews using visually stimulating virtual sets. Participants in the brainstorming session foresee journalists using the Immersive Internet during the next 3-4 years for:

- **New and improved real-time conversations.** Our brainstorming session is a good example of how immersive environments can add value to real-time discussions and the process of gathering insights. Seventeen people located in as many different places in Europe, Asia, and North America gathered in a single, virtual place. All being in the same place, we continuously felt each others' presence. We used multiple, simultaneous channels of communication — voice, local text chat, private instant message, and the Ideaographer tool — which lead to a rapid-fire flow of ideas. As immersive technologies become easier to use during the next few years, they will begin to augment or may even start to replace conference calls and other forms of real-time collaboration technology, because they create a sense of being together not just in time, but in space.

- **Conducting interviews.** Traditionally, journalists conduct interviews in person or via phone. Sometimes interviews take place in front of a camera. As more people become users of virtual worlds, more interviews will be conducted "in-world." Journalist and interviewee will be represented in an immersive environment by avatars or with video. ThinkBalm Innovation Community members Tish Shute of Ugotrade and Rita J. King of Dancing Ink Productions already conduct many of their interviews in this fashion. Conversations that take place in immersive environments can be in the form of voice or text chat and can also be conducted in spaces designed for particular purposes. Interviews can be recorded much the same way as video interviews and then turned into machinima or used in multimedia videos.

  A familiar environment may be created to put an interviewee at ease, or to provide an appropriate backdrop — such as a street scene of London during the Blitz for an interview with a British WWII historian. An interviewee might walk the journalist through a recreation of a neighborhood while commenting and reminiscing and reflecting. Some interviewees, particularly more introverted ones, may find comfort in using an avatar rather than being face to face with

an interviewer. Also, a journalist could arrange for interviews, both one-on-one and in small groups, which might not be able to occur otherwise. Imagine Israeli soldiers, Palestinian Hamas fighters, and civilians from various countries in the Middle East coming together for an interview, protected by the anonymity of their avatars. On the flip side, though, source vetting may be a major issue. It is all too easy to create alternative and even false identities on social networking sites and in virtual worlds. Journalists have to be able to trust their sources and the anonymity of virtual worlds can pose a problem.

- **Reporting on immersive events.** Sometimes, an immersive event will accompany an in-person physical-world event. An example is the 2009 Defense GameTech conference, which took place in March of 2009, or the April, 2009 Virtual Journalism Summit. Some presentations take place in an immersive environment while others take place onsite in a meeting room. The two were blended together using streaming media and traditional audio/visual technology. Other events are all-virtual, like Clever Zebra's vBusiness Expo. As more conventions, trade shows, seminars, press conferences, and other events are held virtually, journalists covering them will need to go where the action is. This may mean staying at the desk and attending virtually.

- **Storyboarding.** Many situations call for a storyboard that displays consecutive images of desired shots. While these are normally employed by television shows, films, and commercials, news editors often like to establish shot sequences prior to an event. Normally this process involves special artists and an outlay of valuable time. In an immersive environment, however, a storyboard, using an appropriate environment peopled with avatars standing in for the people taking part in the event, can be set up quickly and inexpensively. Snapshots taken in this environment can be used to create a storyboard.

- **Rehearsing for difficult or dangerous conditions.** The Immersive Internet allows video and television journalists the chance to rehearse logistical procedures (such as inserting camera crews into small or dangerous locations) by recreating conditions in a virtual setting. This may be far less expensive than an actual on-site rehearsal — if an on-site rehearsal is even possible. The crew can run "what-if" scenarios in a virtual environment to improve their procedures or rework the logistics of an event.

- **Enhancing audience engagement.** Journalism has already become a two-way conversation between journalist and audience due to the prevalence of the Internet and mobile devices and the advent of Web 2.0 technology (e.g., blogs, wikis, and social networking). The Immersive Internet will give journalists yet another way to engage their audiences more directly — think of it as a call-in program on steroids. Immersive environments will also allow media and production companies to create all kinds of visual, interactive experiences that add new layers of engagement and entertainment to the telling of a story.

- **Delivering more or better information with augmented reality.** With augmented reality, in which the physical world is overlaid with computer-generated graphics or data, journalists will be able to communicate rich information in new, innovative ways. Think about how meteorologists on television use augmented reality to show the audience storm patterns and temperatures, and sportscasters use on-screen drawing tools and virtual markers to communicate information to

viewers during broadcast football games. These approaches will also be deployed by journalists using immersive technology.

Conclusions and Recommendations

The event "Brainstorming Session #5: Impact of the Immersive Internet on journalism" was one of many ThinkBalm Innovation Community brainstorming sessions. We've gained a fair amount of practice and have some lessons to share. We also have one recommendation specific to journalists:

- **Journalists: start experimenting with the Immersive Internet now.** By experimenting with immersive technology, journalists can enhance their reputation as being cutting-edge and tech-savvy. The technology not only provides a means to tell stories in a visual fashion, but to do so in three dimensions. You can conduct interviews using visually interesting virtual sets. Keep questions in mind, like: Could you operate at lower cost and less obtrusively in immersive environments, where you don't need a whole camera crew, compared to more traditional methods? Can the Immersive Internet provide you with access to people you might not be able to access using more traditional media?

- **A 3D brainstorming session is a great way to collect insights, but requires training.** 3D brainstorming sessions are useful for collecting insights from people located in disparate geographical locations. These sessions can provide an engaging way to bring people together for a brief, high-energy, collaborative session. Gathering insights in preparation for a presentation is just one use case; this mode of collaboration can be used in almost any job focused around getting and giving information — like teachers, counselors, mentors, and customer service reps. Success, however, assumes that participants know how to use the immersive environment prior to engaging in the brainstorming session, which can be a major undertaking in itself.

- **For brainstorming, segment the available time into 10-minute slots.** The ThinkBalm Innovation Community's early brainstorming events were structured as free-flowing conversations about an issue with which one participant was wrestling. We've improved our process. During the last few brainstorming sessions, we prepared specific questions in advance of the meeting and limited the time for discussing each question to 10 minutes. We're not draconian about it — if a great conversation is under way we'll let the clock tick an extra minute or two. But sticking to the agenda helps participants stay focused and engaged.

- **Use an interactive brainstorming tool.** We've used a variety of interactive brainstorming tools at community events. We've used the Ideaographer; the beta version of IBM Sametime 3D; a whiteboard in Qwaq Forums; and EtherPad in tandem with ReactionGrid for shared note-taking. Using an interactive brainstorming tool gives people something productive to do while they are listening and talking. It provides a visual focus to stimulate thinking. It creates an additional avenue for communication. And, finally, it helps with the creation of an artifact from the meeting, which can then be distributed to participants and used as the basis for follow-on work. Just keep in mind that interactive brainstorming tools require training for people to be able to use them comfortably.

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About The Authors

Erica Driver

Erica Driver is a co-founder and principal at ThinkBalm. She is a leading industry analyst with nearly 15 years of experience in IT. She is quoted in mainstream and industry trade press, including *The Wall Street Journal*, *The New York Times*, the *Boston Globe*, *CIO*, and *Computerworld*. Prior to co-founding ThinkBalm, Erica was a Principal Analyst at Forrester Research, where she launched the company's Web3D coverage as part of her enterprise collaboration research. She was also the co-conspirator behind Forrester's Information Workplace concepts and research.

While at Forrester, Erica served as a strategic advisor to a wide range of clients, including Alcoa, Bell Canada, Dominion Resources, GlaxoSmithKline, IBM, Marriott, Microsoft, Raytheon, Roche, the United Nations, and the U.S. General Services Administration. Prior to her tenure at Forrester, she was a Director at Giga Information Group (now part of Forrester) and an analyst at Hurwitz Group (now Hurwitz & Associates). She began her career in IT as a system administrator and Lotus Notes developer. Erica is a graduate of Harvard University.

Sam Driver

Sam Driver is a co-founder and principal at ThinkBalm. He is an inventor and entrepreneur whose take on the Immersive Internet is heavily influenced by science, game theory, and science fiction. At the University of Massachusetts Medical School, Sam was part of a team that discovered RNA interference (RNAi), which was awarded the 2006 Nobel Prize in Physiology and Medicine. He founded QIK Technology to develop intellectual property (IP) holdings in functional genomics and co-founded a small Rhode Island-based residential real estate investment partnership. Sam also founded and operates Evil Minions Games, an IP and product development company, established and runs a regional gaming organization, and is an instrument-rated private pilot. Sam earned his BS at Ohio Wesleyan University and a Masters in genetics from the University of Massachusetts Medical School.

ThinkBalm Innovation Community Contributors

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About ThinkBalm

ThinkBalm offers independent IT industry analysis and strategic advisory services. ThinkBalm was established in June, 2008 and is headquartered in Rhode Island, USA.

- **Our research area: enterprise use of the Immersive Internet.** For technology marketers and Immersive Internet advocates, implementers, and explorers, ThinkBalm offers research and analysis and custom strategy consulting focuses on enterprise use of the Immersive Internet. This includes virtual worlds and campuses, immersive learning simulations, and 3D business applications.
- **We operate the ThinkBalm Innovation Community.** ThinkBalm operates the ThinkBalm Innovation Community, a collaborative community with the mission of propelling forward enterprise use of the Immersive Internet. The ThinkBalm Innovation Community runs on Spigit's InnovationSpigit™ enterprise innovation management platform.
- **We deliver ThinkBalm Strategic Community Consulting for Spigit™ customers.** This consulting and advisory offering helps InnovationSpigit project stakeholders with the strategy around community development, management, and best practices.

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