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This interview is excerpted from a series we conducted in early 2010 with Brian J. Moriarty, Professor of Practice at Worcester Polytechnic Institute (WPI). Moriarty has been developing games for the better part of 30 years, and has worked for Analog, Infocom, LucasArts, Rocket Science, Mpath, Hearme, Skotos Tech, and ImaginEngine. He has produced a host of critically and commercially acclaimed titles, including Wishbringer, Trinity, Beyond Zork, and Loom, which earned MacWorld’s Adventure Game of the Year in 1990.

How did you come to work in the game industry?

In 1978 I graduated from college with a degree in English. My first job was as a clerk at a Radio Shack store in downtown Worcester, MA – less than a mile from WPI. While working at the store, I met a clerk at a nearby store named Lee Pappas. We became friends. Eventually I left the Shack, and after a few years of odd jobs, ended up as a technical writer at Bose Corporation, the hi-fi company. In mid-1981, one of the marketing people at Bose brought an Atari 800 to work to use VisiCalc. During lunch, he played Star Raiders. Once I saw that, I was hooked. I decided to buy an Atari, and went looking for a dealer. The only one nearby was in Cherry Valley, west of Worcester. It was a little store co-run by my old friend Lee from Radio Shack! Lee had also started a ‘zine devoted to the Atari computers. It was called ANALOG – Atari Newsletter And Lots Of Games. I bought my Atari there, and started contributing articles to the little newsletter, which suddenly grew into the world’s biggest Atari magazine. Eventually Lee asked me if I wanted to join the magazine as an employee. Mr. English Major was happy to accept. I took a huge cut in pay, left Bose and joined ANALOG, becoming its Technical Editor. I wrote dozens of articles and reviews over the course of a year, and also wrote and published two full adventure games in the magazine: Adventure in the 5th Dimension (written in Atari BASIC with a little assembly) and Crash Dive! (written entirely in assembly). Though the games were dreadful, they did provide me with some game-writing credentials, which came in very handy when I learned that Infocom, the text adventure company located in Cambridge, MA, was looking for an engineer. I applied and got the job in February of 1984. I wasn’t a game author at first, I was an engineer, writing and maintaining game interpreters for various home computers. In summer of ’84, an opening came up for a game designer, or "Implementor," as they were called at Infocom. I had established good relations with the other Implementors, and was accepted into the magic circle. It also helped that I was lucky: my first Infocom title, Wishbringer, was released in summer of ’85 and was a very big success. It came right on the heels of Infocom's adaptation of Douglas Adams' The Hitchhiker's Guide to the Galaxy. The dealers loved Infocom, and featured my game prominently. Plus,
it was designed for beginners. I went on to publish two more titles with Infocom, *Trinity* and *Beyond Zork*, and also did a bit of work on Adams' *Bureaucracy*.

**What was the industry like when you first started?**

It was totally different then. The industry was much smaller, and consisted mainly of a couple of big companies like Atari, along with dozens of little developers. There were no schools. Everyone was self-taught. Most games were made by a single person, who acted as designer, programmer and debugger. The games were very time-consuming to write. A smallish game like *Wishbringer* required nine full-time months of 50-60 hour weeks. *Trinity* took 13 months, with some weeks at 70 hours.

I always marvel that *anything* good gets made by the large teams of today. Pixar is a kind of miracle.

To me, the creative process is a deeply personal thing. Bringing a vision to life is so fraught with danger, I can barely trust myself to do it well. Expecting a team of others to buy into a solitary vision and express it faithfully is just asking too much of people. Peter Jackson's vision of *Lord of the Rings* wasn't Jackson's. It was Tolkien's. Jackson had the wisdom to impress his team with the magnificence and validity of that vision. Bringing a large artistic vision to life requires a gift for visionary management that I simply do not possess. I learned this the very, very hard way on a game I created with Spielberg called *The Dig*. And that was, by today's standards, a very small team, maybe a dozen people! Some people have that gift. Will Wright has it (though it faltered a bit in *Spore*). Sid Meier has it. Some film directors like Cameron and Miyazaki have it. Pixar has it.

**Do the talents necessary for expressing this vision in the game medium differ from those required by film or television?**

Yes, because film and television are much more predictable disciplines. The risk is easier to gauge. A good studio can take a script and break it down using industry-standard methods and data to produce a reasonably accurate schedule and budget. They can then make a reasonably good bet as to whether or not the investment is likely to pay off, or if they're willing to gamble anyway. That is the huge advantage they have. *They can gamble thoughtfully*. They can place a bet on a film like *Avatar*. It's all a gamble, but they know the odds. On a game, everything is much more uncertain. Technology nearly always needs to be developed, and this is risky.

**And yet, the game industry relies heavily on schedules, milestones, factory management, asset management software, multiple levels of personnel oversight, and so on. These seem like very scientific ways to organize the chaos.**

Yeah, I've used that software. It assumes you have a producer who knows how to create a proper asset list and schedule it accurately. This is practically a science in the film business, but in games it's more like voodoo. Now throw in new technologies, ever-changing upper management, and a constantly shifting competitive atmosphere that requires sudden strategic shifts...chaos. Of course, movies have these challenges too. But the basic time and money requirements are *well known*. There are big books containing the union pay scales.
I am always encouraging my students to be entrepreneurial and small-team-oriented. I feel sorry for the ones that will end up in the big studios. They will probably be among the 50% of the people who enter the game business and leave it within 5 years (much like public schoolteachers). I want to prepare my students for the digital media that don’t exist yet, just as computer games did not exist as a commercial enterprise when I was in college. They think they want to make computer games now. I thought I wanted to be an art major.

**Could you talk, then, a bit about how game scheduling and budgeting works?**

Schedule and budgeting happen differently at different kinds of game companies. B-title publishers have it easier. Everything they do is based on one of two dates: next Christmas, or the release date of whatever movie/book license they're exploiting. If they miss that date, they fail. A B-game that comes out after Christmas, or after the movie date, might as well never have been made. So they work backward from that date, estimating how much game they think they can get in the time allowed. On the other hand, B-titles cost much less than A-titles, so less is at stake. There is no pretense of being innovative. A-titles are much trickier. The stakes are much higher, and quality matters much more. It's suicide to release an A-title too soon (though it still happens, obviously). Release dates and actual budget are in flux. But for a real A-title, like *Starcraft II*, release date is almost immaterial. It can come out any time if it's awesome. That is what really distinguishes an A-title. B-titles need Christmas, when parents buy games indiscriminately. Of course, if you can hit both A-level quality and Christmas (like the latest *Super Mario* game), you're smiling.

Keep in mind that there are A-brands, and there are A-games. Sometimes they coincide, but not always. *Avatar* ought to be an A-brand, but the game is hardly an A-game. Of course, an A-game can create an A-brand (e.g., *Starcraft*). If a great or interesting game or film is released, players and moviegoers seem quite able to find it.

**Getting back to the notion that the early game industry was considerably smaller and more intimate than the industry of today, how did you handle the challenge of multi-platform development then?**

Infocom had a very advanced development platform, based on a DECSYSTEM-20 mainframe. We had more computing power than most 3rd-world countries at the time. In fact, Infocom had created one of the first microcomputer implementations of a virtual machine. The only other company doing that was Microsoft. So, basically, we would write the game only once, in a Lisp-like language called ZIL. Then we would write a small interpreter program for each target computer. One for the Apple II, one for the Atari, one for the PC, etc. Once an interpreter for a target machine was written, the entire Infocom catalog became instantly available for that platform. When the Macintosh was first released, Infocom was one of the first companies to publish games for it. Our whole catalog was available, all at once, just a few weeks after the machine became available. The games did very well as a result. This platform-agnostic strategy meant that we were able to cover every base at a time when the market was in great flux. However, that competitive advantage only worked as long as it was all text. Once graphics began to take hold, interest in text adventures died very quickly. There were only three of four really good years for the text adventure
medium. But those were magical years. I like to compare them to the heyday of radio
drama. An art form was born, developed to a high polish, and then swept away by
changing technology. They were very important and influential games. Many basic
concepts of interactive narrative appeared first in those titles.

**It sounds as if you are making a distinction between the art form of the text
adventure game and the art form of the graphical game. Are they in fact
different arts?**

They are obviously related by their interactivity and narrative elements, but the
aesthetics are completely different, and so are the practicalities of production. One
person can create a substantial interactive text, but it takes an army to make most
computer games now. I do see interactive prose (my preferred term) as a separate
art form, just as radio drama is its own distinctive medium.

Computer game development is evolving very rapidly. While it's true that big-budget
console games require huge teams, several years and millions of dollars to create,
tools are evolving to the point where very interesting and significant work can be
produced by very small teams. The same thing is happening in filmmaking. *The Third
and the Seventh*, for example, was made entirely by one guy, Alex Roman. It's
astonishing. That film would have been impossible to build with any team just 10
years ago. The tools simply didn't exist. A similar revolution has occurred in music
production.

**Is the transformation in the art and business of game development having a
similar effect on the cultures within the industry? For example, what makes
Boston's industry different from LA's?**

The West Coast game industry is heavily influenced by both Silicon Valley and by
Hollywood. Think high tech, high polish, and high pressure. It's very competitive.
Boston is a little more laid back, and has a touch of the academic, mainly because of
the long shadow cast by MIT (and hopefully WPI). Infocom was an MIT company
through and through. Frighteningly smart people. All well-read, witty, superb
engineers, passionate about technology, hard workers. A great early role model for
me. They did love their mainframes. Had a bit of a condescending attitude towards
micros. The secret company motto was, "We Hate Micros." It was a classic MIT start-
up. A bunch of smart students get together with a professor and a wealthy alumnus
and start a company.

I have spent most of my professional career trying to find (or create) another
company like Infocom. Lucasfilm had pieces of it. So did Rocket Science. Lucasfilm
had the classiness and commitment to quality. Rocket Science had the edgy
engineering. The really special thing about Infocom was how extraordinarily well-
educated and cultured the people were.

Sadly, most of the local companies now seem to live and die as the result of winning
development contracts with major west coast publishers. The company most like
Infocom is Harmonix. It feels much the same to me. At least it did before they were
bought by MTV.
So there has already been a sea change in development culture? What is the nature of this change?

Today's game developers are, to put it brutally, generally not as well educated or cultured. This simply reflects the general decline in educational standards. Interesting people make interesting games. I am reminding my students of this fact constantly, urging them to become familiar with the widest possible range of books, music, films and drama. I saw an interesting quote on Facebook yesterday: "People don't buy what you make. They buy why you made it."

The whole idea of a general education for education's sake is almost completely eroded. I like to remind my students that they are fortunate to be attending a real university, where they can – if they wish – be exposed to a wide range of ideas. But only a handful seem genuinely interested. Many are completely career-oriented. They are here to get a high-paying job. Many will succeed at such a modest goal.

Digital games are a wonderful doorway into the world of general culture. They incorporate elements of many other arts and sciences – narrative, audiovisual design, engineering. I guess I'm a romantic at heart. I'm convinced that games will succeed not only as a business – it's already a $40B+ industry, nearly as big as dog food! – but as a fine art medium. In the Digital Game Design course I'm teaching later this year, I am asking my students to read Hesse's *Das Glasperlenspiel* – The Glass Bead Game. It offers a vision of gaming as an art form and intellectual discipline I want them to be exposed to.

We cannot help but recall the oft-repeated notion that one of the things militating against the idea of games as fine art is that the medium has not yet had its Citizen Kane.

Well, *Citizen Kane* is not the best example. Film was already well established as an important and vital art form by the time *Kane* appeared. A better example, but less politically correct, is Griffith's *Birth of a Nation*. That was the film that really made people accept film as a cultural force to be reckoned with. It was precisely the persuasive artistic force of *Birth of a Nation* that made it so important. Obviously it contains dreadfully racist content, and sparked a tragic revival of the Klan. But these sad facts often prevent people from acknowledging or studying its undeniable power.

With regard to games, though, *Grand Theft Auto* comes to mind immediately. That was the first successful implementation of a sandbox. *GTA* shows that technology can produce a near-lifelike degree of freedom for players to create their own narrative.

That said, the first game I saw that made me think of games as art was *Tempest*. It is simply a beautiful thing to look at.

Is that because of its spectacle?

Spectacle is not a criterion for art. Art is the evocation of the inexpressible. The means are mechanical details, subservient to that end. James Cameron's *Avatar* is a great spectacle, and a very important film with enormous implications for the business. But no one is confusing it with a great movie. Without its spectacle and
technical magic, it would be a very minor film. *2001: A Space Odyssey*, on the other hand, would be a great movie even if it was made as a silent in 1920. It contains great ideas, and expresses things impossible to speak of.

Anyway, I am very hopeful for the future of digital games. As tools improve, commercially viable games will be possible to make with smaller teams, even single people. That will make it easier for an artistic vision to survive the savagery of the production process. But I am also looking forward to the arrival of new art forms that will be enabled by digital technology – forms that have no names and have not been imagined yet. They may or not be "interactive" as we understand the term. I suspect there are modes of interaction yet to be discovered. Maybe even modes that are more compelling than what we now understand as "games."

Games may, in fact, be eclipsed by other digital arts. They'll never go away, of course. They're part of our DNA. But who knows what is possible when you have processors with 256 cores accessing petabytes of RAM?

Speaking of which, the new iPad might be just the break interactive prose has needed ... a powerful device with a form factor suitable for casual reading.

*Is there a place for interactive prose in the contemporary game market?*

Sure there is, if it gets brought up to date in terms of technology and visual appeal. Not clear that this will happen. I may have to do it myself. I imagine something like an audiobook with optional visual embellishments. It works just as an audiobook, for when you're driving. But put it on your iPad, and the text becomes visual, synchronized with the audio like those fancy bank commercials, with hyperlinked annotations and special features. "Traditional" interactive prose could also be presented. There is a virtual keyboard. But the natural language processing and visual appeal of the display would both need to be brought up to 21st century standards.

*Is it your sense that natural language processing and visual appeal are presently the major barriers to the resurgence of interactive prose?*

They're major barriers in the sense that they are preventing interactive fiction from becoming commercially viable. This means that only part-time amateurs can make games, which limits the scope and polish. It takes the better part of a year to create a full-length interactive fiction game. With interactive prose, the input is primarily natural language, and the output is primarily prose. Unfortunately, the tools available for interactive prose are still very primitive. It's highly labor-intensive, and requires significant playtesting to achieve a professional level of polish.

The thing is, it's not just cosmetics. Many people do not like to type and/or read for entertainment. But I think many more people *might* look at the format if it was presented in an attractive way. Probably not a major industry, but maybe a viable commercial niche. There is at least one company, Textfyre, trying to revive the format. Also, the educational value of the format for teaching reading skills is well established.
Perhaps I'm a sentimental old fool, but I believe there is something to be said for a viable art form that can, like *The Third and The Seventh*, be created by one person. Interactive prose is one such art form. Maybe it can no longer appeal to a majority of users, but it might appeal to enough people to make it practically worthwhile. The iPad is the first platform I have seen that has a casual form factor for reading and typing, with enough power to make a good presentation.

**What about the possibility of interactive prose delivered via game-specific platforms that encourage small-scale development (e.g., Xbox Live Arcade)?**

Gaming consoles are optimized for particular types of games and audiences — and they don't have keyboards. Interactive prose is for people who like to read. But who wants to read on their PC or TV set? I don't. But I'll happily lie in bed with my Kindle. Or my iPad, if I can afford one. It's not just that interactive prose pieces don't "jive well" with game-specific technologies, it's that fewer and fewer people care to read and use their imaginations. I look at the students in my classes. They read, sure, but only in small bites. The success of *Harry Potter* is a statistical fluke, not a trend.

Perhaps trying to keep interactive prose alive is like trying to revive interest in radio drama. Which sounds silly...until you remember the sudden and dramatic growth of the audiobook market.

**Are there ways, then, that the game industry is making the game art form moribund, and pulling related forms like interactive prose into the grave with it?**

Interactive prose died because of a wave of new technology that replaced it, much as radio drama died when television caught on. The only thing Infocom could have done to survive would have been to embrace graphics and sound. They tried, near the end, but it was too little and much too late. Text adventures achieved popularity in those few magic years, 1980-1986, when the format seemed high-tech and novel. Once the medium appeared old-fashioned and irrelevant, it faded away.