



THE MACHINERIES OF JOY, REDUX

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Some years ago, in the last edition of The SFWA Handbook, I published a warning about electronic rights. Publishers were trying to get rights to this ill-defined market, without paying additional money or even defining percentages of participation. Nobody knew quite what the market would be like. It was clear to at least a few lawyers and tech whiz types, however, that it would be lucrative, and many major companies wanted to be involved.

Some years before these early warnings, CD-ROM drives were released to the computer-buying public--expensive, slow, but with obvious potential. Entertainment companies became interested in competing mass-storage CD standards, but many major corporate players seemed willing to sit on the sidelines, waiting for market forces to shake the losers out. Now, the markets are more clearly defined, the products are here in embryonic form, and major forces are laying track for the information railroad. (Don't be deceived that the railroad, for the time being, looks more like a goat-path.) Electronic rights can be marketed for some products, notably computer games, adding to the rare but lucrative movie and TV rights deals, but the new media market has not yet advanced enough to affect the revenues of most text authors.

The time when most text will go electronic is still coming. Display technology is one obvious drawback, but cheap, portable, high-resolution screens, comfortable for the average reader, are no more than a few years away. Networks are being added and expanded, and the speed of data transmission is doubling every year. The rest of the infrastructure is in place for a revolution that will replace paper as the dominant form of text communication.

Electronic rights will first augment and then supplant paper rights. Newspapers and magazines will change first, and hand-delivered paper newspapers will become anachronisms.

Text itself will undergo a transformation, perhaps into what I've called LitVid (in Queen of Angels and Moving Mars).

Not surprisingly, some science fiction writers (myself included) have been called upon to consult with companies with a stake in these new media.

For this edition of The SFWA Handbook, I'm going to print for the first time a paper delivered to one major company almost two years ago, as a guide for the new media revolution. A friend high in the company plied me with fine food and challenged me to tell him, in detail, what the LitVid in Queen of Angels would look like.

As with my first article on the subject, written in 1983 and published in 1987 ("The Machineries of Joy," available in my collection Tangents) this piece is visionary, and market forces will doubtless reshape my ideas. But benchmarks for the future are interesting in themselves, especially when they play a role in the shaping, as I believe this has.

The focus in this piece is for mass-market entertainment mixing text and other media. The key to predicting radical changes is understanding the nature of interactivity in fiction.

INTERACTIVE FRANCHISE FICTION



A Multimedia Format for the Near (and Middle) Future

(Presented to Microsoft Corporation, WNET, and others in 1993-94)

Until now, the future shape of interactive multimedia entertainment has been difficult to discern. However, observation of several modern fiction and "game" phenomena and formats has given me a strong vision of what the future could hold.

Some of the current trends in science fiction publishing in particular, such as "share-cropping" (licensing universes and author names for other writers), "shared world" anthologies and series, and in interactive role-playing games and war games, have always been evocative. But no clear picture has emerged, and many writers have expressed distaste for limited expressions of such formats.

Combining all of these phenomena produces a startling clarity.

By definition, interactive fiction will re-define the roles of creator and audience. Technology in the near future will allow direct interaction with complex fictional environments in realtime, using software already in existence or development; creators will be able to realize fully convincing multimedia worlds with relatively inexpensive equipment. (See: Jurassic Park and such software packages as Pixar Renderman, extrapolate to home and business machines running on Pentium and other systems, including inexpensive RISC units (less than \$10,000)). The result will be motion-picture quality video, three-dimensional audio, and other technological enhancements, based entirely on the creator's imagination, without need of sets or even actors. The Visual Typewriter I predicted in my article "The Machineries of Joy" is already in existence.

Fiber-optics connections between sophisticated home entertainment and communication centers will allow instant commerce between creators, producer/publishers, and their audience. Most "shipping" will be accomplished over cable and telephone lines. Network equivalents will become the publicity/sampling/advertising centers for all future entertainment product.

POINT 1:

Many intelligent young people (under 30 yrs.) are no longer attracted to print fiction. They prefer motion pictures and television, but significantly, the more intelligent and sophisticated (read: prosperous) enjoy role-playing games and interactive computer games. Combining fiction with these games has been the "holy grail" of planners for this market. No clear picture has emerged, however, of how such interactive fiction will be created, structured, and sold. These disaffected young people are the target audience for entertainers in the future. Their tastes as they approach 30-50 yrs of age will determine the shape of entertainment.

POINT 2:

One-shot fiction (single-experience novels, movies, television programs) are technological backwaters. Multiple-experience fiction (now limited to games and a few interactive hybrids, all rather tepid) will be the rule for a large share of the future cable market. (All previous media, including pure text, movies, etc., will continue to be sold, but with declining market share over the next thirty to fifty years.)

POINT 3:

Any structure which allows multiple purchase points will be vastly more attractive to creators/



producers/ publishers.

STRUCTURE:

Interactive Multimedia Franchise Fiction

Ultimately, creators (and not just producers/financiers) will be primary in this market. However, creative teams will probably be the rule. They may be connected with major companies, but they do not have to be. Home creation of major multimedia fiction work will be possible, with comparatively little expenditure for equipment, compared to, say, motion picture production. Costs will be reduced by reduction in personnel, infrastructure, elimination of old union restrictions, and shift from expensive and fragile technologies (chemical film, etc.) to robust and correctable digital technologies.

Creative teams will likely be overseen by a primary creator, a writer/director/producer. I see perhaps three to ten people creating major multimedia fiction projects.

The fiction will be sold in three forms, all software:

WORLD MODULE: the environment in which the story takes place. Could be anywhere, anything, any time, encompassing all so-called "genre" locales and the contemporary world. Ultimately, these environments will be constructed of digitized "hints" from the real world and completely artificial "illustration."

CHARACTER MODULE: A limited set of primary characters and background characters designed for continuing fictional experiences. Rather like characters in television shows, but without the limitations. Eventually, these characters will be "illustrated" as well, but live actors will likely provide initial designs and input. These character modules must be given particular attention: they will provide the major incentive for repeat audiences!

STORY MODULE: The plot and event structure for a given interactive experience. The above modules are "propelled" and guided by a story module. Story modules can be unbranched (linear, a single story line), or branched, for separate story lines and alternate choices. Branches may return to the main line, or lead into expanded fictions which may require additional character and world modules.

Expandability: Major interactive fiction will be expandable. Additional character, story, and even world modules can be added to popular interactive experiences, much as STAR TREK has led to ST: THE NEXT GENERATION and now DEEP SPACE 9, or as Dungeons and Dragons has expanded to an infinity of game environments. Another model is comic book structure, where character and world modules are already in existence, and have been swapped and expanded to ridiculous extremes.

Modes: Viewers/readers will experience these fictions on all levels. The fictions will include full-motion video, 3D sound, text enhancements and explanations, and of course music. They can experience the fiction from outside, with no interaction, with limited interaction (as in the Tamara play production, where the audience is in a house, observing parts of a mystery and going at will from room to room), or with full interaction, where they assume the role of a major or minor character ("karaoke" play). Group interaction--a family taking on several roles--will be possible. Character limitations can be imposed for structured interaction, and varieties of these limitations can be added, up to "gonzo" mode, where things get crazy.

Franchise (and Lottery): Audience members may also become creators. Very popular fiction modules



may so enchant audiences that they wish to create their own spin-off story and character modules. They will have the technological means to do so, within their own homes. License rights with all fiction will include the right for family and friends to create new stories and characters within a copyrighted world module. However, they may not upload or sell these modules without a license and franchise permission.

For a consideration fee, families or friends who have created a particularly satisfying story may upload their module for consideration by the creators/publishers. If the creator/publishers think the story (or world or character) extension is good enough, they will market it themselves, paying the audience creators a fair fee. Audiences may perceive fiction creation as a kind of lottery, with some making substantial sums of money from franchised, licensed creation. Creators will make money from the entire process.

Artistry: As with the creation of any new art form, doubts and questions--even unease and disgust--arise. Relinquishing full control over plot and character will be difficult for many writers. But fully controlled, individually-created fiction will still be purchased and enjoyed. Nothing is lost: a new form is simply added, taking the most interesting traits of old forms. Interactive fiction by its very nature must allow audience participation. In time, audiences will become (I hope!) increasingly sophisticated and creative, and the result will be an expansion of the current artistic and literary and cinematic renaissance, with more barriers removed and greater freedom of expression for all.

Financial Analysis: Major financial beneficiaries of this structure will be creators, their partners, and of course, operators of cable fiber optics lines. Upload and download fees will be substantial. Interface designs will be crucial; software companies will benefit by selling not only such interfaces to equipment manufacturers, but by selling "Creation" software for artists and households (trademark this name?). Audiences may participate financially as well, earning as well as spending money.

In conclusion: Nothing is lost. Breakdown in the barriers between audience and creator turns audiences into creators. The effects on a culture overall could be incalculable, fully equivalent to the availability of cheap books to the masses.

(end of paper)

Because of the audience--big business--this paper comes off as overly optimistic. Also, I had hoped that one company or another would conduct audience research to discover what audiences would put up with. Microsoft declined to fund such a research project. So far as I know, this isn't being done.

While I had a fairly good window seat at the early stages of the push to multimedia, I could not predict the furious rush to pour money into so amorphous an industry. Billions of dollars have been spent by major players, nearly all of it on building infrastructure, much of it invested in what would have once been called computer graphics special effects studios. Now, computer graphics dominates much of the cinematic and game world.

The image has been transformed, but text is still in a kind of backwater. The closest thing to LitVid or the transformations described above occurs on the Internet, on the World Wide Web. Jumps and hot words can take us around the world on the Web in a few minutes.

But very few people, other than access providers, are making a lot of money on the Internet--so far. Watch for that to change. The Wild West of the Internet will soon be transformed to pasture land and big



ities. Cyberpunk novels will terribly dated, but enjoyed much as we enjoy westerns and antique mysteries.

At least one major company is offering most creative participants in its entertainment products only work for hire contracts, with flat fee payments and no further participation (royalties or residuals), thus turning back the clock not only for publishing standards, but for motion picture and TV standards.

Do not accept such work; if you do, you show yourself, before your peers, to be desperate. This company will learn soon enough that top-notch work can't be bought this way. (I've warned them, but they haven't paid me any attention.)

The challenge remains, the promise is far from fulfilled. But what you write, and how you behave in these new markets, will change the way fiction is created and delivered.

So far, very few of those billions of dollars have been spent on writers.

Watch your step.

(I've learned, when addressing text writers such as myself, to end such prognostications with a bit of current biography. I'm primarily a writer of text-based fictions, with fifteen novels and two short-story collections published. I own about 18,000 books and magazines. I recently finished a story, "The Fall of the House of Escher," that satirizes LitVid, the Internet, and possible future societies that might result from these technological marvels. My recent reading includes Spenser's The Fairie Queene, in the Limited Editions Club two-volume set, printed on thick, wonderful paper by the Oxford University Press. I love books. But I also love movies and computers.)

So there it is...