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Where Stories End and Games Begin

by Greg Costikyan



"Every medium has been used to tell stories," says Eric Goldberg, one of my oldest friends and president of Unplugged Games. "That's true of books and theater and radio drama and movies. It's true of games as well."

I have this argument all the time, and I think Goldberg's statement is balderdash. It's not true of music; music is pleasing sound, that's all. Yes, you can tell a story with music; ballads do that. So do many pop songs. Certainly some types of music -- opera, ballet, the musical -- are "story-telling musical forms," but music itself is not a story-telling medium. The pleasure people derive from music is not dependent on its ability to tell stories: Tell me the story of *The Brandenburg Concertoes*.

Nor is gaming a storytelling medium. The pleasure people derive from games is not dependent on their ability to tell stories.

The idea that games have something to do with stories has such a hold on designers' and gamers' imagination that it probably can't be expunged, but it deserves at least to be challenged. Game designers need to understand that gaming is not inherently a storytelling medium any more than is music--and that this is not a flaw, that our field is not intrinsically inferior to, say, film, merely because movies are better at story-telling.

Nevertheless, there are games that tell stories--roleplaying games and graphic adventures among others -- and the intersection of game and story, the places where the two (often awkwardly) meet has bred a wide variety of interesting game styles. Examining them is useful, because doing so illuminates the differences between game and story -- and the ways in which stories can be used to strengthen (and sometimes hinder) games.



Linearity in Games

A story is linear. The events of a story occur in the same order, and in the same way, each time you read (or watch or listen to) it. A story is a controlled experience; the author consciously crafts it, choosing precisely these events, in this order, to create a story with maximum impact. If the events occurred in some other fashion, the impact of the story would be diminished --or if that isn't true, the author isn't doing a good job.

A game is non-linear. Games must provide at least the illusion of free will to the player; players must feel that they have freedom of action within the structure of the game. The structure constrains what they can do, to be sure, but they must feel they have options; if not, they are not actively engaged. Rather, they are mere passive recipients of the experience, and they're not playing any more. They must not be constrained to a linear path of events, unchangeable in order, or they'll feel they're being railroaded through the game, that nothing they do has any impact, that they are not playing in any meaningful sense.

In other words, there's a direct, immediate conflict between the demands of story and the demands of a game. Divergence from a story's path is likely to make for a less satisfying story; restricting a player's freedom of action is likely to make for a less satisfying game. To the degree that you make a game more like a story--a controlled, pre-determined experience, with events occurring as the author wishes--you make it a less effective game. To the degree that you make a story more like a game--with alternative paths and outcomes--you make it a less effective story. It's not merely

that games aren't stories, and vice versa; rather, they are, in a sense, opposites.



Non-Linear Fiction

Maybe I'm being too restrictive by saying that stories are inherently linear. Perhaps stories have been linear to date because that's all you can do with existing media; text is read sequentially and movies are displayed as linear sequence of frames. Theater has a little more potential interactivity, but conventional theater, at least, deviates from the script only in error.

There are non-linear forms of fiction, like Julio Cortazar's *Hopscotch*. You can read *Hopscotch* like a conventional novel, from front to back, the chapters in sequential order; or you can read the chapters in an alternative order proposed by Cortazar. Reading the book in that alternative order is a somewhat different experience; because you encounter events and characters in a different order, the meanings of their actions are different; you see the story in a different light. Indeed, to understand the novel fully, you need to read it in both ways.

That's great, but it's far from unique; modern writers frequently play with the nature of narrative and time. Proust's *Remembrance of Things Past* is non-linear in time, a sequence of remembrances as they occur to the protagonist. Joyce's *Finnegan's Wake* is filled with stream-of-consciousness nonsense words that, somehow, make sense in context. Vonnegut's *Slaughterhouse Five* darts seemingly randomly between the decades. *Hopscotch* is creative and interesting in the way it plays with the nature of narrative, but so are many other novels.

But all of these narrative experimentations are hat-tricks. *Hopscotch's* trick of presenting a narrative in two ways is interesting once, but we won't see a whole subgenre of *Hopscotch*-like novels because it's not *that* interesting.

Still, *Hopscotch* gives you *two* paths through the same story space. The experience of each path is different, and Cortazar has been clever enough to use that difference to impart somewhat different experiences. But it's only two paths. *Hopscotch* is more game-like than a typical story, but it's still a long way from a game.



Hypertext Fiction

From *Hopscotch* we move to hypertext fiction of the type promoted by Robert Coover of Brown University (see <http://landow.stg.brown.edu/HTatBrown/CooverOV.html>). Hypertext fiction works something like a web site; you begin by reading a bit of text, which can vary in length from a sentence to several paragraphs. Certain words or phrases are links to other bits of text. The texts of the work are linked together in a spider's web of paths. Sometimes, art or video files or music or sound is used to accompany the text but, since most of the creators of hypertext fiction come out of literary academia, the focus is on words. In other words, it's not all that different from HTML, although hypertext fiction is usually implemented in a stand-alone application like [Storyspace](#). And unlike *Hopscotch*, hypertext fiction has multiple paths.

Some hypertext fictions have multiple endings; others don't have any explicit ending at all. The basic idea is that you explore the story--moving from one branch to another, gradually gaining an understanding of what's happening. The analog to a traditional story's ending is instead an epiphany, which can happen whenever you've explored enough of the text--a sudden insight or "aha" that draws what you've read together into a coherent whole.

To the proponents of hypertext fiction, this is a novel artform. Certainly, it is a different method of story-telling. But in my opinion, it is, at most times and under most circumstances, an inferior method of story telling. Precisely because the author has less control over how the reader encounters his story, he cannot structure the story for maximum effectiveness. Unquestionably it is still possible to tell a story this way--but other than the novelty of story-telling in this alternative mode, there seems little reason to want to do so.

Moreover, hypertext fiction lacks one of the key ingredients that makes games compelling; there is no goal for the reader, other than getting to a point where he or she "gets" the story. You're faced with a series of decisions--follow this path or that one--but there is no context for your decision. There is no reason, other than the desire to explore, to choose one path over another. Reading hypertext fiction, unlike playing a game, is purposeless exploration and does not produce the same sense of desire, of compulsion to "play." In other words, hypertext fiction is an unhappy compromise between traditional story and game. It's game-like in that the player has a variety of options, but not surprisingly, since it's created by people who by and large have little interest in games, it has few of the other aspects that make games appealing. Works of hypertext fiction are lousy games.



Gamebooks

Hypertext fiction--a high-brow, literary academic form--is closest in nature to the which-way book, a degraded commercial book format, mainly published for young adults. Which-way books--also called "gamebooks" or "choose-your-own-ending" books--had their heyday in the mid-1980s, when Bantam published hundreds in the States, and the *Fighting Fantasy* game books by Steve Jackson and Ian Livingstone were worldwide bestsellers (except in the U.S., where Penguin botched the marketing).

In a gamebook, you begin by reading the first page or two; at the end of the page, you're faced with a decision. Depending on what you decide, you turn to one page or another--if you choose option A, you might go to page 16, while option B might send you to page 86. The idea is that you're taking the role of a character, and you're trying to solve his narrative problem, whatever that may be. Some paths through the gamebook lead to failure, others to success. Often, "failure" means "you die, start over."

This is, obviously, rather dull. Yet a work of this type has to allow players to make decisions that lead for dull stories; players of a game, of whatever type, need to have the freedom to make decisions within the structure of the game, even if those decisions make for lousy stories.

The best of these books contain some rudimentary game system, to handle the resolution of, say, combat. At times, instead of simply turning the page, the book will tell you to use the game systems described elsewhere in the book to, for instance, resolve combat with a dragon whose game stats are such-and-such. This is superior to simply turning the page, because there are a range of possible outcomes, rather than single, discrete options--you go into the next combat situation with more or fewer hit points, greater or lesser skills, and so on. The game is slightly more "algorithmic," a term we'll delve into in a bit.

Is this really all that similar to hypertext fiction? In fact, it's virtually identical; follow a link to a new bit of text. One genre is a milieu for pretentious intellectuals, the other for degraded hacks, but the essential forms are the same.



Solitaire Adventures and Paragraph-System Board Games

Gamebooks have direct analogs in paper roleplaying games (RPGs) and board games. The RPG analog is the "solitaire adventure." As in a gamebook, the player of a solitaire adventure begins by reading a numbered paragraph or set of paragraphs, and often then turns to a different paragraph, depending on his or her decision. However, the player is also expected to be familiar with the rules of the roleplaying game for which the adventure is written (*Dungeons & Dragons*, perhaps). Thus an external game system already exists, and is used to resolve many occurrences during the course of the adventure. As a result, solo adventures are generally richer and more interesting than gamebooks, although subject to the same basic problems.

The boardgame analog is the paragraph-system boardgame. Eric Goldberg's *Tales of the*

Arabian Nights is the best example of this genre to date. (It is, unfortunately, long out of print.) In a paragraph-system boardgame, you have a piece (or pieces) on the board, and an external game system to manage its movement and other facets of the game. At various times, the game directs you to read a numbered paragraph in an accompanying booklet. That paragraph generally has you make a decision and turn to a different numbered paragraph, perhaps using aspects of the game system first. In other words, you're playing a board game which sometimes requires you to play through a mini gamebook, then returns you to the over-arching boardgame until the next mini-adventure begins. *Arabian Nights* is exceptional because the system repurposes paragraphs, using the same text with different outcomes and in different ways. This provides a greater variety and more replayability than gamebooks or soloplay adventures.

Gamebooks also have an arcade game analog in Don Bluth's *Dragon's Lair*. *Dragon's Lair* was quite popular when it was first released in 1984 because it was the first time anyone had seen cinematic-quality character animation in a videogame. Recall that in *Dragon's Lair*, you play a fantasy hero who is penetrating a dragon's lair. You view a short animated sequence, and then you must make a decision--you move the joystick one way or another to determine which way you want to go. At each point, there is only one "correct" path; all others lead in death. To win, you have to keep on feeding quarters in the machine, dying over and over, until you can make the right decisions at each point, pretty much on autopilot.

Fundamentally, this stinks as a gameplay concept. It is frustrating and tedious to have to start over and over and maneuver through the same decisions. Subsequent games of the same style failed miserably; *Dragon's Lair's* success was due simply to its novelty.



Text and Graphic Adventures

Text adventures are somewhat more sophisticated versions of the branching-story concept. At various locations, there are items you can pick up or interact with. Using items in certain locations and combinations opens up paths to new locations, and winning the game requires two things: solving puzzles (meaning figuring out when and where to use items to get the effects you want) and guessing what words the parser will understand (so you can get the system to do what you want).

Text adventures feel far more free-form than game books, but the same basic principle is at work here: you make decisions as to where to go. The main difference--and it is a real strength--is that the game world can respond interactively to your decisions and past actions. New paths can open up, new items become available. It's as if the text on page 86 could change in response to choices elsewhere in the gamebook.

Text adventures evolved into graphic adventures, which often boasted characters with whom you could talk. But again, these conversations are a matter of making discrete choices. An NPC says something, and you can respond from a menu of three or four conversational gambits. Depending on what you say, the character responds in some way, perhaps giving you another menu of "things to say." Conversation is a matter of working down a conversational decision tree, and even though players may listen to voiceovers and look at screen animations, they're still working their way down a decision tree much the way gamebooks and works of hypertext fiction operate.

Animations or video are often used in graphic adventures to provide story context; in extreme cases, as in *Tex Murphy: Overseer*, these sequences overwhelm the game itself, making the whole seem less like a game and more like a story with minor and not terribly interesting opportunities for gameplay. When well done (as in *Grim Fandango*), graphic adventures provide a happy combination of story-telling and puzzle-solving gameplay that hold a player's interest for hours at a time.

And yet even at their best, graphic adventures have flaws. They try to provide an illusion of player free will, but ultimately they are linear stories. A player may have freedom to move about a constrained space and solve the puzzles there in a variety of ways, but the designers control access to the next story node. Graphic adventures try to avoid branching structures that require them to create media assets many players won't see, for the obvious reason that budgets are limited; if something is

on the disc, you want players to encounter it. And because graphic adventures are instancial--meaning everything the player can encounter is prerendered, there on the disc, and nothing is generated on the fly--graphic adventures can only respond to players in ways anticipated by the designer. If the designer doesn't figure out that some players will want Option X, the designer won't include that option.

All games are structures; but graphic adventures are particularly constraining structures. They're so structured precisely because they are so story-dependent; they must tell good stories, and must constrain player's options and paths through the story in order to ensure that a good story is told.

Given these problems, in fact, what's amazing is the number of good games that have come out of the graphic adventure genre. Indeed, the best-selling computer game of all time--*Myst* (Rand and Robyn Miller)--is a graphic adventure.



PC and Console RPGs

From graphic adventures, we move to computer and console roleplaying games like *Ultima* and *Final Fantasy*. As a reader of *Game Developer*, I don't have to explain the details of this genre. Suffice it to say that these games are intimately tied to a story, but are more free-form experiences for the player. But unlike graphic adventures, the obstacles you must overcome are rarely in puzzle form; electronic RPGs aren't games of picking up things and using them to change the game state. Often obstacles are overcome by killing them, sneaking through defenses, overcoming computer security, casting magic spells, and so on. Because player characters can vary widely in their skill sets, RPGs must be more flexible than adventures. They must be designed so that any reasonable character can overcome the game's obstacles, with a little cleverness, whatever the character's abilities. There are generally multiple solutions to problems, and as a result, players feel like they have more freedom; they can approach problems in several different ways, they have the freedom to choose whether they'll play as a hack-and-slash, combat-oriented character, or one who prefers to be sneaky, or one who specializes in magic. Often, the player has some choice about which "space" to enter next, such as the dungeon or to the town. As in a paper RPG, character growth is important; the character(s) gain new skills, spells, abilities, and equipment as the game progresses. Ultimately, the player overcomes the final and ultimate obstacle, and fulfills his or her quest.

In other words, story is still fundamental to the electronic RPG, but the game structure allows far more freedom of action to the player than the adventure game. And the "story of the game" can differ greatly from one playing to another, because the characters controlled by the player can be very different. Electronic RPGs still have limited repeat playability, however, because the player is presented with essentially the same obstacles from game to game, and many (like the *Final Fantasy* series) are extremely linear in nature.



Paper RPGs

Paper RPGs are similar in some ways to electronic ones, but they're vastly more freeform. The rules of the game provide a structure for resolving player actions--rules for combat, magic spells, advanced technology, the use of skills, and so on. Unlike electronic RPGs, there is no pre-established story line, although most paper RPG rulebooks contain one or several stories for new gamemasters to use. The expectation is that a gamemaster will invent his or her own stories for his players, using the rules system as needed. Alternatively, he can go out and buy adventure supplements, each containing a story arc the gamemaster can either use as written, or adapt to his campaign. Interestingly, *Vampire: The Masquerade* and the forthcoming *Neverwinter Nights* both allow a player to serve as gamemaster and craft an experience for his or her players; the same basic paradigm is being adopted in electronic media (and about time).

Paper RPGs, unlike electronic ones, are social affairs; players get together periodically to play, and spend at least as much time "role playing"--acting out--for their friends as they do trying to

maximize their character's effectiveness in a purely structural context. It's common for a group of friends to get together for years, playing the same characters in the same game world with the same gamemaster. In the process, they establish long character histories, flesh out the world background, and so on. For long-term role players, the stories they create through play can be as emotionally powerful and personally meaningful as anything you find in a novel or movie--perhaps more so, because you are personally involved in their creation.

These "stories" are meaningful to players precisely because they are intimately involved. Players frequently write up "expedition reports," in which they retell the story of a particular session of play, or several sessions. Expedition reports almost invariably make dull reading for those who are not involved in the campaign, because they do not have the same intimate familiarity with the setting, the same long history with the players and their characters. Moreover, the rhythm of a roleplaying game is not the rhythm of a short story; you have peaks of excitement and periods of boredom and things happening here and there. You don't have a long build leading to catharsis; you have gradual character evolution instead. The closest non-interactive analog is, perhaps, a "series" comic book -- a comic with a small cast of characters who have adventures together, some of them short one-issue stories and others with story arcs that are told over several issues.

Many role-playing gamers never give "story" a second thought--they get their kicks from solving problems and playing roles, they don't terribly mind whether the things they encounter knit together into some kind of coherent story. For them, that isn't their main interest in the game.



The Continuum Between Stories and Games

This laundry list of fiction and game genres, starting from *Hopscotch* with its single branch and leading to paper RPGs, comprises a continuum. We've moved from things people call "stories" to things that people call "games," but we've done so by moving along a spectrum of possible "game-story" genres, from ones that are close to pure story with a minimal game appendage, to ones that are close to pure game, with a residual connection to story.

The difficult decision is placing the dividing line between stories and games. Clearly, this choice is a matter of culture or taste. Because we've moved along a continuum, drawing a line somewhere would be arbitrary. As I've argued, game books and hypertext fiction are structurally identical, differing only in their implementation (print books or electronic application) and in the literary ambitions of their perpetrators. Yet the culture views gamebooks as "games" and hypertext fiction as "stories."

Hopscotch is clearly a good story; *Dungeons & Dragons* is clearly a good game. But even the best "stories" along our continuum--some hypertext fictions certainly qualify--have to compromise the nature of story in order to work. And even the best games have to compromise the nature of "the game" in order to work as storytelling environments at all. Designing or writing here, at the intersection of story and game, is an interesting exercise, but fraught with peril and unhappy compromises.

That is true because story is the antithesis of game. The best way to tell a story is in linear form. The best way to create a game is to provide a structure within which the player has freedom of action. Creating a "storytelling game" (or a story with game elements) is attempting to square the circle, trying to invent a synthesis between the antitheses of game and story. Precisely because the two things--game and story--stand in opposition, the space that lies between them has produced a ferment of interesting game-story hybrids. And yet the fact remains: game and story are in opposition, and any compromise between the two must struggle to be successful.

So should designers eschew attempts to inject story into the games they design? By no means; past efforts to do so have been fruitful, and have led to interesting and successful games. What designers must do, however, is understand that they are not involved in the creation of stories; gaming is not inherently a story-telling medium, any more than music--just as games are not simulations (though some games are) and games are not competitions (though some games are).

To think of games as "a storytelling medium" leads to futile attempts to straightjacket games, to

make them more effective stories at the expense of gameplay. Instead, designers should use story elements to strengthen their games when appropriate--but should not be afraid to shy away from story entirely, at times. Because ultimately, what a player takes away from a game is not the story it tells (if it tells one at all), but modes of thought and ways of attacking problems, and a sense of satisfaction at mastery.

Let's look at it another way. Story telling is fundamental to what it is to be human. Since hominids evolved the ability to speak, we've been telling each other stories. Every one of us tells stories, every day; story-telling is not something that only "real authors" or "real screenwriters" can do. Every day we make up stories about the things that happen to us, and tell them to our family and friends.

A couple of days ago, I went to see my dad in the hospital. He was off the respirator, thank God, talking and awake, but still quite weak and a bit confused. He was under the misapprehension that we were all in London, and going to the theater that night--he kept on asking me to make sure that I picked up the tickets. Mind you, it's probably more cheerful to think that you're going to the theater in London than to realize that you're a heart patient in an intensive care unit.

That's a story. It's a true story, but a story nonetheless. I've already told it to several people. The experience is shaped into the form of a story, to allow us to tell it, in a coherent and understandable fashion, to others.

Play is equally fundamental to what it is to be human. Infants play before they can speak, and most adults play, too--with their children, with their pets, in a softball league, on poker nights. Play behavior continues to be important for learning later on in life, though most people don't think of what they're doing as "play" when they do it. When you start up a new software application, you experiment with it, try different things, see what different menu items do. That's playing. When you design a new marketing campaign, you come up with several ideas, run them past your colleagues, chat about them--you're playing with the ideas. You're experimenting with different behaviors, you're seeing what works, you're exploring the structure of the system. None of this is a game; a game is a particular, structured form of play, just as a novel is a particular, structured form of storytelling. The point is this: Play is fundamental to being human, as storytelling is also, but in quite a different way.

What happens after you play? Frequently, you make up a story about what happened. When you go home to your spouse after a softball game, he or she asks how the game went, and you tell a story about the game. When your boss asks you how the plan for the marketing campaign is going, you tell him or her a story about the ideas you've experimented with so far and what your plans are for the near future. First you play; then you tell a story about it.

Play is how we learn; stories are how we integrate what we've learned, and how we teach others the things we've learned ourselves through play. But play comes first.



Evoking Emotion From Games

Chris Crawford, one of the most important figures in the history of computer gaming, and one of the few articulate thinkers about game design as a art, says that games will never come of age until they can induce in players the same depth of emotion as a well-told story. Indeed, Crawford abandoned game design in favor of the creation of what he calls the Erasmatron, an engine for creating interactive stories. He left the game industry because he believes that industry pressures have made it virtually impossible to develop worthwhile and meaningful games. Indeed, Crawford now seemingly doubts the very possibility that gaming can ever become a true artform.

Is Crawford right? Is it true that games will never amount to squat until they are as emotionally powerful as stories? And is "story" therefore superior to "game?"

First, Crawford makes the mistake of assuming that the value of a work of art lies solely in the emotions it engenders. Music can move us, but is "emotion" truly what we find appealing about music? Personally, I'd argue that emotion in music is tantamount to schmaltz. The classical work I prize mostly highly has instead a clean, almost mathematical inevitability about it. Paintings can

move us, but are the canvases we prize most highly necessarily those that produce the strongest emotional response? If so, why are quiet portraits often valued more highly than monumental and busy paintings depicting momentous events? The assumption that value depends on engendering emotion is questionable.

Second, Crawford is thinking only of the emotions an artist *wishes* to elicit from his audience; the sadness of the tragedy, the laughter of the comedy, the quiet serenity of a blissful piece of music. He is thinking of the work's inherent emotion, the emotion the creator stuffs into it. But games engender strong emotions, like glee, despair, frustration, satisfaction at accomplishment, and friendliness (or rage) toward other players. No game designer says, "I wish to design a game that engenders glee in its players", but a game designer is very satisfied if he sees players of his game becoming gleeful.

Precisely because games are interactive, because the player participates in the creation of the experience, the emotions a game engenders are more organic, emerging from the interaction between game and player. Emotions cannot be drawn from game players the way they can from a theatrical audience, they cannot be "stuffed into" the work by the artist. Yet emotion still unquestionably exists and is elicited by the game. And because a player is involved in the creation of the experience, because the experience of play is at least as much his product as that of the game designer, the emotions he feels can affect him much more deeply than the surface, empathic response you feel when viewing or reading about characters in a story.

Even if we accept Crawford's assumption that an artwork's merit lies in the emotions it produces, we must reject his statement that games do not produce emotions as strongly as stories. Games do produce emotion; they simply produce different emotions, and produce them in different ways.

Crawford is far from alone in abandoning games for more "important" forms, though he has chosen a more intellectually interesting path than others who have done likewise. Chris Roberts, creator of the *Wing Commander* series (among the most successful computer games published), went off to direct a movie. Robyn Miller--codesigner, with his brother Rand, of *Myst* and *Riven*--departed game design for a career in the movies. In general, many game developers fantasize about careers in film, the way that screenwriters fantasize about careers as novelists. Why is that?

On one level, it's a status thing. Game designers view movies as more legitimate, more important than games, just as screenwriters view novels as more legitimate, more important than movie scripts. But it also has to do with the fact that movies and novels are our fundamental storytelling artforms, whereas games are the artform we created based on the fundamental human activity of play. Neither is superior to the other in any meaningful sense. To think that stories are somehow more legitimate than games is like thinking that music is somehow more legitimate than poetry, or poetry more legitimate than painting. It's comparing apples to oranges. It's the merit of the individual product within the form that matters--whether the poem is good or bad, the music soaring or trite, the game well or ill designed.

If the outside world views what we game developers do as lacking merit, the correct response is not to abandon games in some vain struggle for recognition, but instead to strive to create games so well crafted, so imaginative, so fine that their merit shines forth so brightly that any fool can see their worth. The solution, in other words, is to create legitimacy for the form in which we work by creating work of enduring merit.

Gaming is the most vital artform of the age, a field that has burgeoned from virtually nothing to one of the world's most popular forms in no time flat, a field that has seen and continues to see an enormous ferment of creativity, a field that may well become the predominant artform of the 21st century, as film was of the 20th, as the novel was of the 19th. By God, we're privileged to be here at the birth of this great form, of the creation of a democratic artform for a democratic age, the creation of structures of desire, of ways to enable people to create their own entertainment through play.



Greg Costikyan has designed 27 commercially published board, roleplaying, computer, and online

games. He writes frequently about games, game design, and game industry business issues for the *New York Times*, *Wall Street Journal Interactive*, *Salon*, and other publications. He is Co-Founder and Chief Design Officer of [Unplugged Games](#), a venture capital start-up to develop and deploy games for Internet-enabled cellphones and other wireless devices.

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