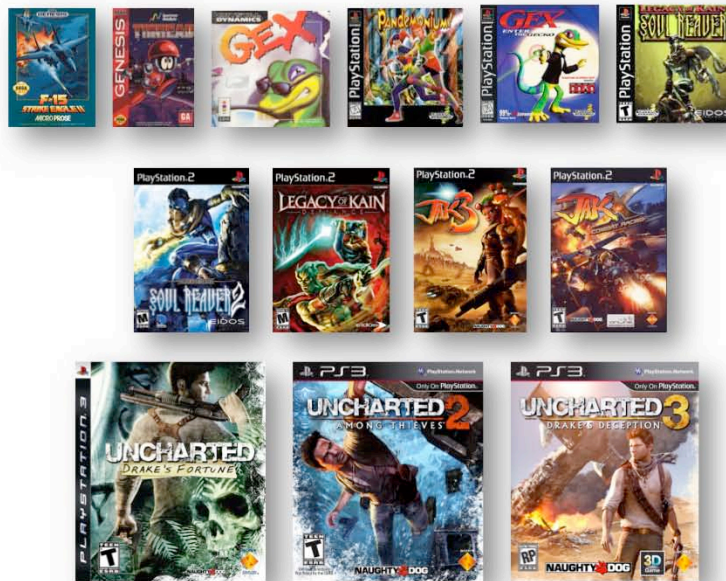'Infinite Play'
by Richard Lemarchand
Associate Professor
Interactive Media & Games Division
School of Cinematic Arts
University of Southern California

Presented at the Game Developers Conference 2015
on Thursday 4th March, 2015
from 5pm to 6pm.
Room 2005, West Hall
Moscone Center
San Francisco, California, USA

Hello, and thank you for reading the script of my talk. My name is Richard Lemarchand, and I'm a game designer. I worked in the mainstream of the video game industry for over twenty years, including an eight-year stint at Naughty Dog, where I was honored to be have been able to work as either the Lead or the Co-Lead Game Designer on all three PlayStation 3 games in the *Uncharted* series.

# USC Games

## Richard Lemarchand

@rich_lem

rlemarchand@cinema.usc.edu

**Associate Professor**
**Interactive Media & Games Division**
**School of Cinematic Arts**
**University of Southern California**

I'm now an Associate Professor in the Interactive Media & Games Division of the School of Cinematic Arts, where I teach design, development and production as part of the USC Games program. I've also begun work on a series of experimental games as part of a design research project in the USC Game Innovation Lab, and this talk is the culmination of a lot of the work I've done since I joined USC – I hope you like it.
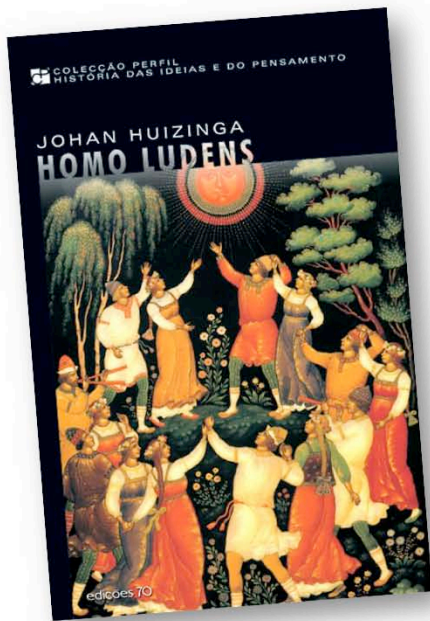
Johan Huizinga was a Dutch cultural historian, who lived from 1872 to 1945. He was among the very first modern scholars to study play and games, and he is best-known to game designers for his 1938 book *Homo Ludens*, which can be roughly translated as "The Playing Human" or "The Human Player."

Image from www.compassion.com

Huizinga characterized play in a number of different ways. He said that the foundation of play is freedom, and that play must be voluntary. He said that play has limitations in both space and time, and he compared the playground to the sacred spaces in which religious rituals take place.
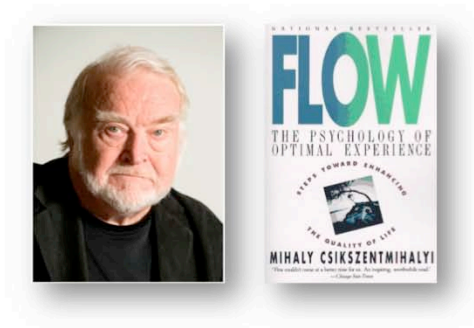
Johan Huizinga, age 5

He also claimed that play, based as it is in rules and procedures, creates order in the world, indeed he says that play *is* order, and is beautiful because it is orderly. As such, play helps us resolve the tension we feel in the face of life's chaos and confusion by bringing us "a temporary, (a) limited perfection."

*"Play casts a spell over us; it is 'enchanting', 'captivating'.*
*It is invested with the noblest qualities we are capable of*
*perceiving in things: rhythm and harmony."*

~ Johan Huizinga

He goes further, claiming the kind of quasi-mystical power for play that would later be described by Csikszentmihalyi's theory of 'flow,' in saying, "Play casts a spell over us; it is 'enchanting', 'captivating'. It is invested with the noblest qualities we are capable of perceiving in things: rhythm and harmony."

But the claim that Huizinga makes most emphatically—and the reason for the title of his book—is that play is a primary condition for the generation of culture. In other words, he doesn't just believe that play is one aspect of the way that humans exist—he believes that play is the origin of *everything* cultural that we do. The myths that early humans made to explain the world around them, the social structures we evolved to help us organize and uplift ourselves, the poetry we use to play with language and conjure new understanding and new beauty, all come into being as part of a process that is innately playful.

Last known photograph of Johan Huizinga,
with his youngest daughter Laura
in the garden in Lane, Netherlands

In 1942, Huizinga was jailed by the Nazi occupation government in the Netherlands for his outspoken criticism of fascism. He had been writing critically about the rise of the far right since the 1930s. He spent three years in captivity, and died in prison just weeks before the end of the war in Europe, and the liberation of the Netherlands.

It's a sad irony that a person who so clearly recognized the delightful, improvisational, transformative and civilizing power of play could die in a jail cell amid the genocidal order brought by authoritarian nationalists. As we look around our modern world, we see the same awful contradictions. Some aspects of our culture are viciously reactionary and oppressive…
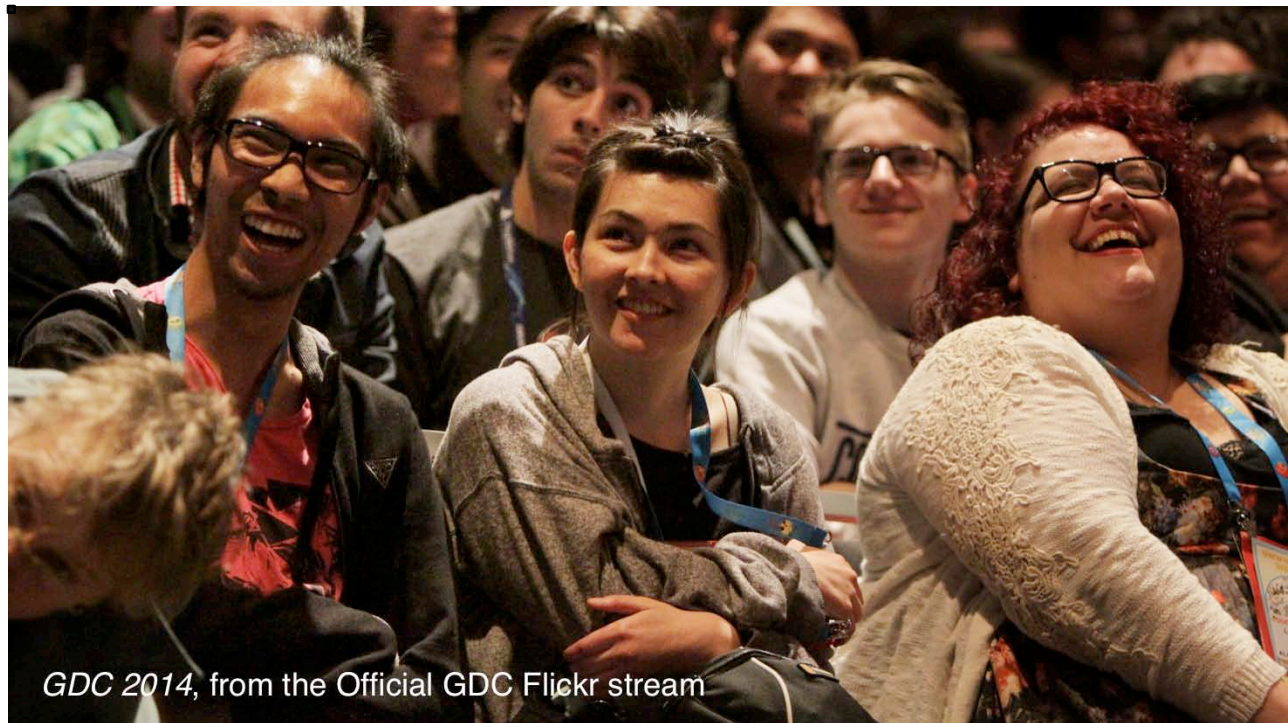
*GDC 2014*, from the Official GDC Flickr stream

…, and yet here we are (or rather, there we were) at GDC, surrounded by game creators who understand and appreciate human beings in all of their complexity and curiosity.

In the worldview of Johan Huizinga we, as game designers, stand unequivocally at the forefront of culture. The domain of our craft—human beings' playful urge to explore, inspect, deconstruct, strategize and create—makes everything possible, from the sonnets of William Shakespeare to the Mars Rover. We have the best jobs in the world. Today, I want to take a look at how we can make our wonderful jobs even better.

In order to do so, I want to tell you about a revolution that has quietly taken place in game design over the course of the past five or ten years. It's been led by a group of visionaries and relative outsiders to the mainstream of game design who have created a new pathway for the development of video games—as both an art form and an entertainment medium.

I'm going to talk about the play styles and game mechanics emblematic of this revolution, as well as some other aspects of the ways that they work that are more difficult to discuss. To help me do this, I'll bring in the work of a few people from outside the world of game design, people who were initially outsiders in their fields, but whose work we now see as vitally important contributions to human knowledge.

*Slums in Nairobi, Kenya.* Image from citiesalliance.org
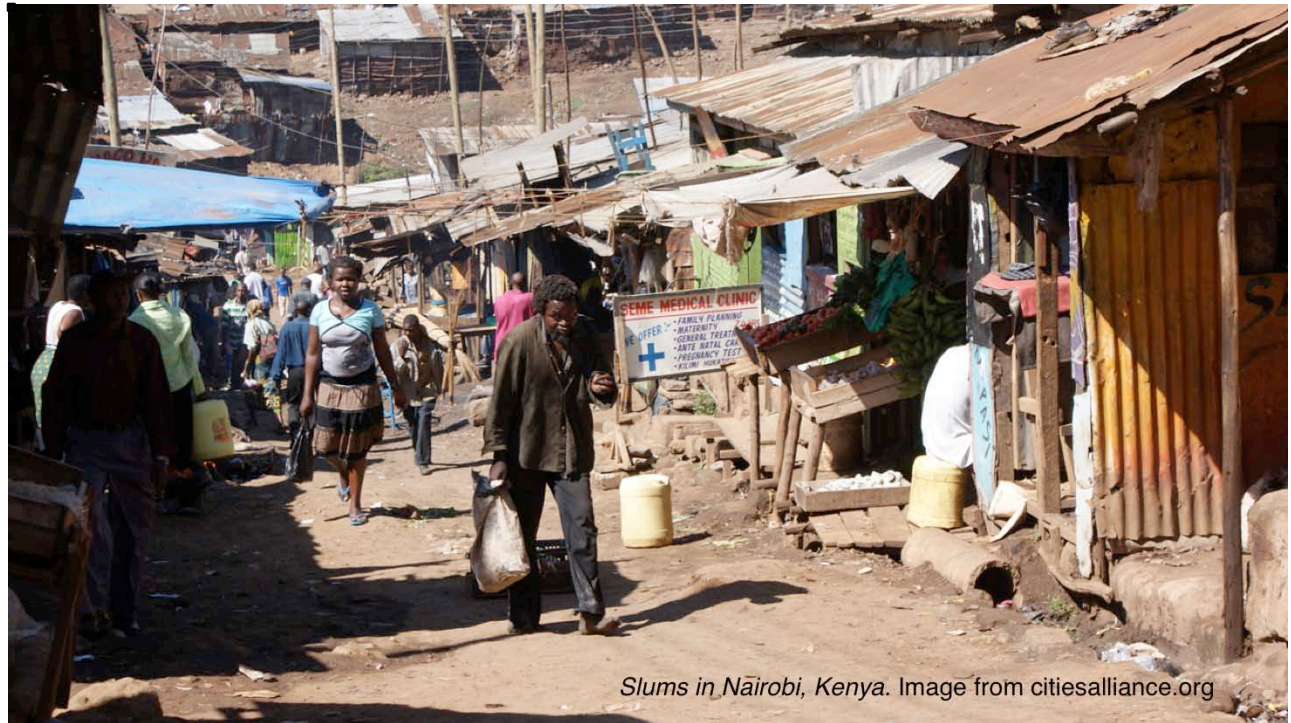
And finally, I'll talk about the way that games can continue to live up to their promise as an art form, in helping us discuss some of the most pressing and human issues of our day.

**Competitive games and open play**

To get us started, let's talk a little about different kinds of games and play.

Games are systems.

With their foundational 2004 "Mechanics, Dynamics, Aesthetics" model, Robin Hunicke, Marc LeBlanc and Robert Zubek describe the rules of a game as producing...

□

The MDA framework formalizes the consumption of games by breaking them into their distinct components:

Rules → System → "Fun"

…and establishing their design counterparts:

Mechanics → Dynamics → Aesthetics

The designer and player each have a different perspective.

Designer — M — D — A — Player
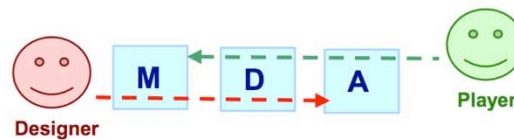
…complex and often surprising system dynamics when interacted with by players, who have emotional and phenomenological aesthetic experiences as a result.
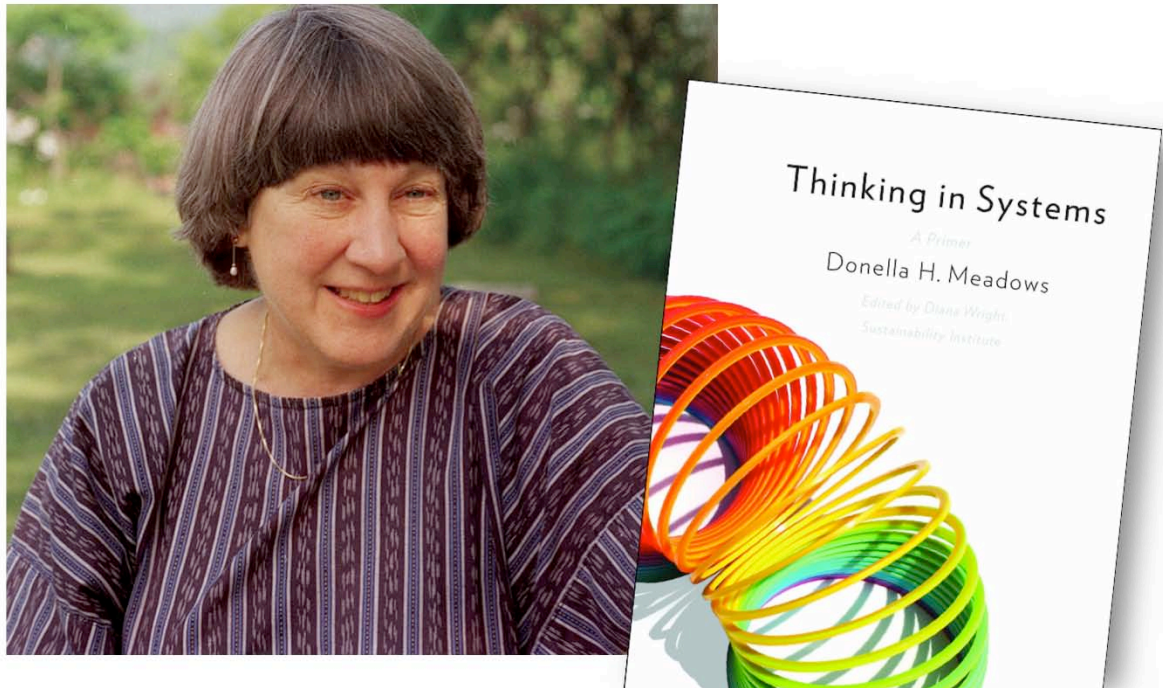
The Harvard and MIT-trained biophysicist Donella H. Meadows was one of the pioneers of the field of system dynamics, whose domain of study includes very diverse areas like electrical engineering, geopolitics and the ecosphere. She writes in her book, *Thinking in Systems: A Primer*, that…

interest added

money in bank account

interest rate

R

heat from furnace

heat to outside

room temperature

thermostat setting

B

B

outside temperature

discrepancy between desired and actual room temperatures

discrepancy between inside and outside temperatures

$313.84 10% interest
$251.82 8% interest
$201.22 6% interest
$160.10 4% interest
$126.82 2% interest

dollars

years

thermostat setting

room temperature

outside temperature

temperature °C

temperature °F

hour

…system dynamics are hard to observe because systems are always in motion—any dynamic system is always changing, all the time. She describes the way that systems are governed by feedback loops—runaway feedback loops like the compound interest on a bank account, and stabilizing loops, like a thermostat keeping a room at a somewhat steady temperature.

She concludes that while systems often exhibit resilience, which is the ability to achieve stable steady states, the same feedback complexity that produces that resilience can often lead to sudden, unexpected system collapses, like a stock market crash or a program-freezing memory leak. The complexity, fluidity and elusiveness of system dynamics are why we have to playtest our games so much, to explore their possibility spaces "on foot," as it were.

Tracy
Fullerton
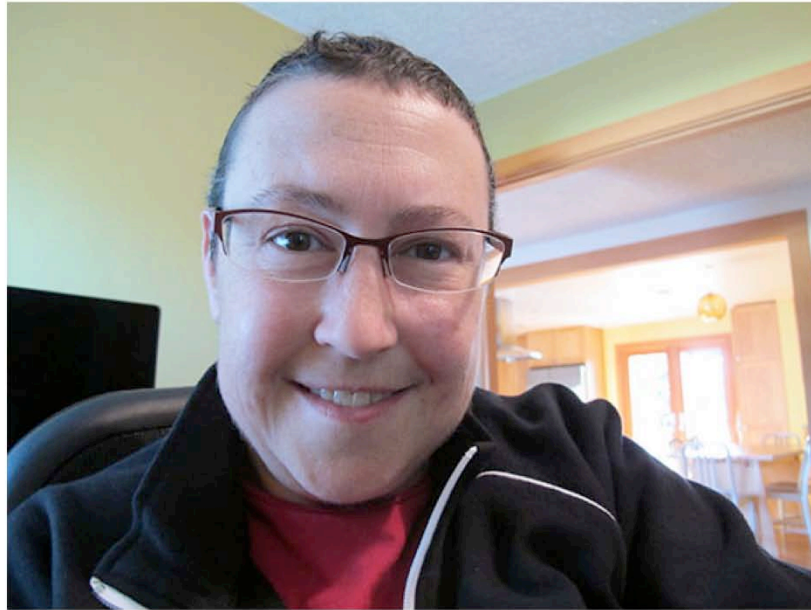
In her book, *Game Design Workshop,* my friend and boss Tracy Fullerton, the Director of the USC Games program, outlines what she calls...
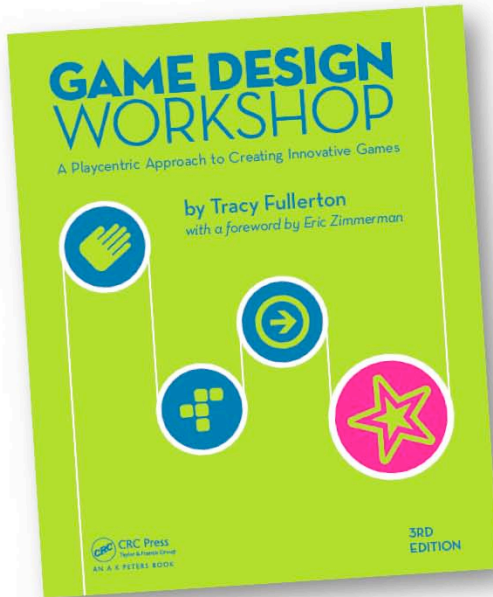
formal elements of games

players
**objectives**
rules
procedures
resources
conflict
boundaries
**outcome**

…"the formal elements of games". These include 'objectives,' which are any short-, mid- or long-term goals of a game, which she contrasts with the game's 'outcome': whether a game is won, lost, tied, or whether something else happens.

If the outcome of the game is that it can be won, lost or tied, then that game is competitive. Poker, chess, basketball, cricket, *StarCraft* and *Johann Sebastian Joust* all offer very different kinds of competitive play, and all of Tracy's formal elements are in place in these games.

*SimCity 4* / *Alien Garden* / *Electroplankton* / *Minecraft*
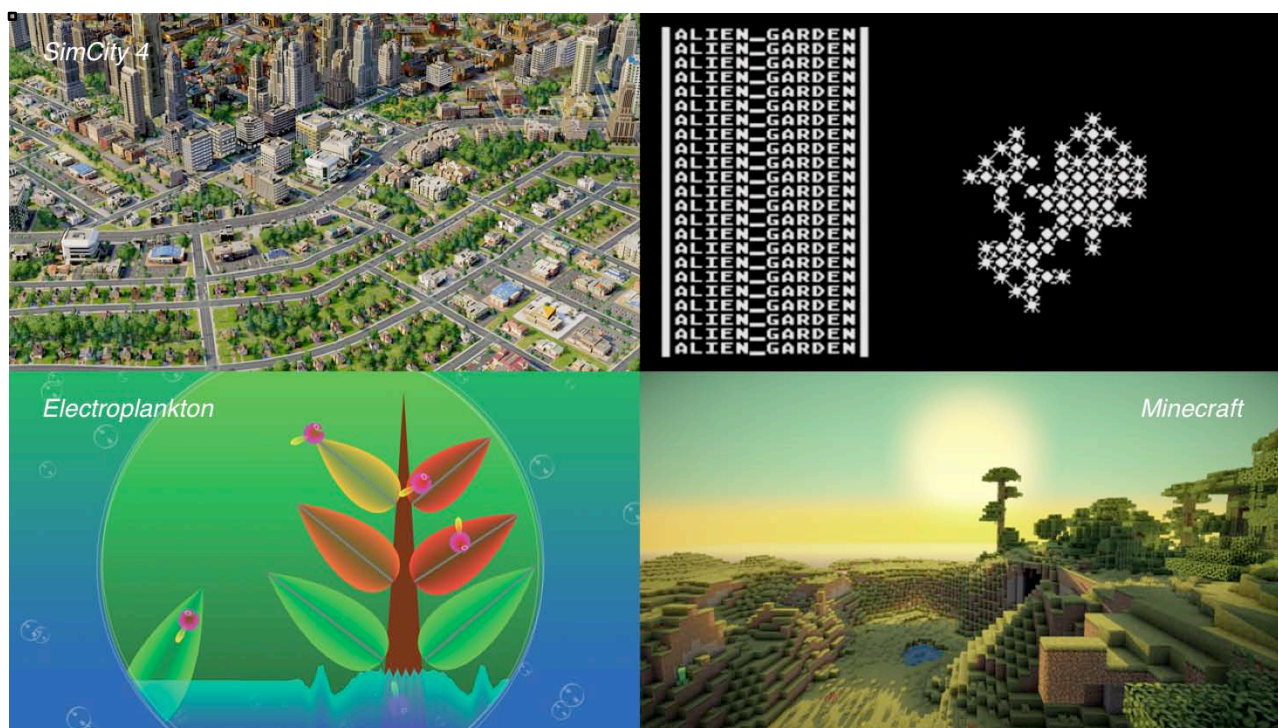
But what about games that are not competitive, in that they don't have an outcome where the player can be defeated or otherwise suffer a "loss"? Classic games like Will Wright's playful urban model *SimCity,* Jaron Lanier and Bernie De Koven's early art game *Alien Garden* for the Atari 800*,* the Nintendo DS game *Electroplankton* by the contemporary artist Toshio Iwai*,* and, of course, *Minecraft*, which is an incredibly compelling example of a game with no ultimate possible outcome of permanent defeat—at least, not until the Story Mode was added.

Tracy's conception of an outcome works well for these kinds of games, too—there is still an outcome, but rather than being an outcome of victory in the face of possible defeat, the outcome is some kind of change of state in the player, perhaps the appearance of new sensations, emotions or ideas. By removing the element of competition against a preordained single-player win state or against another player, we often come to see the other parts of a game in a new light.

Jesper Juul

*Without a Goal –*
*On open and*
*expressive games*

In Tanya Krzywinska
and Barry Atkins (editors)
*Videogame/Player/Text*
Manchester University Press
2007

In a 2007 book chapter "Without a Goal – On open and expressive games," game theorist Jesper Juul described how 'sim' games like *The Sims 2* and 'sandbox' games like *Grand Theft Auto: San Andreas* offer players a kind of self-expression through play that games with the pressure of a possible 'lose' outcome usually do not.
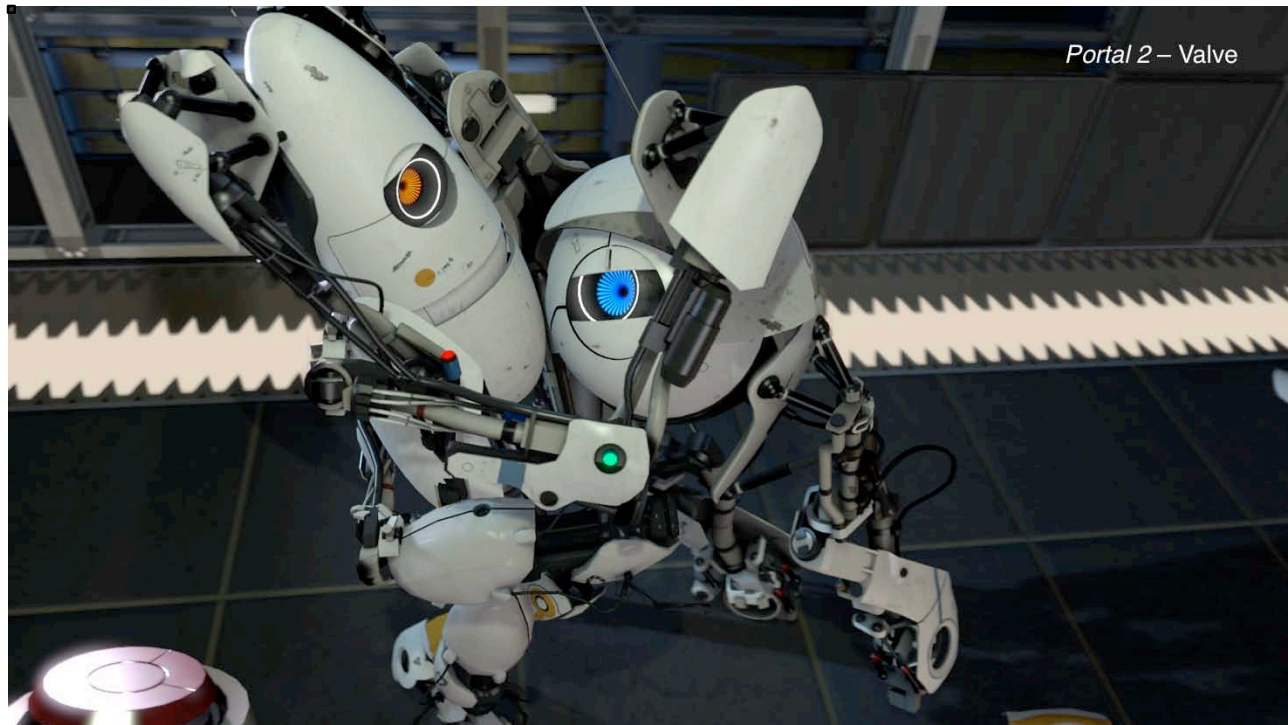
The *Portal* series also strikes me as offering players a similar kind of self-expression, because of its sandbox flavor and player-favoring design orientation. For the rest of this talk, I'm going to borrow Jesper's use of the word, 'open' to talk about 'open play' in 'open games' that don't have an outcome of possible 'loss' or defeat.

Competitive games and open play
**Walking Simulators and games as languages**
Other names for "open" games
Open game mechanics
Subjectivity and language-games
*Finite and Infinite Games*
Training, education and stories of my life
Game of the Year
Conclusions

At the time I wrote this talk there were seventy-six games on the Steam store tagged with the phrase "walking simulator".
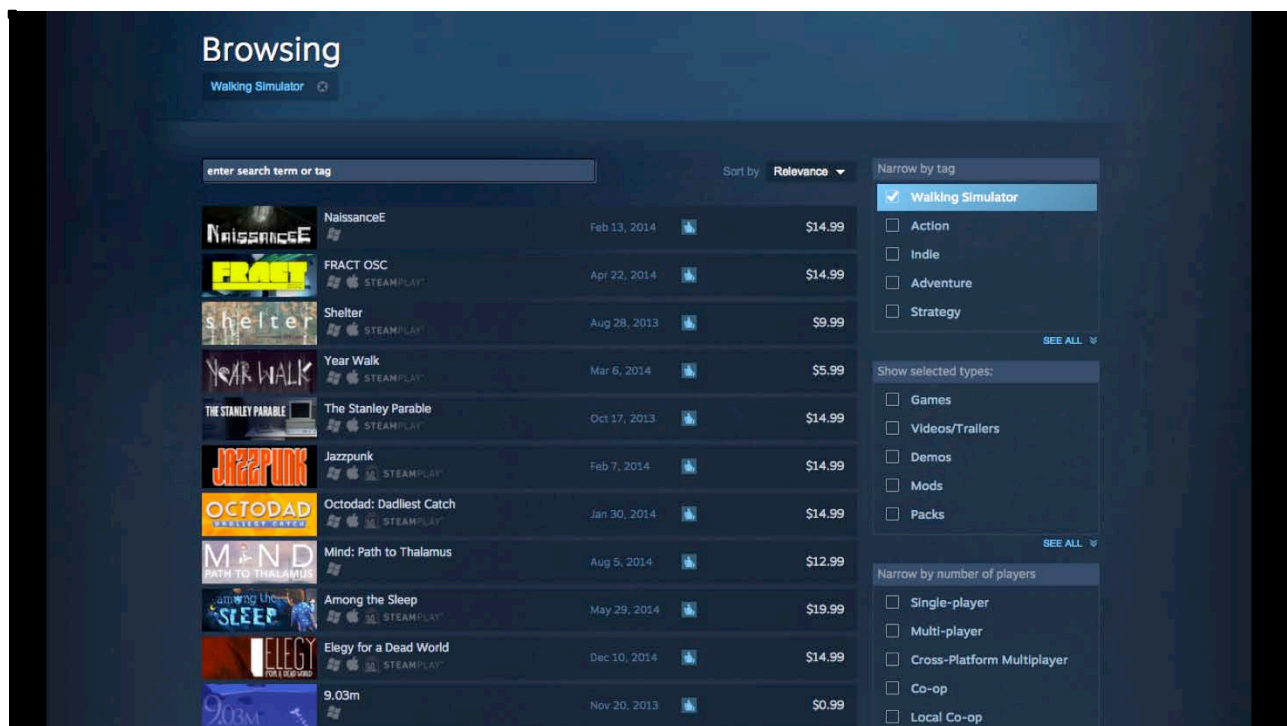
You know the ones—they're the games that Social Justice Warriors play. Well, I guess that makes me an SJW. "Walking simulators" are classic open games like *Dear Esther, Proteus, The Stanley Parable* and *Gone Home.*

Now "walking simulator" isn't generally intended as a compliment, but it provides a useful lens for thoughtful designers.
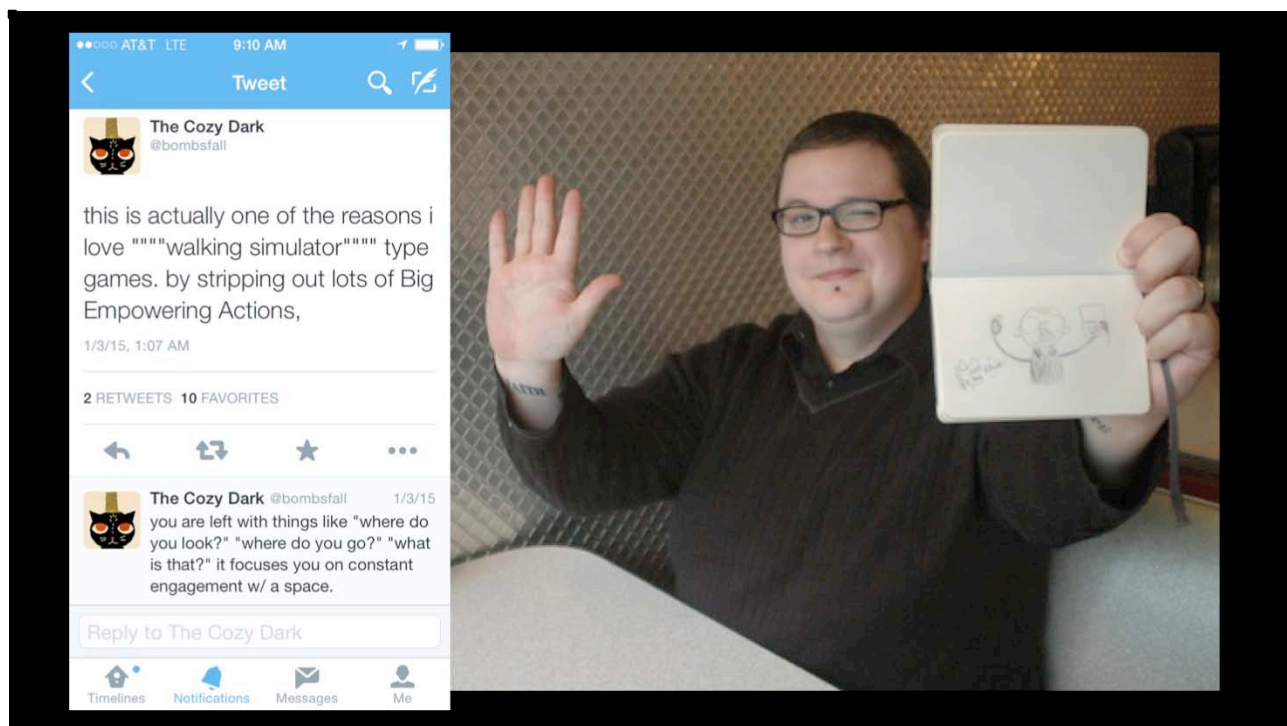
On Twitter a few weeks ago the animator, illustrator and game developer Scott Benson, currently working on *Night in the Woods*, wrote (and I'm paraphrasing him slightly):

"(…) one of the reasons I love 'walking simulator'-type games (is that) by stripping out (the) Big Empowering Actions, you are left with things like 'where do you look?,' 'where do you go?' and 'what is that?,' (which) focuses you on constant engagement with a space."

*The Last of Us* – Naughty Dog
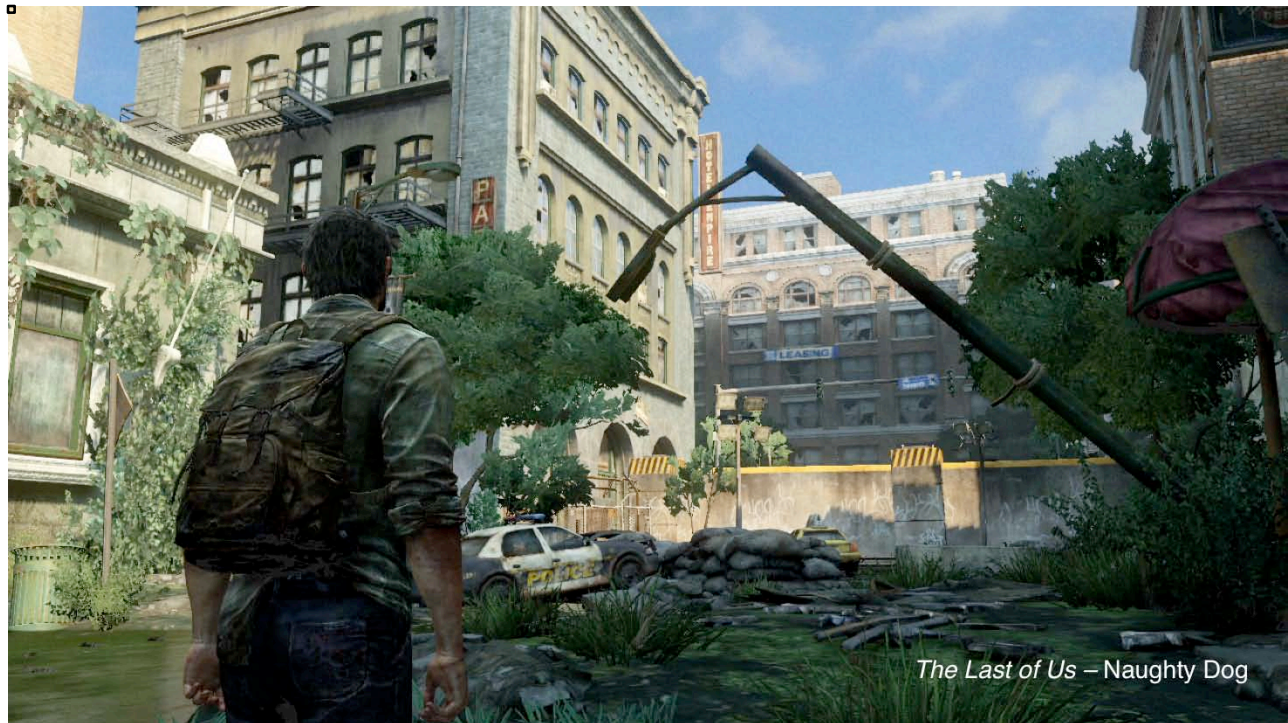
Of course, walking and looking in a video game are not *just* walking and looking – if they were, developers wouldn't spend so many hundreds of hours polishing and tweaking their first-person camera controllers, their third-person camera systems, and the extraordinarily complex traversal and animation systems that lie at the heart of most every modern game, providing the kind of expressive 'game feel' that Steve Swink describes in his landmark book of the same name.

Indeed, from *Donkey Kong* to *Last of Us*, walking and looking are two of the fundamental building blocks of the language of video games—a language that the player uses to express themself.

In the same paper I mentioned earlier, Jesper Juul says that games can be seen as languages, containing a lexicon (the words of the language) and a syntax (the arrangement of those words). To quote Jesper again:

*In this perspective, an expressive game is one that allows players*
*to arrange and combine the elements in the game*
*in a large number of different ways*
*in a way that players interpret to have a wide range of meanings.*

~ Jesper Juul
*Without a Goal – On open and  expressive games* (2007)

"In this perspective, an expressive game is one that allows players to arrange and combine the elements in the game in a large number of different ways in a way that players interpret to have a wide range of meanings."

He concludes that open games offer players particularly powerful vehicles of self-expression; for example, by creating (and showing off) families and houses in *The Sims*, or by exploring and perfecting maneuvers in sandbox games.

M. C. Escher
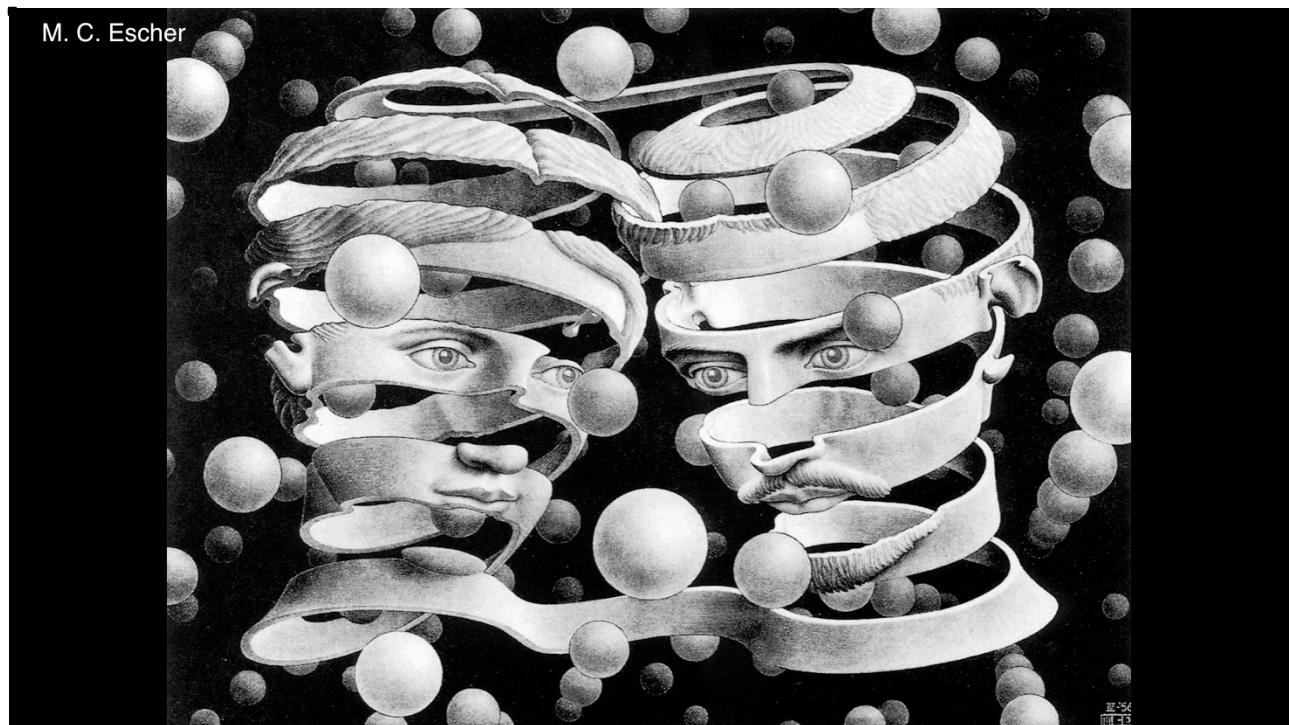
Now, this kind of formal analysis is not the end of what happens in open or expressive games, only the beginning. There's an implicit call here to question what is happening when players "arrange and combine elements" in a game. Is that something that happens in a way that we could reliably observe in the player's behavior, as they interact with the game's hardware and software, or is it something that might only happen internally for the player, as they feel and think their way through the experience of the game? We'll look more at this subject in a moment.
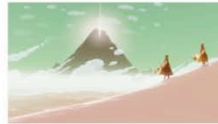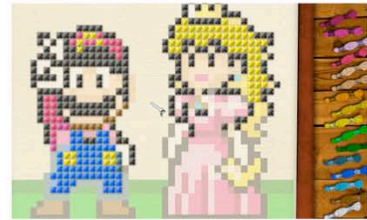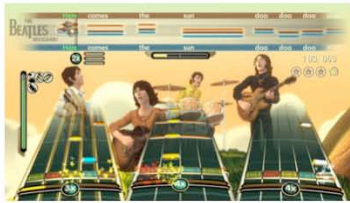
There's also a connection to be made here to the kinds of open play that digital game designers have been featuring in their games down the years, but have only been willing to put center-stage relatively recently: creative leisure pursuits like recreational cooking, playing musical instruments, dancing, needlepoint, woodwork, sailing, climbing, hiking…

*Realistic Kissing Simulator* – Jimmy Andrews and Loren Schmidt
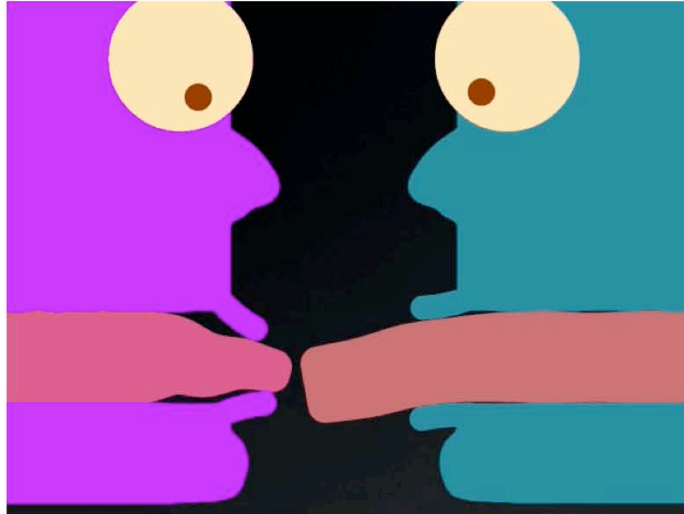
…or even the game designer's biggest apparent challenge: sex.

These are all aspects of culture—and as Huizinga reminds us in his chapter on "Play-forms in Art":

*Plato understood creativity as play.*

~ Johan Huizinga
*Homo Ludens*

"Plato understood creativity as play."

Competitive games and open play
Walking Simulators and games as languages
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Daniel Benmergui
*Today I Die, Storyteller, Ernesto*

# "experiential" games

In the same year that Jesper wrote his paper, game designer Daniel Benmergui, the creator of *Today I Die* and *Storyteller*, first coined the term "experiential games" on his blog. Experiential games exhibit 'open play' in that they forgo challenge-based victory outcomes in favor of open, explorative experiences, often in pursuit of an artistic impact.

Auriea Harvey & Michaël Samyn
*Tale of Tales*

"notgames"



*The Graveyard*



In 2010, Belgium-based game artists and savvy rhetoricians Tale of Tales controversially coined the term 'notgames' both to describe their experiential games like *The Graveyard*, and to deliberately distance themselves from what they saw as negative aspects of game culture. I'm on record as saying that *The Graveyard* is the game that inspired my work on *Uncharted 2*'s experiential 'peaceful village' sequence.

"reflective"
games

*Night Journey*,
– Tracy Fullerton, Bill Viola
& the USC Game Innovation Lab

Tracy Fullerton has used the term, "reflective gameplay" to point at open play. Her 2007 installation game *Night Journey* was created in collaboration with noted video artist Bill Viola. Inspired by Bill's early black-and-white video work, *Night Journey* is a meditative, explorable environment that examines the universal experience of an individual's spiritual journey.

*Walden* –Tracy Fullerton & the USC Game Innovation Lab

Tracy and her team at the USC Game Innovation Lab are now working on *Walden*, a reflective game inspired by the work of Henry David Thoreau with similar transcendental goals.

*Vietnam Romance* – Eddo Stern

*Gaming:*
*Essays On Algorithmic Culture*
– Alexander R. Galloway

## "countergames"

*Escape from Woomera* (2004)
– Katharine Neil and team



In his 2006 book, *Gaming: Essays On Algorithmic Culture,* media theorist Alex Galloway uses the word, "countergaming" to describe the mods and conversions made by game artists like Eddo Stern and Katharine Neil. Like Jesper Juul, Galloway points out the nature of games as languages with grammar and a poetics, and he calls for artists to create not just new grammars of visuality in games, but whole new grammars of action.

# deep games

*Luna* – Robin Hunicke & Funomena

Last fall, Fast Company writer Adam Bluestein coined the term "deep games" in an article about Robin Hunicke's new studio Funomena. Adam talked about Robin's work on the experiential game classic *Journey*, Funomena's forthcoming game *Luna*…

Ian Dallas & Giant Sparrow



*Mountain* – David OReilly

…and also discussed Giant Sparrow's storytelling art game *The Unfinished Swan* and David OReilly's provocative, iconoclastic *Mountain.*

open

expressive

notgames

experiential

countergames

reflective

deep

Open, expressive, experiential, reflective and deep. These words seem to be circling something—something that seems intuitively graspable, yet elusive and ambiguous.

*Shenmue* –Yu Suzuki & Sega AM2

I've been thinking about this aspect of games ever since I played Yu Suzuki's 1999 walking simulator *Shenmue*, which, as Twitter user Roran Stehl pointed out, might be the experiential game from which all others spring.

*Night Journey*,
– Tracy Fullerton, Bill Viola
& the USC Game Innovation Lab

As Scott Benson mentioned, when we leave behind the Big Empowering Actions that we associate with the struggle for victory, other interesting things emerge. Some game designers and critics use the word "content" to refer to the audio and visuals of games, and through this lens, we might see some of the open games we've been discussing as a kind of "content delivery mechanism". I have a problem with that, but I'll set it aside for a moment.

Certainly, open game creators have consistently shown that when artistry is deployed with sensitivity and nuance in a game space, the results are very powerful. Bill Viola's video works are as impactful in the navigable spaces of *Night Journey* as they are in the galleries of New York City's Museum of Modern Art.

*Dear Esther* – thechineseroom

Jessica Curry's music, Dan Pinchbeck's script, Nigel Carrington's voice and Robert Briscoe's visual art combine to sublime effect in *Dear Esther*.

In this sense, open digital games are what I and many others have been claiming for them for years: a kind of meta-cultural form which can possibly draw from the language of every cultural form ever to have existed. By focusing on tone and texture, exploration and expressivity, these kinds of mechanics seem to be able to draw out emotions and moods that other games might struggle to access.

*Dear Esther* – thechineseroom

As Dan Pinchbeck said to me recently in an email: "People have a limited amount of things they can do in any given timeframe, so emotional responses are competing for attention with things like mechanical or intellectual processing. If you fill out a player's resources with stimuli and calls to action, you are going to inevitably reduce the resources they have available for other things, like feeling emotions. And because the calls to action in many games are very immediate, because placing the player under threat or demanding a solution to a pressing puzzle are seen as core to gameplay, you can't help but shove emotional response to one side. What we've seen in the last few years is more and more games simply giving those emotional responses the time and space they need to occur."

So, aside from the possible incorporation of every art form that has ever existed, what other mechanisms do we find in open games to hold our attention, without tantalizing us with an outcome of possible defeat?

*Settlers of Catan*

*StarCraft 2*

Most games have an underlying rhythmic structure based on repetition—like the turn taking of *Settlers of Catan*, or the building and unit-producing actions of *StarCraft*. Overlaid onto that repetition is variation, which holds our interest with novelty and ever-emerging new strategy.

This is the thinking behind *Halo* designer Jaime Griesemer's famous "thirty seconds of fun," where a repeating pattern of run-stop-pop-shoot FPS gameplay is overlaid with endless variation, producing the games that we know and love.

Minecraft Production Web
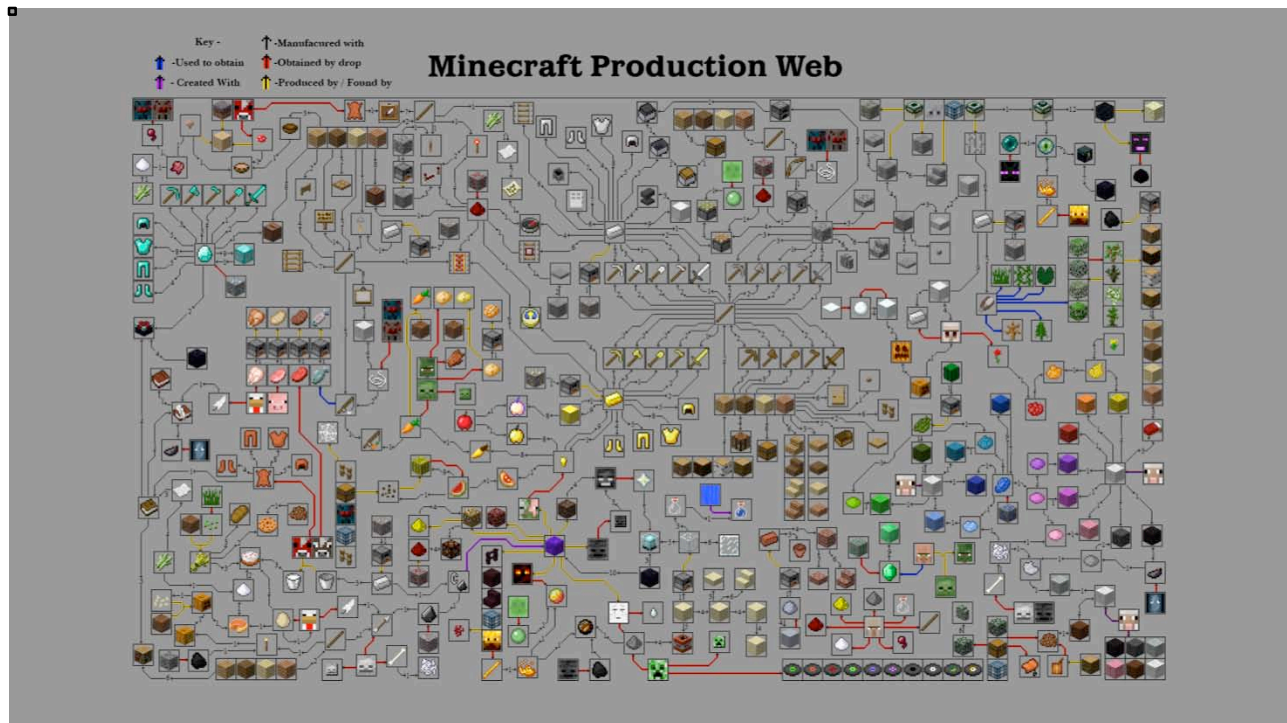
If walking and looking are the carrier signals for an open game experience, and provide an underlying repetitious rhythmic structure for a game, we might look elsewhere for the local variation that sustains our players' interest in the game. This can be provided by open games that have a fine degree of granularity of interaction with the environment. If the relatively constrained interactivity of *Dear Esther* is towards one end of a spectrum, then *Minecraft* might be near the other, where an interactive opportunity—to harvest a resource or craft a tool—is almost always within reach.
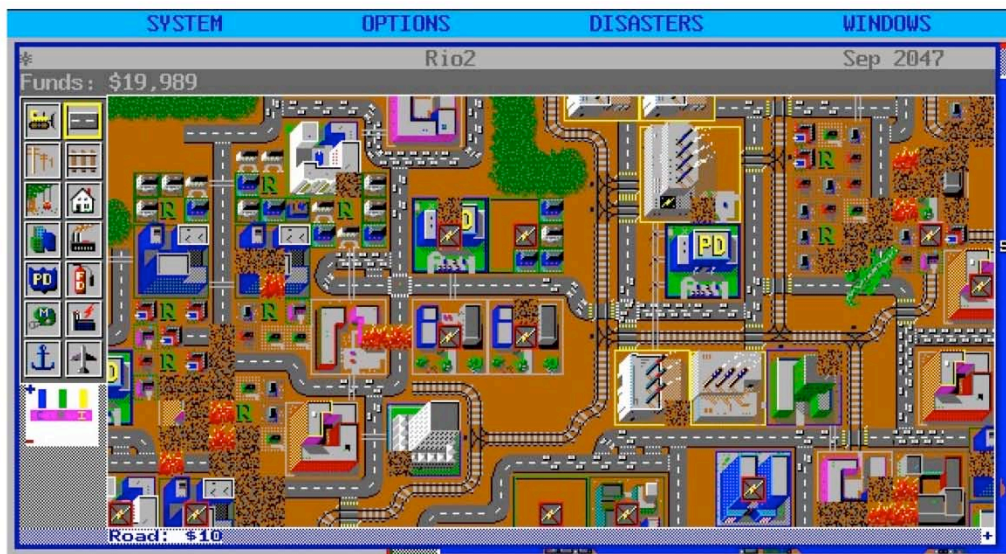
*SimCity* – Maxis

*SimCity*, with its roots in the strategy game genre, has a similarly high-frequency opportunity for interaction, providing lots of choice and opportunities for self-expression.

*Proteus* – Ed Key & David Kanaga
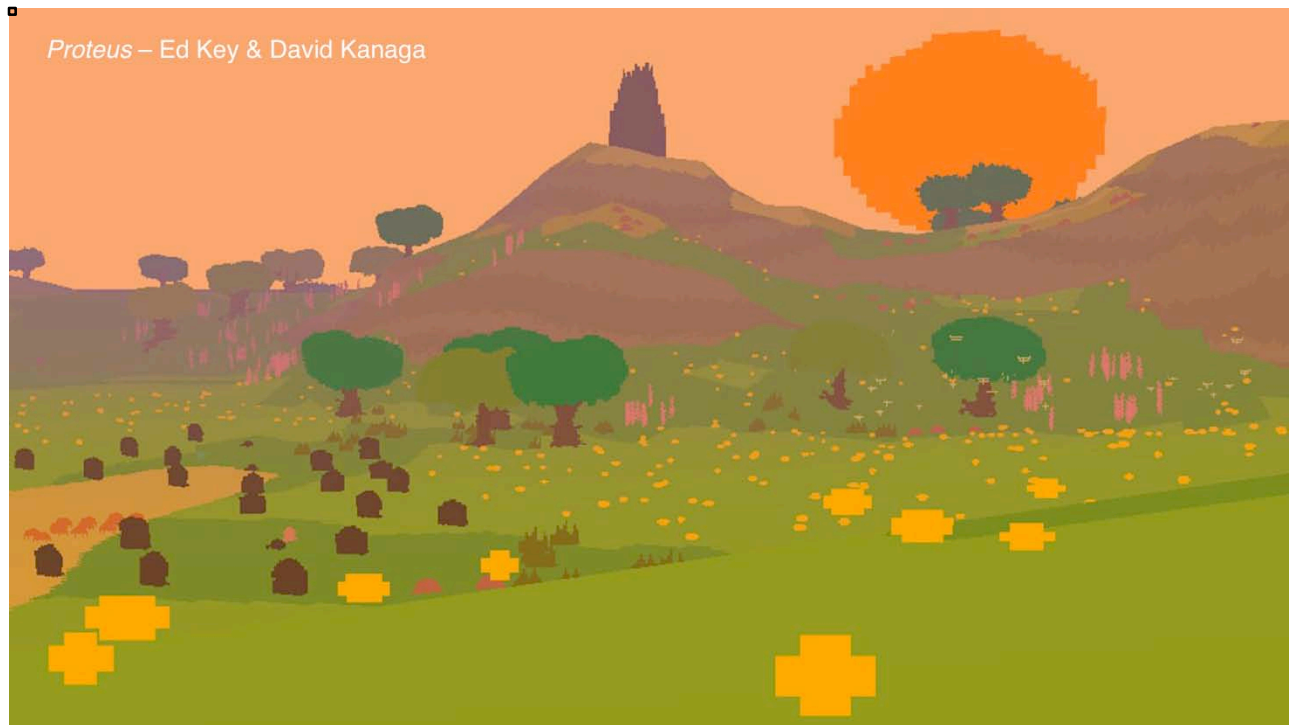
*Proteus* might be somewhere in the middle—its frogs, chickens and owls react to your presence, and your actions can trigger sudden accelerations in time, all creating a sense of a meaningful relationship with the world of the game.
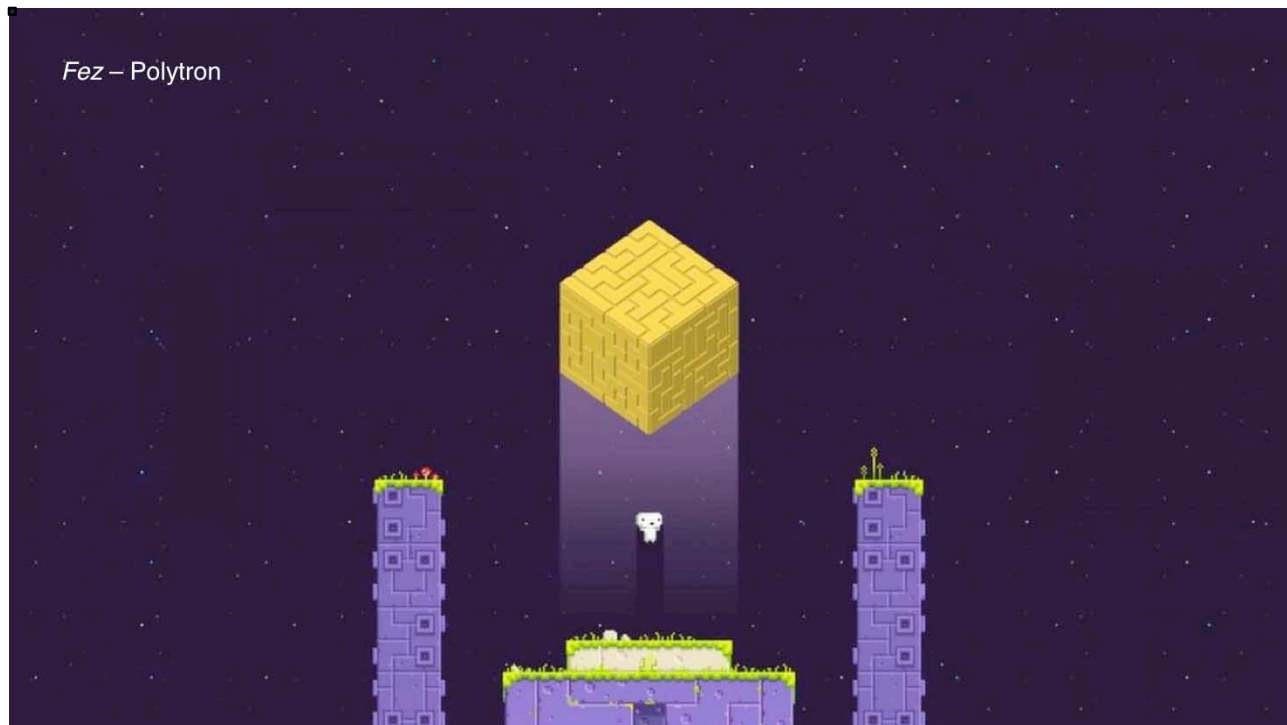
*Fez* – Polytron

Polytron's 2012 game *Fez* shows itself to be an open game from the moment you fall off the world and immediately re-spawn right where you jumped from. *Fez* allows the player to freely view four different projections of the game's topology at any time, hugely expanding the player's opportunities for exploration and discovery.

*Curtain* – Llaura Dreamfeeel

Games are good when they have progression markers, like gates and doorways, or even just landmarks, new characters, new abilities or changes in the color, tone and texture of their lighting scheme and audio design. Even if we're not focused on "beating" a game, most game players like to have the feeling that they're moving forwards.

The doorways in Llaura Dreamfeeel's impactful game *Curtain* are a great example of this mechanic*.* Your passage through each doorway as you head more deeply into the interior spaces of the game progressively marks your unfolding relationship with the game's characters, and the shifts in sound and color palette that take place as you move from one room to another help to encapsulate each subsequent scene of the game.

*Journey* – thatgamecompany
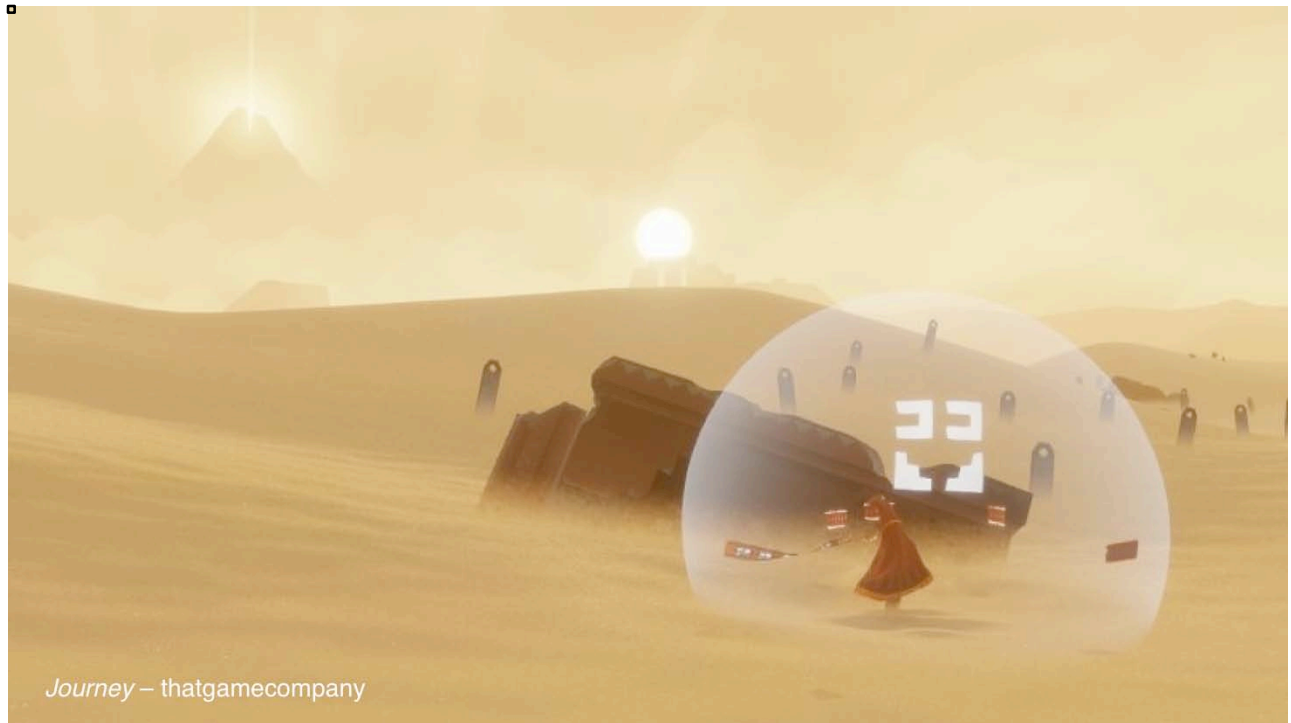
Some of the best open game mechanics are both expressive and have utility. The 'shout' system in *Journey* gives players an elementary tool to express joy, loneliness or searching, and at the same time gives players a simple channel of communication.

Gone Home – The Fullbright Company

Kaitlin, the player-character of The Fullbright Company's *Gone Home*, will carefully put objects back on a shelf if she is looking at the place where she originally picked them up from, but can toss them away into the corner of the room, if the player chooses to do so.

Objectives = goals
short-term objective: pick up the object
medium-term objective: get to the next room
long-term objective: learn what happened to a character

All these mechanics make sense in the context of the objectives or goals that Tracy lists as a formal element of games. Just because a game does not have an outcome of possible defeat does not mean that it can't have a multitude of short-term, mid-term and even long-term objectives.
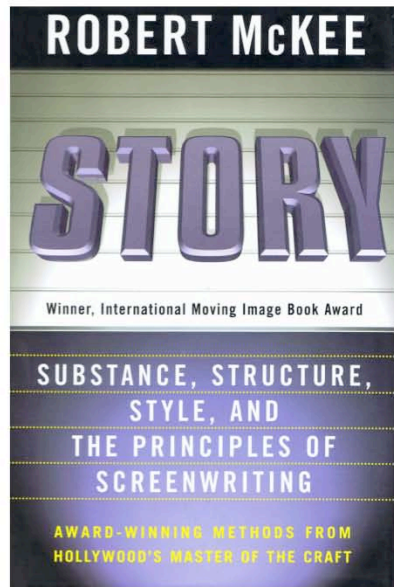
Frank Daniel

Seen in one way, human beings are goal-making machines, and are constantly searching their environments for possible objectives that they might work towards. Screenwriting gurus like Robert McKee and Frank Daniel encourage storytellers to see their characters through the lens of their goals, and how they struggle to attain them. The way that players set goals for themselves can even draw them into flow states, a phenomenon described by Csikszentmihalyi that I spoke about in my GDC talk in 2012.

One last point that I want to make before we move on is that, as game designers, when we deconstruct a game to its mechanics and interactions, we often miss its subjective aspects.

From the project *Another Language* by Mårten Lange
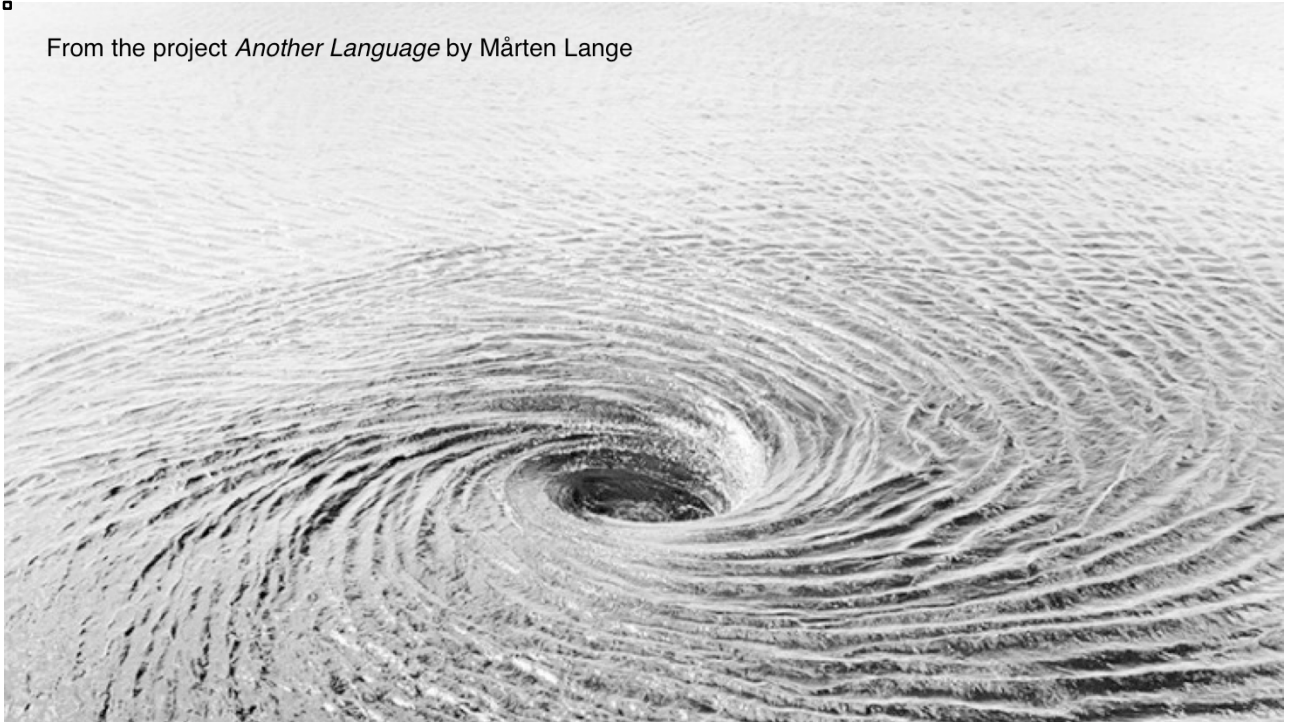
These are the poetic, the literary, or the ineffable qualities of a game that are, in a way, devices of our hidden inner lives, hard for us to identify and decompose because for a long time in the games world we've lacked much in the way of language analogous to that of the literary critic, the film critic, or the art critic.

*Uncharted 2: Among Thieves* – Naughty Dog
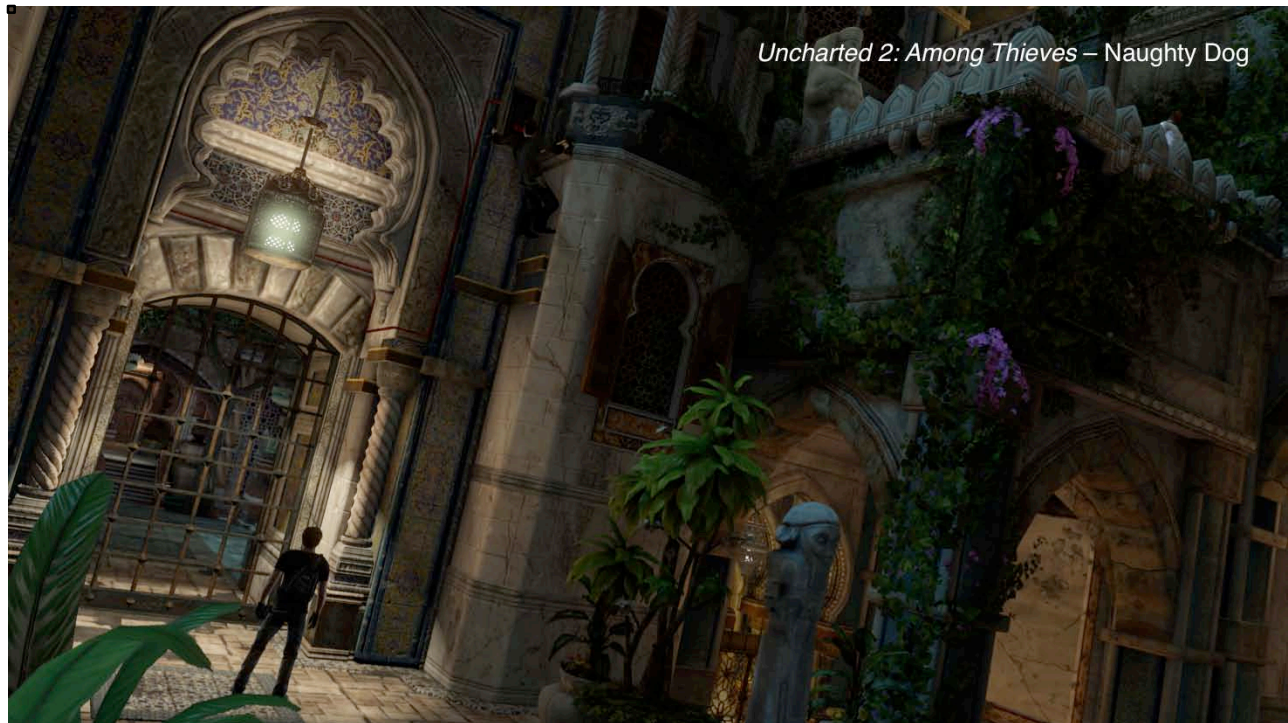
Speaking as a designer who knows that a small change in the way that a mechanic is audio-visually depicted can lead to a huge change in the way that the mechanic is perceived and used, I've never been comfortable with setting up any kind of dichotomy between mechanics and content. If the door were a different color, you might not see it any more, and so couldn't interact with it. When you change the sound effect connected to an input, the game feel changes. Conversely, the changes that you undergo when you look at a painting or hear a poem can have something of a mechanical character to them, especially through the lens of a perceptual psychologist, a social scientist or a literary critic.

*Art is not only about something;*
*it is something. A work of art is a thing*
*in the world, not just a text or commentary*
*on the world.*

~ Susan Sontag, *On Style*
from *Against Interpretation and Other Essays*

In her excellent essay *On Style,* the American writer Susan Sontag discusses the impossibility of separating the form of an artwork from its content. She says, and thanks to game critic Brendan Keogh and designer Naomi Clark for bringing these quotes to my attention:

"Art is not only about something; it is something. A work of art is a thing in the world, not just a text or commentary on the world."

"An approach which considers works of art as living, autonomous models of consciousness will seem objectionable only so long as we refuse to surrender the shallow distinction of form and content."

Artworks are like mirrors for our consciousness—they might even seem to be alive, because we bring them to life each time we approach them. Great art often appears differently to us each time we encounter it, because we ourselves are constantly changing.

Ludwig Wittgenstein
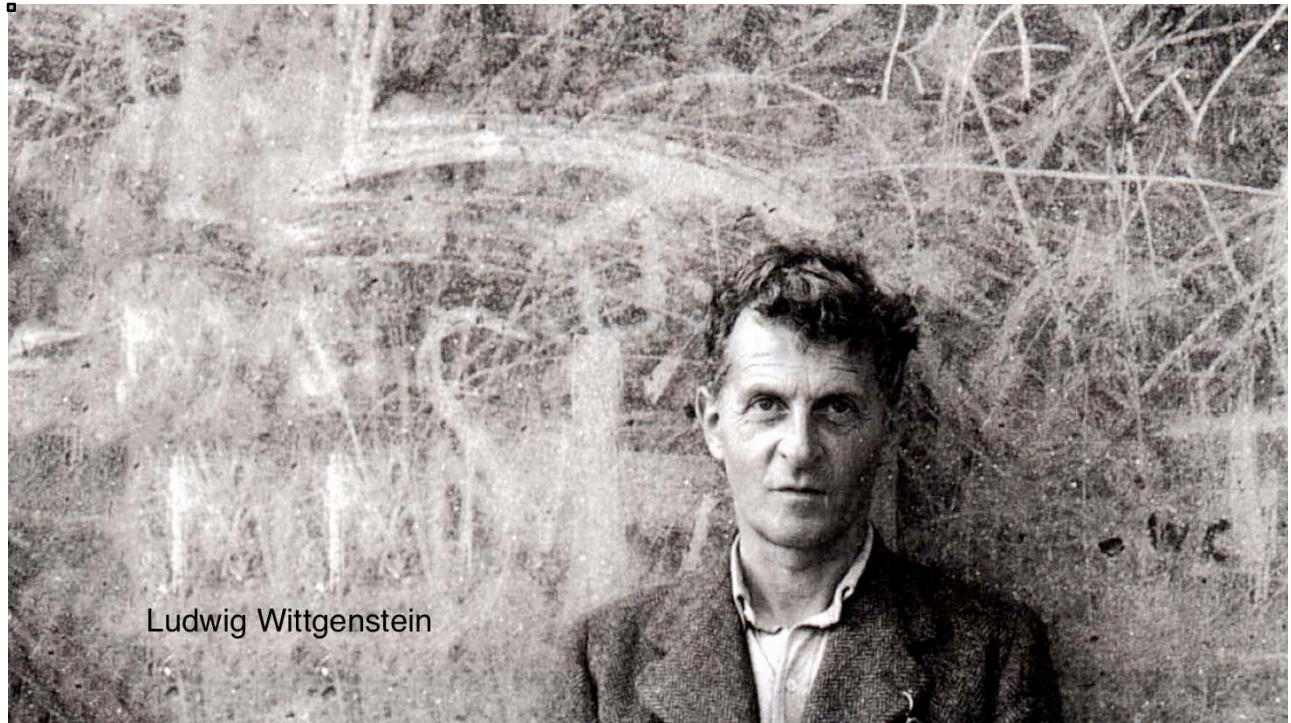
Philosophers of language have argued for a long time now that language is not separate from the reality that it describes, and that the meanings of words do not come to us from a kind of mental look-up table or dictionary. The philosopher Ludwig Wittgenstein helped revolutionize linguistic philosophy—and indeed, the whole of Western thought—by arguing in his 1953 book *Philosophical Investigations* that meaning in language is produced by nothing less than games.

# "language-games"

Wittgenstein used the term 'language-game' to refer to the way that words gain their meanings from the informal and often unpredictable games that we play with them as we use them in different contexts and to accompany different action. The rules of these games are not fixed, but are in a state of constant flux as we play around with words in speech and writing, finding useful, impactful or delightful new ways to use them, while at other times deciding to stop using them in certain ways.
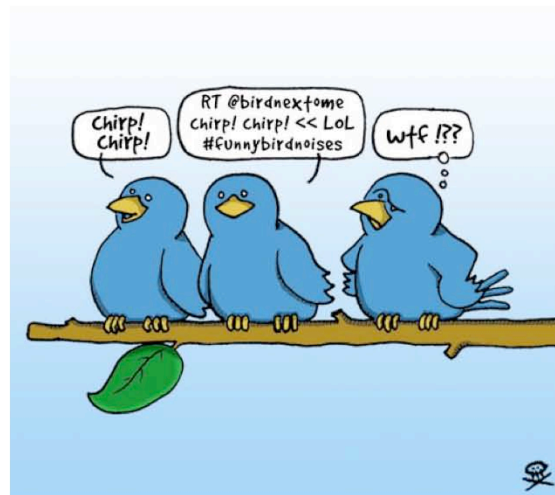
Author unknown

For example: the word 'tweet' has changed its meaning enormously in just a few years, because we started playing a new kind of language-game with it. We've played the new game so vigorously that the old meaning of the word has all but been eradicated. The meaning didn't change because someone changed it in the dictionary: it changed because we started playing a new set of games with it.
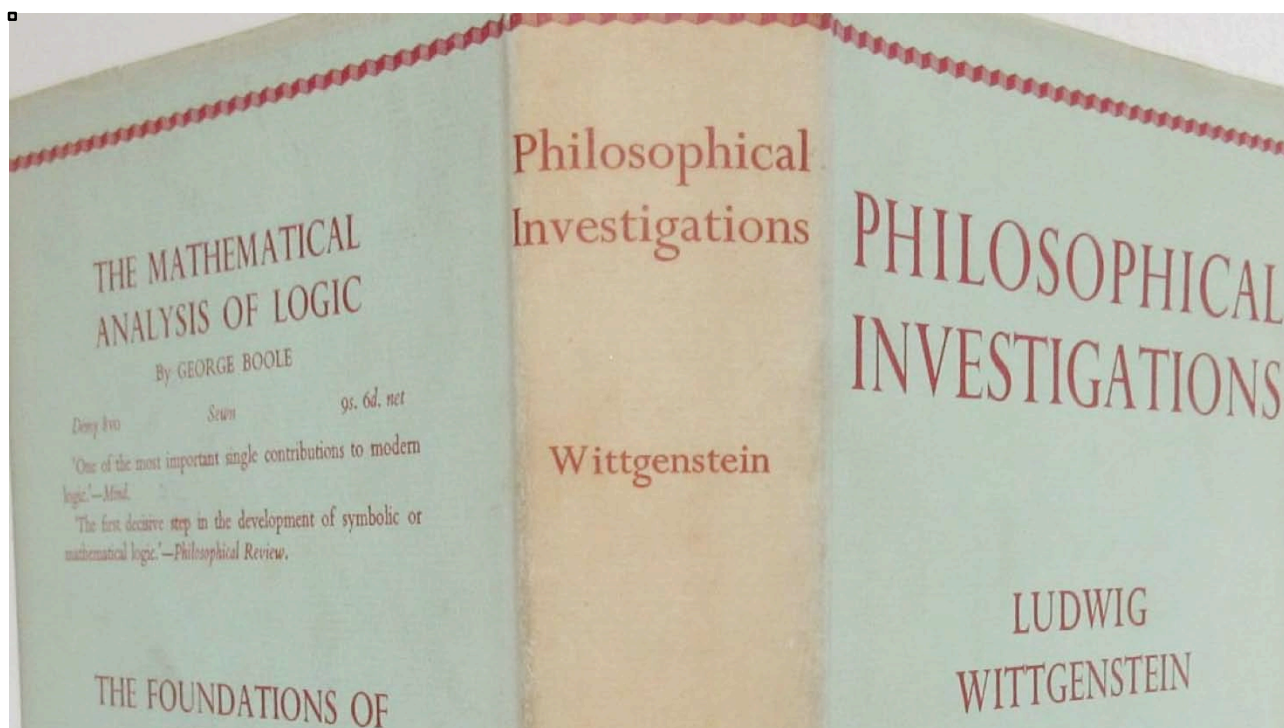
Wittgenstein's theory, that words gain meaning from the way we play with them, has tremendous explanatory power once you start using it to look at the ways that language drifts and mutates over time, and it explains why, despite attempts all down history to corral it, language cannot be governed or managed by anyone but those who enthusiastically use it. The linguistic philosophy of Wittgenstein and people like him has been *so* impactful that many philosophers believe that our very ability to think in the way that we do is predicated upon our ability to use language.

Steve Swink's model of interactivity, as presented in *Game Feel,* brings together all the elements of the game, including the player, their ideas, beliefs, generalizations, fantasies and memories, as well as the world around them.
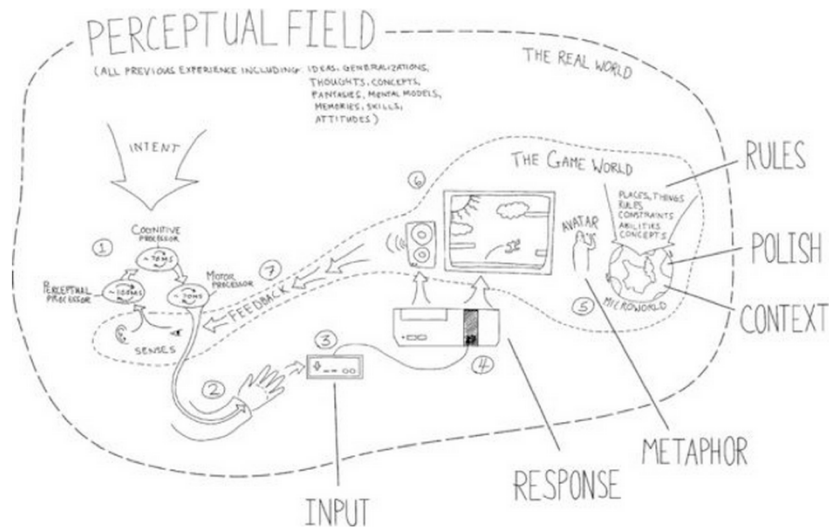


So play is not just happening in the systems of number, space and logic in our games. If, as Jesper Juul claims, games are themselves languages, and if the linguistic philosophers are right, then our ability to understand and reflect upon the meaning-producing mechanisms of games is inexorably intertwined with a whole other set of games that we're playing with every utterance we make, every word that we type and every emoji that we send.

The ways that games get their meanings will never be easily reducible to a simple set of game design aphorisms. That's not to say that formal analysis isn't useful and important—it is. We should just bear in mind that there are other useful ways for designers to deconstruct and understand their work.
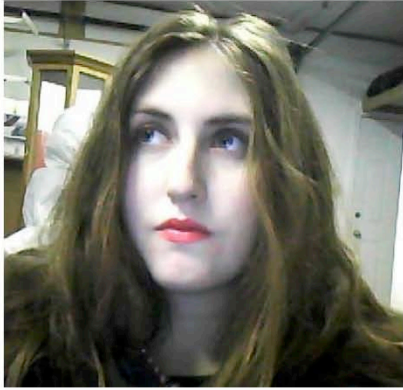
Lana Polansky
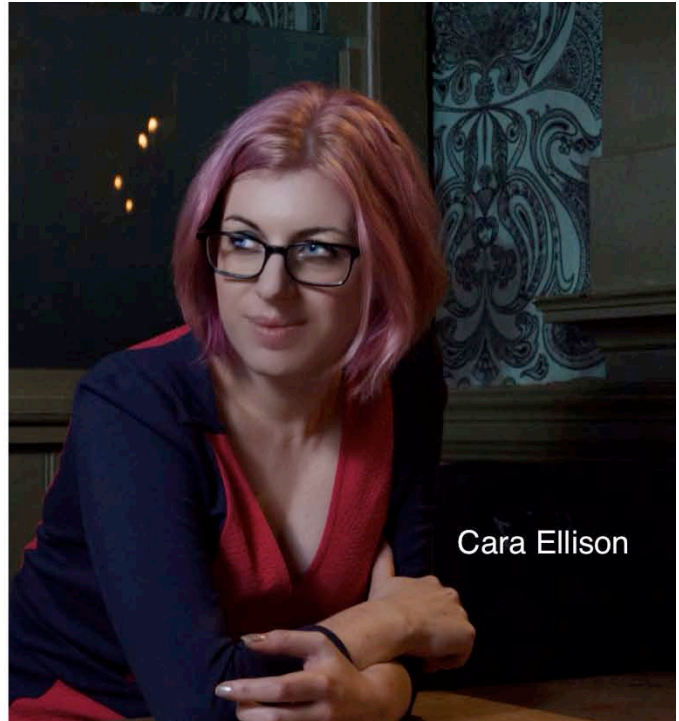


Cara Ellison

Fortunately, a new generation of critical voices has emerged, who both appreciate games and know how to write about the meaningful interior experiences they shape. Writers like Lana Polansky and Cara Ellison, perhaps respectively the Joan Didion and Lester Bangs of game criticism, are emblematic of the fresh air that has been blasting through games writing in the past five years…

www.critical-distance.com                www.arcadereview.net
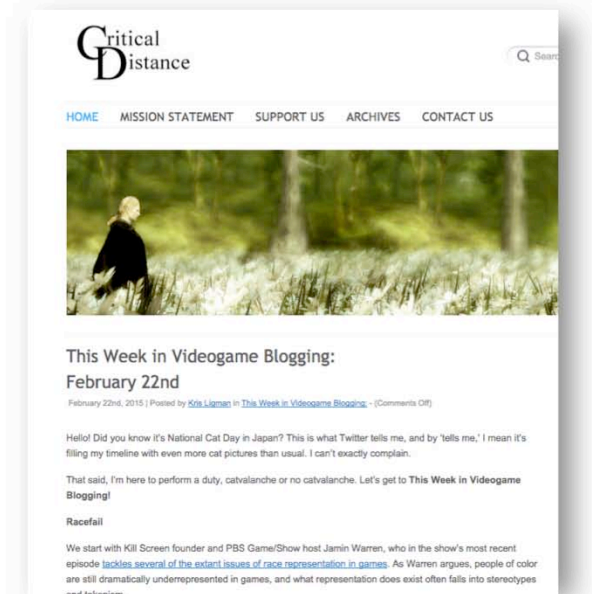




…while Critical-Distance.com aggregates the best of game criticism each week, and Zolani Stewart's *Arcade Review* magazine publishes great writing about experimental games. As Lana Polansky reminds us in her Bit Creature essay, *Playing With Words*, "reading in itself is an interactive, conversational process"—"We need to be 'active readers', not just to try to parse the work's intended or accidental meanings, but to develop our own insights about what those meanings signify."

Anyway, now that we've established some characteristics of open games and seen some of the ways that they work, let's look at the work of a thinker from outside the world of games, who might help us get some additional perspective on the value of open play.

James P. Carse

Professor Emeritus
of the History and Literature
of Religion

New York University

James P. Carse is a retired Professor of the History and Literature of Religion at New York University. He's had an interesting career writing about many different subjects connected to religion and belief, including the ways that belief systems can become authoritarian, and the ways that religions come and go through the years.

**1**
There are at least two kinds of games.
One could be called finite; the other infinite.
A finite game is played for the purpose of winning,
an infinite game for the purpose
of continuing the play.

**2**
If a finite game is to be won by someone,
it must come to a definite end. It will come to
an end when someone has won. . . .

# FINITE
## AND
# INFINITE
# GAMES

A Vision of Life as
Play and Possibility

JAMES P.
CARSE

In 1987, Carse published a book called *Finite and Infinite Games*, in which he argued that most every human activity can be seen as falling into one of two categories: either 'finite games' or 'infinite games'. Both types of games are played according to certain rules, which have been agreed upon by the participants in the games.

Hou Yifan, chess grandmaster

For Carse, finite games have a definite beginning and ending and are played with the desired outcome of winning and thus ending the game. Whether or not the game has been won is determined by the rules, and at the end, the winner of the contest is declared and receives some kind of recognition for their victory.

The types of activities that James Carse groups under this category of finite games are incredibly diverse. Of course, a game of chess or basketball is a finite game…

*Phoenix Wright: Ace Attorney*

…but he says that going away to college to get a degree can be seen as a finite game. Suing someone in civil court is a finite game, as is taking part in a presidential debate…

*Doctor Strangelove*

…and even one nation state going to war against another can be seen as a deadly kind of finite game. Carse is, of course, drawing very similar conclusions to those of Johan Huizinga here, finding play in every element of culture.

Infinite games, on the other hand, do not have clearly defined or knowable beginnings or endings. The only desired outcome of an infinite game is that we continue to play the game; although sometimes another outcome can be that more players are brought into the game. To quote the Wikipedia article on the idea, "An infinite game continues play, for the sake of play." Infinite players are less interested in winning, and are more interested in conversing, learning, and playing together.
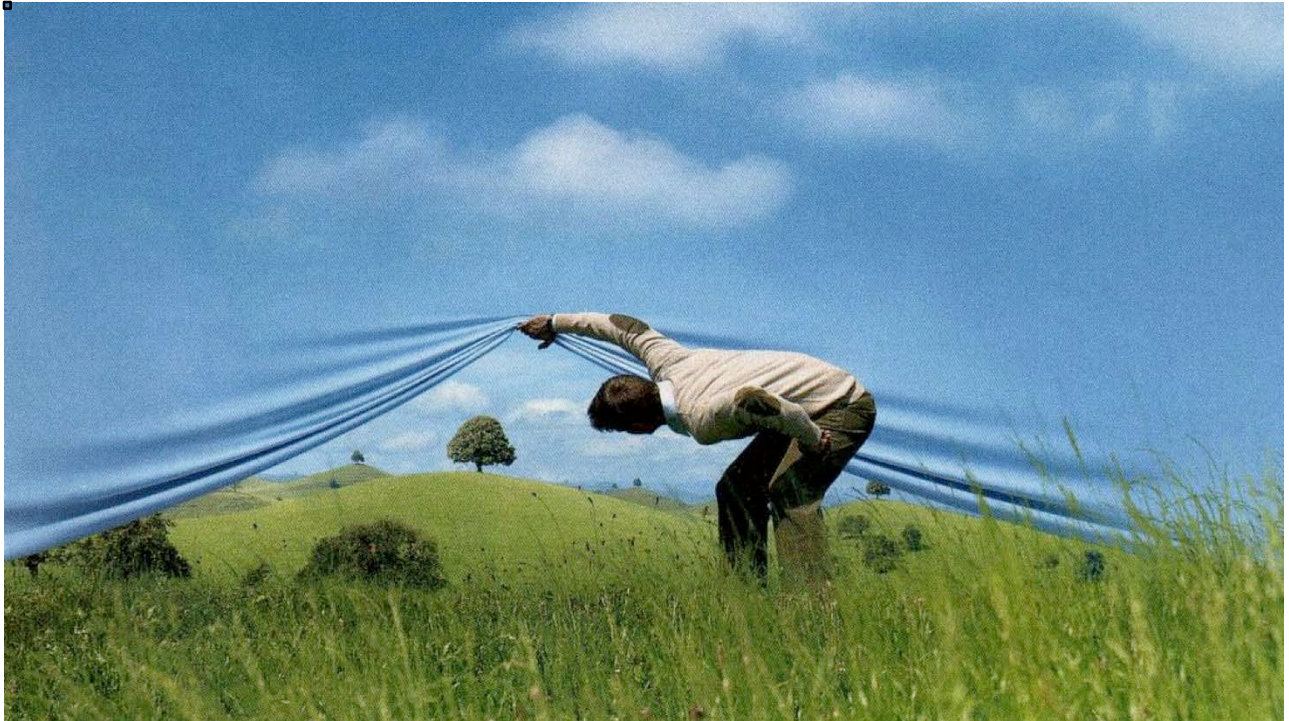
A strange thing happens in an infinite game when it looks like someone *is* going to win and the game is approaching resolution: the rules of the game must be changed, to allow the play of the infinite game to continue. Carse says that, because of this, infinite games have 'horizons' rather than outcomes, which, like the horizons in the world, always stay the same distance away from us, no matter how far we move towards them. "The rules exist to ensure the game is infinite." Because of this expansive boundary around infinite games, Carse is forced to conclude that the only known example of an infinite game is life itself.
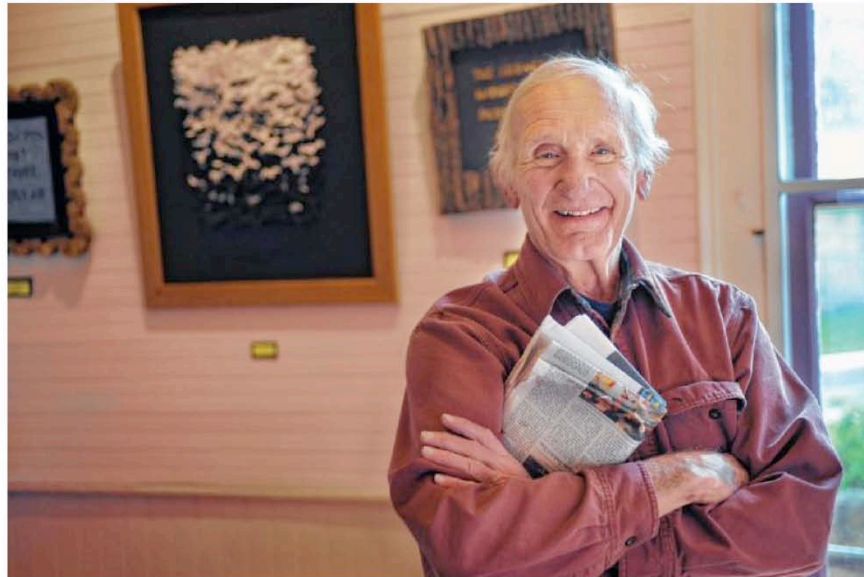
James P. Carse

As James Carse develops his conceptual theme throughout the book, he applies his model to many different settings and spheres, including history, economics, religion, storytelling, even sexuality.

For much of the book, Carse seems quite careful to describe finite and infinite games in ways that are somewhat neutral, relative to one another—he seems reluctant to put infinite play above finite play, despite the clear transcendent leanings that infinite play has.  He constantly reminds us that we are all players of both finite and infinite games.

However, as the book progresses, Carse characterizes the actions of what he charmingly calls "infinite players" in an increasingly positive manner, in terms of the way that they act, communicate and relate.

He points to the fact that finite games usually end in the winner seizing power, property or even gaining the ability to temporarily silence the loser. When this happens the play ends and the conversation stops, and when it does so, both losers *and* winners have lost something.

Lexicon Kids Preschool, Pune, India

By contrast, infinite players value conversation, participation and learning above all else. Carse continually returns to the idea that infinite players want to keep the flow of the play going, preferably drawing more and more people into whatever they're doing, and hence keeping the conversation advancing.

*Finite players play within boundaries;*
*infinite players play* with *boundaries.*

~ James P. Carse
*Finite and Infinite Games*

Carse says:

"Finite players play within boundaries; infinite players play with boundaries."

The more I read of Carse's book, the more connections I found between his idea of the infinite game, and the kinds of open games we've been discussing: games played for the sake of playing, games with no desired outcome other than to keep playing, and games as languages, as Jesper Juul describes. As Lana Polansky pointed out in her essay, *The Customer is Often Wrong,* games are conversations. Even when we play a single-player game, we're in dialogue: with ourselves, with the game's designer, and ultimately, with the whole of culture. She asks us to consider,

*What is the game saying to you?*
*What is it asking of you?*
*Do you accept this?*
*Are you listening?*

~ Lana Polansky
*The Customer is Often Wrong*

"What is the game saying to you? What is it asking of you? Do you accept this? Are you listening?"

# "theatrical" play
# versus
# "dramatic" play

Anyway, I think James Carse's book, *Finite and Infinite Games* is great. There is a sequence in there on the subject of "theatrical" and "dramatic" play. Carse associates theatrical play with finite games, and with a lack of choice on the part of the player. He says that theatrical play unfolds according to some kind of preordained script, and is intended to lead towards a particular conclusion, whereas dramatic play is enacted in the present, largely or completely free of preordained scripts, with a very high granularity of moment-to-moment choice.

*FTL* fan art by darkreaver on polykarbonbbs.com

*Road Not Taken* – Spry Fox
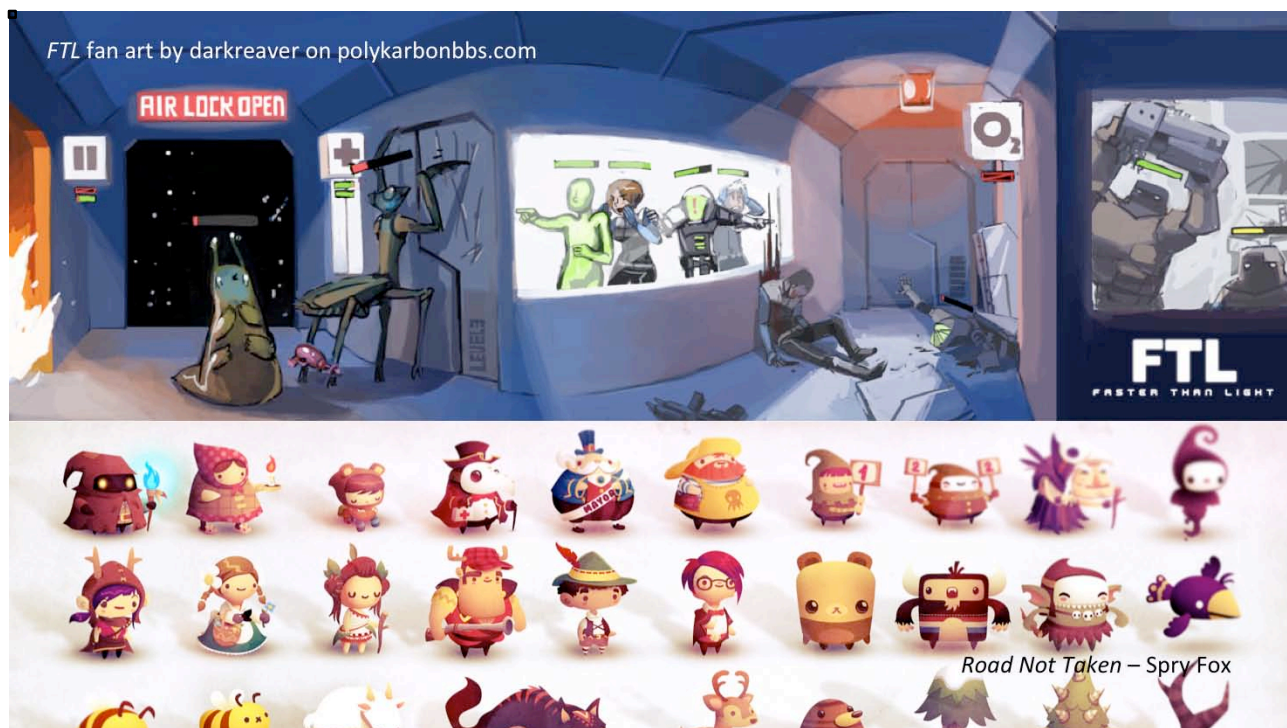
This type of play is a living drama, incredibly rich, often elating or terrifying, but engaging the player in a state of complete presence and agency in the world.

Now, hopefully the ears of the game designers among you interested in various kinds of narrative play have pricked up at this point. I am a game designer who has worked on storytelling games with highly scripted structures, and I think that games with preordained stories can be wonderful. But I've always been fascinated by narrative games that seem to point to open play, and that offer what I would call "sets of emergent outcomes," whether that's Subset Games' *FTL* or Spry Fox's *Road Not Taken*.
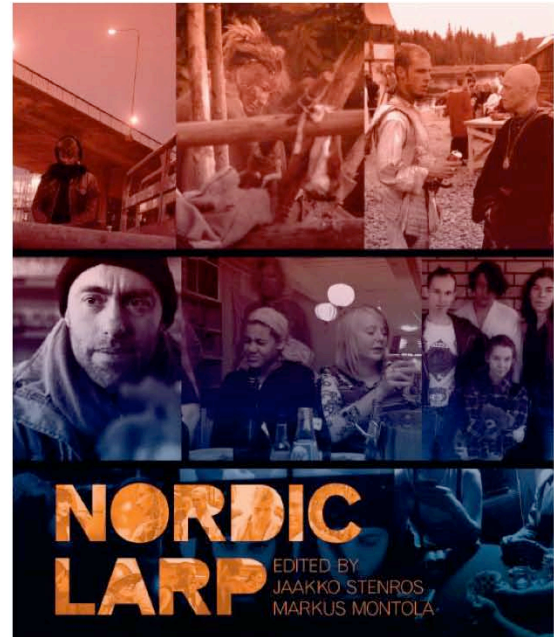
Dramatic games ask more of us. We can find connections here to role-playing games from *Dungeons and Dragons* to the serious and literary interactive games of Nordic LARP. As my friend Mark Cerny said to me in reviewing this talk, "When we play a role, we have to bring more to the game than when that role is handed to us… …you must assume a personality, which is a VERY different challenge than most video games require of you."

On the subject of surprise in games…
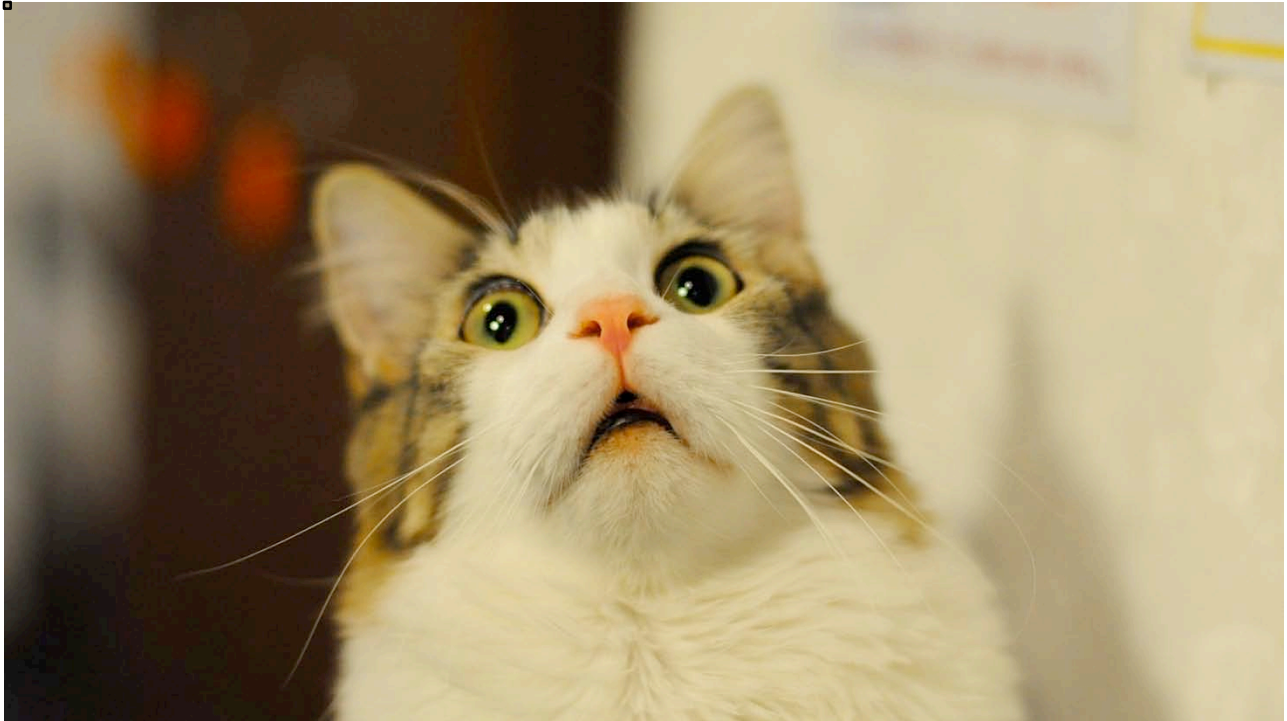
…James Carse says that while finite players do everything that they can to avoid being surprised while they're playing a game, since they're always trying to perfect their strategy by predicting every possible outcome, infinite players are not only prepared for surprise, but welcome it.

Serpentine 'd20,' circa 304 to 30 B.C.E. – Metropolitan Museum of Art, New York

For example, chance is an ancient component of games. For a while there, the designers of digital games, competitive games especially, were seeking to eliminate chance from their games, in pursuit of balance and fairness. But chance is currently making a comeback, from board games and card games to roguelikes and puzzle games. Maybe by embracing chance, we're accepting an invitation to see the world, and ourselves, with fresh eyes.

*To be prepared against surprise is to be* trained.
*To be prepared for surprise is to be* educated.

~ James P. Carse
*Finite and Infinite Games*

Carse says:

"To be prepared against surprise is to be *trained*. To be prepared for surprise is to be *educated*."

Think on that distinction for a moment. Many gamers, myself included at times, love to vaunt how the games that they've played have prepared them to solve problems and defeat their foes.

But what if games have trained us to react inappropriately to situations that we only imagine that we recognize?

Shern Chong

In the summer of 2012, the Malaysian game designer Shern Chong shared one of his ideas about first person shooters with me. He believes that game mechanics tend to train us into mindsets that we carry with us into daily life, and is concerned that most first person shooters teach one to dominate by reflex—to immediately react to a new stimulus by negating it, without stopping to consider whether there's another course of action. This might mean that when we have a disagreement with a friend in our lives, we might have been entrained to only see it as a battle of wills, that must be won by being forceful in word or deed.

The same could be said for many kinds of competitive games, where the rush to hasty real-time conquest outweighs most other considerations, and imperatively removes the possibility of deference and compassion. Now, I love playing first-person shooters, but I was deeply affected by Shern's remarks. When I look at the hostile way in which many people communicate with each other online today, I can't help but feel that any style of gameplay that helps to promote reflection and consideration is valuable. How much better would it be, to respond according to the world as it really is, to people as they truly are, instead of to be constantly jumping at shadows, reacting on the basis of our own worst imaginings?

Perhaps open games and the attitude of the infinite player can help us with this.

When I tell you stories about what happened in a game as a result of my actions in a way that isn't just telling you how I won, but *what happened to me*, those stories are more than just explanations of how I won a game. They're descriptions of my life. That's not to say that stories about winning a game or a sports match aren't interesting.

But perhaps by deliberately approaching games in this spirit of open and infinite play, we can open up the dramatic and artistic basis for games to the widest possible range of human experience, where a loss might be a win in disguise, or a moment of connection between human beings opens up new vistas of possibility for their relationship.

**Felgrat Rock Crusher**

You gave me this scar... now I'll give you a slow, painful death!

I had a great time with *Middle-earth: Shadow of Mordor* this year. As you know, that game's Nemesis System manages the grudges and allegiances among the procedurally generated orc leaders that populate the game. By systematizing these interpersonal relationships, the Nemesis System transformed a mission-based open-world brawler that I might have completed in a dozen hours or so into a world of possibility so rich with Carse's dramatic play that I have deliberately avoided completing the game, leaving the outcome unresolved, so strong is my desire to simply continue the play and the evolving dialogue between the hero Talion and *all those 'orrible Uruks*. What does it mean, that I chose to do this? Have I discovered something infinite, embedded in the mechanisms of the game?

Thinking about play that de-emphasizes the outcome of a game in terms of loss or victory has already yielded great results, in the form of a Video Game of the Year.

Bernie De Koven

In the late 1960s, the game designer, author and theorist Bernie De Koven began working on games for kids designed to facilitate learning, self-expression and social empathy as part of the School District of Philadelphia. He later became involved with the New Games Movement, designing games that encouraged people to play in a way that is friendlier and more cooperative.

Earth Ball at The Lensbury in the UK

You've probably played some New Games at summer camp or in gym class. One example is Earth Ball, where two teams bounce a massive ball in the air back and forth along the length of a field. Like James Carse's infinite game players, the objective is not really to score a goal at one end or the other, but to keep the ball in play as long as possible. When the ball gets close to one end of the field, players will often spontaneously switch sides to bat it back in the other direction, sustaining the play and all of the fun that comes with it.
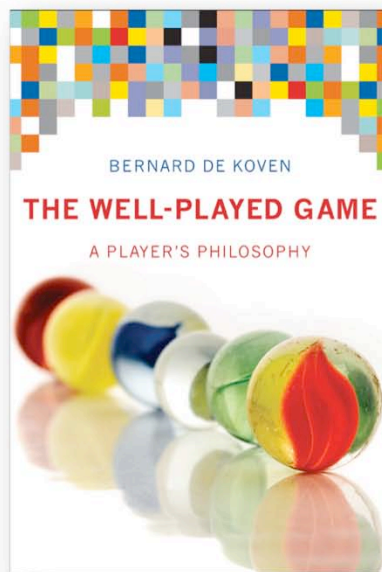
This kind of game is emblematic of Bernie's design work and thinking, and you can read more about his ideas in his book, *The Well-Played Game.* Those ideas, along with those of Fluxus artists like Yoko Ono, directly inspired a 2007 academic paper called…
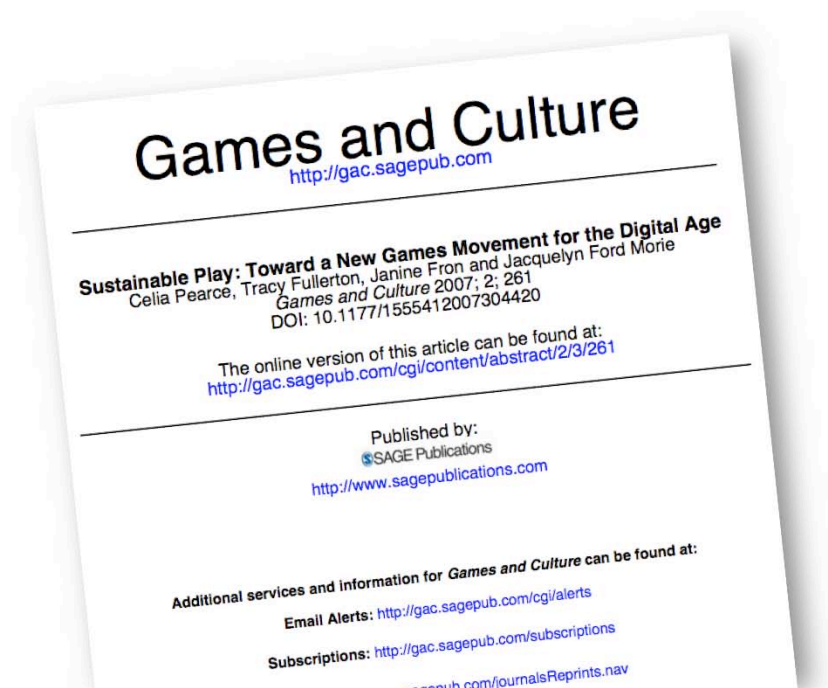
*…Sustainable Play: Toward a New Games Movement for the Digital Age* by Celia Pearce, Tracy Fullerton, Janine Fron and Jackie Morie. The paper urges digital game makers to take inspiration from Bernie and his peers in the New Games movement, to focus on new ways of playing, in order to bring humanism, inclusivity and trust back into games.

While working on the paper, Tracy was also helping a team of students at USC to make a game called *Cloud*, inspired by Bernie De Koven's principles. That team included Jenova Chen and Kellee Santiago, who would go on to found thatgamecompany and revolutionize the game industry in 2012 with…

*…Journey*, which won countless awards, including 'Game of the Year' in both the D.I.C.E. Awards and the Game Developers Choice Awards.

*Journey* seems like an open, experiential, and infinite game. While the outcome of the game—reaching the end—*is* an important part of *Journey*, the game strips away every mechanic that could interfere with the experience of meditative travel through a forbidding landscape, in the company of a stranger with whom we come to form a deep and meaningful emotional bond. The point of the game is not to win—as in life, it's about the journey, not the destination.

*Journey* didn't happen by accident, or by following some fanciful muse in an unknown direction. It happened because a group of intelligent, creative people deliberately, methodically worked their way towards a particular goal. More and more game designers are choosing to do this, using the progressive design practices of people like…
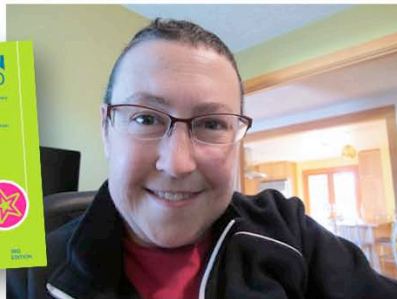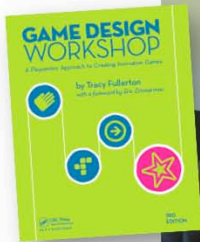
"Method"

Mark
Cerny

Agile development

…Tracy Fullerton and the Experimental Gameplay Project, and by adopting the humane, fruitful production processes of Agile Development and Cerny Method. You can do it, too, if you choose.

Competitive games and open play
Walking Simulators and games as languages
Other names for "open" games
Open game mechanics
Subjectivity and language-games
*Finite and Infinite Games*
Training, education and stories of my life
Game of the Year
**Conclusions**

# kyriarchy
## "rule by a sovereign"

Elisabeth Schüssler Fiorenza

Elisabeth Schüssler Fiorenza is a German feminist theologian and is currently the Krister Stendahl Professor of Divinity at Harvard Divinity School. In 1992, she coined the term "kyriarchy," meaning "rule by a sovereign," to describe her theory of the interconnected, interacting, and self-extending systems of domination and submission in which we are all enmeshed.

According to her theory, any individual might be oppressed in some relationships and privileged in others. In other words, we're all of us caught in systems in which sometimes we're the oppressor, and sometimes the oppressed. The concept of kyriarchy hence has very great explanatory power, since it encompasses sexism, racism, homophobia, transphobia, economic injustice and environmental issues, as well as any situation in which the subordination of one person or group to another is internalized and institutionalized.

*Demonstrators block a street in Ferguson, MO.* Scott Olson / Getty Images

People in games, just as in culture at large, have been showing renewed interest in civil rights and human rights in the past few years, as we've all come to understand that, despite the progress made in the last century, we still all face significant problems due to various kinds of structural and institutional injustice.

I think the fact that discussions about things like kyriarchy are showing up in the mainstream of political discourse is a sign of progress and growth, but the quests to bring justice to those who have historically been denied it, and to give voice to those who have been silenced, are clearly among the most pressing ethical and moral issues of our day.

Eric Zimmerman

Games are systems. As Eric Zimmerman proposed in his *Manifesto for the Ludic Century*, the systemic complexity of the twenty-first century, with its globalized economy and telecommunications networks, might mean that games are the ascendant cultural form of the next century, and maybe in perpetuity.

THERE IS NO SUCH THING AS A SINGLE-ISSUE STRUGGLE BECAUSE WE DO NOT LIVE SINGLE-ISSUE LIVES.

- AUDRE LORDE

Kyriarchy is an overlapping, intertwined system of subsystems—as one group puts us down, so we put down another, and onwards and onwards. Systems of injustice, like any dynamic system, are hard to change. They're full of feedback loops that make them resilient, and when we try to intervene, they're prone to collapse, creating even greater tragedies than existed before.

Kyriarchy might even be a kind of horrible infinite game, played with no outcome other than suffering, and its own continuation.
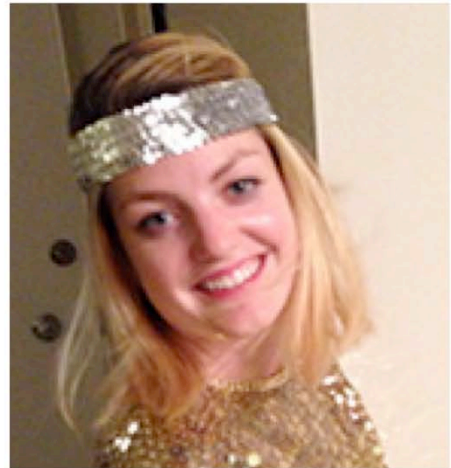
*Anxiety, Openness, and Activist Games: A Case Study for Critical Play*
~ Mary Flanagan and Anna Lotko

Then what better cultural form to describe, discuss and maybe one day help dismantle a system as human and as complex as kyriarchy, than games? In their 2009 paper, "Anxiety, Openness, and Activist Games: A Case Study for Critical Play," Mary Flanagan and Anna Lotko note that games are uniquely well-suited for representing and discussing systems of rules that can't clearly be seen by observing single events.

**PARABLE OF THE POLYGONS**

A PLAYABLE POST ON THE SHAPE OF SOCIETY

by vi hart + nicky case

español | deutsch | français | português | 日本語 | 中文
polski | italiano | magyar | nederlands | हिन्दी

**This is a story of how harmless choices can make a harmful world.**

These little cuties are 50% Triangles, 50% Squares, and 100% slightly shapist.
But only slightly! In fact, every polygon *prefers* being in a diverse crowd:

Vi Hart and Nicky Case's brilliant "playable post," *The Parable of the Polygons*, which was released late last year, illustrates this principle incredibly well—if you play just one game after hearing this talk, then make it this one.

*Killer Queen Arcade*
– Nikita Mikros & Josh DeBonis
Photo: Damon Winter/ New York Times

At the conclusion of "Without a Goal," Jesper Juul says,

"Games without enforced goals will not replace the classic goal-oriented game, but they open for a wide range of new player experiences (…). This is the new style in video games, and an illustration of how contemporary (…) games are (…) becoming something new and unique, open and expressive."

*Arcade Review 4* cover by Jordan Speer
jordanspeerart.tumblr.com

It's good to make games that are only for entertainment. We need games that are solely for entertainment. But if games are an art form—as New York MOMA, the National Endowment for the Arts and the Supreme Court of the United States seem to think that they are—then it's only right that we game creators make work that clearly shows the reality of the world as we find it, and that refuses to participate in systems that perpetuate oppression and injustice.

# We are all playing
# both finite and infinite games

We're all of us always playing both finite and infinite games. *We human beings* are dynamic systems: we are not objects, but processes, not nouns, but verbs. We're always in a state of flux, constantly changing, constantly becoming new. So too are the cultural forms we create as we play.

Games cannot remain as they have been, because games are defined by constant change.
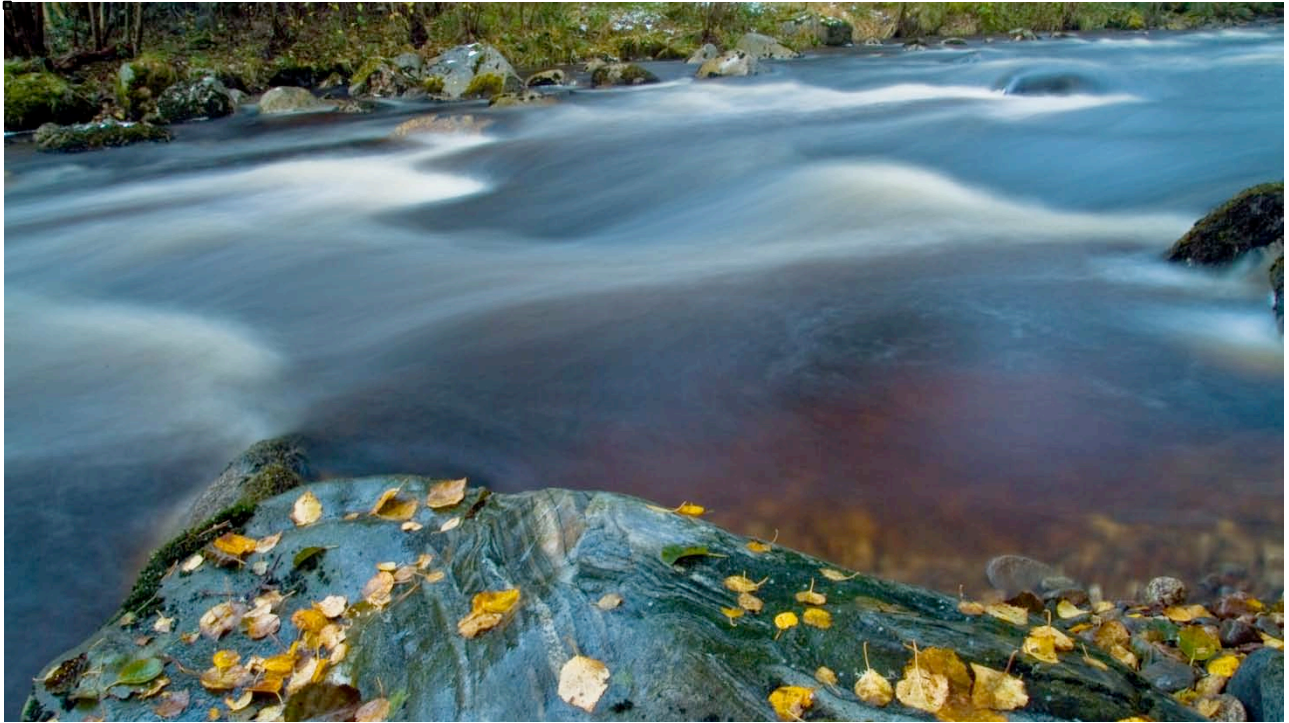
James Carse again, one more time:

"(…) as in the Zen image, we are not the stones over which the stream of the world flows; we are the stream itself. (…) this ceaseless change does not mean discontinuity; rather change itself is the very basis of our continuity as persons. Only that which can change can continue; this is the principle by which infinite players live."

*Infinite players do not rise to meet with arms;*
*instead, they make use of laughter, vision, and surprise.*

~ James P. Carse

"Infinite players do not rise to meet with arms;
instead, they make use of laughter, vision, and surprise."

There is a growing audience for games designed with adults in mind – people with mature taste and limited leisure time. The successes of the games I've mentioned today make that clear. Just as it was in the last decade, with the rise of social and mobile games, indie games and art games, so the next ten years are going to bring countless new revolutions in game design.

The sources of those revolutions will be found in unexpected places. If all human culture originates in play, then all human culture can inform game design.

Play is planning, and play is dreaming.
Play is practice, and play is fate.
Play is power, and play is identity.
Play is a pastime, and for us, play is a vocation.
Play is progress. Play is very diverse.

I hope this talk has given you at least a few surprising new ideas, for infinite games that you want to make and play. Thank you for your time.

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I also want to thank Ben Cerveny, who first told me about James P. Carse, and thanks to all these wonderful friends. Many apologies to anyone I have left off this slide! I'm grateful to loads more people than this!

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infinite play
Richard Lemarchand
www.richardlemarchand.com