

Video games are actions, that much is known¹. But what else are video games? Are they actually *games* at all? This is an open question. They are clearly not *videos* in the popular uses of the term, video cassettes and music videos, but they just as clearly are video in the computer science use of the word, that relating to the visual subsystem of a computer. Game however is a far less defined concept than video; before it can be determined if video games are actually games it must first be understood what games themselves are. If video games are games, and I believe most are, then any theory of video games by necessity must be informed by the theory of games in general. And since the theory of games is barely more developed than that of video games, in order to develop a theory of the later it becomes necessary to first develop one for the former. So then, what are games?

Here are a some answers. Games are rules and games are intensities. Games are algorithms and games are actions. But to get to these answers its necessary first to start with history, or at least with a summation of history. In *Rules of Play*, Katie Salen and Eric Zimmerman review eight serious definitions of games, which they then compare on one handy chart.² These eight definitions agree on one thing and one thing only, that games are rules. This much is clear, without

1 Alexander R. Galloway, "Gamic Action, Four Moments" (prepublication manuscript, 2005), p.1
2 Katie Salen and Eric Zimmerman, *Rules of Play: game Design Fundamentals* (Cambridge: MIT Press, 2004) "Chapter 7 - Defining Games", no page number available, online edition.

rules there is no game. But rules are obviously not the only necessary ingredient for games, there are plenty of rules that have nothing to do with games. But once past the rules aspect in the eight definitions of games, things begin to get murky. The definitions do not sync up at all but rather fragment off into a variety of trajectories. The experts do not agree. This fragmentation presents something of a problem but it also presents an opportunity. The fragmentation can be used to gage the success of any definition of game. A definition that includes as little of these fragments as possible, but at the same time generates explanations for as many of them as possible as *emergent properties of the definition itself* is in my opinion a sign of a successful definition.

Looking at the same problem from a somewhat different perspective generates this goal: to create an abstract machine that can be used to generate games. This abstract machine does more than just define games, it tells us how games actually work. And if video games are games, then the abstract machine will also tell us how video games work.

Other than rules the only thing that a majority of the definitions on Salen and Zimmerman's chart agree upon is that games are "goal-oriented/outcome-oriented".³ Nearly all (or is it all?) games contain goals of some sort, and these goals are closely coupled with the rules of the game. Often the goals are explicitly part of the rules, and other times they emerge naturally from the following of the rules and as such should be classified as a subset of the rules

3 Ibid.

and not necessarily are part of the definition of games. But it is possible that the need for goals is a force that drives any rules to a game, in which case they would merit inclusion in the definition. For the time being I have decided not to include goals for essentially pragmatic reasons. Goals can be described as a subset of rules, the one core element already identified. To add goals to the definition places a constraint on the definition that collapses the potential possibilities of what games can be. And while I can not personally think of any games that exist without goals, the creation of a game is an interesting challenge in itself and at the moment I see no reason to remove that challenge from the space of games.

Moving past "goals" on Salen and Zimmerman's chart, presents a very different challenge. What is left is laundry list of concepts all of which can arguably be parts of a definition of games. My goal is to include as little of these items in the formal definition of games as possible, yet at the same time explain as much as possible about why and how these items are related to games within that same definition. Some items on this list can be addressed relatively easily. "Activity, process or event"⁴ for instance is somewhat self-evident, as following rules is an act and process in itself so activity emerges from having rules in our definition. Other items on this list though provide far richer problems, for instance Huizinga's claim that play is "an activity connected with no material interest, and no profit can be gained from it"⁵ opens up a world of issues, issues that hopefully can be addressed by an abstract machine for generating games.

4 Ibid.

5 Johann Huizinga, *Homo Ludens: A Study of the Play-Element in Culture* (Boston: The Beacon Press, 1950) p.13

Before proceeding to explore these elements I will take the liberty of removing one element from the list, Greg Costikyan's claim that games are "a form of art".⁶ This is an intriguing question and ripe for discussion. But given that just defining what art is could fill a small library, its a question that can not be addressed in the scope of this essay, although hopefully what does result will be able to inform any future discussion of the issue.

So games are rules. That is all we have and it is not enough. What else are games? Salen and Zimmerman make a claim that "as a player steps in and out of a game, he or she is crossing a boundary--or frame-- that defines the game in time and space... we call the boundary of a game the *magic circle*".⁷ This magic circle is a term they borrow from Huizinga and expand upon significantly.

Huizinga himself illustrates the power of the magic circle quite evocatively in the follow passage:

The player who trespasses against the rules or ignores them is a 'spoil-sport'. The spoil-sport is not the same as the false player, the cheat; for the latter pretends to be playing the game and, on the face of it, still acknowledges the magic circle. It is curious to note how much more lenient society is to the cheat than to the spoil-sport. This is because the spoil-sport shatters the play-world itself.⁸

6 Greg Costikyan, "I Have No Words and I Must Design" *Interactive Fantasy* #2, 1994, no page number.

7 Salen and Zimmerman, "Chapter 9 – The Magic Circle" no page number

8 Huizinga, p.11

Salen and Zimmerman make two rather extraordinary claims about this magic circle, one that it is actually a circle and another that "the term magic circle is appropriate because there is in fact something genuinely magical that happens when a game begins"⁹. Now given that they make no attempt to define or defend the existence of magic, the claim that this concept is "genuinely magical" I think should be dismissed with a swiftness. Similarly their claims to the circle being literal are clearly not true. But at the same time the magic circle does give an excellent representation of the transformative power of games.

Salen and Zimmerman get closer to an accurate description of what is happening when they tell us that "within the magic circle... a new reality is created, defined by the rules of the game and inhabited by its players"¹⁰. As a realist I find the idea of a "new reality" a bit of a poetic stretch, but there is something concrete in this statement. The "circle" is no longer just "magic" but instead is *defined by the rules of the game*.

Huizinga points in a similar but quite different direction: "here we come across another, very positive feature of play, it creates order, *is* order."¹¹ Instead of magic now we have order. And order to Huizinga clearly has quite an importance and perhaps a political meaning, as he continues: "Into an imperfect world and into the confusion of life it brings a temporary, a limited perfection."¹²

9 Salen and Zimmerman, "Chapter 9 – The Magic Circle"

10 Ibid.

11 Huizinga, p.10

12 Ibid.

Magic and new realities, order and perfection. Both Huizinga and Salen and Zimmerman are pushing at something, the very same thing, the magic circle, yet the stories they tell are quite different. Is it possible that both are right, at least on a metaphorical level? Is there a process that can generate both the appearance of being magic and of being order? What is it about games that produces such passionate yet varied responses?

The answer I think can be found in *intensity*, in the concept of the intensive. In physics an intensive property is one that can not be divided without a change in kind. For instance if one divides a volume of water in half, the temperature of the water will not be divided, heat for example is an intensive property. In contrast the weight of the water in the situation will be divided into two equal halves. Weight is an extensive property, it is intrinsically dividable and thus directly maps to the metric. Intensive properties, like temperature again, can be divided, say by heating one part of the water, generating a gradient between hotter and colder. But this act of division moves the water away from a state of equilibrium and thus transforms the system.¹³

In the works of philosopher Gilles Deleuze, the concept of the intensive is expanded to take on a philosophical importance, in addition to its technical meaning in thermodynamics. A central tenet to Deleuze's work is the 'intensive spatium' or spaces where intensities form cohesive identities. Manuel DeLanda

13 Manuel DeLanda, *Intensive Science & Virtual Philosophy* (London: Continuum, 2002) pp. 26-27

has mapped a number of near synonyms found throughout Deleuze's work, which reiterated the same basic concepts in a vast array of similar, but slightly different configurations, each with its own varied vocabulary. These near synonyms include, "body without organs", "plane of immanence", "plane of consistency" and "machinic phylum".¹⁴ And while its a somewhat difficult operation in the ever shifting world of Deleuze, they all map roughly to what Alain Badiou identifies, and somewhat overstates, as "the very core of Deleuze's thought", the univocity of Being.¹⁵

The univocity of Being has something bordering on, but not quite occupying, a self-contradictory meaning in Deleuze's thought. Univocity means having only one meaning, but Deleuze vests it with a recursive complexity. "In effect, the essential in univocity is not that Being is said in a single and same sense, but that it is said, in a single and same sense, *of* all its individuating differences or intrinsic modalities. Being is the same for all these modalities, but these modalities are not the same."¹⁶ Being then has one meaning that can emerge in a multiplicity of different expressions, simultaneously one and multitude.

Fusing this concept back into the 'intensive spatium' leaves the follow description: a space containing one meaning that can be expressed in a multiplicity of forms and that can only be divided through an act that transforms the system itself. In the spirit of Deleuze's thought I will give this concept a

14 Ibid. pp. 158-159

15 Alain Badiou, *Deleuze: The Clamor of Being* (Minneapolis: University of Minnesota Press, 2000) p.24

16 Gilles Deleuze, *Difference and Repetition* translated by Paul Patton (New York: Columbia University Press, 1994) p.36

slightly different name for this paper, *intensity*. This might at first be a confusing approach to those familiar with his writing as he was far more prone to use this term to indicate its status as multiplicity, to speak of intensities. But in fact it is consistent with his philosophy, intensity is merely the one that comes coupled with the multiplicity. Ultimately I hope this usage can achieve a quite un-Deleuzian result, clarity.

Games are intensities. First of course they are rules. But in order for a set of rules to constitute an effective game they must produce a state of intensity. Of course games do not always need to be effective. They do not necessarily produce intensity, but rather are designed to produce intensity, they make an attempt to produce intensity. Furthermore intensity is best looked at not as a state that is entered and left, but rather as one that is approached, but rarely if ever entered absolutely. Games do not bring people to those states of pure intensity, the wailing grief, the orgasm, the murderous rage. Rather games aim to produce a state of bounded intensity, a safe intensity. An intensity capable of undergoing a transformation, a change in kind, should the situation merit it. One wants to be enveloped in the intensity of the game only to the point where it hides everyday life, not to the point where it actively interferes with life. This is what separates games from war. War too uses rules to produce a state of intensity, but an unbounded one that overwhelms and transforms life. Players return from games the same person, soldiers return from war transformed, if they are even capable

of returning at all.

With that let me return as well, to the definition of games. We now have something to pin down:

Games are a set of rules designed to produce a state of bounded intensity in their participants.

This is of course not necessarily fact yet, but instead a hypothesis. Can it stand up to the criteria laid out previously, to generate explanations of the various items on Salen and Zimmerman's chart as emergent properties of this new definition itself? The list of challenges can be added to as well, can this definition explain the "magic circle"? Can it explain addiction? Can it describe why games are, or are not fun?

I began with the "magic circle", it is time to revisit it. Intensity is clearly not the same as the literal magic of Salen and Zimmerman, nor is necessarily order as per Huizinga. But does intensity produce effects that could be mistaken as both? By entering into a state of univocity, a state where meaning is the providence of the rules of the game, one in effect hides from the rest of the world. It is not exactly the creation of a new reality as Salen and Zimmerman claim, but it could easily be confused as one. By surrendering the production of meaning to a set of rules one can forget about the rest of the world, "leave your troubles behind" so to speak. Huizinga is hinting very much in the right direction when he says of

play that "it creates order, *is* order."¹⁷ The emphasis is his and its on the right note. The rules indeed are a form of order, and as the producer of univocity the game is indeed in the process of being order. But has less to do with the fact that its order and more to do with the fact that its the only producer of meaning. While I do not necessarily see univocity as "a limited perfection", it certainly does offer a respite from "the confusion of life". By following the rules of the game, one hopes to enter a space where meaning collapses into a univocity. Is this magic? No certainly not, but it is indeed possible to see how someone might confuse it as such.

Several of the items on the *Rules of Play* list are closely related to the concept of the "magic circle". Huizinga's formal definition includes that play is "'not serious', but at the same time absorbing the player intensely and utterly."¹⁸ And this not only includes the word intense, but could double as a loose definition of our use of the concept.

Huizinga's and several other definitions state that games take place outside of ordinary life, a somewhat odd claim given that many "ordinary" lives incorporate games into them extensively. But it still makes sense in the context of intensity, which does not go outside of ordinary life, but instead removes the various meanings associated with the "ordinary" and replaces them with one set of meaning determined by the rules of the game. Roger Caillois makes a similar claim, that games are "make-believe: accompanied by a special awareness of a

¹⁷ Huizinga p.10

¹⁸ Ibid. p.11

second reality or of a free unreality, as against real life."¹⁹ While I have a problem with any claims to alternative realities, this is again something that can be understood via the intensity of a good game. Rather than creating a "special awareness" though, what the intensity does is actually create unawareness. In a space of univocal meaning, one's awareness, or at least the meaning associated with that awareness, is one and the same with the univocity. That which lies out of the bounds of the intensity disappears. You are not in a new reality but rather in a subset of reality where your day to day producers of meaning can no longer intrude.

What does intensity tell about the need for goals in games? I have already argued that goals are a subset of rules, but one that appear in are emerge from nearly all of them. If the rules of the game are designed with the generation of intensity in mind, then goals become an extraordinary tool for the game designer. Goals collapse the focus of the players down to a small set of objects, actions and ideas. Of all the possible types of rules the creation of goals is the one that moves the participants towards intensity. Thus while goals are not explicitly a requirement of games, they are almost a necessity for a game to succeed in the design goal of producing intensity.

"Conflict or contest" which is found in three of the definitions, acts in quite a similar manner to goals. Indeed it would be quite easy to view "conflict or contest" as merely a subset of "goals". Both conflicts and contests are proven

¹⁹ Roger Caillois, *Man, Play, and Games*, Translated by Meyer Barash (New York: Schocken Books, 1979) p.10

methods of collapsing focus, they are means used by game designers to produce intense states.

Similarly Caillois includes that games are "uncertain: the course of which cannot be determined, nor the result attained beforehand, and some latitude for innovations being left to the player's initiative".²⁰

Salen and Zimmerman challenge the legitimacy of this claim, asking "if a Chess master plays against a beginner, is the outcome of the game uncertain for the Chess master?" Indeed the outcome might also be certain to the beginner as well. But in both situations is any state of intensity produced? It is possible, but with far less of a probability than in situations where the outcome is uncertain. The knowledge of the outcome of the game in effect unveils the boundaries of the intensity, an act that ensures that univocity will never be achieved, as soon as the borders can be seen there are now at least two meanings. One can still begin to approach intensity in such a situation, but until one loses or forgets the boundaries it can never be reached.

Caillois and Bernard Suits both make a claim that games must be participated in "voluntarily", which can be analyzed in a similar manner. It's clearly is not always true, a game of Little League baseball is still a game even if one of the players' parents forced them to play. But it is a less effective game when the players are pushed into it. Unless the involuntariness of actions is built into the rules, the

²⁰ Ibid. p.9

knowledge on the players part that they are being forced to play lies outside of the game, thus negating any univocity of the rules. A particularly good game however can overcome this restriction by being compelling enough that it transforms involuntary players into voluntary players. Here we can see the gradated nature of intensity clearly. As the rules of the game begin to operate a successful game begins to collapse the production of meaning in upon itself, pulling the players towards a univocity. If the game is potent enough, players, even those that started out involuntarily, will allow the rules to construct meaning for them. Again if the game is good enough, the rules clear enough, this process can accelerate in a positive feedback loop, an intensification towards intensity.

Related to, but somewhat more complex is the idea that games by definition "involve decision-making", as put forth by Clark Abt, Chris Crawford and Greg Costikyan.²¹ "Decision" is a somewhat odd choice of term, as it implies conscious choices, while so many games, like say handball or tennis, revolve far more around reactions rather than decisions. Still the role of decisions in relationship to rules is quite interesting. The relationship of a person to a rule that forces an action versus one that forces a decision is quite different. Rules that impose upon people with force create relationships of resistance. And resistance destroys univocity by its very definition. Rules that prompt decisions are far less likely to generate resistance, and in fact might ward it off. In a game the rules are designed with goal of getting people to surrender the production of meaning over to the rules themselves, by prompting decisions they encourage the process,

²¹ Salen and Zimmerman, "Chapter 7"

gaining trust and deflecting resistance.

Johann Huizinga's definition of play includes several other wildcards worth exploring. Huizinga claims "it is an activity connected with no material interest, and no profit can be gained from it."²² A claim that if taken straight is somewhat ludicrous. Gambling is integral to many games and play and a large set of industries have evolved around the playing of games, both in providing the materials and in producing the events. But Huizinga's claim can not be dismissed entirely. The presence of material interest in a game is a potent disrupter of intensity. Is a professional baseball player playing tonight because its a job or because he (and it really is always a he) loves the game? Most likely it some combination of both. The more he is thinking of it as a job, the harder it is for him to become intense. Similarly while the presence of participants who are not intense, who are "not in the game" so to speak, is not enough to prevent others from reaching intensity, it is a potential friction to the process, with the potential to disrupt the entire enterprise.

It would be a mistake to blame this all on the presence of profit and materialism in a game though, for nearly identical dynamics can be seen in almost any game. There are those who take the game "seriously" that is to say achieve the univocity of intensity, and there are others who lag behind. Sometimes its social pressure to play, sometimes its because of a large paycheck. Sometimes a player might only be concerned with getting to the bathroom, or perhaps their

²² Huizinga, p.13

mind is on a lover not the game. The processes are multitude and different, but the results inside the game are quite similar.

Huizinga also makes the intriguing claim that play "promotes the formation of social groupings which tend to surround themselves with a secrecy and to stress their difference from the common world by disguise or other means."²³ While it is unclear why such an observation merits being included in his summation of "the formal characteristics of play", it is worth exploring for a minute. A game in play is in itself a social grouping, assuming there is more than one player. More importantly it is a social grouping in a univocal space, there is only one meaning being shared, a radical state for a social group to be in. While secrecy is not necessary for this operation at all, there is a sharing of meaning going on that is not necessarily accessible to those outside of the game, which can produce a similar surface result. In addition while the univocity disappears or fades out as the game ends, there is a residue of meaning left behind. This often becomes something of a shared language among players of the game. Words are created or transformed to represent moves, points, tokens, types of intensity and other elements of the game experience. Placed into a day to day context removed from the game, these can become a coded language available only to initiates. The shared connection of the game also brings players closer together in space or data, pulled together by the gravity of intensity. Once pulled together who knows what happens? This is in some ways a pure mathematical operation, those who spend more time together, are more likely to form social groupings.

²³ Ibid.

The game then is not integral to the process, but functions as one among many strange attractors.

Return to the start. Video games are actions. Are video games games? Are video games a set of rules designed to produce a state of bounded intensity in their participants?

The simple answer is yes. Video games, like their predecessors are driven by rules, and there is no immediately apparent reason to doubt their ability to produce intensity.

So video games are actions. Video games are rules. Video games are intensities. This is a beginning.

Now that we have intensity, what can be done with it? There is intensity as one and intensity as multitude. While video games are rules designed to produce intensity, they are not always successful. Perhaps more importantly games are bounded intensity, they contain not only the way into the state, but the way out. As video games are actions, this means there are intensive actions and non-intensive actions and the play and weave between these two can unveil a lot.

And what about the multitude? Intensity takes on a variety of different forms. What forms of intensities are found in video games? This is where it begins to get complex.

First though let us return to the start again, and look at intensity as one. In Alex Galloway's "Gamic Action, Four Movements" action in video games is separated into two forms, player actions and game (or computer) actions. He also makes a second distinction, one far more problematic, between diegetic and nondiegetic space. This concept, borrowed from film theory, essentially holds that there are spaces that belong to narrative, and ones that come from outside the narrative.²⁴

This is problematic in video games because the role of narrative in the media is highly debatable. It is clear that narrative elements occur in video games, but the extent they are necessary and potent is quite unclear. Jesper Juul probably puts it best when he states:

"1) Games and stories actually do not translate to each other in the way that novels and movies do. 2) There is an inherent conflict between the *now* of the interaction and the *past* or "*prior*" of the narrative. You can't have narration and interactivity at the same time; there is no such thing as a continuously interactive story."²⁵

This argument can be understood a bit better by bringing intensity into the

²⁴ Galloway, pp.1-4

²⁵ Jesper Juul, "Games Telling stories?", *Game Studies*, vol. 1, issue 1 (July 2001)

picture. While I do not necessarily agree that narration and interactivity can not exist simultaneously, it certainly is difficult to maintain. And it is radically more difficult to maintain in a univocal manner. In order to have both narrative and action together in a state of intensity, it becomes necessary for the generator of intensity to be producing both a univocal story and a univocal activity. Univocal stories are extraordinarily difficult to produce on their own, although it could be argued that the gaming process actually makes it easier. Still it is difficult enough to produce intense actions, to produce both intense actions and maintain an intensive story simultaneously is close to impossible. Hence the sometimes quite elaborate backstories and setups are almost immediately forgotten by video game players. They function not as means towards intensity, but as preparations for the means toward intensity to be themselves introduced.

What we see as diegetic in a video game is merely what precedes and then is left behind by the gaming experience itself. We see the means that the game is introduced, and then the remnants of actions that linger on the screen as the player is entering into the next now, the next action.

Rather than looking at diegetic and nondiegetic actions in video games, we can look at intense and non-intense actions. These actions have a rough correspondence with Galloway's diegetic and nondiegetic ones²⁶, but at times manifest themselves quite different. The emblematic "Game Over" that marks the end of so many games is the clearest non-intense game act. The game, or

²⁶ Galloway p.26 contains the diagram that most clearly lays out his four types of gamic action.

the computer really, has broken the intensity, removed you from the space of univocity, perhaps leaving the player craving a return. The "network lag", which like the "Game Over" Galloway maps to nondiegetic game act, moves neatly into the non-intense game act. However the "power up", which Galloway lumps with the other two, transforms categories as we shift to the intense/non-intense construction.

The power-up, while it sometimes might lie outside the space of narrative as conceived in film theory, is very clearly designed to maintain intensity. Its main purpose is to keep the player away from the game over, to continue allowing the game itself to be univocal. The power up does not interrupt the flow of the game but rather boosts it, keeping the actions seamless, intense.

Shifting over to the player act, what is intense and non-intense. At first glance it maps quite neatly to Galloway's layout. Configuring options, the "menu-act", pausing or quitting the game, all non-intense player acts. Moving, shooting, ducking and throwing bombs, all intense. But are they really. It is important to remember that games do not simple produce intensity, but rather move the participants towards it. Acts like jumping or firing a gun are only intense acts when the player knows how to execute them properly. When the game is loaded for the first time, the console first touched, the actions are not intense at all, they are awkward, thought over and over thought. As the player learns the controls they move towards intense action, gradually forgetting to think about the actions, and instead just being the actions. Twitch. They have achieved intensity.

Perhaps that should be the end and perhaps this should be a beginning. It is important to remember that intensity is not just one, but multitude. And what intensities are in video games? Perhaps there are twitch intensities, player vs. player intensities, exploration intensities, intensities of logic (outside the computer this takes its iconic form in chess), gambling intensities, undiscovered intensities. Perhaps there are also points of transformation, points where intensities no longer are intense, but rather fragment internally into multiplying extensivities. The literature of computer games hints at one such point, the world builder, those "games" that encourage you to get lost in an ever more complex universe. Perhaps this is a point where video games are no longer games at all. Yes perhaps this should be the beginning.