Contextualising Flow in Games

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ABSTRACT
Flow, the concept developed by Mihaly Csikszentmihalyi over the last forty years or so (see Csikszentmihalyi 1975) has been invoked quite often with respect to the way players engage with digital games (e.g. Baron 2012; Cowley et al. 2008; Sweetser and Wyeth 2005; Brathwaite & Schreiber, 2009; Fullerton, Swain, & Hoffman, 2008; Schell, 2008). However Kubey & Csikszentmihalyi (2002) argue that 'video games' are in fact likely to promote undesirable experiences of a kind Csikszentmihalyi refers to as 'entropy' or unstructured and unsatisfying life experiences.

This presentation explores Csikszentmihalyi's greater thesis and examines how a broader reading of Flow theory can potentially help us understand Flow like engagements beyond the simple mechanistic view of challenge and reward sometimes encountered in the literature.

The main thrust of the argument made here is to explicitly introduce personally expressed cultural values into the conditions of Flow. By doing so we can then provide a value centric analysis and design approach, similar to that of Cockton's (2004; 2012) proposal to include values into general software design. That is the very nature of challenges and rewards needs to be considered in order to investigate how overcoming or receiving such would be positively or negatively perceived by individuals from particular cultures holding particular values.

Thus we hope that we have dealt with the apparent contradiction in using Csikszentmihalyi's concept in the study of games despite his criticism of such, and have provided some indication of how we can deal with unspecified rewards and the differential perception and engagement with potentially equivalent challenges while still supporting the accepted thesis of Flow.

Keywords
Engagement, Flow, value, challenge, rewards, autotelic, intrinsic, digital games

INTRODUCTION
Mihaly Csikszentmihalyi's concept of optimal engagement known as 'Flow' (Csikszentmihalyi 1975; Csikszentmihalyi 1990) has been put forward on numerous occasions as a model of how players might find enjoyment with digital games (e.g. Baron

Proceedings of DiGRA 2014: <Verb that ends in 'ing'> the <noun> of Game <plural noun>.

2012; Cowley et al. 2008; Sweetser and Wyeth 2005). However Csikszentmihalyi has argued, in a fairly recent article (Kubey & Csikszentmihalyi, 2002), that digital games are a passive addictive activity, akin to watching television (pleasurable but 'bad' flow) but then he has also used chess as an example of an enjoyable activity which might promote 'good' flow. In many game design text books' examinations of Flow, the authors (e.g. Brathwaite & Schreiber, 2009; Fullerton, Swain, & Hoffman, 2008; Schell, 2008) provide a one page or less summary where the below quote is paraphrased and the nine conditions of Flow are quoted with no examination of the fine shadings of 'good' and 'bad' Flow suggested by Csikszentmihalyi. Add to this evidence the observation that players do not necessarily positively value Flow experiences in games (Salisbury 2013) and given the apparent complex contradiction in Csikszentmihalyi's interpretation of his own theory and the current focus on the feature like conditions of the experience alone, it seems necessary to examine this other side of Flow theory and the way that it is interpreted in terms of the value we place on different Flow experiences.

We can take the perspective that Flow only describes a rare and special type of heightened engagement, and thus this presentation will explore if Flow is an appropriate model of engagement with videogames in general, rather than only as a special or optimal case; under which conditions Flow might be said to truly be present; and how we can solve the problem of what we will refer to as 'bad Flow', especially when concerned with the playing of videogames.

Csikszentmihalyi describes the experience of Flow as:

"...a sense that one's skills are adequate to cope with the challenges at hand, in a goal directed, rule-bound action system that provides clear clues as to how well one is performing. Concentration is so intense that there is no attention left over to think about anything irrelevant, or to worry about problems. Self-consciousness disappears, and the sense of time becomes distorted. An activity that produces such experiences is so gratifying that people are willing to do it for its own sake, with little concern for what they will get out of it, even when it is difficult, or dangerous." (Csikszentmihalyi, 1975, p. 71)

Given the above quote, the Flow concept seems to be a fair description of a type of experience many might occasionally have with digital games, however what is often left out of such a description and consequent explorations is an examination of the broader context of this experience. We might reasonably ask why this particular experience and not another experience which the individual might find equally challenging? Also, having experienced an event under these conditions do we expect the individual to then seek that experience again and again? Empirical work in the engagements players have with digital games (Salisbury, 2013) suggests that that opportunity for action is but one method of selecting amongst similar possible experiences; obviously the experience must be understood in the socio-cultural context in which it is encountered. Indeed the main thesis of Flow: The Psychology of Optimal Experience (Csikszentmihalyi, 1990) is that in order for an individual to lead a meaningful life filled with enjoyment (the satisfaction one finds from having surpassed one's personal expectations), life goals should be intrinsically or autotellically striven for; that extrinsic reward stops being important to the performance and enjoyment of activities which are meaningful to the life of the individual. The research which lead to this exploration of how digital games might be said to relate to Flow showed how players who have found what might be described as Flow in playing a game or games, report having found that experience deleterious;

pointless; a "waste of time". These observations suggest that it is not always easy to separate intrinsically rewarding, self-motivating, autotelic activities from extrinsically rewarded, externally driven, exotelic activities. We must ask the question: is such a divide between intrinsically motivated and extrinsically motivated behaviours valuable, and ultimately do digital games provide opportunity for Flow in the manner apparently intended by Csikszentmihalyi?

Interestingly Csikszentmihalyi has argued, in a relatively recent article (Kubey & Csikszentmihalyi, 2002), that digital games are a passive, addictive activity akin to watching television, rather than a meaningful mode of true enjoyment. In order to unpack this position and explore how digital games can be so well aligned with the often quoted conditions of Flow, but be seen as destructive, the first section of this presentation will revisit Csikszentmihalyi's various writings on the concept of Flow while taking into account some empirical observations gained in interview with individuals who reject the digital game play experience (despite, in some cases, reporting past experiences we might suppose to have been Flow-like) and whether the nine conditions of Flow (Csikszentmihalyi, 1996) are sufficient to give us an accurate picture of positive engagements with games.

Csikszentmihalyi himself seems to argue for both good (positively valued and constructive) and bad (entropy inducing) Flow engagements, and places the difference between them within the space of the individual's learned value system (Csikszentmihalyi, 1990, p. 34).

So in order for Flow to be a truly useful concept within the study and successful development of engaging digital games, we argue that such concepts as Cultural Value (Bourdieu, 1986), Experience (Dewey, 1934) or Habitus (especially as expressed by Bourdieu, 1990) as well as a sense of culturally relative self sense (Cooley, 1902) should be included in order to place Flow in a broader context. That is while we may accept that Flow is the optimum in a scale of engagement, we might be able to arrive at a broader understanding of pre-Flow and sub-Flow engagements, and the conditions of engagement in general. The second part of this presentation will explore some of these concepts and how they might help us understand how people engage with digital games.

That is we are not intending to argue against Csikszentmihalyi's thesis, but are rather arguing that Flow is a special state of optimal experience and presents a somewhat deeper reading of the Flow literature than the simple matching of skill to challenge, which we hope will help to contextualise why Csikszentmihalyi seems to argue that engagement in Chess is an enlightening and transformative activity, while engagement in say Tetris might be said to be entropy inducing.

CSIKSZENTMIHALYI, FLOW AND DIGITAL GAMES

"Although much less research has been done on video games and computer use, the same principles often apply [as they might to television]. The games offer escape and distraction; players quickly learn that they feel better when playing; and so a kind of reinforcement loop develops. The obvious difference from television, however, is the interactivity. Many video and computer games minutely increase in difficulty along with the increasing ability of the player. One can search for months to find another tennis or chess player of comparable ability, but programmed games can immediately provide a near-perfect match of challenge to skill. They offer the psychic pleasure--what one of us (Csikszentmihalyi) has called "flow"--that accompanies increased mastery of most any

human endeavour. On the other hand, prolonged activation of the orienting response can wear players out. Kids report feeling tired, dizzy and nauseated after long sessions." (Kubey & Csikszentmihalyi, 2002)

The above quote, especially the value laden words used, such as 'escape' and 'distraction', show that despite the admission that games may offer 'flow', in the case of 'video games' the authors feel that the flow found in that specific context is undesirable. For Csikszentmihalyi Flow is the state of affairs where a person gains primarily intrinsic rewards from an activity; they are not doing it for money or fame, or often even because they know there is a well defined end product. Rather the activity in and of itself is the motivator, it is an 'autotelic' activity.

"An activity was assumed to be autotelic (from the Greek *auto* = self and *telos* = goal, purpose) if it required formal and extensive energy output on the part of the actor, yet provided few if any conventional rewards." (Csikszentmihalyi, 1975, p. 10)

In order to understand what this claim about autotelism and video games could be we should explore what the basic conditions of Flow are.

Creativity: Flow and the psychology of discovery and invention (Csikszentmihalyi, 1996) sets out a list of nine conditions of a flow experience:

1. There are clear goals every step of the way
2. There is immediate feedback to one's actions
3. There is a balance between challenges and skills
4. Action and awareness are merged
5. Distractions are excluded from consciousness
6. There is no worry of failure
7. Self-consciousness disappears
8. The sense of time becomes distorted
9. The activity becomes autotelic

Given these nine conditions we can probably all remember instances of game-play (particularly in playing action games perhaps) where each of these conditions were met simultaneously. We might have been deep into a middle level of a favourite scrolling shoot-em-up where:

1. We knew that what we had to do was avoid or shoot an onslaught of enemies
2. We knew what weapons we had to use and how close those enemies were getting to destroying our ship
3. We were at the point where we could just think fast enough and respond fast enough to avoid the stream of bullets and enemies
4. We'd stopped thinking about what the controls were, and were just thinking in terms of move and shoot
5. Nothing outside the game mattered for a few minutes, the birds singing outside, the fact that we might be a tad hungry or in need of the toilet.
6. This is the furthest we'd ever come through this bullet hell, we just need to stay focussed to see the boss who must be only a little bit further.
7. That we were sat cross legged in the kids' playroom, on the spare television, in our pants didn't enter our conscious mind even for an instant; we were our ship and the ship was us.

The dozen or so tries to get past this one section seemed to have taken 5 minutes or so, but when we looked at the clock it took more like 45. Why we were flying through space

shooting baddies from another galaxy was because... well for the period where we were... because it was fun. There was no expectation of economic or social reward, it was pleasurable or enjoyable in its own right. It was enjoyable because of, rather than in spite of the energy we had invested in it. In having such an experience we could be described as having had a Flow experience, and it is this apparent match between what Csikszentmihalyi has published about the conditions of Flow and the subjective experience occasionally felt in playing which has apparently resulted in the use of Flow as a way of understanding engagement with games.
However Csikszentmihalyi's final clause, that for the individual the activity becomes autotelic, requires further consideration. What is a reward, conventional or otherwise? Are experiences rewarding even in the absence of possibly gaining money, fame, or other benefits incidental to the activity at hand?

We might argue that autotelic experiences are moments where we feel rewarded by our own internal mechanisms not by any immediate or future external source.

"An autotelic activity is one we do for its own sake because to experience it is the main goal. …Applied to personality, autotelic denotes an individual who generally does things for their own sake, rather than in order to achieve some later external goal" (Csikszentmihalyi, 1997, p. 117).

Was it the potentially extrinsic rewards offered by the game that kept us playing? The plink and plash of pixels of an enemy exploding, the wak-wak and strobing background of passing a sub-stage marker; the orienting response supposed by Csikszentmihalyi? Games are filled with simple immediate goals and apparent rewards that make it hard to perceive autotelic behaviour.

However there is an apparent complication, as the desire to progress in a game is sometimes couched as a type of effort/reward structure which uncritically assumes that the completion of objectives to gain points, in game credits, some other tokens, or other structural in game 'rewards' is just that, an exotelic reward with the same value to the player as Csikszentmihalyi might claim money or acclaim could be (Loftus & Loftus, 1983).

Can games (even Chess) given their reliance on structured goals and endogenous rewards ever produce autotelic experiences? The way the literature on Flow talks about autotelic experiences would suggest that for Csikszentmihalyi this question of reward is not simply resolved by looking at the pleasure found in an activity, including supposed rewards.:

"In our studies, we found that every flow activity, whether it involved competition, chance, or any other dimension of experience, had this in common: It provided a sense of discovery, a creative feeling of transporting the person into a new reality. It pushed the person to higher levels of performance, and led to previously undreamed of states of consciousness. In short it transformed the self by making it more complex. In this growth of the self lies the key to flow activities." (Csikszentmihalyi, 1996, p. 74)

So are we saying that in getting half a level further or getting a new high score in our shoot-em-up example we would have 'transformed the self'? Did we enter 'undreamed of states of consciousnesses? Does this statement amount to a tenth condition of Flow? Is there in fact something about autotelism which isn't to simply find any activity which soaks up out attention? Maybe, and indeed Csikszentmihalyi later states:

"But this also depends on what activity provides flow. Unfortunately, many people find the only challenges they can respond to are violence, gambling, random sex, or drugs. Some of these experiences can be enjoyable, but these episodes of flow do not add up to a sense of satisfaction and happiness over time. Pleasure does not lead to creativity, but soon turns into addiction – the thrall of entropy." (Csikszentmihalyi, 1996, pp. 123–124)

This above quote suggests that there are two kinds of Flow, 'good Flow' (the kind that positively transforms the self) and 'bad Flow' (the kind that results in addiction and psychic entropy), but what is the difference? Returning again to Creativity (1996) where Csikszentmihalyi discusses how society has a role in teaching young people what activities they should be enjoying in order to grow personally and culturally:

"We are much too sophisticated in this day and age to have strong feelings in the matter. Yet we probably agree that we would feel better if our children learned to enjoy cooperation rather than violence; reading rather than stealing; chess rather than dice; hiking rather than watching television. In other words, no matter how relativistic and tolerant we have become, we still have priorities." (Csikszentmihalyi, 1996, pp. 124–125)

Throughout his work Csikszentmihalyi seems to be arguing that while the principle experience of Flow is apparent in all societies, the activities through which one might achieve enjoyment or 'good flow' rather than mere pleasure or 'bad flow' are personally realised and have a relationship with culture if not society. That, once a person is experiencing Flow, they will not question the experience, and will continue to engage as long as the appropriate conditions are in place, is not the subject of this discussion. Rather it seems that Csikszentmihalyi is consistently arguing for an extra-Flow clause or a super condition of Flow which gives the individual a means of evaluating the meaning (and we would thus contend also value) of a given Flow inducing activity.

What we seem to need is a wrapper which we can place around flow experiences which sets a person up to try an activity, and to subsequently question the merits of the activity once participated in. Without this wrapper we have no way of determining why Csikszentmihalyi seems to be arguing that chess players, exhausted from tournament play (Csikszentmihalyi, 1975, p. 68) are positively transforming themselves, while video game players feeling tired after playing are having a negative experience due to 'prolonged activation of the orienting response' (r.e. The quote about video games provided above).

DIFFERENTIATING BETWEEN GOOD FLOW AND BAD FLOW

A word that Csikszentmihalyi includes only occasionally in his presentation of Flow (Csikszentmihalyi, 1990) is 'value'. Such downplaying of the term might be due to his nervousness in suggesting that if an activity has a value then it might be argued that that activity is being extrinsically rewarded and thus not necessarily autotelic, that the person is doing the thing for what value they can get out of it, not simply for its own sake. While Csikszentmihalyi admits that some Flow activities start with extrinsic rewards (e.g. surgeons get paid to perform surgeries), he argues that people sometimes find that they end up doing the activity for its own sake once and subsequent to their having achieved

Flow. He regularly uses the examples of money and fame to illustrate extrinsic rewards, and in the sense that people engaged in Flow activities might well not be seeking fame nor fortune this characterisation may well be correct. However are there other sources of value which are not so directly extrinsic or obviously exotelic?

In his various works Csikszentmihalyi stresses that for Flow to be a positive force in someone's life it should be found in activities which have meaning to that person's life (Csikszentmihalyi, 1990, 1996). So where he talks of goals and growth he often refers to overall, global goals and growth in some personally meaningful direction, not just those encountered in isolated experiences. So an individual, in order to be happy should seek flow in activities which have both intrinsic reward and promote growth towards meaningful life ends. This merging of intrinsic local goals with intrinsic global goals into a single motivating structure, while simultaneously denying that striving for socially derived goals will lead to personal meaning, seems to work against the insistence that chess is good but video games are bad, as surely digital games might be meaningful to an individual just as Chess is to others. That is unless we allow for a kind of subjective sense of social acceptability, and thus personal/cultural value between different activities. It is our feeling that the difference between the chess player and the Tetris player is that the former is allowed to feel that what they are striving for has some significance to the wider world, and is thus development as a chess player is a worthy or valuable ambition, whereas the latter has no significance to the wider world so players do not feel that it is worthwhile or valuable. It seems obvious to us that, while Chess has a combinatorial complexity beyond that of Tetris, hence it's endurance as a pastime thorough the ages, the players of Chess do not produce or engage in anything fundamentally more valuable than the players of Tetris. Surely a new way of looking at Chess (a new set of openings say) has as much utility to a person's growth as a new way of looking at Tetris (a new well position or way of holding the controller say).

So how do we account for the difference in value while still allowing for Csikszentmihalyi's condition of autotelism? If we consider theories of value such as Bourdieu's 3 forms of capital (1986), it seems that Csikszentmihalyi might be falling foul of the social control structures he himself argues against (Csikszentmihalyi, 1990), by promoting activities with greater cultural capital (knowledge and values which have the possibility to be transformed into economic or social capital). If money (wages or prizes) equates to Economic Capital, and fame (the adulation of friends, colleagues, or even strangers) equates to a form of Social Capital, it seems that Csikszentmihalyi might be downplaying the possibility that people engage in certain activities for the acquisition of embodied Cultural Capital (knowledge, skill, values) with no plan to convert them to other forms of capital? It seems possible that in the absence of economic or social rewards an individual could be engaged in an activity because it transforms them in a socially agreeable way, or it has legitimacy within the social context of the activity with no promise of a social return on that investment in cultural capital.

So is a good Flow activity one which promises to gain the actor enhanced, socially legitimated (Bourdieu, 1984) Cultural Capital whereas a bad Flow activity holds no such promise? Does a competent tournament Chess player spend a great deal of time accumulating Cultural Capital (knowledge, skill, and potential anecdotes say) in a well-established and thoroughly legitimated 'art' whereas a competent tournament Tetris player (Cornelius, 2011) earns unconvertible capital in a relatively modern and unconventional pastime? Without delving into class violence through the legitimation of bourgeois tastes at the expense of middle to lower class tastes, we might accept the above

description of socially sanctioned or legitimated activities versus socially demonised activities as a way of differentiating 'good Flow' and 'bad Flow' in the way that Csikszentmihalyi has done in his critique of digital gaming. However, if we allow for socio-cultural legitimation in this way it seems that we are arguing for a tenth condition of Flow which is a social pressure to conform; surely an extrinsically motivating force which will break the ninth condition of autotelism. Chess is held by society to be good, so society will look favourably on chess players as clever and productive, whereas Tetris is held by society to be bad, so society will look unfavourably on Tetris players as dullards and time wasters, and thus in order to engage in 'good Flow' one must find personal value in socially legitimated activities which lead to the accumulation of Cultural Capital.

This is not Csikszentmihalyi's thesis, as in suggesting this adjustment to Flow to account for 'bad Flow' it seems that we have introduced an extrinsic motivator. However, returning to Csikszentmihalyi's writing (especially 1990, 1996) we can see that he spends a great deal of time making the merits of an activity a subjective response. He argues that content and happy individuals are often in possession of an 'autotelic personality'. That is a personality which allows the person to do things for their own sake and not for Economic or Social goals. Csikszentmihalyi argues that if one is in possession of such a personality then mundane, day to day survival can result in a Flow experience as all such activities can be subsumed into a greater life goal which is the advancement and growth of the self. As such the autotelic individual enjoys life, as everything they do (from washing the dishes to composing a sonata) becomes part of one unified challenge with all the conditions of a Flow experience listed above.

Csikszentmihalyi regularly tries to draw a distinction between pleasurable and enjoyable experiences. Pleasurable experiences, for Csikszentmihalyi, are those experiences which draw an immediate sense of pleasure from the participating individual, but have no greater meaning to the individual (we would argue that they have no 'value' for the individual). Whereas enjoyable experiences are not necessarily immediately pleasurable (in fact they might be painful), but may allow the participant to feel a sense of satisfaction in successful participation (we would argue that the individual feels that the activity was worthwhile or valuable). These distinctions can be mapped to Tiger's four pleasure model (Tiger, 1992), with Csikszentmihalyi's pleasure equating to physio-pleasure (and maybe some aspects of socio-pleasure), while his enjoyment are aligned with psycho-pleasure and ideo-pleasure. We suggest that the distinction is one where personal socio-cultural value can be easily placed in ideo and psycho pleasures, but is more difficult to identify in psysio- pleasures, where there is no other value other than that the activity feels good. It seems that the difference for Csikszentmihalyi is one of life goals. Does the activity get you closer to where you want to be in life? Does the activity help you to self-actualise? Essentially this is an argument against a simplified interpretation of Utilitarianism (Bentham, 1789), where pleasure itself is not the most critical motivator for human activity.

Thus Csikszentmihalyi's broad argument seems to be that if the player of a game is overcoming a challenge in the game the difference between their striving to overcome that challenge being simply pleasurable but not necessarily enjoyable is whether this challenge is helping them tackle the greater challenges they have set for themselves in their life? If so then in overcoming that challenge then they will experience enjoyment; satisfaction in a job well done, a valuable step up. If not then they will experience 'entropy' or the sense that they are wasting time on pointless pursuits; investing their time in activities with no value.

AN ARGUMENT FOR CULTURALLY SIGNIFICANT AUTOTELIC FLOW

We propose that there is a way of tying the concepts of Flow and socio-cultural value together without forcing Flow into extrinsic motivation drawn from direct social or economic pressures such as fame or money. Intrinsic interest can lead to repeatable autotelic Flow experiences while under the guidance of received values by applying the following two arguments.

The first argument is to consider culture as an entity which is not satisfactorily accounted for in only social or only subjective terms, rather it is the interaction between an individual and their ongoing social engagements (i.e. Mead, 1934 and subsequent "Symbolic Interactionist" approaches). So rather than asking what value a society places on an artefact or activity, or what advantage an individual gains by interacting with an artefact or engaging in an activity, we should be looking at how value is inculcated into an individual by way of their interaction with society.

So we can question the significance or value of an artefact or activity (in our case any digital game play experience), in terms of how it is perceived by an individual with a specific, subjective personal socio-cultural background in a certain social context. Just looking at what demands a society makes of its members or how an individual might instrumentally seek specific rewards is then transformed into the study of how people learn to become successful members of their social contexts and having so learned to be such how those values shape their behaviour.

Drawing naturally from this first argument the second argument is to suggest that individuals do not passively receive or respond to their immediate social context. Rather, over time, the values and norms positively encountered by the individual are inculcated or assimilated into the self to form a habitus (Bourdieu, 1986) or self-identity (Mead, 1934). That is, as soon as an individual is exposed to social situations at an early age they are learning successful tacit strategies to become a 'successful' member of that society. As such they are 'becoming' a particular kind of person, with particular knowledge and values; they are enculturated without conscious effort and this self-culture might be said to form a specific, relatively unique, embodied identity.

So the difference between enjoyable 'good Flow' and mere 'bad Flow' is the difference between what is culturally acceptable and what is not, between whether a socially constructed self, embodying the values they have inculcated in interaction with social agents and institutions up to this point, would value the activity or not. Does the game present a meaningful activity with significance to the individual? While there has been significant interest in game-cultures as a distinct community of interest (For a critique of this approach see Shaw, 2010) we should not assume that mainstream culture is absent from the appreciation and evaluation of games. Games evidently present meanings and thus values within themselves, not just in the fictions they often represent, but in the actions the player is asked to perform (Bogost, 2007). So a player, embodying values, must find compatible value in the ludosis and semiosis presented by the game in order to engage in it.

This cultural engagement can still be said to be autotelic, the player is not looking to external, social sources to motivate them to participate (and potentially find Flow). Instead they embody the culture and thus values that allow unconscious differentiation and evaluation of different activities. The individual is then acting in an autotelic manner, but part of the autotelic response is mediated by the aspects of the individual which

account for who they are and what they value, which is socially derived.

So returning to Csikszentmihalyi's portrayal of Chess as good and 'video games' as bad we could make the following argument:

- Csikszentmihalyi finds no value in videogames
  - He wasn't raised with them
  - His friends probably don't play them
  - Presumably he does not see players producing anything tangible let alone useful
  - To him they look like a wasteful pastime like watching television (though surely the presentation of television as a wasteful activity depends on what television programmes are being watched)
  - Presumably he hasn't played one and felt purposefully engaged by it
- He can see a value in Chess because:
  - It has a very long and well-connected history as a game
  - He has personally interviewed many Chess players who presumably proselytised the benefits of playing
  - It might seem to him that Chess enhances the ability to think and focus
  - He might well have played Chess and in doing so might have felt engaged by it
  - Ultimately becoming a competent chess player seems a culturally acceptable or even desirable goal

Accepting that in knowing little about Csikszentmihalyi's personal history we have had to almost caricaturise his position we are trying to illustrate how a conception of good Flow vs bad Flow might occur as a subjective, culturally framed perspective.

We argue then, that in order for Csikszentmihalyi's assertion that Flow is an enriching, valuable, and enjoyable state we must include a tenth condition of Flow in order to militate against the possibility of also describing bad Flow, which the nine conditions of flow surely allow. We would suggest:

10. Presents opportunity for progress or growth in a culturally significant direction

Having this condition we can argue that a 'hardcore gamer' striving to complete a game on the hardest difficulty setting is developing a skill which is culturally significant to themselves. They are not just doing it for bragging rights, they are doing it because they are a 'gamer' and that's what they do. They are developing skill and overcoming progressively more difficult pre-defined challenges in the same manner as rock climbers who scale specifically rated climbs. They are doing it for the personal satisfaction of a challenge overcome. It is only in the selection and reflection phase of an activity and in the minds of observers that questions such as ""Am I doing well?" "What am I doing here?" "Should I be doing this?"" (from Csikszentmihalyi, 1975, p. 38) are asked. During the Flow activity such questions are not asked, but just as the condition for the activity to become autotelic presents a condition outside of the ego-free Flow sensation, so too does the proposed condition of personal, cultural value.

IMPLICATIONS FOR RESEARCH AND DESIGN

In terms of pure 'good Flow' it is difficult to see where design interventions might encourage it in a game or other activity. That is in Csikszentmihalyi's conception of Flow

it seems that one of the greatest conditions is an individual's receptiveness to eschew social controls and approach activities from an autotelic position. That is it is the individual who is autotelic (capable of acting without external drivers) rather than the activity. Csikszentmihalyi presents examples of individuals who approach every day activities with autotelic intent (Csikszentmihalyi, 1990); essentially gamifying their everyday experiences. However he also presents the nine conditions of Flow listed above, so there is at least some sense that an individual needs to find themselves in an activity with the appropriate features or conditions, even if some of those conditions are self-imposed.

We argue that in including the sense of cultural significance, which accounts for both social and individual values, it is reasonable to suggest that any activity which is valued by the participating individual has more chance of providing a Flow experience than one which is not individually culturally valued.

So the question of design for the proposed tenth condition of Flow is one about designing for personalised cultural or axiological value. Outside of digital games design there are some who argue that designing for value (after considering systems design, ergonomic design, and experience design) is the next phase in software design (e.g. Cockton, 2004). It is conceivable that much of the industry of games design and thus games design practice will continue to take a fairly mechanistic approach to the design of games for short-term, monetary returns. However we could suggest that if games designers are striving for greater recognition of their products as culturally significant objects, and there is a will for games to avoid being seen as a destructive, time wasting merely pleasurable pastimes, then the values embodied in games needs to be addressed as part of the design practice. More than the sense that games designers are striving for a recognition of legitimacy for their products though, it seems obvious that games which address the cultural values of enough players are more likely to be successful than those which only address the values of a niche.

There is a tradition of looking at human activity as structured into hierarchies of need (e.g. Maslow, 1954) and it has been suggested that summed sub-goals are valued according to the way in which they might contribute to super-goals, the pinnacle of which is self-actualisation (for example consider the approach taken by Carver & Scheier, 2001). It seems to be this process within which Csikszentmihalyi places Flow as enjoyment (or the variant of Flow I have dubbed 'good Flow'). It is acceptable to strive to become the best chess player, rock climber, scientist, production line worker, dancer, or surgeon one can be, and pushing oneself to achieve ever greater things in these domains can produce Flow, which is good. However it is not acceptable (at least not for many) to become the best Tetris, Call of Duty, League of Legends, World of Warcraft, or generic videogame player one can be, and these activities may also yield Flow experiences for committed players, but that is bad or 'bad Flow'.

The question of design for value then becomes the question of whose values you are trying to align your design with. Committed 'gamers' might find that their interest in trying to master the nuances of a first-person shooter, despite social pressures to do something more 'useful' to be very Flow inducing, and for them 'good' Flow inducing as they never see the activity as a 'waste' of time. Indeed the cultural capital they develop as they develop the skills and knowledge to take on increasingly difficult challenges and opponents might allow them to convert some of that capital into other forms at some point in the future. They might enter a game sub-culture and gain social capital from the

experience, or they might enter tournaments and win economic capital. They might use the knowledge, skills, and passion they have developed to join the industry in producing similar games for others or critiquing games for a return on their investment of time and energy. However the development of capital by hardcore players does not help us understand what values players who are less self-identified as 'gamers' will allow them to achieve good Flow rather than bad. Maybe if we look at how different genres are considered in other media we might see some parallels. How does art cinema differentiate itself from blockbuster cinema (and not just in the box-office receipts)? How do the various musical art forms differentiate themselves from pop music? What elevates literature from genre fiction? Whatever answer you might settle upon I would wager that it comes down to that the former always do something which is more culturally valued than the latter, not that they make more money or have more fans, but that they express things that people think is important to express.

Another lens through which it might be possible to explore these valueful decisions is to assume that individuals implicitly evaluate the suitability of their own actions as if they were evaluating the actions of others. Cooley's 'Looking Glass Self' (Cooley, 1902) is such a model which assumes that individuals are asking themselves if such and such an activity is 'good' by applying the same judgement criteria on their own behaviour that they might apply on the behaviours of others. If someone (with my embodied system of values) saw me doing this, what would they think of me? Am I the kind of person who would or even should be doing this? So as one designs for value, the context of the activity and the implied values that context expresses become a critical question in the enjoyment of the activity.

So to design for good Flow I would suggest that using the Value centric design methods of Cockton and the procedural rhetoric structures of Bogost (2007) might well help to create games with sufficient meaning to militate against the possibility that players will feel that they are wasting their time, or looking like they are wasting their time (to themselves), despite engaging in an ostensibly Flow experience.

CONCLUSION

Flow as a mechanistic concept maps very clearly onto fairly common game experiences. The combination of good feedback, clear goals, variable difficulty levels and such are clearly an expression of at least 8 of the 9 basic conditions of Flow.

However, Csikszentmihalyi's broader thesis is not to explain the pleasure of overcoming challenges, but is rather an exploration of the enjoyment found in overcoming worthwhile challenges, and so in order to design for worthwhile or 'good' Flow we propose that Csikszentmihalyi's broader thesis be taken into account. The simplest way to achieve this shift in emphasis is to add an extra condition to the list of nine conditions of Flow proposed by Csikszentmihalyi in his book on Creativity (Csikszentmihalyi, 1996). The extra condition proposed suggests that the embodied cultural values of participants be taken into account to mitigate against the possibility of inducing hollow, worthless, 'bad' Flow for players of digital games. A side effect of this addition is that experiences which might not yield the all the conditions of optimal state described by Flow theory might laso be accounted for (if someone values something they don't have to be 'in the zone' to keep at it).

How these values might be included in the practice of design for digital games (or even games in general) is difficult to express in a simple set of guidelines or heuristics, but it is

proposed that cues be taken from the movement toward design for values and worth which has been expressed in general software design (Cockton, 2004, 2012).

Essentially the position of this presentation is that while the basic conditions of Flow, as applied by various designers and authors to date, is a good model of heightened, 'pleasurable' engagements, in order to design toward repeatable, valued, 'enjoyable' engagements Csikszentmihalyi's broader thesis needs to be considered.

BIBLIOGRAPHY

Baron, Sean. (2012) "Cognitive Flow: The Psychology of Great Game Design." *Gamasutra*, http://www.gamasutra.com/view/feature/166972/cognitive_flow_the_psychology_of_.php.

Bentham, J. (1789). An Introduction to the Principles of Morals and Legislation.

Bogost, I. (2007). Persuasive games: the expressive power of videogames. Cambridge, MA: MIT Press.

Bourdieu, P. (1984). Distinction : a social critique of the judgement of taste. Cambridge, Mass.: Harvard University Press.

Bourdieu, P. (1986). The Forms of Capital. In J. Richardson (Ed.), Handbook of Theory and Research for the Sociology of Education (pp. 241–258). New York, NY: Greenwood Press.

Bourdieu, P. (1990). The logic of practice. Stanford, Calif.: Stanford University Press.

Brathwaite, B., & Schreiber, I. (2009). Challenges for game designers. Boston, MA: Course Technology/Cengage Learning.

Carver, C. S., & Scheier, M. F. (2001). On the self-regulation of behavior. Cambridge: Cambridge University Press.

Cockton, G. (2004). Value-centred HCI. In Proceedings of the third Nordic conference on human-computer interaction (pp. 149–160). ACM Press. doi:10.1145/1028014.1028038

Cockton, G. (2012). Making Designing Worth Worth Designing. Presented at the CHI'12, ACM.

Cooley, C. (1902). Human nature and the social order. New Brunswick (U.S.A.): Transaction Books.

Cornelius, A. (2011). Ecstasy of Order: The Tetris Masters. Documentary, Reclusion Films. Retrieved from http://watch.ecstasyoforder.com/

Csikszentmihalyi, M. (1975). Beyond boredom and anxiety (1st ed.). San Francisco: Jossey-Bass Publishers.

Csikszentmihalyi, M. (1990). Flow : the psychology of optimal experience (1st ed.). New York: Harper & Row.

Csikszentmihalyi, M. (1996). Creativity: flow and the psychology of discovery and invention (1st ed.). New York: HarperCollinsPublishers.

Dewey, J. (1934). Art as experience (Perigee Trade pbk. ed.). New York: Perigee Books.

Fullerton, T., Swain, C., & Hoffman, S. (2008). Game design workshop: a playcentric approach to creating innovative games (2nd ed.). Amsterdam ; Boston: Elsevier Morgan Kaufmann.

Kubey, R., & Csikszentmihalyi, M. (2002). Television Addiction. Scientific American, (February).

Loftus, G. R., & Loftus, E. F. (1983). Mind at play : the psychology of video games. New York, NY: Basic Books.

Maslow, A. H. (1954). Motivation and personality. New York: Harper and Row.

Mead, G. (1934). Mind, self, and society : from the standpoint of a social behaviorist. Chicago: University of Chicago Press.
Salisbury, J.H. (2013). Playoing with Value: Player Engagements with Videogames as a Negotiation of Net Cultural Worth. PhD Thesis. Middlesex University, London.
Schell, J. (2008). The art of game design: a book of lenses. Amsterdam ; Boston: Elsevier/Morgan Kaufmann.
Shaw, A. (2010). What Is Video Game Culture? Cultural Studies and Game Studies. Games and Culture, 5(4), 403–424. doi:10.1177/1555412009360414
Tiger, L. (1992). The pursuit of pleasure. New Brunswick: Transaction Publishers.