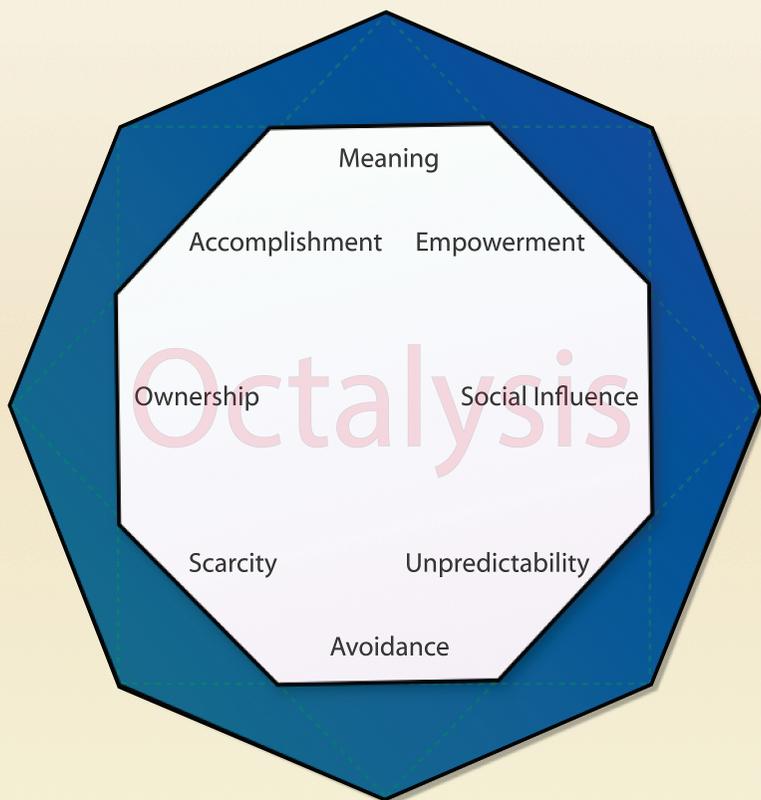


ACTIONABLE GAMIFICATION

Beyond Points, Badges, and Leaderboards



YU-KAI CHOU

Gamification Pioneer & International Keynote Speaker

Actionable Gamification

Beyond Points, Badges, and Leaderboards

Yu-kai Chou

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This book is dedicated to those who passionately believe in something and have the courage to pursue it in the face of circumstantial obstacles. We are surrounded by social and economical systems that are designed by others long ago to fulfill their own dreams, but some individuals manage to take a leap of faith, risk social rejection and even persecution in order to create more meaning in their own lives and the lives of those around them.

You inspire the world and move humanity forward. I salute you for doing what I continuously strive for but may never fully reach. I hope this book will help you on your journey towards making a difference.

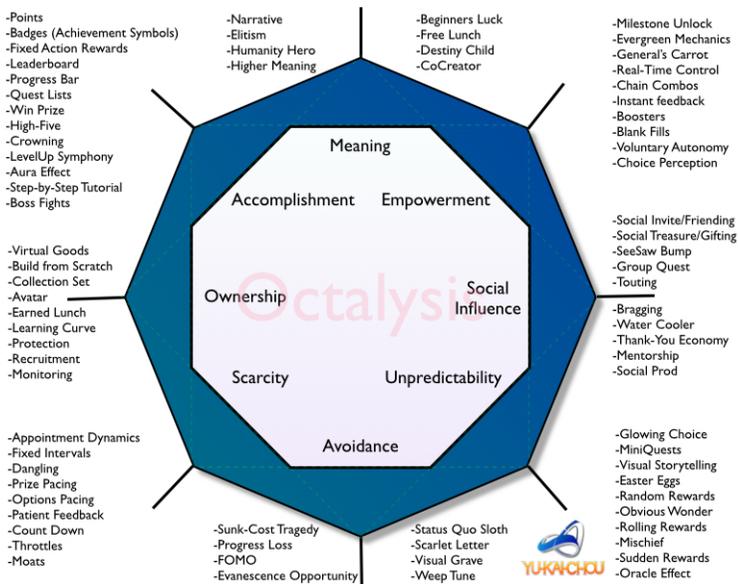
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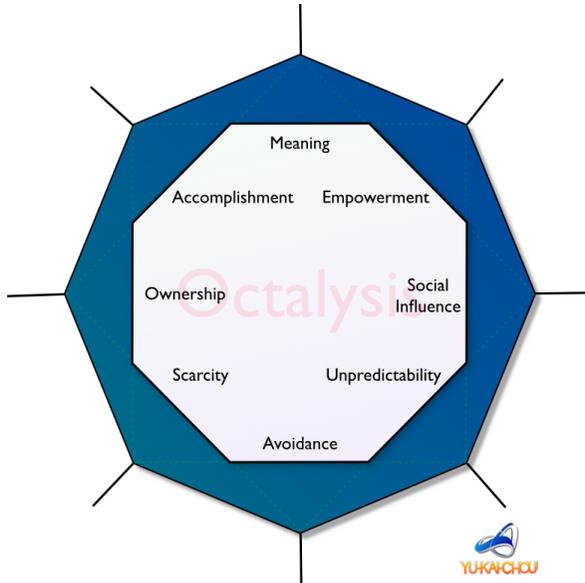
Chapter 3: The Octalysis Framework



A Gamification Design Framework for Everyone

Because of the issues discussed in the last chapter, I spent the past decade working to create a complete framework to analyze and build strategies around the various systems that make games engaging. I saw that almost every successful game appeals to certain Core Drives within us and motivates us towards a variety of decisions and activities. I also noticed that different types of game techniques push us forward differently; some through inspiration

and empowerment, some through manipulation and obsession. I drilled down to find what differentiates one type of motivation from another. The end result is a gamification design framework called *Octalysis*, which derives its name from an octagonal shape with 8 Core Drives representing each side.



Octalysis with only 8 Core Drives Present

In the past decade, I have been blessed in many more ways than I could anticipate. My lonely passion in gamification became something that various industries paid attention to. I could have easily stumbled upon a passion that remained a desert land throughout my life. Similarly, when I published the Octalysis Framework on my blog *YukaiChou.com*, it was also extremely well-received by the industry. Many brilliant pieces of work remain unnoticed or unappreciated for most of the creator's life, let alone a design framework I simply put up on my personal blog. To my delight, within a year the Octalysis Framework was organically translated into over fourteen different languages - I had to stumble upon most

of them one at a time. I quickly received many opportunities to speak, teach, and consult globally.

Through many years of experiments and adjustments, I realized that everything we do is based on one or more of the 8 Core Drives within Octalysis. This is important to keep in mind because it also suggests that if there are none of these Core Drives behind a Desired Action, there is no motivation, and no behavior happens.

Let us quickly examine what these 8 Core Drives are.

The 8 Core Drives of Gamification

Core Drive 1: Epic Meaning & Calling

Epic Meaning & Calling is the Core Drive that is in play when a person believes they are doing something greater than themselves and/or were “chosen” to take that action. An example of this is when a player devotes a lot of their time to contribute to projects such as Wikipedia. We are familiar with the fact that people don’t contribute to Wikipedia to make money, but they don’t even do it to pad their resumes. People contribute to Wikipedia because they believe they are protecting humanity’s knowledge – something much bigger than themselves. This also comes into play when someone has “Beginner’s Luck” – an effect where people believe they have some type of gift that others don’t or believe they are “lucky” getting that amazing sword at the very beginning of the game.

Core Drive 2: Development & Accomplishment

Development & Accomplishment is our internal drive for making progress, developing skills, achieving mastery, and eventually overcoming challenges. The word “challenge” here is very important,

as a badge or trophy without a challenge is not meaningful at all. This is also the core drive that is the easiest to design for and, coincidentally, is where the majority of the PBLs: points, badges, leaderboards mostly focus on.

Core Drive 3: Empowerment of Creativity & Feedback

Empowerment of Creativity & Feedback is expressed when users are engaged in a creative process where they repeatedly figure new things out and try different combinations. People not only need ways to express their creativity, but they need to see the results of their creativity, receive feedback, and adjust in turn. This is why playing with Legos and making art is intrinsically fun. If these techniques are properly designed and integrated to empower users to be creative, they often become Evergreen Mechanics: where a game designer no longer needs to continuously add additional content to keep the activity fresh and engaging. The brain simply entertains itself.

Core Drive 4: Ownership & Possession

Ownership & Possession is where users are motivated because they feel like they own or control something. When a person feels ownership over something, they innately want to increase and improve what they own. Besides being the major core drive for the desire to accumulate wealth, it deals with many virtual goods or virtual currencies within systems. Also, if a person spends a lot of time customizing their profile or avatar, they automatically feel more ownership towards it also. Finally, this drive is also expressed when the user feels ownership over a process, project, and/or the organization.

Core Drive 5: Social Influence & Relatedness

Social Influence & Relatedness incorporates all the social elements that motivate people, including: mentorship, social acceptance, social feedback, companionship, and even competition and envy. When you see a friend that is amazing at some skill or owns something extraordinary, you become driven to attain the same. This is further expressed in how we naturally draw closer to people, places, or events that we can relate to. If you see a product that reminds you of your childhood, the sense of nostalgia would likely increase the odds of you buying the product.

Core Drive 6: Scarcity & Impatience

Scarcity & Impatience is the Core Drive of wanting something simply because it is extremely rare, exclusive, or immediately unattainable. Many games have Appointment Dynamics or Torture Breaks within them (come back 2 hours later to get your reward) – the fact that people can't get something right now motivates them to think about it all day long. As a result, they return to the product every chance they get. This drive was well utilized by Facebook when it launched: at first it was just for Harvard students, then it opened up to a few other prestigious schools, and eventually all colleges. When it finally opened up to everyone, many people wanted to join simply because they previously couldn't get in.

Core Drive 7: Unpredictability & Curiosity

Unpredictability is the Core Drive of constantly being engaged because you don't know what is going to happen next. When something does not fall into your regular pattern recognition cycles, your brain kicks into high gear and pays attention to the unexpected. This is obviously the primary Core Drive behind gambling addictions, but it is also present in every sweepstake or lottery program that

companies run. On a lighter level, many people watch movies or read novels because of this Core Drive. The very controversial Skinner Box experiments, where an animal irrationally presses a lever frequently because of unpredictable results, are exclusively referring to the core drive of Unpredictability & Curiosity - although many have misunderstood it as the driver behind points, badges, and leaderboard mechanics in general.¹

Core Drive 8: Loss & Avoidance

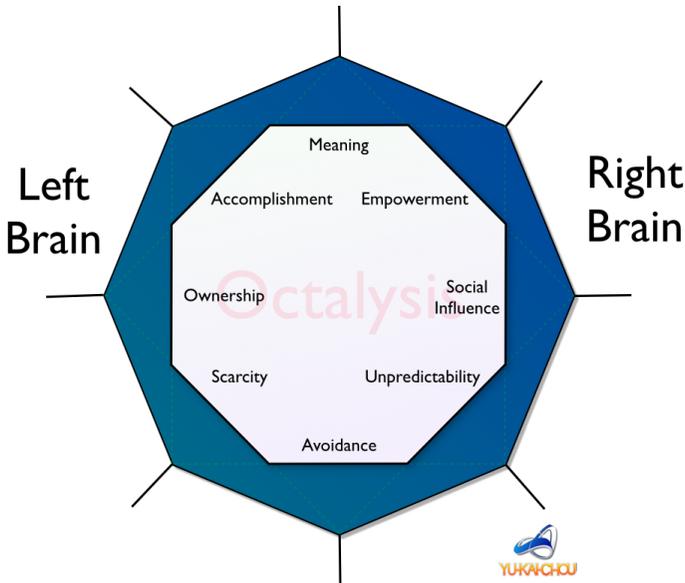
This Core Drive should come as no surprise – it’s the motivation to avoid something negative from happening. On a small scale, it could be to avoid losing previous work or changing one’s behavior. On a larger scale, it could be to avoid admitting that everything you did up to this point was useless because you are now quitting. Also, opportunities that are fading away have a strong utilization of this Core Drive, because people feel if they didn’t act immediately, they would lose the opportunity to act forever (e.g. “Special offer for a limited time only!”)

Left Brain (Extrinsic Tendency) vs. Right Brain (Intrinsic Tendency) Drives

I will repeat multiple times in this book that, because everything you do is based on one or more of these 8 Core Drives, when there are none of these 8 Core Drives behind a Desired Action, there is *zero* motivation and no action takes place. In addition, each of these 8 Core Drives have different *natures* within them. Some make the user feel powerful, but do not create urgency, while others create urgency, obsession, and even addiction, but make the user feel bad. Some are more short-term extrinsically focused, while some

¹Skinner, B. F. (1983). *A Matter of Consequences*. p116, 164. Alfred A. Knopf, Inc. New York, NY.

are more long-term intrinsically focused. As a result, these 8 Core Drives are charted on an Octagon not simply for aesthetic purposes, but because the placement determines the *nature* of the motivation.



Left Brain vs Right Brain Core Drives

The Octalysis Framework is arranged so that the Core Drives that focus on creativity, self-expression, and social dynamics are organized on the right side of the octagon. In my framework, I call them Right Brain Core Drives. The Core Drives that are most commonly associated with logic, analytical thought, and ownership are graphed on the left side of the Octagon and are termed Left Brain Core Drives.

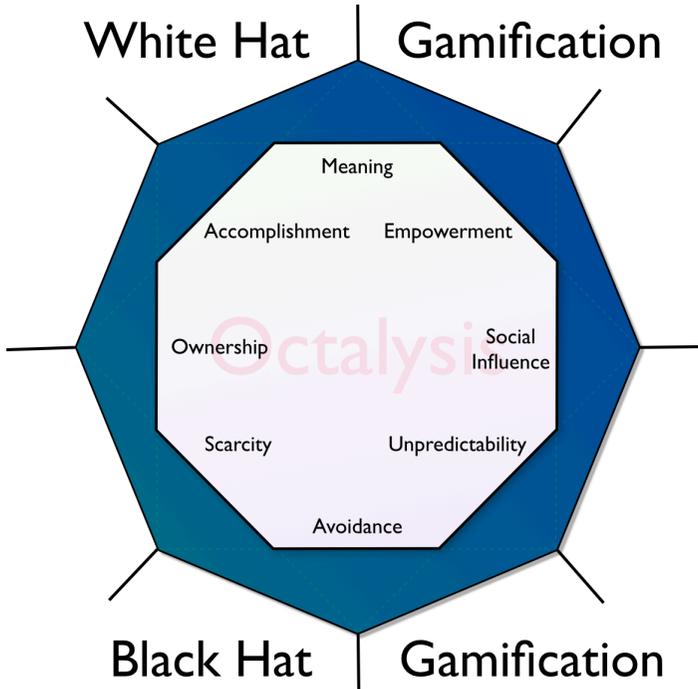
It is worth noting (especially for the “sciencey” readers who are now shaking their heads) that the Left Brain and Right Brain references are not literal in terms of actual brain geography but merely a symbolic differentiation between two distinct functions of the brain.

Interestingly, Left Brain Core Drives tend to rely on Extrinsic Motivation – you are motivated because you want to obtain something, whether it be a goal, a good, or anything you cannot obtain. On the other hand, Right Brain Core Drives are mostly associated with Intrinsic Motivations – you don't need a goal or reward to use your creativity, hangout with friends, or feel the suspense of unpredictability – the activity itself is rewarding on its own.

This is important, because many companies emphasize designing for Extrinsic Motivators, such as providing users a reward when they complete a task. However, many studies have shown that extrinsic motivation impairs intrinsic motivation. Why? Because once the companies stop offering the extrinsic motivator, user motivation will often plummet to a level much lower than when the extrinsic motivator was first introduced. We will examine this tendency, termed the *overjustification effect*, in Chapter 13.

It is much better for companies to design experiences that motivate the Right Brain Core Drives, making something in of itself fun and rewarding so users can continuously enjoy and engage in the activity. Motivation is often better when it sticks.

White Hat vs Black Hat Gamification



White Hat vs Black Hat Core Drives

Another factor to note within the Octalysis Framework is that the top Core Drives in the octagon are considered very positive motivations, while the bottom Core Drives are considered to be more negative. I call techniques that heavily use the top Core Drives “White Hat Gamification,” while techniques that utilize the bottom Core Drives are called “Black Hat Gamification.”

If something is engaging because it lets you express your creativity, makes you feel successful through skill mastery, and gives you a higher sense of meaning, it makes you feel very good and powerful. On the other hand, if you are always doing something because you don’t know what will happen next, you are constantly in fear

of losing something, or because you're struggling to attain things you can't have, the experience will often leave a bad taste in your mouth- even if you are consistently motivated to take these actions.

From an Octalysis perspective, the problem with Zynga games (as of 2015) is that they have been very successful with implementing many Black Hat Game Techniques. Of course, they don't have the framework to understand it as "black hat," but they refer to it as "Data Driven Design."² Because of the Black Hat Motivation, for a long period of time their games drove great numbers off each user in terms of retention, addiction, and monetization. However, because most Zynga games do not make users *feel* good when playing, when the user is finally able to wean themselves from the system, they will.

This is similar to the situation with gambling addictions - they don't feel like they are in control of themselves, and when they quit they actually feel empowered. In recent years, Zynga further validated my theories based on Octalysis by "double-downing" on a suite of gambling games such as the Slot Machine Game *Treasures of Olympus*, which further draws their design methodology away from White Hat Core Drives.³

It's important to note that just because something is called Black Hat doesn't necessarily mean it is bad. These are just motivators and they can also be used for productive and healthy results. Many people voluntarily submit themselves to Black Hat Gamification in order to go to the gym more often, eat healthier, or avoid hitting the snooze button on their alarm clock every morning. We will talk about the ethics and positive Black Hat Gamification Design in Chapter 14.

Based on the Octalysis Framework, a good Gamification practitioner should consider all 8 Core Drives in promoting positive and

²Mike Williams. GameIndustry.biz. "Zynga's high-speed, data-driven design vs console development". Posted 08/06/2012

³Vikas Shukla. Valuewalk.com. "Zynga Inc (ZNGA) Unveils 'Riches of Olympus' Slots Game". Posted 02/07/2014.

productive activities so that everyone ends up happier and healthier afterwards.

The Hidden Ninth Core Drive: Sensation

Beyond the 8 Core Drives that will be explored in depth within this book, there is in fact a hidden ninth Core Drive called “Sensation,” which is the physical pleasure one obtains from taking an action. People do drugs, get massages, or have sex (hopefully along with many other Core Drives) because of the *sensation* Core Drive. If you choose one food over another, it is often merely because one tastes better than the other, which is primarily *sensation*. The key differentiation here compared to other Core Drives is that *sensation* deals with physical feelings that bring pleasure to our touch, hearing, sight, smell, and even taste. The other Core Drives bring pleasure to us through psychological means - the meaning and context behind what we see, hear, or taste.

The reason why I don’t have it included in the main set of the framework is that the Octalysis Framework primarily focuses on psychological motivators instead of physical ones. For instance, in *most* cases I cannot design an interactive experience where the user gets the feeling of physical acceleration while being on a roller coaster. Massages can be designed as rewards or *feedback mechanics* within the Octalysis Strategy Dashboard (covered in Chapter 16), but the behaviors will usually be motivated through Core Drives such as Scarcity, Accomplishment, and Ownership.

Even though we don’t include sensation as part of the 8 Core Drives of Octalysis, we recognize its presence and understand how certain behaviors are driven by it. However, *sensation* by itself also has limitations without the 8 Core Drives accompanying it. Even pleasurable activities such as sex, when lacking *curiosity*, *relatedness*, *creativity*, and *scarcity*, can potentially become rather unappealing.

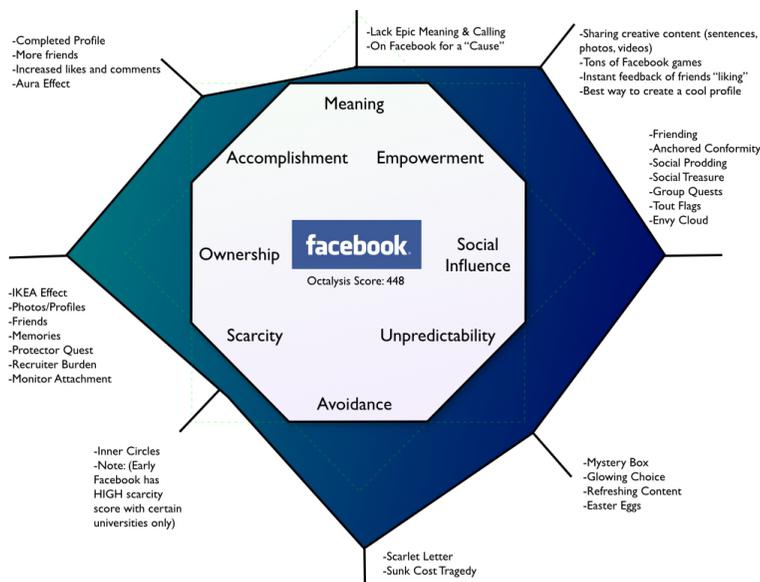
How to Apply Level 1 Octalysis to Actual Systems

Now that we have the Octalysis Framework laid out, the next step is to determine how to utilize it. Since everything a person does is based on one or more of the Core Drives, generally any engaging product or system will have at least one of the Core Drives listed above. If none of the Core Drives are present within a system, there is no motivation, and users will drop out.

The first application of Octalysis is to use it in analyzing the strengths and weaknesses of various products and experiences with respect to motivation. The key here is to start thinking about how that product or experience utilizes each of the 8 Core Drives, and identify all the game mechanics and techniques that are used to activate them.

A few Gamification examples with Octalysis

Here's an Octalysis done for a few games and online products:

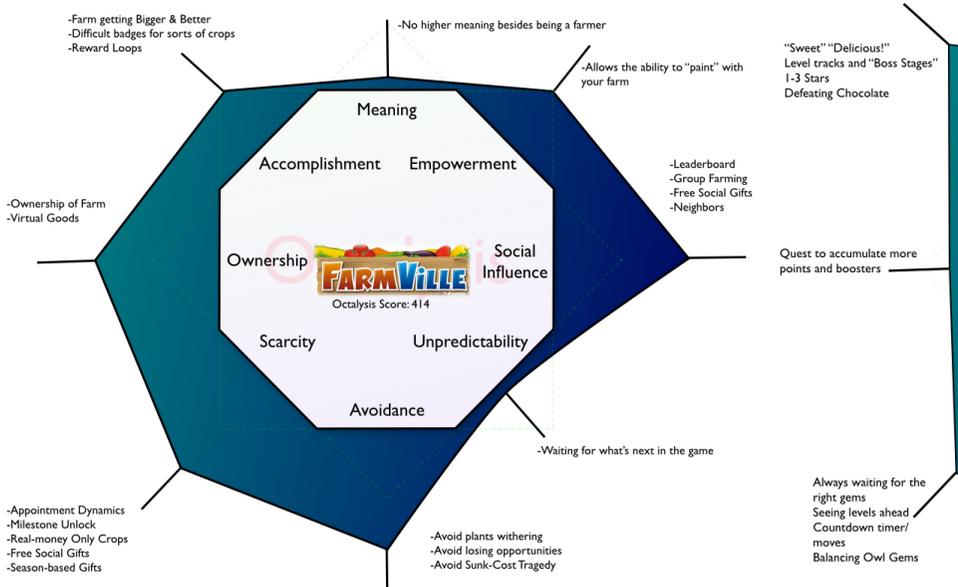


As you can see from the chart, Facebook is very strong in many of the 8 Core Drives, but rather weak on Core Drive 1: Epic Meaning & Calling - there is generally no higher purpose on using Facebook unless you are one of the few who are actively contributing to a cause on Facebook.

It is also weak on Core Drive 6: Scarcity & Impatience, as these days there are very few things that users want to do on Facebook but are barred from doing it.

The illustration tells us that Facebook mostly focuses on Right Brain Core Drives, which focus on Intrinsic Motivation. It also trends more into the Black Hat zone, which means that it is more prone to drive obsessive behavior that encourages users to return on a daily basis.

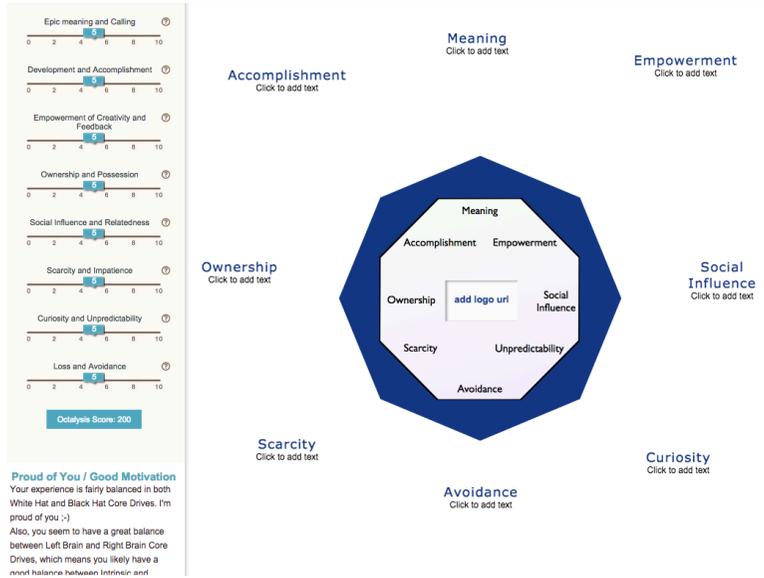
Among the Left Brain Core Drives, we see that people are extrinsically motivated on Facebook, not so much to feel accomplished or gain exclusivity, but because of Core Drive 4: Ownership & Possession - to collect, customize, and improve what is theirs.



Here we see a couple game examples that contrast against each other.

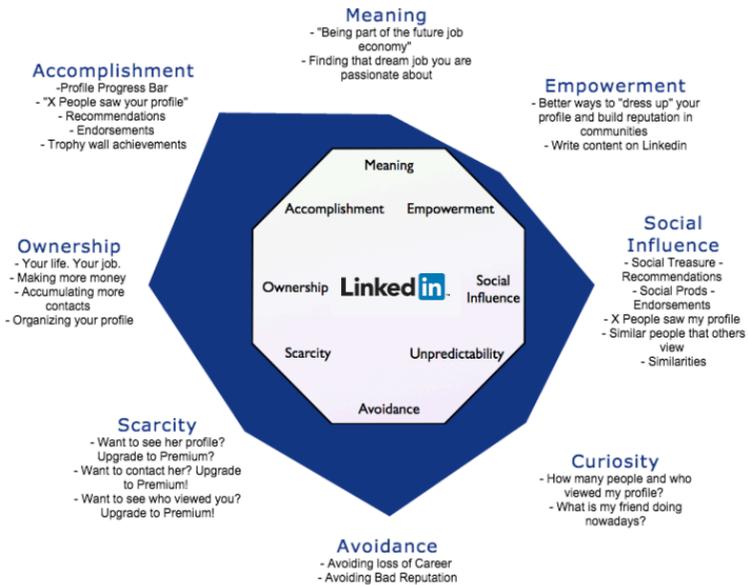
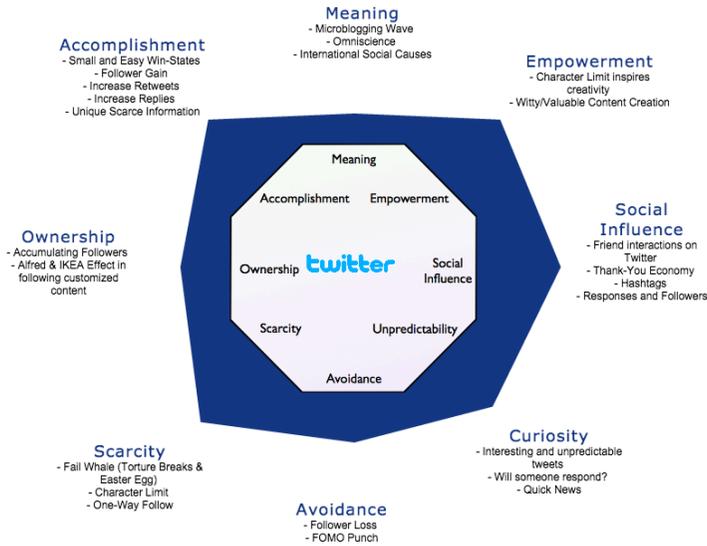
Like Facebook, Farmville and Candy Crush also lack Core Drive 1: Epic Meaning & Calling within, but Farmville also lacks Core Drive 7: Unpredictability & Curiosity - there are not that many surprises in the game. You go back on Farmville simply to harvest the crops that you planted a few hours earlier. Candy Crush is a little more balanced, but a little skewed towards the Right Brain Core Drives.

Previously, I crafted each Octalysis shape by hand on Keynote. Fortunately, a fan of Octalysis, Ron Bentata from Israel, graciously offered to build an easier Octalysis Tool for everyone.



(Accessed from www.yukaichou.com/octalysis-tool)

With the Octalysis Tool, let's see a few more examples with Octalysis.



Here we can see that Twitter is also fairly well balanced but skews more towards Right Brain Core Drives. In contrast, LinkedIn is heavily focused on the Left Brain Core Drives, with a White Hat emphasis. This makes sense, because LinkedIn is all about your career, your life, your accomplishment. Those are very extrinsic goals, and as a result, everyone feels like they need to have a LinkedIn Account. However, because it lacks Right Brain (intrinsic tendency) Core Drives, there's not a lot of enjoyable activities on LinkedIn. And this has been the challenge that they have been faced with for many years. Users create their profiles, and then there is nothing left to *do* on LinkedIn. The account just sits there.

In the past couple of years, LinkedIn has been working very hard to increase engagement on the site, especially on Core Drive 5: Social Influence & Relatedness through Game Techniques such as Social Prods and Social Treasures - we will talk about how LinkedIn uses these Game Techniques in Chapter 9. However, through the Octalysis Framework we can see that LinkedIn could benefit massively if they put more effort into Core Drive 3: Empowerment of Creativity & Feedback, as well as Core Drive 7: Unpredictability & Curiosity.

Quick Intro to Level II Octalysis and Beyond

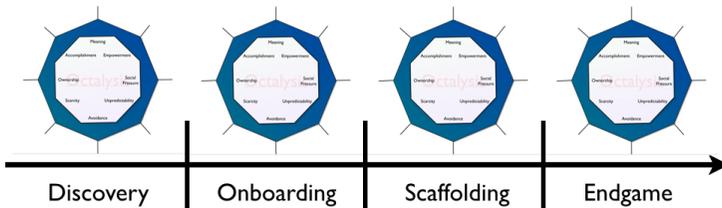
Ten years of Gamification study and implementations result in a fairly robust framework that can become actionable towards driving better motivation and metrics. As you can see, creating a rich gamified experience is much more than simply slapping on various game-mechanics to existing products. It is a craft that requires a nontrivial amount of analysis, thinking, testing, and adjusting.

As you become more and more advanced in Octalysis beyond the contents of this book, you will start to learn the higher levels of Octalysis design. (Up to *five levels*. There are only a handful

of people in the world who know what is Level IV and above). These advanced levels incorporate much more sophisticated design principles and in-depth analysis.

Once one has achieved mastery in Level I Octalysis, they can then apply it to Level II Octalysis, where we try to optimize experiences throughout all four phases of the player/user journey. These phases are: *Discovery* (why people would even want to try out the experience), *Onboarding* (where users learn the rules and tools to play the game), *Scaffolding* (the regular journey of repeated actions towards a goal) and *Endgame* (how do you retain your veterans).

Level 2 Octalysis Design for All 4 Phases

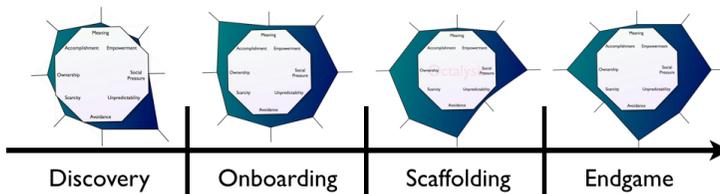


Level II Octalysis: Factoring in the 4 Phases of a Player's Journey

Most people treat their product as one experience, which seems reasonable. But in terms of motivation, I believe this is a mistake because the reason you are using a product on Day 1 is often very different from that of Day 100. Since everything you do is because of one of these 8 Core Drives (besides the 9th hidden Core Drive - Sensation), if at any phase none of the 8 Core Drives are present,

there is no reason for the user to move on to the next phase, and the user simply drops out.

Level 2 Octalysis Design for All 4 Phases



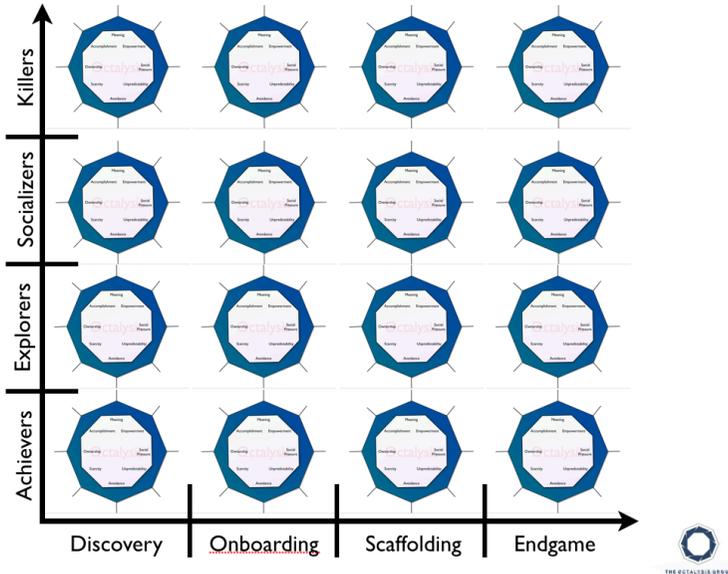
Sensing the pulse of what players feel across the journey

In the above illustration, you can evaluate how different Core Drives are more prominent during each Experience Phase of the player's journey - whether it would be *unpredictability*, *accomplishment*, or *social influence*. For instance, most people *Discover* a product because of Core Drive 7: Unpredictability & Curiosity – they read about it on the news or hear others talking about it.

During *Onboarding*, they might be motivated by Core Drive 2: Development & Accomplishment – feeling smart and competent during the early stages. During the *Scaffolding* Phase, they might be motivated because of the social dynamic (Core Drive 5) as well as trying to go after the goal they could not reach yet (Core Drive 6: Scarcity & Impatience). In the *Endgame*, they might continue to be engaged because they don't want to lose their status and achievements (Core Drive 8: Loss & Avoidance).

How you design for all four Experience Phases through the 8 Core Drives will strongly demonstrate your ability as an Octalysis Gamification Designer. Of course, never forget to design for the proper *nature* of the Core Drives, understanding when you want to have more Black Hat, when to have more White Hat, and when to use Extrinsic/Intrinsic motivators.

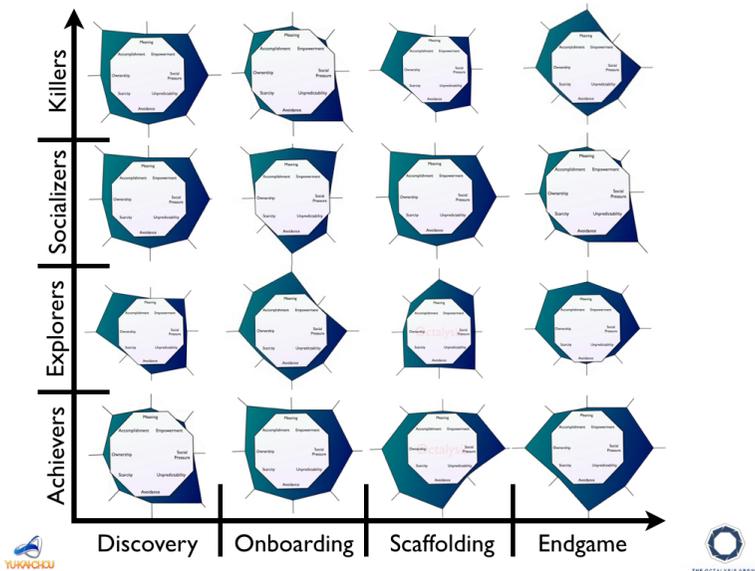
Once you have mastered Level II Octalysis, you can then push on to Level III and factor in the different player types. This will allow you to see how different types of people are motivated at different stages of the experience.



Pushing up a level further: Level 3 Octalysis with Bartle's Player Types

In the above diagram, I applied Richard Bartle's Four Player Types (Achievers, Socializers, Explorers, and Killers) to Level III Octalysis primarily because it is the most recognized model in game design. However, Level III Octalysis does not need to use Bartle's Player

Types⁴. In fact, Richard Bartle himself claims that his Four Player Types may not be suitable for gamification environments⁵. It could be Sales vs. Marketing Staff, Male vs. Female, Loyal Customers vs. Nonchalant Customers vs. New Customers etc. The point here is that different types of people are motivated differently, so Level III Octalysis allows the designer to understand and design for how everyone is feeling at different stages. We will also examine Richard Bartle's Four Player Types with Octalysis in Chapter 15.



Sensing how each Player Type is motivated at each Experience Phase

It is incredibly difficult to design something that pleases everyone. But with this framework, you can start to identify where the weaknesses are within your system and work on improving for motivation at various points. Once you become familiar with Level III Octalysis, you can almost *feel* how motivation moves within

⁴Richard Bartle, "Hearts, Clubs, Diamonds, Spades: Players Who suit MUDs". 04/1996.

⁵Gabe Zichermann. Slideshare: "A game designer's view of gamification" by Richard Bartle. Posted 06/24/2012.

your system and recognize where motivation is lacking or whether there is too much Black Hat or Extrinsic Motivation in the system.

For instance, through Level III Octalysis, one can reach conclusions such as, “Looks like the Achievers start the experience in Discovery well, Onboarding is fine, but in Scaffolding they lose motivation and drop out. The Explorers will try out the product because of Core Drive 7: Unpredictability & Curiosity, but during Onboarding they feel confused and would leave. Socializers wouldn’t even try out the experience because there is no Core Drive 5: Social Influence & Relatedness advertised in the product. Finally, the Killers seem to be the ones in this case to stay through Discovery, Onboarding, Scaffolding, and Endgame - possibly showing off to the new players.”

While there are five levels of Octalysis in total, Level I is often sufficient for the majority of companies seeking to understand why their products are not engaging their users. Higher-level Octalysis processes are useful for organizations that are truly committed to making sure that they push their metrics in the right direction and improve the longevity of a gamified system. Many games are only popular for three to eight months, but ones that have impeccable Endgame design can last over decades — or even centuries.

This book will be about examining the 8 Core Drives, how to design for them, and how they all come together to create a phenomenal experience for any user. If the above does not interest you so far, it is safe for you to put the book down and do better things with your time. But if the above excites you and you choose to go on, I promise you there will be an exhilarating journey of discovery, empowerment and awakening ahead. I’m even feeling excited just thinking about it.

To get the most out of the book, Choose only ONE of the below options to do right now:

Easy: Think of a game that you have enjoyed playing for a very long time. Can you identify which of the 8 Core Drives are present in the game?

Medium: Think about why you are reading this book. What Core Drives have motivated you to read this book over other activities?

Share what you come up with on Twitter or your preferred social network with the hashtag #OctalysisBook and see what ideas other people have.

Chapter 5: The First Core Drive - Epic Meaning & Calling



Now that we have established a foundational overview of the Octalysis Framework, it is time to dive deeper into each Core Drive and discover the power and enchantment within.

If there is only one thing you remember after reading this book, it should be to focus on motivation by thinking through the 8 Core Drives instead of focusing on features and functionalities. Of

course to do that, you need to be familiar with the 8 Core Drives to wield them correctly, otherwise you may even end up hurting user motivation.

The Core Drive High Above

Epic Meaning & Calling is the First Core Drive of Octalysis Gamification. This is the drive where people are motivated because they believe they are engaged in something bigger than themselves.

Games often trigger the Epic Meaning & Calling Core Drive. In many games, an intro narrative communicates that the world is about to be destroyed, and somehow, you as the player are the only one qualified to save the world. That immediately creates excitement and motivation towards the adventure.

What about real life? Do we ever encounter scenarios where we are driven by Epic Meaning & Calling?

- Have you ever wondered why people contribute to the non-profit website Wikipedia? What would make someone spend hours updating a site that doesn't pay her or even help her build her resume?
- Why are people so loyal to Apple products, to the extent that they know they want to buy the next product, even before they know what it is?
- Why are school rivalries so engaging, driving radical behaviors such as pranks, streaking, violence, while also leading to profit for the schools?
- Can higher purpose also be designed into parenting styles beyond the usual reward and punishment system?

Interestingly, these questions can all be answered by the powerful White Hat Core Drive of Epic Meaning & Calling. In this chapter,

we'll attempt to address many of these questions and provide more understanding of this selfless Core Drive.

The Encyclopedia that Pwned Me

“Pwn is a leetspeak slang term derived from the verb own, as meaning to appropriate or to conquer to gain ownership. The term implies domination or humiliation of a rival used primarily in the Internet-based video game culture to taunt an opponent who has just been soundly defeated (e.g., “You just got pwned!”).” - Wikipedia⁶.

When I founded my first startup company in 2004, I was really excited about finally being an entrepreneur and wanted to promote it everywhere. I learned that anyone can update Wikipedia because it is user-generated, and thought it would be a stellar idea to have my company included within the vast knowledge of Wikipedia. I excitedly spent an entire day crafting a great and informative section about my company - describing when it was founded, by which amazing prodigies, and the problems it set out to solve.

Once completed, I proudly clicked the “publish” button. And there it was: I saw my own company as a Wikipedia article. Woohoo! We were officially on Wikipedia now! What an Epic Win!

However, my bliss of “finally making it in life” was short-lived.

About three minutes after my posting, my post was flagged by a “member of the Wikipedia community,” stating that this entity was not significant enough and therefore does not deserve to be on Wikipedia. Five minutes later, a couple others agreed to that point of view, and my post was deleted.

Just like that, my full day's worth of work disappeared within ten minutes.

⁶Wikipedia Entry: “pwn”: <http://en.wikipedia.org/wiki/Pwn>. Accessed 12/18/2014.

The first question that came to my mind after the many “dot dot dot” moments and the three ||| lines across my forehead was, “Who are these people? Do they even have lives??”

It sure seems odd that a fairly large group of volunteers go on Wikipedia regularly, not to be enlightened with mind-blowing knowledge, but to police the platform for pests like me who are trying to sneak irrelevant or unimportant content into the Wikipedia.

If you have ever hired interns or entry-level employees and have paid attention to their motivations and feelings, you may know that asking people to do “auditing work” on mountains of pages and to flag outdated content can present an awkward situation. You know that no one enjoys this type of grunt work. These bright young interns and employees really want to learn great skills from you and your company so they can grow as professionals. But there is negligible learning associated with such mundane work. *Someone* in the company has to do the work, and the entry level interns naturally should be the ones that perform the tasks that no one else wants to do.

As a result, you try to tell them to do it as a matter-of-fact, so they may go with the flow without thinking about the demoralizing nature of it. Or you may choose to spend a lot of time explaining to them how this is important to the company and how their work creates great impact. You could also try to make the project sound fun and exciting. At the end of the day, you know in your heart that this is dreadful work, and the young colleague simply needs to “pay their dues” before they can get other interns to do the same.

But when it comes to Wikipedia, people are volunteering their precious time outside of their jobs to do the exact same thing without getting any “real” benefits! When you come home from work, there are lots of things you can do - practice your daily boss-complaining ritual, watch TV, Skype with your significant other, or even play games. People choose to police Wikipedia above all those other activities because they feel like they are protecting humanity’s

knowledge - something greater than themselves.

When it comes to Epic Meaning & Calling, it's not about what you want as an individual nor about what makes you feel good. Individuals participate in the system and take action not because it necessarily benefits them, but because they can then see themselves as heroes of a grander story. It's about playing your part for the greater good.

And if playing my part does not require me to sacrifice my life as a martyr but simply involves me to spend a couple hours a day monitoring weird activities on Wikipedia, that's a huge bargain and something worth doing.

According to an MIT study, obscenities that are randomly inserted on Wikipedia are removed in an average of 1.7 minutes⁷. These unpaid guardians are definitely keeping *humanity's knowledge* in check diligently.

However, based on my later acquired understanding in human motivation, I also had the hunch that instead of getting paid for pouring hours of their precious labor into Wikipedia, they are also more likely to *pay* Wikipedia instead.

After some research, *whoopee*, I discovered that people who have spent time editing Wikipedia are almost nine times more likely to donate to Wikipedia compared to people who only benefit off it by consuming the valuable information (28% vs 3%)⁸. What's more, donors who don't edit the site have all donated far fewer than three times, while a whopping 80% of donors who have also put labor into Wikipedia have donated five times or more.

Time and time again, we see that, when your system or product demonstrates deep and sincere passion towards a higher vision, others will want to believe in it and get on the journey with you,

⁷Don Tapscott and Anthony D. Williams. *Wikinomics*. P75. Portfolio Publishing. September 28, 2010.

⁸Wikimedia Blog. "Who are Wikipedias Donors". 02/05/2012.

even if it means foregoing financial compensation (which is Core Drive 4: Ownership & Possession).

Even to this day, when people ask me, “Why don’t you enter yourself and your Octalysis model onto Wikipedia? You’re fairly well-known in your industry right?” I usually try to sidetrack the conversation, as the mere thought of doing so brings back scarring memories of having such an authoritative community unanimously vote that I was not worthy of being mentioned.

“Nah, I’m not that well-known.”

Newton’s Legacy is Beyond a Fruit

Core Drive 1: Epic Meaning & Calling is generally best communicated during the Discovery and Onboarding Phase of a Player’s Journey. You want to communicate very early on exactly why the user should participate in your mission and become a player.

Apple is one of the rare companies that understand this Core Drive, and they managed to instill this into consumers without being user-generated, being an open platform, or pushing for “a charitable cause.” Every once in a while, I’ll have friends who excitedly tell me, “Hey Yu-kai, I am saving up to buy the next *iPhone*.” I would respond, “But you don’t even know what’s in the new iPhone! What if it sucks?” My friends would then respond with, “I don’t care. I’m going to buy the next *iPhone*.”

Isn’t that a strange phenomenon in a world where electronic consumers are spoiled by a plethora of options out there, with many alternatives touting the same or better capabilities than the iPhone but only a fraction of the cost?

Why are people so crazy about Apple products?

What we are seeing here is that these friends of mine (and I suspect yours too) have first self-identified as an “Apple Person.” Therefore,

they need to do what “Apple People” do, which is to buy the newest iPhones and Macbooks, as well as act like “Apple Snobs” by walking around and making comments such as, “Oh, I never have that problem because I use a Mac.” I myself have also been guilty of this.

When confronted with the topic of many Android phones having better specs and lower prices than the iPhone, my response has usually been, “Well, I don’t know about the specs, but I do know that, when I’m using an Android phone, I feel frustrated; but when I’m using an iPhone, I feel happy. That’s probably worth something.” (By the way, in my opinion, it is often unfair to compare the market share of iPhones to Android Phones as a success measurement, since the iPhone is sold by one company, while Android Phones are sold by over a dozen companies throughout the world. When people freak out about “Oh look! There are more Android users than iPhone users now!”, that’s basically saying that all these non-Apple smartphone companies combined have surpassed Apple. Big deal.)

So the multi-billion dollar question is: So, how did Apple do this?

Besides offering stellar products with elegant design and meticulous engineering, Apple has been one of the few electronics companies that actually try to sell a higher meaning.

Lets examine two of the most successful commercials in history - both from Apple.

The Crazy Ones in 1984

The first Apple commercial that reached massive fame and success, is the “1984” commercial, aired in 1984’s Super Bowl XVIII on CBS⁹.

This is a build-up of the popular novel “Nineteen Eighty-Four” by George Orwell, published in 1948 about a futuristic dystopian

⁹Maney, Kevin. “Apple’s ‘1984’ Super Bowl Commercial Still Stands as Watershed Event”. USA Today. January 28, 2004.

world where a unified society is controlled and brainwashed by a centralized government¹⁰.

The ad presents a drab, depressive setting - representing a diabolical, yet orderly society; seemingly under the repressive control of a totalitarian influence. In a large room filled with gray, cheerless individuals dress in monotonous grey uniforms, an authoritative voice booms. The masses stare blankly at a huge screen displaying the colossal image of a “dictatorial figure”. “Big Brother” is addressing the minions, demanding their obedience, their loyalty, their minds.

Suddenly, a woman in full color runs in and throws a sledgehammer at the big screen, completely shattering it. Then, a deep male voice says, “On January 24th, Apple Computer will introduce Macintosh. And you’ll see why 1984 won’t be like ‘1984.’”¹¹

Through this commercial, Apple reassures viewers that the world wouldn’t be controlled by “Big Brother” - IBM, but would be liberated by Apple’s computers.

Though Apple’s Board did not really approve of this commercial and it was almost thrown into the garbage bin, when finally aired, it became one of the most successful commercials in history. In his book, *Electric Dreams: Computers in American Culture*, Ted Friedman discusses how powerful the commercial was:

*Super Bowl viewers were overwhelmed by the startling ad. The ad garnered millions of dollars worth of free publicity, as news programs rebroadcast it that night. It was quickly hailed by many in the advertising industry as a masterwork. Advertising Age named it the 1980s Commercial of the Decade, and it continues to rank high on lists of the most influential commercials of all time.*¹²

Afterwards, Apple’s internal team calculated the amount of free

¹⁰Orwell, George. Nineteen Eighty-Four. Secker & Warburg. 1949.

¹¹Youtube, “Apple - 1984” URL: <http://www.yukaichou.com/1984>

¹²Friedman, Ted. *Electric Dreams: Computers in American Culture*, 2005.

airtime that the commercial garnered. They estimated that the total value was about \$150 million worth of derived airtime. Within three months of the commercial's appearance, Apple would sell \$155 million worth of Macintoshes, establishing itself as the revolutionary computer company on the block.

The second extraordinarily successful Apple marketing campaign to resonate with people was the "Think Different" campaign. This commercial ran in 1998, not long after Apple's Founder, Steve Jobs returned to the board at the end of 1996.¹³

At the time, Apple was a struggling company, and a dying brand. Jobs not only trimmed Apple's product line from over 350 items down to 10, he knew he had to reinvent the Apple brand.

While there are many shorter versions of the ad, the original full text runs:

Here's to the crazy ones. The misfits. The rebels. The troublemakers. The round pegs in the square holes. The ones who see things differently. They're not fond of rules. And they have no respect for the status quo. You can quote them, disagree with them, glorify or vilify them.

But the only thing you can't do is ignore them. Because they change things. They invent. They imagine. They heal. They explore. They create. They inspire. They push the human race forward. Maybe they have to be crazy.

How else can you stare at an empty canvas and see a work of art? Or sit in silence and hear a song that's never been written? Or gaze at a red planet and see a laboratory on wheels? We make tools for these kinds of people.

While some see them as the crazy ones, we see genius. Because the people who are crazy enough to think they can change the world,

¹³Hormby, Tom. Low End Mac. "Think Different: The Ad Campaign that Restored Apple's Reputation". 8/10/2013.

*are the ones who do.*¹⁴

The series of commercials was a gigantic success. It won dozens of prestigious advertisement awards and made the Apple brand “cool” again. It tangibly spearheaded the transformation of Apple from a dying company into literally the most valuable company in the world within a decade.

Have you noticed something unique and interesting about these ads?

Neither of these campaigns actually talks about computers or electronics. They don’t talk about specs, RAM, color screens, or computers. You’re not even sure what they sell if you are unfamiliar with the company.

They sold a vision.

When people connect with a statement like, “Because of Apple Computers, 1984 will not be like Nineteen Eighty-Four,” many started to think, “Wow! That’s amazing! I don’t know what they do, but I want to be part of this!”

How do you “be part of it”? You buy the Macintosh computer.

Similarly, when people hear the deep wise voice concluding with, “Because the people who are crazy enough to think they can change the world, are the ones who do,” they become inspired and think, “Yes! I’ve always been hiding my true passions to conform with what people expected of me. I want to be one of the crazy ones that changes the world!” And of course, the way to think different and change the world is to buy an iPod and have a thousand songs in your pocket.

See the power of Epic Meaning & Calling? When every other company is selling how amazing their computers are, Apple sells a vision worth believing in. Interestingly, when Apple was developing

¹⁴Siltanen, Rob. Forbes. “The Real Story Behind Apple’s ‘Think Different’ Campaign”. 12/14/2011.

the Think Different campaigns, the first rule was that there would be no products in the commercials. This is so counterintuitive, yet so *Human-Focused*.

As long as Apple can continue to make people think that it is a vision worth believing in, their customers will continue to be “Apple People” and buy Apple products. But if one day Apple does something stupid and breaks the trust of being a vision worth believing in, people will stop blindingly purchase their products and will begin to look at the specs again.

Mjolnir is Not Just a Tool

Some companies have approached me during my all-too-good-sounding soapbox, and asked me, “Yu-kai, this Epic Meaning & Calling thing is great and all, but our product is just a tool. It’s not meant to change the world and solve global warming. How can we add Epic Meaning & Calling to a simple tool?”

For this, one of my favorite examples is the mobile app Waze¹⁵. Waze is a GPS-based mobile navigation app that provides a wealth of user-generated information about travel conditions from the Waze community.

When you think of a GPS, it is purely functional as a tool. You turn left, turn right, and get to your destination - very functional as a tool, but not very epic. So how does an app like Waze create Epic & Meaning & Calling? And how do you instill that meaning without giving users long videos to watch or huge amounts of text to read?

What Waze did was brilliant. In the early days of Waze, when you first download the app, it would show you one image. On the left side of that image, there is a huge snake monster, consisting of a street with many cars stuck on it. This snake monster’s name was *Traffic*. On the right side of the image, there were cute little Waze

¹⁵Waze Website: waze.com

knight characters with swords, shields, and armor, working together to fight this big snake monster.

So now, when you are driving with Waze, you are not just getting to your destination, you are helping a community of brave Wazers fight this Traffic monster! This resonates on a subconscious level because, deep in our hearts, everyone hates traffic with a passion.

Of course, the actual way to beat this Traffic monster is to drive with Waze on. Since Waze is a user-generated system, as you drive with the app on, it will start to gather valuable information about the road conditions that will help the overall driving experience of the community.

The powerful thing about Epic Meaning & Calling, is that it turns otherwise passive users into powerful evangelists of your mission. They are even highly forgiving of your flaws. Because Waze is user-generated, sometimes it is not as accurate. Consequently, in its early days, it took me to the wrong location about three times, and I became apologetically late for my meetings.

You would think that the only purpose of a GPS is to take you to the correct destination, and when it fails in that one purpose, most users would say, "This is a piece of crap. I'm going to delete it!" However, because of the Epic Meaning & Calling Waze has instilled in the hearts and minds of people, when it takes people to the wrong location: instead of deleting it in anger, many people start to panic. "Oh no! The map is broken! I need to go fix it!"

How powerful is that? When you fail in your core competency, instead of deleting the app in anger, users actually rush to solve the problem for you. Again, when it comes to Epic Meaning & Calling, what makes you happy is irrelevant. It's about the bigger meaning and higher vision. And when you see a crack in that higher vision you believe in, you become fearful that others will see that crack and lose faith in the vision. As a result, you take it upon yourself to fix it.

This ties back to the core of Human-Focused Design. You play a game not because you have to, but because you enjoy doing so. You use Waze not because there aren't any other good GPS apps out there that can report to you traffic conditions, hazards, and watchful policemen; you use it because it's fun and you enjoy the experience the most. And just like Mjolnir, Thor's mighty hammer known for leveling mountains¹⁶, this is no ordinary tool- it evens slays traffic!

Despite the many errors and frustrations leading to inaccuracy, within a few years of its founding, the company was acquired by Google for over \$1 Billion Dollars. Not bad for selling a vision.

Your Parents are Bigger Than You!



Some people mistake Octalysis and Gamification as technology solutions that are expensive to implement. In reality, they are

¹⁶In Norse mythology and the Comic Book Marvel Universe, Mjolnir is the divine thunder hammer of Thor.

design systems focused on motivation. So if the activity relates to motivation, you can apply gamification to it. Just like games – you can play with a complex 3D Virtual World technology like World of Warcraft, or you can play Hide-And-Seek, something that requires no technology at all. Children these days have both World of Warcraft and Hide-And-Seek available, and the last time I checked they still enjoy Hide-And-Seek.

Because of that, we can even apply Octalysis Gamification to things a bit more abstract, such as parenting. Parents often use two main Core Drives to motivate their children to behave well - Core Drive 2: Development & Accomplishment (reward when the child behaves), as well as Core Drive 8: Loss & Avoidance (punish/ground when the child does not behave).

However, the Chinese culture has “figured out” how to implement Core Drive 1: Epic Meaning & Calling into parenting, through the meaning behind a term known as “孝”. Pronounced “Sheeow,” (or “Xiao” in correct Pinyin spelling, but most people don’t know what to do with the X). It has no direct English translation, but it is a concept that translates into a belief that since the first day of your birth, you are indebted to your parents who you owe your life and existence to. As a result, “孝” mandates that you need to do everything possible to honor them and lift them up.

There are even popular expressions and idioms in Chinese literature such as “不孝之子，天地不容，” which means, “For a son without ‘孝,’ there is no space/tolerance for him in heaven or earth.” This means that if you do not have “孝,” you are such an epic scumbag you don’t even deserve to have ever existed; both the heaven and the earth are so disgusted by your existence they are literally spitting you out of their presence.

Some sources translate the character “孝” to mean “Filial Piety” – “a virtue of respect for one’s parents and ancestors.” Yet, having grown up with this term I feel it goes a long way beyond the word “respect.” When I was little and just started to comprehend

the world, I remember reading or listening to the thrilling and sometimes gruesome stories of the well-known children of “孝” in Ancient China. These children would fight tigers to protect their parents, warm up their parents’ mattresses before bedtime, or cut off their own flesh in order to feed their hungry parents. In one story, a sixty year old man of “孝” pretends to play on the ground in a humorous way in order to entertain his eighty-year-old parents. (Note: regardless of the tactics to educate such Epic Meaning & Calling, “孝” is truly a great virtue that is slowly being lost in a globalized “flat world” of instant gratification and self-centeredness).

Other examples of “孝” in the *24 Paragons of Filial Piety*¹⁷ include:

- a man sells himself into slavery to pay for his father’s funeral
- a man tastes his sick father’s stool to understand the health of his father
- a woman cooks part of her own liver to feed her mother
- an eight year old boy attracts mosquitoes to suck his blood so they won’t bother his parents
- a father decides to bury his three year old son so he can afford to care for his own mother. While digging the hole, he finds treasure and doesn’t have to kill his son.

While some of these actual stories are disturbing, it illustrates how important “孝” is as a value within the culture. Of course, parents aren’t just hypocritically manipulating their children. The children who see their parents treat their grandparents poorly, regardless of whether these stories are told to them, will most likely not buy into the Epic Meaning of 孝. This is an important factor in using the motivation elicited through Core Drive 1 - it must feel authentic.

In Traditional Ancient Chinese Culture, when one’s parents pass away, they need to dress in mourning attire, abstain from all

¹⁷Jujing, Guo. *The Twenty-four Paragons of Filial Piety*. Yuan Dynasty (1260–1368).

entertainment and sometimes meat, as well as exclude social relationships for three entire years to express his grief. This act is called “守孝”, which literally means “guarding 孝” and was traditionally set to be three years because Confucius stated that it takes three years for us to leave our parents’ arms; hence, it is proper to spend three years mourning for them. Of course, in today’s modern society, much of the three-year mourning is lost and reduced to days or weeks as a symbolic gesture to honor one’s parents.

And because of this culture of “孝,” Asian children grow up feeling that they have to do a lot for their parents – they have to study hard, they have to get into a good school that their parents can be proud of, they have to support their parents throughout life, they should live with their parents to always be available and make sure everything is taken care of for their parents’ life-long wellbeing. As an example, I have a close relative in his fifties who has left his wife and son in the United States for close to a decade now - so he could live with and take care of his aged mother in Taiwan; only visiting his immediate family a few times each year.

In contrast, in many Western societies where the concept of “孝” is not as prevalent, people still respect their parents immensely. However, once they form their own families, they generally become more disconnected and simply bring their children to grandpa and grandma once or twice a year, instead of constantly making life decisions that are tailored to their parents.

Even today, if my parents told me I don’t have 孝 because of any behavior, it would crush me emotionally and motivate me towards almost anything to amend for it. Just because I understand the nature of the motivation does not mean I am exempt from it. It is something deeply ingrained within me and my values. In similar faith, my parents have never made that accusation towards me, because it would be one of the greatest insults a parent could give a child. It is that serious and tangible when it comes to this type of motivation.

Game Techniques within Epic Meaning & Calling

Now that you have the main concept of Core Drive 1: Epic Meaning & Calling, the question is how to implement it into your experiences. Below I introduce a few Game Techniques that, if designed correctly, can bring out the sense of Epic Meaning & Calling. Keep in mind, in my terminology, when I mention Game Techniques, I mean techniques that incorporate Game Elements (which includes Game Mechanics) to drive motivation.

You will also start to notice many “Game Technique numbers (#s)” that follow each Game Technique mentioned. These Game Technique #s are part of a scavenger hunt that originated from my website YukaiChou.com. My readers would try to collect all the numbers, which will one day result in some fascinating things that one can do with Octalysis down the road.

One key thing to remember is that the entire premise behind the Octalysis Design Framework is that one should not be too stuck on game mechanics, game techniques, or any outer appearances of a design. Rather, one should focus on the Core Drives and how it brings out motivation in an actionable manner. The Game Techniques, as well as the associated #s, are all just bells and whistles for great motivational design. If you do not focus on the Core Drives, it will simply have the *Shell* of an engaging game, not the *Essence*.

Narrative (Game Technique #10)

Most games start with a narrative that gives the player some context about **why** they should play the game. Many of them are related to saving the world, a princess, solving a case, or even just helping a dragon or crocodile take a bath. So why don't we use narrative to give people context in other things?

One of the more effective ways to instill Epic Meaning & Calling into your user base is through an engaging Narrative. This allows you to introduce a story that gives people context for a higher meaning through interacting with your company, product, or website.

Zamzee, a “wearable technology” company for children, uses narratives to instill epic fantasies into children to motivate them to exercise more. Through its online software interface, Zamzee gives kids fantasy quests, such as becoming a sorcerer’s apprentice. In order to learn your first spell, you run up and down the stairs 15 times. Even though the action itself is disconnected from the narrative, just having them make-believe a magical meaning inspires the kids to exercise more because they are now motivated by their own imaginations. Zamzee shows that kids who participate in these imaginary missions move 59% more than kids who don’t¹⁸.

Humanity Hero (Game Technique #27)

If you can incorporate a world mission into your offerings, you can gain even more buy-in during the Onboarding process. One company that does an incredible job of instilling a sense of Humanity Hero is TOM’s Shoes, which sends one pair of shoes to a child in a third-world country whenever you place an order with them¹⁹. The idea that you can help underprivileged kids every time you make a purchase is extremely motivating. Additionally, when customers wear the shoes, they let others know that they are helping the world, which is a form of Trophy Shelf (Game Technique #64) within Core Drive 5: Social Influence & Relatedness.

FreeRice is another example that utilizes the Humanity Hero technique. FreeRice.com is a website that donates 10 grains of rice for every correct answer to the educational questions posted on their site. The funding comes from the ads and the number of page views

¹⁸Zamzee Blog. “New Research Shows Zamzee Increases Physical Activity by Almost 60%”. 09/06/2012.

¹⁹Groden, Claire. Times. “TOMS Hits 10 Million Mark on Donated Shoes”. 06/26/2013.

they generate from those answering the questions. To date, FreeRice has donated 6100 metric TONS of rice, consisting of 93 billion grains of rice and enough to feed 10 million people.²⁰

Often, if you can tie your system to a cause that many people care about, you can build an entire business on the goodwill of others.

Elitism (Game Technique #26)

Allowing your users or customers to form a prideful group based on ethnicity, beliefs, or common interests also makes them feel like they are part of a larger cause. Elitism instills group pride, which means each member tries to secure the pride of the group by taking specific actions. The group also attempts to frustrate its rivals, which can lead both groups upping their actions to beat the competition.

This is why University Rivalries are so engaging. When I was attending UCLA (University of California, Los Angeles), it was very difficult to not feel the strong rivalry against USC (University of Southern California). Starting from orientation as a Freshman (Onboarding), there is no lack of content and jokes that sets the scene of the USC rivalry. During sports seasons, this rivalry reaches its pinnacle, with both sides aggressively, sometimes violently, insulting each other. There are even T-Shirts printed with the text, “My 2 favorite teams are UCLA, and whoever is playing USC.”

²⁰Burbano, Jaime. Gamificators Blog. “Gamification for a Better World”. 10/27/2013.



Both sides believe that this rivalry is bigger than themselves, and with this newly instilled sense of Elitism, they engage in many irrational activities because they “should” as a proud representative of that school.

Even though rivalries are engaging or even fun for students, who actually benefit the most from these rivalries? More often than not, it is the universities themselves. By creating an outside enemy that students “should hate with a passion,” it creates more “school spirit” where students bond together and commit *Desired Actions* in frenzies. Tickets to games against USC sell out quickly, with everyone gearing up with UCLA merchandise and war paint. More importantly, students feel a stronger tie towards their Alma Mater,

which means that later on in their careers, they are more prone to donate to their schools since that's what successful alumni "should" do.

Similar in effect to the concept of “孝,” I too implicitly feel that I “should” donate to my Alma Mater. Not because of any personal gains, but for a purpose beyond my own selfish and family matters. In one of my speeches, an attendee asked me, “I would like to figure out how to add more alumni participation for our university. Academically, we rank really well, but for some reason, our alumni don't feel proud coming here and just see us as a stepping stone. They rarely participate or donate!” My response to him was, “Sounds like you need to add more *school spirit* to students while they are still attending. I'm guessing you don't have competitive athletic teams or big school rivalries?” “No, we don't! How did you know?”

Even a colleague of mine, Jerry Fuqua, chose to attend UCLA many years ago over having a full scholarship into Harvard and other Ivy League schools because he loved UCLA's basketball team. Another friend of mine who aced all his Calculus exams as a Freshman in High School also chose to attend the University of Kansas over other more prestigious school because he grew up being a fan of the KU Jayhawks. If you ever wondered if it was worth an educational institution's budget to support an expensive athletic team, now you at least see the justification.

Another great example of Elitism is demonstrated by the microlending platform Kiva.org, which allows developed countries to pseudo-donate their money to help third world country villagers start their small businesses and help sustain their families. To create a sense of Elitism, Kiva.org created groups and published statistics that allowed Christians and Atheists to compare their giving against each other, to see who contributes more money in helping third

world countries.²¹

The Christians believed that, since the Bible tells them to love God and love one another beyond all things, they should demonstrate generosity to the world and help those in need. As a result they increased their contributions. The Atheists, on the other hand, wanted to prove that one does not need to believe in a god to simply be kind to fellow human beings, so they also increased their contributions. Again, both sides contributed more than they would have otherwise, simply because they felt they were doing it for a greater purpose than themselves - protecting their group's reputation. (Disclaimer: I am myself a person of Christian faith).

Beginner's Luck (Game Technique #23)

Beginner's Luck focuses on the *Calling* part in Epic Meaning & Calling. Calling makes people think they are uniquely destined to do something. With Beginner's Luck, people feel like they are one of the few chosen to take action—which makes them much more likely to take it. If a gamer, upon the first day of playing a game, randomly earns one of the most powerful swords in the game, one that even veteran players couldn't easily obtain, chances are he isn't going to quit on day one. He'll likely be using that powerful sword to kill monsters fanatically until the next hook in the game shows up.

The game designer would likely also add in Social Influence & Relatedness (Core Drive 5) by designing in Trophy Shelves (Game Technique #64), which are mechanisms that allow the user to implicitly show off what they are proud of. If the game designer also adds Scarcity & Impatience (Core Drive 6) through Moats (Game Technique #67) by telling the user he can only equip this sword once he defeats all the adversaries at a particularly difficult level,

²¹Lebo, Lauri. ReligionDispatches.org. University of Southern California."Atheists and Christians Compete to Give More". 1/19/2011.

the user now becomes obsessed and tries to figure out all sorts of ways to conquer that level.

Free Lunch (Game Technique #24)

Along the lines of the “Calling” theme, giving freebies (that are normally not free) to selected people in such a way that it binds them to a larger theme can make customers feel special and encourage them to take further action.

For example, Spoleto, a Brazilian restaurant chain with over 200 restaurants throughout Brazil, Spain, and Mexico, gave a literal free lunch to any female who told them she was beautiful, in celebration of International Women’s Day.²² This helped promote a positive message and made women feel special for that day. This will likely bring them back in the future too, as this venue is now associated with a positive memory that makes them feel unique.

Believability is Key

Even though Epic Meaning & Calling is powerful “beyond measure,” it can also backfire and fail in epic proportions. As you use these concepts, keep in mind that you can really turn people off when you’re appearing disingenuous in your efforts to create Epic Meaning and Calling.

For example, if a major gasoline company that was known to “profit from evil” tried to convince people to use their brand by saying, “pumping with us protects the planet.” Customers would not only be unimpressed, they would likely feel insulted. Or if a certain fast food conglomerate that is known for cheap unhealthy foods (that happen to never decompose) runs a marketing campaign that says, “Eating our food protects your health and your family,” people would likely see that as a manipulative slap in the face.

²²AOTW. “Spoleto Restaurant: Beautiful women don’t pay”. Accessed 1/20/2015.

Even in fantasy make-believe settings like *Zombies Run*, where users are motivated to run more because they are trying to save their village from hypothetical zombies, you want to make sure the user is prepared to believe in the higher fantasy meaning in that context. Pretending that there are zombies in the room during large corporate board meetings in order to get everyone to stand up more often would likely not fare all that well. (So please don't tell your Board Directors that you did it because you read my book on Epic Meaning & Calling).

Once you have firmly established believability in your Epic Meaning & Calling, you will have a good chance of applying this Core Drive effectively to bring out the fun and selflessness out of people.

Core Drive 1: The Bigger Picture

Core Drive 1: Epic Meaning & Calling is the prime White Hat Core Drive within the Octalysis Framework, and is often very powerful in the Discovery and Onboarding Phases of a player's journey. It underlines the purpose behind the activity and strengthens all the other seven Core Drives when it is introduced correctly. In later chapters, we will also explore how some companies utilize Epic Meaning & Calling (among other White Hat Gamification Core Drives) to inspire their employees to work with more passion and stay in the organization, even when other companies offer them greater monetary incentives.

Core Drive 1: Epic Meaning & Calling's weakness lies in the difficulty of implementing believability, as well as the lack of urgency within the motivation. While people constantly aspire to become part of something bigger and would feel great if they actually took the actions, they will often procrastinate and delay those very actions. Thus, to create desirable behavior, the gamification designer needs the help of the other Core Drives within Octalysis.

To get the most out of the book, Choose only ONE of the below options to do right now:

Easy: Think of an example where Core Drive 1: Epic Meaning & Calling motivated you or others to take certain actions. Does it make people act more selflessly?

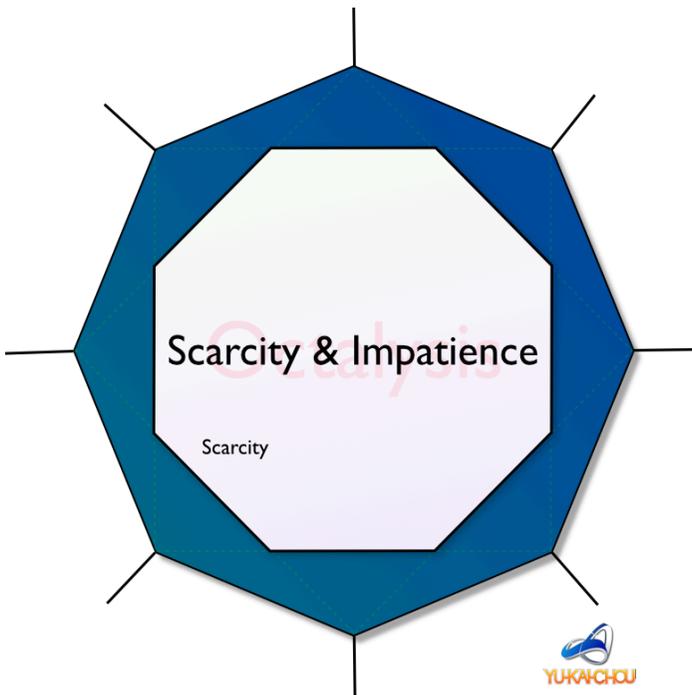
Medium: Identify a project you are working on. Think about whether there are ways to install Core Drive 1: Epic Meaning & Calling into the experience. Can you tie the experience into a bigger theme?

Share what you come up with on Twitter or your preferred social network with the hashtag #OctalysisBook and see what ideas other people have.

New Section Unlocked! - Get Inspired

Now that you are becoming familiar with the Octalysis Framework, check out my TEDx talk on how eight different world-changing products utilize each of the 8 Core Drives to make the world a better place. The TEDx talk can be accessed at <http://yukaichou.com/tedx>, or you can simply go on Google and search “Gamification Tedx.”

Chapter 10: The Sixth Core Drive: Scarcity & Impatience



Scarcity and Impatience is the sixth core drive of the Octalysis Framework. It is the drive that motivates us simply because we are either unable to have something immediately, or because there is great difficulty in obtaining it.

We have a natural tendency to want things we can't have. If a bowl of grapes were sitting on the table, you may not care about them;

but if they were on a shelf just beyond your reach, you would likely be thinking about those grapes: “Are they sweet? Can I have them? When can I have them?”

Personally, Core Drive 6 was the last Core Drive I learned about and is the one that intrigues me the most, particularly because this core drive can feel completely unintuitive, irrational, and emotionally difficult to utilize.

In this chapter we’ll explore this Black Hat/Left Brain Core Drive, understand its powers, and learn about some game techniques that harness it for behavioral change.

The Lure of being Exclusively Pointless

South Park, a popular American animated sitcom created by Trey Parker and Matt Stone, has many lessons to teach us about human behavior (once you get past the potty-mouth cursing and gory scenes).

In one of the episodes, “Cartmanland”²³, the controversial main character Eric Cartman inherits \$1 million from his deceased grandmother. He decides to use most of the funds to buy a struggling theme park just to entertain himself there without being stuck in lines.

Instead of trying to improve the business, Cartman makes a full 38-second TV commercial to show how amazingly fun “Cartmanland” is and emphasizes that no one besides himself can enjoy it. “So much fun in Cartmanland, but you can’t come!” is the catchy slogan.

After realizing he needs more money to hire a security guard to keep his friends out, Cartman starts to accept two customers a day to pay for the security costs. He soon realizes that he needs to pay

²³Wikipedia Entry “Cartmanland”: <http://en.wikipedia.org/wiki/Cartmanland>. Accessed 1/19/2015.

for other things such as maintenance, utilities, and other operational services, so he begins to open the park up to three, four, tens, and then hundreds of people each day.

Since people all saw how inaccessible Cartmanland was for them, when they learned that it was accepting more people, they rushed to get in.

Eventually, everyone wanted to go to Cartmanland and it went from being a near-bankrupt theme park to one of the most popular parks in the region. Experts within the episode even called the “You Can’t Come!” campaign a brilliant marketing ploy by the genius millionaire Eric Cartman.

Unfortunately, with more people in his precious park, Cartman became miserable and eventually sold it back to the original owner. Subsequently, he lost his money due to tax mismanagement, which is typical of Cartman.

What you see here is a classic example of scarcity through exclusivity. Though this is an exaggerated example, in this chapter you will see how our brains have a natural tendency to pursue things just because they are exclusive.

On the other side of popular media, in the movie *Up in the Air*²⁴, protagonist Ryan Bingham, played by George Clooney, is a corporate “downsizer” that flies all over the place to help companies lay off employees. In a conversation with the young and ambitious status-quo disruptor Natalie Keene, played by Anna Kendrick, Bingham gives us a lesson about the value of scarcity, status, rewards, and exclusivity, as he explains about his obsession with accumulating airline miles.

Ryan Bingham: I don't spend a nickel, if I can help it, unless it somehow profits my mileage account.

Natalie Keener: So, what are you saving up for? Hawaii? South of France?

²⁴Up in the Air Official Website: theupintheairmovie.com

Ryan Bingham: It's not like that. The miles are the goal.

Natalie Keener: That's it? You're saving just to save?

Ryan Bingham: Let's just say that I have a number in mind and I haven't hit it yet.

Natalie Keener: That's a little abstract. What's the target?

Ryan Bingham: I'd rather not...

Natalie Keener: Is it a secret target?

Ryan Bingham: It's ten million miles.

Natalie Keener: Okay. Isn't ten million just a number?

Ryan Bingham: Pi's just a number.

Natalie Keener: Well, we all need a hobby. No, I- I- I don't mean to belittle your collection. I get it. It sounds cool.

Ryan Bingham: I'd be the seventh person to do it. More people have walked on the moon.

Natalie Keener: Do they throw you a parade?

Ryan Bingham: You get lifetime executive status. You get to meet the chief pilot, Maynard Finch.

Natalie Keener: Wow.

Ryan Bingham: And they put your name on the side of a plane.

Natalie Keener: Men get such hard-ons from putting their names on things. You guys don't grow up. It's like you need to pee on everything.

Beyond the collection, status, and achievement (Core Drives 4, 5, and 2), one thing that was very important for Ryan was that “I’d be the seventh person to do it. More people have walked on the moon.” This shows that because it’s something that he (along with billions of others) couldn’t get right now, he valued obtaining it more. It was simply more appealing because of how exclusive it was.

The Value of Rare Pixels

In the previously mentioned game *Geomon*, gamers try to capture monsters in order to battle each other. The game is similar to *Pokemon*, but influenced by the environment where the gamers are physically located based on their phone GPS, such as being next to a river or a desert.

In *Geomon*, there are certain monsters that can only be found in very limited or special situations. Because some of these monsters are extremely rare, people are willing to spend real money in order to obtain them.

One such example is the *Mozzy*, a blazing fox made of fire.

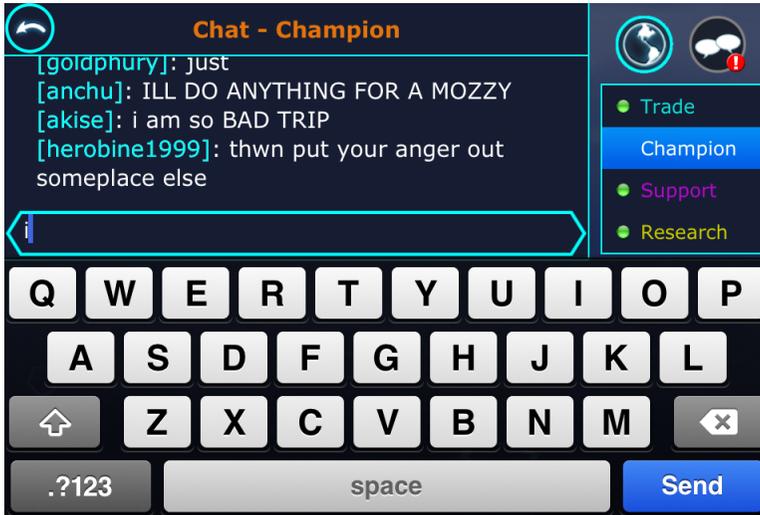


The *Mozzy* can only be caught on hot days and close to an office run by the Mozilla Organization - creators of the Mozilla Firefox browser. This means, for a game that has players throughout the world, it is extremely difficult, sometimes impossible for the average person to capture a *Mozzy*. In the forums, people sometimes say, "This summer my parents are taking me to San Francisco. I'm going to rent a car and drive down to Mountain View. Maybe I'll catch a *Mozzy*. So excited!"

This drive is further illustrated with the live comments made by Geomon players, through in-game chat, during game play. In the following screenshot I randomly took while playing, notice how desperate users are in obtaining a Mozzzy. Emphasized with all caps – “I’LL DO ANYTHING FOR A MOZZY.”



Though it seems rather extreme, the desperate plea above is surpassed by the following conversation below:



Here, you see “Vincent7512” claim (adjusted for capitalization), “I wish I had a single Mozzzy, then, at this point in my life, I could die happy.”

Now you would expect that when someone says this, others would respond with, “Come on... get a life! It’s just a game!” But no. Three lines down, you see “Valeriefox18” echo the same sentiment, “me too vincent :(me too.”

Here is a community of players who are so desperate about getting Mozzys that instead of playing the game more, they hang out on the chat board just to mope about it and feel “connected” to one another (CD5 Relatedness). Pretty extreme right?

Another example of this within Geomon is the *Laurelix*, the magnificent golden phoenix.



In order to catch a Laurelix, you need to be at a location that has an extremely high temperature, possibly over 110 Fahrenheit or 40 Celsius. The result of this design was, at one point there were only 3 players in the entire world that owned a Laurelix. As you might imagine, everyone wanted one too. Once the game studio even received a call from the mother of a player, saying, “My son has been sick for two whole weeks, and he said nothing could cheer him up unless he had a Laruelix. I don’t know what that is, but he said you had it. I’m willing to pay \$20 for a Laurelix. Can you give that to my son?”

Interestingly, the Mozzy and Lauralix are not the most powerful geomons in the game – there are plenty of geomons that are more powerful than they are. But because these two are so difficult to obtain, their perceived value increased immensely, helping the company better monetize their game.

What’s amazing is that when something is this scarce, it has a tremendous amount of stickiness to it also. As an advisor for the company, I played the game for a while (okay, more than a while), facilitated the online communities, and helped the company redesign and rebalance their entire ability skill trees and combat

systems. After that, I became a passive advisor, quit the game, and moved on to my “other work.”

For an entire seven months, I haven’t been playing, nor thinking about the game (except when meeting the CEO and advising them on management and monetization strategies). But one day I was traveling for work and found myself at a place that was excruciatingly hot, to the point where I felt like I was burning if directly exposed to the sun.

At that moment, instead of shouting or complaining about it, the first thing that came to my mind and mouth was, “I wonder if I could catch a Laurelix here...” This of course confused my client who was giving me a tour of his great country.

Even though, again, I didn’t care about playing the game anymore and haven’t played for over half a year, because a Laurelix was so scarce, I naturally thought that, “Well, when I *can* capture one, I probably *should* capture it!”

The Leftovers aren’t all that’s Left Over

Most of us would like to believe that we make purchasing decisions based on the price and quality of a good. A purchase is seen as a very rational exchange of money for an item that we desire. If the price were greater than the “utility,” or happiness that we derive from the valuable, then we don’t make the purchase.

However, psychological studies have shown again and again that this is only partially true. We buy things not because of their actual value, but rather based on their *perceived* value, which means many times our purchases aren’t very rational.

In 1975, researchers Worchel, Lee, and Adewole conducted an ex-

periment to test the desirability of cookies in different cookie jars²⁵. The experiment featured two cookie jars, one with ten cookies in it, and the other with only two. Though the cookies were exactly the same, the experiment revealed that people valued the cookies more when only two were available in the jar. They valued those cookies more, mainly for two reasons: 1) Social Proof – everyone else seems to prefer those cookies for some reason, and 2) Scarcity- people felt that the cookies were running out.

In a second experiment conducted by the team, subjects watched as the number of cookies in the “ten-cookie” jar were reduced to two cookies, while the other group saw the “two-cookie” jar get filled up to ten cookies. In this case, people started to value the former more and devalue the latter. When people saw that there was now an abundance in the first jar which earlier had only two cookies, they valued these even less than those from the “ten-cookie” jar of the first experiment where there were ten cookies to begin with.

Here we see that, when there is a *perceived abundance*, motivation starts to dwindle. The odd thing is, our perception is often influenced by relative changes instead of absolute values. People with \$10 million would perceive their wealth differently (and feel differently) if they only had \$1 million the year before, versus if they had \$1 billion the year before.

Persuasively Inconvenient

As illustrated in the examples above, our brains intuitively seek things that are scarce, unavailable, or fading in availability.

Oren Klaff is a professional sales pitcher and fundraiser who claims to close deals through a systematic method which he calls *neuroeconomics*, a craft that combines both neuroscience and economics. By

²⁵Stephen Worchel, Jerry Lee, and Akanbi Adewole. Journal of Personality and Social Psychology, Vol 32(5),906-914. “Effects of supply and demand on ratings of object value”. 11/1975.

digging deep into our psychology and appealing to what he calls the “croc” brain, the method utilizes various Core Drives such as Social Influence & Relatedness, Scarcity & Impatience, as well as the upcoming Core Drive 7: Unpredictability & Curiosity and Core Drive 8: Loss & Avoidance.²⁶

In his book *Pitch Anything*²⁷, Klaff explains the concept of *Prizing*, and how it ties into three fundamental behaviors of our “croc” brains:

1. We chase that which moves away from us
2. We want what we cannot have
3. We only place value on things that are difficult to obtain

His work suggests that, instead of ABS – Always Be Selling, salespeople should practice ABL – Always Be Leaving. If you are always leaving the discussions, it means that you are not desperate, are highly sought after, and not dependent on this deal. You are the Prize. Klaff claims that, when you correctly do this, money will flow in.

Through his methods, Klaff has raised over \$450 million and claims to continue so at a rate of \$2 million a week.

It is oddly true that as we place limitations on something, it becomes more valuable in our minds. In *Yes! 50 Scientifically Proven Ways to Be Persuasive*, the authors share how Colleen Szot revolutionized her infomercials by simply changing the call-to-action line from “Operators are waiting, please call now,” to, “If operators are busy, please call again.”²⁸

²⁶The discerning Octalyst may identify that there is a heavy focus of Black Hat Core Drives here. We will return to why sales and closing deals mostly appeals to Black Hat Core Drives, while workplace motivation mostly appeals to White Hat Core Drives in Chapter 14.

²⁷Oren Klaff. *Pitch Anything*. P64. 1 edition. McGraw-Hill. 02/16/2011.

²⁸Noah Goldstein, Steve Martin, and Robert Cialdini. *Yes! 50 Scientifically Proven Ways to Be Persuasive*. P9. Simon & Schuster. New York, NY. 2010.

Why would this be? In the first case, viewers can imagine operators sitting around, waiting to answer calls and take orders for products that may be of marginal value. In the second case viewers will perceive that the operators are struggling to answer a flood of calls just to keep up with the demand on orders. Even though this message suggests an inconvenience to buy a product, the perceived scarcity alone is enough to motivated people to call quickly before the product potentially runs out.

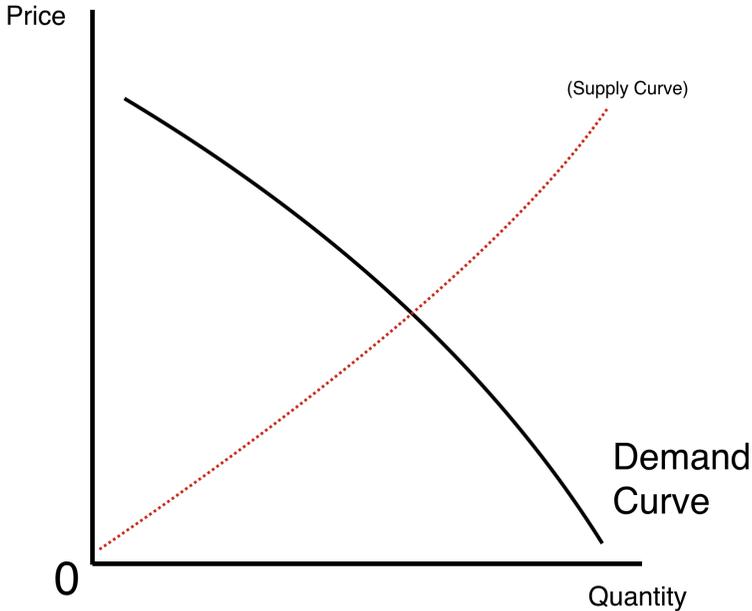
My father is a diplomat for Taiwan, and sometimes he would talk to a colleague who was deployed to a former communist country in Eastern Europe. I once heard the colleague say, “If you see a line on the street, don’t even waste time finding out what they are in line for. Just get in line. It must be something essential like soap or toilet paper. It doesn’t matter if you have money. If there is no toilet paper in the region, your money is useless.” Here, the *sheer inconvenience* driven by scarcity and social proof can compel a comparably wealthy person to stand in line for hours.

In Pitch Anything, Oren Klaff also brings up another example where BMW released a special-edition M3 that required the buyer to sign a contract promising to keep it clean and take care of the special paint. Without this promise in writing, they won’t even allow you to purchase the car! In this case, BMW is inflating its value so that the buyer will believe it is a special and exclusive privilege to drive the car. Maybe that’s why the hard-to-get strategy in dating culture is so prevalent. Through Core Drive 6: Scarcity & Impatience, you can keep your prospective partner on their toes.

Curves are better than Cups in Economics

When I was studying Economics at UCLA, the one fundamental lesson that my professors regularly talked about was the Supply and Demand curve. It basically explains that if the price of an item

drops, the demand will increase. If the item becomes completely free, the curve will indicate the maximum number of buyers that will acquire it.



However, if you study behavioral psychology, gamification, and/or Human-Focused Design, you will find that there is another side to the story. As it turns out, Scarcity is another driving force of consumer behavior. In economic theory, scarcity is well understood, but only in the sense of objective limits matched against the consumer's *utility* derived from a purchase.

This is different from the Scarcity we are discussing in this chapter, which is related to *Perceived Scarcity* instead of Objective Scarcity. Sometimes objective scarcity is present without a person ever feeling or knowing it. At other times there is a sense of perceived scarcity without a true limit being present.

The difference here is that neo-classical economic theory starts off

with three key assumptions²⁹:

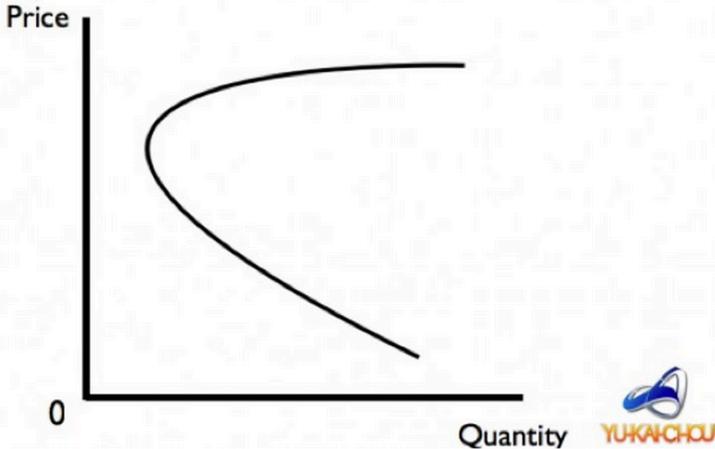
1. Consumers behave rationally
2. Consumers have full and relevant information
3. Consumers try to maximize their utility (or happiness derived from economic consumables)

But in the real world, the first two assumptions almost never hold true - people are often irrational and never have perfect information. Sometimes they react to pricing in another, more surprising way: the more expensive something is, the higher the value (utility) is placed on it. This leads to increased demand. As a result, sales may actually increase with pricing.

Normally, if an item were free (the extreme right of the demand curve), everyone who would want this product would obtain it for free. Say hypothetically, 100 people want this product for free. But in certain scenarios, if the product is unusually expensive, people who previously didn't care might suddenly desire it. Now sales may exceed 150 items! Because of this scarcity effect, a modified demand curve in some products might produce a C-Shape instead of a diagonal line moving down to the right.

²⁹E. Roy Weintraub. *The Concise Encyclopedia Of Economics*. Neoclassical Economics. 2007.

Economic Demand Curve with Behavioral Scarcity



Scarcity works because people perceive something to be more valuable if it is more expensive or less attainable. Because people don't have "perfect information," they generally do not fully know their utility for a certain good. Therefore, they rely on cues - such as how expensive or limited something is - to determine its value. If everyone wants it, it must be good! This goes hand-in-hand with the last chapter on Core Drive 5: Social Influence & Relatedness.

Of course, at some point, the C-Curve needs to curl back towards the left (zero in quantity) as the item becomes exceedingly expensive beyond anyone's wealth, producing a reverse S-Shape on the graph. Objective Scarcity (of money) ultimately still wins over Perceived Scarcity at large extremes.

“This guy’s not expensive enough.”

I’ve personally seen numerous examples, both first and second hand, where increasing the price actually allowed people to sell more.

In 2013, one of my clients was trying to choose between two Public Relations service providers, one who charged \$8,000 per month and the other \$10,000 per month. I informed him that I thought the \$8,000/mo provider would deliver better services. However, my client remained doubtful, feeling that the \$10,000/mo provider must be more competent to charge that price. I told him that just because one service provider has the audacity (I used a more vulgar term) to charge more doesn’t mean he is better. But my client still couldn’t decide.

Ultimately my client decided to use both of the services for a period of three months. Though expensive, this was great for me personally because it allowed me to gather valuable data on their actual performances and draw comparisons. After the period was up, it was clear that the \$8,000/mo provider was exceptional, while the provider at \$10,000 per month proved to be very disappointing. My client fired the \$10K guy and retained the \$8K guy after that.

What’s odd is that if the weaker service provider recognized that he was less suitable for the project and only charged \$6000 instead of \$10,000, he might not have been given a second thought. His aggressive pricing strategy yielded him a new opportunity and \$30,000 more! Of course the ultimate lesson here should be to focus on creating strong value for your client- so you don’t lose your job after 3 months.

On another occasion, I had a client that needed a Cost Per Click (CPC) campaign audit. I contacted a friend from Eastern Europe who was the best in the industry. Since I had done some favors for him in the past, I was able to persuade him to help my client with a free audit, for which he normally would have charged thousands

for.

Though my client was excited about the arrangement, he hesitated and moved very slowly. I pressed my client on this and he said, “What worries me is the free price ... is he really as good as you say he is?” He had perceived that my friend’s service was not really valuable because it was offered for free. That’s why it might have been more advantageous to charge a smaller fee such as \$500 for the audit, instead of providing it pro bono.

“I Don’t Feel Good When My Pocket Is Too Full After A Purchase”

This situation doesn’t just happen with high-end services. In the book *Influence: Science and Practice*, Robert Cialdini also describes a story of a friend who ran an Indian jewelry store in Arizona that tried to sell some high quality turquoise pieces during the peak tourist season³⁰.

Despite her constant efforts to promote, cross-sell, and emphasize these pieces to shop visitors, no one seemed interested in purchasing them. Finally, the night prior to an out-of-town buying trip, the owner concluded that she needed to lower the prices and make the pieces more attractive to her customers. As a result, she left a note for her head salesperson with instructions to reduce the prices by “x $\frac{1}{2}$.”

However, the salesperson misunderstood the note, and mistakenly doubled the price instead. Upon returning a few days later, the owner was pleasantly surprised to learn that all the pieces had been sold. Doubling the price on each item had actually allowed her to sell more because their perceived value had increased.

³⁰Robert Cialdini. *Influence: Science and Practice*. 5th Edition. P2. Pearson Education. Boston, MA. 08/08/2008.

Since you don't *do* anything with jewelry other than show it off to others (or yourself), the value is usually based on perception as opposed to functionality. You may quickly dismiss the value of an ugly and cracked pottery piece on the shelf, until someone told you that it was made 1,200 years ago for a historically significant event. The pottery itself did not functionally or aesthetically become more valuable, but its *perceived value* immediately went up due to the principles of scarcity.

Up to this point, you may have observed that the high-price principle within Core Drive 6 works powerfully for luxury items that serve little functional purpose such as jewelry, or expensive services that provide essential expertise. Surprisingly, it also works with everyday functional items.

Just a week prior to writing this chapter, upon realizing my knee pains were getting worse, I decided to visit a sports utility store. I wanted pick up some knee braces for hiking or when I'm walking up and down the stairs during phone meetings. When I entered the store, I saw that there were two types of braces, one for \$24.99 one another for \$49.99.

I thought to myself, "Well, my knees are very important to me. I better not spare a few extra bucks and end up with busted knees down the road." As an extension to this thought, I reached out for a pair of \$49.99 braces and bought them.

It didn't occur to me until writing this chapter and searching for examples, that I automatically assumed that the more expensive knee braces were better than the cheaper ones. I didn't even bother to carefully read the product descriptions. If you were to ask me how the \$49.99 one was better than the \$24.99 one, I wouldn't be able to give you an answer. I would likely say something along the lines of, "Well, the \$49.99 one is more expensive, so I'm sure it offers better protection for my knees or feels more comfortable. Probably both."

This was very powerful because, in my head, I was not thinking

about the actual differences between the two knee braces. I was simply thinking whether I wanted to, “save money and get lower quality,” or “not skimp and invest in quality goods for my long-term health.”

Daniel Kahneman, author of *Thinking: Fast and Slow*, refers to our brain’s neocortex as our “System 2,” which broadly controls our conscious thinking³¹). Since the processing capabilities of our brain’s neocortex are limited, we regularly rely on mental shortcuts, known as heuristics, without noticing them. In this situation, the mental shortcut was that “expensive equals quality” when it may not have necessarily been the case.

Another mental shortcut can be, “The Expert said it with confidence - I will assume it to be true without looking too deeply into it.” Sometimes people let pass some obvious blunders and oversights simply because the authoritative expert or scientist said so. They let their “System 2” become lazy and simply become motivated by Core Drive 5: Social Influence & Relatedness.

Perhaps I am alone in my silliness and financial irresponsibility in buying knee braces simply because they were more expensive. But the chances are, at some point in your life you have also taken mental shortcuts based on assumptions that may not always hold true. Perhaps you have purchased a bottle of wine or detergents based on very little information other than the price, and disdained some selections simply because the merchant labeled it at a low price.

³¹Daniel Kahneman. *Thinking, Fast and Slow.* P41. Farrar, Straus and Giroux. New York, NY. 2013.

Game Techniques within Scarcity & Impatience

You have learned more about the motivational and psychological nature of Core Drive 6: Scarcity & Impatience. To make it more actionable, I've included some Game Techniques below that heavily utilize this Core Drive to engage users.

Dangling (Game Technique #44) and Anchored Juxtaposition (Game Technique #69)

Many social and mobile games utilize game design techniques within Core Drive 6: Scarcity & Impatience to heavily monetize on their users. One of the more popular combinations among games are what I call Anchored Juxtaposition (Game Technique #69) and Dangling (Game Technique #44).

For instance, when you go on Farmville, you initially may think, "This game is somewhat fun, but I would never pay real money for a stupid game like this." Then Farmville deploys their Dangling techniques and regularly shows you an appealing mansion that you want but can't have. The first few times, you just dismiss it, as you inherently know it wouldn't be resource-efficient to get it. But eventually you start to develop some desire for the mansion that's constantly being dangled there.

With some curiosity now compelling you, a little research shows that the game requires 20 more hours of play before you can afford to get the mansion. Wow, that's a lot of farming! But then, you see that you could just spend \$5.00 and get that mansion immediately. "\$5 to save 20 hours of my time? That's a no-brainer!" Now the user is no longer paying \$5 to buy some pixels on their screen. They are spending \$5 to save their time, which becomes a phenomenal deal. Can you see how game design can influence people's sense of value by alternating between time and money?

The humorous part about this phenomenon is that most of these games can be played for free, and yet people are spending money, just so they could play *less* of the game. In this sense, it is hard to determine if the game itself is truly considered “enjoyable” or “fun.” As opposed to Core Drive 3: Empowerment of Creativity & Feedback, this Black Hat Left Brain Core Drive is more about being persuasive and obsessive, but users don’t necessarily enjoy the process.

An important factor to consider when using the Dangling technique is the pathway to obtaining the reward. You have to allow the user to know that it’s very challenging to get the reward, but not impossible. If it is perceived as impossible, then people turn on their Core Drive 8: Loss & Avoidance modes and go into self-denial. “It’s probably for losers anyway.”

For example, if the banner of an exclusive club is dangled in front of you, but you find out that the prerequisite to join is that you must be a Prince or Princess through royal blood, you might not even look at what the organization does. Instead, you may think, “Who cares about a bunch of stuck up, spoiled brats.” Because there is no chance of qualifying, it activates Core Drive 8 as an Anti Core Drive – the drive to not execute the Desired Action.

However, if the banner said, “Joining Prerequisite: Prince/Princess by royal blood, OR individuals who have previously ran a marathon.” Now you are motivated, and might even ponder the effort required to run a marathon. As long as there is a realistic *chance* to get in, the Scarcity through exclusivity is enough to engage you. Interestingly, at this point you still haven’t even determined what the organization actually does! Without any information on its actual function, the human-focused motivation of scarcity is compelling enough for you to consider running a marathon.

This leads to a game technique I call *Anchored Juxtaposition*. With this technique, you place two options side by side: one that costs money, the other requiring a great amount of effort in accomplish-

ing the Desired Actions which will benefit the system.

For example, a site could give you two options for obtaining a certain reward: a) Pay \$20 right now, or b) complete a ridiculous number of Desired Actions. The Desired Actions could be in the form of “Invite your friends,” “Upload photos,” and/or “stay on the site for 30 days in a row.”

In this scenario, you will find that many users will irrationally choose to complete the Desired Actions. You’ll see users slaving away for dozens, even hundreds of hours, just so they can save the \$20 to reach their goal. At one point, many of them will realize that it’s a lot of time and work. At that moment, the \$20 investment becomes more appealing and they end up purchasing it anyway. Now your users have done both: paid you money, and committed a great deal of Desired Actions.

It is worth remembering that rewards can be physical, emotional, or intellectual. Rewards don’t have to be financial nor do they need to come in the form of badges - people hardly pay for those. In fact, based on Core Drive 3: Empowerment of Creativity & Feedback principles, the most effective rewards are often Boosters that allow the user to go back into the ecosystem and play more effectively, creating a streamlined activity loop in the process.

With Anchored Juxtapositions, you *must* have two options for the user. If you simply put a price on the reward and say, “Pay now, or go away,” many users will go back into a Core Drive 8 denial mode and think, “I’m never gonna pay those greedy bastards a single dollar!” - and then leave. Conversely, if you just put on your site, “Hey! Please do all these Desired Actions, such as invite your friends and complete your profile!” users won’t be motivated to take the actions because they clearly recognize it as being beneficial for the system, but not for themselves.

Only when you put those two options together - hence Juxtaposition, do people become more open to both options, and often

commit to doing both consecutively as time goes by. But does this work in the real world, outside of games? You bet.

Dropbox is a File Hosting Service based in San Francisco that has obtained extraordinary popularity and success. When you first sign-up to Dropbox, it tells you that you could either a) pay to get a lot of storage space, or b) invite your friends to get more space. In the beginning, most people started with inviting their friends.

	Refer friends to Dropbox Spread the love to your friends, family, and coworkers	16 GB 500 MB per friend
	Get started with Dropbox Take a tour of the basics of Dropbox	250 MB
	Connect your Facebook account Share folders with your friends and family in a snap	125 MB
	Connect your Twitter account Invite your friends to Dropbox with a tweet	125 MB
	Follow Dropbox on Twitter Stay up to date with the latest Dropbox tweets	125 MB
	Tell us why you love Dropbox We'd love to hear your feedback	125 MB

Eventually, many of those users who are completing the Desired Actions decide that inviting/harassing their friends is a lot of work, but they still need a lot of storage space, so they end up becoming paying users (just like I did). Again, because of the Anchored Juxtaposition, users commit both the Desired Action, and pay for the full product.

Dropbox's viral design, along with a great seamless product design, accelerated the company's growth to a point where it reportedly raised over \$300 million, with a valuation of around \$10 billion and revenues above \$200 million in 2013. Not too shabby for a company that didn't exist seven years prior to that.

Magnetic Caps (Game Technique#68)

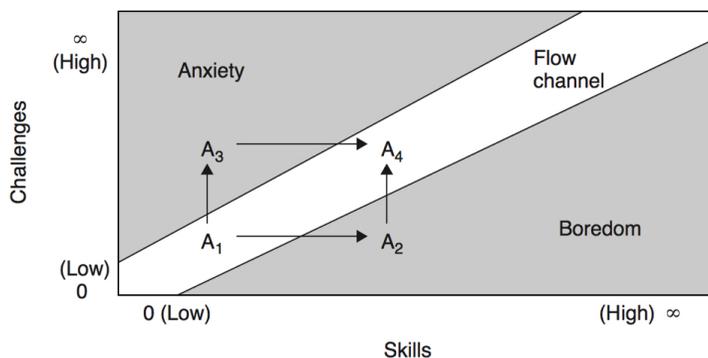
Magnetic Caps are limitations placed on how many times a user can commit certain Desired Actions, which then stimulates more motivation to commit them.

When I consult with my clients, I often remind them that they should rarely create a feeling of abundance. The feeling of abundance does not motivate our brains. Scarcity, on the other hand, is incredibly motivating towards our actions. Even if the user committed the ultimate Desired Action by paying a lot of money, a persuasive system designer should only give people a temporary sense of abundance. After a few weeks or months, the feeling of scarcity should crawl back again with new targets for the user to obtain - perhaps after they have used up all of their virtual currencies and needing to purchase their next batch.

A great system designer should always control the flow of scarcity, and make sure everyone in the system is still striving for a goal that is difficult, but not impossible, to attain. Failure to do so would cause a gratifying system to implode with users abandoning it for better grounds.

This plugs nicely into Mihaly Csikszentmihalyi's Flow Theory³², where the difficulty of the challenge must increase along with the skill set of the user. Too much challenge leads to anxiety. Too little challenge leads to boredom.

³²Wikipedia Entry, "Mihaly Csikszentmihalyi": http://en.wikipedia.org/wiki/Mihaly_Csikszentmihalyi. Accessed 1/20/2015.



The Flow. After Mihaly Csikszentmihalyi, *The Flow* (1990), p. 74

There have been many interesting studies showing that by simply placing a limit on something, people's interest in it will increase. If you introduce a feature that can be used as much as people want, often few will actually use it. But once you place a use limit on the feature, more often than not, you will find people enthusiastically taking advantage of the opportunity.

In Brian Wansink's book *Mindless Eating: Why We Eat More Than We Think*, he describes that when a grocery store just displays a promotional sign that says, "No Limit Per Person," people often just buy a few of the promoted item³³. However, if the sign were to say, "Limit 12 Per Person," people will start to buy more – in fact, 30% - 105% more, depending on other variables. That's another odd characteristic of scarcity: by drawing limits, we're drawn *towards* the limit.

This means that you should place a limit on an activity if you want

³³Brian Wansink. *Mindless Eating: Why We Eat More Than We Think*. Bantam. 10/17/2006.

to increase a certain behavior. Of course, you don't necessarily want the Magnetic Cap to limit the activity so much that you lose more than you gain. The best way to set a limit is to first find the current "upper bound" of the desired metric, and use that as the cap to create a *perceived* sense of scarcity but doesn't necessarily limit the behavior. A behavior designer could speculate "Even though we want users to select an unlimited number of hobbies, 90% of our users choose fewer than five hobbies on our website." In this case, it would be appropriate to set a limit at five or six hobbies instead of having no limits.

What about the 10% of users who go beyond six hobbies - the "power users", you ask? Aren't they important? Yes they are (and if you asked that question, it means you have been thinking about user motivation and experience phases, which is great). This is when you let the power users unlock more capabilities and have the limit rise as they continue to prove their commitment, as described with the Evolved UI technique below. Again, you still want to let these power users to confront a Magnetic Cap at the top, so that they always feel a sense of Scarcity, but not have it truly limit their activities.

Appointment Dynamics (Game Technique #21)

Another way to reinforce this Core Drive is to harness the *scarcity of time*. The best known game technique that leverages this is the Appointment Dynamic. Popularized by Seth Priebatsch's TEDx Boston talk on The Game Layer on Top of the World³⁴, Appointment Dynamics utilize a formerly declared, or recurring schedule where users have to take the Desired Actions to effectively reach the Win-State.

One of the most common examples are Happy Hours, where by hitting the Win-State of showing up at the right time, people get to

³⁴Seth Priebatsch. TEDx Boston. "Game Layer on top of our world". 07/2010.

enjoy the reward of 50% off appetizers and beer. People expect the schedule and plan accordingly.

Appointment Dynamics are powerful because they form a trigger built around time. Many products don't have recurring usage because they lack a trigger to remind the person to come back. According to Nir Eyal, author of *Hooked*³⁵, External Triggers often come in the form of reminder emails, pop-up messages, or people telling you to do something.

On the other hand, Internal Triggers are built within your natural response system for certain experiences. For instance, when you see something beautiful, it triggers the desire to open Instagram. Facebook's trigger, on the other hand, is boredom.

A friend once told me how one day he was using Facebook and suddenly felt bored. Surprisingly, He instinctively opened a new tab on his browser and typed in "Facebook.com." Once the website loaded, he was shocked, "Oh my. I was already on Facebook. Why did I open Facebook again?" Again, this is the power of an Internal Trigger that connects to a feeling as common as boredom - for instance, what do you do when you are waiting in line?

With Appointment Dynamics, the trigger is time. My garbage truck comes every Tuesday morning, so on Monday nights, I automatically have an internal alarm clock reminding myself to take out the garbage. If the garbage truck comes out every day, I may procrastinate until my garbage overflows before taking it out.

One extremely innovative example (and I rarely call things "innovative") of a company utilizing the Appointment Dynamic is a large Korean shopping center named eMart. The company realized that their traffic and sales are usually great during most hours of the day, but during lunch time, foot traffic and sales drops significantly. To motivate people to show up during lunch time (Desired Action), they mustered up the principles of Core Drive 6:

³⁵Nir Eyal. *Hooked*. Kindle Version v 1.0. Chapter 2: Trigger. 2014.

Scarcity & Impatience and a bit of Core Drive 7: Unpredictability & Curiosity. They ended up launching a campaign called “Sunny Sale” and built an odd-looking statue in front of their stores.



On its own, this statue looks fairly abstract and doesn't seem to resemble anything. During noon time, however, the magic starts to happen. When the sun reaches its greatest height at noon, the shadow of this statue suddenly transforms into a perfect QR Code where people can scan with their mobile phones and see unique content.

Isn't that cool? Because the QR Code can only be scanned within a limited window between 12PM to 1PM, people are now rushing to get there in time. Honestly, at that point, it doesn't matter what the QR Code is about – the scarcity and intrigue (stemming from Core Drive 7: Unpredictability & Curiosity) is enough to get people to show up. In the case of eMart, the QR code links to a coupon that consumers can redeem immediately for a purchase online.

This tactic reportedly improved eMart's noon time sales by 25%. Not bad when you are already the largest player in the industry.

Torture Breaks (Game Technique #66)

By now you may have noticed that another kind of game technique of Core Drive 6: Scarcity & Impatience can utilize “Impatience”, which means not allowing people to do something *immediately*. In the old days, most console games tried to get users to stay on as long as possible. If a player were “glued to the screen” for five hours straight, it would be a big win for the game. Nowadays, social mobile games do something completely different.

Many social mobile games don’t let you play for very long. The game will let you play for thirty minutes, and then tell you “Stop! You can’t play anymore. You need to come back 8 hours later - because you have to wait for your crops to grow / you need to wait for your energy to recharge / you need to heal up.”

For some parents who don’t understand Core Drive 6, this design makes them very happy. “That’s great! These game designers are so responsible – now my son’s play time will be limited!” But in fact, what they don’t recognize is that the game is implementing what I call *Torture Breaks* to drive obsessive behavior.

A Torture Break is a sudden and often triggered pause to the Desired Actions. Whereas the Appointment Dynamic is more based on absolute times that people look forward to (Every Monday morning the garbage truck will come; on July 4th when you open the app, you will get a huge bonus), Torture Breaks are often unexpected hard stops in the user’s path toward the Desired Action. It often comes with a relative timestamp based on when the break is triggered, such as “Return 5 hours from now.”

My differentiation between the two Game Techniques may differ somewhat from Priebatsch’s definition. Though they often work hand in hand together (sometimes after a Torture Break is triggered, an Appointment Dynamic follows), it is important to note the difference so you can plan your gamified systems accurately.

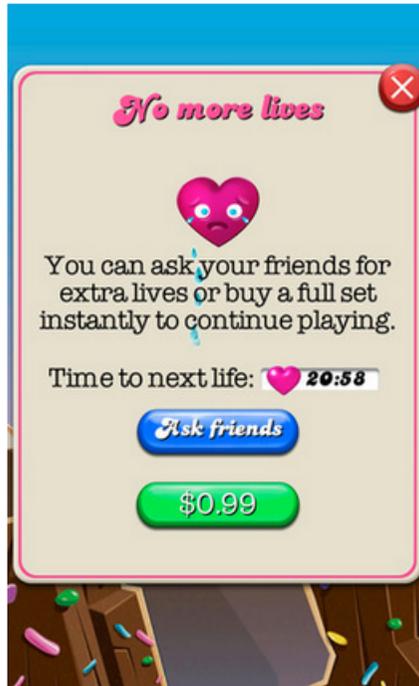
In the example of social mobile games, because the player was

forced to stop playing, they will likely continue to think about the game all day long. Often, they will log back in after three hours, five hours, six hours, just to check if they are finally able to play - even though their brain knows as a fact that the allotted eight hours haven't passed yet.

If the player was allowed to play for as long as they wanted – say three hours, they would likely become satisfied, stop playing, and not think about the game for a day or two. Therefore, an omniscient game designer would perhaps allow them to play for two hours and fifty-nine minutes, and then trigger the Torture Break. At this point, they will be obsessively trying to figure out how to play that final one minute. Sometimes the game may even provide another option – “pay \$1 to remove the Torture Break immediately!”

Another game, *Candy Crush*, which by many metrics is considered to be one of the most successful games in the world, making approximately \$3 million per day³⁶, incorporates the Torture Break very well. After losing a life, the game pauses and forces you to wait 25 minutes before you can gain another life and proceed to the next level.

³⁶MarketWatch. “Candy Crush Maker Reports Lower Revenue Earnings”. 11/06/2014.



This draws players to constantly think about those slow-passing 25 minute intervals, and makes it difficult to plan other activities while being occupied by the obsession.

Of course, the game also gives you two options: ask your friends to give you a life (Social Treasure), or pay right now (Anchored Juxtaposition). See how all these game techniques work together to become a holistic motivational system towards Desired Actions?

Accidental Fails sometimes become a Blessing

Another good example of the Torture Break is the “Fail Whale” in the early years of Twitter. The Twitter site was often down in 2007. Though this frustrated many users, they waited more eagerly for the service to return, while talking about it on Facebook.

When the site was down, users would only see a “404 Error Page” displaying the iconic Fail Whale – a large whale being pulled out of the water by many struggling birds.



Twitter’s combination of “limitations” – you can’t go over 140 characters, can’t tweet over X times a day, can’t access the site 60% of the time – compelled many to spend countless hours on Twitter, even though there truthfully wasn’t much to do there in those early days.

I’ve seen other cases where people were planning to retire from playing a game, but then encountered issues due to massive server problems. Instead of quitting, they checked the app every day to see whether they could play it or not. Even though they planned to quit, they needed to quit on their own terms. When these players were prevented from playing because they “couldn’t,” their desire to play actually increased.

What made the situation worse was that players would occasionally

be able to play the game, only to experience another crash. If it were down indefinitely, people would lose interest. But by “sometimes working,” the game would take on an addictive appeal. Remember, for Core Drive 6 to work, users have to perceive that obtaining the goal is possible, or else they fall into a Self-Denial Mode driven by Core Drive 8: Loss & Avoidance.

This is also similar to some relationships I’ve witnessed, where one person wants to break up with the other, plans the breakup for months, and suddenly gets dumped by the other person. Even though the person wanted to break up from the start, when they gets dumped, they may become obsessed with wanting to get back together with the other person. They want the separation to be on their terms. But when forced to separate, it becomes a Torture Break that makes them yearn for a reconciliation.

This behavior is much like people pulling on a slot machine lever, hoping for, but not necessarily expecting, good results. The same effect happened with Twitter, where users became obsessed with checking the site each minute to see if the service had been reestablished, subsequently becoming delighted when it ultimately returned.

Evolved UI (Game Technique #37)

One of the techniques that I often recommended to my clients, but have faced resistance on, is the Evolved UI - short for “Evolved User Interface”. The problem with most user interfaces is that they’re too complex during the Onboarding stage, while too basic for the Endgame.

In the popular gaming phenomenon World of Warcraft, if you monitor the top-level players, their interface could make you dizzy. There may be close to a dozen little windows open, all with different stats, options, and icons. It displays a plethora of information about how your teammates are doing, how the boss is doing, where

everyone is, and your own resources. So much information that you can barely see the animation of your own character fighting! It truly is one of the most complex user interfaces around.



However, World of Warcraft, along with many other well-designed games, never starts off with this level of complexity. At the beginning they only provide a few options, buttons, and icons. But as you reach more Win-States, you unlock more options, skills, and capabilities. With the help of effective Step-by-step On-boarding Tutorials, Narratives, and Glowing Choices, a beginner never gets confused about what to do at the start.

Based on the concept of Decision Paralysis, if you give users twenty amazing features at the beginning, they feel flustered and don't use a single one. But if you give them only two or three of those features (not just one, since our Core Drive 3 loves choice), and have them slowly unlock more, then they begin to enjoy and love the complexity.

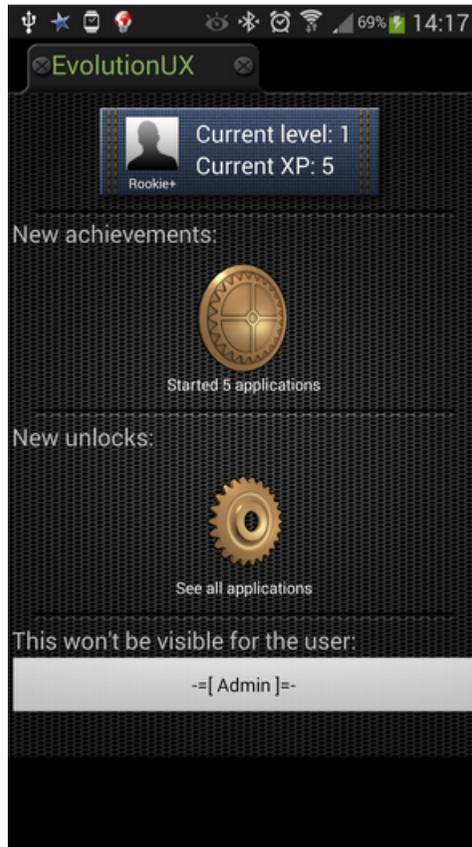
³⁷Image by Shamus from <http://www.shamusyong.com/twenty-sided-tale/?p=8660>.

However, the Evolved UI concept is very difficult for a company to implement emotionally, because it feels weird to withhold great features and functionalities from the user. For the designer though, it is important to acknowledge that withholding options can drive more behavior towards the Desired Action. Just because it makes users *feel* uncomfortable doesn't mean it's necessarily bad for you, nor for the user.

One company that did implement the Evolved UI concept was Sony, calling it *Evolution UI*³⁸(in fact, I modified my game technique name to fit Sony's, just to avoid semantical ambiguity within the industry).

Though the Android smartphone system developed by Google was very powerful, Sony realized that it had a high learning curve that could fluster beginning users. To address the situation, they launched the Evolution UI, which presented a very limited set of core options during the Onboarding process.

³⁸Daniel Cooper. Engadget. "Sony's Evolution UI tries to make learning Android fun". 04/30/2014.



Once users have shown that they have mastered the basic UI, such as opening 5 apps, they unlock an achievement, which in turn unleashes new features. In this way, the difficulty of the user experience never surpasses the skill sets of the user, following the principles of Mihaly Csikszentmihalyi's Flow Theory mentioned earlier.

So what's the consequence of having an UI that is too complex at the beginning? *Google Plus*. As mentioned earlier, even with a lot of great features and functions, Google Plus did not have sticky traction because of the learning curve it required. Most mainstream

users feel confused when they are accidentally pushed onto Google Plus when using Youtube or Gmail; and thus quickly leave the platform.

Gmail, on the other hand, implements a small version of Evolved UI, which manifested itself in the form of *Gmail Labs*. In Gmail, users are provided a basic set of features and functionalities by default. But there are many cool features that they can be unlocked through the “Labs” tab under Gmail Settings, opening up complex but helpful features once the user feels ready.

Great! So now what?

Of course, understanding Scarcity & Impatience doesn't mean that startups should shut down their servers on purpose, or set up fake and corny limitations in their systems. Some users may become obsessed, but you could likely turn away many others who quickly jump into denial mode and never come back.

The most obvious application for start-ups based on Core Drive 6 principles is to launch with a confident pricing strategy. Instead of just offering everything for free or making them easily available, a more premium pricing model or well-structured exclusivity design can increase the confidence of users/buyers resulting in increased conversion rates.

Of course, if you price an item beyond your target market's capability to afford, this would obviously backfire. But more often than not, when customers don't buy your product, it's not because they can't afford it, it's because the perceived value they have for your product is not worth the cost. Sometimes that cost is in the form of time, energy investment, or reputation in their organizations.

Beyond pricing, you may want to create a sense of exclusivity for each step during the Discovery and Onboarding stages. A design, where the service makes them feel that it's uniquely for them and

that they are only qualifying for access - similar to Facebook's early marketing strategy.

Every step of the way, you want to show users what they may want but can't have - just yet. Scarcity only exists as a motivator when people know the reward actually exists, so *when in doubt, Dangle about* (but don't say you learned that from my book during court). For actions that lead to rewards and investments, consider using more restrictive options. Placing a cap on how many actions a person can take (or investments that they can make) will cause them to desire the actions more.

By increasing perceived value, customers and users are more likely to stay engaged and take greater interest in your venture. This will help insure you from giving out all your hard-earned work for close to nothing.

Core Drive 6: The Bigger Picture

Scarcity and Impatience is considered a Black Hat Core Drive, but if used correctly, it can be very powerful in driving motivation. Often, Core Drive 6 is a first source of generating Core Drive 3: Empowerment of Creativity & Feedback in the system. Overcoming scarcity can cause a higher sense of Core Drive 2: Development & Accomplishment.

When fused with Core Drive 7: Unpredictability and Curiosity, Core Drive 6 becomes a great engine to drive online consumer action. Finally, working alongside Core Drive 8: Loss & Avoidance, Scarcity and Impatience becomes a powerful force that not only pushes for action, but pushes for action with extremely strong urgency.

To get the most out of the book, Choose only ONE of the below options to do right now:

Easy: Think about a time where you wanted something, mostly because it was exclusive, or because you felt you were uniquely qualified. Try to describe the nature of that feeling from Scarcity & Impatience.

Medium: Think about a time when a company attempted to implement a corny form of Scarcity, and it backfired because it caused people to go into denial. What could the company do to actually implement principles of Scarcity correctly?

Hard: Think about how you can implement combinations of Dangling, Torture Breaks, Evolved UI, and Anchored Juxtaposition into one of your own projects. Does it automatically increase the desire for other Core Drives? Or does it hamper it? Does it drive long-term engagement, or short-term obsession?

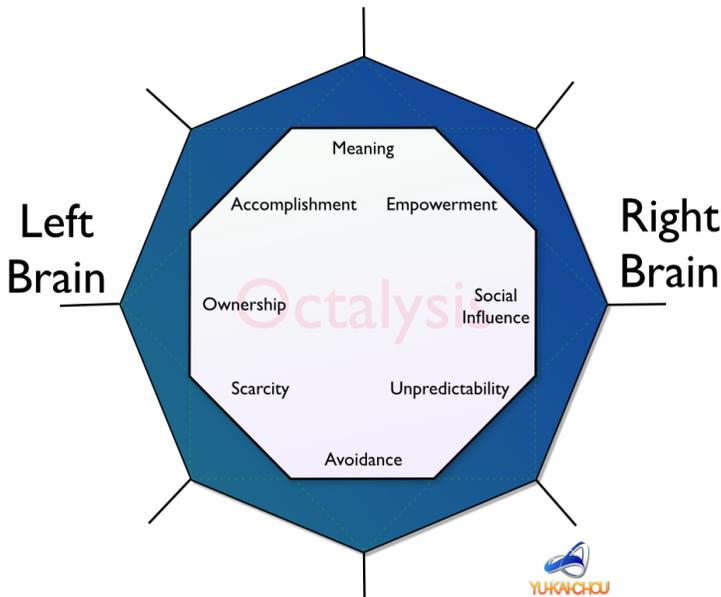
Share what you come up with on Twitter or your preferred social network with the hashtag #OctalysisBook and check out what ideas other people have.

Share your Knowledge!

Beyond sharing my own research and interests, I regularly have guest bloggers posting their research on gamification, motivational psychology, behavioral design and much more on my blog Yukai-Chou.com³⁹. If you have interesting knowledge to share through your own experiences and research, consider sending a message through the site and offer a guest piece to promote your work. I've done all this work so you could learn a little bit from me. I would love to get the opportunity to learn from you too!

³⁹My Blog: YukaiChou.com

Chapter 13: Left Brain vs Right Brain Core Drives



Using Octalysis in the Real World

Now that we have completed our journey through the 8 Core Drives, it is worth remembering that these Core Drives drive every action we take, whether it's inside or outside a game. If none of the 8 Core Drives are present, there is no motivation, and therefore no action takes place (that is, with the exception of the hidden ninth Core Drive: Sensation).

You may have noticed that I always include a specific number with each Core Drive, and in some instances, I've only mentioned

the Core Drive number without the full title. After reading this book and continuing on your journey to understand and implement Octalysis Gamification, you will find that knowing these Core Drive numbers will become extremely helpful.

When I work with my team of Octalysis designers on a client project, I often say things like, “Over here you can clearly see a Core Drive 6 design, which enforces Core Drive 3, which in turn promotes Core Drive 2, and ultimately leads to Core Drive 5.”⁴⁰

If you are not familiar with the Core Drive numbers, you would naturally have difficulty keeping up with the conversation. The 8 Core Drives are designed to be “mutually exclusive and collectively exhaustive” (also known as MECE⁴¹). Unfortunately, the full name of each Core Drive is a mouth full. By using their numbers, you can save time and effort in a long conversation and instead focus on creating valuable solutions.

For me, the Octalysis Framework has been incredibly useful because it not only provides a visual understanding of the intricacies of motivation, but also its nature: the placement of each Core Drive on the octagon shape provides visual cues that helps the designer determine if they have a long-term or short-term effect, or whether these experiences are intrinsically or extrinsically designed.

The Octalysis Framework also enables us to predict how motivation can evolve over subsequent phases and helps us identify the weaknesses of a design which can be addressed and improved upon.

⁴⁰This is an actual example of a designed experience. For those hardcore Octalysis Learners out there, see if you can envision how these effects might take place from a specific set of events

⁴¹Arnaud Chevallier. Powerful-Problem-Solving.com. “Be MECE (mutually exclusive and collectively exhaustive)”. 07/02/2010.

Left Brain vs. Right Brain Core Drives

A key aspect of the Octalysis Framework is the difference between *Left Brain and Right Brain Core Drives*.

The Left Brain Core Drives involve tendencies related to logic, ownership, and analytical thought. They are expressed in the following three Core Drives:

- Core Drive 2: Development & Accomplishment
- Core Drive 4: Ownership & Possession
- Core Drive 6: Scarcity & Impatience

The Right Brain Core Drives are characterized by creativity, sociality, and curiosity and as illustrated by the following:

- Core Drive 3: Empowerment of Creativity & Feedback
- Core Drive 5: Social Influence & Relatedness
- Core Drive 7: Unpredictability & Curiosity

(Note: there will be several points later in this chapter where you may find the need to refer back to the reference above.)

Again, it is worth noting that the terminology of “Left Brain Core Drives” and “Right Brain Core Drives” does not necessarily mean that they are physically located on the left side or right side of our brains. These references are merely symbolic in that some of the Core Drives are influenced more by the “logical brain,” while other Core Drives are influenced more by the “emotional brain.”

There have been past instances where some individuals tried to attack my work, pinpointing how the “left brain vs. right brain” model has been debunked and therefore is no longer scientifically valid. From my perspective, this is simply an issue of semantics, for I could very well name the emotional Core Drives, “Rainbow Core

Drives” and the logical Core Drives, “Stone Core Drives” - which would actually give a nice, game-like ring to them.

However, the current terminology is ideal for design purposes, as the “left/right brain” terminology is popularly understood in the social sciences. Therefore I designed the Left Brain Core Drives to be conveniently located on the left side of the octagon and the Right Brain Core Drives to be situated to the right. I’m a designer by trade, so even though I don’t see anything wrong with the Left/Right Brain terminology to begin with, I prefer tools that are useful over ones that are simply “semantically accurate.”

I believe that my intended goal to organize these Core Drives into intuitive patterns within a visually clear diagram was successful. This allows me and my students to follow complex motivational and behavioral design principles in an approachable manner. In turn, this enables us to design experiences that ensure long-term metrics are sustained.

Conveniently, the Left/Right Brain framework structure also allows us to differentiate and design for the differences between extrinsic and intrinsic motivation.

Extrinsic vs Intrinsic Motivation

The grouping of Left Brain and Right Brain Core Drives with correlated to what many motivational theorists understand as Extrinsic Motivation and Intrinsic Motivation.

Extrinsic Motivation is motivation that is derived from a goal, purpose, or reward. The task itself is not necessarily interesting or appealing, but because of the goal or reward, people become driven and motivated to complete the task. More often than not, people go to work everyday not because they actually love doing the work, but because they want to make a living, advance their careers, and be recognized for higher achievements.

For example, let's say you have a terrible job. Your job is to dig feces out of the ground for hours everyday. It's labor intensive, smells horrible, and you hate the job with a passion. But then someone shows up and says, "I'll give you \$10,000 for every single piece of dung you dig out."

All of a sudden, you become excited and extremely motivated to dig, thinking, "Wow! This is easy money! Hahaha!" You're now engaged, joyful, and motivated with the job. Morale is high, and you start working much faster than you did before.

However, it is important to remember that the *task* itself is still not fun. You are motivated because the extrinsic reward is extremely appealing, and it creates the illusion that you enjoy the activity. Once the extrinsic reward is gone, you will go back to hating the task - and possibly more so than before, as we will see soon.

Intrinsic Motivation, on the other hand, is simply the motivation you get by inherently enjoying the task itself. These are things you would even *pay* money to do because you enjoy doing them so much. For instance, you don't need to reach any target to enjoy utilizing your creativity; you don't need a physical reward to enjoy hanging out with your friends; and you don't need any compensation to be absorbed by the suspense of unpredictability.

In fact, when you go to a casino, you have the opposite of a reward. Most people know that they are "statistically screwed" by the casino - that's how the casinos make so much money. But they still come out saying, "I lost \$200, but I had so much fun!" Why? Because, throughout those five hours, they were constantly thinking, "Maybe I'll win this time!"

They are spending \$200 to buy the intrinsic joy of "possibly" winning. If the unpredictability is removed and people know with absolute certainty that they will get \$40 after pressing those buttons for five hours, they will no longer think it is fun. In fact, it would become very similar to the dreadful *work* of laboring in a factory.

Left Brain Core Drives are by nature goal-oriented, while Right Brain Core Drives are experience-oriented. Extrinsic Motivation focuses on results, while Intrinsic Motivation focuses on the process.

Slight Semantic Differences with the Self-Determination Theory

Intrinsic Motivation versus Extrinsic Motivation is a popular topic within the gamification space and was heavily popularized by Daniel Pink's book *Drive*⁴². The book explores how instead of being motivated by money (Core Drive 4: Ownership & Possession) and punishment (Core Drive 8: Loss & Avoidance), people are motivated more by *Purpose*, *Autonomy*, and *Mastery*.

While I believe *Drive*, as well as the Self-Determination Theory it advocates, are fantastic, I should point out that my terminology differs slightly from Pink on what Intrinsic Motivation consists of.

When a basketball player practices by shooting hoops a thousand times a day, their motivation is to achieve *Mastery*, something that is characterized as Intrinsic Motivation within Pink's theories⁴³. However, within the Octalysis Framework, the activity itself is still monotonous and boring. It is only motivating because the athlete has a goal - an extrinsic motivation. That said, we will look at how Self-Determination Theory connects with White Hat Motivation within my framework in the next chapter.

Here is the test I usually apply to determine if something is extrinsically or intrinsically motivated: if the goal or objective were removed, would the person still be motivated to take the Desired Action or not?

In other words, at the end of the day, if the basketball player knows

⁴²Daniel Pink. *Drive*. Penguin Group, New York, NY. 2009.

⁴³Daniel Pink. *Drive*. Pages 107 - 128. Penguin Group, New York, NY. 2009.

that whatever they do, they will lose all “progress” and everything obtained or accumulated, would they still choose to shoot hoops?

Social hangouts and creative activities, such as solving fun puzzles, will pass the test for intrinsic motivation. However, accumulating goods, earning points, or even progressing towards mastery would likely not. What would you spend time doing if you knew the world was surely going to end tomorrow? It would be unlikely that you will decide to practice shooting basketball hoops - though you may decide to play a game of basketball with those you love and care about.

Again, these are simply differences in terminology and grouping, not a fundamental difference in beliefs about what motivates people. Daniel Pink only differentiates between Intrinsic and Extrinsic motivation, while I classify using the extra dimension of White Hat versus Black Hat motivation (you will soon see that Mastery falls into the White Hat camp of motivation). Hence our categorization and language differ slightly, while our overall beliefs in the nature and effectiveness of these drives do not.

In a similar fashion, Michael Wu, Chief Scientist of the engagement platform Lithium, differentiates between Intrinsic/Extrinsic Motivation and Intrinsic/Extrinsic Rewards⁴⁴.

Motivation is what drives us to do any action, and Rewards are what we obtain once we perform the Desired Action.

A person may receive Intrinsic *Rewards* after performing a certain task, such as gaining the appreciation of others or feeling a sense of accomplishment. However, since Intrinsic *Motivation* is derived from the activity itself without concern for the future outcome, if a person does something for any reward, including any Intrinsic Reward, it is not based on Intrinsic Motivation.

This is slightly tricky to comprehend, but along the lines of Michael

⁴⁴Michael Wu. *Lithium Science of Social Blog*. “Intrinsic vs. Extrinsic Rewards (and Their Differences from Motivations)” 2/18/2014.

Wu's concepts, Core Drive 2: Development & Accomplishment may utilize Intrinsic Rewards, but ultimately does not focus on Intrinsic Motivation. The Left Brain Core Drives are result (goal) focused, while the Right Brain Core Drives are process (journey) focused. Core Drive 2 focuses on progress and achievements, and as a result is based on Extrinsic Motivation in my framework.

Motivation Traps in Gamification Campaigns

Most gamification campaigns typically employ loyalty programs, badges, progress bars, and prize rewards, which focus on Left Brain Core Drives. This is because it is much easier to add an extrinsic reward to a desired activity than to actually make the activity intrinsically fun or enjoyable.

However, there are many motivational traps which result from using too many Extrinsic Motivation techniques at the expense of Intrinsic Motivation⁴⁵.

Let's pretend for a moment that I love to draw and drew very often without any compensation. Research has shown that one of the best ways for you to make me stop drawing is to first *pay* me to do it and then stop paying me after a certain time period⁴⁶.

In fact, from my own experience, I believe that a more effective way is for you to pay me successively less until you reached a very insulting amount - say \$0.02 per drawing. At that point, I would feel insulted and no longer have any desire to continue drawing, even though I happily drew for free prior to meeting you. This is because the Intrinsic Motivation of drawing for joy through Core Drive 3:

⁴⁵Deward L. Deci. *Journal of Personality and Social Psychology* 18: 114. "Effects of Externally Mediated Rewards on Intrinsic Motivation." 1971.

⁴⁶Mark Lepper, David Greene, and Robert Nisbett. *Journal of Personality and Social Psychology* 28, no. 1. P129-137. "Undermining Children's Intrinsic Interest with Extrinsic Rewards: A Test of the 'Overjustification' Hypothesis". 1973.

Empowerment of Creativity & Feedback, has now been shifted to an Extrinsic Motivation of drawing for money through Core Drive 4: Ownership & Possession.

As the pay decreased, drawing simply became less worthy of my time. Technically this is referred to as an “Overjustification Effect” - I become primarily engaged with the reward which subsequently eradicates and replaces the intrinsic motivation I originally had in the first place.

What’s worse, if you still paid an acceptable amount for my drawings, say \$20, more often than not, I would become incentivized to render the quickest, unrefined drawings possible in order to maximize the amount of money I would make. In essence, as long as I still get paid, I would have less focus on the *quality* of the work compared to the *completion* of the work. In fact, many studies have shown that Extrinsic Motivation, such as paying people money to perform a task, actually lowers the creative capability to perform the task.

Dan Ariely, author of *Predictably Irrational*, demonstrated in his experiments that people who were paid the most (5 months pay) for performing some relatively quick tasks performed far worse than people who were paid much less (only one day or two weeks pay for doing the same tasks)⁴⁷.

When people are thinking about the money, it distracts their focus from performance. Even the London School of Economics, after many experiments, concluded that, “We find that financial incentives may indeed reduce intrinsic motivation and diminish ethical or other reasons for complying with workplace social norms such as fairness. As a consequence, the provision of incentives can result in a negative impact on overall performance.”⁴⁸

⁴⁷Dan Ariely, Uri Gneezy, George Lowenstein, and Nina Mazar. *Federal Reserve Bank of Boston Working Paper* No. 05/-11. “Large Stakes and Big Mistakes”. 07/23/2005.

⁴⁸Bernd Irlenbusch. *London School of Economics and Political Science*. “LSE: When Performance-Related Pay Backfires.” 06/25/2009.

This is because when we are doing something for Extrinsic Motivators, our eyes are set on the goal, and we try to use the quickest and most effortless path possible to reach it. As a consequence, we often give up our abilities to be creative, think expansively, and refine our work.

Daniel Pink states that, “Rewards, by their very nature, narrow our focus. That’s helpful when there’s a clear path to a solution. They help us stare ahead and race faster. But ‘if-then’ motivators are terrible for challenges like the [creative] candle problem.”

Of course, in routine and mundane tasks that don’t require any creativity and hold little Intrinsic Motivation to begin with, Extrinsic Motivation does often increase performance and results because of the goal-driven focus it generates. Dan Ariely points out in his *New York Times* article, “What’s the Value of a Big Bonus”⁴⁹, “As long as the task involved only mechanical skill, bonuses worked as they would be expected: the higher the pay, the better the performance,” but if the task required any “rudimentary cognitive skill,” a larger reward “led to poorer performance” within his experiments.

The Problem with Educational Systems

The negative shift from Intrinsic Motivation to Extrinsic Motivation is a big issue within our educational systems.

I hold a firm belief that we as a species are endowed with an innate desire to learn, often driven by Core Drive 7: Unpredictability & Curiosity - a Right Brain Core Drive, and Core Drive 3: Empowerment of Creativity & Feedback - the Right Brain desire to use that knowledge in different ways. However, when it comes to school and training, that intrinsic motivation to learn quickly shifts into the extrinsic desire to obtain good grades, appease parents and teachers, gain respect from classmates, and secure prestigious,

⁴⁹Dan Ariely. *New York Times*. “What’s the Value of a Big Bonus”. 11/20/2008.

career-requisite diplomas. All of which are powered by Left Brain Core Drives such as Core Drive 2 and 4.)

Because of this, students often stop caring about the learning itself and do the minimum amount of work to achieve those extrinsic results (which sometimes involves copying each others' home work or cheating on tests). They may even forget why they are learning the material in the first place.

In early 2014, I had a research interview with a high school senior student on a variety of games. He was an overachieving student who was finishing high school two years earlier than his peers. He knew just about everything there was to know concerning the elite universities he was applying to. Over the course of our conversation, he stated (paraphrasing of course), "Well, Stanford is great at these things, but I'm not sure about this. Harvard is okay on this subject matter, but they have an amazing program that could help my future."

Then, somewhere in the conversation, I mentioned that math is a very useful subject to prepare for one's career. To my surprise, this teenager who was polite and enthusiastic the entire time suddenly responded in an almost disdainful way:

"Come on Yu-kai. When do people *ever* use advanced math after graduating from school?"

I felt I had to justify myself: "I'm serious. Math is really useful. If you want to be a scientist, you need to use a lot of advanced math."

His eyes widened up. "Really?"

"Yeah, of course. You need math to calculate sound waves, gravity, satellite positioning information and such. Also, you need math if you want to become an engineer, economist, or even an accountant. How else would you tell the President that the economy would dry up if he doesn't bail out certain banks for nine billion dollars, or calculate how many days it takes for an asteroid the size of Texas to hit earth?" I said.

He exclaimed, “Wow, I never thought about that, but it makes a lot of sense!”

So here is a teenager who is doing everything he is *supposed* to do – get good grades, get good SAT scores, participate in extracurricular activities, write strong essays on his college applications, and research the schools he wants to attend. And yet, he does not know why he is studying math beyond the goals of getting into a good college and perhaps securing a good job.

It was eye-opening for me to see how bad the impact of goal-oriented education was on our learning. I can say this from my own experience: many students who neglect school and get in trouble all the time aren’t like that because they are stupid or dislike learning. They just don’t see the purpose of learning the subjects that are taught in class.

All too often, this tendency is even present at the college level. I do a fair amount of work with universities to improve their educational methodologies. I often ask professors about the students that attend their office hours. If humans were so passionate about learning, you would expect that these students should be thrilled that there’s a professor who is brilliant, has spent decades researching a subject, and is dedicating their time just to transfer that knowledge to them!

With this in mind, every student should be excited about the opportunity to visit every single office hour and pick the professors’ brains. (For some reason, I’ve always felt this phrase to be rather gory in a Hannibal Lecter kind of way).

As it turns out, the majority of their students that actually show up are only there when they have problems with their grades. Either they are approaching the professor because they are about to fail the course, or because they feel the professor incorrectly graded their tests and want to get their points back.

As a result of this extrinsic focus, students often forget what they learned immediately after their exams.

When I was a student, I once told a few friends, “Did you know that, since most people forget 80% of what they have learned after the test, if you simply remember 80% instead of forget 80%, you are immediately four times better than everyone else? That’s not just a 20% or 30% improvement. It’s a 400% improvement! What else can you do to quickly become four times better than others in the same major?”

To my surprise, my friends responded, “Wow, that’s true Yu-kai! But... what’s the point? We’ve already finished the test.” At the time, I wasn’t sure how to respond to a statement like that, but I’m guessing the most appropriate response would have been, “You’re wrong. You still have to remember it for the Final Exam!”

You can see that Extrinsic Motivation design and goals has clearly taken its toll on our desire to learn and curiously explore subject matters that benefit our society.

Pay to Not Play

Remember when I mentioned that Core Drive 3: Empowerment of Creativity & Feedback is the golden Core Drive, where people use their creativity and “play”? Often, if you can establish a strong Core Drive 3 element in your experience, it becomes an evergreen mechanic that continuously engages the mind of users without needing to add more content.

Unfortunately, there are many examples where Core Drive 4: Ownership & Possession (in the form of financial rewards) overtake Core Drive 3: Empowerment of Creativity & Feedback.

There are studies that illustrate how our creative problem solving skills diminish when we are offered financial rewards. One of the more famous and effective demonstrations is the “Candle Problem” quoted earlier.

Many of my readers may have seen the Candle Problem in other literature, but if you have not (and thank you for choosing my book over the other literature first!), first take a look at the image below:



Karl Duncker was the notable psychologist who created the Candle Problem in the 1930s. The goal of the problem was to figure out how to attach a lit candle to a wall using only the tools given, so that the melting wax would not drip on the table.

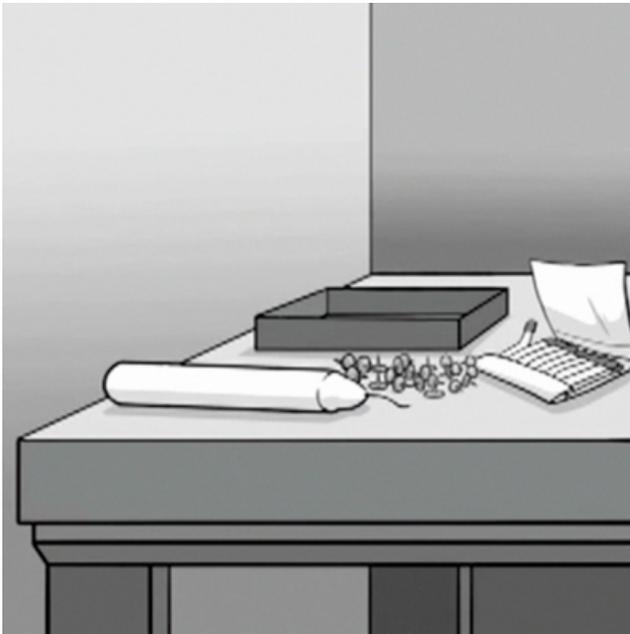
Later in the 1960s, a psychologist named Sam Glucksberg divided participants into two groups to solve this problem. One group was promised \$5 to \$20 if they could solve the problem quickly - not bad for a few minutes of work. The other group was simply told that he was simply having them establish the norms for how long it typically took people to solve the problem.

⁵⁰*Creativity Development and Innovation for SMEs* "Exercise 6: The Candle Problem".
<http://icreate-project.eu/index.php?t=245>

I'll demonstrate the solution to the problem soon, but the original findings were quite astonishing. It turns out that the people who were offered money to solve the problem took on average, three and a half minutes longer than those who weren't offered money.⁵¹

Getting paid resulted in the Left Brain Core Drive 4: Ownership & Possession overtaking the Right Brain Core Drive 3: Empowerment of Creativity & Feedback, in producing inferior results.

Before I present the solution, here's another image of the same problem, just in another setting.



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Remember that we talked about how Extrinsic Rewards enhance focus and increase performance towards straightforward tasks that require less creativity? If the problem is described using the Illustration

⁵¹Sam Glucksberg. *Journal of Experimental Psychology* 63. P36-41. "The Influence of Strength of Drive on Functional Fixedness and Perceptual Recognition". 1962.

⁵²*Creativity Development and Innovation for SMEs* "Exercise 6: The Candle Problem". <http://icreate-project.eu/index.php?t=245>

tion above, the solution becomes more obvious. With this version, the people who were offered rewards did solve the problem slightly faster than those who weren't.

If you haven't solved the problem yet, don't worry - since you are in a "book reading" mode and less likely to be intensively focused on problem-solving. The solution is below:



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As you can see, the way to solve the problem is to think "outside the box" and actually use the unassuming box itself.

When a person is trying to solve the problem for free, the activity resembles play. The mind searches for new, creative ways to do things. This makes the right solution easier to find because the mind

⁵³*Creativity Development and Innovation for SMEs* "Exercise 6: The Candle Problem".
<http://icreate-project.eu/index.php?t=245>

is flexible and dynamic.

In contrast, when a person is offered a reward, the situation immediately becomes one devoid of play. Unless clear, simple directions are laid out for the person, performance will actually decrease because the mind is fixated on completing the assignment.

How Market Settings Reverse Social Settings

Giving people financial rewards through Core Drive 4: Ownership & Possession doesn't simply reduce our intellectual curiosity (Core Drive 7) and our creative problem-solving skills (Core Drive 3), it also shifts the focus away from our social brain (Core Drive 5) to our economical brain. Depending on the actual goals of the gamification designer, this could become detrimental to the intended outcome.

In *Predictably Irrational*, Dan Ariely makes it clear that these aren't just two different ways of thinking; they are completely different behavioral modes that make us act differently in everything we do. Ariely defines these differences as *Social Norms versus Market Norms* to show the significant contrast between these paradigms⁵⁴.

For example, Ariely demonstrated that people were often very willing to perform mundane tasks, leave candy for others, perform free legal work, teach martial arts, solve difficult puzzles, move large pieces of furniture, and work on open source projects, all without any material reward⁵⁵. This was because their brains were following a social norm mode, "I will do them a favor as we appreciate each other. We take care of each other when we can."

But once we offer money for the service, the brain immediately shifts into a market mode norm. If we offer as little as 1¢ for

⁵⁴Dan Ariely. *Predictably Irrational*. P76. Harper Perennial. New York, NY. 2010.

⁵⁵*Ibid.* P78-82.

the service, people will feel insulted with the amount of money and not only refuse to perform the activity, but question the social relationship itself. The social ties weaken and break, with everything boiling down to: “Are you paying me my worth to do this for you?”

Suppose you were willing to do me a favor for free because you genuinely take pleasure in helping me improve my situation. But then I asked you, “Can you do this for me? I can pay you \$5.” You are not likely to think that you are getting the pleasure of helping me out as initially intended, *and* making an extra \$5 bonus on top of it. Our brains are either using the Social Norms, or the Market Norms. Once I offer to pay you, you begin to think, “My time is worth much more than \$5. This is insulting.”

Ariely adds another hypothetical scenario to drive this point home⁵⁶: what would happen if you offer to pay your mother-in-law a few hundred dollars for hosting a great Thanksgiving meal and a wonderful evening? Immediately, you transition the situation from Social Norms to Market Norms, and it is not difficult to predict that she would respond quite poorly to this generous offer.

After conducting a few experiments, Ariely found that when the price of delicious Lindt chocolate truffles shifts from 10¢ to 5¢ to 1¢, demand from university students increased by 240 percent and then by 400 percent, which fits well into traditional economic models.

However, when the price went from 1¢ to free, instead of a massive increase in demand, as basic economic theory would predict, the number of truffles taken (without cost) by each student was immediately reduced to one. In the end this led to an overall decrease in demand by 50 percent.

When the price was shifted from 1¢ to free, our brains shifted from the Market Norm of “This is a great deal! I must get more!” to the Social Norm of, “I don’t want to be a jerk and take too many. What

⁵⁶Dan Ariely. *Predictably Irrational*. P75. Harper Perennial. New York, NY. 2010.

if it runs out and other people don't get to have any?"

In the Octalysis Framework, this is a perfect example of Left Brain Core Drive 4: Ownership & Possession shifting to Right Brain Core Drive 5: Social Influence & Relatedness. When you incentivize people with money, they lose some of their social altruism and generosity, which means that they are not selflessly collaborating and sharing useful information with one another as much as they would otherwise. They become more like rational economic calculators and tend to work more only when the pay justifies it. (Assuming of course, that there aren't much stronger Right Brain Core Drive forces within the environment.)

An interesting caveat is that when you offer gifts instead of cash, experiments reveal that the rules of Social Norms still apply. Your mother-in-law would unlikely become offended if you brought a nice wine as a gift for the Thanksgiving Dinner. This is because "Gifting" (or Social Treasures) is still mostly in the realm of Core Drive 5: Social Influence & Relatedness, so the interaction is still intrinsic in nature.

However, the moment you mention the dollar amount of the gift, the Social Norm shifts to a Market Norm once again. In another experiment by Dan Ariely, simply mentioning something along the lines of, "Can you help with something? I'll give you this 50¢ chocolate bar," caused applicants to immediately switched to their Market Norm mode and interpreted the statement as an insult.⁵⁷

But when the experimenter simply said, "Can you help with something? I'll give you this chocolate bar," many people were eager to help because they were still operating within the Social Norm.

Exploring this further, let's look at a dating scenario. When you buy gifts for your date, once you make statements such as, "I would be happy to buy you this \$80 steak!" or even "I've spent quite a bit of money on our dates now. Perhaps we should take this to

⁵⁷Dan Ariely. *Predictably Irrational*. P81. Harper Perennial. New York, NY. 2010.

the next level?” the situation shifts dramatically. The person might become offended, because you have transitioned the Social Norm to a Market Norm. You likely won’t accomplish the goals you intend, since the potential partner will likely prefer to treat your relationship as a “social” one instead of a “market exchange” one. Here again, when applying a Left Brain Core Drive technique, the Right Brain Core Drive becomes diminished.

Of course, our brains are quite easy to fool. A clever device that bypasses this gifting inconvenience is known as the *gift card*. Though in reality it functions like cash, since the value is stored on a card and can only be used at a certain place, people treat it as a gift. Sometimes they even include the receipt so that the recipients can even return the gift card for cash! However, since it is still a *gift*, not a real payment, people accept it without shifting to Market Norms - unless you say, “Here is a gift card that is worth \$50. I would like you to have it.”

The Chinese and some Asian cultures also disguise their cash gifts with “red envelopes.” Though it is still just pure cash, the envelope represents good luck, and therefore it is received as a Social Treasure. But once the person takes the cash out from the envelope and gives it to another, the exchange becomes a Market Norm, and is therefore insulting again. After all, people don’t like to be treated as beggars. Better put a red envelope around it or invest in a gift card.

The Advantages of Extrinsic Motivation Design

Obviously designing for Extrinsic Motivation is not all negative. Besides enhancing a person’s focus on completing monotonous routine tasks, it also generates initial interest and desire for the activity.

Often, without there being extrinsic motivation during the Discovery Phase (before people first try out the experience), people do not find a compelling reason to engage with the experience in the first place. Promoting, “You will get a \$100 gift card if you sign-up,” usually sounds more appealing than “You will utilize your creativity and be in a fun state of unpredictability with your friends!” (Though both actually utilize Core Drive 6: Scarcity & Impatience.)

When people consider themselves “too busy,” they won’t justify spending time to try out your experience. But when you offer them an extrinsic reward to try out the experience, they will at least test it out, assuming of course that the reward is not an insult to the value of the user’s time investment.

Rewarding users \$2 for trying a new search engine for an entire month is pretty weak, while paying people \$3 to spend weeks going to stores, taking pictures, and sharing them with their friends is also a path to failure. It is better to not give them a reward at all!

And of course, as we have seen earlier, if people continuously justify doing something for high extrinsic rewards, their intrinsic motivation dwindles as the Overjustification Effect settles in.

Therefore, as Michael Wu of Lithium points out, it is better to attract people into an experience using Extrinsic Rewards (gift cards, money, merchandise, discounts), then transition their interest through Intrinsic Rewards (recognition, status, access), and finally use Intrinsic Motivation to ensure their long term engagement. Through this process, users will start to enjoy the activity so much that they will focus on relishing the experience itself without thinking about what can be gained from the experience.

How to Make an Experience More Intrinsic

Since this book is entitled *Actionable Gamification*, we want to make sure you have a set of steps and tools to help you develop your own projects. The ultimate question that this chapter seeks to answer is: “How do I make my users more motivated intrinsically?”

Well, we’ve noted earlier that Intrinsic Motivation is often derived from Right Brain Core Drives, which relate to Core Drive 3, 5, and 7. Therefore, the actionable way to add Intrinsic Motivation into an experience is to think about how to implement those Core Drives into the experience.

1. Making the experience more Social

One of the common Right Brain Core Drives that the business world has been using in recent years is Core Drive 5: Social Influence & Relatedness. Many companies are seeking ways to make things more social by incorporating social media, and constantly spamming their users to spam their friends.

Of course, there are better and worse ways to make your experience more social. The first principle to note is that users are intrinsically interested in inviting their friends to an experience only if they are first sold on its value. Often this happens during the First Major Win-State, which is a term referring to the moment when the user first says, “Wow! This is awesome!”

Many companies make the gigantic mistake of asking users to invite all their Facebook friends at the beginning of the Onboarding Stage, which happens right after the user signs up. The users don’t even know whether they will like the experience themselves, let alone risk their friendships by spamming others. In fact, this prompting interface actually delays the First Major Win-State, which could be detrimental to the entire experience.

The experience designer needs to identify exactly where that First Major Win-State is, and count exactly how many minutes it takes for the users to get there - because every second before that you will be seeing dropout. Once the user hits the first major Win-State, that's the best time to ask them to invite their friends or rate the product. (We will reiterate these important points on First Major Win-States in our chapter discussing the Experience Phases of a Player's Journey.)

Besides finding the right time to prompt friend-invites, it is important to determine the right type of message. I've seen many companies require their users to share a default text such as, "I just used Company A, the leader in B space, to solve all my problems! Sign-up right now for a 30% discount!" This is a message that is obviously not genuine, and will lead to users feeling like they are being baited to share crappy promotional messages.

Rather, it is better to have something less informative, but more believable, such as, "I've been reading Yu-kai's book on gamification. It's worth checking out! #OctalysisBook." A default tweet like this (which still allows the user to modify it anyway they wish), produces a social message that their friends will more likely recognize as a true endorsement.

With that all said, none of the above is actually making the *experience* itself more social. It is much better to foster collaborative play within the Desired Action, where users can help each other out, socialize, and grow together.

When you design for Intrinsic Motivation, you want to create environments that foster socializing, even with areas that are non-critical to the Desired Actions (such as the Water Cooler game technique). Also, consider adding in more Group Quests where users can work together, utilize their unique strengths, and accomplish tasks together. This often makes an experience more intrinsically motivating and enjoyable.

2. Add more Unpredictability into the Experience

Another way to add Intrinsic Motivation into the experience is to utilize Core Drive 7: Unpredictability & Curiosity. If every result is expected and the experience predictable, much of the fun and excitement will fade. Adding some unpredictability, though Black Hat in nature, increases the thrill to the experience and prevents the user from losing interest and dropping out.

When you design your experience, ask yourself if there is a way to build controlled randomness into the experience? If the user performs the Desired Action again and again, does the result have to be exactly the same each time? Or can some things be altered from time to time, even if they are just trivial things like alternating feedback dialogue or randomly generated tips.

Unpredictability matched with Core Drive 8: Loss & Avoidance will often make an undesirable event even more stressful, and sometimes more motivating in a Black Hat way; but unpredictability accompanying Core Drive 2: Development & Accomplishment or Core Drive 4: Ownership & Possession increases the excitement of the experience.

If you implement a variable reward, either in the form of a Mystery Box (users expect a reward but don't know what it will be) or an Easter Egg (users don't expect a reward at all), you will likely build positive anticipation and unpredictability. In the book *Hooked*, Nir Eyal confirms that, "Variable rewards are one of the most powerful tools companies implement to hook users"⁵⁸

Obtaining a reward is in and of itself extrinsic. However, when you make the reward variable, you add a layer of intrinsic excitement, much like how the animal in the Skinner Box continues to press the lever to get more food, even though it is no longer hungry.

⁵⁸Nir Eyal. *Hooked*. Kindle Version v 1.0. 2014.

Do be cautious though, since Core Drive 7: Unpredictability & Curiosity is by nature a Right Brain and Black Hat Core Drive, it may unsettle some users who feel uncomfortable because they are not in control of their own destinies. If I told an employee, “Work hard for a year, and you may or may not get a surprising reward!” I may have made the year more intrinsically “interesting” because of the suspense and guess work. However, it may also cause the employee to leave my company because of how uncomfortable it feels when a person is exposed to long-term Black Hat motivators.

Before you snicker for too long, it is worth noting that this is also what most companies implicitly communicate to their employees regarding their raises and promotions: work hard for a few years, and perhaps you will receive some type of promotion! Is it a wonder then that companies complain about their employees lacking loyalty and joining a competitor as soon as they are offered an immediate and higher compensation package? Once you are exposed to Black Hat Motivation *and* have received your Extrinsic Reward, there is often a very high chance you will leave the game for more “empowering” environments.

Like anything, there’s a right way to design something, and a wrong way to design something. Ideally, if you use variable rewards, you should make sure the action to obtain them is relatively short and easy, such as pulling the lever on a slot machine or refreshing your Facebook home feed.

If I told you, “Can you please bring me my crystal ball that’s lying on the couch? There’s a chance I might give you a surprising reward when you do.” Since the Desired Action is fast, my variable reward offer sounds intriguing, especially compared to just stating what the reward will be. If I asked you to get my crystal ball from the other side of town, the intrigue factor would be diminished and you would be less inclined to take this protracted action for me. Of course, if you consider me of high status and want to gain my liking, Core Drive 5: Social Influence & Relatedness might still be a

motivating factor for you to take the Desired Action.

If you must drag out the Desired Action, it would be advisable to make sure all of the variable rewards are appealing to the users, and that the user knows that up front. If I promised my employees a free vacation either to Italy, France, or Denmark if they worked hard for a year, that likely would be much more appealing than being completely vague with what the reward might be. In this case, there is sufficient information for the employees to get excited about the reward. Perhaps they would even stay in the company for longer in anticipation of finding out which of the vacation options are finally offered.

3. Add more Meaningful Choices and Feedback

Since I mentioned that adding unpredictability into your experience utilizes Black Hat Core Drives, you may wonder about how to make an experience more intrinsic through White Hat methods. I've mentioned a few times that Core Drive 3: Empowerment of Creativity & Feedback sits at the top right of the Octalysis Framework, representing the “golden corner” of being both White Hat and intrinsic in nature. It is the Core Drive where the process becomes “play” and generates evergreen mechanics that keep a user engaged. Unfortunately, it is also the most difficult Core Drive to implement well.

In your own experience design, you want to make sure that users are able to make as many Meaningful Choices as possible to reflect their style, preference, and strategy (recall that this is done with the “Plant Picker” Game Technique).

If a hundred users go through your experience and all hundred take the exact same actions to achieve the Win-State, there are no meaningful choices present for the user to express their creativity. If thirty of those hundred take one path, another thirty take a second path, and the last forty take a third path to reach the Win-State, a

greater feeling of having meaningful choices will be present.

If all hundred users played the game differently and still ended up reaching the Win-State, your experience will have been successful in generating an optimal meaningful choice design.

If you asked a hundred children to build something great with a box of Legos, it is almost statistically impossible that any two will build the same thing (outside of kids copying each other) in the exact same order. There is a high sense of Core Drive 3: Empowerment of Creativity & Feedback with this type of experience.

You should ask yourself, “Is there a way to allow my users to take multiple routes but still reach the same goal? Are there places that I could allow them to make meaningful choices to craft their own experiences?” These are often difficult questions to answer. But if you can address them with insightful design mechanics, you will see a great deal of value in the form of enthusiastic, loyal, and engaged users that are glued to the experience - from Onboarding all the way into the Endgame Phase. And remember, in order to be successful, this must go beyond providing a shallow *perception* of choice.

Also keep in mind, our brains hate it when we have no choices, but we also dislike having too many choices. The latter leads to decision paralysis and ultimately makes us feel stupid. This is an Anti Core Drive within Core Drive 2: Development & Accomplishment, which I also call the “Google+ Problem.” In Google+, there is an impressive amount of technology and engineering hours behind each feature, but users feel lost, powerless, and end up leaving quickly. You should avoid this by letting users choose between two to three meaningful options at any given point so they feel empowered without being overwhelmed.

Don't forget the Boosters!

Finally, designing multiple Boosters as your rewards increases strategy and creative play within an experience. If users can choose

different paths to obtain different power-ups that work together towards different goals, they can optimize on what combinations to use and paths to take.

The biggest innovation introduced by the iconic game Megaman (known as Rockman in non-American companies) in 1987 was that it allowed players to pick which stage and boss they want to challenge. This was contrary to the traditional linear design where players challenge through Stage 1, Stage 2, Stage 3 sequentially⁵⁹.

Besides allowing each player to play the game differently each time they come back (this was before games could “save” their progress), it allowed players to strategize their own optimal path to play the game based on booster abilities along the way. When Megaman defeats a boss, he absorbs the boss’ ability and is allowed to use that ability on other stages and bosses. Some abilities are perfect solutions to other bosses and scenarios, which incentivize the players to carefully pick which bosses they want to fight early on and which bosses to fight later.

In the real world, when you see people figuring out how to take multiple layovers to maximize their Airline Miles points, signing up for various credit cards to optimize spending and rewards, or collecting a variety of coupons to reduce a \$20 item to \$1, you are seeing strong implementations of Core Drive 3: Empowerment of Creativity & Feedback in making Extrinsic Rewards more intrinsically motivating. The end reward is often nice (Core Drive 2 and 4), but it is often the *process* of strategizing and optimizing that is truly engaging the individuals.

⁵⁹Wikipedia Entry, “Mega Man”: <http://www.yukaichou.com/megaman>. Accessed 02/09/2015.

Left Brain vs Right Brain Core Drives: the Bigger Picture

When you want to hook users into trying your experience, extrinsic rewards via Left Brain Core Drives work fairly well. However, most gamification campaigns see immediate results from these efforts and end up sticking with the same techniques continuously, which ultimately leads to a stale and stagnant experience. This results in overjustification, dwindled motivation, and even burnout. It is very important to quickly transition into Right Brain Core Drives and start implementing elements such as Meaningful Choices, Social Bonding, Refreshing Content (Game Technique #73), and Variable Rewards into the experience. Failure to do so will threaten the long-term success of a campaign.

Beyond that, it is also critical to consider the full implications of implementing various White Hat and Black Hat Core Drives, which we will cover in more depth in the next chapter.

To get the most out of the book, Choose only ONE of the below options to do right now:

Easy: Try reciting the Left Brain Core Drives and Right Brain Core Drives without looking at any cheat sheets.

Medium: Think about how a company has engaged you through Left Brain Core Drives in the past by offering you a reward, and contemplate whether it affected your overall enthusiasm about the company itself after the reward campaign was finished.

Medium: Think about how you can add at least one of the Right Brain Core Drives into a project you have done in the past or are currently doing. Would that have improved motivation and engagement for the tasks themselves?

Hard: Try to design a full engagement campaign that lures users

in with the Left Brain Core Drive of giving them a reward (Core Drive 4), and then start making users feel accomplished (Core Drive 2) while dangling new unlockables within the experience (Core Drive 6). Then transition into the Right Brain Core Drives by giving users Group Quests (Core Drive 5) that utilize plenty of creativity, meaningful choices, and boosters (Core Drive 3). Upon each Desired Action, serve them unpredictable rewards or content (Core Drive 7). After going through this design practice, do you feel a better grasp of all the things you can do when mastering the 8 Core Drives?

Share what you come up with on Twitter or your preferred social network with the hashtag #OctalysisBook and check out what ideas other people have.

Practice with a Buddy

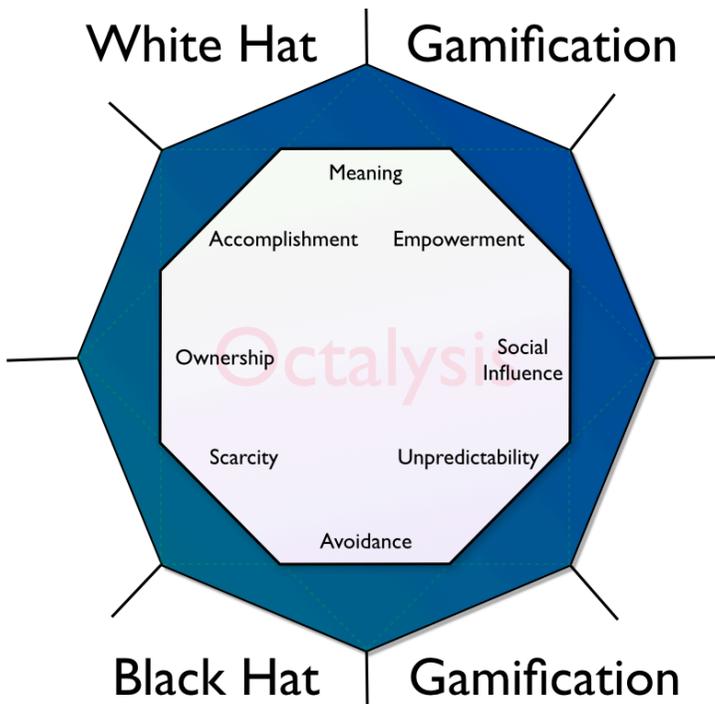
Now that you have acquired a great deal of Octalysis knowledge (and I assume you still feel very positive about it since you have read all the way up to this chapter), it's time to practice explaining it to others. Part of using any knowledge is how well you can persuade and explain it to others. I've learned early on in my consulting career that it doesn't matter if become the best at what you do and if you can help people increase client metrics - if you can't emotionally persuade your value, all that knowledge becomes worthless. If you want your manager, your university Dean, your engineers, or your significant other to understand and cooperate with your new design skills (whether you call it Gamification or not), you better know how to communicate it well and convincingly.

Find someone who you trust (and won't look down on you if you mess up and sound unorganized) and practice telling them about the concept of Human-Focused Design (as opposed to Function-Focused Design), the 8 Core Drives, and differences in the nature of various Core Drives. Think about which Core Drives you should use to communicate these concepts (maybe some Unpredictability? Scarcity? Social Influence? Epic Meaning?). Observe if the person

becomes truly emotionally excited about it, interested but mostly because you are a friend, or bored but still being polite about it.

Another great place to find an Octalysis Buddy is the Octalysis Explorers Facebook Group. If you haven't joined the group yet, consider doing so and find one other person to learn/practice together. As we have learned in Core Drive 5, collaborative play makes everything even more intrinsically meaningful.

Chapter 14: The Mysteries of White Hat and Black Hat Gamification



In the last chapter, we looked at how Left Brain Core Drives and Right Brain Core Drives differ in the *nature* of their motivation as well as their design methodologies, resulting in various short-term and long-term effects.

In this chapter, we will examine the fascinating intricacies of White

Hat and Black Hat Core Drives, and how to balance them within a design.

The White Hat Core Drives are represented by the Core Drives at the Top of the Octalysis diagram:

- Core Drive 1: Epic Meaning & Calling
- Core Drive 2: Development & Accomplishment
- Core Drive 3: Empowerment of Creativity & Feedback

The Black Hat Core Drives are represented by the Core Drives at the Bottom of the Octalysis diagram:

- Core Drive 6: Scarcity & Impatience
- Core Drive 7: Unpredictability & Curiosity
- Core Drive 8: Loss & Avoidance

Origins of the Theory

Up to this point in the book, you should have a fairly good understanding of how White Hat and Black Hat Core Drives function. In this chapter we will discuss when and how to use them for optimal motivational systems.

Though every single Core Drive in the Octalysis Framework has been researched and written about individually (including the differences between intrinsic and extrinsic motivation), I believe my work on White Hat versus Black Hat Gamification theory is fairly original and provides a unique design perspective.

I began developing the White/Black Hat concepts while I was studying the Endgame Phase of different games. I became curious as to why the majority of successful games were obsessively addictive for many months, and then experience a huge user dropout with large numbers of players moving on with their lives.

On the other hand, I looked at how a few games such as Poker, Chess, Mahjong, and even Crossword Puzzles stood the test of time and never got old for their players. Video games like Starcraft, World of Warcraft, Defense of the Ancients (abbreviated as DotA⁶⁰, eventually spinning off the even bigger hit, League of Legends⁶¹), and re-skins of similar shooting games like Counter Strike⁶² or Call of Duty⁶³, continue to be popular and engaging no matter how many years a player plays them.

Upon further research and observation, I realized that there was a big difference in how these games were designed and what Core Drives motivated their users in the late Scaffolding and Endgame Phases. It seemed like the games that go viral but then have shorter shelf-lives utilize Core Drives that create obsession, urgency, and addictiveness. Players would become glued to the game but then towards the Endgame Phase, the joy and fun no longer persists as strongly, yet the player mechanically continues to grind through many hours “laboring” through them. Due to the Sunk Cost Prison covered in Core Drive 8, players feel demoralized, but are unable to quit.

Eventually, some people do find the strength to finally quit and move on with their lives. This is perhaps due to important responsibilities, or shift to newer games that hit them hard with epic Discovery Phase marketing. Once that happens, Social Influence & Relatedness dictates a big exodus of people finally leaving the game, in hopes of finding that joy and passion again.

But for the games that are quite timeless (until their own sequels come out), when players are in the Endgame phase, there seems to be a continuous sense of wellbeing and satisfaction, just like the joy one has when playing an instrument or being called to a purpose. Based on this research, I started labeling a few Core Drives

⁶⁰Wikipedia Entry, “Defense of the Ancients”: <http://www.yukaichou.com/dota>

⁶¹Wikipedia Entry, “League of Legends”: <http://www.yukaichou.com/LoL>

⁶²Wikipedia Entry, “Counter Strike”: <http://www.yukaichou.com/CS>

⁶³Wikipedia Entry, “Call of Duty”: <http://www.yukaichou.com/CD>

“White Hat” and a few others “Black Hat,” which borrows from my background knowledge in SEO (Search Engine Optimization⁶⁴).

In Search Engine Optimization, “White Hat SEO” refers to designing and promoting your site the way search engines like Google intend you to do. As a result, they rank your site highly when users search for related terms. “Black Hat SEO” on the other hand refers to methodologies that dishonestly exploit the rules, rigidity, and weaknesses of the search engines to get your site highly ranked.

Needless to say, search engines hate Black Hat SEO, and have massive teams of engineers that continuously make the engines smarter and harder to exploit, while severely penalizing any website that is caught utilizing Black Hat SEO techniques. Sometimes the search engine companies even ban websites completely off their search results, defeating the purpose of the Black Hat SEO in the first place. In the realm of SEO, just don’t do Black Hat – it’s not worth it.

Unfortunately, our brains cannot continuously update themselves to become harder to exploit like Google can. Nor can we as efficiently blacklist people who constantly apply black hat motivation techniques on us (nor do we want to, since some of them have good intentions that ultimately benefit us). The end result is that we become subconsciously motivated by things that make us stressed, worried, and obsessed, while feeling that we are not in control of ourselves.

The Nature of White Hat vs Black Hat Core Drives

White Hat Core Drives are motivation elements that make us feel powerful, fulfilled, and satisfied. They make us feel in control of our own lives and actions.

⁶⁴Wikipedia Entry, “Search Engine Optimization”: <http://www.yukaichou.com/SEO>

In contrast, Black Hat Core Drives, make us feel obsessed, anxious, and addicted. While they are very strong in motivating our behaviors, in the long run they often leave a bad taste in our mouths because we feel we've lost control of our own behaviors.

The advantages of White Hat Gamification are obvious and most companies who learn my framework immediately think, "Okay, we need to do White Hat!" They would mostly be right, except there is a critical weakness of White Hat Motivation: it does not create a sense of urgency.

For example: if I approached you with great enthusiasm and exclaimed, "Go out and change the world today!" You may become very excited by this Core Drive 1 trigger and may echo, "Yes! I'm going to go out and change the world! But I'm going to first have a nice breakfast, brush my teeth, and get prepared for the day!" As you can see, there is no urgency with this level of White Hat excitement.

However, if I took out a gun and pointed it at your head, while quietly whispering, "Go out and change the world, or I'm going to kill you" - you are still likely to "change the world," but you are probably not going to enjoy your nice breakfast or brush your teeth while being pushed by my threatening Core Drive 8: Loss & Avoidance motivation.

Of course, at that point you also no longer *feel* good about changing the world. Once you can leave my grasp, you will likely stop caring and drop the noble cause altogether. That is, unless the Epic Meaning & Calling regenerates from within.

Black Hat Gamification creates the urgency that system designers often need to accomplish their goals and change behavior. Often this cannot be accomplished through White Hat Gamification alone.

If a company simply implements White Hat Gamification while the user is constantly exposed to Black Hat stimuli from other sources such as email, appointments, or distractions from Facebook, they will most likely not have the opportunity to test out the

experience. Of course, this user will feel terrible also, because they will continue to procrastinate instead of doing the things that are more meaningful and make them feel good. Unfortunately, because of the nature of Black Hat motivation, they will continue behaving that way nevertheless.

Zynga and Black Hat Gamification

My theories on Black Hat vs White Hat Gamification can often be utilized to explain or predict why certain companies are successful or fail at different stages.

One such example is the social gaming company Zynga⁶⁵, which is known for games such as Farmville, Words with Friends, and Zynga Poker.

Zynga has mastered how to implement all sorts of Black Hat Game Techniques – of course, they don't have a framework to think about the techniques as "Black Hat." Instead, they consider it "Data-Driven Design"⁶⁶, which on the outset seems to be extremely clever and legitimate. Because of the Black Hat designs, all their immediate metrics looked good: Monetization, Viral Coefficients, Daily Active Users, User Addiction, etc. However, because people don't *feel* good playing Zynga games after awhile, when they *can* drop out of the system, they will.

This is especially true for the late Scaffolding stage as well as the Endgame phase, since all the novelty, creativity, and true sense of development run out during these phases. This makes it even harder for all their new re-skinned games - basically Farmville in a city, in a castle, in kitchen, and so on, to become long-term successes. When that happens, it is almost like the users are still playing the same Endgame – right in Onboarding phase!

⁶⁵Zynga Official Website: zynga.com

⁶⁶Mike Williams. Gamesindustry.biz. "Zynga's high-speed, data-driven design vs console development". 08/06/2012.

Because of these Black Hat mechanics, users quickly get tired if they have already been burnt out by the last Zynga game. Farmville 2 was doomed from the start unless they could implement much better White Hat designs into it to ensure long-term success.

Early in 2014, Zynga proved my Octalysis theories accurate when they decided to “double-down” on Casino Slot Machine games like *Riches of Olympus*⁶⁷. Of course, since they were committed to stick with Black Hat game design (which shows quick data-driven results), the only long-lasting engagement element they could use was the Right Brain Core Drive 7: Unpredictability & Curiosity. Nonetheless, even if a person were addicted to gambling, they don’t feel awesome about themselves and their activities. This could still lead to later burnout.

In a Venturebeat article that accompanied the *Riches of Olympus* launch, the journalist Jeffrey Grubb asked then Head of Zynga’s Casino franchise, Barry Cottle, what he meant when he said Zynga was focusing on “quality in experiences and excellence in execution.” Cottle explained that Zynga wanted to make things that look and feel good. Cottle specifically brought up the game *Candy Crush Saga*, which “has a simple puzzle mechanic that players respond well to due to the extra animations and special effects.”⁶⁸

If Zynga thinks extra animations and special effects is what made *Candy Crush* successful, it’s no wonder they have their own graves dug out as a “game design company.” If extra animations and special effects are so important, why would a game like *Minecraft* become so successful? The graphics for *Candy Crush* aren’t even that stunning, compared to other games that look similar but don’t have even a tenth of *Candy Crush*’s success.

If you have been an active student of the Octalysis Framework, you will know that the reason why these games became so popular

⁶⁷Jeff Grubb. *VentureBeat.com*. “Zynga sticks with what works: *Riches of Olympus* is its next mobile slots game”. 02/06/2014.

⁶⁸*Ibid.*

was due to their ability to retain Core Drive 3: Empowerment of Creativity & Feedback for the longest time. Most Zynga games do not have long lasting Core Drive 3, and therefore engagement will wane.

Of course, the two games that are consistently top-ranking within Zynga are *Zynga Poker* and *Words with Friends*⁶⁹. If you notice, since they build on already timeless game designs like Poker and Scrabble⁷⁰, Zynga accidentally copied sound Core Drive 3 design without necessarily recognizing it. Both games elicit a higher level of strategy and problem-solving that other Zynga games lack. As a result, they demonstrate long-term success well into the Endgame.

With a good understanding of White Hat and Black Hat game design, you can begin to analyze and predict the strengths and longevity of any motivational system. If there aren't any Black Hat techniques, it is likely there won't be any breakout success; if there aren't any White Hat techniques, users will quickly burn out and leave for something better.

According to the Octalysis Framework, Zynga will never achieve long-term success unless they start building in more White Hat game techniques and continue to empower their users. Instead of putting so much emphasis on Black Hat manipulative techniques, they should design for more long term engagement.

Black Hat with a Clear Conscious

I want to clarify here, that just because something is called “Black Hat Gamification” doesn't mean it's necessarily bad or unethical. Some people voluntarily use Black Hat gamification to force themselves to live healthier and achieve their short term and long term goals. I would personally love to be addicted to eating more

⁶⁹Words with Friends Page: zynga.com/games/words-friends

⁷⁰Wikipedia Entry: “Scrabble”: <http://en.wikipedia.org/wiki/Scrabble>

vegetables or confronting the tasks that I tend to procrastinate on. The point of it being called Black Hat is that, once designed well, we are more compelled to take certain actions quickly without feeling completely in control.

However, whether it is “good” or “bad” depends on the intentions and final outcome of those actions. We could use Black Hat designs to motivate people towards good behaviors or we could use Black Hat designs to motivate people towards evil. Similarly, some of the most infamous people in history motivate others with Core Drive 1: Epic Meaning & Calling (among other Core Drives) towards evil and genocide, even though the *nature* of the motivation itself is White Hat.

An example of Black Hat Motivation towards good behaviors is the SnuzNLuz⁷¹ alarm clock app. SnuzNLuz automatically donates the user’s money to a non-profit they hate if they hit the snooze button (the “wake me up 10 minutes later” button - for my foreign readers).

A more visually compelling (but illegal) concept is the Shredder Clock⁷², which physically destroys your money when you press the snooze button.

⁷¹John Balz. *The Nudge Blog*. “SnüzNLüz: The alarm clock that donates to your least favorite charity”.

⁷²Charlie White. Mashable.com. “Money-Shredding Alarm Clock Is Completely Unforgiving [PICS]”. 05/29/2011.



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In these products, people are waking up because of Core Drive 8: Loss & Avoidance – they don't want to lose their money, especially to a non-profit they hate! (The SnuzNLuz also has a weird Core Drive 1 angle, as it does donate to a non-profit for a cause)

But people are okay with this Black Hat design, because it's for a goal *they* want. They are fine with designs that compel them to do things that they intend to do already but lack the willpower to do so.

What people hate is when companies, governments, instructors, or marketers utilize these Black Hat techniques to get them to buy things they don't need, succumb under tyranny, work overtime, and get grades they don't care about. Keep in mind that these people will often still perform the Desired Actions because, again, these tendencies are obsessive and/or addictive. They just won't feel good about the actions and will burn out or revolt as time goes on.

⁷³Charlie White. Mashable.com. "Money-Shredding Alarm Clock Is Completely Unforgiving [PICS]". 05/29/2011.

Gamification, Manipulation, and Ethics

During my conference talks, I regularly get questions from people who ask me whether gamification is a form of manipulation and therefore unethical to use. While there is no “correct” answer on this topic, and while the focus of this book is on effectively designing for behavioral change rather than ethics, I will attempt to share my own thoughts on the issue.

My quick answer: yes, gamification is a form of manipulation. However, even though “manipulation” is a strong word with immense negative connotations, we regularly accept it in our daily lives and even expect it.

If you think about it, saying “please” is a form of manipulation. You weren’t going to do something for your friend, but your friend said “please” in a sincere manner (Core Drive 5), and even though nothing tangible has changed about the transaction, you now willingly and happily agree to do it for them.

That’s *manipulation*.

And when your friend says, “Thank You,” that’s an emotional reward that makes you feel like the action was worth it. If your friend offered you payment (somehow paying someone to do the activity is one of the only ways that people don’t complain as “manipulation” these days), you may even become offended.

And in our society, we don’t seem to have a problem with people saying “please” and “thank you.” In fact, we expect that, teach that, and get mad when people don’t do it. It makes our brains happy and improves our quality of life. We enjoy that sort of manipulation.

When you want your employees to work harder and you transform the work to become a lot more interesting and engaging (as opposed to paying them more) – is that exploiting them? What about providing them a stronger sense of purpose, accomplishment or autonomy?

I have a litmus test to determine whether gamification or human-focused design is ethical or not:

- a) Is there full transparency on its intended purpose?
- b) Does the user implicitly or explicitly opt-in to the system?

If you have an extremely charismatic friend who is trying to persuade you to go to a party that you are not interested in, you may reject him with a smile. He will then pour in a lot more energy, saying something like, “Come on! Everyone’s doing it! You got to show up!”

Even if you still didn’t want to do it, you are starting to be persuaded. But in no way do you think your friend is being unethical in doing so. There is full transparency in what he is trying to get you to do. You also “opt-in” by allowing your friend to persuade you, especially when you turn him down with a smile. You may or may not change your mind, but because there is transparency in his intention and you’ve opted-in to his continued persuasion, you don’t feel negatively manipulated.

However, I believe that gamification is completely unethical when there is a hidden agenda that users are not aware of. For example, when users think they are signing up for something, but in reality they are signing up for something else. False statements, lies, and a lack of authentic transparency create unethical interactions.

As a stunning example of whether transparent manipulation is bad, consider the field of hypnotism. Hypnosis can be considered the ultimate form of manipulation because, supposedly, once hypnotized, a person is fully compliant with whatever the hypnotizer wants them to do.

However, it is not generally considered unethical because a) there is transparency in what the hypnotizer is trying to accomplish, and b) the person fully opts-in to being hypnotized.

At the end of the day, gamification is not mind control. When we see amazing case studies where gamification increased conversions

by 100%, it's often only where these metrics increased from 8% to 16%. A crushing 84% of the users can and still choose to not engage with the Desired Actions. If an action does not create emotional or physical value for someone, they still won't do it. But good gamification design motivates those who are on the fence - those who are interested with the end-results but need a bit more motivation to push through.

The people who don't want a service to begin with won't sign up (unless the marketing is being dishonest). Just as you don't have to agree with people who say "please" to you, nor do you have to finally consent to your charismatic friend who is persuading you to do things you hate. If you truly don't want to go to your friend's party, you still won't do it.

When to Use White Hat Gamification Design

Because of their natures, there are dominant strategies to determine when and how to use either White Hat or Black Hat gamification. Since employee motivation and workplace gamification are about long-term engagement, companies should use White Hat designs to make sure employees feel good, grow with the enterprise, and are there for the long haul.

Workplace gamification is often about the top three Core Drives in Octalysis: creating *meaning*, providing a path to mastery, and ensuring meaningful autonomy. You may identify these as components of Self Determination Theory⁷⁴ and the concepts within *Drive*⁷⁵, which we will cover in more detail in the next chapter.

Most large corporations make the mistake in believing that, because they pay their employees, their employees *have* to do their work

⁷⁴SelfDeterminationTheory.org

⁷⁵Daniel Pink. *Drive*. Penguin Group, New York, NY. 2009.

regardless of exploitive policies, unappreciative bosses, and bad workplace culture. As a result, employees only work hard enough to get a paycheck (Core Drive 4: Ownership & Possession) and not lose their jobs (Core Drive 8: Loss & Avoidance).

One company that challenged this trend is Google⁷⁶. Very early on, Google started with the assumption that every one of their employees was either an entrepreneur, or wanted to be an entrepreneur. As a result, if these employees did not feel “happy” being at Google, they would simply leave and start their own businesses instead, maybe even becoming a Google competitor.

Remember I talked about how Gamification is Human-Focused Design and that games were the first to master it because no one *has* to play a game? When you design an experience with the underlying belief that, the moment your experience is no longer engaging, people will leave your system - you will likely create much better Human-Focused Designs.

In the case of Google, they implemented many White Hat designs into their company culture.

The first thing Google did was implement Core Drive 1: Epic Meaning & Calling. Google is widely known for having the mission statement, “Organizing the world’s information and making it universally accessible and useful” as well as the catchy slogan, “Don’t be evil.” Because of that, many talented engineers felt that, “I could earn a paycheck anywhere, but at Google, I’m creating an impact in the world. Not only that, I’m part of the good guys, and that’s really valuable for me!”

In regards to Core Drive 2: Development & Accomplishment, besides the usual raises and promotions, Google realizes that not every engineer can become a manager, but every engineer needs to feel a sense of progress and development. As a result, they introduced

⁷⁶David Vise & Mark Malseed. *The Google Story*. P93-96. Random House, New York, New York. 2005.

eight levels of engineers so that engineers who either shouldn't or don't want to become managers can continue to "level up." In 2013, Google even introduced a ninth level titled "Senior Google Fellow," allegedly because they needed a way to give legendary engineer Jeff Dean a promotion⁷⁷.

In terms of Core Drive 3: Empowerment of Creativity & Feedback, we discussed in Chapter 7 how Google introduced 20% time, which allowed employees to spend 20% of their time to work on anything they wanted, as long as the intellectual property belonged to Google.

They also use some Core Drive 4: Ownership & Possession by allowing employees to take full ownership of their projects (and of course taking home nice paychecks too). They utilize Core Drive 5: Social Influence & Relatedness by creating a university-like campus and a workplace culture that makes laziness and stagnation highly undesirable and disparaged within their healthy social dynamics.

All these examples are White Hat influences that help their employees to be engaged in the long run. Unfortunately, there seems to be a weakening of Google's playful culture as Google becomes much larger and restructures their policies to be more like those of other large corporations that are more efficiently focused on profits.⁷⁸

When to use Black Hat Gamification Design

On the other hand, when people are doing sales or running eCommerce sites, they often don't care about long-term engagement and motivation (though they probably should). All they want is for the customer to come in, buy something as quickly as possible, and then leave.

⁷⁷Quora.com Entry: "What are the different levels of software engineers at Google and how does the promotion system work?"

⁷⁸Patrick Goss. TechRadar.com. "Page: 'more wood behind fewer arrows' driving Google success". 7/14/2011.

As a result, they often involve Black Hat Gamification techniques: “What’s going to be the surprise launch tomorrow? The chance to get this deal will expire in four hours. If you don’t buy, you will end up being worse off than others!”

In an earlier chapter we looked at how Woot.com became an extremely successful eCommerce site based on two Core Drives: Scarcity & Impatience, as well as Unpredictability & Curiosity. Because Black Hat gamification creates urgency, when you need someone to take immediate action or a transaction, Black Hat techniques often become the most effective solutions.

This dynamic also holds true for sales and fundraising. One of my clients, Morf Media, provides a gamified training platform designed to make SEC compliance training more engaging and fun for employees of financial institutions⁷⁹.

By nature, financial institutions are risk-averse (Core Drive 8), and they are not inclined to work with new technology companies. You can give them a great deal of White Hat motivation, and they will be interested, intrigued, even excited, but they will likely take forever to make a move because there is no sense of urgency to take on any perceived risk.

The key here is to convince the company that, none of their employees like doing SEC compliance training (hardly a difficult sell), and *every single day* their employees’ aren’t compliant increases their risk. Lawsuits are literally laid out ahead like land mines. In that sense, it is riskier to *not* work with Morf Media than it is to work with them. We’ve turned that Black Hat Core Drive 8: Loss & Avoidance around. (Note: we will likely explore the strategy and process of turning Anti Core Drives around in a future book).

⁷⁹Morf Media Website: morfmedia.com

Black Hat Motivation within Fundraising

In the realm of fundraising, I regularly get approached by startup entrepreneurs who are looking for some support to help them navigate fundraising from angel investors as well as venture capitalists (I also get approached by many investors, but on an entirely different set of motivational challenges - mostly White Hat).

The thing about investors is that they are generally motivated by the forces of greed and fear. The force of greed - the intense desire to make a billion dollars (Core Drives 2 and 4); the force of fear - the apprehension of losing all their money (Core Drive 8).

At the beginning, the entrepreneur may promote many great attributes about the company, appealing to the investor's sense of Core Drive 1, 2, 4 and even 5 if there is a good social proof. (Here you see the value of remembering the numbers for each Core Drive. Don't worry if you don't remember these numbers now, but just take note that they are mostly on the White Hat side of things.) The investor starts to show a lot of excitement, and the entrepreneur feels like the deal is sealed.

However, as the investor gets closer and closer to writing a check, the fear of losing all their money begins to preoccupy them, which is driven by Core Drive 8: Loss & Avoidance. They start to ask for more metrics, traction, and further social proof. Often, six months go by, and still no funding is committed.

From my personal experience, investors generally only close deals quickly when they are *convinced* that they will lose the deal if they don't commit. If an entrepreneur *convincingly* tells the investor that a lot of people are already in on the deal, and if the investor does not act this week the round will be full, only then will they finally react. Black Hat creates urgency and closes deals.

When I was trying to raise \$600,000 for my gamification startup

straight out of college⁸⁰, I found the experience to be extremely difficult and sobering. We were a very young team, and this “gamification” thing seemed like a half-baked crazy idea.

After struggling for awhile to raise a modest amount of money to keep our small team afloat, we were finally able to secure \$650,000 from three investors. At that point, I wrote an email to all our potential investors, who for over a year continually “wanted to see more” and “weren’t sure about this gamification thing.” I simply told them, “We are going to close the round, but thank you for your continuous (and non-existent) support!”

At this point, many of these investors who didn’t want to commit for an entire year suddenly responded with passion, enthusiasm, and even anger. “Yu-kai. I thought we agreed that I could invest this much money in your company. Why are you telling me that you are closing the round without me?” I was thinking, “Well, you kind of had an entire year to do that...” but they oddly made it seem like I was burning bridges if I didn’t take their money.

As a result, we tried to cap the round at \$800,000 instead of \$600,000, and we couldn’t do it. We tried to cap it at \$900,000 and couldn’t. We tried to cap it at \$1,000,000 and we still couldn’t. Finally, I capped the round at \$1,050,000, while rejecting some investor money, just to show that we were serious about the cap. (I’ve also heard this same experience retold many times by other entrepreneurs.)

This illustrates the irrational power of Core Drive 6: Scarcity & Impatience as well as Core Drive 8: Loss & Avoidance (while also serving as a fine example of the limits of White Hat motivation). All these “potential investors” clearly liked what I was doing. They were encouraged whenever I gave them good news. They saw that it could potentially make the world a better place. But they didn’t acted until they saw that the deal was being taken away from them.

⁸⁰If you are curious about some gamification companies I started during my younger youth, I document that in the post, “How Yu-kai Chou started in Gamification in 2003 and became a Pioneer in the Industry”: <http://www.yukaichou.com/lifestyle-gamification/started-gamification-2003/>

With White Hat motivation alone, people will always be intending, but never actually doing.

For the curious, eventually my startup launched RewardMe, a product that gamified the offline commerce experience. RewardMe was performing eleven times better than the numbers our closest competitors published. (Sorry - since these companies are still in existence, I won't cite sources here in respect to their current success.) Towards the end of my time there, we even closed a \$1.5 million sales deal with a national chain.

Startups are risky, and the unfortunate thing is, just having a stunning product doesn't mean a company will be successful. A few years after RewardMe's launch, we hit a combination of personnel, funding, and legal issues. I stepped down as the CEO, and eventually the company folded. If only I had my Octalysis knowledge back then, many things would likely be different, which is why I am hoping my readers learn these elements on motivation before they run into issues in their own companies.

Fortunately, by stepping down as the CEO of RewardMe, it freed up a lot of my time to further study gamification, human-focused design, and develop the Octalysis Framework.

Today, even though my Octalysis Group organization is becoming busier and busier, I'm a lot happier than when I was running a technology startup. That's because I am now mostly motivated by White Hat Core Drives, as opposed to the Black Hat Core Drives of constantly counting our runway before dying⁸¹.

⁸¹StartupDefinition.com Entry "Runway": *The amount of time until your startup goes out of business, assuming your current income and expenses stay constant. Typically calculated by dividing the current cash position by the current monthly burn rate.*

Bad Shifts from White Hat Design to Black Hat Design

When you switch from White Hat motivation to Black Hat Motivation, you need to make sure you understand the potential negative consequences. As an example, there was a day care center in Israel that had a problem with parents being late to pick up their kids. Researchers Uri Gneezy and Aldo Rustichini decided to conduct an experiment and implemented a test policy where parents would be charged \$3 every time they were late⁸².

Now a typical economist will tell you that this penalty would result in more parents picking up their kids on time because they don't want to lose money. However, the plan ended up backfiring - even more parents were now arriving late. Worse yet, when the daycare center realized this wasn't working and decided to remove the penalty fees, more parents *continued* to be late.

The plan backfired because they transitioned the parents' motivation from Core Drive 1: Epic Meaning & Calling (as well as Core Drive 5) to a weak form of Core Drive 8: Loss & Avoidance. Originally the parents tried to pick up their kids in a timely manner because they inherently wanted to be *good* and responsible parents. They also didn't want to burden the daycare center and its staff, so they tried earnestly to show up on time.

But when the daycare center put a monetary value on tardiness, it basically told parents that it was alright to be tardy as long as they paid the modest fee. Parents who were in business meetings or were preoccupied were therefore able to justify being late because a business meeting is worth more to them than the \$3. Loss & Avoidance against leaving that meeting early was more powerful than Loss & Avoidance for losing \$3.

Returning to the concept of proportional loss, we see that despite

⁸²Uri Gneezy and Aldo Rustichini. *Journal of Legal Studies* Vol. 29, No. 1. "A Fine is a Price". 01/2000.

Loss and Avoidance typically being a powerful motivator, the \$3 fee was just too low to properly motivate the parents in this situation. Remember I discussed about how when you use Loss & Avoidance, the loss needs to be threatening? If the daycare center charged a lot more than \$3, the Loss & Avoidance motivation would become more threatening and more parents would likely comply (begrudgingly of course, which would lead to switching day-care centers soon).

Currently, there are some daycare centers that charge a \$1 late fee for *every minute* the parent is late. This design actively gets parents to be on time more often. This is not only because the loss is more threatening, but also due to the parents feeling a combination of Core Drive 6: Scarcity & Impatience, as well as a bit of Core Drive 3: Empowerment of Creativity & Feedback since they feel a stronger sense of agency over end results.

Careful Transitioning between White Hat and Black Hat

So now that we've covered the nature and differences between White Hat and Black Hat gamification, how do we blend that knowledge together into our designed experiences?

In general (with some exceptions), it is better to first setup a White Hat environment to make users feel powerful and comfortable, then implement Black Hat designs at the moment when you need users to take that one Desired Action for conversion. At that point, users will likely take the Desired Action, but won't feel very comfortable. This is when you transition quickly back to White Hat motivation to make them feel good about their experience.

An example of this is seen in the previously mentioned game Battle Camp. In Battle Camp, there are often scenarios where you are in a "Troop" with twenty-four other players and the whole group needs

to battle a big boss. Typically, you would have eight hours to fight this boss, where everyone needs to come back every fifty minutes when their energy is recharged (remember this technique is called a Torture Break), and then use that energy to attack the boss.

At times, after seven and a half hours, the will boss still have 20% of his health, and you begin to realize that your troop will not be able to defeat him. At this point, you basically have two options. Option one: you lose to the boss, and twenty-five players all waste eight hours of their time, not to mention falling behind other troops that will be ranked much higher after they defeat their boss. Option two: spend \$10 and purchase more energy in order to beat the boss.

Because it is such a devastating event when everyone loses eight hours of their precious time, there is a fairly high chance that you will feel compelled to take option two - buy the energy needed to defeat the boss, especially if you were also the leader of the troop.

Now, we see that you were motivated by Core Drive 8: Loss & Avoidance when making this purchase – again, very compelling, but you feel fairly terrible afterwards. After you defeat the boss, if that was all and nothing special happened afterwards, you would feel pretty demoralized and perhaps subconsciously wished you weren't playing the game anymore.

However, this is when the game starts to shower you with White Hat Motivation by showing you how great of an achievement you accomplished (Core Drive 2: Development & Accomplishment), and the rewards or trophies you have obtained (Core Drive 4: Ownership & Possession) because you have beaten the boss. On top of that, your teammate will often start cheering for you (Core Drive 5: Social Influence & Relatedness), "Wow! You spent real money just to save our troop. You are our hero!" Being sprinkled by all this emotional confetti, people often start to think, "Hmm, maybe that was \$10 well spent after all!" And this eventually trains their brains to be more open to spending the next \$10 to buy energy and defeating the boss when necessary.

No Buyer's Remorse from TOMS

Similar to the Battle Camp example, businesses should consider creating an environment of White Hat motivations, use Black Hat techniques to convert users, and then revert back to a White Hat strategy to make users feel more comfortable again.

The initial White Hat environment is for people to take interest and have a good opinion of your system in the first place. A venture capitalist wouldn't want to invest in a startup if he didn't first consider it world-changing and a smart investment (Core Drives 1 and 2), even if there was convincing apprehension that he may lose the deal. (Oddly enough, some investors still plunge under the pressure of Scarcity and Loss, even though they have previously determined it to be a worthless idea with no future).

Once people feel comfortable in your system but aren't necessarily taking the strong Desired Action, such as making a purchase, you can then use the Black Hat techniques within Core Drives 6 and 8 (and sometimes Core Drive 5), to close the deal. If the user ends up buying the product, you want to reassure them that, if true, this is indeed the smartest purchase possible (Core Drive 2), that legions of others also made the same decision (Core Drive 5), and that it positively improves the world (Core Drive 1). This will likely ensure that customers don't feel buyer's remorse.

When you buy a pair of TOMS Shoes and begin to feel a little regret for making an expensive purchase, they hit you with reaffirming information on how your purchase has made a tremendous difference to a poor child in Africa - one who couldn't afford a pair of shoes and had to walk barefoot to fetch water for her family. When you see that, you instantly feel good again about your purchase. Subsequently, whenever you see your shoes, it will remind you that you are a decent human being that benefits the world.

It is the same thing with donations to children in developing countries. When you make a commitment, the non-profit will

continuously send you pictures, thank-you letters, sometimes even something written by the “adopted” child to make you feel that you have truly made an impact in their lives. Of course, there is nothing wrong with sending donors these pictures and letters for such a noble cause (unless they are falsely manufactured) as these donors are truly making a big difference in the lives of the less fortunate. In fact, it would be a mistake for any charitable organization to *not* show visual and social information on the impact they are making in the world. We would all like to see some Feedback Mechanics after taking Desired Actions.

As you design your experiences, never forget that if you want good Endgame design, you *must* immerse your users in White Hat Gamification techniques.

What about Core Drives 4 and 5?

You may have noticed that I mentioned Core Drive 4: Ownership & Possession and Core Drive 5: Social Influence & Relatedness a few times in this chapter (in a White Hat context), and may wonder where they fit into all of this. They are in the middle of the Octalysis model, so are they Black Hat or White Hat?

Generally speaking, Core Drive 4 and Core Drive 5 have the duality of being able to be either White Hat or Black Hat. Often with Core Drive 4: Ownership & Possession, owning things make us feel like we are in control, that things are organized, and our general well-being is improving. We feel powerful and enriched.

However, sometimes the stuff we own start to own us instead. You can imagine a person who buys an extremely rare vintage car, and then becomes afraid of taking it anywhere because he is afraid to damage it or rack up miles. At the same time, he also doesn't want to leave it at home because he's afraid it might get stolen.

There are also people who are so obsessed about building more

wealth that they neglect everything else that matters, such as family, health, and friendships. Then there are people who compulsively need to organize things to the point where they can't really focus on more important things that would bring them happiness. At that point, Black Hat starts to take over and the individual no longer feels good about their behavior, but simply does it because they feel compelled to do it.

On the other hand, for Core Drive 5: Social Influence & Relatedness, we obviously enjoy and have fun when hanging out with our friends, building strong friendships, and expressing appreciation for each other. Even if we are making friends to network and build our careers (which adds certain Left Brain Core Drives such as Core Drive 2: Development & Accomplishment as well as Core Drive 4: Ownership & Possession), we feel pretty positive about the experience.

However, sometimes peer pressure can cause some of the worst moments in our lives. When we feel pressured by our environment to behave in certain ways or get into fights with our loved ones, it starts to drive us crazy in a way that few other things can.

In fact, from time to time, social pressure is so strong that people end up committing suicide simply because they cannot endure the judgment of others. For these people, choosing to end their own lives is easier than confronting the situation, even when it is something as trivial as being afraid to go home and tell parents about a failed test. You can clearly see the Black Hat influences that can arise from Core Drive 5.

At the end of the day, each of the Core Drives wields a tremendous amount of power, and a designer must think carefully about designing for ethical purposes - to make sure there is full transparency towards the Desired Behavior, matched with the users' freedom to opt in and out. If this is not carefully done, gamification design will fail the promise of making life more enjoyable and productive, and it would simply become a source of misery and bitterness - and then

likely dropped altogether. No one wants that.

The cliché phrase is that, “with great power comes great responsibility.” When you understand how to motivate and change behavior, you can improve the world by helping others achieve *their* life, career, fitness, and relationship goals. Conversely, you can wield this knowledge to get people more addicted to harmful substances, create bad habits, and perpetuate broken relationships⁸³. Ultimately, when your experience design becomes extremely successful, you must look in the mirror and ask yourself, “Is this the impact I want to have in the world?”

To get the most out of the book, Choose only ONE of the below options to do right now:

Easy: Try to recite the three White Hat Core Drives and the three Black Hat Core Drives without looking at them. Are you able to explain their differences?

Medium: Think back on your own life and all the major decisions that you made: applying for schools, changing jobs, finding a significant other, moving to new locations. What Core Drives motivated you to make those decisions? Are they mostly for White Hat reasons, or Black Hat? Are you happier with the decisions that you made from White Hat Core Drives? Do you feel less comfortable with decisions that were driven by Black Hat Core Drives, but feel like you had little choice when the decision were made?

⁸³I myself was once approached by one of the world’s largest tobacco and beer conglomerates to run a few workshops with them. After discussing with my team, we decided that even though it would be a fairly lucrative relationship - if we were extremely successful at our jobs and more people became addicted to tobacco and alcohol, that wouldn’t be the impact we wanted to have in this world. We ended up turning that particular project down. Of course, we were also only able to do that because we were blessed with many great clients that more directly benefits society so we didn’t need to be driven by Core Drive 8: Loss & Avoidance.

Hard: Think of a campaign that you can design for your own project. Try to come up with ways to use White Hat Gamification to create motivation and desire, then switch to Black Hat Gamification to trigger important Desired Actions. Finally, understand how to transition user motivation back to White Hat Core Drives so they enjoy the experience fully and feel emotionally rewarded after committing the Desired Actions.

Share what you come up with on Twitter or your preferred social network with the hashtag #OctalysisBook and check out what ideas other people have.

Share your Life reflections.

If you picked the Medium Challenge above, share your life paths and choices as part of a self introduction to the Octalysis Explorers Facebook Group. Identify the Core Drives that motivated you along the way, and reflect on how you felt during those life choices. That way the community will get to know you better as well as learn a bit more about the 8 Core Drives through your experiences.

As you know, a community makes an experience engaging and fun, and it will make all the time you have invested into this book more fulfilling. Chances are, there will be others in the group that will also have similar life experiences and choices as you and can help you understand your life motivations more through the 8 Core Drives.