

50.033

Foundations of
Game Design
and Development

OCTALYSIS

The complete gamification
framework

WHAT WE HAVE LEARNED SO FAR

- **Introduction:** history, current trends, 100 rules of game mechanics
 - Informal ‘must-have’ rules according to popular beliefs, as an introduction to the course
 - Goal: to learn how to design a game
- The ‘**what**’: formal elements, rules, core game mechanics, and game genres:
 - Basic stuff about *what makes up a game*, *what types of games*, and *what types of players* are out there

WHAT WE ARE GOING TO LEARN

- The ‘**why**’: *Octalysis (today)*
 - Explains *why some games are successful*
 - and *why some people are attracted and / or addicted to certain games*

WHAT IS OCTALYSIS?

- Created by Yu-kai Chou
 - Gamification pioneer
 - Spoken as a speaker/lecturer at organizations such as Google, Tesla, Stanford University, LEGO, TEDx, and Boston Consulting Group
- Octalysis is a *gamification framework* - also known as human-focused or **behavioral design**

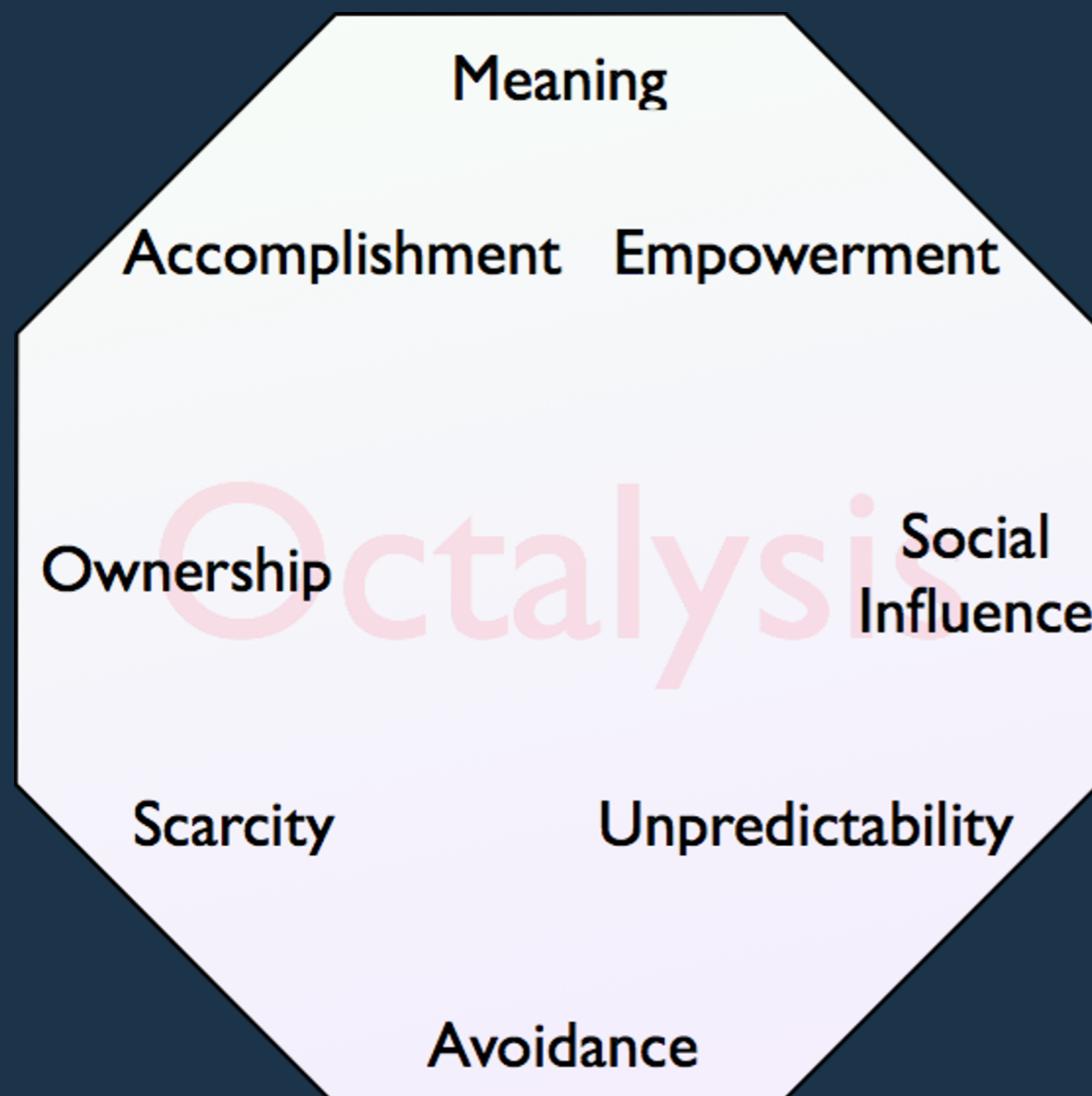
GAMIFICATION FRAMEWORK

- Gamification is the **craft of deriving** all the *fun* and *engaging* elements found in games and **applying** them to real-world or productive activities
- Framework: an **essential supporting structure**
- It is a **human-focused design**, as opposed to *function-focused design*
 - A design process that optimizes for human motivation in a system, as opposed to pure efficiency.

PURPOSE

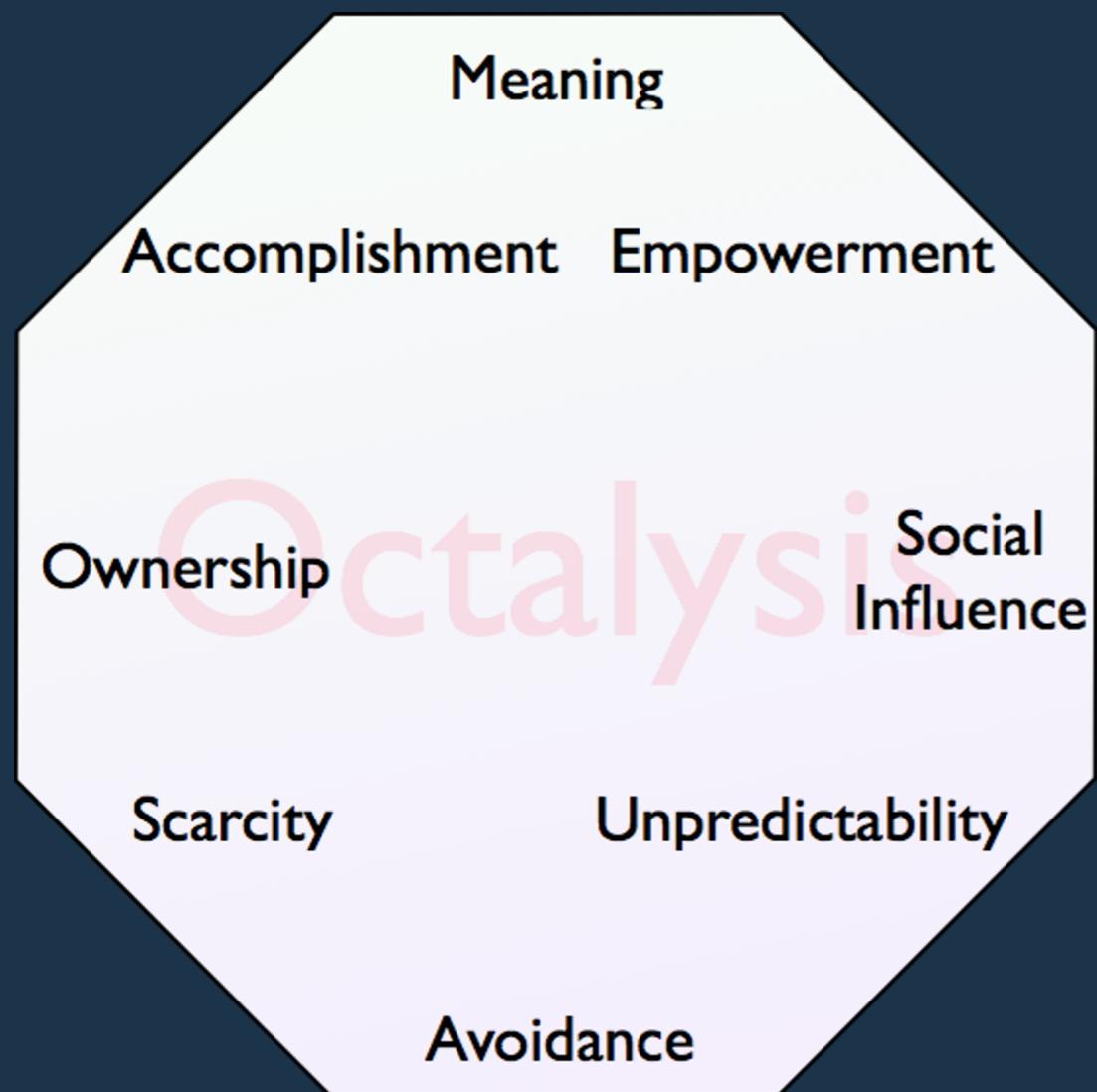
- To **analyze and build strategies** around the various systems that make a game **fun**
- Almost every game is fun because it **appeals** to certain *Core Drives* within us that **motivate us towards certain activities**
- Different types of game techniques push us forward differently: inspiring way / obsessive way / manipulative way / empowering way
- The author drilled down to find what differentiates one type of motivation to another
- Hence resulting in the gamification framework called the Octalysis

THE OCTALYSIS



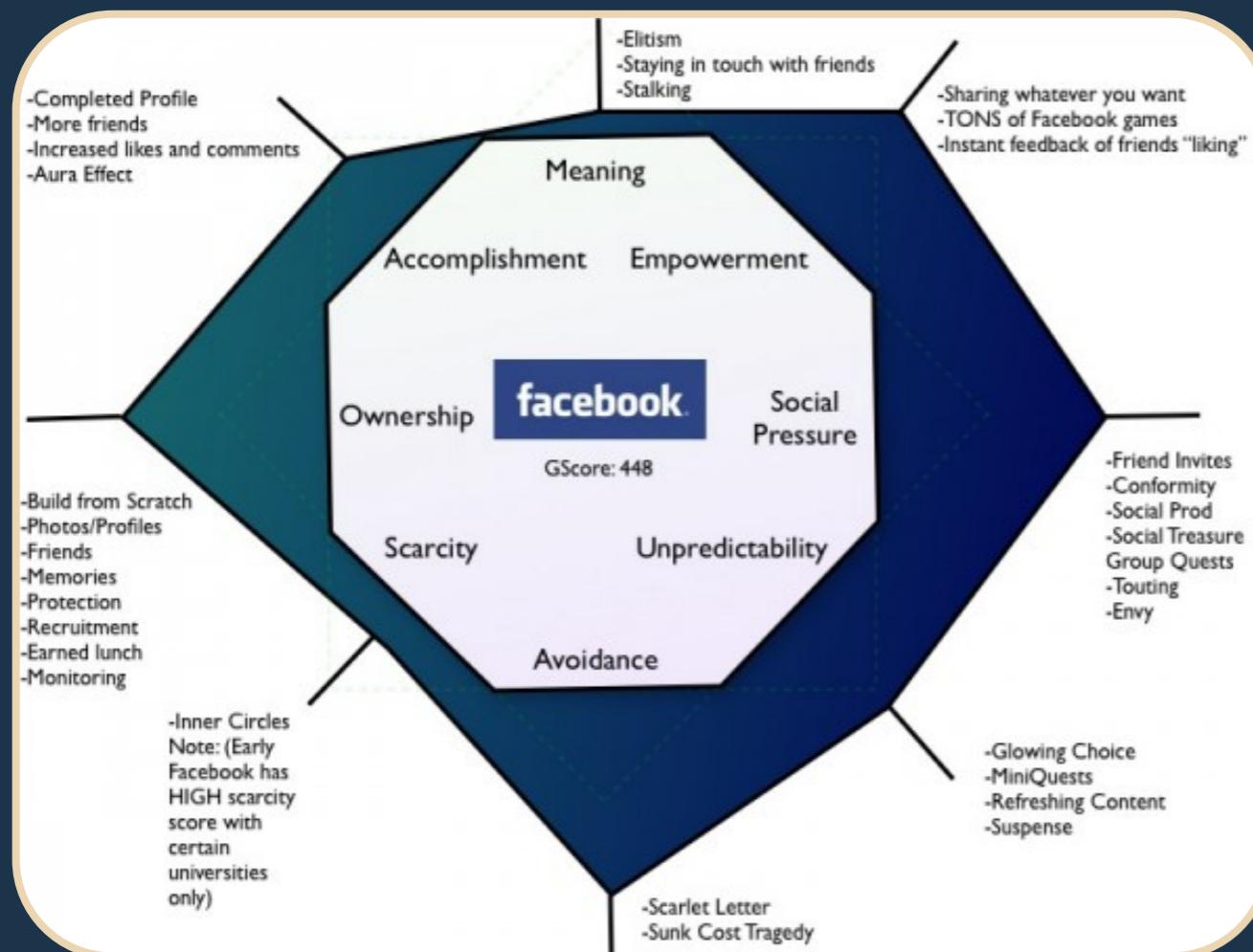
- Each side represents a Core-drive
- Recall: core-drive is what motivates us towards certain activities

THE OCTALYSIS



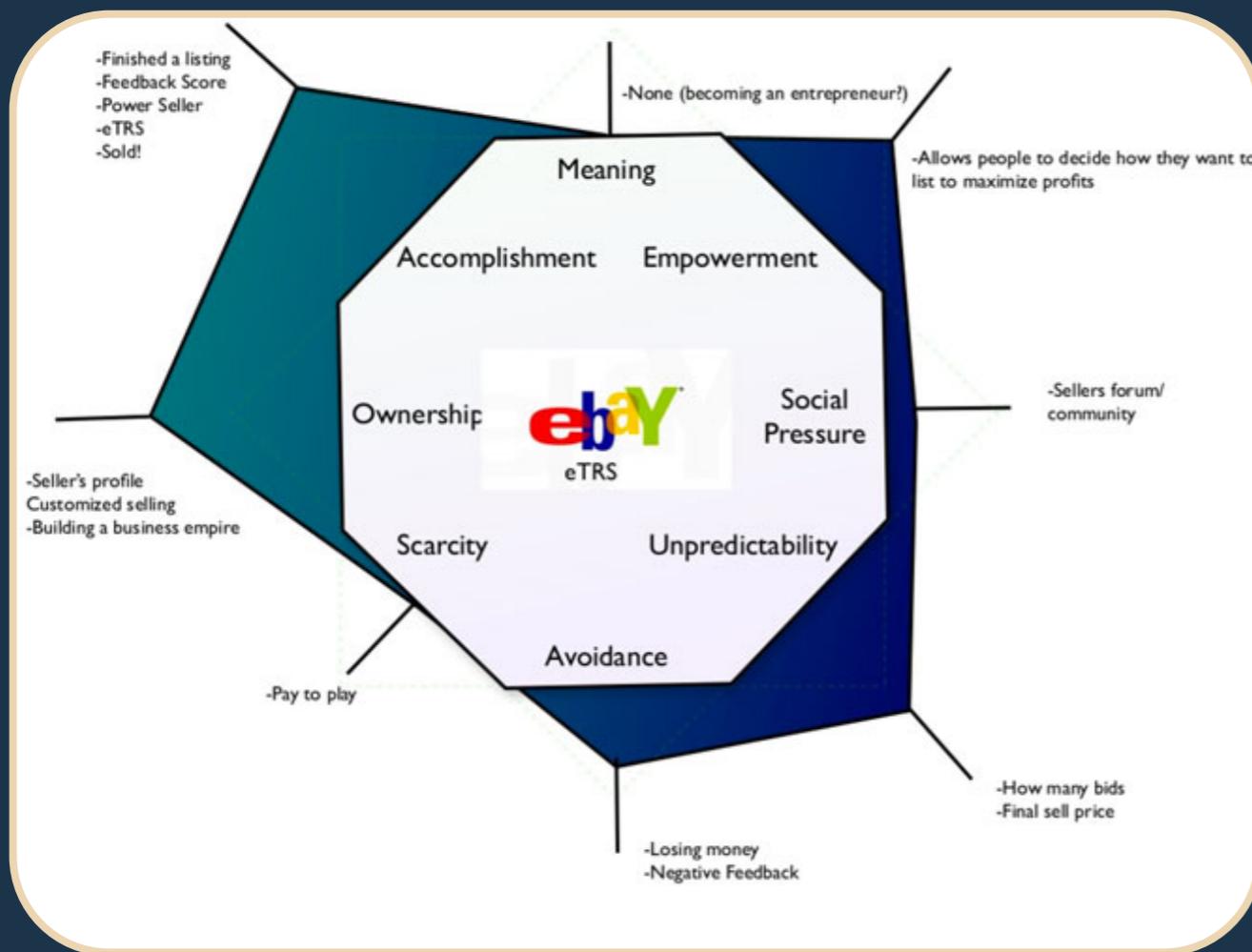
- Recall: "A **game** is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome." (Rules of Play, Salen & Zimmerman)
- We can stretch the definition see more things as a 'game', e.g: social media, life
- So, octalysis doesn't just apply to conventional video games or serious games

THE OCTALYSIS



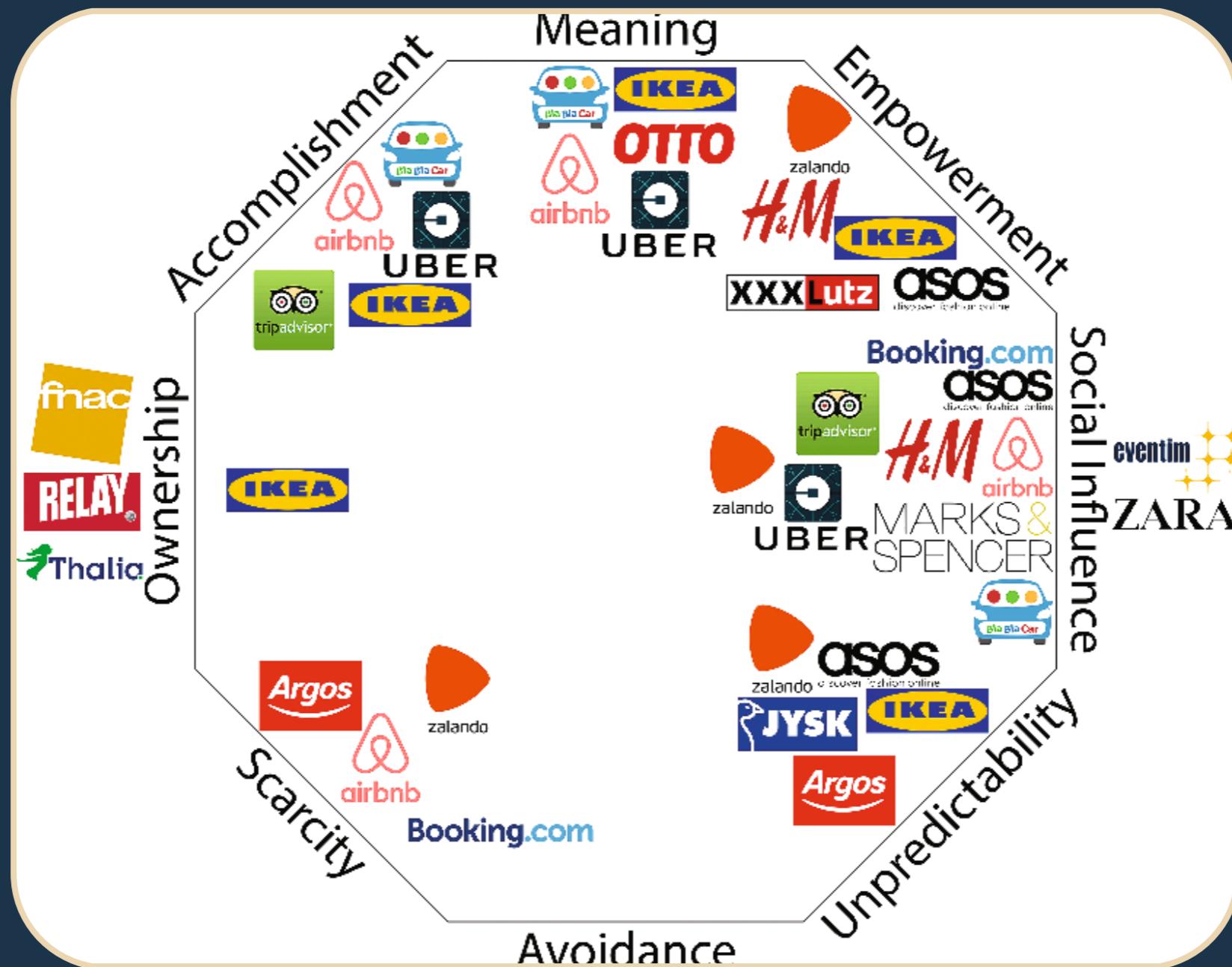
- Applied on Facebook
- Why do people use Facebook actively?
- Some are even *addicted*
- Biggest core-drives : **Social pressure, empowerment, avoidance, and ownership**

THE OCTALYSIS



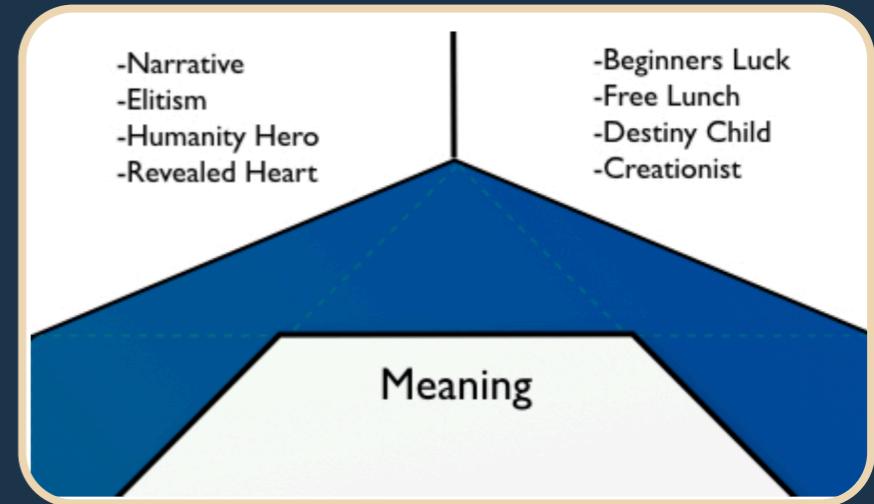
- Applied on Ebay
- Why do people use Ebay actively? (beside of course the functional / practical reason of buying stuff)
- Biggest core-drives : Ownership, accomplishment, and unpredictability

THE OCTALYSIS IN E-COMMERCE



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EPIC MEANING & CALLING



- *How this core drive works:*
 - When players believe that they are doing something greater than themselves or that they were “chosen” to do something (recall rule#46 raise the emotional stakes to maximize player involvement)
 - When players believe they have ‘Beginner’s Luck’

EPIC MEANING & CALLING

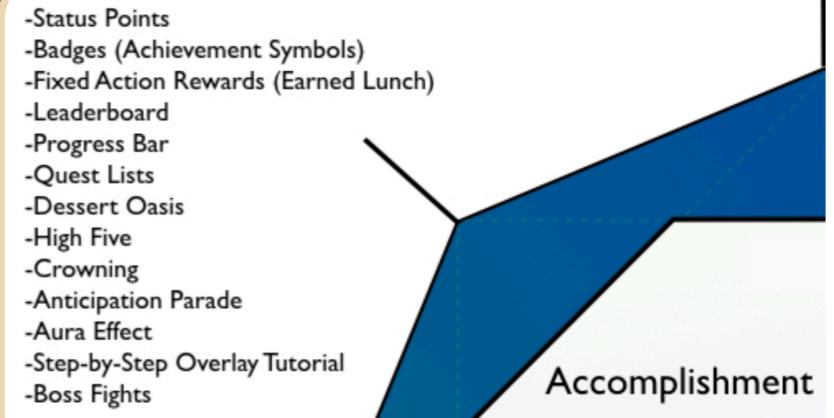


- Example of activities driven by this core drive:
 - Feeling emotionally affected by a game storyline
 - Devote a lot of his time to maintaining a forum or helping to create things for the entire community (Wikipedia / open source projects)



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DEVELOPMENT & ACCOMPLISHMENT



- How *this core drive works*:
- When players feel **internal drive** of making progress, developing skills, and eventually overcoming challenges

DEVELOPMENT & ACCOMPLISHMENT



- Example of activities driven by this core drive:
 - Keep doing challenges and collect badges or trophies to remind them of their achievements

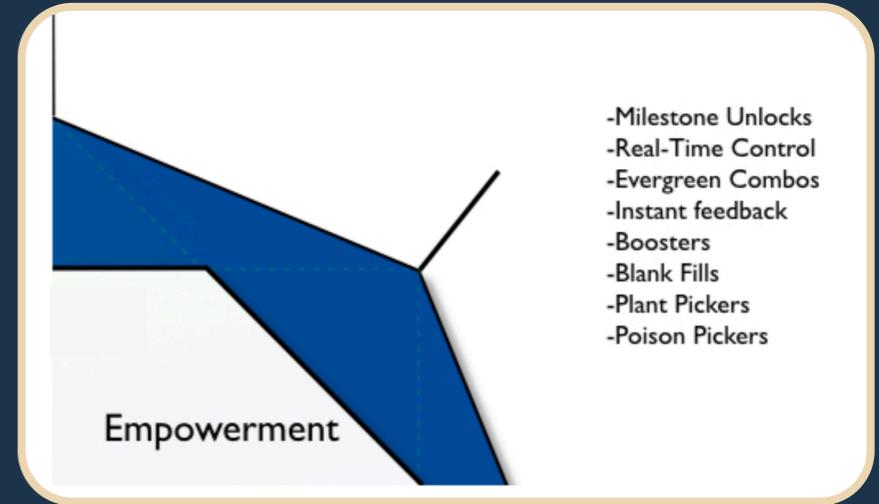
DEVELOPMENT & ACCOMPLISHMENT



- The word “*challenge*” here is very important, as a badge or trophy without a challenge is not meaningful at all (recall rule#62 make challenges require skill, rule#61 player should see their goal before they achieve it)

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EMPOWERMENT OF CREATIVITY & FEEDBACK



- *How this core drive works:*
 - When players long to receive (positive) feedbacks after they figure things out or display their creativity, so that they may feel smart (recall rule#59 make the player feels smart)

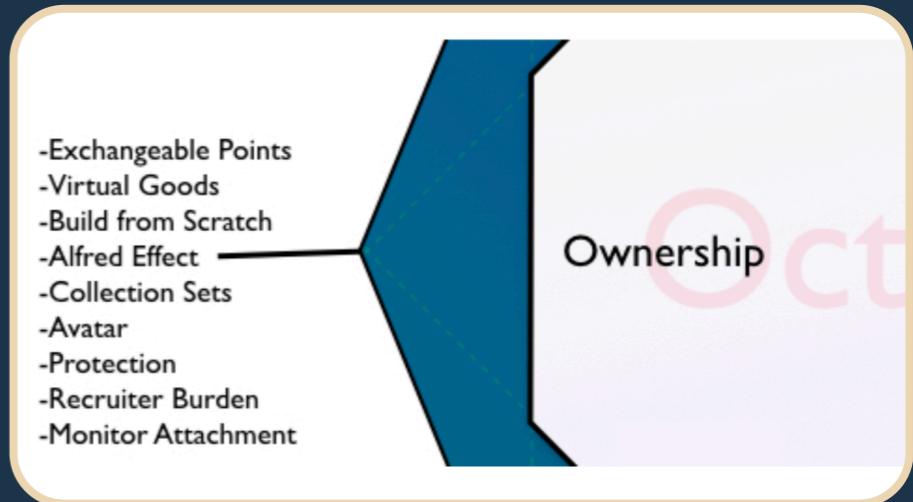
EMPOWERMENT OF CREATIVITY & FEEDBACK



- *Example of activities driven by this core drive:*
 - Activities where they can express their creativity, and also able to see the results of their creativity, receive feedback, and respond in turn (painting, playing legos, posting on Facebook)

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OWNERSHIP & POSSESSION



- *How this core drive works:*
- When players are motivated because they feel like they own something, and innately wants to make what they owns better and **own even more**

OWNERSHIP & POSSESSION



- *Example of activities driven by this core drive:*
 - Players who accumulate ‘wealth’:
 - collect virtual goods
 - currencies,
 - heavily customise their profile or avatar



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SOCIAL INFLUENCE & RELATEDNESS



- *How this core drive works:*
 - When players long for social elements, such as mentorship, acceptance, social responses, companionship, as well as competition and envy

SOCIAL INFLUENCE & RELATEDNESS



- Example of activities driven by this core drive:
 - People who constantly attempt to blend in, be as good (or even better) as other people,

SOCIAL INFLUENCE & RELATEDNESS

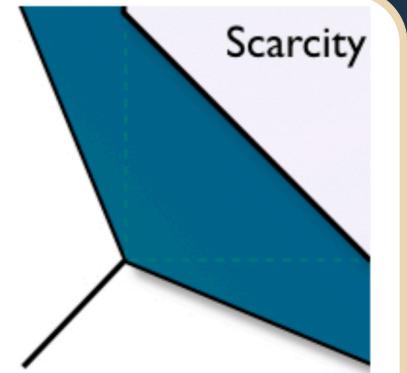
- Look for **nostalgic** elements (people/places/activities) which they can relate to easily (recall **rule#5** make your game familiar yet different)



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SCARCITY & IMPATIENCE

- Appointment Dynamics
- Magnetic Caps
- Dangling
- Prize Pacing
- Options Pacing
- Last Mile Drive
- Count Down Timer
- Torture Breaks
- Moats
- The Big Burn



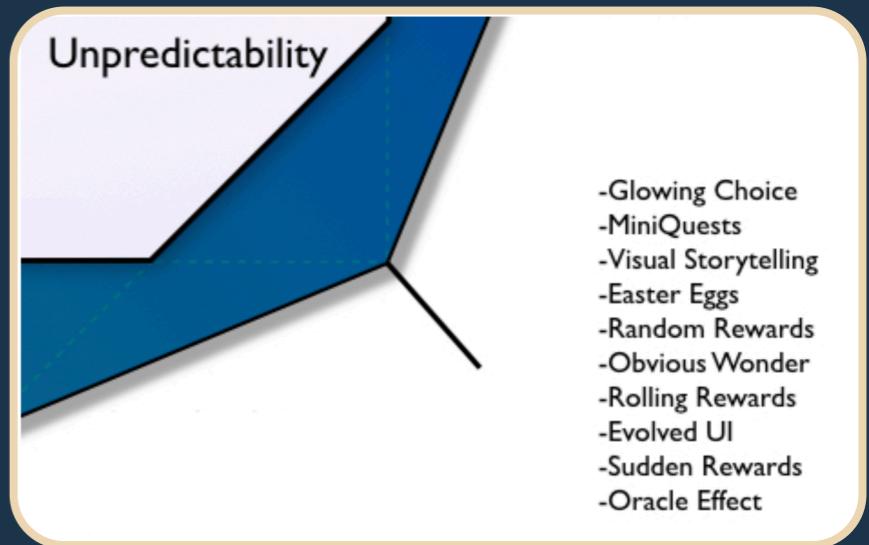
- *How this core drive works:*
- When players want something (even more) because they couldn't have it or that it is not easy to get (recall rule#16 distribute assets asymmetrically)

SCARCITY & IMPATIENCE

- Example of activities driven by this core drive:
- Spend hours trying to obtain / thinking of that particular object which value looks ‘expensive’ just because its rare



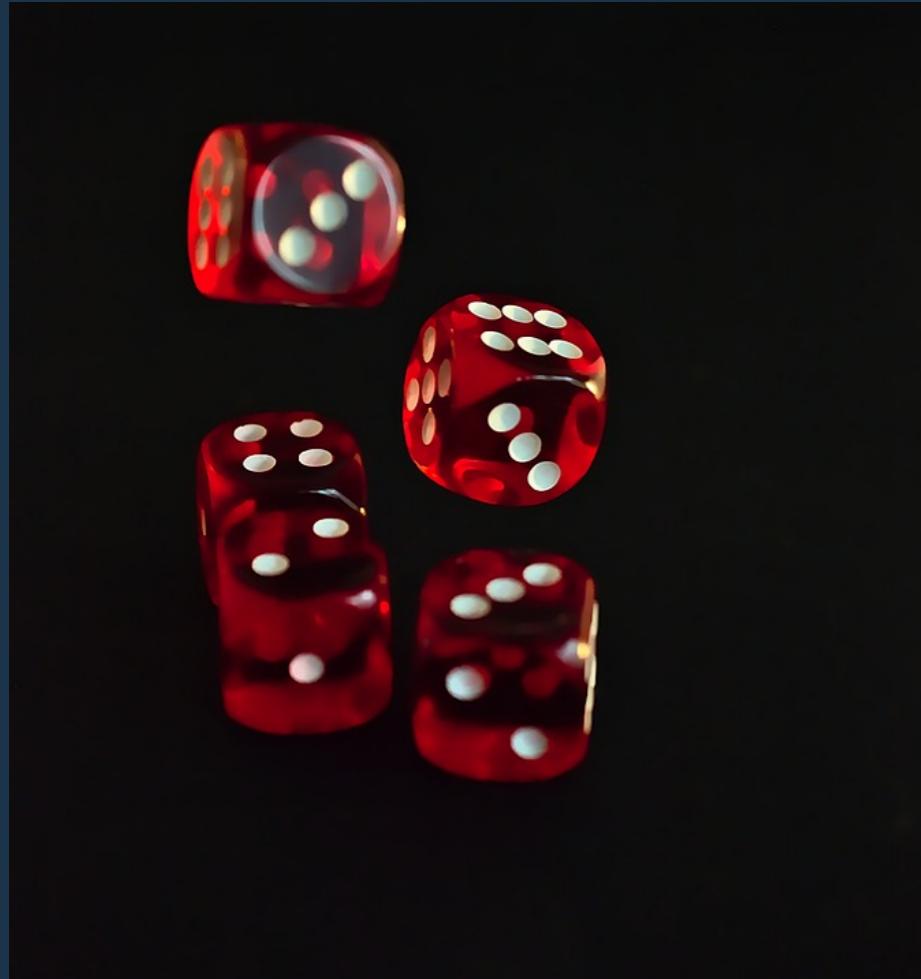
UNPREDICTABILITY & CURIOSITY



- *How this core drive works:*
 - Appeal to players' innate **curiosity** (recall **rule#22** add a small amount of randomness to AI calculations)
 - Invoking the drive of wanting to find out what will happen next, **avoiding boredom**

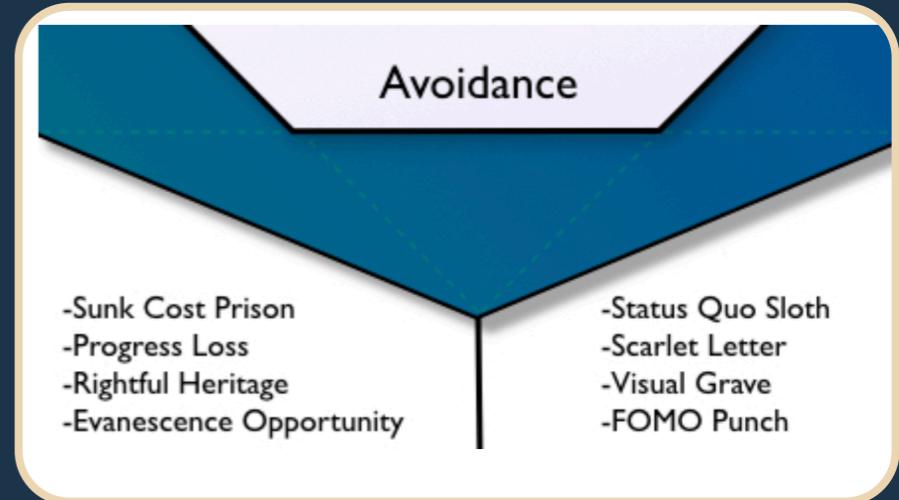


UNPREDICTABILITY & CURIOSITY



- *Example of activities driven by this core drive:*
 - Watch movies, binge watching tv series or read novels
 - Gambling addiction

LOSS & AVOIDANCE



- How this core drive works:
- When players are **afraid** of something negative happening (such as missing out, losing previous work, gossiped), thus avoiding it will be the first logical thing to do

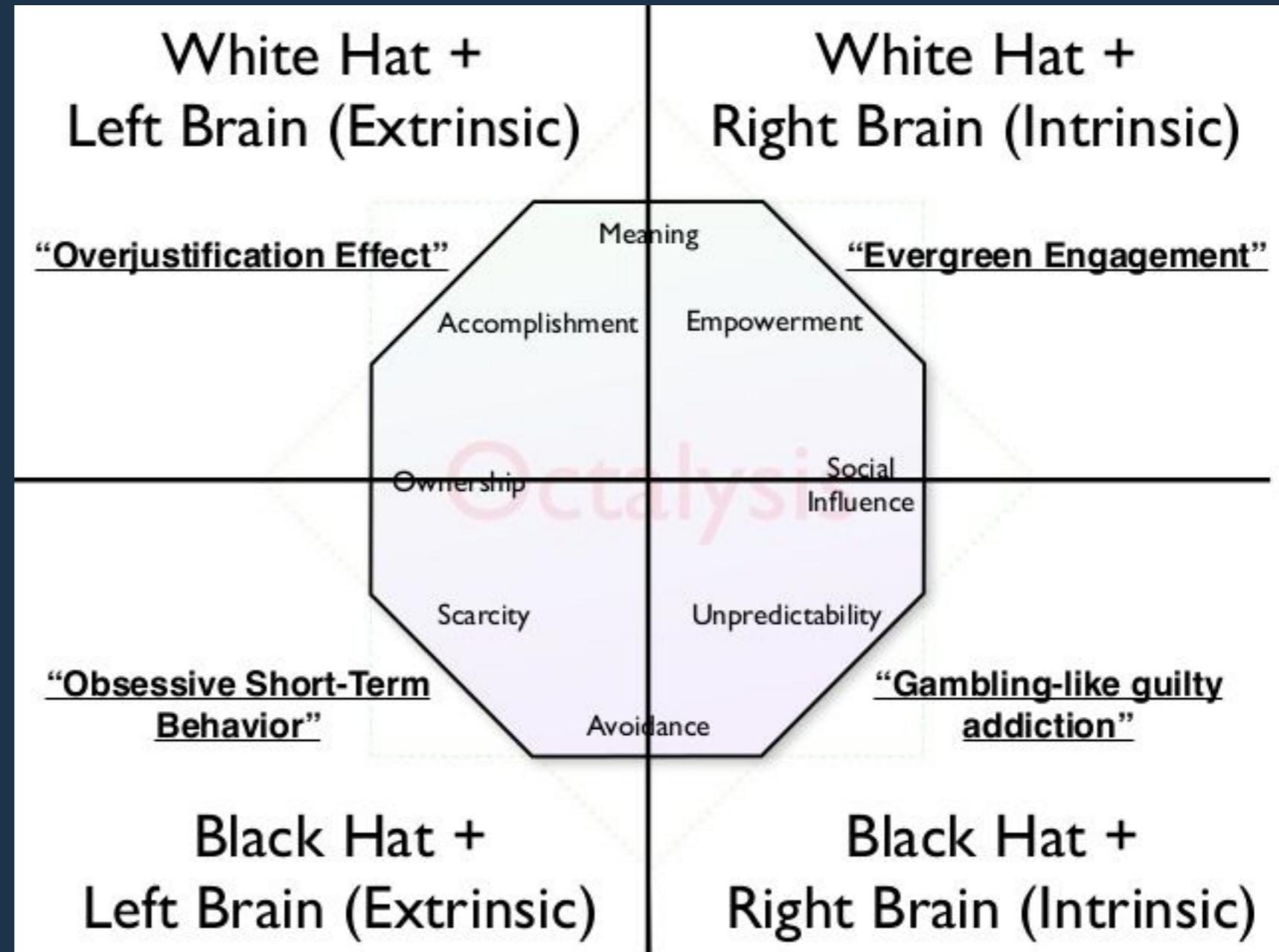
LOSS & AVOIDANCE



- *Example of activities driven by this core drive:*
 - Avoid quitting because one doesn't want to admit that whatever's been done is now futile
 - Fear of missing out in social media hence one constantly use it

ALTERNATE VIEW

- Another way of looking at the Octalysis (besides separating it into 8 sides like we did earlier):



LEFT BRAIN VS RIGHT BRAIN

- Right Brain Core Drives:

- Meaning, Empowerment, Social Influence, Unpredictability, Avoidance
- More related to creativity, self-expression, and social aspects,
- Intrinsic Motivators: 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.

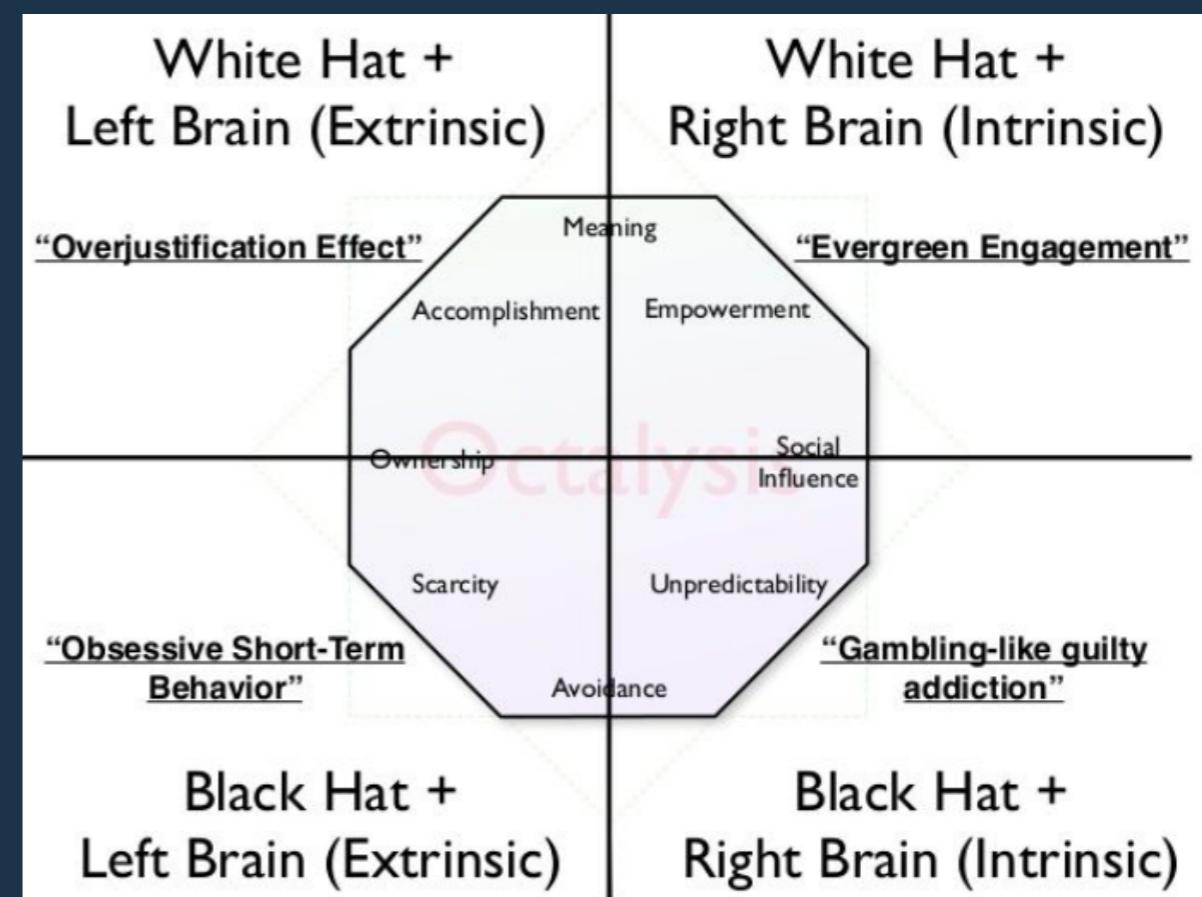
LEFT BRAIN VS RIGHT BRAIN

- Left Brain Core Drives:

- Meaning, Accomplishment, Ownership, Scarcity, Avoidance
- More associated to logic, calculations, and ownership.
- Extrinsic Motivators – you are motivated because you want to obtain something, whether it be a goal, a good, or anything you cannot obtain

WHITE HAT VS BLACK HAT

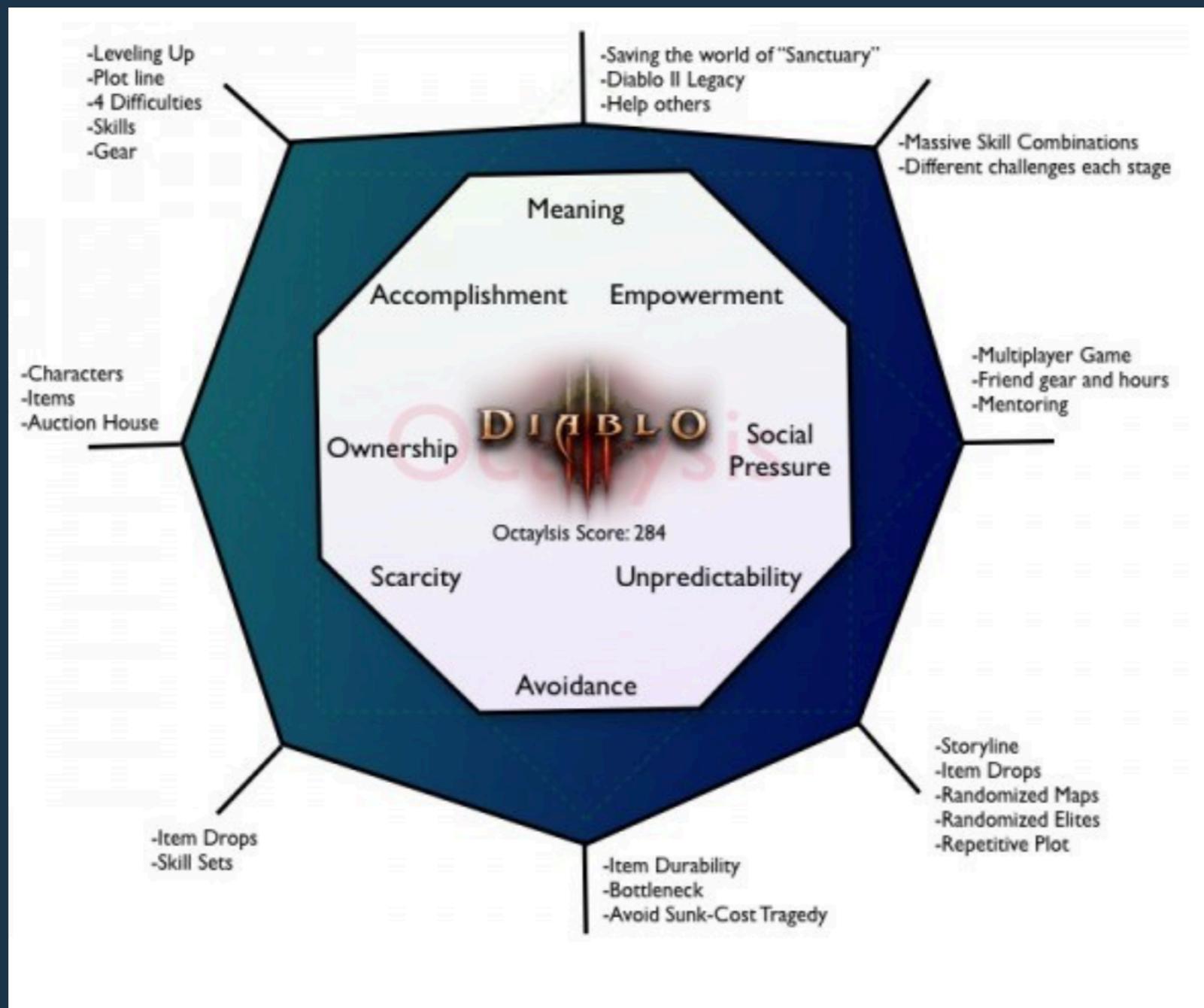
- White Hat Core Drives:
 - Ownership, accomplishment, meaning, empowerment, social influence
 - All are positive motivators
 - Make people ‘feel good’



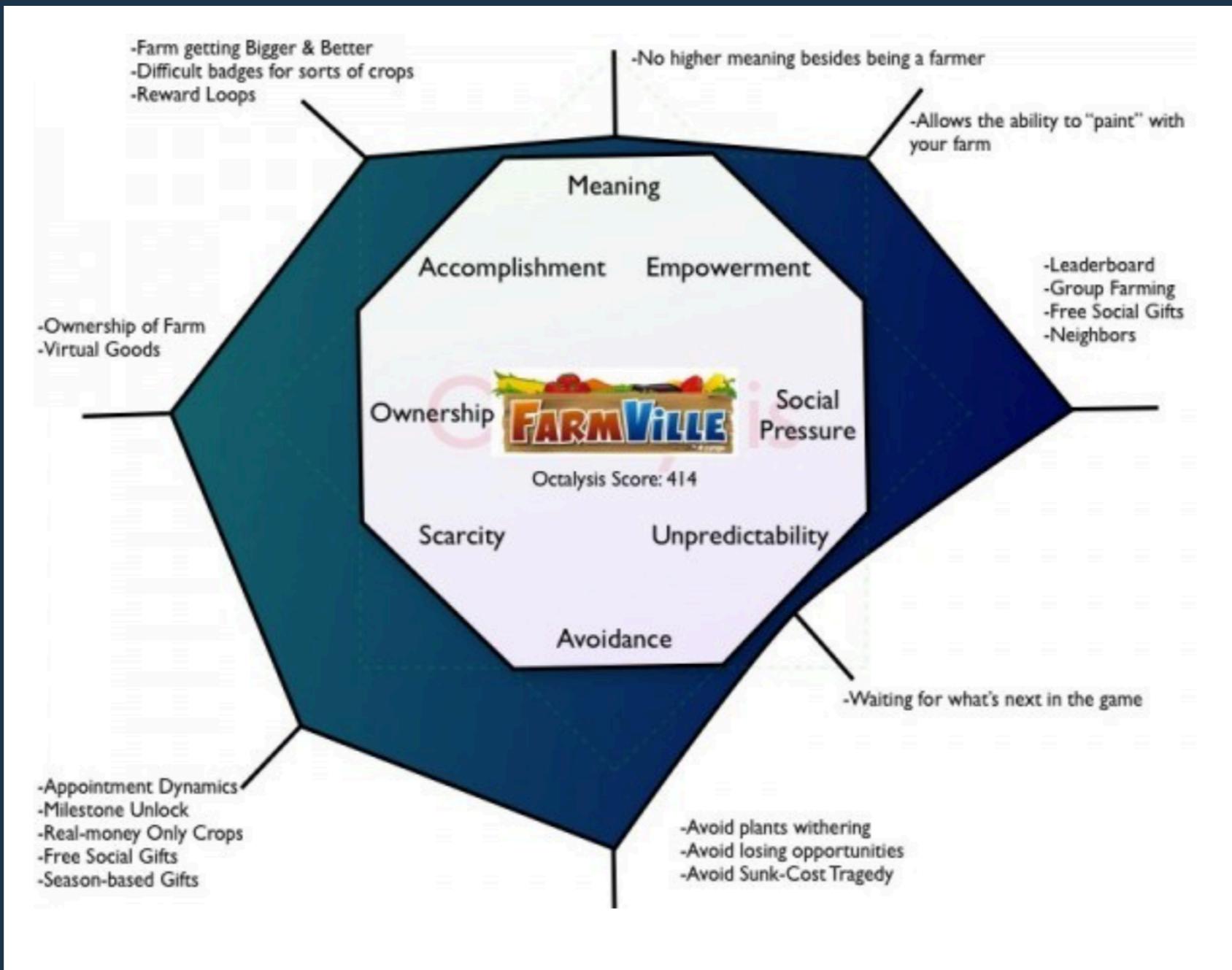
WHITE HAT VS BLACK HAT

- Black Hat Core Drives:
 - Ownership, scarcity, avoidance, unpredictability, social influence
 - All are negative motivators
 - Players do not ‘feel’ good but are motivated because they feel like they do not want to feel worse, just like any addiction

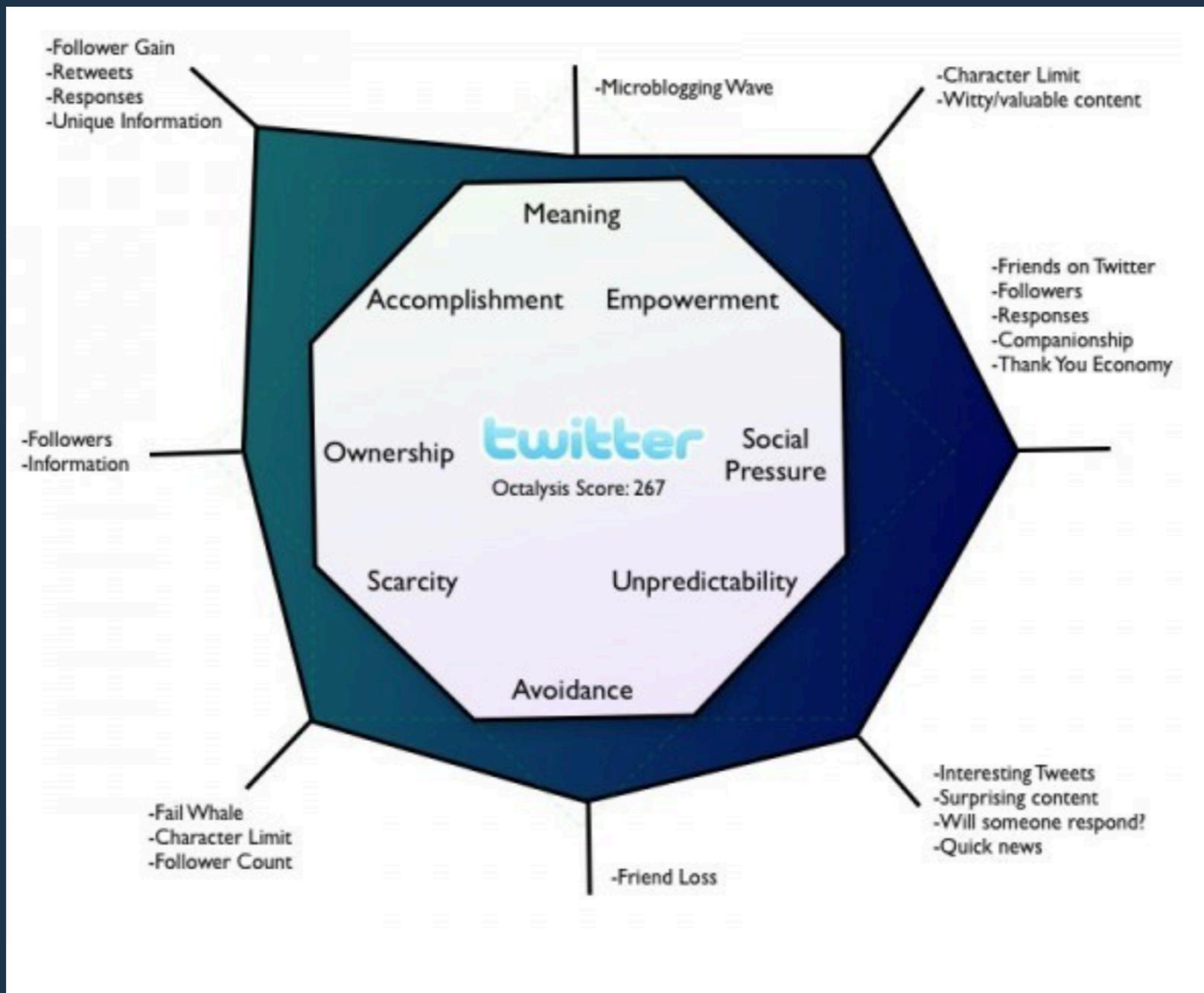
EXAMPLES



EXAMPLES



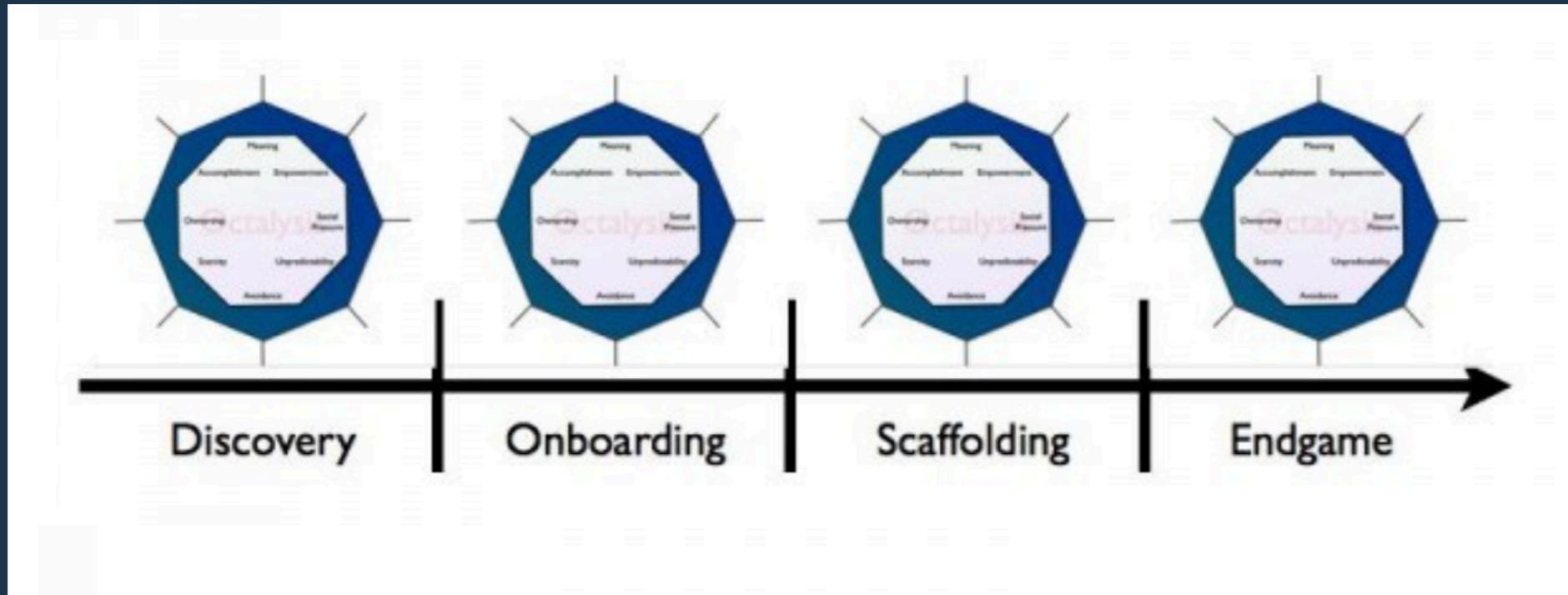
EXAMPLES



APPLYING OCTALYSIS

- Generally, any good and engaging product or system will have at least one of the core drives listed above
- A good Gamification expert will consider all 8 Core Drives on a positive and productive activity so that everyone ends up happier and healthier

LEVEL 2 OCTALYSIS

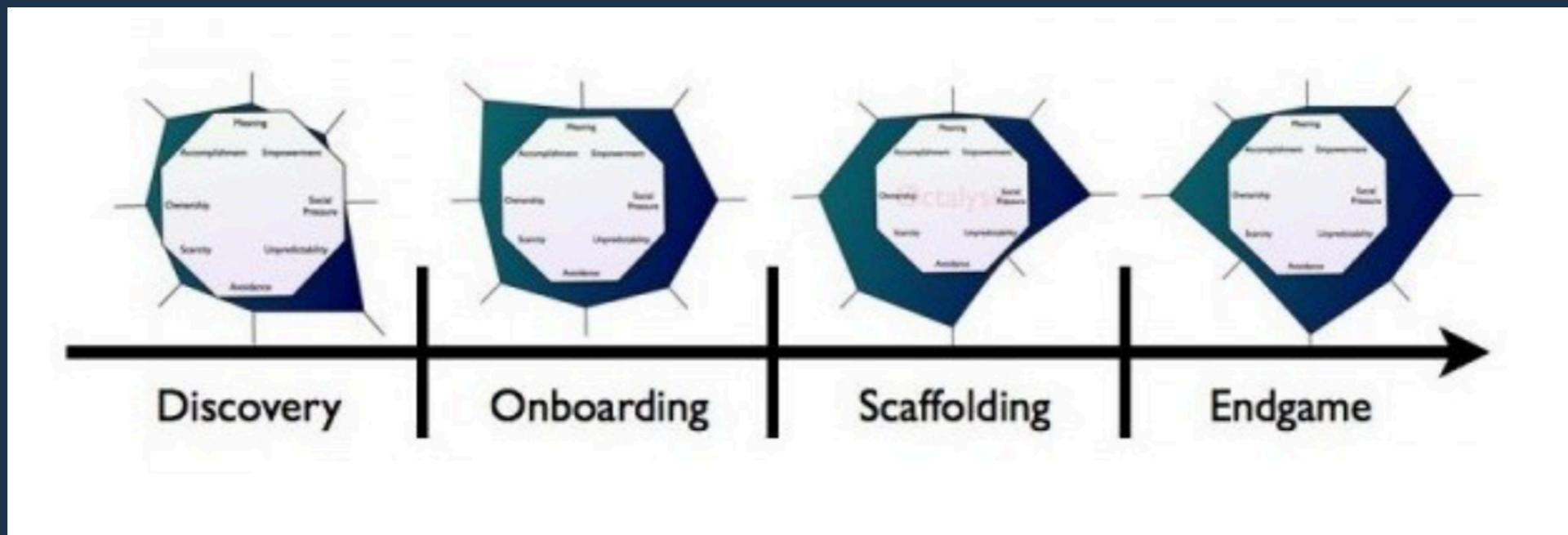


- Apply octalysis to players belonging in each part of the game, instead of the game as a whole
- What we want: existence of at least 1 core drive on each part of the game

LEVEL 2 OCTALYSIS

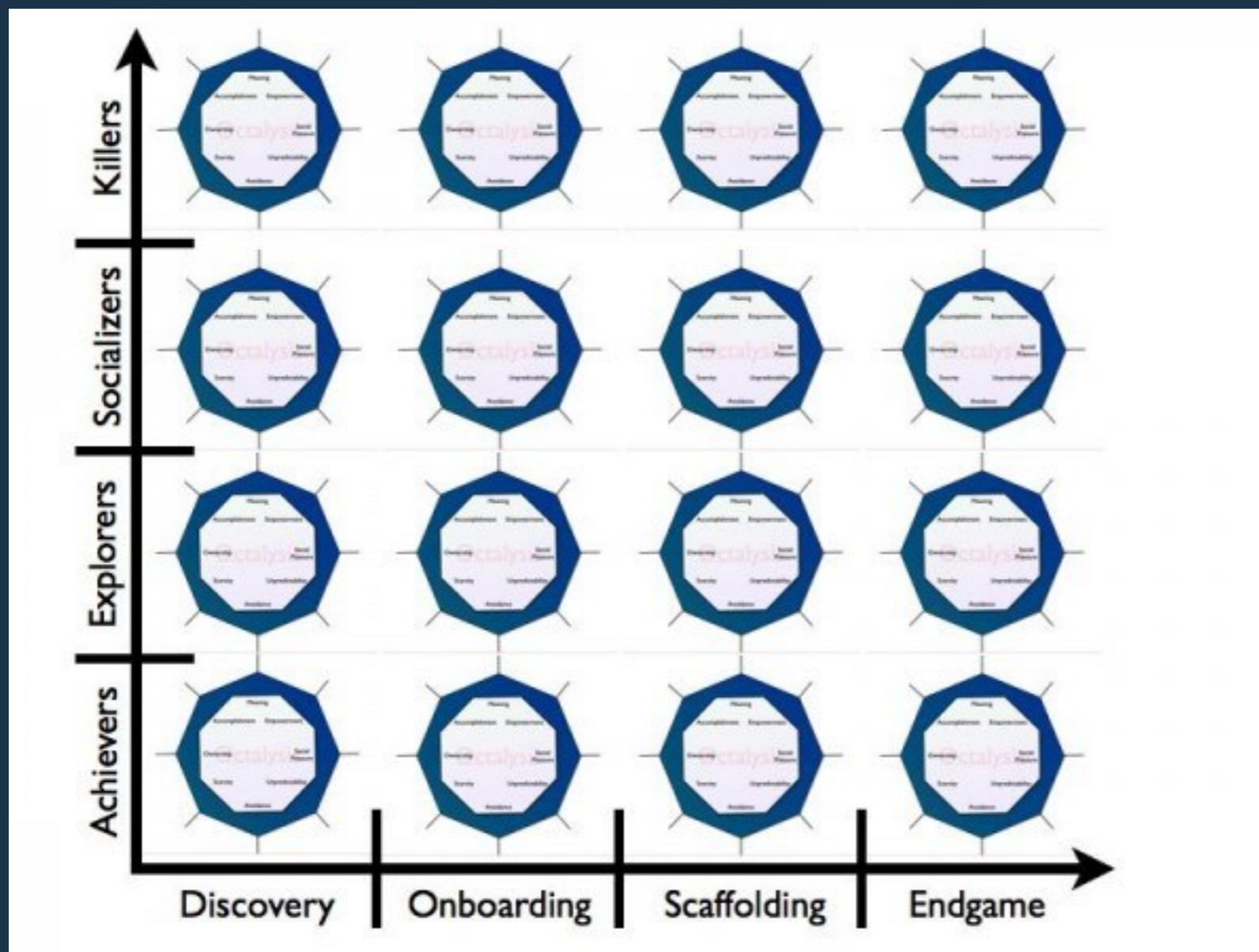
- Motivating players in **different game stages:**
 - Discovery: attracts players to begin the game
 - Onboarding: teaching players the rules of the game and tools to play the game (general gameplay)
 - Scaffolding: maintaining the interest of players when undergoing regular journey of repeated actions towards the game goals
 - Endgame: how to retain the veterans

LEVEL 2 OCTALYSIS



- Apply octalysis to each part of the game (player's journey), instead of the game as a whole
- What we want: existence of at least 1 core drive on each part of the game

LEVEL 3 OCTALYSIS

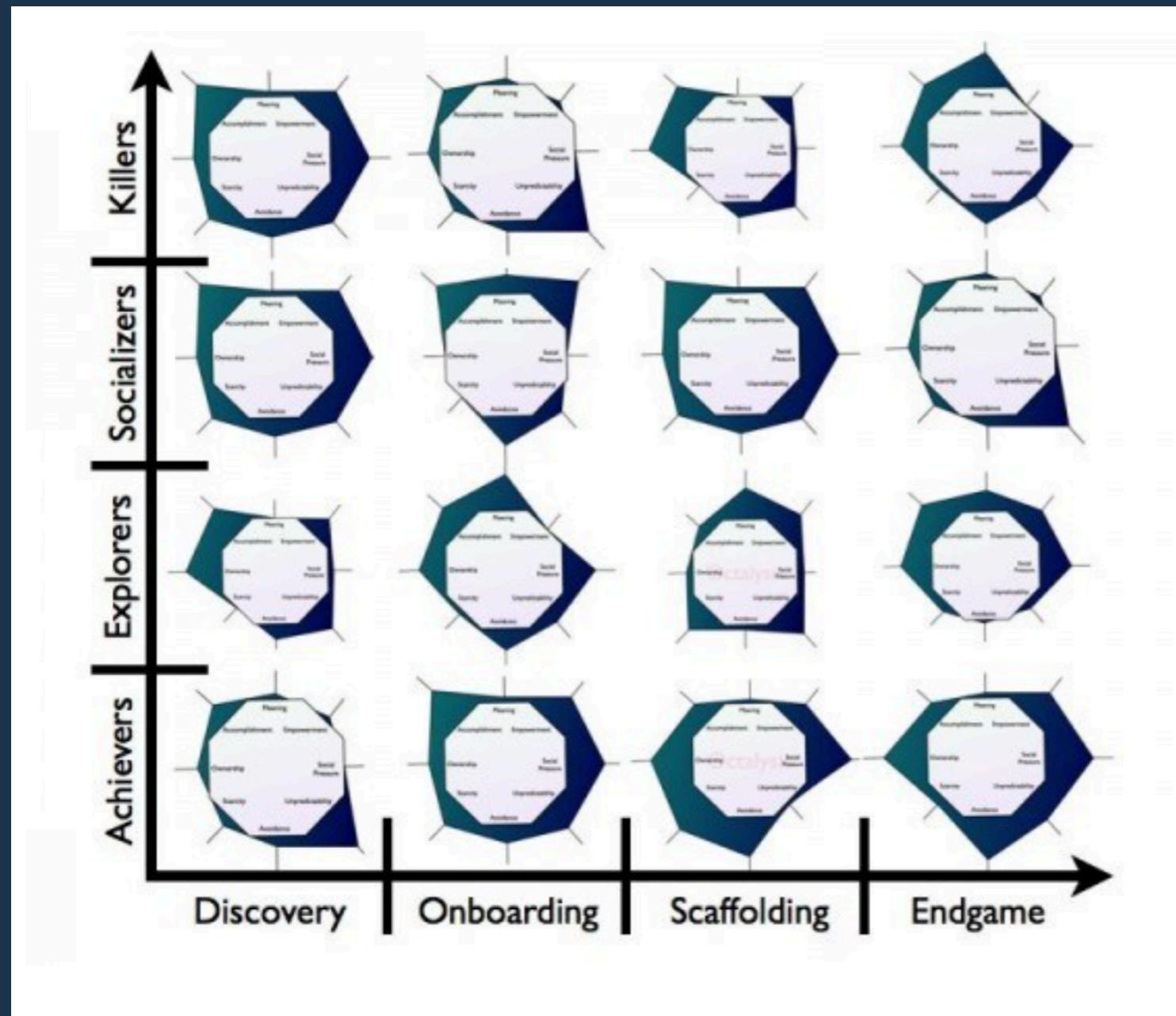


- Factor in different player types
- To analyse how different types of players can be motivated through each phase of the game

LEVEL 3 OCTALYSIS

- Types of players and their core drives:
 - Killers: accomplishment, unpredictability
 - Socializers: social pressure, avoidance
 - Explorers: meaning, empowerment
 - Achievers: ownership, scarcity

LEVEL 3 OCTALYSIS



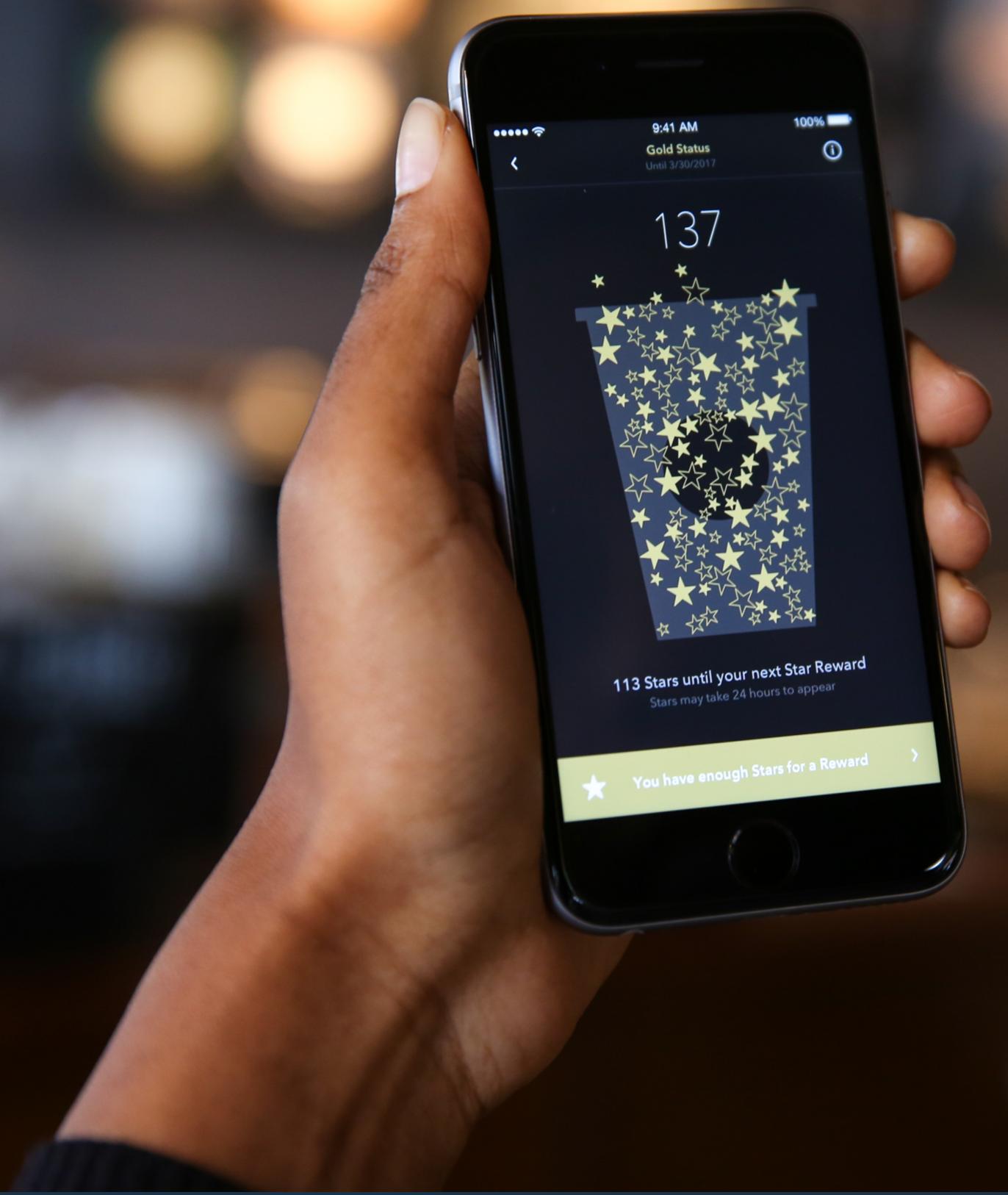
- Factor in different player types
- To analyse how different types of players can be motivated through each phase of the game

CASE STUDIES

- Marketing gamification
 - Typically known as *loyalty programmes* (but its much more!)
- eCommerce / Commerce gamification
 - People shop for fun, don't they?



Some restrictions apply.
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WELCOME

0 - 59 Stars



Buy one get one free drink reward upon
your first 5 Stars

Complimentary drink size upgrade in
birthday month

Pay by phone



GREEN

60 - 299 Stars



Redeem a free drink with every 60
Stars^

Complimentary slice of cake with drink
purchased in birthday month

Pay by phone

GOLD

300 Stars and above



Redeem free drink or food^
with every 60 Stars^



Complimentary drink in
birthday month



Complimentary slice of cake
with drink purchased in
birthday month



10% off merchandise in
birthday month*



Complimentary drink
size upgrade on
promotional drink



Complimentary
monthly drink
customization



Bonus Stars upon
upgrade or renewal



Personalized digital
Gold Card



Pay by phone

^60 Stars for Rewards Redemption excludes breakfast sets, selected promotional items and food and drink items that are exclusive to Starbucks Jewel Changi Airport.

*Limited to one-time use only, capped at 8 items in a single transaction.

You've earned it.
Now that you've made it to Gold level
plus exclusive member offers, and best of all,
We've registered the enclosed new Gold level Starbucks Card
to load and earn you more Stars. You can also continue to use any
Card to receive Gold level treatment. Either way you're ready to get started
new level of rewards.

As always, your registered card comes with free balance protection so signing up for
auto-reload means you'll always be ready to earn your next Star.

Enjoy all things Gold.

- Free drink on your birthday
- Refills on iced or brewed coffee and tea
are free while you're in the store
- Many flavored syrups on the house
- Soymilk or breve at your command
- Free tall (12 fl oz) drink when you buy
a pound of coffee
- Special offers and coupons
(be sure to opt in to "email")
- A free drink every 15 Stars!



Your account online, visit
only to Starbucks Cards.

A little history: your "Cardholder Since" reflects
the date you first registered a Starbucks Card.





STAR PLAYER

THE WORLD'S FIRST
**GLOBAL, LIVE
DUAL-SCREEN
FOOTBALL GAME**



INSIGHT

More than a billion people worldwide watch the UEFA Champions League. Over 70% watch on their own, at home.

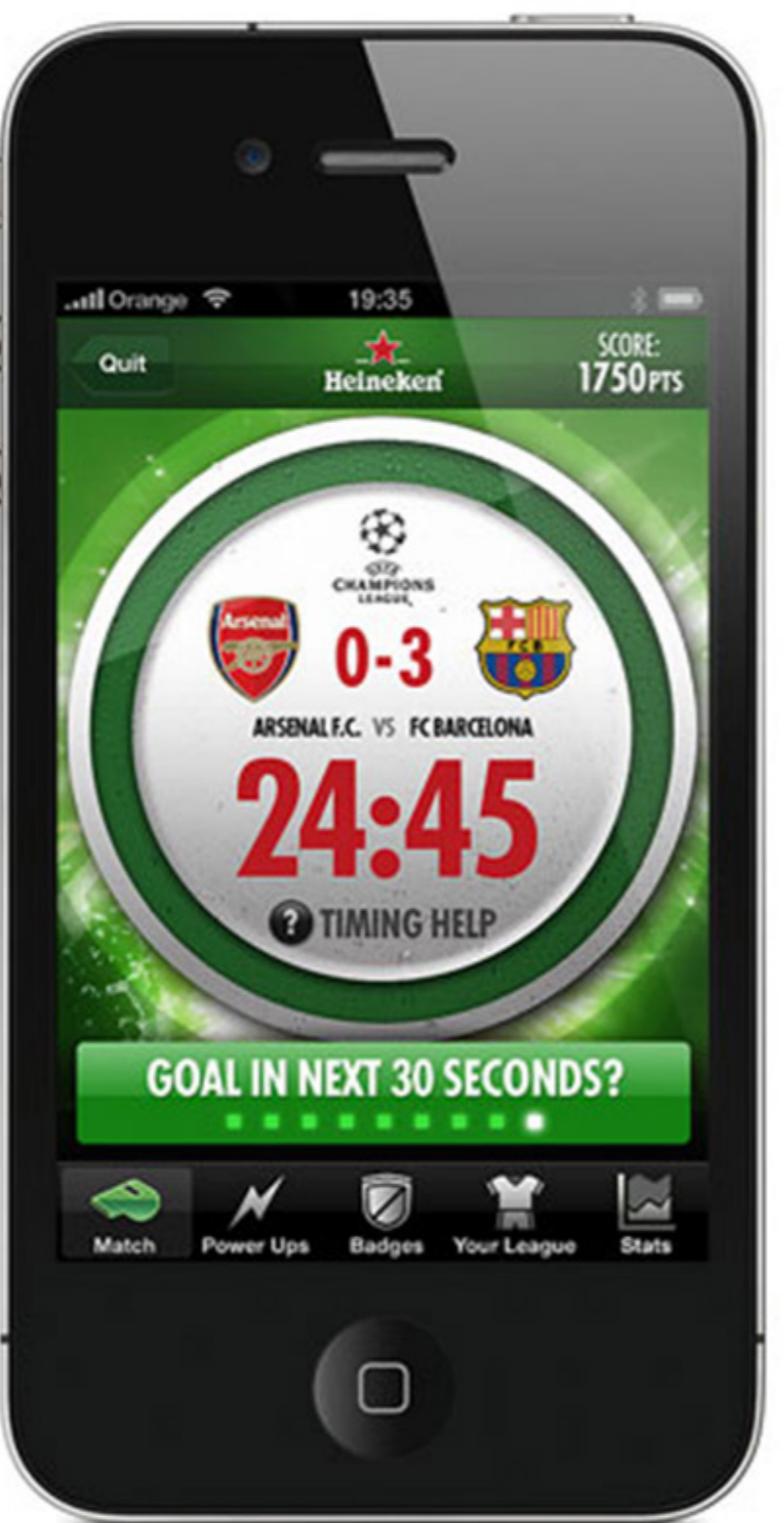
IDEA

Heineken Star Player transforms watching football on TV into a live, social experience. The world's first dual-screen football game lets viewers play along live on Facebook and iPhone, and anticipate the outcome of match moments in real time. Players can create leagues to compete against friends, and take on the world in any live fixture.

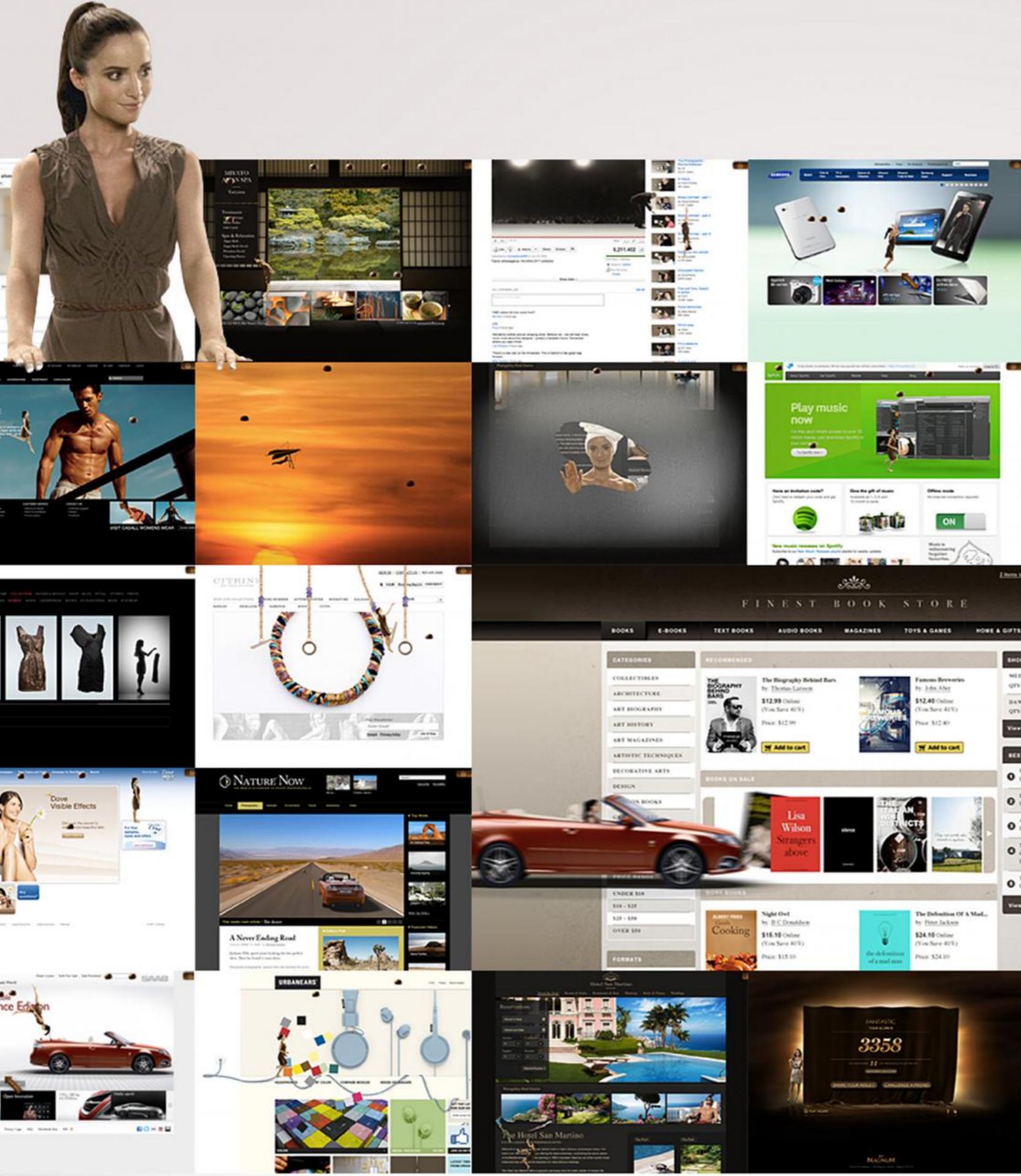
IMPACT

Star Player changes the way football is watched forever, delivering a full 90 minutes of brand engagement every game.









Brief:

To launch the new Magnum Temptation and a new brand promise: "For pleasure seekers". The solution should engage the target audience making them willing to pass it along to their friends.

Solution:

Internet is a place where all kind of pleasures exists. We wanted to build a light hearted story in which Magnums new ice cream came out as superior to everything else out there: Internets ultimate pleasure.

The mechanic is inspired from something that has engaged and united people for decades: classic platform games. But this time with a totally different platform: the Internet. The user controls a young woman literally running trough the Internet collecting the ingredients to her ultimate pleasure, the Magnum Temptation.

Result:

In its first week the Pleasure Hunt had 1,038,573 visitors, spending an average of 7.58 minutes on site. Thursday April 14, 2011, three days after launch, it was the most tweeted URL in the world. Six months later the site has:

- Over 5 million visits.
- A Google search for "Magnum Pleasure Hunt" gives over 186 000 unique pages.
- Over 365 000 shares on Facebook with over 60 millions impressions.
- 50 000 tweets reaching 35 million followers.
- And in total consumers around the world spent amazingly 425 566 hours with the brand participating in the game.

The online-game is just one piece in the global launch campaign, and Magnum only measures business goals as a whole, but so far their sales has increased with 4,5% globally. The huge amount of visitors from North America has made it a key component in the ongoing US launch.

03

Share

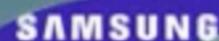
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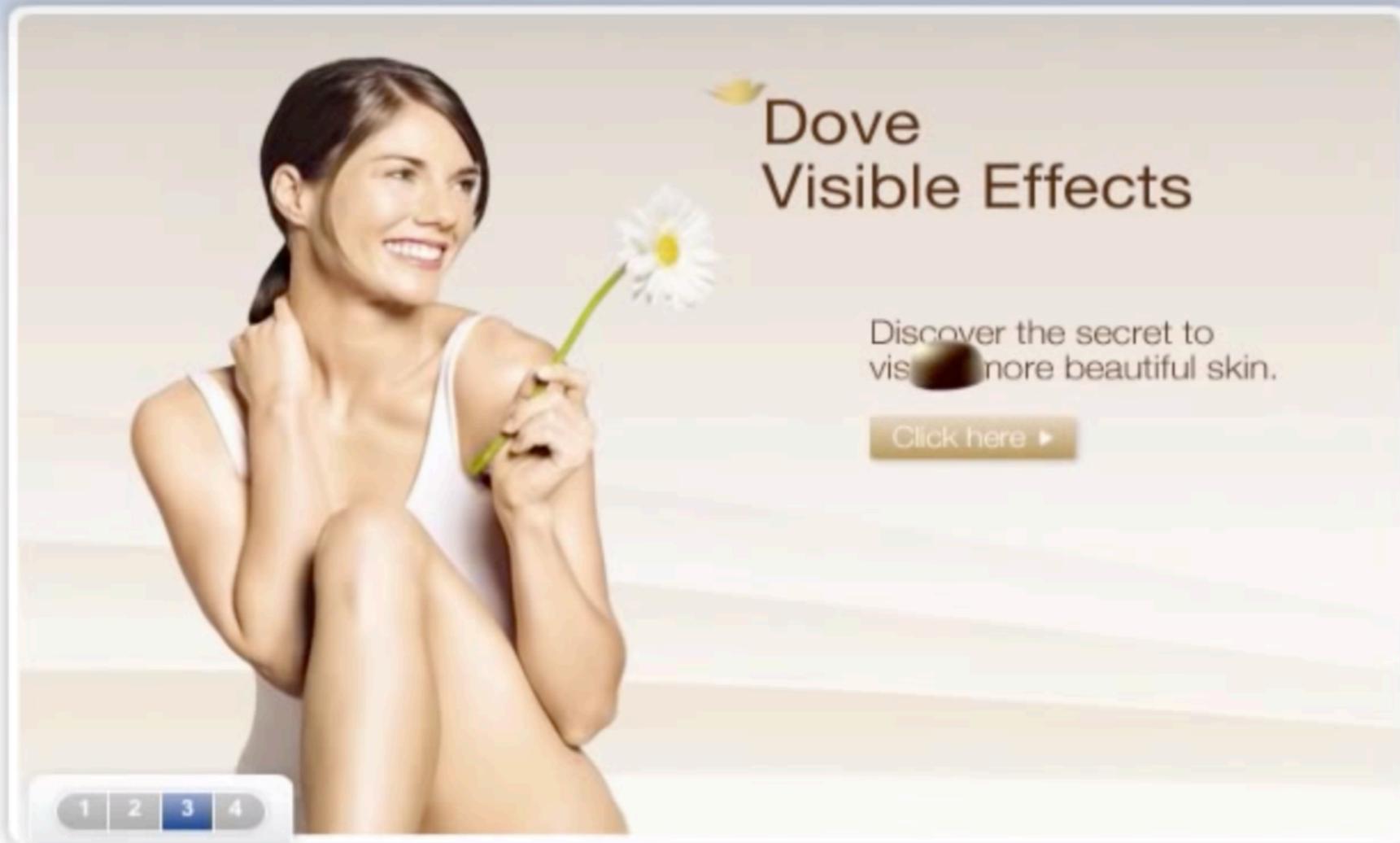


COLLECT AS MANY
BONBONS AS YOU CAN.



SKIP INTRO

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3D-TV >](#)[En riktigt
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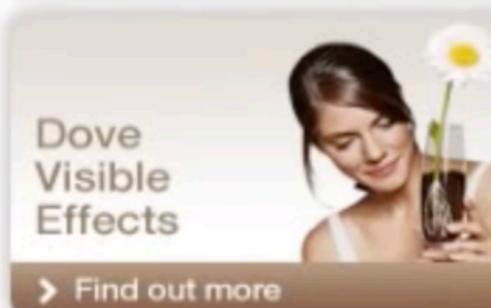
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Discover the secret to
visible more beautiful skin.

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Any
questions?

For free
samples,
news and offers



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1:58 / 4:56

The image shows the eBay logo in its signature 3D, colorful font. The letters are mounted on a dark grey wall. The 'e' is red, the 'b' is blue, the 'a' is yellow, and the 'y' is green. The 'o' is slightly taller than the other letters. The background features a clear blue sky and some bare trees.



Mouse over image to zoom

 Have one to sell? [Sell it yourself](#)

embers from the Notre Dame fire grab a section of the fire of notr

Condition: --

Time left: 6d 20h (23 Apr, 2019 12:31:41 BST)

£0.99 0 bids

Enter your max. bid

Submit bid

 [Add to watch list](#)

Posts from United Kingdom



Collect 1 Nectar point
[Redeem your points](#) | [Conditions](#)

Postage: £0.61 [Economy Delivery](#) | [See details](#)

Item location: Bicoester, United Kingdom

Posts to: United Kingdom

Delivery: Estimated between Sat. 27 Apr. and Mon. 29 Apr. 

Payments:      Processed by PayPal

 [Get more time to pay.](#) [See payment information](#)

Returns: No returns accepted | [See details](#)

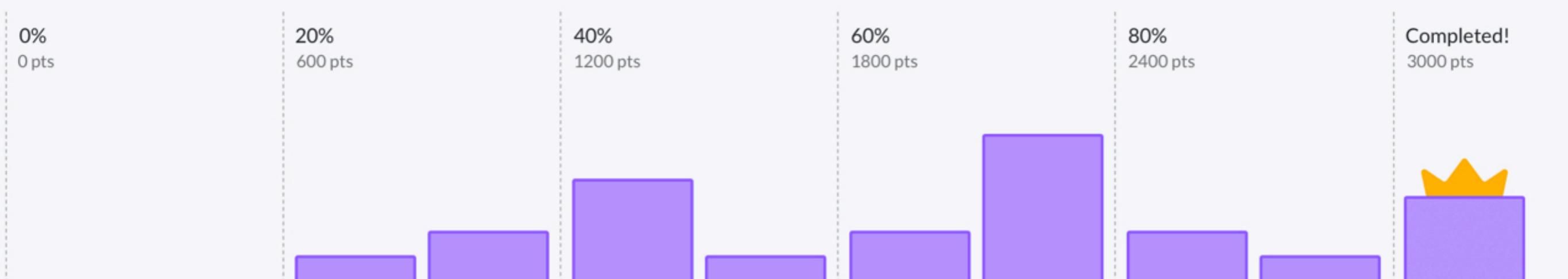


KHAN

ACADEMY

Geometry foundations

Unit mastery

[Show students](#)


Skill mastery ⓘ

Skills	Not started	Struggling	Familiar	Proficient	Mastered
Identify rays, lines, & line segments	4 students	4 students	5 students	4 students	5 students
	Amit Singh Celine Leroy Kiara Kelly Miuna Khalid	Darcy Martin Lee Austin Imani Coleman Thomas Greene-Beck	Aparna Rao Blair Walsh Carlos García López Celine Leroy Torrance Davis	Alexei Popov Jasmin Lee Kareem Lim Wanda Wu	Ana Maria Rodríguez Lee Austin Yuki Inoue Veronica West Vanya Petrov
Draw rays, lines, & line segments	4 students	0 students	7 students	5 students	5 students
	Amit Singh Darcy Martin Imani Coleman Thomas Greene-Beck		Aparna Rao Blair Walsh Carlos García López Celine Leroy	Celine Leroy Kiara Kelly Miuna Khalid Kareem Lim	Ana Maria Rodríguez Lee Austin Yuki Inoue Veronica West

Hexadecimal numbers



You got 75%

You reached Practiced!
Get 4 correct to reach 100%.



You got 325 energy points

Points for questions +225

4 problems answered 75% correctly



Points for completion +100

Bonus points earned for completing this task

Points for

4 problems

Points for

Bonus poi

Practice again

Hexadecimal numbers



You got 100%

Nice work!

You got 4 out of 4 correct.



You got 120 energy points

Points for questions +20
4 problems answered 100% correctly

Points for completion +100
Bonus points earned for completing this task

Practice again

Practice again



Challenge Patches



Black Hole Badges



Sun Badges



Earth Badges



Moon Badges



Meteorite Badges

Meteorite badges are common and easy to earn when just getting started.

Badges Earned

Sam's badges he has earned.



Hang Ten

Last achieved 15 days ago in The World of Math



Fingers or Toes

Last achieved 16 days ago in The World of Math



Persistence

Last achieved 16 days ago in Finding percents



Tinkerer

Last achieved 21 days ago



High Five

Last achieved 21 days ago in The World of Math



Ten to the Fourth

Last achieved 30 days ago



Act I Scene I

Last achieved 30 days ago



Making Progress

1000

Last achieved about a month ago



Just Getting Started

100

Last achieved about a month ago



Challenge Accepted

Last achieved about a month ago in The World of Math



Math Pretest Champion

Last achieved about a month ago



Five is Alive!

Last achieved about a month ago in The World of Math



Picking Up Steam

100

Last achieved about a month ago in Multiplying by multiples of 10



Makes Perfect

Last achieved about a month ago in The World of Math

Possible Badges



Picking Up Steam

100

Quickly & correctly answer 5 skill problems in a row (time limit depends on skill difficulty)



Just Getting Started

100

Achieve mastery in 3 unique skills

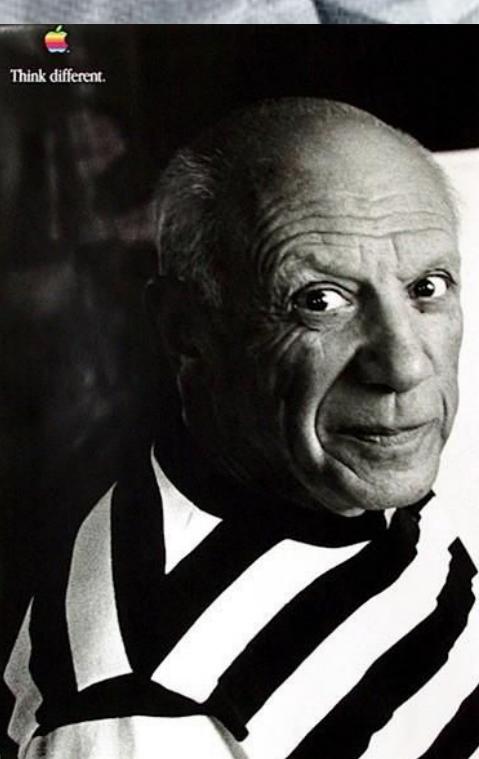
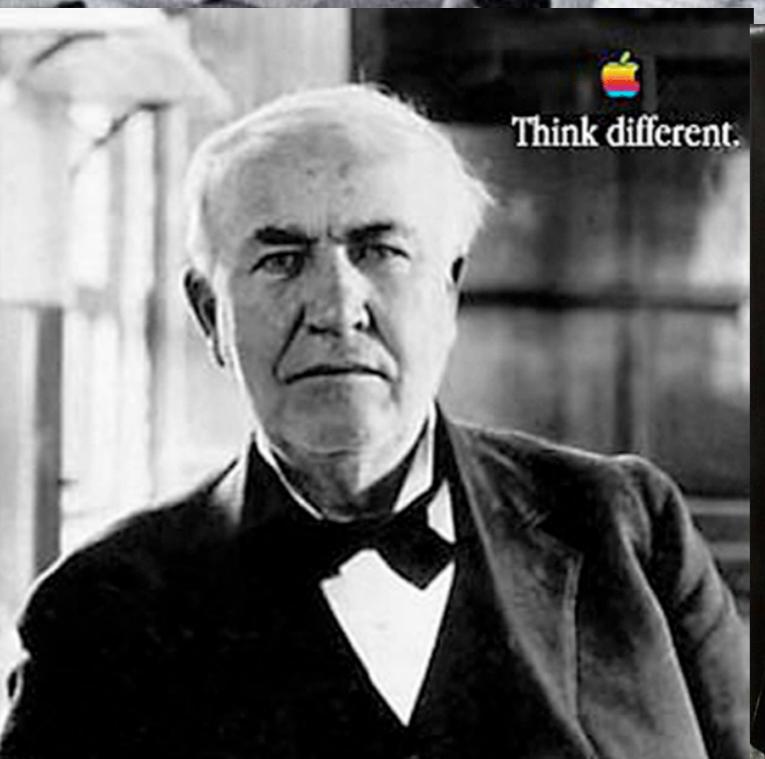
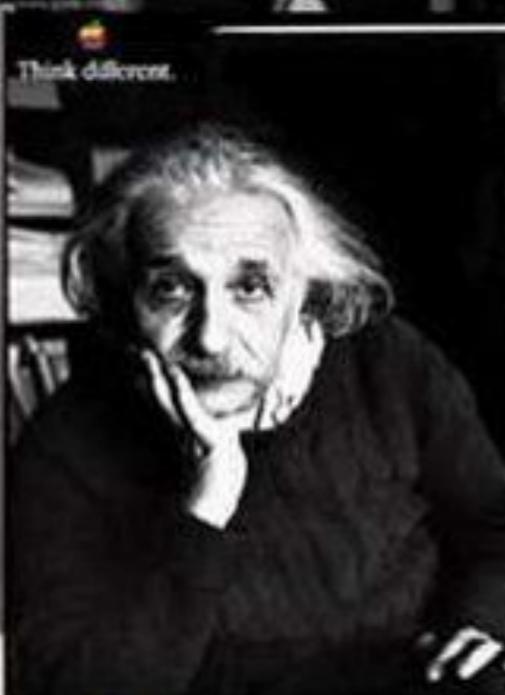
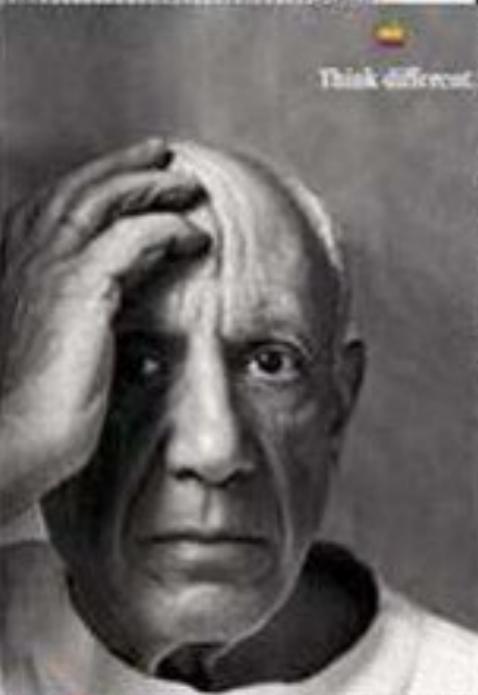


Inspiration

500

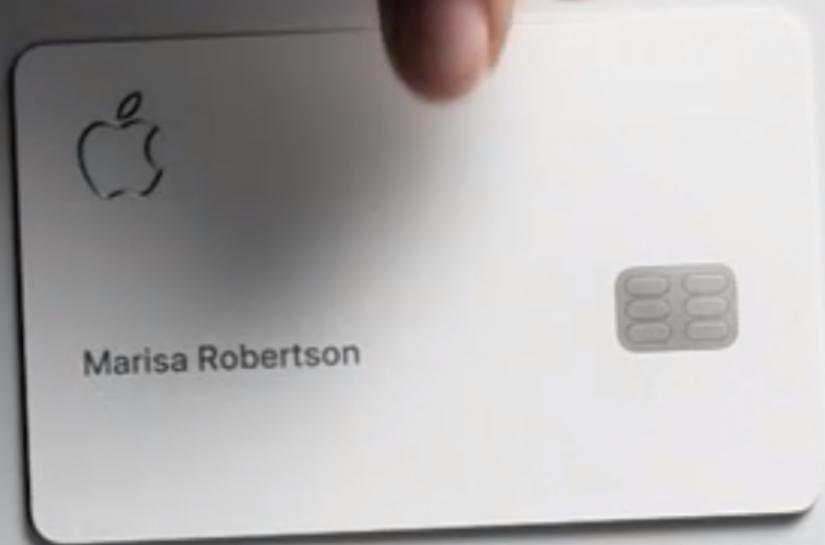
Another user created a program based on one of yours





Think different.





SUMMARY

- Gamification framework : definition & purpose
- The 8-core drives: Octalysis
- Applying octalysis (examples)
- 2-level Octalysis
- 3-level Octalysis
- No ‘good’ or ‘bad’ core drives, these are just *motivators*

EXERCISE

- Think about a bunch of video games that are always appealing to you
- Figure out the octalysis behind those games
- Find out what are your dominant core-drives
- Choose one favourite game, figure out the level 2 Octalysis
- Find out what type of player are you
- Choose another favourite game, repeat level 2 and 3
- Find out if you're the same type of player, or if you have multiple characteristics