

DSK Supinfogame Rubika

Concept Document for:

govNow

A Government - Citizen Interaction Portal

Towards a better government, today!

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Abstract

Gamification is constantly affecting and changing our lives and the lives of everyone around us whether we are aware of it or not. [1] Game design principles and mechanics are no longer restricted to games but also commonly applied in a wide range of industries ranging from Education to Health & Wellness.[1][2]

This paper aims to analyze gamification and some of the popular gamification techniques through the Octalysis Framework and present examples of its usage in creating a boost in citizen involvement in their government activities, political policies, social activities and gain an awareness and understanding of the same.

1.0 Introduction

With the present day gamification systems, people play games almost everyday of their lives whether they are fully aware of it or not. Many industries are constantly trying to expand and upgrade their products or services and gamify them so as to attain the desired results with their said products/services. This paper shall attempt to try to overlay an antiquated system with gamification elements in order to make it more interesting and exciting for all parties involved.

2.0 Gamification

2.1 Definition

Gamification is the application of game-design elements and game mechanics in non-game contexts. This is usually done to improve user engagement, organizational productivity, flow, learning, crowdsourcing, employee recruitment and evaluation, ease of use, usefulness of systems, physical exercise, traffic violations, voter apathy, and more[1]. A collection of research on gamification shows that a majority of studies on gamification find it has positive effects on individuals. Gamification has been also proven to improve an individual's ability to comprehend digital content [3].

2.2 History

The term "gamification" first gained widespread usage in 2010, in a more specific sense referring to incorporation of social/reward aspects of games into software. The technique captured the attention of venture capitalists, one of whom said he considered gamification the most promising area in gaming. Another observed that half of all companies seeking funding for consumer software applications mentioned game design in their presentations.

A Company called Bunchball, in 2007, was the first to provide game mechanics as a service.

2.3 Techniques

Gamification techniques are intended to make use of people's natural desires to incentivize them to perform a certain action(s). Early gamification strategies use rewards for players who accomplish desired



tasks or competition to engage players. Types of rewards include points, achievement badges or levels, the filling of a progress bar, or providing the user with virtual currency, Making the rewards for accomplishing tasks visible to other players or providing leaderboards are ways of encouraging players to compete.

Another approach to gamification is to make existing tasks feel more like games, Some techniques used in this approach include adding meaningful choice, onboarding with a tutorial, increasing challenge, and adding narrative.

For the purpose of this paper, we shall focus on using The Octalysis technique in order to analyze and study various gamification techniques, why they are used and how they impact human motivation and behaviour.

2.4 Applications

Gamification or Game Design techniques are currently used in many industries ranging from Marketing, Education and Health

3.0 The Core Drives of Gamification - The Octalysis Model

The Octalysis Framework is developed by Yu-Kai Chou and is a human-focused gamification design framework that lays out the eight core drives for human motivation.

Function-focused systems are designed to get the job done quickly and efficiently but assumes that people will simply do their tasks because they are told to or are required to. However human-focused design takes into account the emotions that people within a system undergo and that they might have reasons for not wanting to do a particular task.[1][4] The framework lays out a structure for analyzing the driving forces behind human motivation and behaviour.

Most games have some Core Drives that motivate us towards our actions and decisions. The Octalysis Framework assumes that if no Core Driving factors are present, there is no motivating factor in play behind the behaviour(if any). The Eight Core Drives as specified by the Framework areas below.

3.1 Eight Core Drives

3.1.1 Epic Meaning and Calling

The Core Drive where the players believe that what they are doing is greater than themselves or is doing something that is for the benefit of others. This drive also comes into play when players experience “Beginner's Luck” and believe that they have some special gift or skill that others do not possess.



3.1.2 Development and Accomplishment

This is the internal drive of making progress, developing skills and overcoming obstacles. Challenge is the main focus here as giving a reward without any challenge is not meaningful. This is core drive that most systems with points, leaderboards and badges mainly focus on.

3.1.3 Empowerment of Creativity and Feedback

This is when players are engaged in a creative process where they repeatedly figure out things and try various combinations to do so. People not only need to be able to express their creativity but also need to see the results of their work, obtain feedback and react to the received feedback.

3.1.4 Ownership and Possession

This drive motivates the player because they feel like they own something. When they own something they want to make what they own better and own even more. If a person spends a lot of time in creating and customising a profile or avatar they feel more ownership towards it.

3.1.5 Social Influence and Relatedness

All social elements that drive people such as mentorship, acceptance, social responses, companionship, competition and even envy. This core drive is used quite a lot by companies to optimize their online strategies.

3.1.6 Scarcity and Impatience

This core drive involves wanting something because you can't have it. Many games tell their players to come back later to collect their reward (Appointment Dynamics). Because they can't have it at this very instant, they are motivated to think about the reward until they finally obtain it.

3.1.7 Unpredictability and Curiosity

This is the drive to know what will happen next. The lack of knowledge of what happens next keeps the person engaged and make them think about it often. This drive is why many people watch movies or read books. This drive is also why item drops or opening loot boxes in games, provide the players with excitement.

3.1.8 Loss and Avoidance

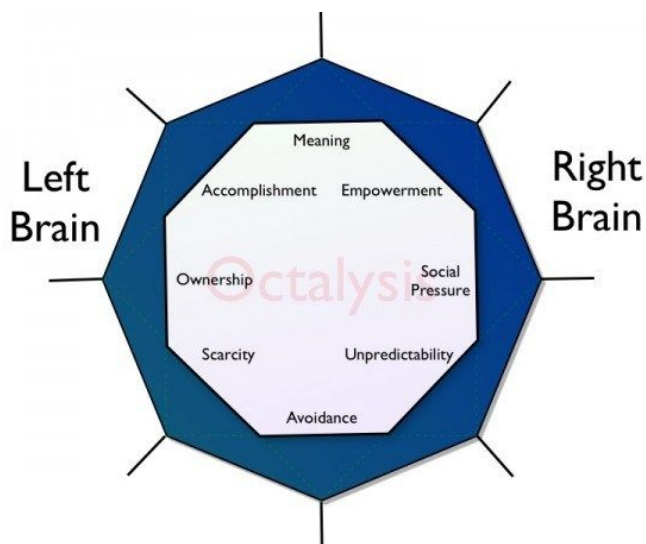
This drive is based on the motivation to avoid something that is negative. The feeling that opportunities are fading away as time progresses and that if they don't act immediately, they might lose the opportunity forever.



3.2 Left Brain and Right Brain Drives

Within the Octalysis framework, drives such as creativity, self-expression and social aspects are considered Right Brain Core Drives while drives such as logic calculations and ownership are considered to be Left Brain Drives.

These are not considered true brain science but simply used for ease of understanding the design of the framework. Even so, Left Brain Core Drives seem to have a tendency of being based on Extrinsic motivational factors,i.e, motivation that arises because you want to obtain a reward or achieve a goal. Right Brain Core drives have a tendency of being based on Intrinsic Motivations,i.e performing the activity itself is the reward.[4]

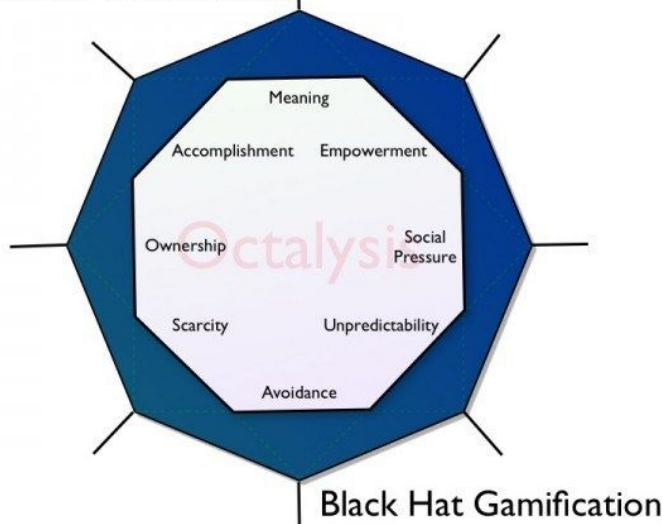


3.3 White Hat and Black Hat Gamification

Within Octalysis, something that is easily noticed is that some of these drives affect the user positively while the others affect him negatively. The positive drives,i.e, Meaning, Empowerment, Accomplishment and Ownership are classified as White Hat Gamification while negative drives such as Avoidance, Unpredictability, Social Pressure and Avoidance are classified under Black Hat Gamification.[4]



White Hat Gamification



4.0 Gamification Case Studies

Gamification is used in multiple industries for various purposes ranging from providing motivation to educational achievement. Below, we shall look at some examples of how gamification of a process or system has brought about positive changes in various industries

4.1 Case 01: U.S. Army - America's Army

Gamification Use : Recruitment & Training

America's Army was developed recognizing that a video game might be helpful to the U.S. Army in the strategic communication efforts by providing more information to prospective soldiers and help reduce the number of recruits who wash out during the nine weeks of basic training. The effort proved successful as more than 13 million players have registered America's army accounts over the years, with more than 260 million hours played on the various titles. The game is considered by the U.S. Army to be a "cost effective recruitment tool", aims to become part of youth culture's "consideration set".

The core drives the game makes use of, in reference to the Octalysis model are **Epic Meaning and Calling** which makes the user believe that is doing something greater than themselves. The idea of joining the army provides them with a sense of fulfilment, **Development and Accomplishment** possibly fuelled by the **Unpredictability and Curiosity** that arises with joining the military.

First released in 2002, America's Army has attracted millions of potential new recruits[5]. By 2008, four transportable "Virtual Army Experience" units were hitting shopping malls and public events. More than a decade in the making, the US Army has turned its knowledge and experience of training games into a powerful recruiting tool.



4.2 Case 02: Nike+ Fuelband and Accessories

Gamification Use : Marketing, Health and Fitness

Nike launched the Nike+ app in January 2012 and since then it has developed into a popular gamified sport. The intention was to actively foster lifestyle changes by helping their customer keep themselves fit. The Nike+ Fuelband is a bracelet that can monitor user movements. Once the users have downloaded the the Nike+ app, they are able to track their workouts with statistics like calories burned displayed to provide feedback.

The core drive the Fuelband utilizes is **Development and Accomplishment** and immediate feedback to most actions meets the users need to feel empowered. The social aspect of the app where users can challenge other users or friends also caters to the **Social Influence & Relatedness** within the Octalysis Model.

In 2011, the number of players using the FuelBand was 5 million and hit 18 Million users by 2013[6].

4.3 Case 03: FoldIt

Gamification Use : Healthcare Research

FoldIt was developed by the University of Washington's Centre for Game Science in collaboration with the Biochemistry department with the intention of deciphering a crystal structure for one of the AIDS causing viruses called the the Mason-Pfizer monkey virus (M - PMV), which, for 15 years, many of the top PhD scientists have been trying to decipher. FoldIt utilizes a game-like puzzle interface that allows people from all over the world to play and compete in figuring out various protein structures that fit a researcher's criteria.

Similar to both the above cases, the player attains a sense of **Development and Accomplishment** when they make a right moves, receive immediate feedback and get placed on the leaderboards. The **Social Influence** also reinforces the players development and accomplishment. The leaderboard also incorporates the elements of **Scarcity** according to the Octalysis model as the player constantly has the drive to attain the topmost spot on the leaderboard or at least improve upon their current position. The core drive of **Empowerment of Creativity and Feedback** is also evident here as players constantly express their creativity in trying to solve the puzzle and constantly receive feedback for their every action.

More than 240,000 players registered for the game and competed viciously against each other and found a solution to the structure of the M-PMV was found in 10 days, thus creating a major breakthrough in the AIDS research field [7].



5.0 What is govNow?

govNow is a fully gamified government-citizen interaction portal, where citizens can lodge complaints, commend or discuss government employees, their society and current political practices within their district, state or nation.

5.1 Gamified Elements

5.1.1 Profiles

All government employees are required to have verified profiles on the app/website. Citizens can create accounts/profiles by linking any of their nationally approved Identification Information.

This will ensure that people do not spam create new accounts and misuse their powers. Since your information is linked to your account/profile, there is an element of **Social Influence** that gives their views, opinions and ideas some amount of value. Social Influence also keeps them from posting irrelevant things or simply ‘trolling’.

Since user profiles enable you to add your profile picture, customize your details and your avatar, users have a sense of **Ownership and Possession** over it.

5.1.2 Tags

Each profile is tagged either ‘Level X Government Employee’ (along with their designation) or ‘Level X Citizen’.

5.1.3 Points

Each time a citizen creates a post or makes a comment other users can either upvote or downvote their post/comment. One upvote grants the user one point while a downvote removes a point.

A government employee is able to earn points similarly by creating posts and gaining upvotes but can additionally gain or lose points depending on how the citizens rate their interaction with them and the services they provide.

This appeals to the users core drives of **Development and Achievement**, their need to constantly make progress but at the same time also appeals to the **Loss and Avoidance** core drive as none of them would want to lose points.

This also motivates the government employees to perform their jobs better and improve the quality of interactions they have with the citizens.



5.1.4 Levels

Gaining every 100 points grants the user an additional level. Levels can also decay. For example, if I get hundred downvotes for one of my posts, my level goes down by one. But levels cannot go below one.

As users go up in levels, not only do their tags displays change but so do their user portraits. This makes use of the core drive of **Development and Accomplishment** to motivate the player and since there is no cap to the amount of levels a user can attain, this motivation remains throughout their entire experience.

5.1.5 Pages

Unique pages exist for each district, state and the country as a whole. If a post on the district page gains enough points, the post then gets featured on the state page and upon gaining more points on the state page, is eligible to get featured on the national page.

Pages add to the core drive of **Accomplishment**. Since there are multiple pages of various tiers and reach, the goal for the player becomes to try and garner the most upvotes and get on the national page.

5.1.6 Badges

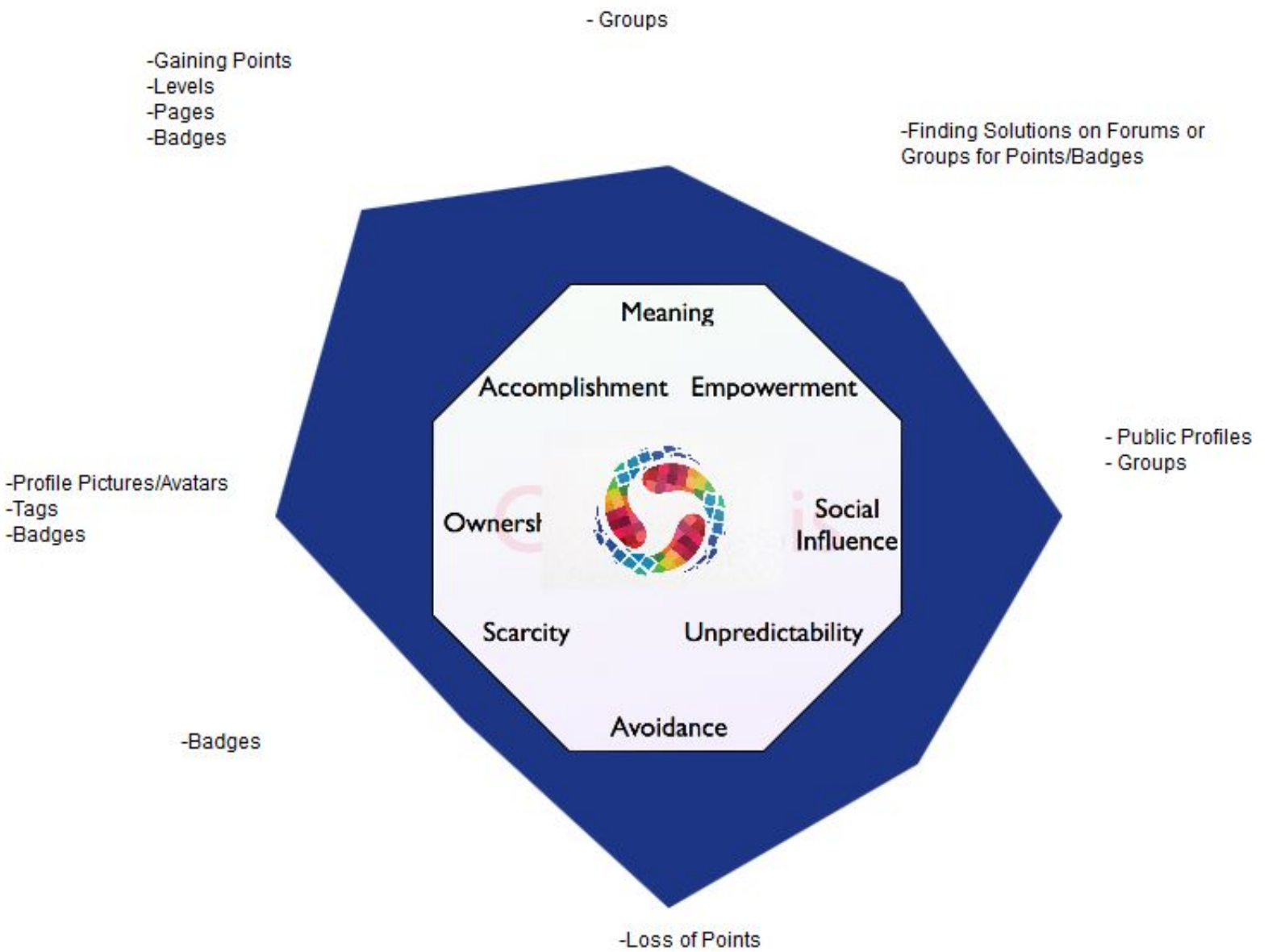
Badges will act as achievements. If a user acquires a badge, it will be featured on his/her profile and at every place they post or comment. Badges can be awarded for a post/comment attaining a certain threshold of point or for a post reaching the national page, for attaining a certain level etc.

Badges act on the users core drive for **Accomplishment**, as they are overcome obstacles or challenges to acquire the achievement or badge. They also act on the drive for **Ownership and Possession** as badges act like something they can collect and display on their profiles and comment sections.

5.1.7 Groups

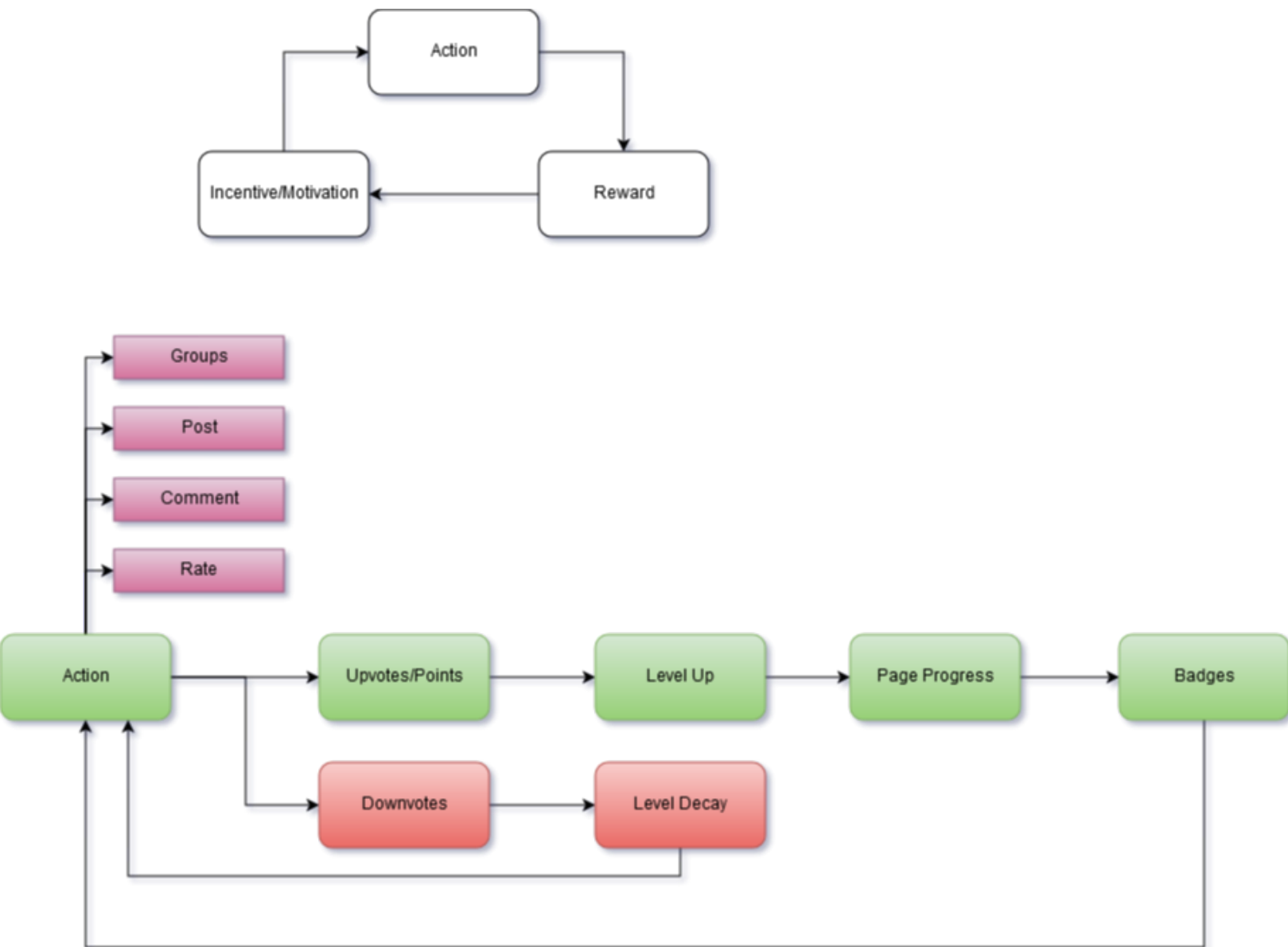
Users can create groups which focuses on solving particular issues within the society. For example if a hospital in your area is improperly disposing off of medical waste, users can create a group that primarily focuses on that issue. Every few week(s)/month(s), the people in group are able to cast their votes to determine the best contributor for that duration. The best contributor now owns that groups best contributor badge which get displayed on her profile and everywhere else. She owns the badge until the next vote where she may or may not lose it to someone else within the group.

The idea of groups is to appeal to the core user drive for **Epic Meaning and Call**. This makes the user believe that they are doing something greater than themselves by doing things that bring about positive changes to their society. Groups also focus primarily on **Intrinsic** Motivational factors but also have a social aspect to them.





5.2 System Flow/Loop





5.3 Why we do we need govNow?

Even though it is the citizens who elect the members of the government to office and hold the ultimate power in a democratic system, it often does not feel this way once the elections are done with. Discussion and exchange of ideas between the electoral representatives and the citizens seems to go on a rapid decline once the members of the government has acquired office.

It has been found that some of the main reasons people don't vote are due to the lack of knowledge or understanding of the government, the electoral process or party policies to vote [8]. *govNow* can enable citizens to be more active in discussing not only representatives or party policies but also their possible impact of on the daily lives. It can also make people more aware and informed about the entire process and give them the confidence they require to make a decision and be more involved in the entire system.

Out of the population that do not vote, the youth are unfortunately, the number one offenders. According to multiple sources, the youth do not vote because they are either completely oblivious to the situation or generally they lack trust in the political process and are of the opinion that politics doesn't serve their interests [9]. But what these youngsters don't realise is that the main reason politics does not serve their interests is because they do not vote. If youth voter turnout were at around 75% rather than 20%, issues such as student debt and education policies would rise to the top of the politicians' or political parties priority list. *govNow* aims to remove all traces of misapprehensions and misconceived notions about the political system by providing the youngsters with a safe environment to interact and exchange ideas not only with other young people but also with people more experienced, experts on these subjects and even with the political candidate or government employees directly.

In quite a few second and third world countries, and sometimes even in first world countries, it is not uncommon for citizens to have terrible experiences when dealing with government employees or public servants. This could possibly be because the said civil servant is corrupt, has terrible work ethic or is simply arrogant. The arrogance could arise from the fact that within the established structure of the system, firing a top level government employee becomes virtually impossible [10].

Even though such atrocities are experienced by the citizens on almost a day-day basis, there exists no reliable system through which they can lodge a complaint with assurance that action would be taken. In such situations *govNow* can provide citizens not only knowledge about the lack of decent system but also give them a portal to discuss and lodge complaints against the civil servant in question. If enough complaints pile up on the forums, social pressure will force the officials to take action in order to avoid facing backlash.

In fact, lodging complaints can actually become their primary incentive to join the portal but once in, they realise that there is a lot more they can do in order to bring about changes in everything from their neighbourhood to their governing body.



5.4 Why should govNow be gamified?

From the studies and analysis previously done, it is quite clear that a human-focused design within a system consisting of human emotion and interaction is leaps and bounds better than a function based system. Since a democratic government is a system consisting of a large amount of human beings, each of them with their own feelings, insecurities and opinions, it makes very little sense to have a function-focused design framework in order to boost interaction.

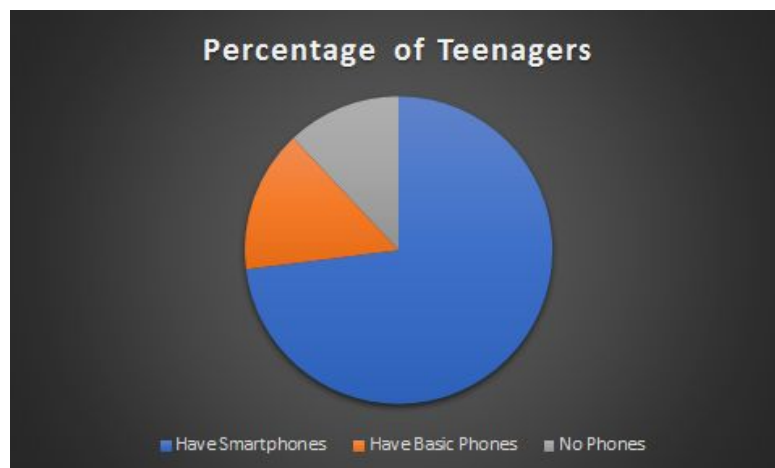
Similar websites and portals such as MyGov have failed to garner as many users as they would have liked because they have a function-focused system without the use of any core drivers to incentivize users.

A similar system but based on a human-focused system could be quite effective in achieving the required results.

5.5 Primary User Base Analysis

govNow is primarily targeted towards everyone within the age group of 18-36 who lack the time or energy to keep up with the social and political incidents happening in and around their neighbourhood.

Various surveys have shown that a large majority of youngsters and teenagers own a smart phone or have access to the internet [11]. This enables the app/website to be easily accessed by the majority of the target market.



It is often said that the success of a democracy is impossible without the participation of the people and especially the youth who will have to run and manage the country in the future. Also the youth is more likely to actively take part in a gamified system why compared to older people [12].



5.6 References

5.6.1 Reddit

Reddit's front page and r/all system provides the users with added incentive to create posts and attempt to get a high number of upvotes (karma) on them. This allows the quality of posts to be kept under check while at the same time incentivizing the player to keep posting, commenting and upvoting/downvoting more and more.

5.6.2 Stack Exchange

Stack exchange's public badge and points display system heavily influenced how govNow handles and display its users levels and badges. This enables the users to gauge how experienced or accepted a particular user is within the community and how much value to give to their opinions and ideology.

5.6.3 Discord

Discord's all inclusive group system was also something that was intriguing and innovative. It allowed users to create groups and communicate efficiently with each other through various forms such as text images and voice chat. It also lets you streamline your group's discussions by having sub groups. Its admin system also allows the groups discussions from deviating too much from the intended purpose.

5.7 Development Timeline and Process





5.7.1 Conception

The focus during the conception phase was to find an area where people had inconveniences with or were just not interested and try to gain their interest by gamifying the existing system. During this time it was found that most people have a bad experience when they have to interact with public servants and despise approaching them unless they absolutely have to. A few reasons of why people have bad experiences were identified and attempts to fix these problems were pondered upon.

5.7.2 Research

Once a basic concept was established, the next task was to gather data about the scope and possibilities of the application. Then, I had to check for any similar applications on the market in order to benchmark. Once similar systems were found, their positive and negative were analyzed and attempts were made to find solutions to the problems within the existing system.

5.7.3 Development


Once the initial draft of the concept was created, more research was conducted after which changes were made to the system with reference to The Octalysis Framework. Extra care was taken in order to create the best possible experience for the user while being able to efficiently perform the task at hand at the same time.

5.7.4 Documentation

The entire system was documented when created and all updates and changes made to the system were also constantly updated and recorded.



5.7.5 Mockups

**govNow**
Towards a better government, today!

Home

Twitter

About

Facebook

Contact

Google plus


National Page

State Pages


District Pages

My Groups

Profile



785




[AMA Announcement] Rohit Chopra and Bunty Bolta from "India Explained" on November 12, 8:30 pm IST






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Jill - Gujarat
Level 988 Village Accountant



510




[Demonetisation] Cash is back in Maharashtra's first 'cashless village'

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505




[Survey] [Times of India] 75% of people do not report crimes as cops are unfriendly





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Jacob - Maharashtra
Level 376 Citizen

Raul Ravi, "govNow"
November 2017

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40 Points to next Level

Jill - Gujarat

Level 988 Village Accountant

Description: I am a person who is a person. Bet you didnt see that coming hahaha

Badges



Rate Interactions with this Person:



Your Rating Average Rating

Comments



Enter your comment here...



6.0 Conclusion

Even though gamification is being widely used all over the world in many industries, there are still industries and areas still not making proper use of it or using questionable structures for gamification. Politics and Governmental organisations have begun attempting to gamify its systems in some places already for multiple purposes. It will surely be interesting to see how far these fragile systems can be pushed with gamified systems.

Bibliography

- [1] Burke, B. (2014). *Gamify: How Gamification Motivates People to Do Extraordinary Things*. Routledge.
- [2] Huotari, K., & Hamari, J. (2012, October). *Defining Gamification - A Service Marketing Perspective*. Retrieved from Research Gate:
https://www.researchgate.net/publication/259841647_Defining_Gamification_-_A_Service_Marketing_Perspective
- [3] *What is Gamification?* (n.d.). Retrieved from: <http://www.bunchball.com/gamification>
- [4] Chou, Y. (2015, March 1). *Octalysis - The Complete Gamification Framework*. Retrieved from:
<http://yukaichou.com/gamification-examples/octalysis-complete-gamification-framework/>
- [5] Stanley, R. (2014, March 24). *Top 25 Best Examples of Gamification in Business*. Retrieved from:
<https://www.clicksoftware.com/blog/top-25-best-examples-of-gamification-in-business/>
- [6] Chou, Y. (2017, January 12). *Top 10 Marketing Gamification Cases You Won't Forget*. Retrieved from:
<http://yukaichou.com/gamification-examples/top-10-marketing-gamification-cases-remember/>
- [7] Chou, Y. (2017, May 21). *Top 10 Social Gamification Examples that will Literally Save the World*. Retrieved from:
<http://yukaichou.com/gamification-examples/top-10-gamification-examples-human-race/>
- [8] McGreal, J. (2017, June 8). *Why people don't vote*. Retrieved from Raconteur:
<https://www.raconteur.net/current-affairs/why-people-dont-vote>
- [9] Montenegro, R. (2016). *Why Young People Don't Vote: Part Apathy, Part Frustration, Part Ignorance*, 1-1. Retrieved from Big Think:
<http://bigthink.com/ideafeed/why-young-people-dont-vote-part-apathy-part-frustration>



- [10] Bhagwat, S. (2013). *The insufferable attitude of IAS – India's Arrogant Servants*. Retrieved June 1, 2013, from The Times of India:
<https://blogs.timesofindia.indiatimes.com/reclaiming-india/the-insufferable-attitude-of-ias-india-s-arrogant-servants/>
- [11] *Smartphone Statistics*. (2015, April 8). Retrieved from Pew Research Centre:
http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/pi_2015-04-09_teen_sandtech_06/
- [12] Thiel, S. K., Reisinger, M. R., & Roderer, K. (2016, December). *"I'm too old for this!": influence of age on perception of gamified public participation*. Retrieved from:
https://www.researchgate.net/publication/312520129_I%27m_too_old_for_this_influence_of_age_on_perception_of_gamified_public_participation

Glossary

1. **Appointment Dynamics** - Offering a reward after a set interval of time instead of offering it immediately. Makes players constantly think about the reward till they finally receive it.
2. **Black Hat Core Drives** - Black Hat Core Drives are represented by the Core Drives at the bottom of the Octalysis diagram. They are namely Scarcity and Impatience, Unpredictability and Curiosity, Loss and Avoidance.
3. **Core Drives** - Core Drives are certain factors that motivate people to perform certain actions.
4. **Extrinsic Motivational Factors** - Motivation that drives people to do things for tangible rewards, rather than just for the fun of the activity.
5. **Gamification** - Gamification is the use of game mechanics in non-game contexts.
6. **Intrinsic Motivational Factors** - Motivation without any reward. The activity itself is fun for the user and in itself is rewarding.
7. **The Octalysis Framework** - The Octalysis Framework divides human motivation into eight core drives.
8. **White Hat Core Drives** - White Hat Core Drives are represented by the Core Drives at the bottom of the Octalysis diagram. They are namely Epic Meaning and Calling, Development and Accomplishment, Empowerment of Creativity and Feedback.