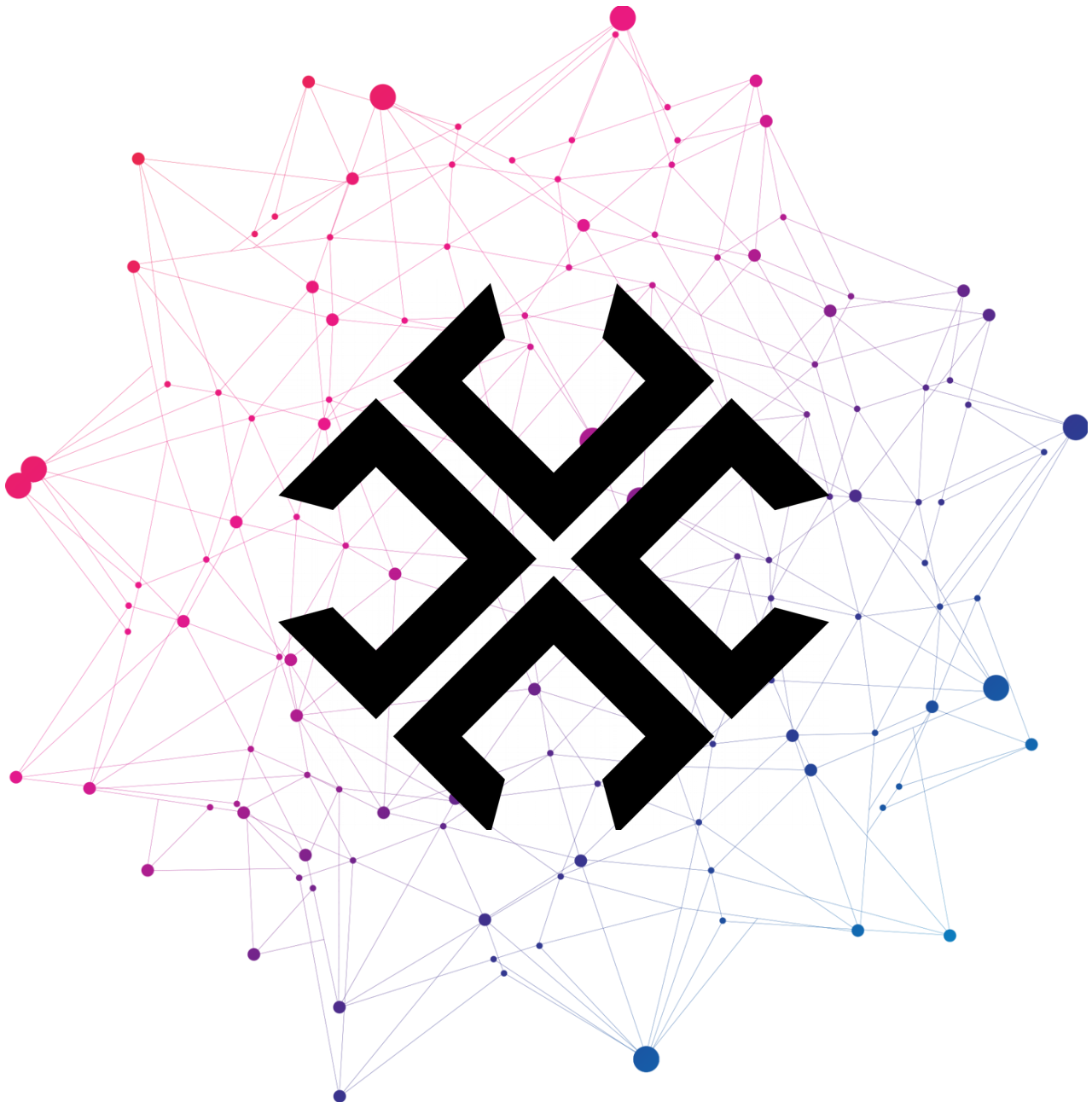# HIVOC SYSTEM

Blockchain-based information sharing system.

DIVERSITY · QUALITY · PERTINENCE

TABLE OF CONTENT

Terms

Complex words and terms used in this document are defined below to ensure a clear and accurate perception of this document.

- **A blockchain:** Also called a distributed ledger, the blockchain is a technology acting as a distributed database that is used to maintain a continuously growing list of records, called blocks. A blockchain is managed by a peer-to-peer network collectively adhering to a protocol or consensus for validating new blocks. In a blockchain, data are replicated, shared, and synchronized across multiple sites, countries, or institutions. Blockchains exhibit a form of "distributed intelligence" comparable to a superorganism in biology based on a consensus which reduces operational risks such as data corruption or network failure. This technology is therefore secure by design and perfectly well suited to record identities, financial transactions, medical records, document provenances, events and other critical data and process that need to be impossible to destroy or corrupt.[1]

- **A system or subsystem:** Sometimes visible, sometimes invisible; it is a self-contained protocol or process regularly interacting or interdependent to a group of items forming a unified whole that executes over time to create a result. Every system is delineated by its spatial and temporal boundaries, surrounded and influenced by its environment, described by its structure and purpose and expressed in its functioning. The terms system and subsystem are interchangeable depending on context, a system is composed of subsystems and part of a higher system which are seen and defined or not.[2]

- **An adaptive system:** An adaptive system is a set of interacting or interdependent entities or subsystems, real or abstract, forming an integrated whole that together are able to respond to environmental changes or changes in the interacting parts. Artificial adaptive systems include robots with control systems that utilize negative feedback to maintain desired states. One of the most important particularity of self-adjusting or adaptive systems is its abilities to avoid chaos.[3]

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1   https://en.wikipedia.org/wiki/Blockchain
2   https://en.wikipedia.org/wiki/System
3   https://en.wikipedia.org/wiki/Adaptive_system

- **A viable system:** Viable system theory concerns cybernetic processes in relation to the development/evolution of dynamic systems. They are considered to be living systems in the sense that they are complex and adaptive, can learn, and are capable of maintaining an autonomous existence, at least within the confines of their often chaotic constraints which is what makes the system constantly becoming more efficient or die except when it is in a degeneracy process. These attributes involve the maintenance of internal stability through adaptation to changing environments often using an open or closed loop control system. Formal viable system theory provides a precise mathematical approach to explore the dynamics of complex systems set within the context of control theory.[4]

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4   https://en.wikipedia.org/wiki/Viable_system_theory

Summary

Designed to be economically sustainable and efficiently achieve its objectives described below, HIVOC is a goal-directed viable system running on a decentralized network using the blockchain technology for data storage and processing targeting the knowledge and information sharing domains trough multiple platforms as services that use a shared token for the system's capitalization and incentives model.

HIVOC's platforms are a chat application, a blogging social media platform, and an online courses platform that are together meant to cover the knowledge and information sharing domains through multiple content formats such as public and private messages, posts, and courses including images and videos.

Objectives

Digitalization has driven major advances in our economy and society while blockchain technology has opened new possibilities. This progress has had a powerful positive impact on the lives of people in developing and emerging countries. Today, more children are educated, fewer people suffer from hunger, child mortality has receded and a global middle class has taken shape.

HIVOC primary objective is to provide a free and secure access to create and consume diversified, pertinent and high quality knowledge related materials such as messages, blog posts, and courses in the educational and information sharing domains while efficiently and fairly incentivizing content creators and curators for their participation in the network through shares which the value is subjectively increased during the creation of their knowledge related materials, audience and attention gathering, permitting people to get new opportunities such as new relations, skills and funding, creating an innovation and passion stimuli and friendly environment through a pleasant yet efficient experience and therefore permitting people to exploit their full potential and get a better opportunity for a greater economic and social advancement.

> HIVOC stand for a better world centered around personal freedom with more equal and great opportunities, permitting people to fly over obstacles, inducing a better economic and social advancement and prosperity.

The system's economics objectives are meant to be fair and sustainable oppositely to a purely speculative and non-fair economic model.

Description

This system is based on a blockchain and is mainly composed of three platforms providing services.

- The first platform provides a service to exchange private information between two or more peers in an efficient way through a highly secure cross-platforms chat application providing an intuitive and pleasant user experience.
  This chat application support rich text messages, instant files transfer, audio call, and audiovisual stream. Security is a very serious component, encryption algorithms and authentication methods are meant to be the technically most secure possible without reducing the application's performance and fluidity.

- The second platform provides a service to read and write blog posts in a social media way through a pleasant and efficient experience. This platform, looking like a popular social media platform is meant to attract a wide range of people through a simple and friendly experience but focus in depth on the blogging side by providing the tools that fulfills bloggers needs in order to attract and gather diversified and high quality content.

- The third platform provides a service to read and write online courses in the educational domain through a pleasant and highly efficient learning experience. This platform is meant to provide a complementary side to the blogging platform to cover the whole knowledge sharing domain.

Using a highly efficient new incentives model that has been possible due to recent technological advancements, this system covers the wide and deep information and knowledge sharing domains through private and public messages, posts, articles, and courses.

Theses three platforms are based on the same system or network that use the blockchain technology called Steem including the same authentication system and raw incentive model that reward content creators and curators through shares in the network, therefore, a user can, from his account, seamlessly flow and chat from one platform to another.

Many details residing in the user interface are meant to significantly improve the availability and quality of information comparing to competitors along with an

improved user experience meant to be more intuitive, pleasant, and efficient to find and absorb desired information into the brain from the blockchain and transmits desired intentions and thoughts onto the blockchain if it fits the collectively adhered protocol or consensus.

Environment

Successful businesses adapt their internal environment in function of their objectives and external environment, therefore this is an analysis of the HIVOC's external environment that matter for the HIVOC's internal environment and objectives.

Economic environment

The HIVOC system's external economic environment is mainly FIAT currencies. According to fundamental economic laws, as FIAT currencies become weaker, our token become proportionally stronger to FIAT currencies, therefore, weaknesses in the external economics are an internal economic strength.

Political environment

Cyber-security is an important gear for a great economic security and prosperity. Most companies and governments data and communication's system are digital, it is important for them to ensure a proper operation of their activities without interruption or unexpected stealing of confidential information.

Education is the pillar of our economy and society, therefore cost reduction and efficiency improvements in this domain along with the possibility to get a cheap ongoing education throughout individuals' entire working lives in order to fit economical and societal changes is very important for a great economical and societal prosperity and growth.

Education and cyber-security are trending and important in politics, they ensure a proper operation of our society in generals. Cost reduction and efficiency improvements are generally welcome when it concerns the public domain.

Spiritual environment

These system's objectives are fair and have a powerful positive impact on people lives, therefore, it often triggers a good response and participation rate as theses kind of objectives are becoming more appreciated in our society and mind in general.

Market

Blockchain market

Many musicians, photographers, artists, designers, scientists, architects, engineers, and authors have not received a proper compensation for their intellectual property on the internet, the blockchain technology has unlocked new business models that can solve this problem while improving trust, safety, and reliability.

This technology can also provide native payment systems, trustable reputation systems, trustable authentication system, and uncensorable content.[5]

Thus make the blockchain technology very interesting for creating new system design. This technology is still very young, therefore, there are still a plethora of opportunities with a quite low competition in the services upon blockchain domain.

Knowledge market

The world in general including economics is like a game or a training simulation where every player are training themselves through constraints while also competing with each other. Every player from the beginning of their game experience have started to learn through experience including more specifically information such as peer-to-peer communications, articles, courses, and books in order to become more efficient and better at this game.

Every player are actually learning through experience sometimes including knowledge related materials to be successful, therefore, it underscores the market size and the demand sustainability. The main question is which business is the most competitive or attractive onto this sector for providing the most valuable information through the most efficient experience for a human being according to their interests, objectives and internal values.

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5   https://www.rolandberger.com/publications/publication_pdf/roland_berger_thinkact_21_vigilant_en.pdf

Online learning market

Education

According to a report from the President's Council of Economic Advisers, the world spends annularly $3.9 trillion on education or 5.6% of planetary GDP. America is the country which spends the most, about $1.3 trillion a year, but yet around a fifth of American 15-year-olds do not have basic competence in science; 23% can't use math in daily life.

These facts underscore the market size and inefficiency of our global education system when to achieve its purpose when it is available.[6]

Employment issues

Currently, in the developed world, people are now going to have an average of 5-6 different jobs during their careers. Therefore the concept of paying $250,000 for a four-year degree is a joke in a context where one degree cannot possibly prepare an individual for the learning/educational challenges of those subsequent six jobs.[7]

Workers must be given the opportunities and the skills they need to adapt to the changes brought about by digitalization and keep pace with new requirements at all times. As with classical education, corporate learning are facing many changes in our societies, theses changes will probably strengthen the pressure for a cheap ongoing development and training throughout individuals' entire working lives.

> "Education is experience, and the essence of experience is self-reliance."
> — T.H. White

Online learning

Even with huge spending, our educational system fails to adapt and align with societal needs such as the recent exponential economic growth brought up by technological advances such as information technologies. The flexibility and efficiency of online learning platforms respond to theses changes and permit our educational system to stay in peace with external changes while creating new possibilities.

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6   https://www.forbes.com/sites/michaelnoer/2012/11/02/one-man-one-computer-10-million-students-how-khan-academy-is-reinventing-education/
7   https://trends.ifla.org/expert-meeting-summary/the-future-impact-of-the-internet-on-education-and-lifelong-learning

Over the next 5 years, online education and Massive Open Online Courses (MOOCs) will cause serious disruption to the incumbent players in the higher education market. Online education will open up new learning opportunities in the developing world.[8]

The availability of MOOCs is expanding rapidly – according to the Chancellor of the University of Southern California, that institution currently generates around $114 million per year from operating such courses. It was predicted that in the next 5-10 years online courses will be serving more learners than the combined provision of physical courses offered by the world's universities. This will have both revolutionary and disruptive effects on the global education landscape over the next 10 years.[9]

The rapid global expansion of online education resources will make learning opportunities more abundant, cheaper and accessible at anytime, anywhere for everyone. There will be increased value on lifelong learning and more recognition of non-formal and informal learning. [10]

13%

is the growth in 2014 set to double by 2018: these are the forecasts for the entire e-learning market – actually valued at 170 billion, it's one of the most impressive success stories in the education sector, itself already enjoying strong growth.

77%

In 1995, only 4% of US companies offered e-learning in their professional development programs, in 2014 it was 77%.[11]

Individuals learning including schools and universities being in the pre-workforce and corporate learning being in the workforce compose the online learning domain. As mentioned above, the market is rapidly changing, therefore, the advantage for people and organizations to be up-to date and fit the market bid is morphing into a critical need to stay competitive in this ever fast changing market.

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8   https://trends.ifla.org/the-disruptive-democratisation-of-education
9   https://trends.ifla.org/expert-meeting-summary/the-rise-of-massive-open-online-courses-moocs
10 https://trends.ifla.org/files/trends/assets/insights-from-the-ifla-trend-report_v3.pdf
11 https://www.rolandberger.com/publications/publication_pdf/roland_berger_tab_corporate_learning_e_20140602.pdf

Blogging social media market

Information century

Digital information grease the wheels of our society, it is the oil of the 21st century. Every two years, the global volume of data doubles in size. Digitalization is unstoppable because it makes knowledge available anywhere anytime.

We are heading toward a "social" economy in which people and systems are constantly linked up and communicate in real time. Our life is becoming a huge network in which the real and virtual worlds flow into each other, with lasting effects on our mind and social relationships.

More and more products and services from the analog world are now facing their equivalent on the social web. Newspapers and magazines have become websites while library and shops have become marketplaces and online shops. Today, digitalization and social media are constantly changing the way we consume, create, and communicate. Those that get a handle on the network economy early on can tap new value-creation potential.

These new medium have opened many possibilities while digitalizing services from the analog world – people have received the power of creation through having the possibility to interact, such as helping to shape a blog or a magazine and having the possibility to create their own blog or medium to distribute their own view, their own world of information.

Social media

Social media is spreading exponentially. It has already changed the world as much as radio did in the last century and has turned the internet from a passively used medium to an interactive one.

<div align="center">

1/4

of Internet user's time is spent doing social networking.

3/4

of users access social media using their mobile device.

</div>

Social media meets many basic human needs: inquisitiveness, sharing, communication – not to forget visibility and recognition.

From the interactive side of theses medium, one of the strongest reasons for getting involved in a community is the chance to boost one's own social status. This urge can be triggered by awards like badges and other playful elements like gamification.

From the passive side of this medium, it provides a feed of information about user's personal interests and passions that can be used in a meaningful way to become an integral component of the user's personal development.

> Platforms based on openness, self-regulation and implicit rules boost the commitment of those involved.

> Collaborative commitment is the top level engagement. More than simply disseminating content, it's about jointly creating, completing or modifying it.

> The perceived fairness of the governance system has an impact on the effectiveness and durability of a community.

> Social media isn't just for youngsters – the over-45s are now the fastest growing segment of users.[12]

Social media platforms create a joint between knowledge and innovation for people from all regions, functions, disciplines and hierarchical levels.
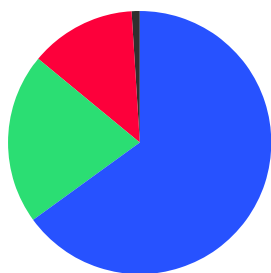
Blogging

There are very few websites online today that don't incorporate some form of a blog. Whether it's an international news outlet, a local business or a friend's online diary, it seems like nearly everybody these days is blogging about something.

The easiness for one to create its own blog using recent technological advancement has pushed forward the digitalization of newspaper and magazines into blogs and websites, meanwhile, the horizon line between the professional and non-professional blogging world has become blurred, nearly invisible.

This domain is very wide, it can be extended from separated platforms such as blogs and websites onto merged blogs and websites onto a single platform depending on how we see it.

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12 https://www.rolandberger.com/publications/publication_pdf/roland_berger_tab_socialize_your_business_20140718.pdf

Blogger segments

- ■ Corporate (1%)
- ■ Part timer (13%)
- ■ Self employed (21%)
- ■ Hobbyist (65%)

8+

In million is the number of blogs online in 2010.

7.4

In seconds is the time between the creation of two blogs on the internet.[13]

Major reasons to start blogging are hanging around money, creative expression, social power, and recognition. This sector seem to be growing in popularity and fit many basic human needs. From a consumer perspective, being able to find a wide range of diversified information instantaneously at any time and express one's opinion seems to perfectly fit the way we create and consume information at our time.

Most popular reasons to start blogging
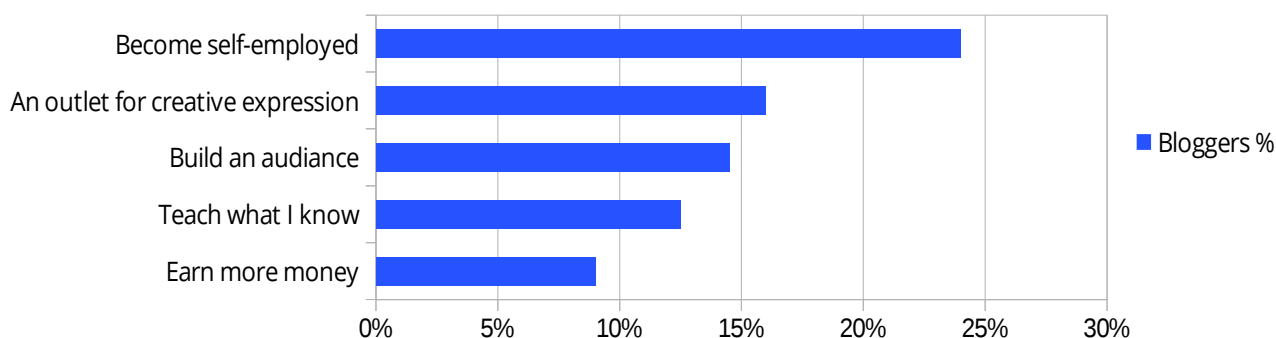
Most popular factors contributing to bloggers' sense of success
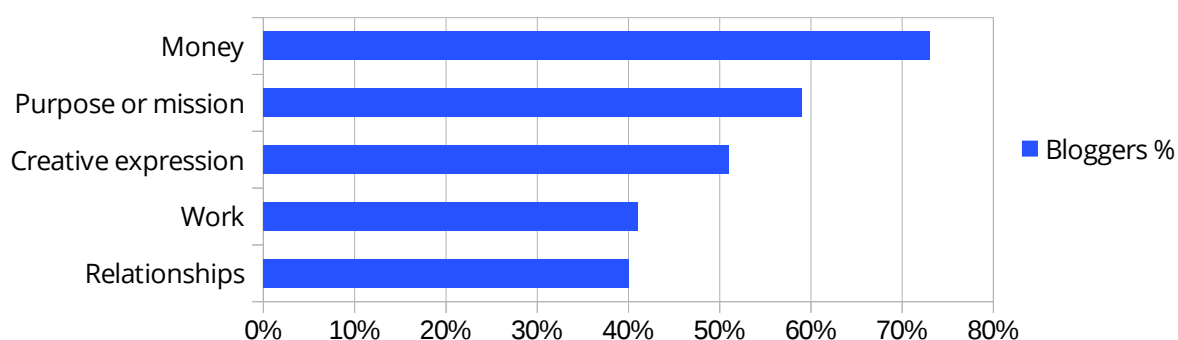
Most bloggers aren't earning enough money from ads according to their opinion, a recent study demonstrated that of all bloggers asked, 65% had a product or service

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13 http://technorati.com/state-of-the-blogosphere-2010/

for sale and 66% of bloggers made money in the past year. The correlation does not absolutely means that only 1% of bloggers are making money using ads, but it underscores the ads model's inefficiency at providing a reasonable source of revenues for bloggers.
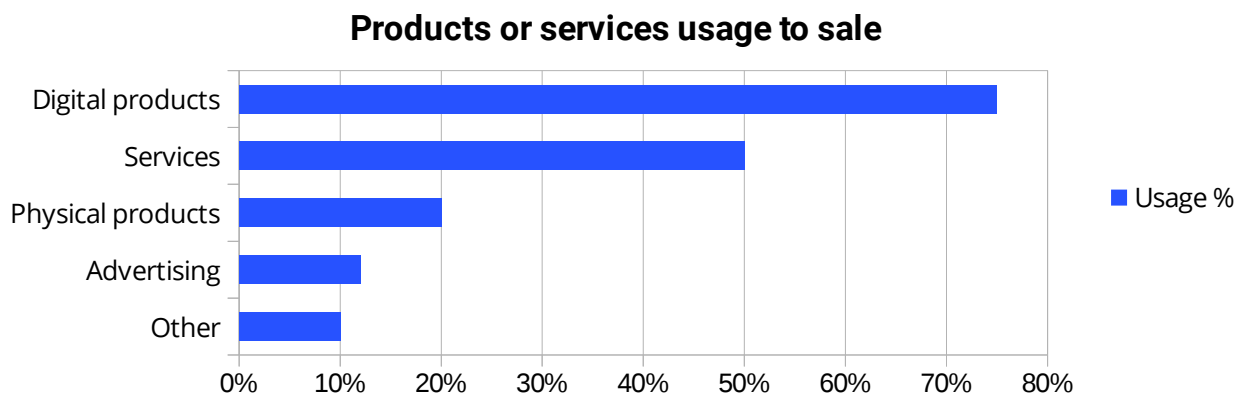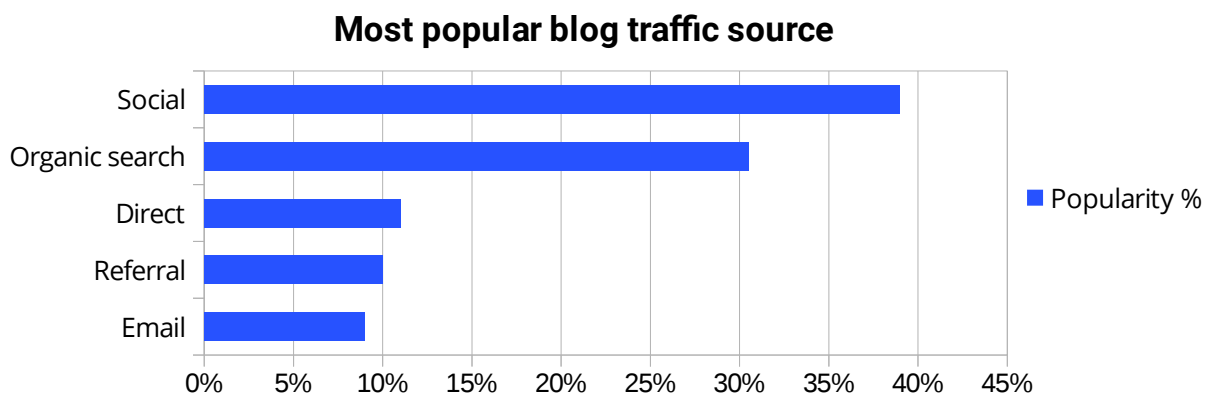
Products or services usage to sale

Category	Usage %
Digital products	~75%
Services	~50%
Physical products	~20%
Advertising	~12%
Other	~10%

Professional bloggers with a good audience and sales strategy selling digitalized goods or services earn in average around 185'000$ a year. Concerning the best traffic sources to increase one's blog audience, social media and organic search are by far the best means, followed by direct traffic source which can be interpreted in some way as a kind of words of mouth process which can be made both online and offline.

Most popular blog traffic source

Source	Popularity %
Social	~39%
Organic search	~31%
Direct	~11%
Referral	~10%
Email	~9%

Most frequent struggles around blogging are growing the audience and income which is linked through a good sales strategy. Most bloggers are using social media as their main traffic source but use a custom solution as a platform, probably due to the flexibility and efficiency provided by such solution at fulfilling all bloggers needs.[14]

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14 https://convertkit.com/reports/blogging/

Chat market

Cyber-security

We are heading toward a "social" economy in which people and systems are constantly linked up and communicate in real time. Our life is becoming a huge network in which the real and virtual worlds flow into each other.

In an interconnected world, cyber-security and privacy become crucial components both to individuals as well as to enterprises. As of now, most individuals and companies are not prepared to provide sufficient security regarding their communication and data storage system.

A study conducted by the American Company Raytheon outlines, that 2/3 of all enterprises are not ready to protect billions and critical information of cyber-vulnerable devices[15]. The different purposes of cyber-security in an interconnected world will occupy many researchers and entrepreneurs for years to come.

Many people are actually facing some issues regarding the security of their communications. Middle-class business owners, large corporations, and governments often work with very sensitive data that could cause them serious damages if they are intercepted and spread, therefore, a solution for highly encrypted and secure communication system is becoming very appreciated and even sometimes critical.

Chat

In April 2017, Whatsapp, Facebook Messenger, and WeChat cumulated together more than 3 Billion users worldwide. With social network, chat applications are the most used platforms on the internet.[16] Today, most popular communication systems for instant data exchange, such as GSM, Skype, WeChat, Slack, Google Talk, Facebook etc., do not provide an adequate level of protection and privacy. Classical schemes of such systems mainly mean data exchange between parties in an unprotected way.

Today, most people have an access to such communication systems, in fact nearly everybody with a GSM or internet access, therefore, the market pie is huge but also not very profitable considering that most popular solutions are mostly free. Security lack in most communication system has opened new opportunities in this domain.

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15 http://www.raytheon.com/news/rtnwcm/groups/gallery/documents/content/rtn_233812.pdf
16 https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/

Competitors

Online learning competitors

Name	Partner universities	MOOCs	Users
Khan academy	?	?	10,000,000
Coursera	108	627	6,400,000
EdX	31	133	1,800,000
Udacity	3	33	1,800,000

There are usually two approaches to the online learning market:

The first approach is to provide free courses and charge an amount for extra services such as certifications or help. This approach offers a great accessibility but often cause a lack of quality or diversity.

1. Khan academy is a non-profit organization running on donations and providing free courses. The greatest advantages to use this platform is that high-quality free courses are accessible anywhere, anytime for free and without being logged, therefore accessibility is very great. The downside is that diversity is quite bad, this platform only offers general skills in classical domains probably due to non-existent incentives for authors and a very complicated process to publish content.

The second approach is paid courses which charge an amount per courses or per account through a single time license or a monthly subscription. This approach often offers a great quality and/or diversity but is far less accessible.

- Coursera is a for-profit organization charging 3000$ per universities to permit them to write courses and a one-time payment between 25$ and 8$ per students to permit them to access the platform and it's courses.
  For individuals learning, some courses are free with paid certificate and some other are to pay in form of a subscription concerning a specific list of courses. This platform offers a good quality, a medium diversity, and a quite bad accessibility because of high learning price and the obligation to create an account even on free courses, creating a barrier to newcomers.

- [Lynda](#) is a for-profit organization charging a 30$ subscription fee per users per month for an unlimited access to the platform. They then distribute 90% of their revenue among authors based on their courses popularity and take a 10% fees. This platform offers a medium accessibility through an affordable price and provide a good quality and diversity.

- [Udacity](#) is for-profit organization charging a big amount to access niche courses in form of a subscription per courses or one-time payment. Udacity is focused on specific domains and offer a great quality but a very bad accessibility, because of the incredibly high value given to courses.

- [EdX](#) is a for-profit organization providing free courses and charging an amount per certificate. This platform provides a quite good accessibility, quality and diversity through a great openness.

The competition in term of service quality and attractiveness is mainly based upon three subjective parameters:

- Quality based on content quality, pertinence, and overall user experience.

- Accessibility based on price and instant access capability.

- Diversity based on content wide.

Each parameter is indirectly defined through the platform business plan including partnerships, marketing, and various other operations. Khan academy have a huge userbase due to their strategy based on openness and free content, Coursera have a quite good diversity and quality due to their partnerships with universities, and Lynda has a quite good userbase and mix between quality, accessibility, and diversity due to their affordable price. Thus, make each platform have it's strength and weakness, making a platform more or less attractive depending on the learners expectations and courses target.

Blogging social media competitors

There are two approaches to blogging domain, providing separated customized blogging solution such as hosted blogs like Wordpress and providing merged blogging solution such as blogging social media platforms like Medium.

The first approach such as Wordpress offers an amazing flexibility and possibilities range that can fully match bloggers needs but is far more complex to set up and attract a base audience. This solution merged with a good social media strategy is by far the most used blogging system today probably because of its potential to fulfills all bloggers and readers needs.

The second approach is blogging social media platform such as Medium which is far more simple to set up, get started and attract a base audience but available solutions don't provide adequate tools to incentive authors as much as customized blogging solutions due to a weak incentives model and inability to provide a place to sell digital goods. The main source of revenue for bloggers is based on paid extra materials, so bloggers often use theses platforms as a complementary approach to their customized solution as a classical social media to boost one's audience. However, theses aggregated blogging platforms offering a good visibility and audience centered around blogging provide a simple and very pleasant and clean experience for readers to find and read their favorite content from different authors at the same place.

[Medium](#) is a social media platform oriented onto blogging, they have a great user interface without any ads which is simple, attractive and provide a great solution to start blogging and quickly build an audience without setting anything up. The main downside is that the only way for bloggers to be remunerated is to write premium content which is only accessible for users who pay a 5$ monthly subscription which considerably broke the great accessibility and audience and still don't providing a sustainable revenue model for writers.

Because of its blogging-oriented userbase, and inefficient incentives model, Medium is commonly used like any other social media to boost one's blog audience. Therefore, bloggers who want to earn a sustainable revenue still use a custom solution such as Wordpress. Nonetheless, Medium is very attractive for readers because it provides a unified place to read a wide and diversified range of blog posts embedded into a pleasant yet efficient user experience.

Chat competitor

Most popular chat applications are very similar and competitive in term of user experience and functionalities. Most chat applications are free or nearly free to use, therefore, prices are very competitive.

There are some improvements that can be made in order to compete in this domain, user experience, security and complementary services. Some chat applications such as Telegram have reached the market through improving security, however, no noticeable improvements have been made, it has just raised the base security level of other mainstream chat applications such as Whatsapp.

A recent player in this field is [Cryptoviser](#) which has made game changer security improvements at the data storage and encryption model level. They purpose a post super-computer encryption model which, coming with blockchain authentication and data storage system, is much more secure than their competitors but still can be broken by quantum computers.

Some chat applications provide complementary services such as secure and private money transfers and chat bots which add a strong value by meaningfully interacting with the user by providing beyond individuals knowledge helpful information. Bots can also be merged with artificial intelligence technologies which are powerful but not very accurate in a sense that it can provide wrong information.

SWOT analysis

Hivoc network

	Helpful	**Harmful**
Internal	**Strengths** • Great user experience • Very high security level • Better incentives model • Wide range of services • Great content accessibility • Great content availability • Good content quality • Good content pertinence	**Weaknesses** • High server cost • Empty userbase
External	**Opportunities** • Trendy domains in expansion • Life lasting market	**Threats** • Skynet (AI)

HIVOC's main threat is artificial intelligence technologies metaphorically comparable to Skynet that could in a near future infiltrate systems and fulfill a particular purpose using black tactics such as distorting perception through fake news to crash a market or corrupt, infiltrate or hack many systems to destroy something or start a war. Many people don't understand the subtle threat it can cause and will be afraid when they will get it. According to Elon Musk, founder of SpaceX, it is the biggest threat to mankind.

HIVOC's main strength is the incentives model that provides one of the best availability and accessibility possible by providing free content accessible without being logged with a minimum of ads and reward content creators and curators much more than an ads-based incentives model. In ads-based incentives models, content creators earn rewards proportionally to the attention they gather, which have a tendency to promote popularity over quality. In HIVOC's incentives model, content is rewarded considering popularity and quality and curators who esteem quality by voting positively or negatively are also rewarded which create a more efficient sorting system which has a tendency to promote content quality and pertinence over popularity raising among platforms the standards of quality.

HIVOC's incentive model is designed to promote quality and pertinence through ensuring that everyone involved in this process that promotes theses points get a proper compensation for their work. Content and userbase have shown to be subjective value that is objectively capitalized as a whole. In average, through capitalization, a single user worth around 110$ and will provide a revenue around 10$ per year in ads[17]. On Steem a user is valued at 1500$ in average.

Content value, users number, and users attention are the three subjectively valuable and capitalized things. In classical business models, nothing or sometimes a small portion of the user attention value through ads is given as a compensation to authors, even if content creators increase the whole value through growing other points.

In the HIVOC system, there is a share deflation that occurs when someone pays to place ads in form of a promoted post and a share inflation to meaningfully reward those who bring value into the network and therefore increase share value. The inflation is designed to be slightly higher than the deflation, this differentiated value is meant to be automatically invested or allocated in a way that it provides a positive return on investment for the network value and investors, therefore, content creators and curators earn more than from a classical advertising model in a more meaningful way while investors will make as much or more profit than from a investing in classical service model. The inflation variable can be adjusted to ensure that the points mentioned above are correct. This is what especially makes this platform have a big competitive advantage for investors, content creators, curators, and consumer through higher incentivizes and better content quality and pertinence which is meant to induce a faster and more sustainable growth than classical model.

Theses shares created are allocated in the smartest way possible, quality is estimated by humans through votes which have themselves a different weight in function of the voter's reputation estimated by other users, voter's shares percentage, and voting power from 0 to 100% which is a like a power bar that unload when used too often and reload over time.

Users are also rewarded to smartly curate content, someone who vote early on a specific content on which others users will later agree on his vote will be considered like having done a smart and right curation which he will be rewarded for more than if

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17 https://www.forbes.com/sites/tristanlouis/2013/08/31/how-much-is-a-user-worth/

he votes later on. In other terms, it is the final user's opinions average that defines quality, also, the more a vote is placed early the more it will be rewarded if it matches the final user's opinions average which promotes the curation of not yet popular content and induce a better diversity. This system promotes pertinence based on incentivized human decision.

User's incentives are shares which can be exchanged to an other currency to meaningfully create and curate quality content such as posts and comments. This system that reward users for their action promote quality engagement and make an attractive point to gather new users.

HIVOC's second main strength is the security level which is physically nearly unbreakable due to the consensus protocol and geographical node repartition that reduce the risks such as node corruption or geographical disaster. When something is posted on the HIVOC's blockchain, it will stay forever despite non-global nuclear war, natural disasters, and harmful human intentions. Until now, no one has been able to hack or corrupt data or accounts on the HIVOC's blockchain software. If you want to spread a message for future generations, you may need HIVOC.

HIVOC's applications are meant to be more intuitive, pleasant, and efficient than other competitors and therefore provide a better user experience. However, this strength is subjective and depend on your personal perception.

Online learning platform

Online courses will be free, only some extra content will be sold but the concept hang around free materials accessible without being logged, therefore HIVOC is able to provide the same availability and accessibility as Khan academy.

HIVOC is designed to provide the best incentives model to reward content creators for creating free materials, therefore, this system can gather a more diversified range of courses with a higher quality comparing to free courses platforms such as Khan academy or EdX.

The content pertinence and diversity should be very good comparing to other competitors due to a smart incentivized human curation.

The user experience is designed to be pleasant and highly efficient to find and absorb desired content into the brain, the design is clean and the policies are meant to be read efficiently through a good flow. Incentivizing feedback is meant to improve content quality and curated questions are meant to improve the learning experience. A chat is available for learning to help and discuss to each other in order to provide a better cooperation than most other platforms.

Physical and online incentivized events and places are meant to increase the participation rate and learning dynamics, therefore it will also provide a physical and online advertising. Branding materials will be available for those who want to organize an event or fund a place for a period of time. Users can give small donations to help funding places and events such as a school in the third-world or innovation rooms in addition to incentives gained through the place or event post.

Blogging social media platform

A custom self-centered blogging solution permit a complete freedom for content creators, they can do whatever they want, however, it has some downside, it requires a more complicated process to set-up a solution and attracting a great audience is much more difficult. From this side, the blogger literally needs to start from scratch alone, but a partnership is possible. Considering the possibilities and self-fulfillment needs that offer such solution such as a great financial income, it is actually the most used solution today with the use of merged blogging solution or social media platforms in parallel.

A merged self-centred and network-centred blogging solution does not permit a complete freedom for content creators, they are tied to the limitation of the platform and expectation from the superorganism composed of all participants, however, attracting an audience is much more easier in a passion friendly environment as the network will help the user or self-centered blog if the user or blog subjectively provide something good for the network considering a non instantaneous time frame. The actual downside of this side is the difficulty for ones to earn a good financial income only using this kind of platform and the freedom or choice limitation in the blog customization.

The strengths and weaknesses of both side are actually why bloggers nearly always use the combination of both sides.

HIVOC's blogging solution focus on providing a complete solution using the best of both world, the flexibility and freedom from the custom blogging solution and the help and social connections from the network for content creators in order to fulfil both side of bloggers needs, respectively a good income and a medium for creative expression with a ready-to-go audience and help from the network such as relationships facilitations in order to ensure a fair, easy to start but tough competition to provide the best content diversity, quality, and pertinence hanging around knowledge on the internet.

> Before HIVOC, bloggers were tied to both approaches weaknesses, now bloggers can merge both side's advantages.

In other terms, content creators can use this platform for free as a complete solution to fulfill all their needs while diminishing their struggles by using both side as one unique solution to be aside of both sides weaknesses and with both side strengths.

Building an audience, configuring the platform and its tools, earning incentives through one of the most efficient, advanced and complete models available on the market, is very easy and make this platform one of the best place on the internet write content and get a proper compensation for creating value.

For content consumer, it provide a unique place to read diversified and quality content from multiple authors sorted in a pertinent way for free even without being logged while connecting with other people onto a unified, clean and pleasant user experience without mess nor complicated process or choice making this platform one of the best place on the internet to read diversified and quality content in a highly pertinent way.

Chat platform

This chat platform is designed to provide a slightly better user experience compared to mainstream chat application with the same basic functionality and the possibility to include chat bot that can use artificial intelligence technologies. This chat application also supports instant fees-free money transfers.

The application security is considerably improved, data including messages and files are stored on the blockchain technology which mean that to corrupt the data stored into the blockchain, someone or something need to hack or take down the majority of the blockchain participants, therefore data can survive a nuclear attack and a hacking attack that corrupt or take down up to 100 different participants. The authentication model is also based on the blockchain technology ensuring the same physical and software security level coming with password that can't be brutforced even by supercomputer.

The unbeatable encryption algorithms based on the McEliece cryptosystem used by NATO forces that resist supercomputer and quantum-computer attack merged with the world most advanced data storage technology provide the world most secure communication system available today.

Strategies

HIVOC is a fully autonomous goal-directed viable system designed to act like a "force" with autonomous goal-directed sub-systems meant to invest this force in a way that this system automatically grows in a sustainable way. Users are empowered by HIVOC and gain many advantages from the network while HIVOC is also empowered by users actions in exchange. As a more smarter and powerful system, HIVOC is able to merge users efforts to produce a bigger output than from separated efforts cumulated which a part is kept for growth and the other part is redistributed to users in function of their value-creation. In other terms, HIVOC has two objectives, helping users according to the objectives described above and growing in a sustainable way which, is in reality, part of the same objective being growth.

Everything mentioned above is in part coded into the internal core of the blockchain participants and in part in the blockchain external platforms connected with. Strategies described below are maid in order to provide the best efficiency or greatness of the services provided and the efficiency of the "power" or money investments maid to induce the best growth possible in the most efficient way possible. An investment strategy is maid to ensure a continuously improving efficiency through rewarding improvements.

Classical marketing approach composed of distinct compartmentalized strategies are not well designed for such systems growth because it can't handle the complexity of real world's mechanics and relations that often induce a low return on investment for extracting users value. You'll rarely see such platforms doing classical advertising through online or physical advertising and see a good positive return on investment.

This section describes marketing sub-strategies focusing on multiple details that seamlessly work together to achieve the same purpose of classical marketing with a better efficiency considering the complexity of real-world mechanics systems, environment, and composition using the cybernetics transdisciplinary approach.

> "Details make perfection, and perfection is not a detail."
> — Leonardo da Vinci
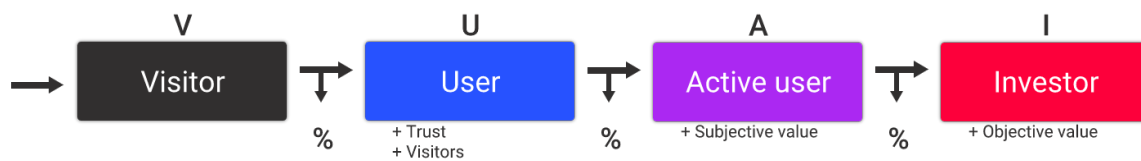
The main strategy is to bring the maximum amount of visitors through autonomous or without core team intervention processes and then optimize the cost of conversion rate among each evolution step of users in order to extract the maximum value possible from a visitor, user, active user and then investor.

The most efficient in term of cost and result is to make users bringing visitors through word of mouth, social media sharing and natural search engine process. It is then strategic to optimize each conversion rate.

Breaking down human psychological reaction and automatic process may hurt the reader ego. Most tactics described below are often used in marketing, the difference is that they are sometimes planned uncontentiously by replicating successful pattern.

It is not new that humans are not well protected against marketing, emotional or psychological bias and more generally manipulation, every system are depending, influencing and influenced by its surrounding. Breaking down incoming and out coming influence using a critical approach is the only way to be protected against theses tactics but not needed to use theses tactics as everybody uses theses tactics everyday through deep learning by simply replicating successful pattern. Please lower your ego to ensure a fresh and nonbiased perception of the strategies described below.

Bringing new visitors

- Creating hype

  ○ A stream also known as an hype is being engineered through a plethora of little details, impacting, impacted and seamlessly working with other growth strategies and various details to push forward the will of promoting and growing the network. Streams are very difficult to engineer, it must come with a shared ideology or identity along with an awesome and pleasant product. Hypes are predictably irrational and rational, users must be in

accord with the HIVOC's purpose, core value and identity, Apple is one of the best example of hype created today.

- Word of mouth

    ◦ Word of mouth processes are a result of hype and triggers, the stream load a charge onto a person which can be unloaded by a subtle internal or external trigger to push forward the will of a natural word of mouth process. Triggers must be wisely chosen and placed in order to efficiently discharge an action charged by the engineered stream.

    ◦ The chat application provides a far better security than most other competitors and an equivalent quality in term of user experience, therefore, it provides a breach to reach the market. When a group of people uses a chat application, there are easily willing to invite their friends if the application provides an enough important advantage to induce a switch. The process of inviting friends will be optimized to maximize the conversion rate.

    ◦ The HIVOC strength is that each little details are optimized to make the whole great. The brand and its platform are designed in such a way to make the product so good that natural advertising will be automatically done through users.

- Web sharing

    ◦ Users sharing their post are one of the best advertising possible, it is the natural way content is shared on the internet. HIVOC system is designed to maximize the share rate among post through tips, gamification, public analytics and various triggers such as suggestions to users concerning the action of inviting their friends through tips to increase their audience.

- SEO

    ◦ Natural referencing is a strong source of traffic, search engines will be objectively or technically optimized and short tips will be displayed to users to subjectively optimize their content for search engines in order to maximize this source of traffics.

- Cross login

- Cross login is simple yet powerful, if a user has created an account to use the chat application, he will be able to access to all others platform without creating a new account. Each platform provides a link to access all other platforms in such a way that users can flow from one platform to another.

- Hypesquad

  - Hypesquads are a big part of the rationally engineered stream, users can be actively part of something which they agree, merchandising and branding materials are freely accessible such as stickers, wallpapers, logo, and ready-to-use email. Users can be part of a group called an hypesquad which have the purpose of reaching new users such as their favorite content creator or friends. Exemples at http://esteem8.org/hypesquad and https://discordapp.com/hypesquad.

    A 2010 study out of Duke University and NYU, entitled "Brands: The Opiate of the Nonreligious Masses?"[18], supported the theory that brands and religiosity may serve as substitutes for one another because both allow individuals to express their feelings of self-worth, filling the human need to believe and belong. Brands enhance the value of products in many ways, it simplifies a consumer's decision process (i.e., reduce risk, reduce search costs, and provide a signal of quality). Many researchers have found that consumers are attracted to brands that provide an opportunity to express attributes and qualities that are congruent with the self (Aaker 1999, Escalas and Bettman 2003, Kleine et al. 1993). Brands add an invisible value to their products, the price variation in visible products such as clothes is consumed by the value perceived in the brand. Perception, feelings of self-worth and need to believe are very complex psychological mechanisms, which are not described in this paper as it would take many researches and books to describe it but HIVOC has been engineered to use theses tactics in order to increase this subjective invisible value added to the brand and it's stream through perception which the results can be objectively seen on the market capitalization. In other terms, people can trust and express their feelings of self-worth into a fair brand based on openness with great purposes and

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18 http://web-docs.stern.nyu.edu/pa/erdem_brand_religion.pdf

high meaning and quality.

Many studies[19] demonstrated that social norms are stronger incentives than market norms and that they often induce more responsible and efficient actions, this mechanism is strengthened if the social norms are standing for a good purpose.

Converting visitors into users

- Signing up triggers.

  - When browsing a platform after some time, users will see a modal appearing to purpose them to sign up to get advantages if they are not already logged.

  - Under a comment section, users will see a button to login or sign up instead of a comment form.

- Easy log in

  - Log in and sign up process must be very easy, intuitive, and fast in order to reduce the cost of the action if the users want to sign up.

Keeping users active

- Email

  - An email will be regularly sent to users with their agreement in order to increase the participation rate among long time periods.

- Gamification

  - Playful elements such as badges will be given to users in order to increase the participation rate among medium time periods.

- Notifications

  - Notifications will be regularly sent to users in order to increase the participation rate among short time periods.

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Making users investing

- Creating the need to add fund.

  - Giving a tip to an author or promoting a post require that have funds. Tips are an important part of the incentives model, users can support an author, an event or a place by making a small donation which is triggered and accessible under each post, account, event, and place by clicking an always visible fancy button. One purpose of the gamification engine is to first trigger the first donation and then increase the tipping participation rate in order to make users invest a small amount to regularly tip and therefore support their favorite content creators. In order to make a small donation, users will probably need to add fund to their balance, therefore, this system acts like a mental barrier breaker for adding the first fund.

- Easily adding fund.

  - Adding funds will be very easy, tutorials or payment integrations will be available to ensure that user can easily invest from any payment method including cryptocurrencies, bank account, and credit card. This process should be the easier and shorter possible.

- Call to action

  - A call to action will be displayed onto the wallet section with the token value gained through the year to eventually trigger an investment.

Other strategies

- Tips

  - Some tips will be easily available and sometimes automatically discretely displayed to help the user increase his scope of visibility and participation rate.

Strategies implementation

This section is a network-centred roadmap.

- HIVOC's platforms use a blockchain technology called Steem which is already working.

- HIVOC's user interfaces have already been designed.

- The HIVOC's framework called asteroidJS used to build platforms mentioned above is currently in progress.

- The blogging platform client side will be very similar to the alpha version of the esteem8 application written by the HIVOC's team. However, this platform will be rewritten to support advanced and real-time features and many improvements will be made.