

Defining the addictive traits of media and their consequences on people

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Abstract

In this literature research, the addictive roots of media are investigated throughout the different shapes it adopted over time. These media formats present similar characteristics that present effective psychological reactions from users. Media's addictive traits have negative effects on society. A large percentage of social media users present symptoms of behavioral addiction. Media presents aspects of its structure that triggers addiction. This study analyzes the deeper traits of media's structure that humans have been exposed to for hundreds of years. The problem concerns raising generations especially, as media gains intractability globally. The study will be conducted using methods of literature research. Its goal is to narrow down and point out the specific aspects of modern and old media types, comparing the changes through time, similarities and popular interaction.

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1. Introduction (Background and Research Questions)

With modern media being able to deliver large amounts of content to their users like never before, when is it too much? Media, delivers entertainment, information and news since the earlier days of radios and newspapers. The power held by the media is extensive in fields of marketing, politics and propaganda. It persists as a main component of most people's day, and over its evolution through history, it has shaped itself to better fit desires and interests of its users. Media as we know it, presents addictive traits, and addiction to media can be recognised by well defined symptoms. It's more modern and relatable form is social media addiction. Social media addiction affects a large component of society. Its symptoms can often be undermined as social media users are often the majority of the population. To a society so smoothly shaped around social media, interests shifting from a platform to platform seems normal if not welcomed, but it goes to show how people have begun to rely extensively on social media, to a point where the use isn't driven by a specific need to watch cat videos, rather by a constant unnatural need for content.

1.1 RQ:

- What aspects of media trigger behavioral addiction in users?

Sub Research-Topics:

- Media addictivity over time
- Dopamine production in media

There are multiple factors that would lead the belief that media plays a vital role in triggering addictive behaviors. In this paper, the aspects of media that trigger addiction are presented in a literature review. The aim is to raise concern regarding the psychological hazards of media addiction, in regards to abuse of this power. A pattern of profitability is shown in the past changes media has overgone, powered by these addictive traits. Companies ahead of media platforms, lead their technology advancement towards more users, and more intense use. One of the greatest constants of media is its main intention, which is to sell, and so it persists to do, just now users are psychologically dependent from it, and that is what these companies want. Ultimately, with the results of this research, regulations for these platforms, and liability for psychological damage on users will come into place to prevent further harm.

2. Methodology of Research

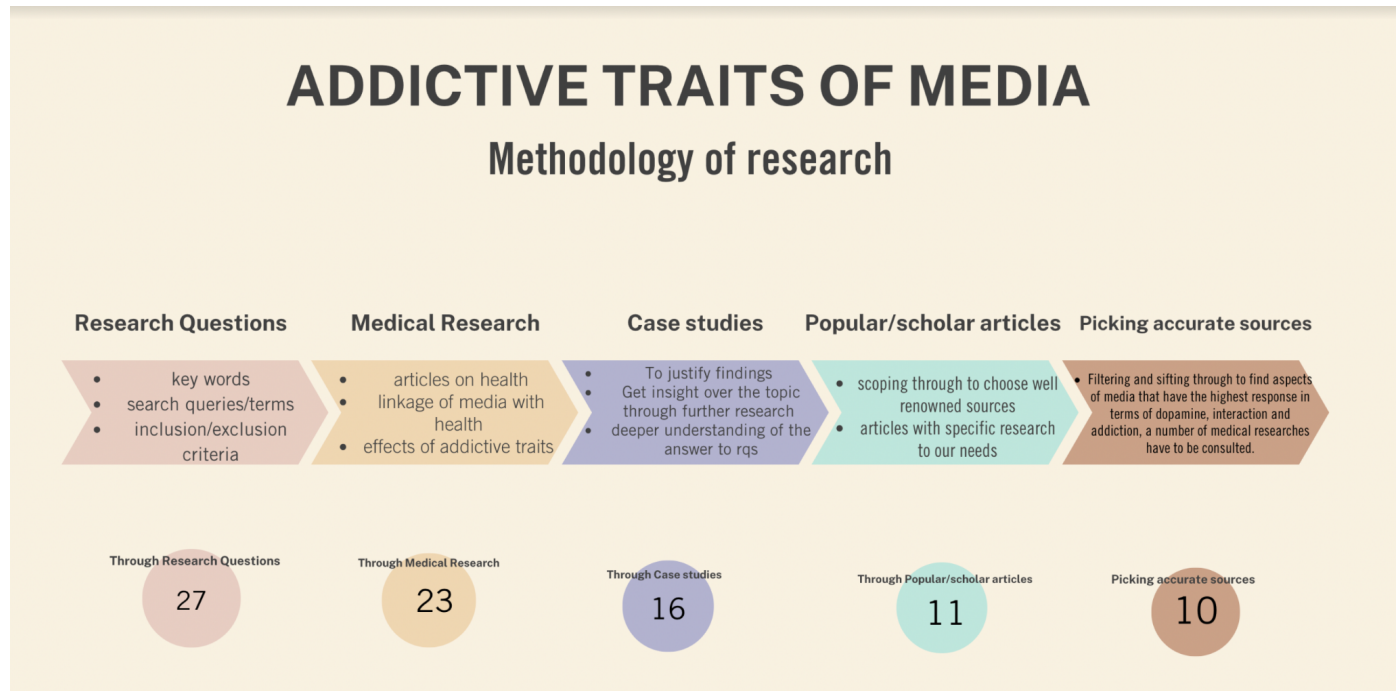
In the search for the specific traits that trigger addiction to media, sources reveal different answers, creating the need for a method of selection and filtering; keeping in mind the evolution of media and its addiction through time, while having a keen interest in its overall influence and affect. To find the aspects of media that have the highest response in terms of dopamine, interaction and addiction, a number of researches of different backgrounds have to be consulted. These can come from different backgrounds, psychological, for marketing purposes, medical advancements or simple data gathering. Besides usable sources, thorough research needs thorough exclusion of sources that are considerably unreliable, unnecessary or inaccurate.

To further elaborate on the method of research, the steps taken from brainstorming to analyzing the chosen sources can be listed as a series of sieves. Starting with a developed research question, key words and ideas must be formulated for the first sieve of sources. Keeping in mind these words, a first search of papers begins on digital database *Scopus*, with particular attention to traits like relativity to the research question and background of research of the articles. As a first list of sources is formed, the next step is to assess the relatability of these sources. This is done by a more in-depth read of the article in question, looking for aspects that relate to our key phrases and research question.

Key phrases such as:

Social media addiction - Behavioral Addiction to media - Endless scroll - Instant messaging - Dopamine production - Psychology in Media - Television Addiction - Media change over time - Personality traits of addicted users - Addictive traits of media - Addictive marketing traits of media

Upon further inspection of the articles, a finer amount of articles was chosen that comprehends different perspectives of addictivity in media. While maintaining a central focus on the research question, the selection of sources chosen shows a surrounding approach to the question, allowing the researcher to have a complete understanding of all traits that collaborate in the addictivity of media, put into literature research.



[2.1 Flowchart of Methodology] The flowchart explains the steps taken in the search of useful sources. Starting with 27 papers and narrowing it down to 10.

[Table 2.2]

Reference	Topic	Relation to addiction	Type of article	Relation to mental health	Addictive Traits	Diversity
1	Prevalence of social media		research/study		Addictive personality traits of media	Across the world and through different cultures

Reference	Topic	Relation to addiction	Type of article	Relation to mental health	Addictive Traits	Diversity
2	Media addiction and impact	Interpersonal communication and accessibility	Research paper and case study	Manifestation of physical and emotional reactions	Usability and urges	Focus on college student and overall
3	Reasons of addiction	Communication and fulfillment	Case study	Impulsivity and self esteem issues	Environment, gives community and a sense of gratification	Male and Female with similar stats
4	Media and addiction	Social needs and wants	research/qualitative study	Running from problems, agitation and reliance	Building connections, enhancement of emotions	Age distributions and equal sex distribution
5	Hooked on virtual life	Problematic use of media	Case study	Mental distress and disorder	Availability and commonality such as activities forums etc	European equal sex distribution of sex and age
6	Television	Addiction in past to entertainment	Research article	Constant access and vast availability of all platforms of media	Emotions such as boredom	Overview/American based
7	Addiction prone personality traits	Brain association of feelings with rewards	Research paper/study	Dopamine influence of media	Develop over time so hard to instantaneously notice	Caucasian, african, south american/ alot of cultures
8	Role of dopamine	reward / incentive	Research paper	Excess craving of feeling of dopamine and serotonin	Keeps attention, interaction of dopamine with neurotransmitters	Europe, netherlands/overall

Reference	Topic	Relation to addiction	Type of article	Relation to mental health	Addictive Traits	Diversity
9	Addictive brain	Pleasure states	Research paper	Fog cognition and judgment	Excessive dopamine from media is giving similarities in addictive substances	overall/US based
10	Interactive media	User app interaction	Case study research	Dependency and attachment	Ease of access, social acceptance, design	Overall/UK based
11	Designed addiction	Exploiting urges	Research paper	Mood modification, withdrawal symptoms	Salience, tolerance	Based in paris
12	User experience	Design	Research paper	Wasting time and energy on ample amount of media	Infinite scroll, mindless media	Europe overall/sweden based
13	Flow and addiction	Arousal and stimulation	Research article	Levels of depression, less sensitivity	Self expression, social status etc	Overall/US based
14	Addictive features	Immersive media	Research article	Anxiety disorder, stress	Pressure, exposure effect, personally tailored algorithms	Europe overall/german based

Reference	Topic	Relation to addiction	Type of article	Relation to mental health	Addictive Traits	Diversity
15	Experiences on mental health	Social inclusion and exclusion	Case study research	Fear of missing out, vaguebooking, loneliness, left out	Media engagement, comparison orientation	Europe based/overall/ based in paris,austria and london
16	Internet addiction vs Social Media Addiction	Comparison between symptoms of addiction and causes	Research		Similarities outweigh differences in traits	
17	Social media platforms addictivity	Multi platform study	Article research		Comparison between different social media platforms and compare the features	Platform diversity

The synthesis matrix groups the used sources in an organized form in regards to the research question and sub topics of research

The importance of keeping the selected sources within relatability is justified by the broadness of the topic. It is important to distinguish the difference between the aspects of media that trigger addiction, and the consequences of it. To further rule out the less useful sources, another sieve must be used, leaving the most valuable papers. These are medical research, scholar papers, and case studies. The aspects that strengthen the value of these pieces could range between credibility, accuracy, relevance and extensiveness. Sieving through sources successfully reveals valuable sources, closely relating to the research question.

3. Results

3.1

Where there is organized society, there is media. This allowed for media to morph itself to perfectly accompany society. *Media comprehends* all information and entertainment sources. These vary largely depending on age, nationality, wealth and social role of a user, but can be roughly described as, news media, social media, television and instant messaging platform. Through history these have presented themselves in different forms, with different names, different color schemes, different content and different population targets. Despite the morphing nature of media, certain aspects seem to present themselves consistently through history and rebrandings. These aspects are being researched into, to reveal the addictive roots that affect hundreds of thousands globally. Arguably media has presented itself in such vast forms that following trails of traits would result baffled. Although different traits present themselves in different forms, the main concept and effects of these features remain unvaried.

3.1.1 TELEVISION ADDICTION

Despite its damped usage, television remains the media of choice for the vast majority of households. Being a pilaster for many people in their life, television sneaked its way into the average household in the 50s, when it became a shaper of opinions and perspectives. From black and white to colors, from channel synthonization to remote control, from small channel lists to satellite tv. Television has shown its adaptability to society as demands change. With *Television* it is intended the media industry following the evolution of television, ignoring technological aspects of the television itself. A dominant characteristic of television media is the high supply. In fact, television was the first of its kind to offer a higher supply of content, even higher than the demand. Strategically, television evolved itself to have channels with topics, containing numerous numbers of programmes. This key aspect of television allowed for it to fulfill all types of needs, ranging from comedy to horror to education. There was a channel, or a programme, that would satisfy a specific target user. Sussman and B. Moran discuss this characteristic in *Hidden addiction: Television*. This resulted in a list of traits reported in addicted users that justifies the importance of feeling included and socially accepted in creating a media addiction. Said research states “TV addiction might be expected particularly among persons [...] who have difficulties with social communication”[6]. Television allows for socially introverted people, or those that struggle with social activities, to feel included without having to socialize[15]. Similarly, more modern competitors such as social media, evolved its algorithms to

mimic the content structure of television. In today's social platforms, content is carefully selected for the user's demographic. This takes the need to choose a channel away from the user, as they are now directly shown fitting material.

3.1.2 MEDIA ADDICTION AND DOPAMINE PRODUCTION

Furthermore, this pattern of technological evolution is deeply rooted within the structure of media. A study done on students who showed symptoms of social media addiction shared a feeling of completion, the same feeling triggered by rewards. This key aspect of most behavioral addictions, can be found in all forms of media. Dopamine production has been found to be one of the leading components in behavioral addiction[9]. It solidifies actions with positive chemical endorsement. Dopamine is responsible for that feeling of fulfillment when a task is completed, as well as for learning behaviors and choice selection. The relation between dopamine production and media addiction reveals nonetheless important clues when investigating addictivity in media [8]. Researching addictive traits without taking into consideration the role of dopamine would lead to no real conclusion. In media, a pattern of evolution (regarding dopamine producing traits) is highlighted by the vast quantity of traits found in modern social media. For this reason, the addictive traits of social media can be subcategorized as *dopamine-triggers*. A research called *Addictive Social Media/ Messenger platforms*[17] debates the importance of maintaining user's interest, as well as creating a sense of reward in addictive media. In this paper, Facebook is used as an example. Upon accessing the Facebook homepage, certain aspects catch the eye at first. These are stories, and the first glance at the personalized feed. These two have the role of catching the user's interest, once engaged, the user proceeds to scroll looking for more engaging content, and finds themselves scrolling endlessly. The endless scroll feature in social media platforms shows ties with behavioral addiction to media, it is described by saying "the user is getting more and more immersed (perhaps also on a motor level as perceiving the scrolling as a playful activity) while not coming to a natural stop". This highlights the importance of what is defined by researchers as *The Flow*[13]. This is meant to describe that sensation of effortless scrolling that comes with social media. Strengthened by well scripted algorithms, this flow can dangerously make a person fall in a state of mindless scrolling, causing them to uncontrollably scroll without any real desire to stop. This is fundamental to what can aggravate an addiction.

Furthermore, the addictive traits of (modern) media have morphed themselves into social norms and standards. The power of media in society is fortified by a strong network of rewarding systems that give users a feeling of completion and of fulfillment. As previously mentioned, various users reported a feeling of having completed a task when discussing their

feelings towards social media. Similar concepts were also discussed in the paper *Addictive Feature of Social Media/ Messaging platforms*[17]. Reportedly, social media especially, creates a sense of accomplishment in its users. This triggers a production of dopamine in our brains, strongly linked to behavioral addictions. One aspect among others is to be blamed for this strong feeling of reward. As mentioned by the researchers. "Pictures being presented with many Likes elicit stronger activity in the ventral striatum, an area involved of the processing of a rewards"[17]. The concept of liking on social media was first introduced by Facebook in 2010. Ever since it has been studied, discussed, analyzed, but conclusions remain critical in terms of positive endorsement, social standards, and dopamine production. Being an expression of feedback, users show strong interest and care to know who reacted, and how many likes are reached on specific content. To further explain the relationship between these traits, the researchers explain: "The behavior of endless scrolling is enhanced, because the user finds from time to time something rewarding"[17]. Moreover, addictiveness has embedded itself within the design of media. In more modern media forms, such as social media, updating the structure of content display can take as little as minutes for users globally. This allows for faster trial and error, as well as smaller adjustments. In the research *Addiction By Design*[11], many features of social media are analyzed in regards to domain cycles and the user's reaction. In particular, attention to notifications is raised. Notification is a strong component of the addictive properties of social media. It attaches a sense of urgency to common interactions such as receiving a text or even an update on recurring events[14]. In the dopamine cycle, the notification falls under the *trigger* domain. When a user receives a notification it triggers that desire for dopamine that leads to unlocking the phone, checking the notification, but ultimately noticing other eye catching aspects that lead on to more and more interaction[9]. Notifications, like all other aspects can come in different forms and shapes, the researchers analyze popularly used types of notifications such as red notifications, push notifications, and reminders. These different forms highlight the importance of fine tuning and adjustments within each update, creating an always more perfect model. These different notification types trigger individually different facets of the triggering stage of the dopamine cycle[8]. As mentioned in the research, red notifications set a feeling of want, and anticipation, push notifications trigger seeking, and reminders trigger a need for reward for having completed an overdue task[14]. Notifications can spark an immediate interest from the user in opening and interacting with a platform, it is a constant reminder that a distraction is just a swipe away. These addictive aspects of media work together, as they mask the psychological consequences of the user interaction, in funny pictures and cat

videos. When investigating the addictiveness of media, the user must be considered to have a more surrounding understanding.

3.1.3 PERSONALITY TRAITS AND MEDIA ADDICTION

This means that by understanding the social role, behavior and personality type of media addicted users, can lead to new ramifications of conclusions. A research discussing the relation between Internet addiction and social media addiction discovered noteworthy aspects of these addictions that lead to deeper understanding[16]. In fact, the researchers stated that as media changed overtime, the groups that presented already symptoms or clear addictions incread, whereas those who reported low addiction symptoms, or none at all, decreased [1]. This highlights the importance of personality traits in terms of addictive behaviors, as well as how the addictive features of media can vary its effects on different users. In their findings, the researchers discussed the similarities in comparison to the differences. They found an outweigh of similar traits between the two, showing a pattern of symmetry between the structures and effects of the corresponding platforms[16]. The important aspect behind this finding is that personality is a valuable variable when observing addictivity in media.

3.4 Results

The addictivity of media is a defining characteristic of its true nature. By design it brings more people closer to its content for longer. Through technological evolution it has proven its resilience against aging, as it persists to create behavioral addiction within users. The main characteristics that persist through all variations and forms of media have been investigated thoroughly throughout this research. These presented themselves in the following:

- High supply of content
- Content distribution by user specification
- Sensation of infinity
- Smooth flow-like interaction

Furthermore, it is necessary to subcategorize the following features as *dopamine activators*:

- Notifications
- Red banners/notifications
- Reminders

- Rewards

These last features presented themselves more commonly within more modern forms of media addiction, explained by the quicker updating and tuning of media platforms.

To conclude, this research investigated the addictivity of media and the traits that make it so. These presented themselves in smooth interactibility, feeling of endlessness, and diverse dopamine triggering functions. Since the monetization of media, its sole goal has always been to increase user visibility, and it does so through psychological manipulation of its users. What may seem as a seemingly harmless update on the scholar scheme, can have drastic impacts in the life of worldwide users, as addicted users remain common in modern society.

4. Conclusion

Raising awareness to the characteristics of media that give it its addicting properties can have enormous implications in society. Businesses and companies have been exploiting these aspects since the first arrival of advertisement. The advertisement industry is responsible for large interest in the technological advancement of media. As people consume more content, more people are exposed to their products, therefore more likely to buy it. This has been the case ever since telemarketing began, accompanied by television sale channels and so forth. The exploitation of the finding of this research can be brutal for users that present weak social networking skills, as they are likely to feel more secure and accepted in the margins of a programme they appreciate on television. Immorally, media platforms direct their technological development towards always more and more addictive traits, more stimuli of dopamine and smoother selection of personalized content. On a positive note, the research for treatments for social media addiction may prosper from these findings. Also, restrictions for what media platforms can be allowed to do should be put into place. Explicitly addictive features should be defined and forbidden, to prevent further damage to its users.

General conclusions from this research include

The greatest difficulties of this study were caused by the lack of previous papers, as well as the complication of tracing features through historical changes. Luckily, maintaining a conceptual approach to the different forms of media allowed for a more general understanding of each singular platform, analyzing general characteristics rather than specific traits.

Furthermore, limitations of this study include its nature. Being a qualitative study, concrete solutions are less clear as addictive features can take different forms and shapes. In order to cover as many possible variations of the same features, conclusions must remain conceptual, not allowing more specific description. This means that for future research, there will be a lack of solid foundations to work off of, which could slow down findings or lead to no solid conclusions.

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