

# The Dead Internet Theory: Investigating the Rise of AI-Generated Content and Bot Dominance in Cyberspace

Amna Ahmed<sup>1</sup>, Rohail Qamar<sup>2\*</sup>, Raheela Asif<sup>3</sup>, Muhammad Imran<sup>4</sup>, Saad Ahmed<sup>5</sup>

<sup>1,2,4</sup> Department of Computer Science & Information Technology, NED University of Engineering & Technology, Karachi, Pakistan

<sup>3</sup> Department of Software Engineering, NED University of Engineering & Technology, Karachi, Pakistan

<sup>5</sup> Department of Computer Science, IQRA University, Karachi, Pakistan

\*Corresponding author: [rohailqamar@cloud.neduet.edu.pk](mailto:rohailqamar@cloud.neduet.edu.pk)

## Abstract:

*This study critically investigates the Dead Internet Theory, emphasizing how it emerged in the context of a changing digital environment. The growing internet seems to have disappeared somewhere between 2016 and 2017. The virtual world appears lifeless due to the growth of automated creatures and AI-generated content. Despite continuing high levels of human creativity and production, the widespread impact of bots raises significant concerns about the basic structure of the internet. Researchers anticipate that the internet will change beyond recognition in the future because to this transformation, which is being driven by apps like GPT-3. This study illuminates the consequences of online interactions by investigating the widespread impact of AI-driven models such as GPTs and the ensuing discussions regarding the dominant position of AI-generated content. This research examines the growing prevalence of artificial intelligence (AI)-generated material, as evidenced by examples like Imperva's Bot Circulation Report, Twitter bots, Elon Musk's Twitter acquiring it, and phony YouTube views. Through the examination of notable cases like the Twitter bot scandal and the widespread trafficking of phony YouTube views, this study adds to a more comprehensive knowledge of the possible consequences of the increasing prevalence of automated entities in the online environment. Our findings predicted that 99.9% of all media may be AI generated, which raised concerns when ChatGPT became available in 2022. Furthermore, Imperva stated in 2016 that 52% of all Internet traffic is bots now, indicating bots replacing humans, forecasting a day when content generated by AI will dominate. This outcome give conformity to the idea of dead internet.*

**Keywords:** Dead Internet Theory, AI-generated content, GPTs (Generative Pre-trained Transformers), Twitter bots

## I. INTRODUCTION

Is there no more internet? This is not an issue of metaphor. It doesn't imply that the web is broken, pointless, or outdated. It queries what transpired to the internet once it ceased to exist. In its literal sense, the questions are about if it is deceased, how it died, and if someone murdered it. However, how could anyone believe that it would end? The power of the internet is greater than before. More people's creativity, focus, and productivity have been entirely grabbed by it than at any previous time in history. More individuals than ever before are reliant on, integrated into, monitored by, and taken advantage of by the internet. It appears overpowering, blinding, and without a quick fix. Most likely, the internet is still around. It's kind of gone overboard. To put it another way it's over [1].

In a paradoxical twist, the very entity that thrives on life – the internet – is entangled in a declaration of demise. The assertion may appear contradictory at first glance, yet a mounting surge within online communities insists that the internet met its demise sometime during the transitional years of 2016 to 2017. In this narrative, the virtual realm has allegedly fallen under the dominion of automated entities, disseminating content devoid of vitality. It turns out that the hypothesis provided some foreshadowing for a future that seems certain already: bots and AI-generated material are becoming more prevalent than ever on the internet, and experts believe this trend will only grow in the near future.

The internet would be completely unrecognizable in the event that GPT-3 gets loose, according to Timothy Shoup of the Copenhagen Institute for Futures Studies [2].

In this research the authors investigated this confusing phenomenon, exploring the emergence of the Dead Internet Theory. The authors examined the nuances of the theory that the dynamic cyberspace, which was once teeming with human contact, has given way to an automated world controlled by both powerful corporations and governmental entities. Moreover, authors explored the dimensions of this ostensibly confusing scenario via meticulous research that illuminates the significant implications it carries for our digital lives [3].

## **II. BACKGROUND OF STUDY**

The first encounter with the captivating premise of the Dead Internet Theory transpired during a meticulous examination of an exhaustive expose entitled *Maybe You Missed It, but the Internet 'Died' Five Years Ago*, featured prominently within the pages of *The Atlantic*. This intellectually stimulating article explored the intricate facets of the theory, meticulously delving into its unconventional constituents, including deepfakes, artificial intelligence, and the covert machinations of government psychological operations (psyops). In pursuit of scholarly rigor, this research endeavor embarks upon a more profound exploration of the contextual backdrop that underpins this phenomenon. Through a meticulous retracing of its origins and an astute analysis of the extensive discourse unveiled within *The Atlantic's* scholarly account, this scholarly inquiry aspires to contribute to a heightened and nuanced comprehension of the Dead Internet Theory [3].

The inception of the Dead Internet Theory can be traced back to the year 2021 when an enigmatic individual, self-identifying as *Illuminati Pirate*, introduced this novel concept to the *Agora Road* forum. This theory represents a significant addition to the discourse surrounding the intricate interplay between human users and automated entities within the digital realm. At its core, the Dead Internet Theory offers a distinct perspective on the evolving landscape of online interactions, highlighting a discernible shift in the dynamics of human participation. Central to the theory is the assertion that the conventional balance between human presence and the proliferation of detrimental bots is undergoing a perceptible alteration. The ascent of Artificial Intelligence (AI) bots, fueled by dual forces of economic incentive and external influences, catalyzes this transformation [4].

In the past few decades, Large Language Models (LLMs) have made significant advancements in both educational institutions and business. One notable development is the introduction of ChatGPT that has gained significant public interest. The whole Artificial Intelligence (AI) community has been significantly impacted by the technological development of LLMs, which might completely change our ability to create and apply AI systems [5].

The increasing popularity of personal computers and the need for natural language user interfaces has led to a huge increase in the need for conversational agents. A chatbot is an online tool that uses natural language to communicate with users. It is often referred to as a chatterbot, online person, but machine conversation system, or conversation system. A chatbot's primary function is to mimic human communication by utilizing an architecture that combines computational algorithms with a language model. Through this connectivity, the chatbot may simulate casual chat conversations between a machine and a human user, making the interaction more easy and natural to use [6].

There is no magic behind AI, it's a science. All AI algorithms work on statistics and mathematics as their primary elements, and these areas required deep understanding in order to effectively evaluate practical problems of daily life. There are over fifty AI rules and algorithms. Few AI methods are models based but most of AI techniques are data-driven and based on sizeable training datasets. The characteristics and features of the data (such as 5-Vs of Bigdata, the trends it follows and its reliability) usually impact activities like object identification, categorization, and results modelling. The ChatGPT, an artificially intelligent created materials (AIGC) technology created by OpenAI, to handle tricky language interpretation and creation jobs in the form of chats is attracting international interest. In this regard, basic methods of ChatGPT from the restricted number of publicly accessible assets. These methods primarily comprise huge scale models of language, more context learning, reinforcement learning through human feedback, and the essential technological processes for creating Chat-GPT. Even if it is generally understood that ChatGPT offers many options for a variety of professions, people should somehow handle and utilise ChatGPT responsibly to prevent any possible risks, such as difficulties for educational authenticity and security [7].

Since artificial intelligence has risen exponentially in the last ten years, there is fear that most white collar jobs may

be replaced, that AI will learn to improve itself iteratively into an artificial intelligence that departs humans in the dust, that AI will fragment information, dividing people into islands of contradictory truths, that AI will replace human decision-making in the fields of politics, health care, and finance, that AI will establish centralised powers by tracking their citizens' every move and influencing their thoughts, and that the exclusive rights of surveillance capitalists, which rely on AI, will consume startups and restrict business ownership [8].

### III. PROBLEM STATEMENT

Artificial intelligence (AI) is becoming more prevalent on the internet, leading to an increase in AI-generated content and automated interactions. This has given rise to the "Dead Internet Theory" which suggests that the internet is becoming controlled by AI and bots, and genuine human interaction is declining. However, there is a lack of research on the validity of this theory and the potential risks for human users. Our study aims to investigate the Dead Internet Theory and the impact of AI-generated content on the internet. This study will examine the impact of AI-generated models on online interactions and the potential risks associated with the dominance of AI in our digital lives. This scientific research findings could help create regulations for the safe and ethical use of AI technology in the digital space.

### IV. LITERATURE REVIEW

This section provides a detailed overview of the existing research, by evaluating different methodologies and trends in the field of AI generated content and large language models

Gilani et al., have indicated a notable and persistent existence of bots inside online social networks (OSNs). By utilizing earlier research (Stweeler), compare and contrast the use and effects of bots and people on Twitter, which is one of the biggest OSNs globally, This research presents a substantial dataset from Twitter and establishes many measurements by using tweet information then evaluates the annotations by comparing them to an online bot identification tool after applying bot and human ground truth labeling to the information set through a human annotation effort. Gilani et al., use measurements within and among the four popularity categories in order to pose a number of questions to identify key personality characteristics of people and bots. By comparing and contrasting the two entities, we are able to identify both their fascinating parallels and differences. This makes it possible to classify bots with confidence and to evaluate robotic social infiltration and advertising efforts [9].

Aiello et al., illustrate how bots are dual in nature in online environments, with the potential for both useful analytical applications and malevolent activity. It also implies that social networks might be greatly impacted by bots that can mimic the behavior of humans. The study ran an internet based social experiment to investigate how a bot might become well-known and influential on social media even in the absence of trust, a profile, or any desire to imitate human behavior. Results showed that the bot could become socially relevant with even basic social probing, and it could then exploit its popularity to influence users' decisions about social connectedness. Furthermore, the bot's activities revealed covert social polarisation tendencies within the audience and triggered an emotional reaction, exposing the user base's subliminal concerns about privacy [10].

Emilio et al., studied the traits of contemporary, intelligent social bots and how the society and online ecosystems may be jeopardised by their existence. After that, Emilio et al., go thorough recent initiatives to identify social media robots on Twitter. Characteristics of the network, emotion, content, and historical variation Bots simulate human behaviour, but they can also be used to distinguish between human and synthetic behaviours ones, producing indicators of intentional diversion of society [11].

Social networking sites networks also host computer programmes known as social bots or sybil accounts, even though the majority of accounts on these sites are managed by people. Recent Studies shown instances of social bots impersonating people to control conversations, change user popularity, contaminate content, disseminate disinformation, and even carry out terrorist recruitment and propaganda. Clayton et al., pleased to introduce BotOrNot, a publicly accessible tool that uses over a thousand variables to assess how closely a Twitter account resembles the well-known traits of social bots [12].

In another research, Yazan et al., investigates how easily social networking sites (OSNs) may be compromised by broad socialbot infiltration efforts. It finds that by taking advantage of user behaviour, socialbots can successfully

compromise online social networks as much as eighty percent of the time. When privacy settings are violated, more personal user information is revealed. Such efforts can be profitable in clandestine marketplaces, but they are not a viable source of income on their own. In particular, online machinery, identity legally enforceable, and accessible safety present significant problems when fighting against harmful socialbots. The study also emphasises potential hazards to the privacy of socially-aware technology linked with OSN platforms [13].

With ongoing research on fake social media platforms, the David et al., study looks on the rise in fraudulent engagement services on digital platforms as a result of political and socioeconomic factors. In contrast to other studies that concentrated on detection and infrastructure, this research looks into the management of social media (SMM) panels, which are the covert storefronts for these services. After four months of examining information from 86 SMM panels, the researchers find a range of services with characteristics that may be customised. Price differences are found in 7,000 forum postings after economic investigations; this suggests that the market is undeveloped and that sellers may overpay or undervalue the items they sell [14].

Orabi et al., study addresses the persistent risk posed by coordinated bot attacks on social media platforms as well as the difficulties in identifying these artificial accounts. It offers the first complete review, encompassing the years 2010 through 2019, featuring an improved classification of detection techniques. The literature's primary implications centre on Twitter, supervised machine learning is employed, open data sets have limits, integrated systems are required, real-time detection is necessary, and legitimate users' knowledge must be raised [15].

With the rise of technology the detection techniques of social media bots are also progressing Riyadarshini et al., research on the authentication of Bots. As computational intelligence advances, cybersecurity will have to contend with threats from human-like bots that compromise networks. Conventional authentication techniques are weak since bots are skilled at getting past picture-based and captcha-based systems. The study suggests using cyberpsychological characteristics as criteria that differentiate between humans and bots during procedures for authentication in order to address this. The objective is to improve security protocols at the nexus of cybersecurity, AI, and cyberpsychology by utilising human psychology [16].

In the domain of social media, Twitter emerges as an important platform, and it is crucial to recognise that this media is frequently the focal point for identifying AI bots. Oentaryo et al, study investigates the frequency of robots on Twitter, providing a more comprehensive categorization that include both benign and harmful bots. The suggested classification includes spam, broadcast, and consumption bots. In order to study bot behaviours in comparison to human behaviours, the research presents a systematic profile framework with a wide range of features and classifiers. The study highlights the necessity for thorough bot analysis by analysing approximately 159K Twitter accounts and providing insights into the behavioural characteristics of both benign and harmful bots [17].

Because of its open structure, Twitter draws cyborgs—hybrids between human and bot activity—as well as both helpful and destructive bots. Chu et al., study presents a classification method based on extensive assessments involving more than 500,000 accounts to facilitate user identification. It uses entropy, spam detection, and making choices components to assess tweeting behaviour, content, and account attributes. The method improves the clarity of Twitter user engagement by properly differentiating amongst human beings, bot, and cybernetic accounts [18].

In another research, Gilmary et al., illustrate the detection of bots on Twitter through entropy method. About 52 million of the 353.1 million people who were on Twitter in 2020 were automated accounts. This research suggests analysing the regularity in the temporal tweet activity of bots to detect them using Estimated Probability and Sample Entropy. Bots are defined as accounts with entropy values below a certain threshold; these accounts had roughly entropy and sample entropy F1 scores of 0.8759 and 0.8349, respectively. Entropy values are associated with user classes using point biserial correlation [19].

In the ongoing research of detecting Bots on Twitter, the Chavoshi et al., identified Correlated Bots in Twitter. Without depending on labelled data, they created a novel method for Twitter bot detection that finds user accounts that are strangely connected. By using lag sensitive encryption and a warping invariant autocorrelation measure, takes into account the cross correlation of user activities, in contrast to existing methods. The algorithm finds unique bots that other approaches miss with 94% accuracy, and it generates reports on many hundred bots every day. These reports are available online for in-depth examination, providing a more accurate and efficient way to detect bots without requiring a large amount of labelled data [20].

Several investigations have tackled the issue of phoney Twitter followers. In another study, the dangers of phoney Twitter followers and how they might affect different facets of society has been discussed. Cresci et al., build machine learning classifiers, establish an open benchmark dataset of authenticated real and false followers accounts, and evaluate current detection features and criteria. The findings show that academic features work better than rules suggested by the media. In order to achieve above 95% accuracy, the research presents a Class A classifier that minimises overfitting and data costs. The results call for more research on the problem of phoney Twitter followers [21].

The ability to identify AI bots and their credibility are strongly related. Understanding and refining the authenticity of bots is essential. For AI that resembles humans, Turing suggested universal machines in 1950. Although intelligent agents are common place today, they are not genuine or socially adept. Neururer et al., research focuses on enhancing the authenticity of messaging agents through coherence, anthropomorphism, transparent intent, experience learning, and human like communication is the subject of a research. Experts emphasise the necessity for intelligent social AI implementations, arguing that these characteristics promote improved cohabitation between AI and people [22].

Artificial intelligence bots may affect user data security. In another research, Nah et al., illustrates how AI bots affect user personal information. ChatGPT and other generative artificial intelligence provide serious privacy and security risks. Security hazards were present since a significant amount of private information was used throughout development. The danger of revealing private information increases with ChatGPT's growing popularity. This is demonstrated by the occurrence of user conversation records being available as a result of system problems. This also applies to big businesses and governmental organisations, which run the risk of security breaches if they include sensitive data into their regular operations. Mitigation entails cautious user involvement, increased understanding, and the application of laws to protect the security and privacy of information [23].

In the discipline of artificial intelligence (AI), massive pre-trained models (PTMs) like BERT and GPT have lately achieved extraordinary results and become a milestone. Big-scale PTMs are capable of efficiently extracting information from enormous amounts of identified and unknown data because of their complex initial training objectives and big parameter sets [24].

In the current research in the domain of generative AI Bots, multiple evaluation metrics are applied to address the authenticity of chatbots. The ability of chatbots to provide accurate and precise answers is determined by key features such as reliability, precision and memory. In the table below, a detailed analysis of methodologies is presented to structurally assist the authenticity of chatbots. The Table 1 shows the various trails of testing AI and reveals the advantages and disadvantages of AI bots, providing a sense of their overall reliability in offering answers.

Within Gartner's American Technology research on predictions for 2018 and beyond that by 2020, it's expected that the amount of imitations reality or fake substance produced by AI would outpace its detection skills, resulting in a rise in mistrust on the internet. Simultaneously, by 2021, more than half of businesses are expected to spend more annually on the creation of chatbots and bots than on standard development of mobile applications [31].

In the recent study, Gupta et al. examined that generative AI contains flaws that criminals could use to extract damaging knowledge while escaping moral restrictions. The research reveals instances of jailbreaks and inverse psychological assaults carried out on ChatGPT. Furthermore, ChatGPT exposes the negative aspects of these technologies by allowing bad users to launch hacking and fake news crimes [32].

Another research states that a startling 47.4% of all internet traffic in 2022 turned out to be bots, according to Imperva's Bad Bot Report. We converse and share in what seems like a busy virtual town square, yet over half of the people there are merely robots. This introduces the controversial dead internet theory into our everyday online experiences, removing it from the domain of conspiracies. The idea that a significant portion of our digital environment is controlled by algorithms rather than people is frightening. However, we can already be conversing with them without even realizing it [34].

**Table 1: Testing the performance of ChatBots**

Method	Authors	Brief Description
Automated Turing Test (ATT)	Yan [27]	This research includes new paradigm named cyborgs which contains human-bot cooperation. The study explores the inadequacy of ATT in discriminating between humans and cyborgs and presents an automated technique that shows promise in securing network uses.
Metamorphic Relations	Božić and Wotawa [28]	In this paper, a metamorphic testing (MT) methodology designed especially for chatbot testing. Functional testing is the main focus, concluding that MT approach future in assessing chatbots' functional aspects and may even be expanded to evaluate non-functional attributes in circumstances where determining anticipated behaviour is difficult.
Charm and Botium	Bravo-Santos et al [29]	In this research, a suggested technique that is supported by tool CHARM and BOTIUM automates coherence, sturdiness, and precision tests to enhance chatbot precision.
Reverse Turing Test (RTT)	Alizadeh et al [30]	This paper includes Instagram RTT algorithms, in order to separate users from bots along with feedback from users and user-centric solutions based on digital media and HCI research. The goal is to combat unlawful behaviour while preserving the authenticity of social media.

In the ongoing research in the context of AI and large language models' studies show Reddit, a social media platform, is used to provide users with complimentary access to its Interface and information, enabling them to use third-party moderation tools and train artificial intelligence (AI) in human interaction. Reddit made the contentious decision to start charging for accessibility to its user information set, proving that it was worthwhile to alienate certain users in order to monetize the data. It's likely that businesses that train AI will keep using this data to train new AI. LLMs like ChatGPT are being used on Reddit by humans and bot accounts more frequently as they become publicly accessible. In a discussion with Business Insider, Prof Toby Walsh of the College of New South Wales warned against educating the next wave of AI on content produced by earlier generations. Prof. John Licato of the University of Florida likened the situation where artificial intelligence-generated material is overtaking Reddit to the theory of the dead internet [35]. Now, we examine the effects of the scientific findings as we proceed to the results and discussion

## V. RESULTS AND DISCUSSION

This section reveals the Internet's Digital World to the Effects of AI-Powered Content

### A. AI Bots and Human Dynamics in Online Traffic (2014-2022)

In the current research within the AI Bots domain, the study survey was carried out to examined the global development of online traffic and analyze the distribution of interaction between chatbot and human from 2014 to 2022. Understanding online dynamics depends heavily on web traffic, or the information that is shared between users and websites [25]. The Figure 1 graph given below displays interesting patterns in the distribution of online traffic between people and bots.

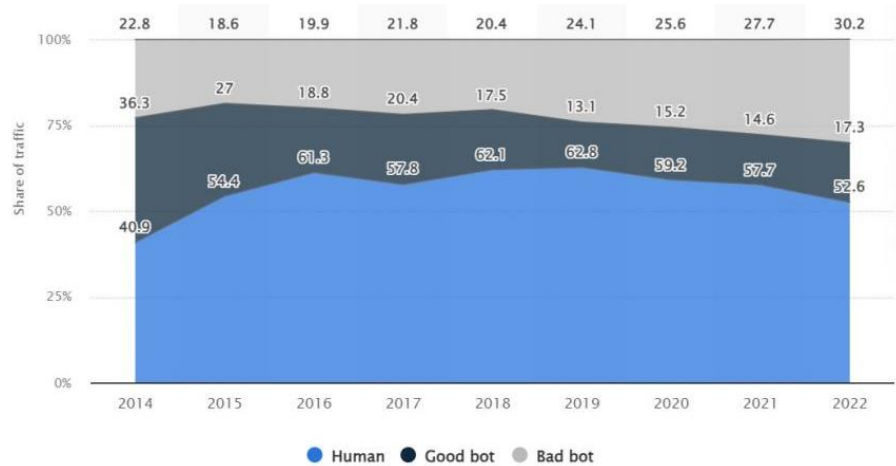


Figure 1: Distribution of bot and human web traffic worldwide from 2014 to 2022 [25]

### B. Large Language Models

Artificial neural networks are utilized by generative pre-trained transformers (GPTs), a kind of large language model (LLM), to generate material that resembles that of a person [34, 35]. OpenAI is the firm that produced the first of these models [36]. There is a great deal of dispute about these models. For instance, according to Timothy Shoup of the Copenhagen Institute for Futures Studies, "the internet would be completely unrecognizable in the scenario where GPT-3 'gets loose'. According to his prediction, by 2025 to 2030, 99% to 99.9% of material on the internet may be artificial intelligence (AI) generated [37].

### C. Facebook

Compared to the 3.3 billion fake accounts deleted in 2018, Facebook has deactivated 5.4 billion false accounts on its main platform. Although technology has made it possible for detection to occur more quickly, the firm admits that approximately five percent of its regular user base—which is close to 2.5 billion—consists of fake accounts. This suggests that there is still work to be done in reducing the number of fake identities on the social network [22].

### D. ChatGPT

The public debut of ChatGPT, an AI chatbot, in 2022 brought renewed interest in dead internet theory. Prior to this, the deceased internet idea primarily focused on businesses, governments, and tech-savvy people. However, ChatGPT gave regular internet users access to AI capability [38-39]. This technique raised fears that naturally occurring human content would be supplanted by artificial intelligence (AI) generated content on the Internet [38-40].

### E. Imperva Bot Traffic Report 2016

The security company Imperva published research on bot traffic in 2016 and discovered that, for the first time, bots accounted for 52% of all web traffic, surpassing human traffic [41]. Studies on the dead internet idea have cited this study as supporting documentation [42].

### F. Twitter: "I hate texting" Tweets.

Several Twitter accounts began tweeting things like, I hate texting, I hate texting but I only wish to hold your hand, or I hate texting but come live with me, after the initial statement. Thousands of people liked these postings, leading many to believe that they were from bot accounts. The dead internet theory's proponents have pointed to these accounts as examples [42, 43]. Elon Musk's purchase of Twitter

When Elon Musk acquired Twitter, a significant problem arose regarding the proportion of user accounts that were automated [44-47]. Musk refuted Twitter's assertion that fewer than 5% of its revenue-generating daily active users (mDAU) were robots during this phase [44]. During this controversy, Musk hired Cybra to determine the proportion of Twitter accounts that were automated; according to one research, this number was 13.7%, while another estimated

11% [45]. It is believed that a disproportionate quantity of the content produced is the result of these bot accounts. Supporters of the dead internet idea have cited this instance as proof [50-52].

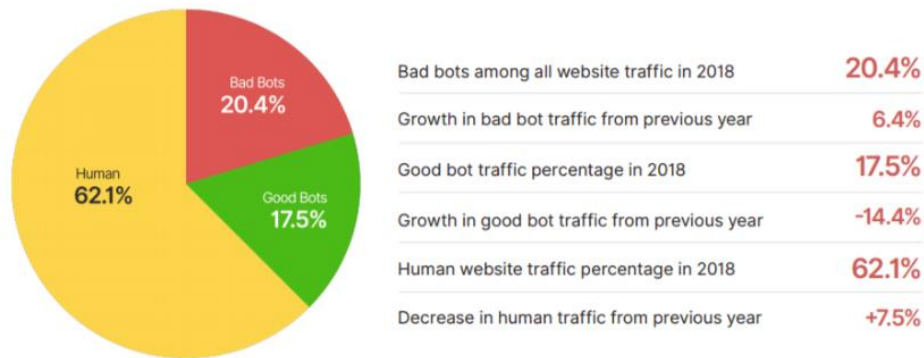
### **G. Youtube**

Fake YouTube views can be bought online to increase a video's legitimacy and attract more viewers [48]. Fraudulent views were so common at one time that some developers worried that YouTube's anti-fraud algorithm might start treating fraudulent comments as default and begin misunderstanding real ones [42-48]. The phrase the inversion was used by YouTube developers to characterize this occurrence [48-49].

The Agora Road's Macintosh Cafe post referenced YouTube bots and the threat of "the inversion" as evidence in favor of the dead internet theory. The dead Internet notion has been discussed in a large number of videos on YouTube and online forums, such as the Linux Tech Tips forums, which has contributed to the idea's advancement into popular culture [42]. Businesses such as Devumi.com, which sold 196 million YouTube views in three years, made over \$1.2 million. The data highlights a serious risk to YouTube's integrity [48].

### **H. Distil Networks' 2019 Bad Bot Report**

Distil Networks released its 2019, Bad Bot Report, examining both the positive and negative aspects of automated online traffic at the moment. The research presents some shocking statistics, such as the fact that in 2018, 37.9% of all internet traffic was generated by bots. While this is indeed a shocking amount, it is a nice drop from the previous year's number. Dangerous and authorized bot traffic is also down, with the former down by 14.4% and 6.4%, respectively. Approved bot traffic includes scrapers that are used to find travel offers. On the other hand, human travel increased by 7.5 percent, accounting for 62.1 percent of total traffic [53].



**Figure 2: Bad Bots vs. Good Bots vs. Human Traffic 2018. Bots drove nearly 40% of internet traffic last year [53]**

The issues faced by those fighting bot traffic are brilliantly highlighted in the study. Advanced Persistent Bots provide a challenge to the fight against bot traffic since they can seem like legitimate traffic from humans while deceiving others into believing they are from elsewhere. According to Distil's research, a sizable fraction of these bots imitates major browsers like Google Chrome. Additionally, IP-blocking frequently attacks Russia and Ukraine, despite the fact that problematic bot traffic primarily comes from the Netherlands and the United States. This illustrates the difference in the real and perceived origins of hostile activity [53].

The Dead Internet Theory is a concept that suggests a decline in genuine human interaction online. However, this theory lacks substantial evidence to support its claim. Instead, the Bad Bot Study 2021 by Imperva highlights an increase in bad bot traffic to websites, which points to a different narrative. The rise of automated interactions on social media platforms raises concerns about the loss of genuine engagement. However, this theory overlooks the complex dynamics of online interactions, including the interplay between humans and automated entities.

Top 5 Bad Bot Traffic by Country			Top 5 Most Blocked Country		
1	United States	53.4%	1	Russia	32.6%
2	Netherlands	5.7%	2	Ukraine	15.6%
3	China	3.9%	3	India	15.2%
4	Germany	3.9%	4	China	11.2%
5	Canada	3.2%	5	United States	6.6%

**Figure 3: Compare the Top 5 Countries That Contribute to Bad Bot Traffic with the Top 5 Mostly Blocked Countries Shows Differences Between the Real and Perceived Origins of Dangerous Traffic [53].**

## VI. CONCLUSION AND FUTURE WORK

This discourse has sparked significant debate within online communities and led to an in-depth examination of the present state and potential future of the digital landscape. Researchers have delved into the origins, evolution, and implications of the theory, shedding light on the growing influence of AI-driven models on online interactions. Through case studies and academic discourse, a deeper understanding has emerged of how bots, while efficient for data collection, can pose risks such as privacy breaches and manipulation of social perceptions. These findings underscore the need for caution and awareness of the hazards posed by social bots, which can impact everything from personal decisions to societal and economic structures.

Moreover, the increasing prevalence of AI-generated content raises questions about the preservation of authenticity in online spaces and the ethical integration of technological advancements. As such, it is crucial to remain vigilant and informed to ensure the safe and fair use of AI technology.

## AUTHOR CONTRIBUTIONS

**Amna Ahmed:** Conceptualization. **Rohail Qamar:** Writing Original draft preparation. **Raheela Asif:** Supervision. **Muhammad Imran:** Investigation. **Muhammad Khurram:** Writing Reviewing and Editing. **Saad Ahmed:** Proof Reading.

## CONFLICT OF INTEREST

It is declared that all authors don't have any conflict of interest. It is also declared that this article does not contain any studies with human participants or animals performed by any of the authors. Furthermore, informed consent was obtained from all individual participants included in the study.

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