

"TRUTH" DECAY IN THE DIGITAL AGE. POTENTIAL IMPLICATIONS FOR THE FIELD OF SECURITY AND DEFENCE

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In today's interconnected world, the phenomenon of truth decay has become a significant social concern. Truth decay refers to the gradual erosion of the concept of truth and the gradual decrease of respect for objective facts, evidence and experts' opinions, based on specialized knowledge. Facilitated by the rapid advancement of technology and the rise of social media platforms, this phenomenon has profound implications for social processes and interactions, public discourse and overall trust within modern democratic societies.

This article explores the causes and consequences of truth degradation in modern society (as a broader societal phenomenon) and examines its implications for security and defence. It also explores the ways in which the truth decay can be maliciously exploited in the context of hybrid warfare, as a tool for manipulating public opinion, spreading confusion and undermining societal cohesion, and highlights the importance of addressing this issue.

Keywords: truth decay; hybrid warfare; security and defence; opinion and fact; polarization and division;

INTRODUCTION

The phenomenon of *truth degradation* can be viewed from a temporal perspective as inevitable, in the sense that much of what we consider to be unquestionable (ideas, knowledge etc.) has an expiration date. Scientific progress involves a continual transformation of knowledge which has been accepted over time as true, and portions of what we assume to be true will eventually be invalidated. There are even studies (Arbesman, 2012) that address the way in which change occurs and even identify the speed (differentiated by areas of study) in which knowledge once considered certain scientific truths will over time lose this quality and "degrade".

It does not mean that we should be puzzled (in a world where information loses its truth value and changes), because this process is relatively slow in time (on the order of decades), but the awareness that there are patterns within this process of "truth degradation" can help us identify truths that are about to expire.

This paper does not aim to address this facet of the phenomenon of truth decay, but that of deliberate denial of events, ideas, knowledge and the creation of a new reality, a phenomenon identified in the literature by the expressions "post-truth", "alternative facts" or "failure of the notion of objective truth" (Simina, 2017).

THEORETICAL ASPECTS AND PRACTICAL APPROACHES

Truth decay is a term invented by researchers at the RAND Corporation that describes the gradual erosion of the concept of truth in the modern contemporary society (Kavanagh, Rich, 2017, p. 199). It refers to the declining confidence in facts, data and evidence in public discourse, policy-making as well as in social interactions.

Truth decay is characterized by a combination of four **tendencies**:

- a. *Growing disagreement about facts*: People are increasingly polarized and have divergent views on basic facts, such as scientific evidence or historical events. This leads to a fracture in the common perception of reality and makes it difficult to have a constructive discussion and find any common ground.
- b. *The distinction between opinion and fact is increasingly blurred*: The distinction between subjective opinions and objective facts is becoming more and more unclear. With the rise of social media and online platforms,

individuals can easily present personal beliefs or misinformation as “*alternative facts*”, thus blurring the line between truth and fallacy.

- c. *Declining trust in institutions and in the expertise of specialists*: There is a notable decline of public trust in traditional institutions such as the mass-media, government and academia. Scepticism towards the experts and professionals has increased, making it difficult to establish a common understanding of reality based on reliable sources of information.
- d. *Increased interpretation of reality through the lens of personal experience and emotions*: Personal narratives and emotional appeals often carry more weight in public debates than rational arguments and empirical evidence. Emotionally charged narratives and stories spread rapidly through social media, regardless of their factual accuracy, as the algorithms running them are programmed to make “*viral*” these types of posts.

These trends have been amplified in the digital age, in which rapid dissemination of information and the prevalence of social media platforms as sources of information have amplified the spread of misinformation and created “*echo chambers*” (or “*information bubbles*”) that reinforce existing beliefs and biases. In this context, “*An echo chamber emerges when a group of participants choose to preferentially connect with each other, to the exclusion of outsiders. The more this network is formed [...] they would actively have to both seek out engagement with like-minded others, and stay away from those who might introduce them to alternative views*” (Bruns, 2017).

Analysing the phenomenon of truth decay from a causal perspective, we can identify some of the **sources** of its present escalation:

- 1. *The rise of social media*: The proliferation of social media platforms has revolutionized the way we consume and share information. However, the lack of moderation of posts and the ease with which controversial information can be spread for the purpose of misinformation contributes to the degradation of truth. False or misleading narratives can quickly gain popularity and go viral, often due to their emotional appeal rather than their factual accuracy.
- 2. *Information overload*: The digital age we live in has created the conditions for our daily exposure to an overwhelming amount of information. As a result, individuals often resort (unconsciously) to the mechanism of confirmation bias, seeking out information that is consistent with and confirms their pre-existing beliefs, ignoring or rejecting contradictory evidence.

Permanently reinforced, this selective exposure to only one type of information leads to the formation of “*echo chambers*”, which contribute to the consolidation of existing biases and hinder an objective search for truth.

- 3. *The decline of media literacy*: With the increasing availability of information, media literacy has become more important than ever. However, some studies indicate that a significant portion of the population lacks the skills to critically evaluate the information they encounter online (Wineburg, McGrew, Breakstone, Ortega, 2016). The inability to distinguish reliable from unreliable sources contributes to the spread of misinformation and the erosion of trust in traditional institutions.

The **consequences** of truth decay are profound and should not be neglected. It can contribute to undermining the foundations of democratic societies, impede informed decision-making, weaken social cohesion and can lead to separate realities where individuals live in information bubbles that reinforce their existing beliefs, further polarizing society.

We will now examine each of these consequences individually, as follows:

- a. *Polarization and division*: Degradation of truth favours polarization within society as individuals become voluntary captives of their own echo chambers. This division weakens social cohesion and prevents meaningful dialogue, making it increasingly difficult to find common ground on important societal issues. The erosion of shared understanding of reality undermines the foundations of democratic discourse and decision-making.
- b. *Erosion of trust*: Assuming that trust in institutions and the expertise of specialists is essential for the proper functioning of society, the degradation of truth undermines this trust by feeding scepticism and conspiracy mindset. When objective facts are questioned, public confidence in scientific research, journalism/mass media and democratic institutions declines. Among the (second-degree) derivative consequences identified are a decreased willingness to engage in collective problem-solving and an erosion of faith in democratic processes.
- c. *Misinformation and manipulation*: The spread of misinformation poses a significant threat to democracy. Malicious entities can exploit the existing phenomenon of truth decay to manipulate public opinion and achieve tangible results in society (e.g., influencing election results). False narratives, conspiracy theories and “*deep fakes*” can be used to spread confusion, distrust and division as part of disinformation campaigns, jeopardizing the integrity of democratic systems.

From the perspective of studying the truth decay phenomenon, it requires a multidisciplinary approach that must combine perspectives from various fields such as psychology, sociology, communication studies and political science. Currently there is no specific scientific tool designed exclusively for studying this phenomenon. However, by extension, we can suggest that a number of existing research methods and tools can be used to investigate the underlying causes, consequences and its dynamics, such as:

- Surveys and questionnaires – to collect data on public attitudes, beliefs and perceptions about the notion of truth, trends in information consumption and trust in institutions, as these can help measure and quantify developments, opinions and changes over time.
- Content analysis – involves the systematic analysis of different types of media content (news articles, social media posts and public speeches) to examine the existence and frequency of misinformation, how facts are described, sources of information in the media and the level of bias present in their content.
- Experimental studies – to explore causal relationships and test hypotheses related to truth degradation by exposing study participants to manipulated information and analysing responses, to understand the impact of misinformation on belief formation and behaviour.
- Network analysis – to study the spread of information and the formation of echo chambers within social networks; network structure can be analysed, influential nodes identified and information diffusion tracked to better understand how truth decay manifests itself in online communities.
- Cognitive and behavioural experiments – to study how individuals process information, make judgments and form beliefs, with the aim of identifying cognitive biases and psychological factors that contribute to truth degradation, such as confirmation bias or motivated reasoning.
- Qualitative research methods – interviews, focus groups and case studies can be used to gain an in-depth insight into perspectives, experiences and decision-making processes based on the perception of truth and related information.

The selection of specific tools depends on the research questions, available resources and the nature of the study. What is important is to adopt a mixed-methods approach, combining quantitative and qualitative methods, to gain a comprehensive understanding of this complex phenomenon of truth decay.

We observe the existence in the specialized literature of studies that analyse through the lens of the truth decay phenomenon some of its consequences in society. Thus, in terms of *declining trust in institutions*, studies have shown a decline of public trust in institutions such as the mass-media, government and academia. For example, the Edelman Trust Barometer (<https://www.edelman.com/trust/trust-barometer>), which measures global trust levels annually, reported a significant decline of trust in media and government in many countries. In 2023, global trust in institutions was at a record minimum, with only 56% of respondents reporting that they trust government, business, media and NGO institutions (Global Report 2023).

With regard to *misinformation and disinformation*, we see that they have become more prevalent in the digital age. A Pew Research Center survey found that Americans are increasingly polarized in their news consumption, with liberals and conservatives relying on different news providers and having fewer overlaps in terms of which news sources they trust, and 64% of Americans said that made-up news caused them a great deal of confusion about the factual unfolding of current events (Mitchell, Gottfried, Stocking, Walker&Fedeli, 2019).

In terms of *polarization and confirmation bias*, it has been found that these social tendencies have become prevalent. Research indicates that people are increasingly seeking information that aligns with their existing beliefs and are less likely to consider opposing views (Pennycook, Rand, 2021, pp. 388-402).

Regarding the *influence of social media and the role of social media platforms in spreading misinformation*, a study conducted at the Massachusetts Institute of Technology (MIT) found that false information spreads faster and more widely than true information on social platforms, with estimates that false information reaches people six times faster than accurate information (on Twitter/X) (Vosoughi, Roy, Aral, 2018, pp. 1146-1151).

In terms of *trust in the media*, confidence in both traditional and modern media sources has declined. The Reuters Institute report from Oxford University found an overall decline of trust in the media, with only 40% of respondents saying they trust news in general (Reuters Institute Digital News Report, 2023).

Finally, on the *impact of truth decay on democratic processes*, a Freedom House study found that leaders in many countries are increasingly using disinformation to suppress dissent, manipulate elections and consolidate their power. The study noted that 32 out of 65 countries assessed have seen a decline in Internet freedom due to increased online manipulation and disinformation campaigns, and that *"Artificial intelligence can serve as an amplifier of digital repression, making*

censorship, surveillance, and the creation and spread of disinformation easier, faster, cheaper, and more effective" (Freedom on the Net, 2023).

It should be noted that the field of studying truth decay is a relatively new one, and further research is needed to highlight other aspects of it.

HYBRID WARFARE IN THE CONTEXT OF TRUTH DECAY

There is a link between **truth decay and hybrid warfare**, particularly in the context of information warfare and manipulation. It is important to note that truth decay itself is a broader societal phenomenon, while hybrid warfare refers to a specific strategy used by state or non-state actors in conflict situations.

Hybrid warfare refers to the use of a combination of conventional and unconventional tactics, including informational and psychological operations, to achieve strategic objectives, often with the line between military and non-military actions being extremely blurred.

In the context of hybrid warfare, the decay of truth can be exploited and amplified as a tool for manipulating public opinion, spreading confusion and discord in order to undermine democratic processes and the cohesion of the society as a whole. We can identify several key connections in different areas between truth decay and hybrid warfare, which are detailed below:

- **Disinformation and propaganda** – The decay of truth provides fertile ground for the spread of disinformation and propaganda, which are key elements of hybrid warfare. State and non-state actors can deliberately disseminate false or misleading information to bend the truth, create confusion and manipulate public feelings. By exploiting the decay of the truth, these actors can erode trust in institutions, encourage divisions within societies and promote their strategic goals.
- **Psychological Operations (PsyOps)** – Hybrid warfare often involves psychological operations designed to influence the perceptions, attitudes and behaviours of individuals and target groups. Truth decay can increase the effectiveness of these operations by the adversary exploiting the weakened trust in traditional sources of information and the prevalence of echo chambers. Manipulative narratives, conspiracy theories and fabricated evidence can be used to shape public opinion, exacerbate social divisions and undermine societal resilience.
- **Transforming social media** – Social media platforms have become key "battlegrounds" in hybrid warfare, facilitating the dissemination of false

or misleading information to target audiences. The degradation of truth, with its associated challenges of misinformation and erosion of trust, can be exploited in this context. Coordinated influence campaigns (using automated tools – bots or human tools – trolls) can exploit echo chambers created by truth decay (where individuals are more likely to believe and share information that aligns with their existing beliefs and biases), amplify divisive narratives, target specific demographics, and spread false information to create or exacerbate social tensions. This manipulation of discourse online can have real-world consequences, affecting political processes, public opinion and even the stability of nations.

- **Undermining democratic processes** – Hybrid warfare seeks to undermine democratic processes and institutions. Truth decay can contribute to this by eroding trust in electoral systems, spreading false information about candidates or election results, and encouraging scepticism about democratic principles of transparency and accountability. By exploiting the degradation of truth, hybrid war actors can weaken democratic leadership and create opportunities for future manipulation and increased "mind control".

The consequences of the connections between truth decay and hybrid warfare can be significant. In order to prevent or minimize the effects of possible exploitation of truth degradation in hybrid warfare, it is essential to develop robust strategies to promote societal information resilience.

This includes strengthening of media literacy and critical thinking among the population, investing time and effort in fact-checking initiatives and verification mechanisms, and promoting transparency and accountability within the online platforms. Governments, civil society, media organizations and technology companies need to collaborate and coordinate their efforts to be better able to detect and counter information manipulation, to promote accurate information, to protect democratic processes and to preserve the integrity of public discourse.

IMPLICATIONS FOR THE FIELD OF SECURITY AND DEFENCE

Truth decay has significant security and defence implications as it can have an impact on the effectiveness of military operations, undermine the integrity of information and intelligence gathering process, erode public confidence in state defence and security institutions and impact the decision-making processes. We present below a checklist with a brief description of the ways in which this phenomenon can influence the above-mentioned areas.

❖ *Disinformation and hybrid warfare*

Degradation of truth fuels the spread of disinformation, which is often used as a tactic in hybrid warfare. State and non-state actors can disseminate false information or propaganda to manipulate public opinion, create discord and confusion, and undermine efforts to ensure national security. Disinformation campaigns can target military operations, intelligence activities and public opinion, hampering decision-making processes and eroding confidence in security and defence institutions. False narratives and fabricated information can be disseminated to destabilize society, influence the natural course of elections or provoke conflicts of various types and intensities.

❖ *Perception and influence*

Perception is crucial in security and defence. Degradation of truth undermines the ability to accurately assess and perceive security threats, since, when objective facts are distorted or ignored, decision-makers may base their judgments on biased or incomplete information.

This can lead to inaccurate allocation of defence resources, flawed strategic planning, inadequate responses to emerging threats and ineffective public information about security concerns. In the field of national security, accurate threat perception and credible intelligence institutions' assessments (accurate and reliable intelligence) are essential for informed decision-making, and not least to ensure the safety and well-being of the population.

❖ *Impact on decision-making*

Truth decay can have a negative impact on the effectiveness of decision-making processes within security and defence institutions. When accurate information is scarce or viewed with scepticism, it becomes difficult to develop well-informed strategies, allocate resources appropriately and respond effectively to emerging threats. Lack of trust in expert knowledge and institutions can hinder timely and effective decision-making.

❖ *Confidence in defence, public order and national security institutions*

Degradation of truth erodes trust in state institutions, including the military, intelligence agencies and law enforcement. Explicit scepticism towards the views of experts and professionals can hinder cooperation with security agencies, impede information sharing and undermine public support for national security initiatives. Erosion of trust weakens the resilience of society as a whole, making it more difficult to mobilize public support and collaboration in times of crisis or conflict.

❖ *Weakening alliances and partnerships*

Trust is a cornerstone of international alliances and partnerships. Degradation of truth can erode trust between nations, affecting security and defence cooperation.

When there is scepticism about the accuracy of information and a decline in trust about the intentions of allies, collaboration and coordination become more difficult, which can undermine collective defence efforts.

❖ *Cyber security challenges*

Degradation of truth intersects with cyber security challenges, as disinformation campaigns can be used to exploit vulnerabilities in digital systems that operate critical infrastructure elements. The spread of false information can be used to manipulate the general public's affective state about alleged vulnerabilities or weaknesses in defence infrastructure, to deceive individuals or organizations by exploiting security gaps, and to compromise the reliability of digital critical systems and infrastructures.

Ensuring cyber security requires addressing the impact of truth degradation in addition to purely technical issues, as misinformation and manipulation can undermine efforts to secure critical computer network-based systems.

❖ *Vulnerabilities in critical information infrastructures*

Misinformation and disinformation can pose risks to critical information infrastructures, including defence systems. False information or manipulated narratives about vulnerabilities or weaknesses in defence infrastructure can exploit security gaps and compromise the reliability of systems. This can have serious implications for national security and defence preparedness.

❖ *Social cohesion and radicalization*

Truth decay can contribute to social divisions, polarization and radicalization, which can have implications for national security. When society becomes fragmented and trust erodes, it becomes easier for radical ideologies to gain traction, leading to social disorder, violence and threats to public safety. Efforts to counter radicalization and maintain social cohesion require active measures to address the factors that underpin the degradation of truth, including misinformation, echo chambers and the erosion of trust.

To address the influence of truth decay on defence and security, it is essential to promote media literacy (Huguet, Baker, Hamilton, Pane, 2021) and encourage critical thinking as preconditions for achieving resilience to disinformation. Strengthening information sharing and collaboration between security agencies and the public, investing in robust cyber security measures, promoting greater transparency and accountability in security operations can also help mitigate the impact of truth degradation on defence and security efforts.

We also believe that addressing the influence of truth decay on defence and security requires a number of proactive measures:

- Building resilience – Building resilience against disinformation and misinformation is essential. It involves promoting media literacy, critical

thinking skills and providing education and training to enhance people's ability to discern reliable sources of information.

- Information sharing and collaboration – Encouraging transparent information sharing and collaboration between defence and security institutions (both domestic and international) can help counter the spread of disinformation and improve situational awareness.
- Additional investment in intelligence and counter-intelligence capabilities – It is essential to strengthen intelligence assets to identify and counter disinformation campaigns by creating and developing robust monitoring, analysis and response mechanisms to identify and mitigate threats in real time (particularly in the online environment).
- Strengthening cyber security – Strengthening cyber security measures is vital to protect critical defence infrastructures and information systems against cyber-attacks and manipulation. It must include the implementation of strong authentication, encryption and monitoring mechanisms to ensure the integrity and reliability of information.
- Involvement of society – Promoting transparency, accountability and effective communication with the public is crucial to promoting trust and countering the truth decay phenomenon. Engaging citizens in dialogues, providing accurate information and addressing their concerns can help mitigate the impact of misinformation.

By recognizing the influence of truth decay on defence and security and implementing appropriate strategies, it is possible to mitigate risks, strengthen resilience and ensure more effective defence and security measures.

CONCLUSIONS

Truth decay is a significant challenge to democratic societies as a whole, to public discourse and to the well-being of the society. Without a common set of facts, data and statistical analysis, it becomes almost impossible to have a meaningful debate about important policies and topics (e.g., immigration, health care or the national economy). Addressing this phenomenon requires a multi-dimensional approach and a concerted effort involving media education, collaboration between technology companies and researchers.

Cultivating critical thinking skills, promoting media literacy, fact-checking initiatives, and encouraging a culture that values evidence-based reasoning are essential steps towards mitigating the impact of truth degradation and restoring trust in facts and expertise. Through coordinated collective action, we can counter the erosion of truth and ensure a more informed, inclusive and resilient future society.

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