Scientific Journal "Newsletter on the results of scholarly work in sociology, criminology, philosophy and political science" | www.sci-result.de
ISSN (Print) 2699-9382 | ISSN (Online) 2699-9005
Volume 1, Issue 3, 76-91, Published: August 11, 2020
DOI: https://doi.org/10.61439/FWET2304

Civilization of the 21st Century: Genome of Security

Dr. Oleg Maltsev
European Academy of Sciences of Ukraine
Email: drmaltsev.oleg@gmail.com
ORCID: https://orcid.org/0000-0002-8589-6541

Abstract

The periodic nature of societal development, as viewed through the lens of technological progress in civilization, points to a distinct trend: the issues that arose from the environment in the sphere of security thirty years ago do not align with the formula that has emerged in the 21st century. In this article the author delves into an analysis of the safety genome of contemporary civilization, along with the repercussions of society's transformation under the influence of the digital world. Several phenomena are highlighted, stemming from a reluctance and/or inefficient handling of information, the challenge of discerning truth from falsehood, thus resulting in a diminished inclination towards rational thinking. Particular attention is dedicated to the way in which individuals independently (often unknowingly) expose themselves to risk through their interaction with devices.

Drawing upon 25 years of practical experience and ongoing scientific research in the field of integrated security, the author has developed and tested numerous methods and technologies aimed at addressing issues in the sphere of business safety. Nonetheless, present realities define new directions for applied research. Primarily due to rapid technological advancement, the physical environment is increasingly merging with the digital landscape. Consequently, this pattern necessitates fresh approaches to system security that align with the requisites and parameters of the 21st century.

The objective of this article is to elucidate, using concrete examples, the origins and nature of intellectual, psychological, and technological impediments that hinder effective operation within an information-driven environment and the accurate discernment of truth from falsehood.

Keywords

device, Google user, Wikipedia, internet, information, security, security genome

Introduction

During the transition from the 20th to the 21st century, a prevailing societal notion emerged suggesting that the primary human instinct is that of self-preservation. Embedded within this perspective is an anthropological paradigm positing that humanity's survival on Earth hinges on the instinct of self-preservation. This outlook finds reinforcement in the biological realm, asserting that humans, as a species, persistently rely on horizontal stability (manifested

as "survivability"), a trend attributed to the instinct of self-preservation. This position is also shared by anthropology. It is important to note, however, that the author of this article does not endorse these viewpoints and does not share the accompanying stereotypes.

Contrary to prevalent beliefs, research findings in the realm of complex security in the 21st century indicate an increasing departure from any inherent instinct of self-preservation in humans. In fact, adopting a prototypological lens, as we delve further into history, manifestations of the instinct of self-preservation become progressively scarcer in the activities of both compatriots and global citizens. Notably, the intentional establishment of various terrorist groups and organizations, such as ISIS, serves as compelling evidence in support of this argument. The inherent absurdity and paradox within an individual's worldview lies in the circumstance that they exhibit a reluctance to guide their life in accordance with the instinct of self-preservation. Despite possessing substantial knowledge about terrorist organizations that propagate terror and fear, individuals often opt not to acknowledge the reality of such threats. They disregard influential vectors of power in their life planning and execution. This paradox accentuates the passive and indifferent stance individuals adopt towards external sources of menace, contradicting the expectation that anthropological principles would drive them towards self-preservation. However, the reality is that "homo sapiens indifferent" does not adhere to the guidance of the instinct of self-preservation. Consequently, the commonly held assertion that "humanity survives due to its instinct of self-preservation" appears to be misguided. Even in everyday scenarios, the author consistently observes instances of behavior where people actively seek to bring about their own demise. Various individuals, for diverse reasons, intentionally compromise their existence in myriad ways — some emotionally, some psychologically, some physically, and others spiritually. This points to a notable inclination among certain individuals to harm themselves in one form or another.

Subsequently, detailed conclusions and observations will be elaborated upon, enabling the reader to comprehend the factors contributing to why in the 21st century, individuals do not contemplate the instinct of self-preservation and do not utilize it as a guiding force in decision-making, outcome anticipation, or even in addressing matters of survival. Furthermore, the author firmly believes that contemporary civilization is characterized by a lack of the instinct of self-preservation.

Methods

The concept of a "methodology of a civilizational approach" appears to represent a fusion of terms employed to characterize the primary methods and approaches in research related to civilizational processes and phenomena. Methodology, in this context, encompasses a set of methods, principles, and rules designed for the investigation and exploration of phenomena. Within the realm of civilizational studies, methodology may encompass diverse approaches to data analysis, collection, and interpretation, along with principles for assessing the impact of various factors on the shaping and evolution of civilizations.

The civilizational method is conceptually aligned with a systems approach to studying civilizations. This entails an examination of how various facets, including culture, history, economics, politics, technology, and others, influence the formation and development of civilizations. The civilizational approach may involve a specialized analytical method focused on studying civilizations as integral and intricate systems, considering the interconnectedness and interactions among different aspects of civilization. The methodology of civilizational studies often adopts an interdisciplinary approach, as comprehending civilizations necessitates an understanding of various facets drawn from different fields of knowledge. This may entail the combined utilization of methods from history, sociology, anthropology, economics, political science, and other disciplines.

The methodology employed in civilizational studies encompasses a thorough analysis that considers multiple factors influencing civilizations. This involves examining changes in

culture, economics, politics, and technology over time, as well as evaluating the impact of external factors. Comparative analysis of different civilizations is a component of this methodology, allowing researchers to identify common patterns and differences by comparing similar and distinct features. Ethical considerations, particularly concerning contemporary challenges like cultural heritage preservation, sustainable development, and security, are also integrated into the methodology of civilizational studies.

In essence, the methodology of civilizational studies provides a comprehensive approach that enables the understanding of various facets concerning the formation, development, and interaction of civilizations over the long term. The civilizational approach serves as a methodological and theoretical framework for studying and analyzing civilizations, conceptualized as intricate sociocultural and historical formations. Recognizing the specificity of historical development emphasizes that comprehending the history of diverse societies and cultures requires consideration of their interaction and mutual influence, moving beyond a sole focus on individual nations or regions.

The civilizational approach directs attention to cultural identities and their pivotal role in shaping civilizations. Key components of civilization, such as language, religion, art, and customs, are regarded as integral elements woven into its fabric. Certain aspects within the civilizational approach underscore the influence of geography on civilization formation, recognizing the significant impact of climate, landscape, and resource availability on societal character and structure. Another aspect involves the acknowledgment that societies undergo distinct stages of development, encompassing emergence, growth, and decline. Analyzing these stages contributes to a nuanced understanding of long-term trends.

Embracing a systems thinking perspective, the approach to studying civilizations views them as complex systems, where interactions between different elements and changes in one component can reverberate throughout the entire system. Central to this approach is the method of comparative analysis, fostering a deeper understanding of different civilizations by identifying commonalities and differences. This facilitates the recognition of universal patterns and features specific to particular cultures.

The civilizational approach equips researchers with tools for a profound analysis of intricate cultural and social phenomena, facilitating an understanding of their interconnections and influence on historical development. The methodology employed in civilization studies is versatile and depends on the specific goals and objectives of the research. It encompasses methods and approaches from diverse fields such as archaeology, history, sociology, cultural studies, and others. Comparative analysis of genomes in various systems and organisms allows the identification of conserved and unique genomic regions, aiding in the exploration of commonalities or differences relevant to safety.

An integral aspect of the methodology involves the ethical and legal considerations in genomic security research. This encompasses issues like data confidentiality, adherence to ethical standards, and the regulation of genetic technologies. The methodology of safety genome research requires collaboration across disciplines, ranging from biology and bioinformatics to ethics and law, to comprehensively comprehend and evaluate the genetic aspects impacting the safety of organisms.

Results

Since the year 2000, significant transformations have unfolded within the global community. As a scientist, I refrained from discussing and providing expert insights on the concept of “comprehensive security” for approximately a decade. The formation of trends during this time frame was challenging due to the dynamic alterations in the environment and the sweeping nature of global changes. The lack of precision in forecasting the culmination of these changes and their eventual stabilization added to the complexity. Notably, the trends

deliberated upon by my colleagues and myself a decade ago have evolved to lose relevance today. The discourse surrounding comprehensive security in the 21st century necessitates a novel approach involving contemporary systems and methodologies that align with the parameters of the present era. This reflects the general discourse of current interdisciplinary research (Fischer et al., 2019; see also Li & Jiang, 2019; Nunes-Vaz & Lord, 2014; Pereira et al., 2017; Salleh & Janczewski, 2016). Put differently, the 21st century has ushered in a novel epoch referred to as the "new security" era.

During a research expedition to Portugal in March 2020, I authored the "Security in the 21st Century" Textbook (Huzhva, 2020). This textbook stands as the culmination of international research undertaken collaboratively over a span of 7 years. Following this, in September 2020, I embarked on a research expedition to Croatia with the Expedition Corps, the special scientific unit of the Memory Institute. The endeavors of this expedition were extensive and resource-intensive, resulting in the composition of three new books simultaneously. Worth highlighting is that this was the inaugural expedition during which I penned three specialized books in unison: "Swaying Scene," "X-Aspect of Security," and "Unseen Angel" (Maltsev, et al., 2020, 2018). Elaborate reports were presented on each of these books at the international scientific symposium titled "Global Security through the Prism of Inferiority," held from September 21 to 25, 2020 ("The Security Genome of Modern Civilization," 2020). This triad of new books delves into specific constructs or components forming the essence of the "human genome of security," offering meticulous scientific calculations and practical instances.

Over the past two decades, significant global transformations have taken place. The foremost and pivotal change involves the diminishing significance of the term "I know." While from 2009 to 2013, the concept of "I know" held a clear and accessible meaning for individuals (I know how to perform mathematical operations, I know how to diagnose ailments, I know what dispersion is, etc), the prevailing trend since 2002 indicates that people believe they "know everything," yet in actuality, possess limited knowledge. How has this come about? This shift is attributed to the interaction with devices. Presently, everyone possesses and utilizes a variety of devices, be it a mobile phone, tablet, laptop, PC, and so forth. The "device" essentially embodies and reflects an individual's "the scope of human knowledge." Unlike in the recent past when our predecessors actively sought to acquire personal knowledge, the present sentiment suggests a lack of necessity. The exponential advancement of information technologies has introduced various methods of misleading individuals, inundating them with misinformation that transforms societal life and existence into a more treacherous obstacle course (Lewandowsky et al., 2017; see also Benedict et al., 2019;Boussalis & Coan, 2017; Ecker et al., 2017; Gilligan & Gologorsky, 2019).

Phenomenon №1: "The Veil"

One of the fundamental security aspects in our civilization is the concept of "The veil." Explore this concept using the following example. Even two to three decades ago, the streets of medium and large cities, especially in central Russia and Ukraine, were notably perilous. Criminals exhibited ruthless behavior, often without any attempt to conceal their crimes or erase evidence. In restaurants, bars, and even on the streets, a hired assassin targeting a specific individual would not only eliminate the intended victim but also anyone within their shooting range. During that period, the fear of falling victim to a stray bullet triggered people's instinct of self-preservation. The harsh reality of the environment compelled individuals to conscientiously contemplate and evaluate their destinations and activities. These realities prompted people to become cautious and mindful of the transient nature of life (or the abrupt potential for death), urging them to be more vigilant about their surroundings, even during daylight hours.

In today's modern society, however, rational thinking has waned, and more frequently, we witness unconscious and inefficient behavioral patterns. What accounts for this shift? Primarily,

it is due to the phenomenon of the "veil," which metaphorically acts as a screen through which information is selectively presented, often from a perspective that favors specific individuals or groups. For instance, a term like "landing" has become commonplace in everyday language, particularly within the context of online presence. It is a common online business card, but the cost for its creation is significantly higher. The crucial distinction to highlight is that the production of a basic "business card" cannot reasonably warrant a $100 fee, whereas the creation of a "landing page" could indeed involve a significantly higher expenditure. This example effectively demonstrates how the "veil" operates. Simply using a foreign term like "landing" instead of a native Russian or Ukrainian word creates a veil that obscures the true meaning. Crucially, the "veil" swiftly inflates the perceived value. The intentional use of foreign words, an abundance of terminology, and contemporary slang expressions in business conversations and negotiations can lead the other party, unfamiliar with this phenomenon, to feel inferior.

Additionally, the "veil" hinders a person from engaging in rational thinking. Similarly, using a set of well-established techniques, the media influence a broad audience by constructing a specific contextual image and prescribing "biased rules of the game." Manipulating the angle of view is a frequent tactic. For instance, while it is widely known that toxic substances are harmful and some can be lethal, certain media outlets present information from an alternative perspective: certain "harmful" substances could have potential preventive uses.

The global manifestation of the "veil" phenomenon became evident during the pandemic when numerous experts and medical professionals emphasized the importance of wearing masks (even if person worn a disposable mask for multiple days). Why does this approach resonate with individuals? The crux of the matter lies in the fact that contemporary individuals are disinclined to navigate information on their own; they place their trust in experts, specialists, and online content. With a small device constantly at hand, people have largely relinquished the pursuit of their own knowledge, given that everything can now be accessed on their devices. This issue extends to scientific authorities, professionals of the digital era, professors, and others.

During one of my expedition to the southern region of Italy, I personally encountered a rather noteworthy incident. In the presence of a well-respected professor, who had dedicated over two decades to studying the history and weaponry of criminal organizations in that region, I posed a simple query: "Is this knife I am presenting to you a traditional Genoese knife?" To my astonishment, the professor turned to none other than Wikipedia for the validation of this information. This approach to addressing a scholarly inquiry left me profoundly puzzled. Reflecting logically, I was startled with the fact that a distinguished professor, deeply immersed in scientific research for many years, an individual whose work serves as a reference for and influences younger generations, would resort to the same information-seeking behavior as any ordinary Internet user. One would expect that he, as a scholar, would be accustomed to working with primary sources and authenticated archival materials. Yet, in this instance, the professor opted to seek knowledge from Wikipedia, a collaborative online platform shaped by consensus and convenience, rather than relying on the extensive foundation of his own scholarly endeavors.

At that juncture, I speculated that perhaps the complex criminal milieu of southern Italy, along with the unique nuances of the professor's mindset and academic pursuits, had woven a perplexing knot (the Gordian knot) that challenged his efforts to decipher historical intricacies. Nonetheless, the observed response seemed curiously incongruous and irrational for a seasoned researcher who had been actively contributing to European-level investigations and was also a faculty member at a university in Calabria. This incident might have remained an isolated occurrence had it not been for another comparable experience that transpired during a subsequent scientific expedition in the United States, involving both myself and my colleagues.

In 2017, during the process of writing my book "Non-compromised Pendulum" (Maltsev & Patti, 2018), I embarked on a journey to New York with the purpose of engaging in a personal encounter with a student of the renowned coach Cus D'Amato (*The World's First*

Book About Cus D'Amato's System, 2018). This meeting included not only Cus' student, who held positions in business and politics, but also his companion, psychology professor Scott Weiss. Amidst the discourse, a dispute emerged between the professor and the politician, centered on the distinction between "philosophy" and "psychology." The politician asserted that philosophy and psychology were essentially "the same thing." In response, the professor cited the precise definitions of these distinct disciplines. Seeking to validate his claim that no discrepancy existed between the two fields, the politician turned to Wikipedia for assistance. Scott Weiss, a credentialed expert with a PhD, endeavored to persuade his friend that the disciplines were indeed separate sciences. Half an hour later, after the politician had continued his "study" of the matter (relying on the same Wikipedia), he conceded without reservation that "philosophy" and "psychology" constituted distinct sciences.

Another noteworthy incident unfolded at an online conference in 2020, an event in which I participated. Numerous scholars and academics conducted their presentations by reading directly from prepared papers. Until recently, such an approach would have been met with strong censure from the scholarly community, as a professor typically would not read verbatim from a written script; after all, they are not akin to students in a seminar class. However, this practice no longer astonishes anyone in the present day.

Consequently, these examples collectively paint a picture of the growing reliance on electronic devices and the Internet among individuals in the 21st century (Barr et al., 2015; Rajaram & Marsh, 2019). All knowledge now seems to be condensed within this compact electronic tool, granting access to the vast expanse of the "world wide web," and conveniently, this device remains ever-present. The rapid technological advancement of society has pernicious impacted the intellectual growth of its constituents. In effect, knowledge has "shifted" from being within human minds to being within devices, thereby leading to the classification of people into three distinct groups. To be more precise, into four categories, though the fourth category of individuals holds limited relevance in our current analysis – I provisionally term this category "Dinosaurs." I shall refrain from assigning formal scientific designations to the other three categories of individuals. For the sake of clarity and vivid imagery, I propose referring to them as "Googlers." These individuals often express themselves with phrases like "I googled," "I looked it up on Google," "Google told me," and so forth. Conceptually, this trend mirrors the act of fishing: one casts a metaphorical net in the form of a search engine into the digital realm and "captures" information.

Googlers №1 - "The Wikipedia Type". A predominant group, often referred to as "Wikipedians," who heavily rely on Wikipedia for any information they seek. These individuals quote, reference, and are sure that Wikipedia is a trustworthy source of knowledge. Their entire knowledge base is centralized within Wikipedia. However, the actual reliability of Wikipedia as a reference is questionable, as it consistently delivers a fluid product influenced by consensus and the author's convenience.

Googlers №2 - "The Dirt Type". Representing another subset, this category, aptly labeled as the "Dirty" type, is preoccupied with scouring the Internet for various forms of incriminating content ("skeletons in the closet"), which aim to tarnish the reputation of individuals or groups. These individuals take pride in their swiftness in unearthing negative information.

Googlers №3 - "The Access Type". The third category, known as the "Access" type, boasts their ability to procure information, particularly through purchasing access to restricted information. They demonstrate adeptness in utilizing the Internet as an interactive library. However, their knowledge remains confined within the realm of the global digital network.

Phenomenon №2: Critical Chain

Imagine you wish to access translated versions of books authored by Gerd Gigerenzer from German to Russian. Upon searching online, you discover that the renowned professor's books are available only in German, a language you are unfamiliar with. This situation creates

a visual representation indicating "knowledge is lacking." Although the books exist, you encounter a practical difficulty or obstacle: how can you delve into Gigerenzer's writings? Today, various internet dictionaries, programs, and resources can translate texts of varying complexity into numerous international languages. It is worth noting that the quality of these tools improves each year. However, this process demands considerable time, patience, and effort, particularly for text translation and subsequent logical comprehension for readers in different languages.

Just a decade ago, seeking assistance from professional translators was necessary for text translation. In 2020, language barriers were virtually eliminated with the aid of programs. Nonetheless, this transformation led to the emergence of another obstacle: the "authorial barrier." The concept of the "authorial barrier" arises from the evolving trend of content accessibility. Device users have grown accustomed to acquiring necessary programs at no cost; expenses were primarily limited to internet access services. However, the landscape is shifting towards content payment. Barrier systems are becoming increasingly robust and efficient, preventing unauthorized access and encouraging paid usage.

In the near future, we may reach a point where any online action, whether viewing, reading, or downloading, will necessitate upfront payment. Some content will likely remain free, as demonstrated by initiatives like the Odesa Film Studio, which has made a significant portion of its Soviet-era filmography available for public use. However, contemporary productions are subject to copyright restrictions, requiring payment for access.

Whenever I require scientific materials, movies, or books for my work at a research institute, I ensure to purchase them all. Initially, attempting to download supposedly free versions could lead to receiving incomplete books or extremely low-quality movies. Moreover, as a scholar, I must avoid any possibility of using subpar or inaccurate sources. The journey of obtaining necessary data or software began in the 2000s, coinciding with Microsoft Corporation's practice of enforcing mandatory software licensing (acquiring a licensed program version came at a cost).

During this same period, a vigorous campaign against pirated video content commenced, and in Russia, strict regulations were put in place to ensure that computers within enterprises, corporations, and public organizations exclusively operated with licensed software. Today, the necessity of using licensed software is widely acknowledged within enterprises. Even Apple software is subject to licensing. The question arises: why did this transformation occur? Life's lessons highlight that no part of the world is truly "empty." By introducing copyright as a barrier, the proponents of this movement effectively limited access to knowledge.

Returning to the demonstration of acquiring Gerd Gigerenzer's books, let us assume I have a "magic wand" in the form of an internet-enabled device. I input the query "Gerd Gigerenzer (2002) 'Adaptive Thinking: Rationality in the Real World'" into Google. One of the initial links directs me to Amazon's website, where I am presented with an opportunity to purchase this book for $58. It is noteworthy that $58 is a considerable amount for a contemporary internet user. Many earlier edition books are only available in physical form (hardcover), with prices ranging from $100 to $1000 or more. Additionally, the purchase of a physical book requires accounting for delivery time and incurring separate delivery charges, ultimately increasing the total cost substantially beyond the initial price.

Suppose you genuinely require a book, and you decide to purchase it, even accepting the fact that it exists in analog form (hardcover) rather than being digitized. In this scenario, the purchaser will need to await the delivery of the physical parcel. Delivery times can span from two weeks to several months. Alternatively, consider another situation where the book you purchased is available in electronic form. However, it is written in a foreign language, necessitating a way to read it. If the book is in analog form, it might need to be photographed or scanned for reading on the go or for translation purposes.

This sequence of actions forms a critical chain, a series of interconnected steps that must be executed in a specific order to eventually access the desired data: to find a book - to pay

money - to wait for delivery - to translate - to get acquainted with the content of the book. . This experiment illustrates that even the most advanced device does not instantaneously solve the task at hand. Instant data retrieval is unachievable. It is important to note that at no stage in the demonstrated process is the notion of "understanding" even addressed. Understanding the substance of the information contained in the book is implied, not to mention the mental and analytical processing required for its effective utilization. The critical chain phenomenon transforms one into a consumer, often sidetracking from the primary objective.

The illusion arises where everything appears to have worked out: the book is acquired, and the data is accessible. However, processing the data and effectively applying it, following the obstacle course, becomes nearly impractical. The critical chain phenomenon stands as one of the foundational aspects of the current postmodern era. Its essence lies in the illusory prospect of swiftly obtaining information. Contrarily, instead of actual information, the consumer typically obtains something different: Wikipedia, dirt and access (ability to purchase information) - not more. The phenomenon of the critical chain highlights that instead of receiving the knowledge and information needed to make informed decisions, prepare presentations, or conduct further research, individuals often end up with one of these three categories (Wikipedia, dirt, access) rather than the desired data.

Suppose you genuinely require a book, and you decide to purchase it, even accepting the fact that it exists in analog form (hardcover) rather than being digitized. In this scenario, the purchaser will need to await the delivery of the physical parcel. Delivery times can span from two weeks to several months. Alternatively, consider another situation where the book you purchased is available in electronic form. However, it is written in a foreign language, necessitating a way to read it. If the book is in analog form, it might need to be photographed or scanned for reading on the go or for translation purposes.

This sequence of actions forms a critical chain, a series of interconnected steps that must be executed in a specific order to eventually access the desired data: to find a book - to pay money - to wait for delivery - to translate - to get acquainted with the content of the book. . This experiment illustrates that even the most advanced device does not instantaneously solve the task at hand. Instant data retrieval is unachievable. It is important to note that at no stage in the demonstrated process is the notion of "understanding" even addressed. Understanding the substance of the information contained in the book is implied, not to mention the mental and analytical processing required for its effective utilization. The critical chain phenomenon transforms one into a consumer, often sidetracking from the primary objective.

The illusion arises where everything appears to have worked out: the book is acquired, and the data is accessible. However, processing the data and effectively applying it, following the obstacle course, becomes nearly impractical. The critical chain phenomenon stands as one of the foundational aspects of the current postmodern era. Its essence lies in the illusory prospect of swiftly obtaining information. Contrary to the expectation of acquiring relevant information, the consumer typically obtains something different: Wikipedia, dirt and access (ability to purchase information), rather than the essential knowledge required for informed choices, compelling presentations, or deeper research. The phenomenon of the critical chain highlights it.

It is worth noting an emerging trend: while the language barrier has largely receded as an obstacle, the authorial barrier is steadily expanding and gaining momentum. This transformation occurs without seeking the opinion of the consumer, without considering whether the individual finds this situation agreeable or satisfactory. No one directly inquires whether the person wishes to become ensnared in the critical chain phenomenon. Instead, individuals are transformed into dependents without their explicit consent or awareness, cut off from direct communication and connection.

To be equitable, it is important to acknowledge that the automatic habit of seeking information on the Internet has also permeated my fellow scientific colleagues. Here's a brief anecdote as an illustration. The incident occurred during the preparation for an expedition to

Portugal. Two orders, the Order of Santiago and the Order of Christ, were among the subjects of our scientific research. With a team of skilled researchers, individuals who have spent years working alongside me in the realm of science, I tasked them with gathering information about these two orders. As they delved into their work, it became evident that a substantial 98% of the data they unearthed originated from internet searches.

My colleagues were greatly taken aback by the fact that, contrary to their expectation, the Expeditionary Corps was not interested in the internet-sourced information. Instead, the scientific team sought other, objective information that was not readily available online, such as data from books stored in European libraries, archives, and other offline sources.

This approach to problem-solving certainly caught me off guard. Despite having worked in the scientific department for over six years, some individuals still occasionally succumb to the notion that internet banners might offer valuable insights. Surprisingly, even within "professorial circles," many individuals adopt this shortcut, as it is far more convenient to copy and paste information (Ctrl+C and Ctrl+V) than to engage in the meticulous process of extracting information from reliable sources, which further requires thorough verification. In our case, it is paramount to recognize that an expedition constitutes a series of meticulously planned activities aimed at extracting truthful, objective, and reliable data from the annals of history. Relying on unreliable data during expedition preparation could result in data dissonance, leading to confusion during the actual expedition where we would need to address these misunderstandings on the spot.

For instance, during my work with a research team in Dubrovnik, Croatia in September 2020, we confronted the startling fact that almost all internet-sourced information about the city diverged significantly from the reality of Dubrovnik. Subsequent investigation and the purchase of books within the city itself validated this conclusion.

The nature and operation of Wikipedia merit close examination. Wikipedia has never been synonymous with "scholarly rigor," which inherently precludes it from being a dependable source of scientific information. It is authored by individuals, often teenagers, who wield control over the incoming content and make judgments regarding what content and contributors are permissible on this online platform. Notably, these individuals seldom contribute original content themselves (meaning there is a dearth of critical, investigative, and analytical work). Instead, Wikipedia's content is sourced from what are referred to as "authoritative sources." However, the actual identity of these sources remains undisclosed to Wikipedia users, leading to a lack of clarity on the matter. In practice, the designation of "authoritative sources" is contingent upon the consensus of Wikipedia's community at a given point in time, leaving a subjective aspect to their categorization.

The information presented to users on this platform does not inherently constitute authoritative knowledge. ITo sum up, it can be deduced that Wikipedia functions as follows: it presents a particular succinct excerpt — essentially, a spontaneous and shallow compilation of information extracted from diverse journals, web resources, mass media outlets, and other non-scientific sources. This content is only loosely organized, then uploaded onto Wikipedia platform pages. It includes references to purportedly "authoritative sources," even though these may not necessarily correlate with genuine encyclopedic and dependable knowledge. This culmination of content is subsequently made available to readers.

Furthermore, over the years, users worldwide have developed a "strong belief" that Wikipedia is a reliable resource due to its convenience (which even defies formal logic, yet persists!). However, it is crucial to reiterate that this belief is propagated by internet users. An intriguing point to note is that Wikipedia explicitly prohibits original research, as stated within the Wikipedia platform itself. This essentially means that a scientist conducting their own research does not have the right to publish such findings on the portal. Such submissions would not gain approval from the platform's reviewers, who, it should be remembered, are often teenagers as young as 15 years old. For new research to be incorporated into Wikipedia,

it must first be published in a reputable scientific journal. Subsequently, when adding the article to Wikipedia, it can only be referenced if it has been previously published in said journal.

Notably, Wikipedia disclaims any responsibility for the accuracy of data within its articles, as stipulated in its rules. Nevertheless, Wikipedia patrollers diligently ensure that all data is derived from "authoritative sources." These sources, however, are those that achieve consensus approval from the Wikipedia community at a given time. What is often overlooked is the fact that the data satisfying consensus consumers' preferences five years ago might not necessarily satisfy them today, and vice versa.

Whenever dissenting voices arise upon the publication of a new article, the author of that article must arm themselves with patience and defend their page within Wikipedia. They are required to substantiate that the information has been appropriately extracted from authoritative sources. The status of the author, even if they are a professor, and the scientific nature of their article are largely disregarded by the Wikipedia's teenage administrators. Consequently, information within Wikipedia is transient in nature. Consensus today holds no guarantee, as a page that is approved today may well be "deleted" tomorrow.

Absolutely, the functioning of Wikipedia is indeed as described, yet millions of users continue to access this dubious resource every second, often unaware of the dynamics behind the scenes ("Wikipedia Articles Must Not Contain Original Research," 2003). Within Wikipedia, the voice of a 15-year-old carries the same weight as that of a professor, illustrating the very nature of the platform. Information sourced from the device you always carry can be likened to something that has "fermented," accumulating moss or even mold over time. Relying on information of such quality can lead to uncontrollable and unfavorable outcomes for the user, potentially resulting in mistakes, failures, and even ridicule.

In essence, what is happening today is a form of deception targeted at individuals. Furthermore, it is unreasonable to shift the blame for one's own decision-making errors onto the device, stating that it provided inaccurate information and thus hindered the ability to make a sound judgment. This scenario leads to the concept of the "unanswered reference," the third term in this discourse.

Phenomenon №3: Unanswered Reference

The term "unanswered reference" denotes a prohibition or an inability to attribute blame to the device. Many individuals often want to believe that their smartphones are personalized and unparalleled sources of any information, even the most confidential. While it is hard to contest this notion, a potential scenario emerges: the device provides inaccurate information. Consider a situation where a person, in the midst of a business meeting, attempts to explain that they couldn't resolve issue "X" due to erroneous data from their device. This scenario might appear comical at first glance, and it certainly remains anecdotal if it remains fictional and unsupported by concrete examples.

In reality, at a minimum, legal frameworks and established business practices would not permit an individual to shift responsibility to a device, especially in professional settings. Although attitudes among people, both in general and within business environments, have not changed significantly in this stage of civilization's development, the opportunities have expanded dramatically. Once upon a time, advanced training courses or personal lessons required seeking out specific individuals, but at a certain point, all of this was supplanted by a small device. However, this very device denies its user the option to defer blame to it, encapsulating the essence of the "unanswered reference" phenomenon. Therefore, individuals cannot lay the blame on their phones, asserting that "it is the phone's fault." Instead, the responsibility rests with the individual. Despite the desire to rely on a convenient electronic device that seemingly contains the entirety of worldly knowledge, the reality falls short of this belief.

Phenomenon №4: The vanishing of the aspects defining the fields of activity

Shifting between fields of activity due to the growing engagement of users and enthusiasts of gadgets and devices, akin to a persistent challenge, posed a significant issue in the 21st century. What is at the heart of this issue? Presently, individuals armed with gadgets often harbor the belief that possessing such devices grants them the ability to present themselves as experts across various fields. The very concepts of affiliation with a specific field of activity (or "specialization" and "expertise") seem to have lost their prominence in this era.

With an electronic device stowed away in a pocket or briefcase, the "fortunate owner" may perceive themselves as a doctor, a locksmith, an electrician, a businessperson, and much more. Consider the ramifications of entrusting a task to such a "specialist" who has solely gleaned knowledge from their device. Customers, often unaware of the backgrounds of these "professionals," might seek their assistance, leading to exacerbated problems and worsening issues due to ill-informed guidance from self-proclaimed "experts." Imagine confronting a scenario where a task requires the expertise of a trained professional. For instance, would you entrust a device-trained individual to perform a surgical operation on your child? Would you let them carry out an appendectomy, effectively putting your child's life on the line? The answer is unequivocal.

Here is another example to illustrate this phenomenon. Consider a scenario where a manager secures a position within a company and subsequently, during a meeting, delivers a presentation in which they proceed to advise their superiors on how to run the business. Remarkably, the presentation materials are exclusively composed of information sourced from the Internet. This trend is increasingly observed in the business landscape of Ukraine. Visualize a job seeker attending an interview and launching into a discourse teeming with fresh terminology, likely under the impression that this approach will create a favorable impression and portray them as an expert. However, a substantive conversation often reveals that the individual not only lacks familiarity with the subject matter but is also quite detached from the field they claim expertise in. Their knowledge stems solely from information available on the Internet and their devices.

As the concept of specialization disappears, a type of electronic competence emerges, yet it fails to yield desirable outcomes. Electronic competence is a kind of competence found on the level of "Wikipedia," "dirt," and copyrighted access. The depth of one's understanding significantly affects the gap between "I think" and "I have done it." Regrettably, in the current era, humanity seems to have relinquished its orientation toward true knowledge. The apparent ease and freedom of obtaining information through electronic devices have paradoxically led to widespread lack of education and intellectual underdevelopment.

Indeed, many individuals exist in a world of illusions, erroneously believing that with the disappearance of specialization, they have acquired comprehensive knowledge. However, the reality is quite different. Without bypassing copyright regulations, which often require financial investment, a person cannot even gain access to reliable information, which, in the end, still necessitates verification. By shaping one's thought process based on principles like "rely solely on credible information," "source knowledge from primary references," and "consult verified experts," while also recognizing the value of paid content, a disciplined approach can shield an individual from becoming entangled in a world of misinformation.

Phenomenon №5: Lack Of Data Processing Capability

Overcoming copyright hurdles and acquiring the desired book, individuals often encounter the challenge of comprehending the material presented within the work. Thus, they find themselves navigating the intellectual obstacle course posed by the fifth critical phenomenon: the lack of data processing capability. Revisit the demonstration I previously discussed

involving the purchase of Gerd Gigerenzer's book in Russian. To exemplify this, I will recount a recent case involving an acquaintance of mine. This individual, a prominent businessman overseeing a sizable workforce, acquired a book by Gerd Gigerenzer (2002) in Russian. After reading the book, he confessed to me, his colleague and business partner, that he struggled to grasp the material contained within it.

The example you provided clearly illustrates that even an educated and responsible individual, who oversees a team of experts, may struggle to fully comprehend the content presented by authors like Gerd Gigerenzer. It is worth noting that Gigerenzer's books are written for a popular science audience and intended to be accessible to a wide range of readers. However, the mere presence of a device that seemingly "knows everything" does not guarantee a deep understanding of complex subjects.

So, what is the appropriate course of action in such a scenario? It is advisable to invest the effort in finding someone who has dedicated significant time, perhaps months, to studying Gigerenzer's works. Seek out scholar-practitioners who possess a thorough understanding of his research, enabling them to provide a rational interpretation of his ideas. By doing so, one can preserve both time and mental clarity while benefiting from the insights of those who have delved deeply into the subject matter.

Until an individual acknowledges that they have succumbed to the negative influence of the digital world, that they have willingly become dependent on their devices, and that they have relinquished their desire for intellectual and analytical engagement with information, they remain exposed to significant risks. Relying on misinformation can lead to unpredictable outcomes in life, leaving a person mentally underdeveloped and myopic in their thinking. Consequently, it is essential to comprehend the mechanisms and phenomena you have described, to cease shifting responsibility to devices and the limited "knowledge" they provide, and to actively seek genuine knowledge and develop effective skills. By doing so, individuals can address their own personal safety concerns and navigate the complexities of our rapidly changing information landscape.

Discussion

The term "genome of security" encompasses concepts related to the genetic aspects of security and safety in various organisms, spanning humans, plants, and animals. This domain incorporates key principles directed at securing genetic information and governing the use of genetic technologies. Here are several pivotal concepts within this genome:

1. Genome of security incorporates ethical principles and responsible research practices, encompassing the protection of genetic information confidentiality, the upholding of patient and research participant rights, and adherence to regulatory standards.
2. Transparency in genetic technology research and decision-making is a crucial facet of genome of security, facilitating public inclusion in discussions and decisions related to genetics to ensure widespread support and trust.
3. In the realm of genetically modified organisms, safety involves assessing risks to the environment, human health, and ecosystems, with considerations for preventing the unintended spread of modified organisms.
4. Compliance with laws and regulations governing genetics and genetic technologies, covering privacy, biosecurity, and research standards, is underscored by genome of security.
5. In medical research, the safety genome mandates ensuring the well-being of research participants and the proper utilization of genetic information for medical purposes.
6. Ensuring equitable access to genetic information and technology benefits, addressing disparities in their availability, is a fundamental concept.
7. As genomic research expands, efforts focus on safeguarding the personal privacy of research participants, involving data anonymization and tool development for genetic information security.

These principles form the basis for establishing regulatory standards and ethical guidelines in the field of genome of security, ensuring the responsible and efficient utilization of genetic data and technologies.

The study of genome of security is a multidisciplinary endeavor, and numerous scientists and research groups have significantly contributed to this field. Below are the names of a few individuals who have actively participated in genome of security research:

1. Jennifer Doudna: American biochemist and geneticist, recognized for her pivotal role in developing CRISPR-Cas9 genome editing technology (Huang et al., 2018).
2. Francis Collins (2006): Geneticist and director of the National Institutes of Health (NIH) in the USA, involved in a large-scale project to decode the human genome.
3. J. Craig Venter (2013): American biologist and entrepreneur, played a crucial role in the Human Genome Project.
4. George Church: American geneticist and Harvard Medical School professor, specializing in genomics and genome editing technology (Church & Gilbert, 1984).
5. Eugene Koonin: American bioinformatician, researcher in genome and microbiome evolution (Gabaldón & Koonin, 2013).
6. Paul Berg: American biochemist, Nobel Prize winner in Chemistry (1980) for the development of recombinant DNA technology (Berg et al., 1974).
7. Jill Banfield: American geomicrobiologist and geochemist, working in metagenomics and studying microbial communities in various environments (Castelle & Banfield, 2018).
8. Kim Lewis (2019): Microbiologist renowned for research on antibiotic resistance and the discovery of new antibiotics.
9. Alessio Fasano (2014): Italian-American physician and researcher in gastroenterology and immunology, exploring the genetic influence on the development of gastrointestinal diseases.
10. John Sulston: Biologist and Nobel Prize winner in Medicine (2002) for contributions to genetics and the human genome project (Ferry & Sulston, 2010).
11. Rita Colwell (2012): Microbiologist studying the effects of genetically modified organisms on aquatic ecosystems.
12. Stefania Marchetti: Biologist examining environmental and biological aspects of genetically modified crops (Marchetti et al., 2007).
13. Arthur L. Caplan: Bioethicist exploring ethical aspects of genetics, including genome of security and the use of genetic technologies (Caplan & Redman, 2018).

These individuals represent only a fraction of the researchers actively contributing to the study of genome of security. Research in this interdisciplinary field continues, attracting the attention of scientists with diverse profiles and nationalities.

Conclusions

Absolutely, the Internet and modern communication systems bring forth incredible opportunities that can greatly benefit society. They allow for instant communication across vast distances, access to a wealth of knowledge and resources, and efficient ways to conduct business and acquire goods and services. We can conveniently access libraries nowadays, as a multitude of libraries have converted their resources into digital formats. This transformation allows us to explore digitized books and historical materials, such as treatises, manuscripts, and culturally significant artistic heritage from around the world. These advantages are among the many bestowed upon us by contemporary civilization. Nevertheless, echoing the ancient adage, “Evil never sleeps.” There persist individuals attuned to responding to an alternative agenda, harnessing the opportunities and resources of the Internet as instruments — weapons, even — capable of propagating misinformation and deceiving the unsuspecting. In practice, instances arise where the user consents to such deception, swayed by the tenets of “benefit” and “convenience” — a scenario that requires minimal exertion.

Hence, it is within the information that the foundation of security is laid. Inaccurate data begets errors in the process of decision-making. Decisions rooted in unreliable information invariably undermine both tactical and strategic intentions. Plans of a tactical or strategic nature, formulated on the bedrock of misinformation, serve only to advantage adversaries. The paraphrased maxim by A.Pushkin "it is easy to deceive us! We are glad ourselves to be deceived" has found tangible manifestation, even in the context of the contemporary Internet era.

Contemporary society finds itself constantly immersed in the interplay of five distinct phenomena: the veil, the critical chain, the unanswered reference, disappearance of expertise, and the lack of data processing capability. However, convincing the global community of its existence as a derivative of these phenomena is a task laden with complexity. Moreover, framing this narrative in such stark terms might not be the most prudent approach. Instead, it becomes imperative to unravel the inner workings of the mechanism that gives rise to the influence and dominance of these phenomena, and subsequently make an individual, informed judgment regarding the desire and necessity to be ensnared by their grip. As Academician and Lieutenant General Viktor Pavlovich Svetlov aptly expressed, "…Reflect on this: if Google possesses all-encompassing knowledge, why then do institutions like the Central Intelligence Agency, NSA, RUMO persist? Why does the state continue investing substantial resources in intelligence operations if Google knows it all? The crux of the matter is that those vested with decision-making authority do not rely on the Internet for information; rather, they source their information from alternative channels."

In the information society, the genome of security refers to the convergence of genetic research, biotechnology, and digital technology in the modern information age. This term encompasses not only the data security aspects of genetic information but also ethical, social responsibility, and regulatory issues related to the use of genomic information in the digital environment. It includes considerations of transparency, accountability, and ethical enforcement. The Security Genome in the information society is a multifaceted challenge that necessitates collaboration among the scientific community, governments, society, and technology. It stands as a promising area for ongoing research.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author received no financial support for the research, authorship, and/or publication of this article.

References

Barr, N., Pennycook, G., Stolz, J. A., & Fugelsang, J. A. (2015). The brain in your pocket: Evidence that Smartphones are used to supplant thinking. *Computers in Human Behavior, 48*, 473–480. https://doi.org/10.1016/j.chb.2015.02.029

Benedict, T., Richter, J., & Gast, A. (2019). The influence of misinformation manipulations on evaluative conditioning. *Acta Psychologica*. https://doi.org/10.1016/j.actpsy.2019.01.014

Berg, P., Baltimore, D., Boyer, H. W., Cohen, S. N., Davis, R. W., Hogness, D. S., Nathans,

D., Roblin, R. O., Watson, J. D., Weissman, S. M., & Zinder, N. D. (1974). Potential biohazards of recombinant DNA molecules. *Science, 185*(4148), 303. https://doi.org/10.1126/science.185.4148.303

Boussalis, C., & Coan, T. (2017). Elite polarization and correcting misinformation in the "post-truth era". *Journal of Applied Research in Memory and Cognition, 6*(4), 405–408. https://doi.org/10.1016/j.jarmac.2017.09.004

Caplan, A. L., & Redman, B. K. (2018). *Getting to good: Research Integrity in the Biomedical Sciences*. Springer.

Castelle, C. J., & Banfield, J. F. (2018). Major New Microbial Groups Expand Diversity and Alter our Understanding of the Tree of Life. *Cell, 172*(6), 1181–1197. https://doi.org/10.1016/j.cell.2018.02.016

Church, G. M., & Gilbert, W. (1984). Genomic sequencing. *Proceedings of the National Academy of Sciences of the United States of America, 81*(7), 1991–1995. https://doi.org/10.1073/pnas.81.7.1991

Collins, F. S. (2006). *The language of God: A Scientist Presents Evidence for Belief*. Simon and Schuster.

Colwell. (2012). *Nonculturable microorganisms in the environment*. Springer Science & Business Media.

Ecker, U. K. H., Hogan, J. L., & Lewandowsky, S. (2017). Reminders and repetition of misinformation: helping or hindering its retraction? *Journal of Applied Research in Memory and Cognition, 6*(2), 185–192. https://doi.org/10.1016/j.jarmac.2017.01.014

Fasano, A. (2014). *Gluten Freedom: The Nation's Leading Expert Offers the Essential Guide to a Healthy, Gluten-Free Lifestyle*. Turner Publishing Company.

Ferry, G., & Sulston, J. (2010). *The common thread*. Random House.

Fischer, R. J., Halibozek, E. P., & Walters, D. C. (2019). Origins and development of 21st century security. In *Introduction to Security* (3rd ed., pp. 3–19). https://doi.org/10.1016/b978-0-12-805310-2.00001-9

Gabaldón, T., & Koonin, E. V. (2013). Functional and evolutionary implications of gene orthology. *Nature Reviews Genetics, 14*(5), 360–366. https://doi.org/10.1038/nrg3456

Gigerenzer, G. (2002). *Adaptive Thinking: Rationality in the Real World*. Oxford University Press.

Gilligan, J., & Gologorsky, Y. (2019). Fake News: Scientific research in the age of misinformation. *World Neurosurgery, 131*, 284. https://doi.org/10.1016/j.wneu.2019.08.083

Huang, C., Lee, K., & Doudna, J. A. (2018). Applications of CRISPR-CAs enzymes in cancer therapeutics and detection. *Trends in Cancer, 4*(7), 499–512. https://doi.org/10.1016/j.trecan.2018.05.006

Huzhva, A. (2020, March 21). What is the world coming to? The concept of security under the threats of the 21st century. *Granite of Science*. https://un-sci.com/ru/2020/03/21/k-chemu-idet-mir-konczepcziya-bezopasnosti-v-usloviyah-ugroz-xxi-veka/

Lewandowsky, S., Ecker, U. K. H., & Cook, J. (2017). Beyond misinformation: Understanding and coping with the "post-truth" era. *Journal of Applied Research in Memory and Cognition, 6*(4), 353–369. https://doi.org/10.1016/j.jarmac.2017.07.008

Lewis, K. (2019). *Persister cells and infectious disease*. Springer Nature.

Li, J., & Jiang, S. (2019). Energy security in the era of transition. *Global Energy Interconnection, 2*(5), 375–377. https://doi.org/10.1016/j.gloei.2019.11.023

Maltsev, O. V. (2018). *Obmanchivaya tishina* [Deceptive silence]. Serednyak T. K. https://books.google.com.ua/books?vid=ISBN6177599958

Maltsev, O. V., & Patti, T. (2018). *Non-compromised Pendulum: The book about Cus D'amato's style*. Serednyak TK. https://books.google.com.ua/books?vid=ISBN6177696465

Maltsev, O. V. (2020). *Kachayushayasya scena* [Swaying Scene]. Izdatelskij dom "Patriot." https://books.google.com.ua/books?vid=ISBN6179505128

Maltsev, O. V., Lepsky, M. A., & Samsonov, A. V. (2020). *Nevidimyj angel* [Unseen Angel]. Serednyak T. K. https://books.google.com.ua/books?vid=ISBN6177599958

Marchetti, S., Onori, G., & Cametti, C. (2007). Ethanol-induced compaction of DNA: a viscosimetry and dynamic light scattering study. *Philosophical Magazine, 87*(3–5), 525–534. https://doi.org/10.1080/14786430600953749

Nunes-Vaz, R., & Lord, S. (2014). Designing physical security for complex infrastructures. *International Journal of Critical Infrastructure Protection, 7*(3), 178–192. https://doi.org/10.1016/j.ijcip.2014.06.003

Pereira, T., Barreto, L., & Amaral, A. (2017). Network and information security challenges within Industry 4.0 paradigm. *Procedia Manufacturing, 13*, 1253–1260. https://doi.org/10.1016/j.promfg.2017.09.047

Rajaram, S., & Marsh, E. J. (2019). Cognition in the Internet age: What are the important questions? *Journal of Applied Research in Memory and Cognition, 8*(1), 46–49. https://doi.org/10.1016/j.jarmac.2019.01.004

Salleh, K. A., & Janczewski, L. J. (2016). Technological, organizational and environmental security and privacy issues of big Data: A literature review. *Procedia Computer Science, 100*, 19–28. https://doi.org/10.1016/j.procs.2016.09.119

The security genome of modern civilization. (2020, September 23). Expedition. https://expedition-journal.de/2020/09/23/genom-bezopasnosti-sovremennoj-czivilizaczii/

The World's First Book About Cus D'Amato's System. (2018). RingSide Report. https://ringsidereport.com/?p=74978

Venter, J. C. (2013). *Life at the speed of light: From the Double Helix to the Dawn of Digital Life*. Hachette UK.

Wikipedia articles must not contain original research. (2003). In *Wikipedia: No original research*. https://en.wikipedia.org/wiki/Wikipedia:No_original_research

Author Biography

Oleg Maltsev is an author, scientist, criminologist, psychologist, photographer, and investigative journalist. He is the head of the Memory Institute, named after Grigory Semenovich Popov, and the author of groundbreaking scholarly works in criminology, psychology, and philosophy. He is a presidium member and academic member at the European Academy of Sciences in Ukraine (EUASU). He has been engaged in scholarly work for nearly 30 years and has conducted field research with the Expeditionary Corps of the Memory Institute, for a decade. This comparative international research explores the reasons why different nations and rulers attained power throughout history, with an emphasis on culture, military and scientific technique, and mentality.