

Information Diet: Understanding its Role in a Digital Age with Statistical Insights

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ABSTRACT

In the digital age, individuals are bombarded with vast amounts of information daily, leading to information overload, cognitive fatigue, and misinformation exposure. This research explores the concept of the "information diet," focusing on how the mindful consumption and curation of information can positively impact cognitive function, emotional well-being, and productivity. Using statistical insights from recent studies, the paper discusses trends in information consumption, the rise of misinformation, the effects of multitasking, and the growing relevance of digital detox. The findings underscore the importance of a balanced information diet to mitigate mental health risks and enhance decision-making in a media-saturated world.

KEYWORDS: Information diet, Information overload, Cognitive fatigue, Misinformation, Digital detox, Media consumption, Mental health, Digital well-being.

1. INTRODUCTION

In today's hyper-connected world, information is more accessible than ever before. We are constantly inundated with content from multiple sources, including social media, news outlets, blogs, videos, and podcasts. While this has its advantages, such as immediate access to global news, it also poses significant challenges. Cognitive overload, misinformation, reduced productivity, and mental health issues are all potential downsides to unregulated information consumption. This is where the concept of information diets—a curated approach to selecting and consuming information—comes into play. Individuals can improve their mental clarity, decision-making, and emotional well-being by controlling the quality and quantity of information intake.

Incorporating statistical insights into the study of information diets highlight how much content is consumed, how it affects our brains, and what benefits a balanced diet of information can offer.

2. DEFINING INFORMATION DIET

The term "information diet" refers to the careful curation and selection of the types, sources, and quantities of information an individual consumes regularly. Similar to a food diet that dictates what one eats for physical health, an information diet is about managing what one absorbs mentally for intellectual, emotional, and psychological

health. A well-balanced information diet ensures that a person is exposed to diverse perspectives, avoids misinformation, and is not overwhelmed by the sheer volume of data.

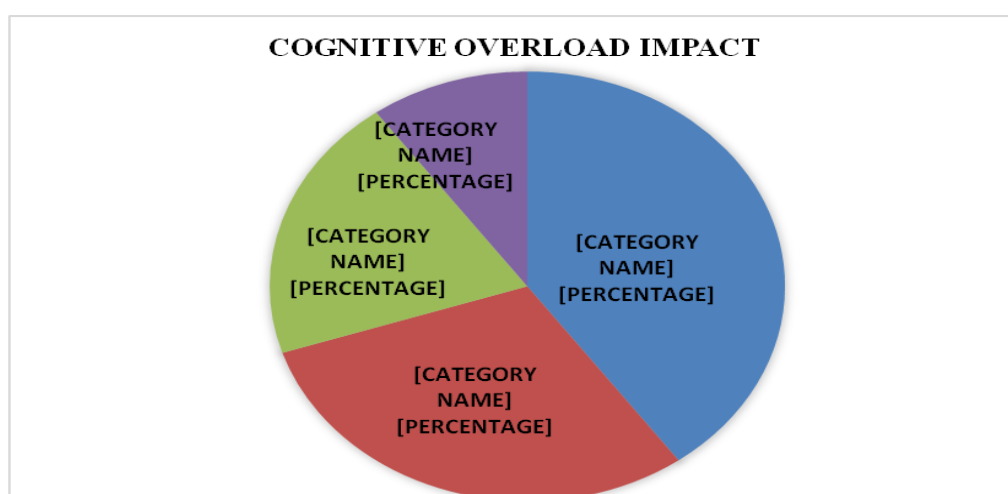
In an era of 24/7 media cycles, social media, and countless online content platforms, curating what we allow into our minds is essential for maintaining focus, staying productive, and protecting our mental health.

3. THE NEED FOR A BALANCED INFORMATION DIET

3.1. Cognitive Overload and Information Overconsumption

With information coming from multiple sources, individuals often face cognitive overload—the inability to process or make sense of all the information they are exposed to. Research suggests that when the brain is overwhelmed by excessive stimuli, it struggles to focus, which can lead to decision fatigue, stress, and mental exhaustion.

Figure-1 could show the mental effects of cognitive overload on the brain



An unregulated flow of information, particularly from sources like social media, can disrupt one's ability to engage in deep thinking. Nicholas Carr, in his book *The Shallows: What the Internet Is Doing to Our Brains*, argues that the internet may be rewiring our brains, making us more adept at skimming vast amounts of data but less capable of sustained focus. A healthy information diet, by contrast, encourages slow, deliberate consumption of information, allowing the brain to process and engage with content more meaningfully.

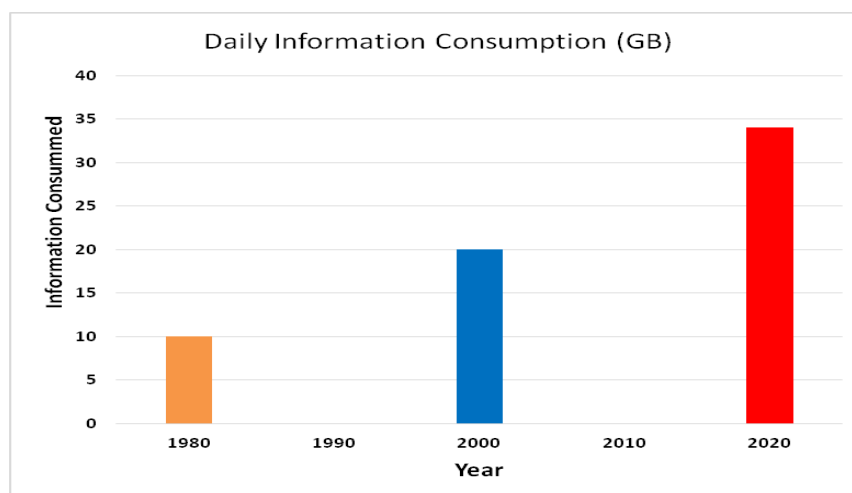


Figure-2 can compare the average daily information consumption of people over the years, showing a clear increase.

The rapid rise of digital platforms, information overload has become a common issue. According to a study by the University of California, San Diego, the average American consumes approximately 34 gigabytes of information daily, which is equivalent to 100,000 words. This statistic has risen by 350% over the past three decades, indicating a steep increase in the volume of information people process daily.

The phenomenon of cognitive overload is supported by George A. Miller's theory, which suggests that the average human brain can only hold about 7 pieces of information at a time. Beyond this threshold, our ability to process and recall data declines. Furthermore, a 2021 report by Microsoft indicates that the average attention span of a human has decreased from 12 seconds in 2000 to just 8 seconds in recent years, largely due to the increasing amount of digital stimuli.

3.2. Misinformation and Biased Content

The digital era has exacerbated the spread of misinformation and biased reporting. With social media platforms and news websites prioritizing sensational headlines over well-researched reporting, the risk of being exposed to distorted or outright false information has increased.

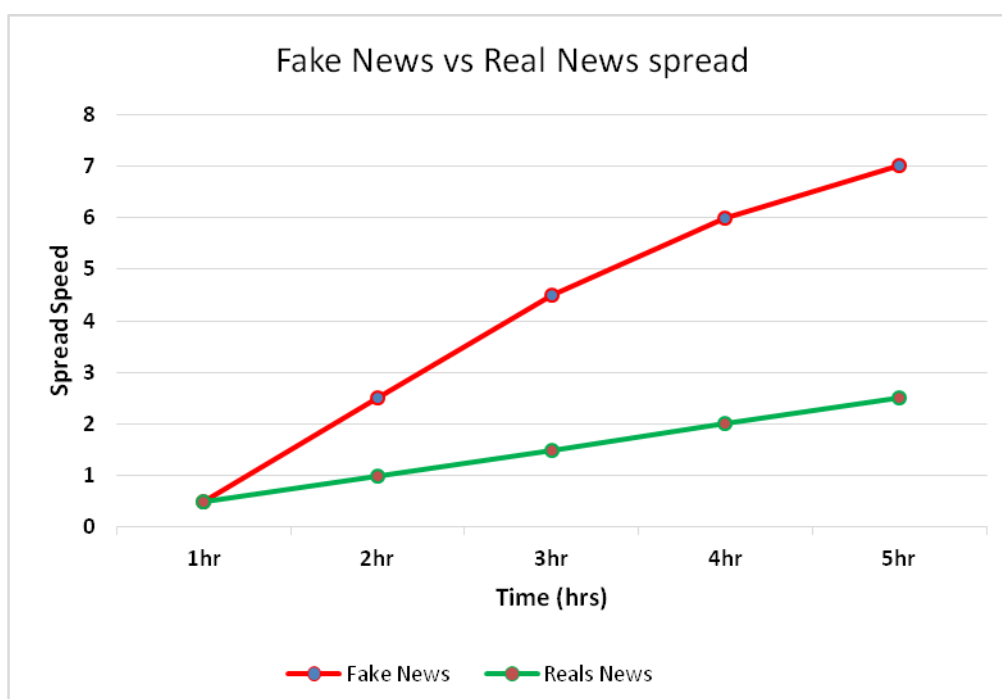


Figure-3 could illustrate the speed at which fake news vs. real news spreads on social media without a conscious effort to verify sources or consume information from diverse perspectives, individuals risk entrenching themselves in echo chambers, where they only encounter opinions that reinforce their own biases. A balanced information diet emphasizes critical thinking, fact-checking, and engaging with multiple viewpoints to cultivate a more nuanced understanding of issues.

In a 2020 survey by the Pew Research Center, 64% of U.S. adults reported that fake news or misinformation was confusing basic facts. This is exacerbated by social media platforms that use algorithms designed to keep users engaged by showing them content that aligns with their existing beliefs, thus creating echo chambers. In these environments, exposure to a limited set of ideas leads to the reinforcement of pre-existing views, making individuals more susceptible to misinformation.

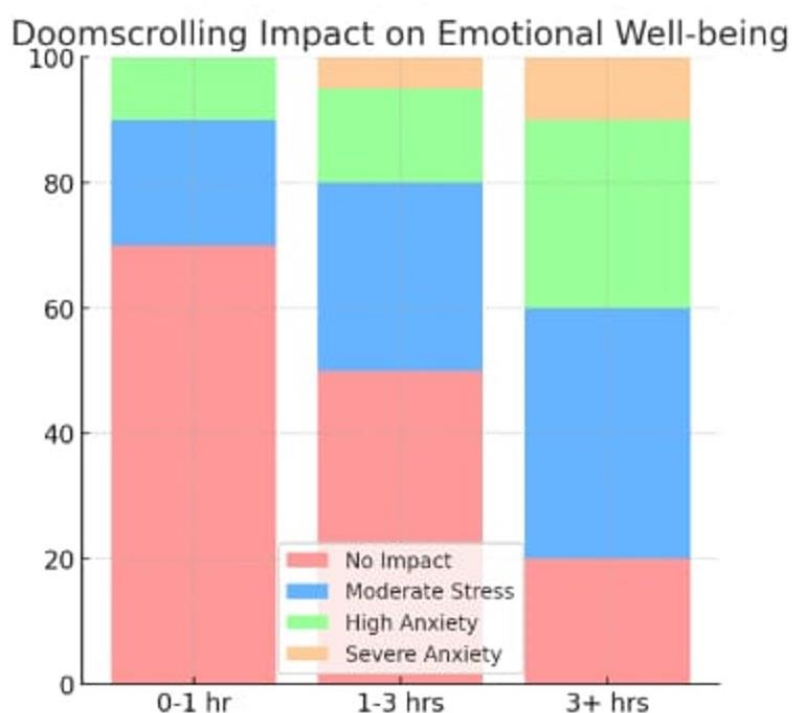
A study by Statista in 2021 found that 48% of U.S. adults encountered fake news or misinformation daily on social media platforms. This underscores the critical role of media literacy and curated content consumption in maintaining a healthy information diet.

The Reuters Institute reported in 2022 that 67% of people actively avoid the news because it negatively impacts their mood. This suggests that filtering information to focus on more constructive or balanced content can be vital for emotional well-being.

According to a study published in Science by Vosoughi, Roy, and Aral (2018), false news spreads six times faster on Twitter than true news. Moreover, fake news stories are 70% more likely to be retweeted than accurate reports. This stark difference shows how misinformation can significantly distort public understanding, emphasizing the need for an information diet that prioritizes reliable, fact-checked sources.

3.3. Emotional Well-being and Doomscrolling

Excessive consumption of negative information, particularly through news media, has been linked to stress, anxiety, and emotional exhaustion. The term doomscrolling, defined as the compulsive consumption of negative news, gained popularity during the COVID-19 pandemic. According to research published by the American Psychological Association in 2020, 68% of Americans reported that the constant news cycle related to the pandemic had increased their stress levels.



This Figure-4 could show the correlation between time spent consuming negative news and its impact on emotional health Time spent on news (hours per day) on the x-axis (e.g., 0–1 hour, 1–3 hours, 3+ hours) Emotional impact on the y-axis (e.g., no impact, moderate stress, high anxiety, severe anxiety)

Moreover, a study by The Lancet found that people who consumed more than 3 hours of news daily during the early months of the pandemic experienced a 50% higher rate of anxiety compared to those who limited their news intake to less than an hour a day. This correlation between overexposure to negative information and mental health issues highlights the importance of controlling not just how much information one consumes, but also the emotional impact of that information.

3.4. Impact on Productivity and Multi-tasking

A poorly managed information diet can have detrimental effects on productivity. With smartphones delivering a continuous stream of notifications, and endless content available at a click, it is easy to get distracted. Multitasking between different information sources (such as social media while working) reduces efficiency and depletes mental energy. Studies have shown that shifting attention between tasks (known as task-switching) makes it harder to complete tasks effectively and lengthens the time required to finish them.

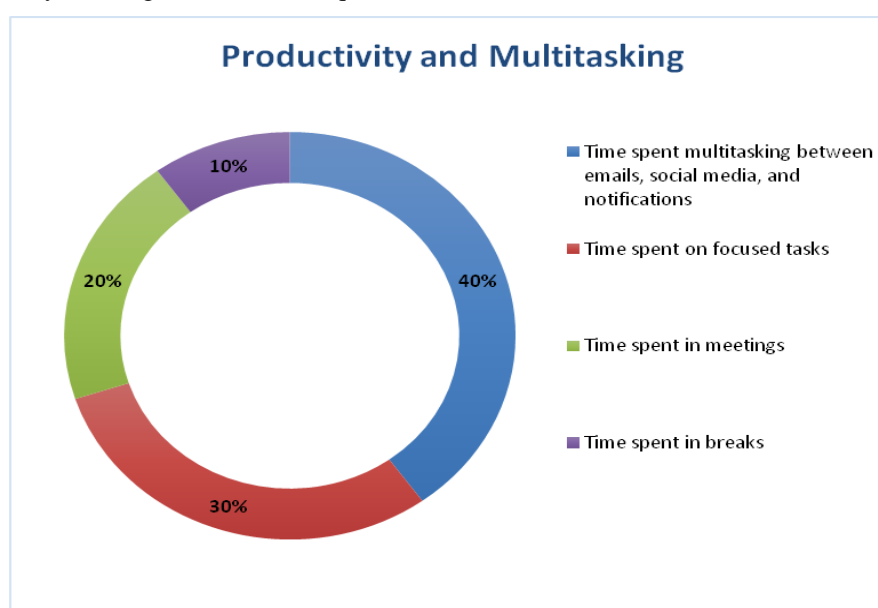


Figure-5 could depict the percentage of time knowledge workers spend multitasking

A structured information diet can promote productivity by encouraging focused consumption—blocking time for work and reserving other periods for news or social media and minimizing the intrusion of information during critical periods.

A poorly managed information diet can have significant repercussions on personal and professional productivity. According to a 2019 survey by Rescue Time, a time management and productivity app, the average knowledge worker spends 40.1% of their day multitasking between different information sources such as emails, social media, and notifications. This constant task-switching reduces productivity and prolongs the time it takes to complete tasks.

Further research conducted by the American Psychological Association shows that multitasking, especially involving multiple streams of information, can decrease productivity by as much as 40%. This is because the brain requires extra time to reorient itself after switching tasks, a phenomenon known as the switch cost. This statistical evidence suggests that a carefully managed information diet can significantly enhance focus and efficiency.

3.5. Digital Media Consumption Trends

According to the Global Digital 2023 report, the average time spent online globally is 6 hours and 58 minutes per day. Of that, 2 hours and 31 minutes are spent on social media alone. This heavy reliance on digital platforms for information intake highlights the need for mindful curation to avoid information overload.

YouTube is the second most visited site globally, indicating that video-based information is a dominant form of consumption, which may influence attention spans and cognitive engagement.

3.6. Information Overload in the Workplace

A 2020 study by McKinsey & Company showed that employees spend an average of 13 hours per week processing emails, with 23% of that time considered wasted due to redundant or irrelevant information.

Harvard Business Review found that workers who limit multitasking and focus on deep work are 500% more productive than their multitasking counterparts. This highlights the value of controlling information intake in professional environments to boost efficiency.

3.7. Attention Span and Media Switching

A Microsoft Canada report indicated that the average human attention span has dropped to 8 seconds in the digital age, down from 12 seconds in 2000, mainly due to constant information switching. This can affect the ability to focus on complex tasks or engage deeply with content.

Research from Cornell University found that task switching (jumping between information streams) reduces cognitive efficiency by up to 20%, emphasizing the need to control how much information is consumed simultaneously.

3.8. Impact of Algorithm-Driven Content

Eli Pariser's "Filter Bubble" theory shows that algorithm-driven content feeds personalize what we see based on past behaviour, leading to echo chambers. A 2022 study by Stanford University showed that 60% of social media users are trapped in echo chambers where they are exposed to only one-sided information, reinforcing biased views and increasing polarization.

3.9. Impact of Mobile Usage

According to Data Reportal, over 92% of internet users access the web via smartphones. This shift toward mobile consumption, with smaller screens and on-the-go usage, encourages "snacking" on information rather than deep engagement, affecting long-term cognitive processing.

A 2021 study from Queensland University of Technology found that 58% of mobile users check their phones within 5 minutes of waking up, leading to an immediate flood of information that sets a tone of overload for the day.

3.10. Information Fatigue

A 2019 Pew Research Center survey found that 38% of U.S. adults feel overwhelmed by the amount of information they encounter each day. Among these, 82% agree that it's important to make conscious efforts to limit their information intake, supporting the need for an "information diet" approach.

Gartner's Digital Worker Experience Survey (2021) revealed that 64% of employees feel digital overload from tools like email, collaboration platforms, and news feeds, contributing to burnout and fatigue.

4. Components of a Healthy Information Diet

To counter the negative effects of information overload, misinformation, and emotional burnout, a balanced and mindful information diet is essential. Here are the key components, supported by relevant statistics.

4.1. Quality over Quantity

While the average person consumes around 5 hours of media each day (Nielsen, 2021), the emphasis should be on the quality rather than the quantity of that content. A study by Stanford University found that 82% of middle-school students were unable to distinguish between an ad labelled as “sponsored content” and a real news story, emphasizing the need for consuming content from credible and well-researched sources.

By focusing on reliable, peer-reviewed, or expert-generated content, individuals can ensure they are absorbing accurate information. The growing presence of media literacy programs in schools and workplaces is a direct response to this need, helping people develop the skills to critically assess the information they consume

4.2. Variety and Diversity

According to a 2020 study by Reuters Institute, 80% of news content consumed by individuals comes from just 5 news sources. This indicates a lack of diversity in information exposure, which can narrow one's worldview and deepen echo chamber effects. A balanced information diet encourages exposure to a broad range of viewpoints and sources, reducing the risk of ideological entrenchment and encouraging critical thinking.

4.3. Moderation

The American Academy of Paediatrics recommends limiting recreational screen time to 2 hours per day for adults to maintain a healthy balance between online and offline activities. Despite this, a 2019 Nielsen report revealed that adults in the U.S. spends more than 11 hours per day interacting with media across multiple platforms.

By setting boundaries for how much time is spent consuming information, particularly through social media and non-essential digital content, individuals can avoid the negative consequences of overconsumption. Tools like app blockers and screen time trackers can help achieve moderation.

4.4. Critical Consumption

According to the Pew Research Center (2019), 57% of Americans admit to occasionally or frequently consuming news from sources they know to be less reliable. The rise of fact-checking platforms such as Snopes and PolitiFact has helped combat misinformation, but the onus remains on individuals to engage critically with what they read.

Media literacy programs have been implemented in schools and workplaces globally, with notable success. A 2020 study by Stanford History Education Group showed that students who completed media literacy training were 2.5 times more likely to identify false or biased information in news articles than those who hadn't.

4.5. Mindful Consumption

Mindful consumption involves not only selecting what to consume but also being aware of how it affects mental health. A 2021 survey by Common Sense Media found that 53% of teens and adults reported feeling emotionally drained after spending prolonged periods on social media. Practicing mindfulness, such as taking regular breaks from content or engaging with positive and uplifting material, has been shown to improve mental resilience.

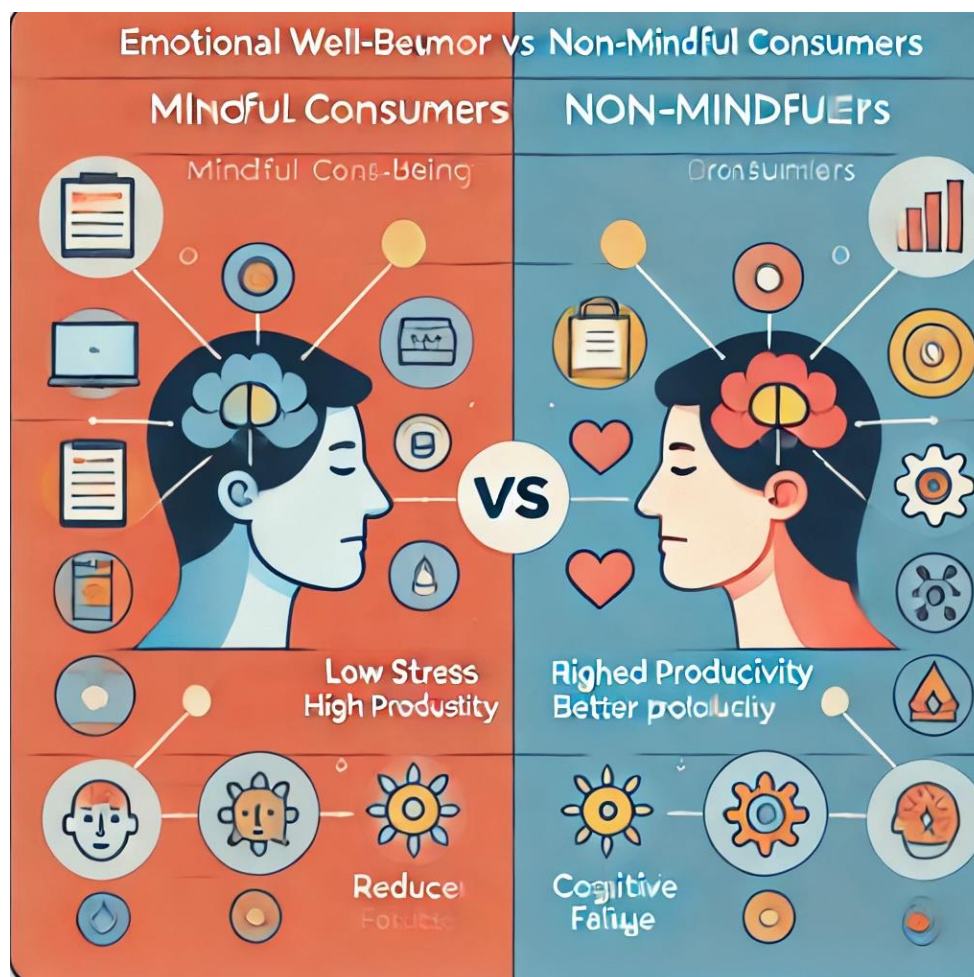


Figure-6 could compare the emotional well-being of individuals who engage in mindful consumption versus those who do not:

Mindful consumers: Low stress, high productivity, better focus

Non-mindful consumers: Higher stress, reduced productivity, cognitive fatigue

5. Benefits of a Balanced Information Diet

A carefully curated information diet offers numerous advantages:

- 5.1 **Improved Focus and Productivity:** By reducing cognitive overload, individuals can direct their attention toward meaningful work, improving their productivity and the quality of their output.
- 5.2 **Enhanced Critical Thinking:** Regular exposure to diverse perspectives and well-researched content sharpens the ability to analyse, critique, and synthesize information.

5.3 Mental and Emotional Well-being: Avoiding the constant barrage of negative or irrelevant information can reduce stress, anxiety, and emotional fatigue.

5.4 Informed Decision-making: A balanced diet of credible and varied information equips individuals with the knowledge they need to make well-informed decisions in their personal and professional lives.

5.5 Resilience Against Misinformation: A habit of critically analysing content helps individuals better identify misinformation and avoid falling prey to false narratives.

6. Practical Steps for Cultivating a Healthy Information Diet

6.1. Set Information Boundaries

A 2021 Digital Trends survey showed that setting screen time limits led to a 30% reduction in daily media consumption. Designating specific times for checking news and social media can help create structure and reduce the constant barrage of information.

6.2. Curate Your Sources

By subscribing to trusted news outlets and using RSS feeds or curated newsletters, individuals can reduce the likelihood of being exposed to misinformation. A 2020 report by Edelman Trust Barometer found that people who rely on a small set of trusted news sources were 20% more likely to correctly identify factual information.

6.3. Engage in Slow Consumption

According to Zillow's Consumer Housing Trends Report (2019), 73% of consumers prefer to read longer, in-depth articles rather than short-form content. Engaging with well-researched, long-form content fosters deeper understanding and promotes critical thinking.

6.4. Take Digital Detoxes

A 2020 study by the University of Pennsylvania showed that individuals who reduced social media use to 30 minutes per day experienced significant decreases in loneliness and depression over a three-week period. This suggests that mindful consumption or "digital detoxing" can dramatically improve emotional well-being.

According to Rescue Time's 2021 data, individuals who take regular digital breaks (short time away from screens) are 45% more likely to report feeling more productive and mentally rested.

Common Sense Media (2021) found that individuals who regularly take digital detoxes experience a 25% decrease in stress levels. Periodically disconnecting from the flow of information allows the brain to reset and rejuvenate.

6.5. Reflect and Evaluate

According to Digital Wellbeing Surveys (2020), individuals who frequently evaluate their media consumption habits are 40% more likely to make adjustments that improve their mental and emotional health.

CONCLUSION

In today's world, where information is abundant but often overwhelming, cultivating a balanced information diet is essential. Statistical evidence underscores the need for quality over quantity, moderation, variety, and mindful consumption. By being deliberate in how and where we consume information, we can mitigate the risks of cognitive overload, misinformation, emotional burnout, and reduced productivity, while reaping the benefits of staying informed, focused, and mentally resilient.

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