Synthesis of the Dimensions and Components of Information Anxiety

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Abstract

Purpose: Information anxiety, a concept that has emerged alongside the expansion of modern epistemologies and the growth of virtual spaces, is increasingly recognized as a significant psychological issue. This research aims to synthesize the dimensions and components of information anxiety, providing a comprehensive understanding of its scope.

Methodology: This study employed a qualitative synthesis approach. The research population consisted of studies published between 2014 and 2024. Initially, 139 relevant articles were identified, including 4 in Persian and 135 in English. Following the application of exclusion criteria, 20 studies (16 in English and 4 in Persian) were selected for final analysis. Data were analyzed using Roberts' six-step synthesis model, which involved a three-stage coding process (open, central, and selective).

Findings: The synthesis process revealed 143 open codes, 25 central codes, and 5 selective codes, which were categorized into five dimensions of information anxiety: (1) information overload, (2) inability to access information, (3) inability to understand and process information, (4) psychological factors, and (5) inability to manage knowledge.

Conclusion: Despite differing perspectives on whether information anxiety is inherently positive or negative, it is clear that this emerging form of anxiety can lead to significant psychological and epistemological consequences. Information anxiety can affect both mental and physical health, thereby influencing individuals' quality of life. Understanding its dimensions and components can empower individuals to manage and mitigate this anxiety effectively.

Value: This research is the first synthesis of the dimensions and components of information anxiety. Its findings contribute to the accurate identification of the boundaries and gaps in the current understanding of information anxiety, offering valuable insights for future research and practical applications.

Key Words: *Information Anxiety, Anxiety, Synthesis*

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Extended Abstract

Introduction: Information anxiety, an emerging form of anxiety primarily linked to epistemological challenges, has become increasingly relevant in the context of modern information environments. The concept traces its origins to the philosophical work of Sir Francis Bacon, who emphasized the overwhelming nature of knowledge. In today's digital age, individuals are required to possess advanced cognitive and metacognitive skills to navigate the complex information landscape, distinguish between true and false information, and solve problems effectively. Research on information anxiety has suggested various causes, including the rapid proliferation of new knowledge and the overwhelming volume of information. For example, Eklof argues that the emergence of new knowledge intensifies this anxiety, while Xu and Yan (2022) attribute it to information overload. Other scholars, such as Al-Youzbaky and Hanna (2022), suggest that information anxiety arises from an inability to process information effectively.

Purpose: This study aims to synthesize the dimensions and components of information anxiety, offering a structured framework for understanding this phenomenon.

Methodology: The study follows a qualitative synthesis approach. The research population comprises articles published between 2014 and 2024. Initially, 139 studies were identified through searches in both Persian and English databases, including Noormages, Magiran, SID, Irondoc, Google Scholar, Science Direct, Springer, Scopus, ERIC, and ProQuest. After applying exclusion criteria, 20 articles were selected for the final analysis. The data were analyzed using Roberts' six-step synthesis model, which involved open, central, and selective coding.

Findings: The analysis resulted in 143 open codes, 25 central codes, and 5 selective codes, which were categorized into five main dimensions of information anxiety:

1. **Information Overflow:** This dimension includes components such as the volume of information, information explosion, and the diversity of knowledge sources.
2. **Inability to Access Information:** This dimension involves issues such as difficulty in searching for information, lack of experience, inability to use search tools effectively, time limitations, and selective information retrieval challenges.
3. **Inability to Understand and Process Information:** This dimension encompasses the difficulty in distinguishing between true and false information, inconsistencies in epistemological beliefs, lack of concentration, and cognitive overload.
4. **Psychological Factors:** These include anxiety triggered by information abundance, fear of being overwhelmed, existential loneliness, privacy concerns, and the fear of losing important information.
5. **Inability to Manage Knowledge:** This dimension relates to the lack of effective information management skills and a reluctance to share knowledge.

Table 1: Documents studied in the field of dimensions, components of information anxiety

Author(s)	Title of article	
Shi (2022).	Intelligent Relaxation System for Information Anxiety	1
Xu & Yan (2022).	The relationship between information overload and state of anxiety in the period of regular epidemic prevention and control in China	2
Al-Youzbaky, & Hanna. (2022)	The Effect of Information Overload, and Social Media Fatigue on Online Consumer's Purchasing Decisions The Mediating Role of Technostress and Information Anxiety	3
Xiang., Qiao., Gao & Cao (2021).	Information anxiety, intergroup emotion, and rational coping in hotel employees under normalized pandemic prevention measures	4
Cadier., Ding, & El Khazzar (2021).	I nformatioA nxiety oM obilS ociaM edia	5
Tsai & Wu, (2021).	Visual search patterns, information selection strategies, and information anxiety for online information problem-solving	6
Lin., Cheng & Chuang (2021)	Three Needs and Information Anxiety on Knowledge Purchase Intentions across Online Knowledge Platforms	7
Cateddrilla., Ebardo, Limpin., Vega., & Doce (2022).	Health Anxiety, Information Anxiety, and Internet Self-Efficacy on Cyberchondria among Filipino Young Professionals during the COVID-19 Pandemic	8
Naveed &Anwar (2020)	Towards Information Anxiety and Beyond	9
Naveed & Anwar (2019)	Modeling Information Anxiety	10
Micallef & Porter (2019)	Towards Detecting and Managing Information Anxiety in the ICT Industry	11
Kirby., Reynolds., Walker., Furer & Pryor (2018)	Evaluating the quality of perinatal anxiety information available online. Archives of women's mental health	12
Hartog (2017).	A Generation of Information Anxiety: Refinements Generation of Information Anxiety: Refinements and RecommendationsRecommendati	13
Bapat, S. S., Patel, H. K., & Sansgiry, S. S. (2017).	Role of Information Anxiety and Information Load on Processing of 3Prescription Drug Information Leaflets	14
Mr (2016).	Information Anxiety and Information Overload of Undergraduates in Two Universities in South-West Nigeria	15
Eklof (2013).	Understanding Information Anxiety and How Academic Librarians Can Minimize Its Effects	16
Imanzadeh., Beirampour & Marandi (2024).	Information Anxiety and Its Limitations: A Systematic Review Study	17
Doostzade & Haji Zeinolabedini (2022).	Information Overflow and Its Role in Causing Anxiety.	18
Imanzadeh., Karimi & Farajpour Bonab,. (2020).	The effectiveness of media literacy education on reducing information anxiety among students of Tabriz University	19
imanzadeh & marandi heidarlou (2024).	The Information Anxiety Management Model of the University of Tabriz Students Based on Grounded Theory Approach	20

Table 2: Dimensions, Components, and Indicators of Information Anxiety

	Dimensions	Components
Information Anxiety	Information overflow	Variety of information communication
		Information rain and high volume of information
		Amount of information
		Information explosion and overflow
		Plurality of knowledge
	Inability to reach to information	Source of information
		Inability to search for information
		Lack of experience
		Inability to use Internet search tools
		time limit
		Inability to find information
	Inability to understand and Information processing	selectivity
		Inability to distinguish true from false information
		Inconsistency of epistemological beliefs
		Lack of attention and lack of concentration
		Inability to think and analyze information
		Information complexity
	Psychological factors	Anxiety caused by the abundance of information
		The fear of drowning and abandonment of information
		Fear of accuracy and quality of information
		Existential loneliness
		Privacy concerns
		Fear of losing important information
	Inability to manage knowledge	Lack of information management skills
		Lack of belief in sharing knowledge and information

Conclusion: While there is debate about whether information anxiety is inherently positive or negative, it is clear that this type of anxiety can have profound negative psychological and epistemological impacts. It affects not only mental and physical health but also individuals' overall quality of life. Identifying the dimensions and components of information anxiety provides a foundation for developing strategies to manage and mitigate its effects.

Value: This research represents the first synthesis of the dimensions and components of information anxiety. Its findings offer valuable insights into the nature of information anxiety, helping to identify both its boundaries and gaps. This work contributes significantly to the field and can inform future research and practical interventions aimed at addressing information anxiety.

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