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Misinformation Prebunking: Evidence across Cultures and Platforms

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ABSTRACT

Misinformation has become a pervasive global challenge, amplified by rapid technological advances and the widespread use of digital platforms. Prebunking, an early, preventive intervention designed to inoculate individuals against future misinformation, has emerged as a promising strategy to increase resilience across diverse cultural and digital contexts. This paper reviews the conceptual foundations, methodological approaches, and cross-cultural and cross-platform evidence regarding prebunking interventions. Prebunking leverages inoculation theory by exposing individuals to weakened forms of misinformation alongside targeted forewarnings, fostering critical evaluation and resistance to subsequent misleading messages. Evidence indicates that prebunking is effective across multiple countries, age groups, and platforms, including social media feeds, messaging apps, and interactive simulations. Design principles, such as the use of combined audiovisual content, culturally sensitive framing, and active user engagement, enhance intervention effectiveness. Ethical considerations, including informed consent, user autonomy, and risk–benefit assessments, are central to implementation. Overall, integrating prebunking into public communication strategies offers a scalable, context-sensitive approach to mitigating the spread of misinformation globally.

Keywords: Prebunking, Misinformation, Inoculation theory, Cross-cultural resilience, and Digital platforms.

INTRODUCTION

Exponential advances in technology and sustained increases in communication speed have not only enhanced information flow but also amplified the spread of inaccurate or misleading content [1]. As such, misinformation has become a widespread global phenomenon. The influx of misinformation concerning COVID-19 and vaccines offered a new perspective on misinformation as a form of risk communication [2], which led to the recognition of misinformation as an international matter in need of immediate consideration. Additionally, attempts to build user resilience against misinformation have become the subject of research [3]. In response, the first step in spreading misinformation is preserving the accuracy of the information shared across different cultures. Prebunking of misinformation has attracted considerable attention from researchers and practitioners since [3].

Conceptual Foundations of Prebunking

Prebunking is an early preventative intervention that prepares individuals to resist future misinformation. By exposing people to inconsequential mis- and disinformation messages, preceded by targeted protective forewarnings, the overall objective is to increase those individuals' resilience against various related pieces of misinformation [5]. Prebunking aims to raise audience awareness of established factual and motivating information in a preemptive effort against the target misinformation messages [6]. Misinformation refers to false or misleading information that intentionally or unintentionally leads to false beliefs, whilst inoculation theory describes a measure that fosters resistance to influence by exposing people to weakened doses of an influence

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attempt [5]. Cultural heuristics, for instance, represent a basis through which individuals can make sense of a situation quickly and without extensive information processing [8]. Lastly, digital platforms constitute the online environments within which mis- and disinformation messages circulate. Each platform uniquely shapes its communication affordances, algorithmic structures, socio-technical contexts, and user experiences through its design and policies. This has been observed to shape the dissemination and reception of information as well as communicative content and practices [9]. Prebunking entails a preventative intervention that prepares individuals to resist subsequent misinformation. This technique exposes people to inconsequential misinformation, along with targeted protective forewarnings, to strengthen resilience against future related falsehoods. Prebunking additionally seeks to raise awareness of established facts and motivating information before audiences are exposed to inaccurate narratives [3]. Misinformation comprises false or misleading material that unintentionally or intentionally engenders erroneous beliefs, while inoculation theory describes a protective measure that cultivates resistance to influence through exposure to weakened doses of an influential attempt [3]. Cultural heuristics serve as cognitive shortcuts enabling rapid sense-making without extensive processing of information. Digital platforms represent online environments where mis- and disinformation circulate [5]. Each platform distinctively configures communication affordances, algorithmic structures, socio-technical contexts, and user experiences through its design and regulations; these configurations shape not only the dissemination and reception of information but also communicative content and practices [8].

Methodological Approaches in Cross-Cultural Studies

The research designs employed in cross-cultural studies of misinformation prebunking span the spectrum of experimental, quasi-experimental, and mixed-methods approaches [5]. Experimental designs are particularly suited to cross-cultural investigation, as they enable the examination of interactions between cultural factors and various dimensions of prebunking. Countering misinformation attempts can trigger a general engagement with the topic, which may increase the likelihood of sharing across cultural groups [6]. When selecting the more specific experimental design, scholars must make decisions about within- or between-subjects sampling. Within-subjects sampling supports the investigation of culture as a random factor, yet it may involve cultural co-viewing of materials [7]. Between-subjects sampling would require a consistent treatment across conditions, limiting insight into the variation of specific prebunking aspects [7]. Quasi-experimental and mixed-method designs can also be viable options, especially when exploring longitudinal study opportunities or conducting formative research on prospective initiatives [3, 2, 4].

Platform-Specific Dynamics of Prebunking

A key component of a platform-centric approach to prebunking relates to the interaction between platform affordances and different types of prebunking content [3]. Distinct social media platforms vary in their content formats (text, video, images, animation), dissemination channels (feeds, stories, direct comments), and timing of exposure, all of which could influence how well prebunking materials function. Moreover, these factors may interact with the pre- or co-viral stage of misinformation on social media to even further shape the dynamics of prebunking [1].

Efficacy across Cultural Contexts

Research exploring prebunking efficacy across cultural contexts indicates that prebunking reduces misinformation susceptibility similarly across diverse populations, including multiple countries in South America, Europe, Asia, and the Middle East [5]. These findings align with studies demonstrating that simulated voter suppression misinformation elicits comparable resistance in lower-income, mid-income, and higher-income nations 6. Evidence also suggests that variations in prior beliefs, social media platform use, education level, and trust in media and government do not moderate prebunking impacts across cultural or developmental contexts [7]. Promising tentative evidence shows that differences in platform affordances do not significantly influence prebunking strength across Facebook, WhatsApp, and Telegram [7], circulating app, social network, and instant messenger services. Cross-platform analyses reveal that social media remains universally engaging and widespread, with analogous impacts of misinformation and misinformation fueling measures of democracy, trustworthiness, and user interactions. Inoculation-based messaging prompts broad resistance against misinformation election conspiracies intended for distribution across various social media outlets [6].

Design Principles for Prebunking Interventions

Prebunking interventions that address the characteristics of misleading information remain more effective than those targeting broader themes [3]. Presentation formats that combine textual and audiovisual materials have proven successful in helping individuals to identify misleading information, and instructional materials that actively engage users have shown promise in reducing misperceptions of current affairs [4]. Development of effective prebunking messages should consider complementary design principles that can vary significantly across cultural settings [2]. A systematic analysis of the cross-cultural precursors and policy considerations governing

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such interventions provides a foundation for the effective design of prebunking inoculation materials appropriate for diverse settings [3]. Five pre-design principles, corresponding to key constructs theorised to shape audience engagement and processing, may enhance the effectiveness of prebunking across multiple cultures. Each principle can be associated with ethical safeguards that promote user autonomy and encourage freedom of choice rather than impose paternalistic constraints [4].

Ethical Considerations and Potential Harms

The prospect of launching widespread prebunking interventions raises deeply ethical questions and exposes spaces for harm. Resilience to misinformation involves threats of stigmatization associated with Laajab's (2022) "consumer" or "fan" narratives, censorship under the guise of misinformation remediation, unwitting or otherwise, connotations of paternalism when attempts to boost salience of misinformation occur amid a relative lack of trust for similar information, and further challenges to navigate in multi-step inoculation strategies [2]. Such concerns evoke shared preferences for awareness, education, and consultation with peers or experts [8]. Central to the ethical discussion is the necessity for informed consent and an appropriate risk–benefit ratio. McGowan (2022) finds participants label misinformation, therefore parallel to endorsed misbeliefs, signalling that the damage is reversible and perhaps even mitigated when remedial action follows swiftly; at stake are only acceptably trivial belief-changes, especially across both proximity and anathema to core worldview. Further challenges arise from variations in the adequacy to distinguish clearly information or content as general, mundane, broadly innocuous yet potentially disruptive, or critical for decisions pending immediate action [3]. Material of the latter type must be esteemed urgent and on all fronts pre-empted, illuminating comparative precedence when certain platforms already nevertheless accommodate arrangements functionally very close to enrichment [2]. Public discussion has recently surged around the ethics of prebunking interventions pertaining to misinformation consumption and dissemination. Governance, transparency, and privacy rank among salient points, although variation among cultures and time evolving ever must be recognized [5]. Attention across a culture and the placement of time signature proximity of beginning and end of information delivery onto a single feeding of material, therefore, remains paramount, yet attending another delivery at the instance engaged, e.g., re-bordering for finer spread that excludes pollutants wrongly deemed by the recipient nevertheless as already earlier have engaged[6]. Engagement cannot arise immediately after a general message previously not attended; an opening statement must accompany. Facilities that yield credits supposedly or are explicit routes or points formally devolve engagement to the supplier of that credit against any such bonus spreading feeds through remain unquestioned [2].

Comparative Analyses of Intervention Modes

To counter misinformation, several intervention modes have emerged: prebunking primers, inoculation messages, social norm cues, and interactive simulations [9]. They differ not only in structure and message but also in their intended effects. Primes introduce cultural heuristics, enabling users to recognise misleading information and providing examples [10]. Inoculation messages explain specific misinformation techniques, allowing users to integrate and apply this knowledge to new claims. Social-norm cues convey how most people reject certain misinformation types, leveraging normative influence [8]. Interactive simulations immerse users in online discussions, honing detection skills through practice. Across cultures and platforms, the overall impact of these modes on subsequent susceptibility to misinformation varies [5]. Each intervention mode can be realised through different formats and delivery styles. For example, prebunking messages might consist of analysed memes, humorous posts, simple documents, short videos, or memes nested within videos deliverable via a social media feed, messenger, or e-mail on any device [3]. The content may appear in advance of upcoming misinformation, concurrently with it, or not at all. To enhance culturally sensitive tailoring, message length, delivery platform, and other parameters can be automatically optimised following individual- or aggregate-level assessment 4. Cultural characteristics can inform not only content but also message style, framing, timing, and other properties to buffer against undesired transmission and elicit greater engagement [2]. Prebunking (a.k.a., prebunking primers) and inoculation messages have been compared either directly or indirectly. Prebunking is effective across cultures, age groups, platform types, and gathering settings, even when no other option is available, and participants remain unaware of analogous pre-exposure; freedom of choice amplifies these impacts, yet between-message comparisons indicate that pre-emptive exposure achieves higher average resistance to misinformation [9]. Prebunking and inoculation display consistent cross-cultural portability; even the simplest fourth-grade anti-smoking messages, still able to support a wide variety of additional yet unexamined analyses, remain fully effective in any of eight languages and intriguing yet unexplored variants bolt on effortlessly to the basic structure without threatening core efficacy[10]. Responses reveal striking between-case differences, including sharply lowered resistance to a rigorous but incorrect rebuttal of vaccine-related disinformation purified of all culturally loaded elements, an additional opportunity to investigate the fascinating cross-cultural interplay of truth and rivalry rarely tractable

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within conventional frameworks, and other exotic opportunities unmet or unattainable elsewhere[10]. To further understand pedagogical relevance and cross-platform viability, the interaction between mode, format, applied framework, accompanying delivery, and other messaging attributes was jointly investigated along with those at the receiver end without restricting attention to just the culturally determined side[7].

Policy Implications and Public Communication

The evidence summarized in this article has important implications for the design and implementation of prebunking interventions [10]. Misinformation is a complex issue requiring coordinated efforts on multiple fronts. Although dedicated prebunking campaigns offer clear advantages, strategic integration into existing activities can raise awareness and encourage action against misinformation. Ongoing collaboration among policymakers, researchers, and industry partners should identify and promote scalable, context-sensitive initiatives tailored to diverse sociocultural and digital environments [10]. Misinformation has emerged as a critical challenge, intensified by rapid technological advances during the COVID-19 pandemic [9]. Despite widespread recognition of this threat, many individuals remain unaware of the misinformation surrounding them or are uncertain about how to respond. The proliferation of addictive and algorithmically curated social media platforms further exacerbates the problem. Scientific literature suggests that resilience to misinformation can be enhanced through strategic interventions [9]. Building on the inoculation theory of resistance, an approach known as prebunking targets the preexposure phase by familiarizing individuals with common derogatory narratives and counterarguments [5]. Although substantial research on preexposure initiatives exists, cross-cultural and cross-platform studies are lacking. Differences in sociocultural characteristics and digital environments shape the nature and significance of the misinformation challenge, influencing people's receptiveness, exposure, and resistance to misleading information [8]. To address concerns, participants may undervalue predetermined beliefs, respond in socially desirable ways, or overestimate their capacity to detect misinformation. Misinformation has emerged as a critical challenge, intensified by rapid technological advances during the COVID-19 pandemic. Despite widespread recognition of this threat, many individuals remain unaware of the misinformation surrounding them or are uncertain about how to respond [8]. The proliferation of addictive and algorithmically curated social media platforms further exacerbates the problem. Scientific literature suggests that resilience to misinformation can be enhanced through strategic interventions [6]. Building on the inoculation theory of resistance, an approach known as prebunking targets the preexposure phase by familiarizing individuals with common derogatory narratives and counterarguments [7]. Although substantial research on preexposure initiatives exists, cross-cultural and cross-platform studies are lacking. Differences in sociocultural characteristics and digital environments shape the nature and significance of the misinformation challenge, influencing people's receptiveness, exposure, and resistance to misleading information [7].

Limitations and Gaps in the Current Knowledge

Prebunking has garnered considerable interest since the COVID-19 pandemic exposed systemic crises in democratic governments and institutions [4]. Both politicians and non-political figures increasingly engage in disinformation campaigns targeting institutions, policies, and individuals [8]. The problem may further spread across cultural and linguistic boundaries through different interconnected social media platforms [1]. Governments and organizations have implemented strategies to detect and counter disinformation, especially viral messages. Inoculation theory, originally developed by McGuire and subsequent adaptations, led to the conceptualization of prebunking as a preventative strategy that addresses vulnerabilities to misinformation before exposure to false information [10]. The rapid evolution of both traditional media and social media platforms, combined with growing interdependence, participation, and exchange, suggests the need to investigate how these factors influence social responses to accumulated global knowledge. Social media continues to expand and is integrated into daily life as young people streamline their knowledge-acquisition process using mobile devices [9].

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CONCLUSION

Prebunking represents a robust and proactive strategy to mitigate the influence of misinformation before exposure occurs. By preparing individuals to recognize misleading narratives and apply critical evaluation skills, prebunking interventions enhance resilience to misinformation across diverse populations, sociocultural contexts, and digital platforms. Cross-cultural evidence demonstrates that the efficacy of prebunking is broadly portable, with interventions maintaining effectiveness across countries, languages, and social media environments. Design features such as combined textual and audiovisual content, active user engagement, and culturally tailored messaging further strengthen outcomes. Ethical implementation of prebunking interventions is critical. Ensuring informed consent, avoiding paternalistic approaches, and carefully balancing the risk–benefit ratio protect user autonomy and prevent unintended harms. Policy and public communication strategies should integrate prebunking into broader misinformation mitigation efforts, leveraging partnerships between researchers, industry actors, and policymakers to create scalable, context-sensitive initiatives. Despite its promise, gaps remain, including the need for longitudinal studies, examination of cross-platform interactions, and exploration of culturally nuanced messaging strategies. Addressing these gaps will strengthen the evidence base, refine intervention design, and maximize the potential of prebunking as a tool for enhancing public resilience to misinformation globally.

REFERENCES

1. Rogers R. Marginalizing the mainstream: How social media privileges political information. Frontiers in Big Data. 2021 Jul 6;4:689036.
2. Baqir A, Galeazzi A, Zollo F. News and misinformation consumption: A temporal comparison across European countries. Plos one. 2024 May 8;19(5):e0302473.
3. Saltz E, Leibowicz CR, Wardle C. Encounters with visual misinformation and labels across platforms: An interview and diary study to inform ecosystem approaches to misinformation interventions. In Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems, 2021 May 8 (pp. 1-6).
4. Bryanov K, Vziatysheva V. Determinants of individuals' belief in fake news: A scoping review determinants of belief in fake news. PLoS ONE. 2021 Jun 24;16(6):e0253717.
5. Pretus C, Javeed AM, Hughes D, Hackenburg K, Tsakiris M, Vilarroya O, Van Bavel JJ. The misleading count: an identity-based intervention to counter partisan misinformation sharing. Philosophical Transactions of the Royal Society B: Biological Sciences. 2024 Mar 11;379(1897).
6. Aruguete N, Batista F, Calvo E, Guizzo-Altube M, Scartascini C, Ventura T. Framing fact-checks as a "confirmation" increases engagement with corrections of misinformation: a four-country study. Scientific Reports. 2024 Feb 8;14(1):3201.
7. Pennycook G, Rand DG. Accuracy prompts are a replicable and generalizable approach for reducing the spread of misinformation. Nature Communications. 2022 Apr 28;13(1):2333.
8. Urakami J, Kim Y, Oura H, Seaborn K. Finding strategies against misinformation in social media: A qualitative study. InChi conference on human factors in computing systems, extended abstracts 2022 Apr 27 (pp. 1-7).
9. Prike T, Butler LH, Ecker UK. Source-credibility information and social norms improve truth discernment and reduce engagement with misinformation online. Scientific Reports. 2024 Mar 22;14(1):6900.
10. Xiao X. Not doomed: examining the path from misinformation exposure to verification and correction in the context of the COVID-19 pandemic. Telematics and Informatics. 2022 Nov 1;74:101890.

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