



Machiavellian Marketing And Digital Deception: A Bibliometric Analysis Of Dark Triad Traits, Manipulation, And Misinformation In Social Media (1969-2025)

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ABSTRACT

This study systematically maps the intellectual structure of research on Machiavellian marketing and digital deception, examining intersections between dark personality traits, manipulation, and social media misinformation. Employing bibliometric analysis, 2,512 journal articles from Scopus database (1969-October 2025) were analyzed using VOSviewer software. Three complementary techniques were applied: co-citation analysis revealing foundational knowledge structures, bibliographic coupling identifying current research themes, and co-word analysis predicting future trends. Four distinct research clusters emerged: ethical governance and digital persuasion, social psychology and behavioral impacts, misinformation dynamics and societal effects, and technology-driven detection and prevention. The analysis revealed 84,394 citations with h-index of 122, demonstrating substantial scholarly impact. Key trends include AI-behavioral science integration, deepfake detection, emotional manipulation, and dark triad influences in digital contexts. This research provides the first comprehensive bibliometric synthesis integrating Machiavellian traits with digital deception and misinformation, offering systematic roadmap for interdisciplinary investigations.

INTRODUCTION

The proliferation of dark personality traits, deception, and manipulative behaviors in digital marketing and social media contexts presents critical challenges to information integrity and democratic discourse. As misinformation spreads rapidly through online platforms, understanding the intellectual landscape of research examining dark triad characteristics, Machiavellian tactics, and deceptive practices becomes increasingly urgent (H. Allcott & Gentzkow, 2017; Shao et al., 2018). Despite growing scholarly attention, a comprehensive synthesis mapping the knowledge structure, evolutionary patterns, and future trajectories of this multidisciplinary domain remains absent.

This bibliometric analysis addresses this gap by systematically examining 2,512 publications retrieved from Scopus database spanning 1969 to October 2025. The study objectives include: (1) identifying foundational works and intellectual structures through co-citation analysis; (2) uncovering current research themes via bibliographic coupling; and (3) predicting future research directions through co-word analysis.

LITERATURE REVIEW

The literature on Machiavellian marketing and digital deception reveals a complex intersection of psychological manipulation, misinformation dynamics, and technological mediation. Early studies highlighted the rise of misinformation and fake news as critical threats to democratic discourse and information integrity (Hunt Allcott et al., 2019; Lazer et al., 2018; Vosoughi et al., 2018). Subsequent research examined how social bots and algorithmic amplification distort online discussions, reinforcing deceptive narratives and undermining public trust (Bessi & Ferrara, 2016; Shao et al., 2018). Within social media contexts, Machiavellian and narcissistic tendencies manifest through manipulative self-presentation and relational aggression, reflecting dark personality traits influencing digital behavior (Abell & Brewer, 2014; C. S. Andreassen et al., 2017).

Behavioral and psychological perspectives further reveal how emotional manipulation fosters susceptibility to misinformation, where emotional resonance often overrides rational evaluation (Lorenz-Spreen et al., 2020; Martel et al., 2020). Technological approaches have sought to counter these effects through algorithmic detection and artificial intelligence, though ethical and cognitive biases remain persistent challenges (Conroy et al., 2015; Ferrara et al., 2020). Recent advances integrate AI with behavioral science to enhance misinformation detection, promoting ethical digital governance and user awareness (Karinshak et al., 2023; Meng, 2024).

Collectively, this body of literature situates Machiavellian marketing and digital deception as multidimensional phenomena rooted in dark triad personality frameworks, emotional influence, and algorithmic systems. The convergence of psychological theory, computational modeling, and ethical inquiry marks a growing need for interdisciplinary strategies to mitigate deception and strengthen credibility in digital communication.

METHODS

Bibliometric analysis is a quantitative method that systematically examines scholarly publications to map research domains, identify influential works, and reveal knowledge structures through statistical and mathematical techniques. This approach offers objectivity, comprehensiveness, and capacity to process large datasets, enabling identification of research trends and intellectual foundations that qualitative reviews might overlook (Donthu et al., 2021).

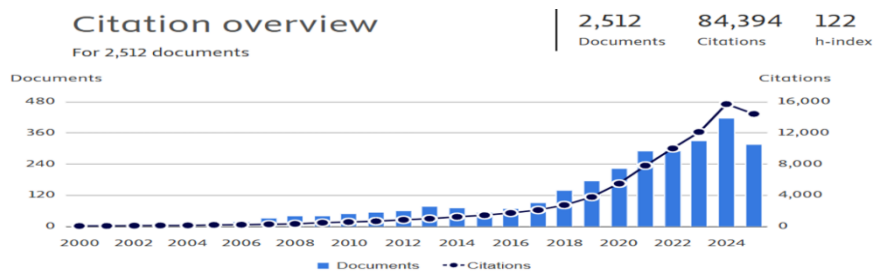
This study employed three bibliometric techniques: co-citation analysis to uncover foundational knowledge structures and past research trends; bibliographic coupling to identify current research themes and emerging trajectories; and co-word analysis to predict future

research directions through keyword relationships (Donthu et al., 2021). These complementary approaches provide temporal perspectives spanning historical foundations, contemporary developments, and prospective trends in dark personality traits, deception, and misinformation research. VOSviewer software facilitated the analysis due to its robust visualization capabilities, user-friendly interface, and proven effectiveness in generating network maps that reveal thematic clusters and intellectual relationships within large bibliographic datasets.

RESULTS

The Scopus database successfully retrieved since 1969 until 8 October 2025 with the following structured search string was generated as follow: TITLE-ABS-KEY(((dark triad) OR (Machiavellian*) OR (decepti*) OR (manipulati*) AND (digital market*) OR (social media))) AND (LIMIT-TO (DOCTYPE,"ar") OR LIMIT-TO (DOCTYPE,"re")) AND (LIMIT-TO (PUBSTAGE,"final")) AND (LIMIT-TO (LANGUAGE,"English")). Based on the Scopus citation overview for bibliometric analysis, this research domain demonstrates substantial scholarly impact with 2,512 journal articles generating 84,394 citations (**Figure 1**). The h-index of 122 reflects sustained high-impact contributions, while recent citation trends show continued academic engagement in this field.

Figure 1
Number of publications and citations in the Scopus database retrieved on 8 Oct 2025



Co-citation Analysis

This analysis investigates the knowledge foundation and knowledge structure of research on digital manipulation. Based on the number of citations and total link strength of cited documents, this analysis also revealed the past research trend in the field (Donthu et al., 2021). The analysis using VOSviewer discovered that of 21,598 cited references, 61 meet the threshold with at least 9 citations. The citations received by the top ten documents in the co-citation analysis, along with their total link strength, are presented in Table 1.

Table 1 Top 10 documents with the highest co-citation and total link strength

Ranking	Publication	No. of Citations Documents	Total Link Strength
1	Allcott & Gentzkow (2017): Social Media and Fake News in the 2016 Election	173	203
2	Lazer et al. (2018): The Science of Fake News	57	105
3	Vosoughi et al. (2018): The Spread of True and False News Online	41	73
4	Grinberg et al. (2019): Fake News on Twitter During the 2016 U.S. Presidential Election	50	66
5	Bessi & Ferrara (2016): Social Bots Distort the 2016 U.S. Presidential Election Online Discussion	47	56
6	Andreassen et al. (2017): The Relationship Between	22	54

Ranking	Publication	No. of Citations Documents	Total Link Strength
7	Addictive Use of Social Media, Narcissism, and Self-Esteem: Findings From A Large National Survey Shao et al. (2018):The Spread of Low-Credibility Content By Social Bots	24	53
8	Abell & Brewer (2014): Machiavellianism, Self-Monitoring, Self-Promotion and Relational Aggression on Facebook	19	51
9	Cecilie Schou Andreassen et al. (2012): Development of a Facebook Addiction Scale	36	46
10	C. S. Andreassen 2015): Online Social Network Site Addiction: A Comprehensive Review	23	43

Source: compiled from the VOS-Viewer co-citation analysis.

The network visualization of this analysis is presented in Figure 2, showing four vigorous and coherent clusters of co-cited documents. The clusters and themes underlying them (Table 2) are discussed in the subsequent sections. This interpretation involves revisiting representative articles in each cluster and synthesizing them based on common themes and research streams presented.

Figure 2 Co-citation Analysis on Digital Manipulation

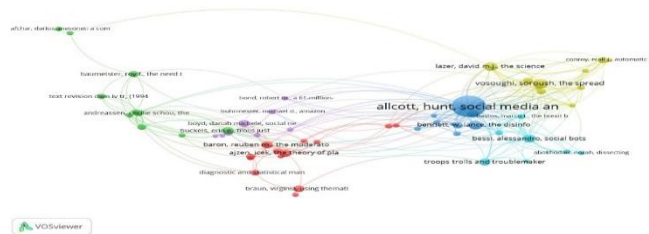


Table 2 Co-citation analysis on Digital Manipulation

Cluster No & Color	Cluster Label/Common Theme	Number of Publications	Representative Publication
1 (red)	Ethical Governance & Intervention in Digital Persuasion	13	(Berinsky, 2017; Bode & Vraga, 2018; Boerman et al., 2017)
2 (green)	Social Psychology and Behavioral Impact in the Context of Social Media	11	(Cecilie Schou Andreassen et al., 2012; C. S. Andreassen, 2015; C. S. Andreassen et al., 2017)
3 (blue)	The Dynamics of the Spread of Misinformation on Social Media and Its Impact on Society	11	(Aimeur et al., 2023; Hunt Allcott et al., 2019; Bakir & McStay, 2018)
4 (yellow)	Misinformation Detection and Prevention through Technology and Algorithms	10	(Conroy et al., 2015; Ferrara et al., 2016; Vosoughi et al., 2018)

Cluster 1: Ethical Governance and Intervention in Digital Persuasion

Ethical governance and intervention in digital persuasion examines connections between digital platforms, ethics, and persuasion mechanisms affecting societal dynamics. Digital persuasion manipulation spreads misinformation, as demonstrated by political rumors impacting public understanding, emphasizing the need for credibility and ethical interventions promoting reliable information sources (Berinsky, 2017). Facebook's advertising practices illustrate governance challenges, with sponsorship disclosures affecting consumer behavior and triggering skepticism, particularly regarding celebrity endorsements (Boerman et al., 2017). Platforms must ensure users can critically assess persuasive messages through clear disclosure practices. Mixed-effects models provide methodological foundations for analyzing behavioral data related to ethical interventions, revealing patterns that refine persuasive strategies (Bates, 2020). Fostering media literacy through educational interventions enhances users' understanding of advertising techniques (Boerman et al., 2017). Addressing digital persuasion requires ethical guidelines, transparency, and educational programs through collaboration among researchers, policymakers, and platforms.

Cluster 2: Social Psychology and Behavioral Impact in the Context of Social Media

Social media engagement interacts with psychological constructs including addiction, narcissism, and self-esteem, influenced by demographic factors and personality traits. Social media addiction correlates with narcissism and self-esteem, with younger individuals, particularly females, showing higher addiction levels, suggesting compensatory mechanisms for negative self-perceptions (C. S. Andreassen et al., 2017). The Facebook Addiction Scale measures addictive use, correlating with neuroticism and extraversion while negatively correlating with conscientiousness, indicating high neuroticism increases susceptibility to problematic behaviors (Cecilie Schou Andreassen et al., 2012). Demographic factors, including education and income, influence engagement rates, suggesting targeted interventions for different populations. Understanding interactions between social media, psychological constructs, and demographics requires interdisciplinary research combining psychological and sociological insights to develop comprehensive interventions reducing negative impacts among vulnerable groups, emphasizing behavioral science integration.

Cluster 3: The Dynamics of the Spread of Misinformation on Social Media and Its Impact on Society

Misinformation spread on social media threatens democratic institutions and societal cohesion. Declining trust in democratic institutions undermines credible information sources, pushing individuals toward alternative, often radical, sources (Bennett & Livingston, 2018). This environment enabled disinformation campaigns during Brexit and the 2016 U.S. presidential election, designed to destabilize political parties and norms. Analysis of fake news sites and stories from 2015-2018 shows perceptions of misinformation correlate with public concern about democratic integrity, though effectiveness of countermeasures remains debated (Hunt Allcott et al., 2019). Detecting fake news requires interdisciplinary approaches combining technology with social understanding (Aïmeur et al., 2023). However, legitimate news comprises a smaller portion of media consumption, suggesting misinformation may be less pervasive than believed (Allen et al., 2025). Addressing misinformation requires understanding complex dynamics and developing strategies addressing underlying social and political factors.

Cluster 4: Misinformation Detection and Prevention through Technology and Algorithms

Misinformation detection and prevention have become critical research areas due to rising low-credibility content driven by technology and algorithms. Social media significantly contributes to misinformation dissemination, with social bots complicating detection methods by spreading large volumes of disinformation (Shao et al., 2018). Misinformation impacts

democracy by undermining informed citizenry, particularly during electoral events (Grinberg et al., 2019). Misinformation spreads faster than accurate news, especially political content, necessitating effective algorithms (Vosoughi et al., 2018). Robust detection technologies require algorithms classifying news by veracity (Conroy et al., 2015) and understanding narrative dynamics through specific dissemination channels (Bovet & Makse, 2019). A multidisciplinary approach emphasizing cross-field collaboration is essential to understand societal impacts (Lazer et al., 2018). Echo chambers drive misinformation diffusion through homogeneity (Del Vicario et al., 2016). Ongoing research must develop solutions addressing both identification and social dynamics of misinformation spread.

Bibliographic Coupling

Out of the 2,512 documents in the bibliographic coupling analysis, 122 meet the 123 citation threshold. The analysis produces four significant clusters. Based on total link strength (TLS), the top 3 documents in bibliographic coupling are (Pennycook & Rand, 2020) (18TLS), Bryanov & Vziatysheva (2021) (17 TLS) and Luo et al. (2022) (16 TLS). Table 3 presents the top 10 documents in the bibliographic coupling analysis.

Table 3 Top 10 documents in bibliographic coupling analysis

Ranking	Publication	No. of Citation	Total link strength
1	Pennycook & Rand (2020): Who falls for fake news? The roles of bullshit receptivity, overclaiming, familiarity, and analytic thinking	523	18
2	Bryanov & Vziatysheva (2021): Determinants of individuals' belief in fake news: A scoping review determinants of belief in fake news	132	17
3	Luo et al. (2022): Credibility Perceptions and Detection Accuracy of Fake News Headlines on Social Media: Effects of Truth-Bias and Endorsement Cues	159	16
4	Martel et al. (2020): Reliance on emotion promotes belief in fake news	329	16
5	Aral & Eckles (2019): Protecting elections from social media manipulation	140	16
6	Zhuravskaya et al. (2020): Political effects of the internet and social media	338	15
7	Shao et al. (2018): The spread of low-credibility content by social bots	835	15
8	Aimeur et al. (2023): Fake news, disinformation and misinformation in social media: a review	413	13
9	Zhou & Zafarani (2021): A Survey of Fake News: Fundamental Theories, Detection Methods, and Opportunities	865	13

Ranking	Publication	No. of Citation	Total link strength
10	Shen et al. (2019): Fake images: The effects of source, intermediary, and digital media literacy on contextual assessment of image credibility online	136	13

Source: compiled from the VOS-Viewer bibliographic coupling analysis.

The bibliographic coupling network map reveals four distinct clusters (**Figure 3**), indicating unique themes due to their separation. These keywords shape and expand each thematic cluster to predict trends in a specific field (Donthu et al., 2021). The subsequent discussion explores current trends and future developments in digital manipulation. The clusters are named based on the author’s inductive and qualitative analysis.

Figure 3 Bibliographic coupling

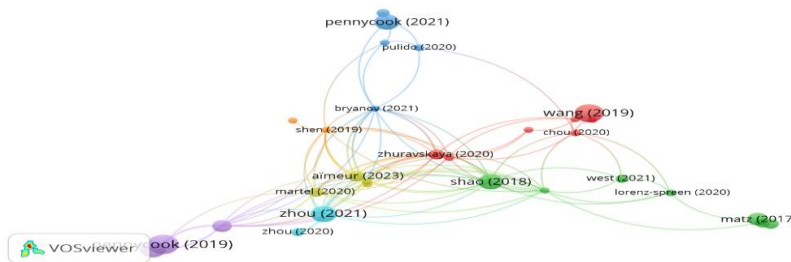


Table 4 Bibliographic coupling analysis

Cluster No and color	Cluster label	Number of publications	Representative publication
1 (red)	Perceived Credibility and Accuracy of Fake News Detection on Social Media	7	(Ferrara et al., 2020; Luo et al., 2022; Zhuravskaya et al., 2020)
2 (green)	Emotional Manipulation and the Spread of Misinformation on Social Media	7	(Aral & Eckles, 2019; Ferrara & Yang, 2015; Lorenz-Spreen et al., 2020)
3 (blue)	Deepfake Detection and Identification on Social Media	5	(Groh et al., 2022; Pennycook & Rand, 2021; Roozenbeek et al., 2022)
4 (yellow)	Social and Discursive Constructs in the Spread of Misinformation	4	(Aïmeur et al., 2023; Martel et al., 2020; Mourão & Robertson, 2019)

Source: compiled from the VOS-Viewer bibliographic coupling analysis.

Cluster 1: Perceived Credibility and Accuracy of Fake News Detection on Social Media

The rise of misinformation during the COVID-19 pandemic has underscored the importance of perceived credibility and fake news detection on social media. Research indicates

that trust in information sources significantly influences belief in misinformation (Melki et al., 2021). Social media serves as a conduit for both accurate and false information, exploiting users' cognitive biases and emotions (Ferrara et al., 2020). Endorsement cues and truth-default bias further complicate fake news detection efforts (Luo et al., 2022). Platform-specific differences in user interactions with low-credibility content highlight varying misinformation management challenges (Yang et al., 2021). Tailored interventions are essential to curb health misinformation (Wang et al., 2019). Future research must enhance information literacy across demographics and platforms to address this complex intersection effectively.

Cluster 2: Emotional Manipulation and the Spread of Misinformation on Social Media

Emotional manipulation significantly contributes to misinformation spread on social media, particularly through automated bots that amplify low-credibility content and exploit cognitive biases (Shao et al., 2018; Stella et al., 2018). Psychological targeting manipulates individual vulnerabilities, raising ethical concerns about coercing actions misaligned with users' interests (Matz et al., 2017). Emotional exposure correlates with subsequent user postings, demonstrating how emotional stimuli shape public perception (Ferrara & Yang, 2015). Behavioral science-informed interventions are essential to promote informed decision-making and enhance democratic discourse (Lorenz-Spreen et al., 2020). Mitigating risks requires proactive measures grounded in psychological insights and robust technological solutions (Aral & Eckles, 2019). Comprehensive strategies must include enhanced detection mechanisms, behavioral interventions, and ethical communication frameworks.

Cluster 3: Deepfake Detection and Identification on Social Media

Deepfake technology has intensified misinformation debates on social media, necessitating effective detection and identification strategies. Psychological factors significantly influence susceptibility to misinformation, requiring interventions addressing ideological divides (Bryanov & Vziatysheva, 2021). Combining human and machine-based detection enhances deepfake identification accuracy, demonstrating that human insight complements machine learning algorithms (Groh et al., 2022). Psychological inoculation strategies can bolster resilience against deepfake-related misinformation (Roozenbeek et al., 2022). Misinformation via deepfakes poses serious socioeconomic implications, particularly affecting public health during crises like COVID-19 (Pulido et al., 2020) and electoral integrity during significant political events (Pennycook & Rand, 2021). Addressing deepfake detection requires a multifaceted approach integrating psychological insights, machine learning advancements, and understanding of socio-political contexts.

Cluster 4: Social and Discursive Constructs in the Spread of Misinformation

Social and discursive constructs significantly influence misinformation susceptibility on social media. Emotions play a crucial role in fostering belief in fake news, with emotional engagement overriding rational cognitive defenses (Martel et al., 2020). Emotional resonance within communities facilitates misinformation spread through social sharing, demonstrating the interaction between individual cognition and social dynamics. Social media amplifies misinformation's reach and impact, creating challenges for detection due to rapid network dissemination (Aïmeur et al., 2023). Community dynamics and emotional reactions create environments conducive to misinformation proliferation, indicating cognitive defenses alone are insufficient.

Co-word Analysis

Co-word analysis predicts future research trends on digital manipulation by discovering the relations between keywords used in the previous publications. From 2,512 documents collected for this study, a total of 15,472 keywords were discovered, with 48 keywords meeting

the minimum of occurrences. Due to the absence of a rule of thumb in the literature, the threshold of 61 occurrences was set after several iterations to ensure vigorous primary clusters of keywords. This analysis revealed the top 15 keywords in the literature as presented in Table 5.

Table 5 Top 15 keywords in the co-word analysis

Rank	Keyword	Occurrences	Total Link Strength
1	social media	961	4187
2	human	672	5229
3	humans	539	4470
4	article	534	4210
5	female	364	3431
6	male	350	3267
7	adult	319	3121
8	deception	287	1988
9	social networking (online) disinformation	255	708
10	fake news	167	761
11	controlled study	166	622
12	misinformation	164	1571
13	young adult	161	970
14	psychology	135	1482
15		126	1227

Source: compiled from the VOS-Viewer co-word analysis.

The network structure from the analysis is shown in Figure 4, clustering the keywords into four different themes as exhibited in Table 6. The next sections discuss the themes predicting the future research trend in the field of digital manipulation.

Figure 4 Co-word analysis

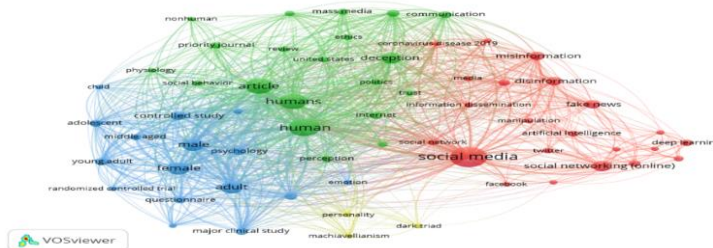


Table 6 Summary of co-word analysis on digital manipulation

Cluster No and Color	Cluster Label/Common Theme	No. of keywords	Representative Keywords
1 (red)	Integration of AI and Behavioral Science in Crisis Communication	22	Artificial intelligence, behavioral research, covid-19, deep learning, disinformation, fake detection, fake news, feature extraction, machine learning, manipulation, social media.

2 (green)	Deception and Decision-Making in Human and Social Behavior	20	Article, communication, deception, decision making, ethics, human, internet, interpersonal communication, mass media, nonhuman, perception, physiology, politics, review, social behavior, trust.
3 (blue)	Developmental and Experimental Psychology Across Age and Gender	16	Adolescent, adult, child, controlled study, emotion, female, human experiment, major clinical study, male, procedures, psychology, randomized controlled trial, surveys and questionnaires.
4 (Yellow)	Dark Personality Traits and Machiavellian Behavior in Modern Social and Organizational Contexts	3	Dark triad, machiavellianism, personality

Source: compiled from the VOS-Viewer co-word analysis.

Cluster 1: Integration of AI and Behavioral Science in Crisis Communication

The integration of AI and behavioral science in crisis communication represents an emerging research agenda balancing technical sophistication with human-centered approaches. Three key areas include AI-driven measurement and response design, behavioral science foundations for persuasive messaging, and governance frameworks addressing misinformation (Karinshak et al., 2023; Nicola et al., 2020). AI tools offer scalable risk assessment and adaptive messaging, while behavioral science provides insights into audience motivations and acceptance of AI-mediated communication. Concerns about bias, credibility, and public trust require behavioral theory and ethical design (Meng, 2024). AI-enabled crisis analytics reduce response times and tailor messages, though effectiveness depends on transparency and perceived authenticity (Kim & Chon, 2025; Kuipers et al., 2022). Governance and ethics are essential for responsible deployment (Lawrence & Montgomery, 2024). Future research should develop integrative models combining AI analytics with behavioral intervention design.

Cluster 2: Deception and Decision-Making in Human and Social Behavior

Deception and decision-making in human behavior form a complex, multidisciplinary domain integrating cognitive processing, social dynamics, and ethical considerations. Deception functions as a probabilistic cue influencing expectations, risk assessment, and decision strategies in individual and collective contexts (Chen et al., 2024; Cranford et al., 2021; Mitkidis et al., 2024). Decision-making relies on past experiences, contextual similarities, and outcome recency, suggesting adaptive behavior emerges from dynamic, memory-based heuristics (Cranford et al., 2021). Perceived deceptiveness recalibrates expectations and influences intention formation (Shi et al., 2024). Future research should integrate ecological validity with cognitive models, examine moral responses to deception across contexts, and advance cross-disciplinary investigations into ethical design and deception detection (Blackhurst et al., 2024; D'Ulizia et al., 2023; Wider et al., 2024).

Cluster 3: Developmental and Experimental Psychology Across Age and Gender

Contemporary developmental and experimental psychology emphasizes age- and gender-sensitive approaches for valid inference across life stages. Developmental trajectories and

gender processes are interdependent, necessitating longitudinal designs and measurement invariance testing to distinguish age effects from gender (Gómez-Baya et al., 2022; Haering, Schulze, et al., 2024). Developmental assets and self-representations influence gendered risk profiles in anxiety and psychosocial adjustment, requiring age-appropriate instruments (Gómez-Baya et al., 2022; Murray et al., 2021; Xie et al., 2023).

Cluster 4: Dark Personality Traits and Machiavellian Behavior in Modern Social and Organizational Contexts

Dark personality traits, particularly the Dark Triad (psychopathy, narcissism, Machiavellianism), significantly influence behavior in social and organizational contexts. These traits link to counterproductive work behaviors, knowledge sabotage, and organizational cynicism, though contextual factors produce varied outcomes (ÖZDEMİR & BAŞAR, 2024; Serenko & Choo, 2020; Wilhau, 2021). Organizational climate and team dynamics modulate effects, occasionally yielding citizenship-like behaviors (Hudson, 2022; Pryor et al., 2024; Wilhau, 2021). Dark Triad traits evolve over time, affecting social roles and legitimacy with non-linear trajectories across adulthood (Braig et al., 2024; Vize et al., 2020). Digital behaviors show links to online manipulation and cybervictimization (Akat et al., 2022; Gajda et al., 2022). Political connections exist between Machiavellian/narcissistic dispositions and political orientations (Bell et al., 2021; Peterson & Palmer, 2021). Future research should incorporate longitudinal designs, cross-cultural samples, and multi-method assessments to explore the context, development, and digital influences on outcomes driven by dark personality traits (Braig et al., 2024; Coninck et al., 2023; Vize et al., 2020).

CONCLUSION

This study offers critical implications for understanding Machiavellian marketing and digital deception in contemporary digital ecosystems. To the subject of concern, it underscores how Machiavellian traits and manipulative behaviors drive misinformation and erode trust in online communication, highlighting the urgent need for ethical governance and cognitive awareness (H. Allcott & Gentzkow, 2017; Shao et al., 2018). The findings advance scholarly knowledge by identifying four distinct research streams that integrate AI-driven crisis communication, psychological constructs, and misinformation dynamics (Lazer et al., 2018; Vosoughi et al., 2018). The findings inform policymakers and practitioners in designing transparent algorithms, regulatory frameworks, and behavioral interventions to mitigate deceptive marketing and information manipulation (Luo et al., 2022; Pennycook et al., 2018). Finally, to other researchers, the study provides a structured roadmap for interdisciplinary exploration of emotional manipulation, dark personality influences, and misinformation resilience in digital environments (Bryanov & Vziatysheva, 2021; Martel et al., 2020).

LIMITATION

This study, while comprehensive, has several limitations that provide avenues for future exploration. First, the analysis relies exclusively on Scopus-indexed and English-language publications, which may overlook influential regional or non-English contributions relevant to Machiavellian marketing and digital deception (Pennycook & Rand, 2020). Second, as a cross-sectional bibliometric analysis limited to data up to October 2025, it captures only a temporal snapshot of a rapidly evolving research landscape. Future research should therefore adopt longitudinal bibliometric designs to trace conceptual and thematic developments over time (Bryanov & Vziatysheva, 2021; Martel et al., 2020). Moreover, integrating bibliometric mapping with qualitative content analysis would deepen contextual understanding of psychological manipulation and algorithmic ethics within digital marketing environments. Finally, expanding the database scope—incorporating sources such as Web of Science and PsycINFO—would

enhance the validity, comprehensiveness, and global relevance of findings, supporting the development of more robust interdisciplinary frameworks for understanding digital deception.

REFERENCES

- Abell, L., & Brewer, G. (2014). Machiavellianism, self-monitoring, self-promotion and relational aggression on Facebook. *Computers in Human Behavior*, 36, 258–262. <https://doi.org/https://doi.org/10.1016/j.chb.2014.03.076>
- Aïmeur, E., Amri, S., & Brassard, G. (2023). Fake news, disinformation and misinformation in social media: a review. *Social Network Analysis and Mining*, 13(1), 30. <https://doi.org/10.1007/s13278-023-01028-5>
- Akat, M., Arslan, C., & Hamarta, E. (2022). Dark Triad Personality and Phubbing: The Mediator Role of Fomo. *Psychological Reports*, 126(4), 1803–1821. <https://doi.org/10.1177/00332941221109119>
- Allcott, Hunt, Gentzkow, Matthew, & Yu, Chuan. (2019). Trends in the diffusion of misinformation on social media. *Research & Politics*, 6(2), 2053168019848554. <https://doi.org/10.1177/2053168019848554>
- Allcott, H., & Gentzkow, M. (2017). Social Media and Fake News in the 2016 Election. *Journal of Economic Perspectives*, 31(2), 211–236. <https://doi.org/10.1257/jep.31.2.211>
- Allen, J., Howland, B., Mobius, M., Rothschild, D., & Watts, D. J. (2025). Evaluating the fake news problem at the scale of the information ecosystem. *Science Advances*, 6(14), eaay3539. <https://doi.org/10.1126/sciadv.aay3539>
- Andreassen, Cecilie Schou, Torsheim, Torbjørn, Brunborg, Geir Scott, & Pallesen, Ståle. (2012). Development of a Facebook Addiction Scale. *Psychological Reports*, 110(2), 501–517. <https://doi.org/10.2466/02.09.18.PR0.110.2.501-517>
- Aral, S., & Eckles, D. (2019). Protecting elections from social media manipulation. *Science*, 365(6456), 858–861. <https://doi.org/10.1126/science.aaw8243>
- Bakir, V., & McStay, A. (2018). Fake News and The Economy of Emotions. *Digital Journalism*, 6(2), 154–175. <https://doi.org/10.1080/21670811.2017.1345645>
- Bates, S. (2020). Case Half-Closed: The Hutchins Commission's Indictment of Pressure Groups for Media Manipulation. *Media History*, 26(3), 316–329. <https://doi.org/10.1080/13688804.2019.1582327>
- Bell, E., Kowalski, C. M., Vernon, P. A., & Schermer, J. A. (2021). Political Hearts of Darkness: The Dark Triad as Predictors of Political Orientations and Interest in Politics. *Behavioral Sciences*, 11(12), 169. <https://doi.org/10.3390/bs11120169>
- Bennett, W Lance, & Livingston, Steven. (2018). The disinformation order: Disruptive communication and the decline of democratic institutions. *European Journal of Communication*, 33(2), 122–139. <https://doi.org/10.1177/0267323118760317>
- Berinsky, A. J. (2017). Rumors and Health Care Reform: Experiments in Political Misinformation. *British Journal of Political Science*, 47(2), 241–262. <https://doi.org/DOL:10.1017/S0007123415000186>
- Bessi, A., & Ferrara, E. (2016). Social bots distort the 2016 U.S. Presidential election online discussion. *First Monday*, 21(11 SE-). <https://doi.org/10.5210/fm.v21i11.7090>

- Biase, M. A. D., Tian, Y., Bethlehem, R. A., Seidlitz, J., Alexander-Bloch, A., Yeo, B. T. T., & Zalesky, A. (2023). Mapping Human Brain Charts Cross-Sectionally and Longitudinally. *Proceedings of the National Academy of Sciences*, 120(20). <https://doi.org/10.1073/pnas.2216798120>
- Blackhurst, T., Warmelink, L., Roestorf, A., & Hartley, C. (2024). The Brunswik Lens Model: A Theoretical Framework for Advancing Understanding of Deceptive Communication in Autism. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1388726>
- Bode, L., & Vraga, E. K. (2018). See Something, Say Something: Correction of Global Health Misinformation on Social Media. *Health Communication*, 33(9), 1131–1140. <https://doi.org/10.1080/10410236.2017.1331312>
- Boerman, Sophie C, Willemsen, Lotte M, & Van Der Aa, Eva P. (2017). "This Post is Sponsored" Effects of Sponsorship Disclosure on Persuasion Knowledge and Electronic Word of Mouth in the Context of Facebook. *Journal of Interactive Marketing*, 38(1), 82–92. <https://doi.org/10.1016/j.intmar.2016.12.002>
- Bovet, A., & Makse, H. A. (2019). Influence of fake news in Twitter during the 2016 US presidential election. *Nature Communications*, 10(1), 7.
- Braig, A., Avilés, T. G., & Neyer, F. J. (2024). Codevelopment of the Dark Triad and Depressiveness From Emerging Adulthood to Midlife. *European Journal of Personality*, 39(2), 195–210. <https://doi.org/10.1177/08902070241283061>
- Bryanov, K., & Vziatysheva, V. (2021). Determinants of individuals' belief in fake news: A scoping review determinants of belief in fake news. *PLOS ONE*, 16(6 June). <https://doi.org/10.1371/journal.pone.0253717>
- Chen, Y., Fazli, S., & Wallraven, C. (2024). An EEG Dataset of Neural Signatures in a Competitive Two-Player Game Encouraging Deceptive Behavior. *Scientific Data*, 11(1). <https://doi.org/10.1038/s41597-024-03234-y>
- Colich, N. L., Rosen, M. L., Williams, E., & McLaughlin, K. A. (2020). Biological Aging in Childhood and Adolescence Following Experiences of Threat and Deprivation: A Systematic Review and Meta-Analysis. *Psychological Bulletin*, 146(9), 721–764. <https://doi.org/10.1037/bul0000270>
- Del Vicario, M., Bessi, A., Zollo, F., Petroni, F., Scala, A., Caldarelli, G., Stanley, H. E., & Quattrociocchi, W. (2016). The spreading of misinformation online. *Proceedings of the National Academy of Sciences*, 113(3), 554–559.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296.
- Ferrara, E., Cresci, S., & Luceri, L. (2020). Misinformation, manipulation, and abuse on social media in the era of COVID-19. *Journal of Computational Social Science*, 3(2), 271–277. <https://doi.org/10.1007/s42001-020-00094-5>
- Ferrara, E., Varol, O., Davis, C., Menczer, F., & Flammini, A. (2016). The rise of social bots. *Commun. ACM*, 59(7), 96–104. <https://doi.org/10.1145/2818717>
- Ferrara, E., & Yang, Z. (2015). Measuring emotional contagion in social media. *PLOS ONE*, 10(11). <https://doi.org/10.1371/journal.pone.0142390>
- Gajda, A., Moroń, M., Królik, M., Małuch, M., & Mraczek, M. (2022). The Dark Tetrad,

- Cybervictimization, and Cyberbullying: The Role of Moral Disengagement. *Current Psychology*, 42(27), 23413–23421. <https://doi.org/10.1007/s12144-022-03456-6>
- Gómez-Baya, D., Salinas-Pérez, J. A., Sánchez-López, Á., Paíno-Quesada, S., & Berjano, R. M. (2022). The Role of Developmental Assets in Gender Differences in Anxiety in Spanish Youth. *Frontiers in Psychiatry*, 13. <https://doi.org/10.3389/fpsyt.2022.810326>
- Grinberg, N., Joseph, K., Friedland, L., Swire-Thompson, B., & Lazer, D. (2019). Fake news on Twitter during the 2016 U.S. presidential election. *Science*, 363(6425), 374–378. <https://doi.org/10.1126/science.aau2706>
- Groh, M., Epstein, Z., Firestone, C., & Picard, R. (2022). Deepfake detection by human crowds, machines, and machine-informed crowds. *Proceedings of the National Academy of Sciences of the United States of America*, 119(1). <https://doi.org/10.1073/pnas.2110013119>
- Haering, S., Meyer, C., Schulze, L., Conrad, E., Blecker, M. K., El-Haj-Mohamad, R., Geiling, A., Klusmann, H., Schumacher, S., Knaevelsrud, C., & Engel, S. (2024). Sex and Gender Differences in Risk Factors for Posttraumatic Stress Disorder: A Systematic Review and Meta-Analysis of Prospective Studies. *Journal of Psychopathology and Clinical Science*, 133(6), 429–444. <https://doi.org/10.1037/abn0000918>
- Haering, S., Schulze, L., Geiling, A., Meyer, C., Klusmann, H., Schumacher, S., Knaevelsrud, C., & Engel, S. (2024). Higher Risk—less Data: A Systematic Review and Meta-Analysis on the Role of Sex and Gender in Trauma Research. *Journal of Psychopathology and Clinical Science*, 133(3), 257–272. <https://doi.org/10.1037/abn0000899>
- Hudson, N. W. (2022). Lighten the Darkness: Personality Interventions Targeting Agreeableness Also Reduce Participants' Levels of the Dark Triad. *Journal of Personality*, 91(4), 901–916. <https://doi.org/10.1111/jopy.12714>
- Karinshak, E., Liu, X., Park, J. S., & Hancock, J. T. (2023). Working With AI to Persuade: Examining a Large Language Model's Ability to Generate Pro-Vaccination Messages. *Proceedings of the Acm on Human-Computer Interaction*, 7(CSCW1), 1–29. <https://doi.org/10.1145/3579592>
- Kim, S., & Chon, M. (2025). Unpacking Generative Artificial Intelligence-Powered Crisis Communication From a Moral Angle: The Role of Moral Outrage, Authenticity, and Forgiveness. *Journal of Contingencies and Crisis Management*, 33(3). <https://doi.org/10.1111/1468-5973.70066>
- Kuipers, S., Wilt, A. v. d., & Wolbers, J. (2022). Pandemic Publishing: A Bibliometric Review of COVID-19 Research in the Crisis and Disaster Literature. *Risk Hazards & Crisis in Public Policy*, 13(4), 302–321. <https://doi.org/10.1002/rhc3.12262>
- Luo, M., Hancock, J. T., & Markowitz, D. M. (2022). Credibility Perceptions and Detection Accuracy of Fake News Headlines on Social Media: Effects of Truth-Bias and Endorsement Cues. *Communication Research*, 49(2), 171–195. <https://doi.org/10.1177/0093650220921321>
- Martel, C., Pennycook, G., & Rand, D. G. (2020). Reliance on emotion promotes belief in fake news. *Cognitive Research: Principles and Implications*, 5(1). <https://doi.org/10.1186/s41235-020-00252-3>
- Matz, S. C., Kosinski, M., Nave, G., & Stillwell, D. J. (2017). Psychological targeting as an effective approach to digital mass persuasion. *Proceedings of the National Academy of Sciences of the United States of America*, 114(48), 12714–12719. <https://doi.org/10.1073/pnas.1710966114>

- Melki, J., Tamim, H., Hadid, D., Makki, M., El Amine, J., & Hitti, E. (2021). Mitigating infodemics: The relationship between news exposure and trust and belief in COVID-19 fake news and social media spreading. *PLOS ONE*, *16*(6 June). <https://doi.org/10.1371/journal.pone.0252830>
- Murray, A. L., Speyer, L. G., Hall, H. A., Valdebenito, S., & Hughes, C. (2021). A Longitudinal and Gender Invariance Analysis of the Strengths and Difficulties Questionnaire Across Ages 3, 5, 7, 11, 14, and 17 in a Large U.K.-Representative Sample. *Assessment*, *29*(6), 1248–1261. <https://doi.org/10.1177/10731911211009312>
- Nicola, A. D., Karray, H., Kejriwal, M., & Matta, N. (2020). Knowledge, Semantics and AI for Risk and Crisis Management. *Journal of Contingencies and Crisis Management*, *28*(3), 174–177. <https://doi.org/10.1111/1468-5973.12322>
- ÖZDEMİR, G., & BAŞAR, A. İ. (2024). A Study on the Relationship Between Teachers' Dark Triad Personality Traits and Organizational Cynicism Behaviours. *Korkut Ata Türkiyat Araştırmaları Dergisi*, *14*, 1068–1078. <https://doi.org/10.51531/korkutataturkiyat.1410217>
- Roozenbeek, J., Van Der Linden, S., Goldberg, B., Rathje, S., & Lewandowsky, S. (2022). Psychological inoculation improves resilience against misinformation on social media. *Science Advances*, *8*(34). <https://doi.org/10.1126/sciadv.abo6254>
- Serenko, A., & Choo, C. W. (2020). Knowledge Sabotage as an Extreme Form of Counterproductive Knowledge Behavior: The Role of Narcissism, Machiavellianism, Psychopathy, and Competitiveness. *Journal of Knowledge Management*, *24*(9), 2299–2325. <https://doi.org/10.1108/jkm-06-2020-0416>
- Shao, C., Ciampaglia, G. L., Varol, O., Yang, K.-C., Flammini, A., & Menczer, F. (2018). The spread of low-credibility content by social bots. *Nature Communications*, *9*(1), 4787. <https://doi.org/10.1038/s41467-018-06930-7>
- Shen, C., Kasra, M., Pan, W., Bassett, G. A., Malloch, Y., & O'Brien, J. F. (2019). Fake images: The effects of source, intermediary, and digital media literacy on contextual assessment of image credibility online. *New Media and Society*, *21*(2), 438–463. <https://doi.org/10.1177/1461444818799526>
- Shi, X., Shan, W., Du, Z. Z., Evans, R., & Zhang, Q. (2024). Does Language Concreteness Influence Consumers' Perceived Deception in Online Reviews? *European Journal of Marketing*, *58*(12), 2670–2704. <https://doi.org/10.1108/ejm-07-2023-0573>
- Smallenbroek, O., Stanciu, A., Arant, R., & Boehnke, K. (2023). Are Values Stable Throughout Adulthood? Evidence From Two German Long-Term Panel Studies. *Plos One*, *18*(11), e0289487. <https://doi.org/10.1371/journal.pone.0289487>
- Stella, M., Ferrara, E., & De Domenico, M. (2018). Bots increase exposure to negative and inflammatory content in online social systems. *Proceedings of the National Academy of Sciences of the United States of America*, *115*(49), 12435–12440. <https://doi.org/10.1073/pnas.1803470115>
- Vize, C., Miller, J. D., & Lynam, D. R. (2020). Examining the Conceptual and Empirical Distinctiveness of Agreeableness and "Dark" Personality Items. *Journal of Personality*, *89*(3), 594–612. <https://doi.org/10.1111/jopy.12601>
- Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, *359*(6380), 1146–1151. <https://doi.org/10.1126/science.aap9559>

- Yang, K.-C., Pierri, F., Hui, P.-M., Axelrod, D., Torres-Lugo, C., Bryden, J., & Menczer, F. (2021). The COVID-19 Infodemic: Twitter versus Facebook. *Big Data and Society*, 8(1). <https://doi.org/10.1177/20539517211013861>
- Zhou, X., & Zafarani, R. (2021). A Survey of Fake News: Fundamental Theories, Detection Methods, and Opportunities. *ACM Computing Surveys*, 53(5). <https://doi.org/10.1145/3395046>
- Zhuravskaya, E., Petrova, M., & Enikolopov, R. (2020). Political effects of the internet and social media. *Annual Review of Economics*, 12, 415–438. <https://doi.org/10.1146/annurev-economics-081919-050239>