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Curated Beauty: The Influence of Social Media Algorithms on the Intersection of Health and Taste

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Abstract: ***Social media plays a major role in how today's youth engage with trends, information, and lifestyle choices. Much of what they see is controlled by algorithms, which select and recommend content—often without users even noticing. This study explores how aware people are of these algorithms and how they affect what content they are exposed to. We focus especially on food-related content. Recommendation systems can shape how young people view the healthiness and taste of foods by repeatedly showing trending recipes, food challenges, and influencer posts. Because of this, many start valuing how food looks online more than its actual nutritional value. The study also examines how these repeated promotions can persuade users to try new foods, change eating habits, or follow food trends. Overall, the research highlights why media literacy is important- people need to understand how algorithms influence their choices. It also shows how algorithms play a major role in shaping cultural ideas about food and health. The findings contribute to discussions on digital influence and responsible communication of food content online.***

Keywords: Social media, Algorithm, Youth, Trend, Food and Health, Digital Influence, Content Creation Mental Wellbeing, Consumer Behavior, Nutrition Awareness, Online Communities, Lifestyle Choices

1. Introduction

In today's world, where everything is connected through digital technology, social media has become one of the most powerful tools that shapes how young people think, choose, and act in areas like entertainment and lifestyle. It often influences decisions in a quiet, unnoticed way, so people might not even realize how much it's affecting them. That's why this research was chosen- because there's growing concern about how social media algorithms could be quietly guiding what people see, think, and do, including what they eat. With a lot of visually appealing food content, influencer suggestions, and trend-based eating habits, it's important to understand the difference between personal choices and content that's shown to us because of algorithms. This study was picked specifically because it addresses a real and growing issue- how young people unknowingly rely on algorithms when deciding what is "healthy," "tasty," or "trendy."

The reason this research was chosen is because not much has been studied about algorithmic behavior in India, especially regarding food choices.

While social media addiction, celebrity influence, and digital marketing have been explored, the actual algorithm that controls what users see hasn't received enough attention. Algorithms work behind the scenes to decide what appears in a user's feed, making them invisible yet powerful in shaping opinions. It's important to recognize this influence because users often believe they are making their own choices, when in fact, their preferences are being shaped by the content they're constantly exposed to. For this reason, the research focuses on how algorithms affect food-related content online, focusing on a specific and relevant aspect of social media behavior.

This study has value for many people. Young users can learn how online platforms influence their choices. Parents and teachers can understand why young people so easily adopt trends or feel anxious about missing out. Health professionals and dietitians can learn more about why certain food trends, even unhealthy ones, become popular while healthier options get less attention. Marketers, brands, and content creators can gain insights into public behavior to create more responsible content. Overall, this research helps improve understanding of how people use digital platforms, how they think about social media, and the psychology behind online behavior.

A social media algorithm is a set of rules or a mathematical system used by platforms like Instagram, TikTok, YouTube, and Facebook to decide what content appears in users' feeds.

These algorithms look at how users interact with content—like likes, shares, searches, watch time, comments, and even when they pause videos—to predict what they might like next. Based on these predictions, the algorithm shows similar content again and again, creating a personalized bubble of content. Though users might think they're just scrolling through their feeds, algorithms are constantly shaping what they see and how often, making them strong drivers of trends, and influencers of opinions and decisions.

Today's youth, especially, are heavily influenced by trends and the fear of missing out.

Social media is full of trending content like viral cooking videos, food challenges, aesthetic meal clips, and influencer recommendations. The constant worry of being left out pushes young people to join trends without questioning if they are reliable or healthy. Plus, algorithms play a big role by showing popular content over and over, making users believe that "everyone is trying this," even if it's not true. This is a strong psychological factor that captures attention quickly and encourages new behaviors such as trying new viral foods,

visiting new restaurants, or copying cooking styles from influencers.

In this context, this study looks into how users become aware of, perceive, and act on content influenced by social media algorithms.

Many people don't understand the digital mechanisms that personalize content, which can lead to unintentional changes in behavior. By examining this, the research also explores how algorithmic exposure affects beliefs about what is healthy or unhealthy. It also looks at how repeated exposure to certain foods or recipes encourages users to try them, even if they weren't initially interested.

2. Literature Review

(Saroj Adhikari, 2025), Today's food choices are more complicated than ever, leading people to make less healthy decisions because of things like not having enough information, being rushed, and being influenced by their own mental tendencies. Machine learning (ML) is a great tool that can help improve grocery shopping by offering personalized diet advice that fits each person's unique needs. Unlike old ways of giving dietary advice, ML can take into account detailed things about a person, like their eating habits, background, and specific nutrition needs, and it can adjust these suggestions as time goes on. This review looks at how ML can help provide more personalized advice on a large scale and help people make better long-term food choices. It also looks at how stores can use ML during the shopping process to give tailored recommendations based on what customers know and what's currently available in the store. New developments, such as using biometric data, make these recommendations even more accurate and support efforts that see food as a way to improve health. With these abilities, ML helps stores better connect with customers by using strategies that put the customer first. In the end, ML-based advice can lead to healthier food choices while making the shopping experience better for customers and adding value for stores.

(Chun-Han Ariel Wang),2025), This paper looks closely at how people with food allergies use social media and how these platforms affect their health habits and how they see themselves. Based on 18 interviews, the study explores how the way people find and share information online, along with how they manage their identities, influences how they express themselves, interact with others, and deal with the systems that recommend content. Social media is both helpful and harmful—it can connect people and offer support, but it can also create embarrassment and stress. The research shows how users carefully control how much they share about their food allergies online, using the idea of "on-and-off identities" to describe this. The paper also suggests important design ideas for computer scientists and engineers, highlighting the need for social media that gives people control while also being aware of their vulnerabilities. It also talks about how health situations and the online spaces people use are always changing. In the end, the study argues for a more complete understanding of identity and how people share information to better help those facing health challenges online.

(Moreira, 2024), The Sense and the Meaning of Taste Through Artificial Intelligence. This thesis looks at how artificial intelligence creates new taste experiences, suggesting that we should see taste not just as one sense, but as a complex, body-based experience that includes sight, smell, touch, hearing, and perception. The study uses ideas from semiotics, sociology, anthropology, and Merleau-Ponty's philosophy to explain how taste comes from the body and looks at the difficulty of turning human senses into AI systems. It looks at examples like gastrobots and robotic cooking to show how AI makes flavors and food, while also bringing up questions about cultural knowledge, biased data, and what's real. It also studies media discussions in different languages to understand how society imagines AI in cooking. By using sociosemiotics, talking to chefs and AI experts, and looking at dishes made by AI, the thesis finds that while AI can come up with new flavor mixes, real taste experiences need cultural and physical depth that AI can't provide. It also points out the technology, culture, and ethics problems that need to be solved if AI is to have a real place in the future of food.

(Maria-Gemma Brown, 2024), The environment around digital advertising is shaped by algorithms. The common belief is that digital ads are highly targeted and customized. But in this article, we suggest that thinking about targeted ads in this way isn't as useful as considering them as "tuned" ads. Here, algorithm models work to make ads feel more connected to consumers through a steady stream of images, videos, and text. Based on research with 204 young people from Victoria, Australia, who sent us over 5,169 screenshots of ads for alcohol, gambling, and unhealthy food they saw online, we found five different "vibes" in the ads they shared. These vibes show different ways people feel and act when consuming these products. We believe that digital platforms create a type of advertising that focuses on matching the right vibe between ads, content, and users.

(Annika Molenaar, 2023), Social media data changes fast and offers many chances for research, especially when looking at how people feel and express emotions. This review brings together research from different fields about how these methods are used in nutrition, food, and cooking. The study found five main topics: eating habits, cooking and recipes, diet and health, public health and nutrition, and general talk about food. Sentiment analysis tools showed a big range in accuracy, from 33.33% to 98.53%. On average, the feelings shared were 38.8% positive, 46.6% neutral, and 28.0% negative. Topic modeling and network analysis were also commonly used. In short, the review shows that more work is needed to improve data collection methods, increase teamwork between different areas of study, and use a wider range of tools to better understand the complex nature of food-related content on social media.

(Jermaine Marshall, 2022), Food consumption is seen as the main cause of diseases related to diet and lifestyle, which makes making healthier food choices very important. Because of this, food recommendation models are becoming a promising solution. These models can offer personalized suggestions based on a person's nutrition needs, health goals, preferences, and daily habits. However, most existing research looks at just one factor, like taste, without

considering other important aspects. Also, there isn't enough real-world testing that focuses on what users really need. This review takes a detailed look at the factors that influence food decisions and how technology can help people make better choices. It also looks at current methods, trends, and challenges in the field, pointing out gaps in personalization, understanding of context, and insights into behavior. The review also offers general advice to help shape the future development, testing, and effectiveness of technologies that support healthier food choices.

(Mertaniemi, 2021), Social media and the digital world have greatly changed how people act as consumers and how marketing works. This review looks at how social media influencers have evolved from the old idea of cultural intermediaries in fashion, comparing their similarities, differences, and changing roles. Based on recent research, it focuses on the traditional jobs of cultural intermediaries, how influencers act in online spaces, and how they interact with the rules of social media platforms. Although there is a growing overlap between intermediaries and influencers, there are still key differences: cultural intermediaries rely on built-up cultural knowledge to act as judges of taste, while influencers can gain authority through having a large online following without needing that same knowledge. The review also points out that platform algorithms play a big role in shaping influencer behavior, since visibility depends on following specific platform rules. In this way, algorithms have become new gatekeepers for shaping taste, deciding what content gets seen and how consumers perceive it.

(Maria Giovanna Onorati, 2020), Social media is changing how people think about food taste, especially when it comes to eating out. This paper looks at how social media, particularly platforms like TripAdvisor, is influencing what people consider good food and how they judge restaurants. With more people using social media to share their dining experiences, the way people form opinions about food is changing. Traditional food experts are losing some of their influence, and instead, people are starting to rely more on what they see online and how others present their experiences. The paper explores how this shift is creating new trends in food taste, especially in places like Italy's Aoste Valley. By looking at 25 months of TripAdvisor reviews, the study shows that social media is reshaping food taste in a process called "re-mediating" taste. This is leading to a new kind of culinary value that's based on diverse and changing food experiences, including things like TV food shows, digital storytelling, and more mindful eating habits.

(Arielli, 2018), Every day, our interaction with art and beautiful things is mostly through digital media. Our likes and choices are being watched and studied by algorithms in ways that are not easy to understand. Our actions are being kept track of, and then we get back customized information based on that. This means we are dealing with a complicated connection between how we choose art, how that is processed digitally, and how content is made and creativity works. All these things influence each other and are partly shaped by the hidden control of algorithms. This paper will look at some of the issues around how algorithms play a role in areas like understanding and shaping taste, how we consume and create culture, and explain how aesthetics can help in talking about the effects of today's "algorithmic culture."

(Davenport, 2006), Popular online social networks like Friendster and Myspace do more than just show how people are connected; the deeper meanings in their profiles reveal patterns in culture and personal taste. If we could collect and analyze these hidden patterns of taste in a formal way, it would open up new ways to understand and work with web users and people in general. This paper explains the theory and method behind this idea. We collected the natural language text from 100,000 social network profiles and mapped it into a wide range of categories like music, books, movies, and food. Then, we used machine learning to uncover a semantic fabric that shows how people's tastes are connected. These taste fabrics help us understand meaning in a more flexible way and offer three key functions: creating flexible user profiles, making recommendations based on taste across different areas, and measuring how similar people's tastes are. These functions are shown through three applications: the Interest Map, Ambient Semantics, and Identity Mirror. Finally, we assess the quality of the taste fabrics and share useful methods and techniques that can be applied to semantic mining and the Semantic Web communities.

3. Objectives

- To examine the level of awareness among users about social media algorithms and their role in content recommendation.
- To identify how algorithm-driven exposure influences users' perceptions of healthiness and taste in food-related content.
- To assess users' behavioral responses, such as trying new foods or recipes due to repeated exposure on social media.

Data Collection Method
The data has been collected using method which is qualitative in nature
Secondary Collection: - Journals, Literature Reviews, Research Papers.

Research Design: Descriptive research

Data Collection Method:
Secondary collection: Journals, Literature Reviews, Articles, Research Papers

Hypothesis:
H0(1): There is no significant difference in the stated type of food content consumed (health-focused vs. taste-focused) between users with high and low algorithmic awareness.
H1(1): Users with higher algorithmic awareness will state that their content feed is significantly more dominated by taste/preference-based food content, compared to health-focused content.

H0(2): Algorithm-driven repeated exposure to a food item does not cause a change in a user's initial ratings of its perceived healthiness or taste.

H1(2): Algorithm-driven repeated exposure to a food item significantly increases the user's subsequent rating of its perceived healthiness AND/OR taste.

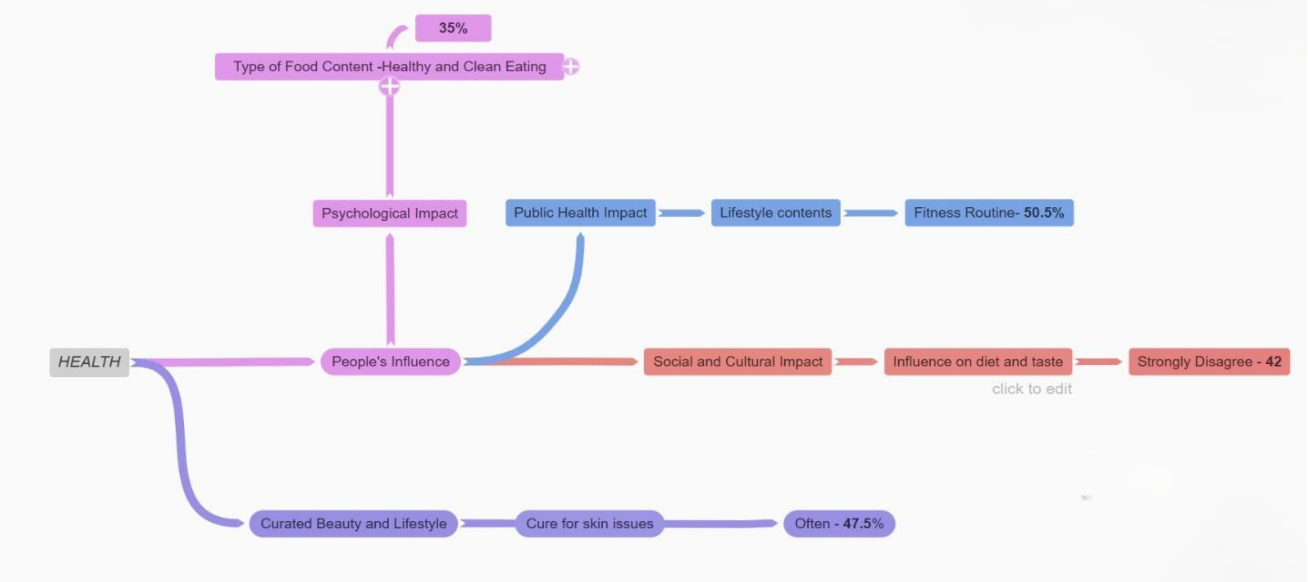
H0(3); The stated frequency of seeing an algorithm-recommended recipe has no statistical effect on the self-stated frequency of attempting that recipe.
H1(3): A higher stated frequency of seeing an algorithm-recommended recipe on social media is positively correlated with a higher self-stated frequency of attempting that recipe.

H0(4): The stated frequency of seeing an algorithm-recommended beauty product or routine has no statistical correlation with the user's subsequent purchase or trial of that product/routine.
H1(4): higher stated frequency of seeing an algorithm-recommended beauty product or routine is positively correlated with a higher likelihood of purchasing or trying that product/routine

H0(5): Repeated, algorithm-driven exposure to a specific beauty trend or aesthetic does not significantly affect a user's self-perception (e.g., self-esteem, body image satisfaction).
H1(5): Repeated, algorithm-driven exposure to highly curated or idealized beauty content negatively impacts a user's self-perception (e.g., increased self-comparison and lower self-esteem).

H0(6): A user's level of algorithmic awareness does not influence their perception of whether the algorithm prioritizes aspirational/idealized beauty content or realistic/diverse content.
H1(6): Users with higher algorithmic awareness are significantly more likely to believe the algorithm prioritizes aspirational/idealized beauty content (e.g., filtered looks, luxury products) due to high engagement potential.

4. Framework



- Social media algorithms continue to show young users the same health, diet, and beauty content.
- About 35% of participants reported regularly viewing healthy, or clean-eating content., meaning that a significant portion of users are consistently exposed to posts promoting specific diets, "clean" food choices, or idealized eating habits. This repeated visibility makes such content feel normal and desirable, subtly shaping what users perceive as the "right" way to eat.
- All that constant exposure leads to a conscious feeling concerning the way one eats and conducts their life.
- Only about 50.5% of users do not constantly encounter workout videos, transformation posts, or some form of exercise challenges from some kind of fitness guru. In this regard, these certainly do reflect certain lifestyle norms, and put pressure on someone to be fit, or to maintain a certain kind of body shape, or even to pursue the latest way of doing exercise. As users see their feeds choke with such information, they may eventually assume what is socially desirable or "ideal."
- Users often mimic routines and behaviors they frequently see online.
- While 42% strongly disagree that social media influences their diet or taste, exposure still subtly shapes ideas of "healthy living" and the beauty standard.
- Beauty and skincare content appear frequently, according to 47.5% of the participants.
- Such posts inspire idealistic routines or fast solutions and affect the way users perceive their appearance.
- Algorithm-driven content collaborates across categories to shape psychological attitudes, health behaviors, and cultural norms.

Psychological Impact
- The constant exposure to algorithmically-driven, highly curated, and idealized content has significant psychological consequences:
- Body Dissatisfaction and Low Self-Esteem: Comparing oneself to digitally perfected images lead to dissatisfaction with one's own appearance, a sense of inadequacy, and reduced self-worth.
- Anxiety and Depression: The pressure to conform to these reinforced beauty trends can increase stress, anxiety, and other mental health struggles.

- Body Dysmorphic Disorder (BDD): High daily social media exposure (e.g., over 4 hours) has been linked to increased symptoms of BDD.

Public Health Impact:

- The psychological effects translate into broader public health concerns related to physical health, specifically due to the pressure to achieve the 'algorithmic ideal':
- Increased Demand for Cosmetic Procedures: Exposure to idealized content is significantly correlated with a heightened interest and intent to undergo cosmetic procedures (like rhinoplasty, lip augmentation, and dermal fillers) to align with digital beauty ideals. The normalization of these procedures is fueled by social media.
- Eating Disorders: The glorification of certain body types (e.g., thinness) can contribute to unhealthy eating behaviors, body image issues, and the development of eating disorders.
- Life-Threatening Trends: Social compliance and the desire for acceptance can push individuals to engage in potentially life-threatening beauty trends.

Social and Cultural Impact:

- Algorithms affect societies view and taste, due to this there are different dynamics going on in society - both homogeneity and counter-movements:
- Homogenization of Taste: Algorithms create echo chambers by promoting similar content based on past engagement, which can lead to a homogenization of cultural tastes and limit exposure to diverse aesthetics.
- Globalization of Standards: social media has amplified Western beauty standards worldwide, contributing to a globalized aesthetic ideal, even while beauty standards vary by culture.
- Positive Counter-Influence: Despite the negative impacts, social media has also been instrumental in promoting body positivity, challenging traditional norms, and increasing representation for diverse body types, skin tones, and ages.

5. Findings

Objectives	Findings
User Awareness of Social Media Algorithms	• Research has indicated that users have a partial and often limited awareness of how social media algorithms work, even when they recognize the effects. • Recognition of Patterns, Not Mechanism: Users, in particular younger demographics-for example, undergraduates-tend to recognize algorithmic patterns-such as having exposed to them content similar to what they previously interacted with-but rarely explicitly and accurately understand the mathematical and technical processes behind it. • Focus on Simple Metrics: Most users make a mistake by thinking that engagement metrics are limited to liking, commenting, and sharing posts, thus underestimating the complexity involved in personalization, which relies on viewing time, clicks, and negative feedback. • Desire for Transparency: Although there is a lack of detailed understanding, one finding is that users want more transparency and ethical accountability by the platforms in content curation. • The "Echo Chamber" Concern: Users often perceive that algorithms create "echo chambers" that limit exposure to diverse perspectives and reinforce existing interests, hindering access to reliable information in cases where a user's feed is already saturated with misinformation or oversimplified content.
Algorithmic Influence on Perception of Healthiness and Taste	• Algorithmic exposure often conditions users by showing the most visually attractive, trendy, and high-engagement content, which can both promote healthy and unhealthy ideals. • Dual Role in Food Perception: Taste and Health • Amplifying Health-Conscious Trends: Algorithms often amplify content promoting specific "healthy" trends, such as organic, vegan, plant-based, homemade, and fitness-related diets. High social endorsement-for example, lots of "likes"-of healthy food images has been shown to positively nudge users toward healthier food choices. • Amplification of Indulgent/Trendy Foods (Taste Priority): Simultaneously, algorithms prioritize highly engaging content; this will often involve energy-dense, high-calorie, visually stunning, or "viral" foods. This may distort the perception of what is "normal" or desirable to eat for a user and lead to nutrition relative to taste, novelty, and aesthetic appeal. • Curated Beauty and Health Ideal: • Homogenization of Beauty: Algorithms in the "curated beauty" environment reward and promote a narrow, idealized, and often homogenous aesthetic-for example, symmetrical, filtered, and conforming features-whose consumption may further increase body dissatisfaction and pressure to conform. • Shifting Perceptions of "Normal": The constant, filtered, and algorithmically reinforced exposure to these ideals can redefine what users perceive as "natural" or "healthy" in appearance, driving up interest in cosmetic procedures to achieve a digitally altered look.
Assessing Behavioral Responses	• Repeated exposure to algorithmically recommended content strongly correlates with observable, quantifiable changes in the behavior of users, especially with regard to consumption and aspiration. • Increased Tendency to Try New Foods/Recipes: Another major and pervasive behavioral response is trying new foods, recipes, or dining experiences advertised on social media. • This content most influences younger audiences, such as those in the 18-29 age group, with a high percentage of respondents stating that because of influencers. • The greater utilization of social media recommendations for cooking, purchasing ingredients, and dining out is a robust predictor of a higher frequency of these activities. • Viral trends such as Dalgona Coffee or Cloud Bread are manifestations of how the algorithm, coupled with user-generated content, quickly translates exposure into mass behavioral adoption. • Unplanned Consumption: The sight of appealing food cues may serve as a trigger to increased unplanned snacking or consumption outside of physiological hunger/satiety signals.

	• Repeated exposure to idealized beauty content is significantly associated with an increased desire for and actual pursuit of cosmetic and aesthetic treatments such as rhinoplasty and lip augmentation.

6. Recommendations

1) Platforms should increase transparency about how algorithms curate content.
2) Influencers should communicate responsibly by balancing aesthetics with accurate health information.
3) Social media companies should prioritize diverse, realistic, and health-focused content.
4) Educators and health agencies should teach algorithm awareness to support digital wellbeing.
5) Policymakers should collaborate with platforms to set ethical guidelines that limit harmful beauty and food trends.

7. Conclusion

Social media algorithms have grown in their influential power to subtlety shape individual perceptions of food, beauty, and health. By constantly amplifying content that creates visually stunning images and high levels of engagement, they normalize curated ideals that make both personal choices and collective cultural standards. This, in turn, algorithmically reinforces changes within eating habits, beauty aspirations, and self-perception-in most cases, creating psychological strain and fostering unrealistic expectations. Simultaneously, it fuels broader public health concerns by popularizing trends that may not align with actual wellbeing. Homogenization of taste and the global spread of narrow beauty norms further manifest the cultural impact of algorithmic curation. However, such platforms also facilitate counter-narratives that foster diversity, body positivity, and healthier digital engagement. Understanding this dual influence is key to becoming more conscious while engaging online. At the same time, awareness and responsible digital use may enable users to develop healthier relations with content and themselves.

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