

Snapshot: A Next-Generation Social Media Platform for Dynamic, Evolving Memories Using Artificial Intelligence and Collaborative Storytelling

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Abstract

Social media platforms like Facebook, Instagram, and TikTok have changed how people share and remember their lives. These apps make it easy to post photos, reels, and short stories, but the content often feels short-lived or overly polished. Critics argue that such formats encourage shallow interactions, push people to chase likes and followers, and fail to show the real, evolving nature of human experiences.

To address these issues, this paper introduces Snapshot, a new social media idea that focuses on memories that grow and change over time. The key feature is “Living Snapshots”—posts that are not frozen but can be updated and enriched by friends or even AI. For example, a travel memory might start with one photo, but later friends could add voice notes, sketches, or extra pictures. At the same time, AI could enhance it with music or a highlight reel. Snapshot also includes time capsules, where posts are locked and then reappear in the future, and a mood-based feed, which organizes content by feelings like nostalgia or joy instead of popularity.

The framework combines a simple interface, options for group contributions, and AI tools for personalization. By doing so, Snapshot aims to support authentic engagement, help people build shared digital memories, and open up new uses in areas like education, cultural archiving, and event storytelling. Overall, the concept reimagines social media as a space for evolving memories rather than static posts.

Keywords

Social Media Innovation, Artificial Intelligence (AI), Digital Memories, Human-Computer Interaction (HCI), Collaborative Storytelling, Living Snapshots, Emotional Computing, Time Capsules, Mood-based Feed, Digital Well-being, Collective Memory Building, User Experience (UX) Design

Introduction

1. 1 Background and Motivation

Social media has changed the way people connect, communicate, and keep their memories. Platforms like Facebook, Instagram, and TikTok allow users to share photos, videos, and short stories in seconds, linking people across the world. But these platforms often push content that is either static or temporary, and they rely heavily on algorithms that reward popularity rather than authenticity. As a result, many users experience problems such as shallow interactions, digital fatigue, and even a growing gap between their online identity and their real life.

In the past few years, researchers and designers have started to ask how social media could become more meaningful and supportive. Features like Instagram Stories or Snapchat’s disappearing posts let people share casually, but they still fail to capture how memories grow and change over time. At the same time, algorithm-driven feeds often encourage addictive scrolling instead of fostering emotional well-being or genuine connections. These issues point to the need for a different kind of social network—one that values collaboration, emotional impact, and the long-term preservation of memories.

Snapshot was imagined as a response to these challenges. Instead of treating posts as fixed moments, it introduces the idea of Living Snapshots—digital memories that continue to evolve through contributions from friends and support from artificial intelligence (AI). By combining collective storytelling, mood-based organization, and future-focused tools such as time capsules, Snapshot aims to shift social media from fleeting updates toward building shared, evolving digital legacies.

1. 2 Objectives

The main goals of this research are:

1. To design and describe a social media concept that focuses on evolving digital memories instead of only static posts.
 2. To study how artificial intelligence (AI) can be used to support collective storytelling, personalization, and emotional organization of content.
 3. To outline and discuss key features such as Living Snapshots, Time Capsules, Mood-Based Feeds, and Voice-First Engagement.
 4. To consider the possible impact of Snapshot on digital well-being, authenticity, and user interaction compared to existing platforms.
 5. To highlight the challenges and future possibilities in building AI-driven, collaborative, and memory-centered social media systems.
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Literature Review

1. Evolution of Social Media Platforms

Over the past two decades, social media has changed rapidly, moving from early sites like Friendster and MySpace to global giants such as Facebook, Instagram, and TikTok. These platforms gave people new ways to share photos, text, and short videos almost instantly. Later, features like Snapchat's disappearing stories and Instagram Stories made casual, temporary sharing popular. Still, even with these changes, most platforms rely on posts that are static and fixed. They rarely reflect the way human experiences actually grow and change through time and collaboration.

2. Limitations of Current Models

Many studies point out the downsides of today's social networking platforms. Algorithm-driven feeds, which are designed to keep people engaged, often lead to addictive scrolling, encourage unhealthy comparisons, and affect users' well-being. The heavy focus on likes, followers, and other vanity metrics pushes people to present idealized versions of their lives rather than authentic ones. While short-lived content, like stories, reduces the pressure of permanent posts, it also leaves behind scattered, fragmented memories that lack deeper meaning. These problems highlight the need for platforms that focus more on meaningful, collaborative, and emotionally rich digital interactions.

3. AI and Personalization in Social Media

Artificial intelligence is now a major part of social media, shaping what users see through recommendations, moderating content, and powering ads. But the way AI is commonly used has drawn criticism, especially for creating echo chambers and capturing user attention in manipulative ways. With recent advances in natural language processing, emotion recognition, and generative AI, there is a chance to use AI more positively. For example, AI could help users be more creative, bring out emotionally relevant content, or even support collaborative storytelling. Research in human-computer interaction (HCI) suggests that if applied carefully, AI can make social platforms more supportive and authentic instead of harmful.

4. Digital Memories and Collective Storytelling

Researchers in digital sociology and HCI have studied how people use technology to store memories and share life events. Current systems tend to lean toward either permanence (like Facebook timelines) or short-term visibility (like Snapchat). Very few focus on memories as evolving experiences that can be shaped collectively. Recent work suggests that platforms should allow co-creation of memories, where multiple voices and perspectives come together in a shared narrative. Such collective storytelling not only strengthens relationships but also deepens emotional connections and contributes to digital heritage.

5. Research Gap

Although previous studies emphasize the value of digital well-being, memory preservation, and AI-assisted interaction, no platform has yet brought all these aspects together. There is no established model that treats social media posts as living, evolving entities that grow with both human input and AI support. This gap opens the door for Snapshot, which aims to rethink digital interaction by centering on evolving memories, emotional organization, and collaborative storytelling.

6. Proposed System: Snapshot Framework

6.1 Concept Overview

Snapshot is designed to address the shortcomings of today's social media by treating digital content as something that can grow and evolve, instead of staying frozen once it is posted. On most platforms, a photo or story is fixed at the moment it goes online. Snapshot changes this by focusing on living memories—posts that expand through ongoing contributions from users and support from artificial intelligence (AI). The idea brings together elements of social networking, digital storytelling, and memory preservation, while keeping authenticity, collaboration, and emotional connection at its core.

6.2 Core Features

- 1. **Living Snapshots**

The core feature of the platform is the *Living Snapshot*. Unlike static posts, these grow over time. Friends and participants can add extra photos, short videos, sketches, or even voice notes, turning a single post into a shared memory that captures different perspectives of the same experience.

- 2. **AI-Generated Memory Layers**

AI plays an active role in enriching Snapshots. It can automatically create highlight reels, generate mood-based music, or summarize contributions into a simple story timeline. AI can also detect emotions and tag Snapshots with moods such as “joyful,” “nostalgic,” or “motivational,” helping users rediscover memories in new ways.

- **3. Time Capsules**

Users can lock a Snapshot and set it to reappear at a future date. When reopened, it includes the original memory, later contributions, and even AI-generated reflections. This feature encourages long-term preservation of digital memories and creates a sense of anticipation around revisiting the past.

- **4. Mood-Based Feed**

Instead of showing posts ranked by popularity, Snapshot organizes the feed around emotions. For example, a user feeling nostalgic can scroll through Snapshots marked with the same mood. This reduces the pressure of likes and shares and allows people to discover content that feels more personally meaningful.

- **5. Collaborative Storytelling**

Multiple people can contribute to the same Snapshot, especially for group experiences such as concerts, weddings, or trips. AI then helps merge these contributions into a unified story. The result is a richer, multi-perspective memory that becomes part of a shared digital heritage.

- **6. Voice-First Engagement**

Snapshot also goes beyond text by allowing users to leave short voice notes. This makes interactions feel more personal and turns Snapshots into multimodal memory archives that combine visuals, sound, and emotion.

6.3 System Architecture

The architecture of Snapshot is built around three main layers: the Frontend Layer, the Backend Layer, AI Layer and the Integrated System View. Each one has its own role but works together to create a smooth, scalable, and intelligent user experience.

- **Frontend Layer**

The frontend is designed as a mobile-first interface that enables users to create, interact with, and explore Living Snapshots...



Figure: 1 illustrates the architecture of the Frontend Layer.

Backend Layer

The backend ensures secure data storage, collaboration, and synchronization...

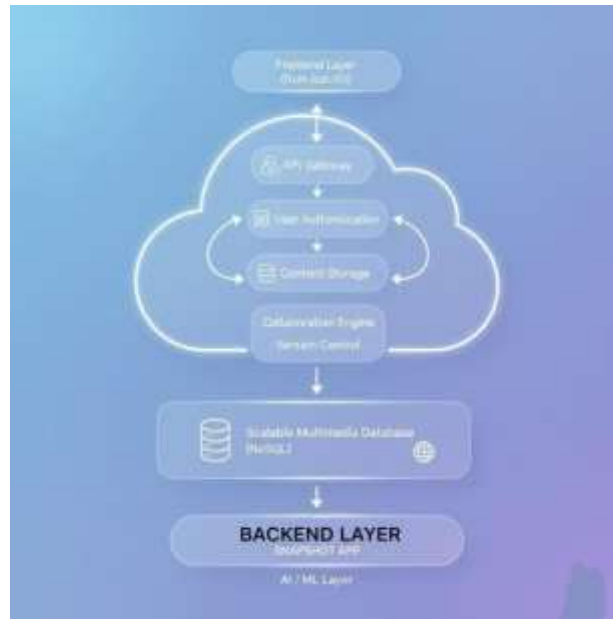


Figure 2: presents the Backend Layer Architecture.

AI Layer

The AI layer enriches content by applying emotion recognition, personalization, and generative models...



Figure 3: shows the AI Layer Architecture

Integrated System View

The Integrated System Architecture of Snapshot illustrates the seamless interaction between the Frontend, Backend, and AI layers, enabling dynamic, evolving memories through collaborative user input and intelligent augmentation.

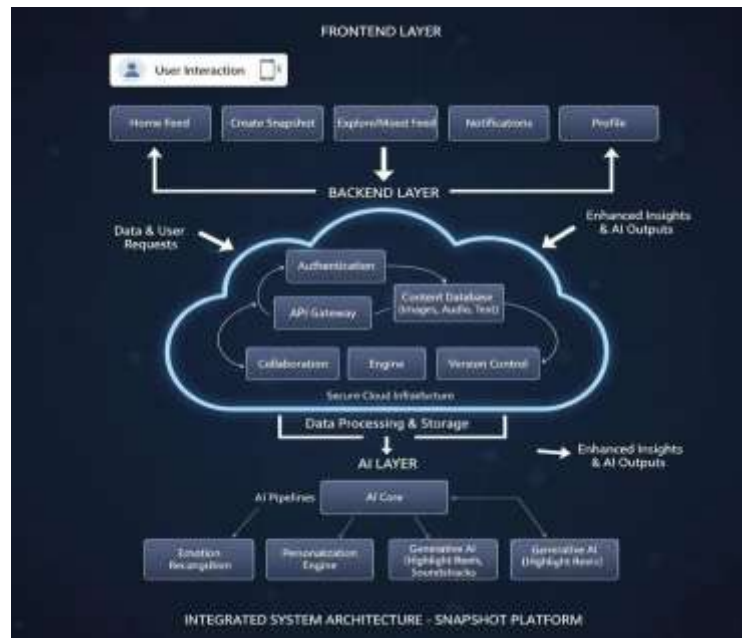


Figure 4: Integrated System Architecture of Snapshot

7. Methodology

This research takes a conceptual approach, focusing on the limits of today's social media platforms and proposing a new framework to address them. Instead of building a full prototype, the work emphasizes theoretical modeling, review of existing studies, and framework design. The approach is inspired by design science research (DSR), which is about creating artifacts—in this case, the Snapshot model—that can offer potential solutions to real-world problems around digital communication and well-being.

7.1 Research Approach

The study began with a broad literature review covering areas such as social media evolution, human-computer interaction (HCI), digital well-being, and AI in online systems. This review helped identify both strengths and weaknesses of popular platforms like Instagram, Snapchat, and TikTok. In particular, it showed ongoing problems such as static content, algorithm-driven feeds, and fragmented memories. At the same time, it highlighted opportunities to use AI in more constructive ways—for example, through personalization, emotional computing, and collaborative storytelling. These insights formed the foundation for Snapshot's design.

7.2 Conceptual Framework Design

Based on the research gaps, a conceptual system framework for Snapshot was created. The framework is organized into three main layers: Frontend, Backend, and AI Layer.

- The Frontend is focused on user experience and interaction, especially through the idea of *Living Snapshots*.

- The Backend ensures secure storage, collaboration, and synchronization.
- The AI Layer enriches contributions through personalization, mood recognition, and generative enhancements.

To illustrate the design, diagrams were created for each layer along with an integrated system view showing how they work together. These visual and descriptive models form the central research artifact.

7.3 Evaluation Strategy

Since no working prototype was built, the evaluation is theoretical rather than experimental. Three strategies were used:

- **Comparative Analysis:** Snapshot's features are compared with current platforms to show how it tackles issues like superficial engagement and memory fragmentation.
- **Research Gap Alignment:** The framework is checked against gaps highlighted in earlier studies to confirm that it responds to calls for more meaningful and collaborative digital spaces.
- **Scenario-Based Exploration:** Example use cases—such as friends creating a shared memory of a wedding or community event—are described to show how Snapshot would function differently from conventional platforms.

7.4 Limitations

The main limitation of this study is its conceptual nature. Without user testing or a prototype, the findings remain theoretical. While the framework offers fresh ideas, its real-world feasibility, usability, and long-term effects need further study. Future research should focus on building a minimum viable product (MVP) and conducting user studies to test Snapshot's potential in improving digital well-being and collaborative memory-making.

8. Expected Outcomes

Although Snapshot has not yet been built or tested with users, the framework suggests several possible benefits in areas such as social media design, digital well-being, and collaborative memory-making. These outcomes remain theoretical but give a clear sense of how Snapshot could improve on current platforms.

8.1 More Authentic Engagement

Snapshot aims to move away from vanity-driven behaviors like chasing likes or follower counts. Instead, it focuses on memories that evolve and grow through shared input. This shift encourages users to interact more honestly, telling stories that reflect their actual experiences and emotions rather than curating “perfect” posts.

8.2 Shared Digital Memories

A key outcome is the creation of Living Snapshots, where multiple people can add photos, videos, voice notes, or reflections to the same memory. This avoids the problem of memories being scattered across temporary and permanent posts. The result is a single, richer story that captures different perspectives, strengthens relationships, and preserves a shared sense of history.

8.3 Constructive Use of AI

Instead of using AI mainly for ads or attention-grabbing recommendations, Snapshot shows how it can be applied in more positive ways. The AI layer is designed to add helpful features such as captions, mood-based music, or highlight reels. These tools support creativity and help users connect with content emotionally, rather than reinforcing filter bubbles or unhealthy scrolling habits.

8.4 Support for Digital Well-being

By tackling issues like online fatigue, social comparison, and pressure to present idealized lives, Snapshot promotes healthier interactions. The platform gives users space to share in ways that feel supportive and collaborative. In doing so, it aligns with research that calls for more human-centered and emotionally meaningful online experiences.

8.5 Academic Contribution

From a research perspective, Snapshot adds value by presenting a new conceptual model that combines evolving posts, collaborative storytelling, and AI augmentation. While it is still theoretical, this model can guide future studies, inspire prototype development, and support cross-disciplinary work on the intersection of memory, technology, and emotion.

9. Conclusion and Future Work

This paper presented Snapshot, a conceptual framework for rethinking social media as a space for evolving memories rather than static posts or disappearing stories. Built on ideas from research in social media, human-computer interaction, and artificial intelligence, Snapshot responds to common issues like fragmented memories, shallow engagement, and the effects of algorithm-driven feeds on digital well-being. The system architecture, which includes the Frontend, Backend, and AI layers, shows how user experience, collaborative storytelling, and responsible AI can work together in one integrated model.

The main contribution of this study is theoretical: it reimagines social media not only as a way to share content, but as a medium for collective memory-making and authentic interaction. Features such as Living Snapshots, time capsules, and mood-based feeds highlight how online experiences can become more meaningful and emotionally engaging. Although the framework remains conceptual, it points to a new direction for designing communication platforms that put people's relationships and well-being at the center.

Future work should move toward testing and validation. A prototype or minimum viable product (MVP) would make it possible to study Snapshot in practice and evaluate usability, feasibility, and impact. User studies across different age groups and cultural contexts could show how the platform shapes engagement, authenticity, and community. Collaboration between fields—such as computer science, psychology, sociology, and design—will be key to refining the model. Just as importantly, future research must explore the ethical use of AI, with attention to issues like transparency, privacy, and emotional influence.

In summary, Snapshot represents an early step toward reimagining what social media can be. By blending technology with human-centered values, it offers a vision of platforms that do more than capture isolated moments—they help people and communities co-create evolving digital legacies.

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Ethics Declaration:

This study did not involve human participants, animals, or personal data, and therefore did not require ethical approval.