Rebalancing the digital convenience equation through narrative imagination

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Extended Abstract

AI-based digital technologies offer increasing conveniences for our daily lives. Facilitated by recommender systems, we buy things without leaving the house, and listen to music in continuous playlists that entertain us without intervention. These conveniences captivate our society, making us increasingly enamored with digital technologies. In these conveniences, there are two fundamental characteristics: immediacy and egocentrism.

Immediacy

On one hand, recommender systems remove practical hurdles, making the fulfillment of our desires almost immediate. For example, e-commerce platforms are built to facilitate frictionless consumption. Choosing the best gift can be done from the couch using a friendly website interface. Products can be sorted based on simple filters such as price, type of gift, and average user rating, eliminating the hours spent browsing physical store aisles. While e-commerce platforms like Amazon have millions of items for sale, users see a small fraction of those items.[i]

Recommender systems predicting user preferences reduce sifting through pages of products, further accelerating the consumption process. Once a transaction is completed, all that is left to do is wait for the package to arrive—but even this inconvenience can be reduced by opting for next-day delivery.

Streaming services such as Netflix and Hulu increase the immediacy of entertainment. Rather than having to wait a week to watch the next episode of a series on cable TV, these services allow us to binge-watch the entire series in sequence. With Netflix's "Autoplay" feature, the next episode of a series begins automatically, further enabling immediacy as well as effortlessness. The recommender system, which impacts decisions for 80% of Netflix's watchtime, provides a selection of titles from the catalog that the user may enjoy, once again increasing immediacy when deciding what to watch.[ii] With the possibility of more immediate entertainment, cable companies in the United States are losing millions of net subscribers per year.[iii]

If a forty-minute episode does not satisfy the desire for the immediate, applications such as TikTok provide short, entertaining clips with a simple scroll of the fingers, relying on recommendation systems to satisfy users' needs. Without requiring initiative searching, endless, personalized content is served to the user, eliminating the time-consuming search for entertainment that can last for hours.[iv] The immediate convenience afforded to users by this form of digital entertainment led to TikTok amassing one billion active monthly users in 2022.[v]

Egocentrism

In addition to instantaneity, AI-based recommender systems are irresistibly convenient because they fulfill our most personal desires. They are designed to be centered on the "I"—they are egocentric. Experiences are personalized by recommender systems that learn users' tastes and preferences with high accuracy. Recommender systems determine what products a user is likely and unlikely to enjoy based on the user's current context, past behavior, and the behavior of other users with similar interests.[vi] Users realize with delight that a product recommended to them is precisely what they wanted—without them even knowing it.

Streaming services like Netflix and applications like TikTok utilize similar algorithms to personalize entertainment. Like e-commerce platforms, streaming services feature personalized homepages that display custom recommendations. For example, content listed in the genre rows on Netflix's homepage (*Futuristic Sci-Fi*, *Schemers & Scammers*, etc.) is organized by a personalized video ranker algorithm.[vii] Thus, the same genre row can differ between users based on their individual personal interests. These recommendations are driven by the huge amount of data streaming services collect about their users, including what users watch, how they watch (device used, time, etc.), how the content was discovered, and content that was recommended but not played.[viii] On TikTok, first-time users can log in through an existing social account, allowing the algorithm to use data such as social behavior and user information to create an initial model of the user.[ix] As users interact further with the service, data continues to be collected, improving the model of the user, improving recommendations, and creating a space where users feel comfortable letting digital platforms choose the content they consume.

While social media platforms such as Facebook, Twitter, Instagram, and Snapchat, have the potential to foster social interaction among its users, passive uses such as entertainment and convenience were found to most strongly motivate use among college students.[x] Egocentrism, in the form of individual entertainment and convenience, thus trumps social interaction as a key motivator for social media use. The recommender systems used in social networks, streaming services, e-commerce platforms, etc., attempt to create an abstraction of a user's egocentrism. The result is a model of the user that predicts the products or content they will enjoy. Further, the personalization that recommender systems provide allows users to outsource the work of choice, increasing the convenience of consumption. The essential role of AI-based, highly personalized recommender systems in captivating users' attention and maximizing retention demonstrates the egocentric nature of convenience.

Overall, the convenience of digital technologies is absolutely fascinating and eclipses any potential inconveniences such technologies might have for other users or ourselves in the long run. However, in recent years these inconvenient dimensions of digital platforms have begun to take their toll with disruptions in democratic systems, magnification of social discrimination by "smart" systems, alarming increases in teenage suicides, and the growth of digital-empowered economic and social inequality. Gradually, these inconveniences are discussed more vigorously in newspapers, academic initiatives, and legislative bodies. In the next section, we explore the potential of narratives to counterbalance the convenience equation with allocentric, long-term perspectives.

The Shattering Power of Fictional Narratives

The imaginative power of storytelling has long mediated the process of ethical reflection on the long-term common good by counterbalancing our tendencies towards the constant and immediate realization of what is pleasurable. Consider, for instance, the paradigmatic narratives structuring Greek-Judaic tradition's ethical and social universe. The ancient Greeks assessed the widespread, tragic consequences of the impulsive flight of Helen and Paris through the penalties imposed by the Trojan War. In the Adamic myth, the Judeo-Christian tradition narrates the long-term inconveniences of the convenient, impulsive choice to serve individual interests. The ethical dimension of narratives has been explored by many contemporary philosophers, such as Richard Kearney, Martha Nussbaum, Hannah Arendt, and Paul Ricoeur. Kearney, for instance,

explores the potential of narrative imagination to decentralize the ego and expand the horizon of meaning to account for other perspectives and experiences. New digital technologies, particularly given their globalizing characteristics, demand a conscious effort to consider different forms of use and diverse perceptions from designers. Kearney affirms that narrative reshapes imagination to "[propel] it beyond its egotistical circle to a relation of analogy, empathy, or apperception (Paarung) with others.”[xi]

Therefore, exposure to narratives can break the monopoly of immediate and egocentric convenience, creating space for reflection that opens the decision-making process of designing, using, and adopting new technologies to consider otherness and long-term issues. Nevertheless, we are not proposing a stoic or Luddite ideal that indiscriminately banishes the pleasures and conveniences of digital technologies from social life. Rather, we are proposing an expansion of the analysis of the convenience equation that is sustainable in the long term and encourages the common good.

Martha Nussbaum[xii] says that narratives can develop the inner eye that makes us see from other perspectives, particularly minorities. She contends that narratives propose an expansion of our understanding beyond a formal and deontological approach to include the 'exemplary' persuasiveness of literary and oral stories. This singularizing power is especially necessary to take into account the perspectives of minority groups or technology users who are not normally considered in the main use cases of digital artifacts. Further, considering the political implications of narratives to societal matters, Hannah Arendt[xiii] explores the potential of narratives to foster representational thinking that integrates other positions and priorities in ethical and social deliberation.

The contemporary French philosopher Paul Ricoeur[xiv] suggests that narratives can function as ethical laboratories in which we experience the effects and consequences of certain actions and choices through narrative representations. Narratives allow for the consideration of various voices, perspectives, and contexts in which technologies have implications, creating a personal distance that decentralizes the egoistic perspective, allowing alterity to permeate the ways we relate to technologies. For example, we might consider how the convenience of online shopping can destroy local markets, generating a concentration of economic capital and exponential social inequity.

Narratives also invite us to consider the long-term effects of digital technologies, counterbalancing the pleasure of instant gratification that holds our digital relationship captive to *hic et nunc*. Narratives expand the temporal perspective of users, who can then consider the long-term effects generated by technologies in personal, interpersonal, and social spheres.

Therefore, in this work, we explore the potential and limitations of applying narratives to shatter the immediacy and egocentricity of AI-based recommender systems, contrasting them with the plurality of perspectives impacted by digital artifacts and the long-term effects of their use, hence rebalancing the convenience equation. We propose that narratives should be integrated into different spheres of deliberation, such as the training of future developers, the education of future digital users, the design processes of new technologies, and public regulatory efforts.

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[vi] Smith, Brent, and Greg Linden. "Two Decades of Recommender Systems at Amazon.com." *IEEE Internet Computing* 21, no. 3 (May 2017): 12–18. p. 12.

[vii] Gomez-Uribe, Carlos A., and Neil Hunt. "The Netflix Recommender System." *ACM Transactions on Management Information Systems*, 2016. https://doi.org/10.1145/2843948, p.3.

[viii] Ibid, 2.

[ix] Zhao, Zhengwei. "Analysis on the 'Douyin (Tiktok) Mania' Phenomenon Based on Recommendation Algorithms." *E3S Web of Conferences* 235 (2021): 03029. p.4.

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[xiii] Hannah Arendt, *Between Past and Future: Eight Exercises in Political Thought* (Penguin, 1993), 200– 201.

[xiv] See, for instance, Ricoeur, Paul. "*Life in Quest of Narrative*." In On Paul Ricoeur, 34–47. Routledge, 2002. and Ricoeur, Paul. *Time and Narrative, Volume 1*. University of Chicago Press, 1984.