

Better Feeds: Algorithms That Put People First

A How-To Guide for Platforms and EU Policymakers

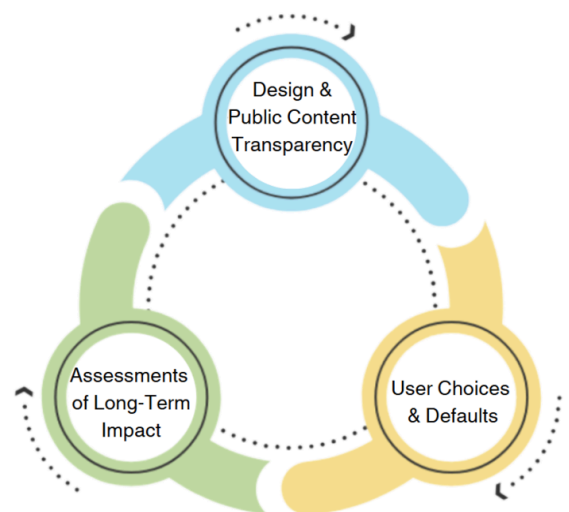
Every day, billions of people scroll through social media feeds, search results, and streaming recommendations that shape what they see, read, and watch. Algorithmic systems determine what to show each user, wielding enormous influence over our online experiences and, increasingly, our lives offline. These algorithms have sparked intense debate around the world about amplifying unwanted content, fueling risks to kids, and sowing societal division. European policymakers have begun to act, with the Digital Services Act (DSA) establishing obligations related to transparency and accountability of recommender systems. These include requirements that platforms disclose how recommender systems work and provide tools for users to influence what gets recommended. The DSA also includes requirements for researcher data access, including in relation to how recommender systems may contribute to, or mitigate, systemic risks in the European Union.

The Problem: Maximizing Short-Term Engagement

Some platforms optimize their recommender systems to maximize predicted “engagement” – the chances that users will click, like, share, or stream. This design aligns well with the business model of platforms monetized through advertising. But it can also contribute to risks, including threats to fundamental rights, the spread of illegal content, and problematic overuse or other harms to minors.

Getting to Better Feeds

The Knight-Georgetown Institute, which connects independent research with technology policy and design, convened an [Expert Working Group on Recommender Systems](#) that brings together leading researchers working on recommender system design with industry and policy experts. The output of this group, [Better Feeds: Algorithms That Put People First](#), is a how-to guide for policymakers and product designers to address the links between online algorithms and a variety of risks. The *Better Feeds* guidelines center on [long-term user value](#), where outcomes are aligned with users’ deliberative, forward-looking aspirations or preferences. Three components are critical: **design and public content transparency, user choices and defaults, and assessments of long-term impact.**



Applying the *Better Feeds* Guidelines to the Digital Services Act

The DSA seeks to assess and address risks associated with recommender system design. The *Better Feeds* guidelines can be operationalized through implementation of several DSA requirements related to recommender systems.

Design & Public Content Transparency

Design Transparency

Detailed design disclosures allow outside experts, regulators, and the public to understand the tradeoffs being made in the design of recommender systems. If provided in sufficient detail, design disclosures would allow for comparison of designs across different systems and over time.

Better Feeds proposals:

- Platforms must publicly disclose information about the specific input data and weights used in the design of their recommender systems.
 - *Input data:* All the sources of raw information used in ranking should be disclosed. This could include item content and metadata, engagement history, user survey data, quality feedback from users, annotations from raters, user settings, profile and social graph data, context data (day, time, location), and other data sources.
 - *Weights:* Most recommender systems rely on weights applied to some set of values in the system, and these weights reveal which values have greater or lesser impact on ranking. Platforms should report the complete list of values and their weights for the system as a whole (not for each individual user).
- Platforms must publicly disclose the metrics they use to measure long-term user value.
- Platforms must publicly disclose the metrics they use to evaluate product teams responsible for recommender system design.

Mapping to DSA requirements:

- Article 27 requires platforms to disclose the main parameters of recommender systems in plain and intelligible language. This includes the “most significant” criteria for recommending information to users, as well as the “reasons for the relative importance of those parameters.” This framing can be interpreted in a variety of ways, and the first round of DSA audits revealed [significant variation](#) in how platforms interpret recommender system definitions. Adoption of the *Better Feeds* guidelines related to specific input data and weights as the baseline interpretation of “main parameters” under the DSA would allow independent experts, users, and the European Commission to examine and compare how these systems are optimized.
- Articles 34 and 35 establish requirements for systemic risk assessment and the implementation of proportionate and effective mitigation measures. Metrics used to measure long-term user value should be developed as part of effective risk assessment and mitigation – the lack of such metrics would be cause for concern. Both these, and the metrics used to evaluate the product

teams responsible for recommender systems, should be publicly disclosed in risk assessment reports to create public accountability for how recommender systems are optimized.

Public Content Transparency

Most platforms provide very little detailed data about what content is most prevalent on their services, and in recent years [multiple platforms](#) have reduced the access they previously provided. There are two reasons for public content transparency: (1) to allow the public to validate companies' own reports about the prevalence of different kinds of content on their platforms; and (2) to raise awareness about potential harms and trends.

Better Feeds proposals:

- Platforms must continuously publish a sample of the public content that is most highly disseminated on the platform and a sample of the public content that receives the highest engagement.
- Platforms must continuously publish a representative sample of public content consumed during a typical user session on the platform at any given time.

Mapping to DSA requirements:

- Article 40(12) requires platforms to enable the sharing of real-time publicly accessible content with researchers working to identify and understand systemic risks. The categories of content that the *Better Feeds* guidelines address – highly disseminated, high engagement, and representative of what users typically see – represent a subset of publicly available content that is particularly crucial to make available for independent experts to understand the role and functioning of recommender systems.

More broadly, KGI is working with leading experts to develop a [comprehensive framework](#) for what kind of platform data should be made publicly available, under what circumstances, and in what format.

User Choices and Defaults

All users should be defaulted into recommender systems optimized for long-term user value – even if it means sacrificing short-term engagement. The *Better Feeds* guidelines also propose that platforms offer individuals enforceable finer-grained controls to tailor their platform experiences.

Better Feeds proposals:

- By default, platforms must optimize users' recommender systems to support long-term user value.
- If platforms have insufficient information about long-term value to minors specifically, they must default minors to non-personalized recommender systems.
- Platforms must provide easily accessible ways for users to set their preferences about the types of items to be recommended and blocked and honor those preferences.

Mapping to DSA requirements:

- Article 25 requires platforms to refrain from deceptive or manipulative design interfaces. Recital 67 further clarifies that platforms should design interfaces to enable users to make autonomous and informed decisions. The *Better Feeds* guidelines propose that platforms deploy easily accessible and intuitive interfaces for users to set recommender system preferences.
- Article 27 requires that users be presented with direct and easily accessible settings to select among different recommender systems, when multiple options are available. The *Better Feeds* guidelines suggest taking this further, proposing that recommender systems be optimized for long-term user value by default, even (and especially) when other options are present.
- Article 28 requires platforms to take proportionate measures to ensure a high level of privacy, safety, and security of minors. Given the unique risks to minors related to their stage of cognitive and social-emotional development, evidence from the *Better Feeds* report suggests that optimizing minors' recommender systems for long-term value can be a useful strategy (when it is done in a privacy-preserving manner).
- Article 38 requires large platforms to offer at least one recommender system option that is not based on user profiling. The *Better Feeds* guidelines suggest that the non-profiling option be optimized for long-term user value – based on aggregate determinations of user value, rather than personalized ones – rather than simple chronological feeds, which can incentivize spam-like behavior.

Assessments of Long-Term Impact

Long-Term Holdout Experiments

Platforms frequently test changes to recommender system design. Every year, product teams run thousands of experiments to evaluate design changes against company-selected metrics. Given the frequency of experimentation, many platforms also maintain a holdout group – a group of users that are exempt from having design changes applied to their accounts, and who function as a control group for comparison with the rest of the user base.

Long-term holdout experiments can be a powerful tool to help align platforms' incentives with designs that optimize for long term user retention, value, and satisfaction. If platforms were required to share aggregated results of long-term holdout experiments, they would design their recommender systems in support of users' interests, because otherwise the experiment results would show that product changes are leaving users less satisfied than those in the holdout group.

Better Feeds proposals:

- Platforms must run long-term (12-month or longer) holdout experiments on a continuous basis.
- Platforms must report the aggregate, anonymized results of the holdout experiments publicly.
- Holdout experiments must be subject to an audit by an independent third party.

Mapping to DSA requirements:

- Articles 34 and 35 specifically require platforms to address the design of their recommender and other algorithmic systems in assessing and mitigating risk. Long-term holdout experiments should be considered as a leading tool in platforms’ toolkits for risk assessment and mitigation.
- Article 37 mandates independent audits to assess compliance with DSA due diligence expectations, including those related to recommender systems. Auditors should audit the construction of long-term holdout experiments and assess the results of these experiments against the recommender system requirements across Articles 27, 28, 34, 35, and 38.

Metrics and Measurement

Recomender systems may intersect with different vectors of harm and systemic risk, including in relation to unwanted or harmful content, product usage, contacts, or usage of personal information. The *Better Feeds* guidelines propose that platforms use surveys, usage tracking, engagement data, and other methods to track metrics associated with potential harms to at-risk populations.

***Better Feeds* proposal:**

- Platforms must measure the aggregate harms to at-risk populations that result from recommender systems and publicly disclose the results of those measurements.

Mapping to DSA requirements:

- The systematic measurement of aggregate harms is essential to achieving the goals of Articles 34 and 35 related to risk assessment and mitigation. Platforms should establish rigorous, validated ways of measuring how recommender systems connect to systemic risks such that these measurements can be independently analyzed and compared over time and across platforms.

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