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China's Regulation of Internet Recommender Systems: What U.S. Companies Should Know

With China's new Internet recommender system regulations set to go into effect on March 1, 2022, U.S. companies that employ recommender and similar content decision algorithms in their apps and websites used in China should already be in compliance. For those that are still evaluating their policies and practices and want to know more about the new regulations, the following summary of key elements may be helpful. As with any regulatory applicability determination, companies should consult their legal counsel for guidance.

WHAT ARE CHINA'S REGULATIONS CALLED?

According to an English translation of the rule available from Stanford's The DigiChina Project, China's regulations are identified as the "Internet Information Service Algorithmic Recommendation Management Provisions."

WHAT DO THE REGULATIONS COVER?

Article 2 states that the regulations apply to the use of "algorithmic recommendation technology" that is used to provide "Internet information services" within the mainland territory of the PRC. Specifically, the rules cover the following technologies and techniques (discussed below): "the use of generative or synthetic–type, personalized recommendation–type, ranking and selection–type, search filter–type, dispatching and decision-making–type, and other such algorithmic technologies to provide information to users."

WHAT ARE ALGORITHMIC RECOMMENDATION SYSTEMS?

The meaning of "recommendation technology" could be interpreted quite broadly to refer to any algorithm that makes a determination as to what content (i.e., "object") is displayed on a platform, such as an app or website. A summary of object recommendation technology may be helpful.

In object recommendation, a user is matched to products that they may like, including physical objects like clothes or virtual objects like streaming movies or other content. Making these connections requires data about users, including personal user information and feedback. In the case of Amazon and Netflix, for example, user feedback may be in the form of ratings and written reviews. In the case of music recommendations, user-supplied preferences (e.g., a selected favorite music genre obtained from a user profile) may be used. A machine learning technique called collaborative filtering relies on feedback plus online behavior (e.g., what someone actually watched or read, links they clicked on, etc.) to make future recommendation decisions and display them to users. This is done by comparing feedback, inputs, and online behavior data to the same kinds of data from other users to compute a similarity score with respect to a particular object. In essence, this lets others "vote" on what a user might like to read, watch, or purchase based on their own and shared online interests and activities. Other data about users may be used to

rank or filter the selected objects, and thus reduce a list of recommended objects to ones most likely to be of interest to users and others. Advocates for recommender systems argue that without user inputs and behavior data, a person's content would be less engaging and interesting to them (and thus not as valuable to the company making the recommendations, at least from an ad revenue-generating perspective).

Being that China's regulations are aimed at "Internet information services," the objects to be regulated would seem to be textual articles, user comments, videos, and similar content that is displayed on media (including social media), search, and possibly ecommerce sites. Companies unsure of whether they are subject to the regulations should seek the advice of their legal counsel.

WHY ARE RECOMMENDER SYSTEMS BEING REGULATED?

While we can only speculate as to the reasons behind China's regulations, Article 4 states that, "the provision of algorithmic recommendation services shall abide by laws and regulations, observe social morality and ethics, abide by commercial ethics and professional ethics, and respect the principles of fairness and justice, openness and transparency, science and reason, and sincerity and trustworthiness." Presumably, Chinese authorities view content recommendation technologies as impacting at least some of those issues (which are also concerns raised by lawmakers and stakeholders in the United States, Europe, and elsewhere about recommender and other artificial intelligence technologies). Article 12 is telling: it provides that systems are to "avoid creating harmful influence on users, and prevent or reduce controversies or disputes," which, as seen, can lead to social divisiveness, disruption, and other problems. In fact, some social researchers view recommender and other content decision systems as undermining individual privacy since the techniques rely on the collection and processing of private personal information about users. But recommender systems are also viewed as impacting personal autonomy and potentially undermining public interests including national security. For instance, applied recommender techniques could be used to steer users (and the groups they identify with) to read and watch certain content, potentially influencing their behavior or actions in predictable ways.

WHAT ACTIVITIES DO CHINA'S REGULATIONS PROHIBIT?

Article 6 says that algorithmic recommendation service providers may not use algorithmic recommendation services "to engage in activities harming national security and the social public interest, upsetting the economic order and social order, infringing the lawful rights and interests of other persons, and other such acts prohibited by laws and administrative regulations. They may not use algorithmic recommendation services to disseminate information prohibited by laws and administrative regulations and shall take measures to prevent and curb the dissemination of harmful information." This seems to be a direct response to some of the concerns noted above.

WHAT DO THE REGULATIONS REQUIRE?

Articles 7 through 12 describe the affirmative steps regulated entities need to take to be in compliance, including things like incorporating ethical design processes (also known as "ethical AI") into the design and development of algorithms and systems, monitoring systems after they are deployed, and making reports to authorities.

Article 13 creates a first-of-its-kind national permit program for artificial intelligence. (No other country to date, as is best understood, has a national permit framework for similar artificial intelligence technologies.) Specifically, in the case of algorithmic recommendation service providers that provide "Internet news information services," they shall obtain an Internet news information service permit from regulators. In the United States, permits are written authorization to conduct some specific activity identified in the permit. They can contain specific operating conditions, recordkeeping and reporting requirements, operator certification statement requirements, and identify penalties for instances of noncompliance. In the case of China's regulations, permits will require regulated companies to "standardize their deployment of Internet news information collection, editing and dissemination services, resharing services, and broadcast platform services. They may not generate or synthesize fake news information and may not disseminate news information not published by work units in the State-determined scope." The regulations do not appear to exclude small entities or those with relatively few monthly active users.

Notably, an earlier version of Article 10 barred the use of "discriminatory or biased user tags" in algorithmic recommendation systems, which is not in the final version of the regulations.

WHAT PROTECTIONS DO USERS HAVE UNDER THE REGULATIONS?

Articles 16 through 22 purport to give users new rights, including protections for minors and the elderly. These include the right to be given notice, the ability to opt-out, to delete user data, and to be free of "differentiated treatment." Rights to notice, opt-out, and control of user data

are also provided by data privacy laws such as the European Union's ("EU") General Data Protection Regulation ("GDPR") and the California Consumer Privacy Act ("CCPA"), among others.

ARE THERE ENFORCEMENT AND REGULATORY OVERSIGHT MECHANISMS?

Articles 23 through 30 provide for the administration of the regulations. For brevity, these provisions will not be summarized here.

WHAT LIABILITIES DO COMPANIES FACE IF THEY VIOLATE THE REGULATIONS?

Article 31 provides that authorities may issue, depending on severity, a warning, a "report of criticism," or a "rectification order" to offenders. Violators may be suspended and fines of between 10,000 and 100,000 yuan (currently $1,580 and $15,800 USD) may be imposed. Offenses may rise to the level of criminality and may be prosecuted. Interpretation of the regulations falls to the authorities at the Cyberspace Administration of China, with the help of the Ministry of Industry and Information Technology, the Ministry of Public Security, and the State Administration of Market Regulation.

DO OTHER COUNTRIES HAVE SIMILAR LAWS?

China is poised to beat the United States and the EU in issuing regulations directly aimed at content recommendation systems. The United States has no law or regulations directly affecting recommender systems, though the FTC Act empowers the Federal Trade Commission ("FTC") to regulate deceptive and unfair practices. The FTC has used this authority in the regulation of activities involving the collection, processing, and sale of user data, which, as described above, is key to any recommender systems. Similarly, the EU indirectly regulates recommender systems via its regulation "on the protection of natural persons with regard to the processing of personal data and on the free movement of such data" (2016). The EU's Artificial Intelligence Act, introduced in April 2021 but not yet effective, defines regulated "artificial intelligence systems" as software that "…for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with." Thus, depending on the interpretation of the EU Act, including what constitutes a "high-risk" AI system, the EU Act could at least indirectly regulate recommender systems because of their potential high-risk impact on personal rights and public interests.

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