

Key Actionable Items for Monetization

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Aims

- 1. Understand user sentiment (particularly with regards to advertisements)
- 2. Provide key actionable insights for the Monetization team



Approach

- 1. While I understand the Monetization team works mostly in a B2B context, I do not have access to that data.
- 2. How else can I meet the aims with publicly available data?
 - Use App Store reviews to understand user sentiment from a B2C perspective.
 - Expand this approach to include the B2B perspective in the future.



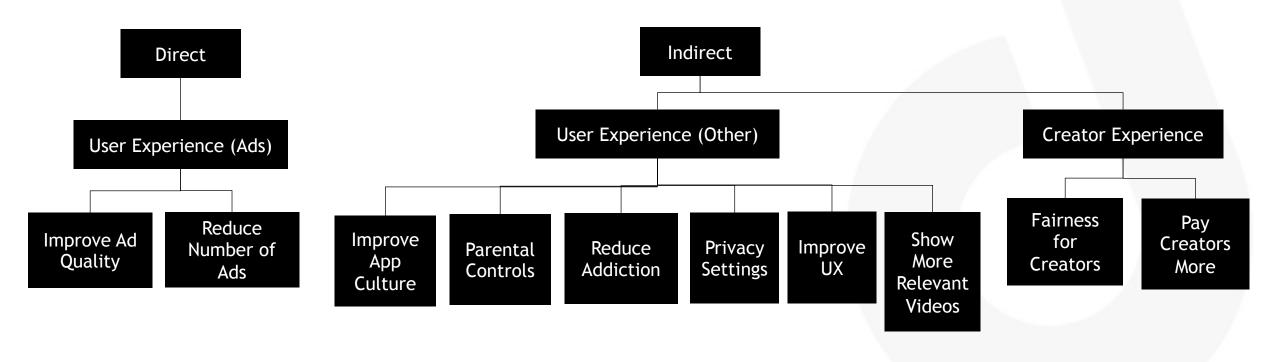
Process

- 1. Web scrape data from App Store using Python
- 2. Export to CSV \rightarrow import data into PostgreSQL database
- 3. Filter data via PostgreSQL queries. Find reviews with:
 - Rating <= 3
 - Title that contains "ad", "ads", or "advertisement"
 - Review body that contains "ad", "ads", or "advertisement"
 - Full word matches only
- 4. Export to CSV → transfer back to Excel
- 5. Summarize key user sentiment
- 6. Conduct cost-impact analysis to prioritize features to implement



Findings (1/3)

Actionable Items fall into the following categories:





Findings (2/3)

From 61,000 reviews \rightarrow filter out the 49 most relevant reviews.

User Sentiment Breakdown:

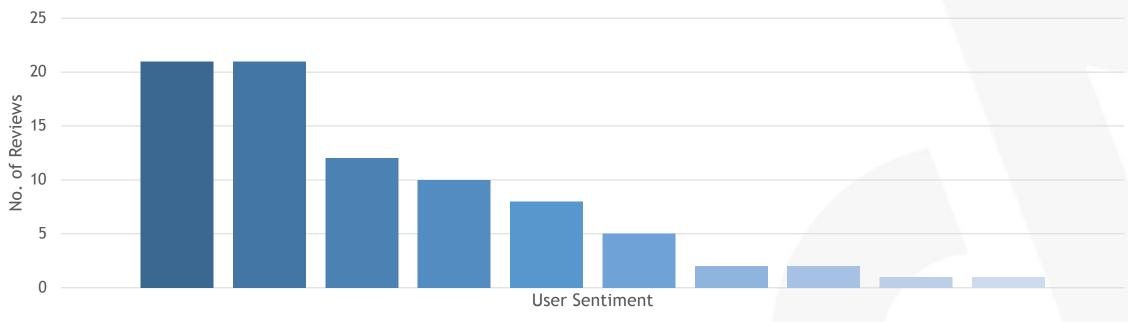
User Experience (Ads)		User Experience (Other)						Creator Experience	
Improve Ad Quality	Reduce Number of Ads	Improve App Culture	Parental Controls	Reduce Addiction	Privacy Settings	Improve UX	Show More Relevant Videos	Pay Creators More	Fairness for Creators
12	21	8	5	2	2	1	10	1	21

Note: each review can have:

- More than 1 user sentiment
- No user sentiment (if review is irrelevant)



Findings (3/3)



User Sentiment	Reduce Number of Ads	Fairness for Creators	Improve Ad Quality	Show More Relevant Videos	Improve App Culture	Parental Controls	Reduce Addiction	Privacy Settings	Improve UX	Pay Creators More
No. of Reviews	21	21	12	10	8	5	2	2	1	1
Category	User Experience (Ads)	Creator Experience	User Experience (Ads)	User Experience (Other)	User Experience (Other)	User Experience (Other)	User Experience (Other)	User Experience (Other)	User Experience (Other)	Creator Experience
Impact	High	High	Medium	Medium	Medium	Medium	Low	Low	Low	Low



Cost-Impact Analysis (1/4)

Impact	Category	User Sentiment	Actionable Items	Cost/Effort Breakdown	Actionable Item as Part of the Monetization (TPS) Team?
High	Direct - User Experience (Ads)	Reduce Number of Ads	Reduce Number of Ads	High effort: Engineering team → Conduct A/B testing to find out what is the optimal number of ads, and to find out if improved ad quality increases acceptability of ads. Strategy team → Determine advertisement pricing if number of ads were to be reduced. Viable only if there is inelastic pricing. To consider other aspects like network effect within the B2B marketing community.	Υ
High	Indirect - Creator Experience	Fairness for Creators	Increase Fairness in Reporting	 High effort: Integrity/Policy team → improve processes. Could require higher manpower. ML team → analyze root causes for false positives 	N
			Increase Algorithm Fairness in Promoting Creators' Videos to FYP	 Medium effort: Product team → conduct focus groups or other studies to identify if the issue lies with the algorithm or the creators themselves ML team → improve algorithm if this is an algorithm issue 	N



Cost-Impact Analysis (2/4)

Impact	Category	User Sentiment	Actionable Items	Cost/Effort Breakdown	Actionable Item as Part of the Monetization (TPS) Team?
Medium	Direct - User Experience (Ads)	Improve Ad Quality	Recommend suitable ads to the users	Medium effort: ML team → improve algorithm, especially in recognizing that users have indicated "not interested" on certain ads	Υ
			Improve ad screening process	Medium effort: Monetization team → improve ad screening processes. Might require higher manpower.	Y
Medium	Indirect - User Experience (Other)	Show More Relevant Videos	Show More Relevant Videos	High effort: ML team → further improve an already very optimized algorithm Engineering team → add more avenues or user feedback Product team → analyze user feedback	N
			Show Less Livestreams	Low effort: ML team → reduce number of livestreams in ML model	N



Cost-Impact Analysis (3/4)

Impact	Category	User Sentiment	Actionable Items	Cost/Effort Breakdown	Actionable Item as Part of the Monetization (TPS) Team?
Medium	Indirect - User Experience (Other)	Improve App Culture	Ensure user content is in line with TikTok guidelines	High effort: Integrity/Policy team → improve processes. Could require higher manpower. ML team → analyze root causes for false positives Strategy team → set direction for the type of content TikTok wishes to encourage on the platform	N
Medium	Indirect - User Experience (Other)	Parental Controls	Add more parental controls	Medium effort: Product team → identify the parental controls most highly in demand Engineering team → execute on the above findings	N



Cost-Impact Analysis (4/4)

Impact	Category	User Sentiment	Actionable Items	Cost/Effort Breakdown	Actionable Item as Part of the Monetization (TPS) Team?		
Low	Indirect - User Experience (Other)	Reduce Addiction	To prioritize high & medium priority issues TPS team → to understand if these issues a reviews we have are focused on advertising	cause this set of			
Low	Indirect - User Experience (Other)	Privacy Settings					
Low	Indirect - User Experience (Other)	Improve UX					
Low	Indirect - Creator Experience	Pay Creators More					



Conclusion

- 1. For the Monetization team, the highest priority will be to find the <u>sweet spot</u> for the <u>number & quality of advertisements</u> to achieve both <u>customer satisfaction and</u> <u>revenue growth</u>. Actionable items for the Monetization team include:
 - Reduce number of ads (High impact High effort)
 - Recommend more suitable ads to the users (Medium impact Medium effort)
 - Improve ad screening process (Medium impact Medium effort)
- 2. To pass on the additional findings to the other relevant teams.



Future Improvements

- 1. Web scraped 61k reviews before IP address was blocked by the Apple App Store → could include delay between each scrape to prevent being blocked
- 2. Missed out "advertisements" plural in the query since I am doing full word matches only
- Natural Language Processing (NLP) could be used to study the key user sentiment
- 4. If NLP is successful, create an automated bot to do this analysis monthly
 - Create scheduler job → link to serverless function to auto extract and parse data
 - Put data into Google Sheets / send email / integrate into dashboard system
- 5. Include Google Play and other markets (currently this only scrapes the US Apple App Store)

