

False-Positive tagging

Background:

The CEO has raised a concern about Slack threads where top management is tagged under the "urgent" cases. However, after long discussions, it turns out that many of these threads were not actually urgent. We need to understand how frequently this happens and explore ways to minimize false positives.

Objective:

- Analyze Slack threads where the management was tagged with mentioning urgent like problem.
- Identify the proportion of threads that are **long (i.e., extended conversations)** but were **not truly urgent** in the end.
- Explore potential patterns or common characteristics of these false positives.
- Provide recommendations on how to reduce unnecessary "urgent" tagging.

Key Questions to Answer:

- What percentage of "urgent" threads have long conversations?
- How long (in number of messages or time) do these threads tend to be?
- Are there specific users or teams responsible for frequent false tagging?
- Are there common phrases or discussion patterns in false positive threads?
- Can we define clear criteria to distinguish real urgent threads from non-urgent ones?

Key Insights

Both managers involve mainly in non-urgent messages.

▼ Example of non urgent messages.

Hi <!channel>

Following the request, the customer needs an update ASAP.

<@U03PT8K5KEX> <@U[NUMBER HIDDEN]L3F> how was your weekend?

Hi <!channel>

Following the request the customer raised at the demo and the <[URL HIDDEN] HIDDEN] question> <@U05PUU31N9Z> raised in the product channel, I sat today with <@U02NPDLMK70> and <@U02NS[NUMBER HIDDEN]EJ> and <@U036S6AHBLG> earlier.

Situation: Often they have products that are exactly like others - either because it's a reorder, a minor change, or because they changed the sizing.

There are 2 use cases we need to address:

- 1. They add more sizes to the same style (product for us) and they want them to be added to the set here I understand that as long as the product ID is the same one, it will happen automatically.
- 2. They change the style but want the new style and old style to be alternatives/connected (mainly want the system to pretend it's the same thing/interchangeable).

Here is the plan:

Find out more about if their

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style is product in *** - <@U06CM7UTA81> /<@U05PUU31N9Z>.
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- Find out more about the use case, how do they notice the 2 products are from the same family, and how do they track in their ERP -
- <@U06CM7UTA81> /<@U05PUU31N9Z>.
- How they expect to be reflected in ***. <@U06CM7UTA81> /<@U05PUU31N9Z>.

Only after we understand crystal clear the use case <@U02NS[NUMBER HIDDEN]EJ> and <@U036S6AHBLG> will be able to address.

<!channel> x vis

▼ False Urgent messages contain more question marks per message than

True Urgent messages.

▼ Example of messages:

<@U02NPDLQ0UE> Hi! Is the mapping sent by <@U04UC4RSP24> sufficient?

<@U02NPDLQ0UE> <@U05UQHURVKN> We talked to the client and they said there are no permission issues.

They will upload a few files to see that the process works properly.

Can you check again later today that you succeeded in uploading/downloading files from the folder?

<@U02HGDV9ZJ7> <@U02G46UTNJ3> for vis

But would they have 1 factor for all the locations? It will be very bad for them...

[NAME HIDDEN], we have the option to bulk upload a CSV with all SKUs to be avoided through the Admin (later will be also in the screen), so they can generate this list easily on their ERP, export, and upload, no?

Anyway, it's in our roadmap to enable settings on higher levels, but it will take time.

✓ Great proportion of the message that both managers receive are File

Management and Collaborations.

▼ Examples of messages:

- 1. "Hi <@U02GPTXS2KC>, The 5th file was located in S3 bucket, the intermittent issue happened 2 weeks ago because they had a server issue. Something that rarely happens in their company, as this server manages the [NAME HIDDEN] (main system)<@U04UC4RSP24>, please feel free to add any relevant information, and thanks for the update about the new team and fifth file. <@U02HGD7MWM8>, <@U02NPDLMK70>, <@U02NPDLQ0UE> are validating the recommendation this weekand we are pushing the client to use the system and execute it **ASAP**. On the other hand, we are still asking for access to their source data (main server). We think this will be beneficial for the long term.<@U03PT8K5KEX> vis."
- 2. "Hi <@U02GYFTT6CR>, Fortunately, <@U031E2LJJET> connected to the meeting and explained that the engineers are still in the extraction process. However, according to the plan, this week we were supposed to start loading

the files. During the integration phase, it is important to have <@U02NPDLQ0UE> and <@U02NS[NUMBER HIDDEN]EJ> in the meetings to update everyone in the project. I recommend updating us in advance with the status of the development if anyone can't connect. Also, we can reschedule the meeting if needed to avoid impacting the customer."

2. "Hi <@U02GPTXS2KC>, The 5th file was located in S3 bucket, the intermittent issue happened 2 weeks ago due to a server issue. <@U04UC4RSP24>, please add any relevant details. Thanks for the update about the new team and the fifth file. <@U02HGD7MWM8>, <@U02NPDLMK70>, <@U02NPDLQ0UE> are validating the recommendation this week, and we are pushing the client to use the system and execute it ASAP. On the other hand, we still need access to their source data (main server). We think this will be beneficial in the long term.<@U03PT8K5KEX> vis."

User U02G46UTNJ3 from sale department frequently flagged false

urgent messages to both managers.

▼ Example of messages:

- 1. "Hi <@U02NPDLMK70> <@U02NPDLQ0UE>, We're pushing harder to schedule the meeting ASAP. We'll keep you in the loop, and we totally agree with you to get the best possible data to provide accurate recommendations. It's a daily feedback that we provide to their IT team. <@U03PT8K5KEX> <@U04UC4RSP24> vis."
- 2. "Hi <@U02GYFTT6CR>, Fortunately, <@U031E2LJJET> connected to the meeting and explained that the engineers are still in the extraction process, but according to the plan, this week we were supposed to start loading the files. During the integration phase, it is important to have <@U02NPDLQ0UE> and <@U02NS[NUMBER HIDDEN]EJ> in the meetings to keep everyone updated. I recommend updating us in advance with the status of the development if anyone can't connect. Also, we can move the meeting if requested so that the customer is not impacted."
- 3. "The client shared the Stock location and MTSSKUs interfaces 3 weeks ago, and we have been waiting for the pending interfaces (status and transaction) in

charge of ***, and the client is not seeing any progress during this time from *** side.

I recommend to **give priority** to this project and minimize the delay that we have in the implementation. We don't want the relationship with the client to be affected due to the fact that we promised in the sales process a 3-week development phase and go-live in 6-8 weeks. We know that <@U02NPDLQOUE> and <@U02NS[NUMBER HIDDEN]EJ> are busy, but we need to provide statusand show progress to the client. We appreciate your effort to make this project a success case."

Recommendations

1. Automated Message Classification & Tagging

- ◆ Solution: Develop a Slack bot using NLP models to automatically classify messages as *true urgent* or *false urgent*.
- Impact: Reduces false alarms by nudging users to self-categorize urgency appropriately.

2. Standardized Urgency Templates & Forms

- ◆ Solution: Introduce structured request forms for urgent messages instead of free-text messages.
- ☑ Impact: Forces users to justify urgency, filtering out non-critical requests.

3. Urgency Escalation Workflow

- Solution: Implement a multi-step approval system for urgent requests.
- ✓ Impact: Prevents unnecessary escalations by requiring validation.

4. Sentiment & Tone Analysis Alerts

- Solution: Deploy a tone and sentiment analysis bot to detect urgency exaggeration.
- ☑ Impact: Encourages better message composition and reduces fake urgency.

5. Slack Al Assistant for Suggested Actions

- Solution: Implement an AI assistant in Slack to recommend actions instead of just flagging urgency.
- Impact: Helps users self-resolve issues faster, reducing unnecessary escalations.

Analysis

▼ Steps followed:

- 1. Extract all rows from the master df that referers 'U02NPDLQ0UE' and 'U02NPDLMK70'. (includes sent messages and tagging by others)
- 2. By feeding to LLM, identify key urgency_related words in the masked_text field.
- 3. Identify all parent messages that the two users have involved in and labelled it as urgent message. (standalone messages are excluded)
- 4. Use the parent_message_ts from the urgent message to fetch all replies from the master dataframe.
- 5. Examine if all the urgent messages are really urgent based on criteria of discussion length.
- 6. Examine users who frequently tagged these two managers.

▼ Urgent words for message filtering:

Urgency Word Count: "ASAP: Important: Priority: Urgent: Critical: Alert: Immediately: As soon as possible: Deadline: Escalate: Right away: Top priority: Escalation: Rush: Emergency: Fast response: Can't wait: High importance: Must be done: Act fast: Pressing"

▼ Percent of messages false:

J. Urgent Message Analysis. V. Urgent Message Analysis



Assumption: urgent messages are dealt within 24 hours after creation irrespective of the number of replies it received.

▼ Findings:

- For J, the average replies per message for true urgent messages is 7.6 whereas it is 19.3 replies for false urgent messages.
- For V, the average replies per message for false_tagged messages is 3-fold higher compared to the true_urgent messages (5.0 vs 16.0)
- 75 80% of the messages that both managers involved were not urgent.

How does the urgency related words compare between the two categories?

▼ Here are the Top 10 Urgent Words Occurrence Rate per Message:

	J	J	V	V
Word	True Urgent Rate (per message)	False Urgent Rate (per message)	True Urgent Rate (per message)	False Urgent Rate (per message)
now	0.0753	0.0446	0.001792	0.000396
important	0.0321	0.0213	0.06810	0.0246
asap	0.0256	0.0077	0.0466	0.0131
urgent	0.0112	0.0031	0.0125	0.0055
priority	0.0096	0.0159	0.0143	0.0174

▼ Key Observations:

• "Priority" appears more in false urgent messages of both managers, indicating that perceived urgency might not always reflect true urgency.

- "Urgent", "Important", "asap" were properly used in true urgent messages than in false urgent messages in both managers, suggesting it is a stronger indicator of real urgency.
- The use of urgency_related "Now" is much more frequently in Josh messages than Viki in both True and False urgent messages. Does it link to their position in the company?

Common phrases or discussion patterns that discriminate between the true and false urgent messages.

▼ Here is the updated Structural Analysis Comparison with correctly calculated values per message:

	J	J	V	V
Metric	True Urgent	False Urgent	True Urgent	False Urgent
Word Count (avg)	38.92	38.76	50.34	46.02
Character Count (avg)	236.84	234.71	305.61	279.05
Sentences (avg)	2.62	2.52	3.66	3.26
Exclamation Marks (avg)	0.115	0.132	0.14	0.16
Question Marks (avg)	0.396	0.486	0.39	0.49

▼ Key observations:

- True urgent messages contain slightly more sentences per message, suggesting a more structured response.
- Exclamation and Question marks are more common in False urgent message of both managers, which could indicate emotional emphasis rather than real urgency.

How often the managers approved false urgent messages?

▼ Key observations:

 Unlike V which approve more True Urgent messages, J approves nearly 3fold more False Urgent messages.

	J	J	V	V
Metric	True Urgent	False Urgent	True Urgent	False Urgent
Total Approvals	99	301	72	122
Approval Rate (%)	4.0%	11.3%	12.5%	9.0%

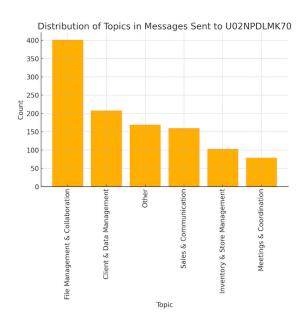
Which users falsely tag J frequently?

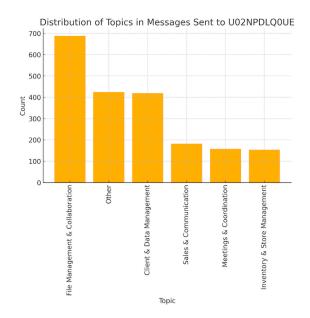
▼ Here is the Users Tagging U02NPDLQ0UE Comparison:

User ID	Name	False Urgent Tag (J)	False Urgent Tag (V)	Department
U02G46UTNJ3	U1	44.05%	24.32%	Sales
U02GXDN40TT	U2		22.92%	Customer Success
U06CM7UTA81	U3		18.06%	Other
U03UGP4R46N	U4	16.59%	12.64%	Other
U031E2LJJET	U5	13.56%	6.83	Data and Analytics
U02NS9159EJ	U6	8.42%		Executive
U0385HZQYH2	U7	20.44		Customer Success

▼ Key Observations:

- User U02G46UTNJ3 is involved in false_urgent tagging of both managers at the highest level.
- Most of the messages tagged by U02G46UTNJ3 to both managers involve status update and clarification.
- Greater portion of the message the managers receive fall within the File Management & Collaboration. Automation of these steps would significantly reduce the unwanted message burden





♦ Key Differences Between True & False Urgent Themes

Aspect	True Urgent Messages	False Urgent Messages	
Nature of Requests	Direct & action-driven (fix, resolve, escalate)	Informational or non-critical (question, reference, notify)	
Topic Focus	Incidents, clients, system alerts, tasks	General discussions, document sharing, planning	
Urgency Expression	Commanding (ASAP, fix now, critical issue)	Casual or inquisitive (can someone explain, let's plan	