

How to read this doc:

- Assume I am the PM of Twitter Messages
- Assume you are a stakeholder viewing this doc on 25th October
- All numbers are hypothetical (I don't have access to Twitter's data)
- Assume the functional requirements have been written keeping Mobile apps in mind and not web
- Had originally planned this doc as a follow up to a Twitter Messages redesign exercise I did with Aristos group. Then realised I can share this with a wider audience considering multiple people have asked me in the past about how to write a Product spec doc
- This is just a product spec. It does not include user flows
- Will write separate doc
 - With wireframes (on how I would do the reactions feature)
 - On how to prioritise between features
- My goal is to start from planning OKRs and come down to individual product specs :)

Emoji Reactions on Twitter Messages

*This spec discusses more about **(WHY, WHAT, WHEN)** needs to be built for showing reactions on Twitter messages. It does not discuss the technical implementation **(HOW)** for it. For technical implementation please check the Design, Backend and Frontend tech specs*
Author: Manasjyoti Saloi, Fictional PM of Twitter Messages
Last updated: February 6th, 2020

Current Status: On Track, [M1 ongoing](#)

Links: [Pitch Doc](#) | [Backend Tech Spec](#) | [Frontend Tech Spec](#) | [Design Spec](#) | [QA Plan](#)

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What are emoji reactions?

It is a new feature we are proposing which let users react to a Message — both text and media attachments with an emoji

Why build this feature?

- **It is part of Twitter Messages Team's OKRs**
 - **OKR** - O1 from Twitter Messages Team's H2'19 OKRs: Close feature parity gaps with competition on key use cases
 - **KR** - Launch Emotion Reaction
- **Usage of Twitter Messages**
 - 150 million DAU of Twitter
 - 15 million daily unique users of Messages
 - ~10% of DAU send a Message
 - This makes Messages one of the most popular features of Twitter and something we should focus on [to be the best at](#)
- Recent report by our Data Science team showed a **strong correlation between usage of Twitter Messages with short term retention (STR)** (7 day)
 - New users who sent a direct message within the first 1 week had a 40% higher chance of short term retention than users who did not
 - [Detailed report here](#)
 - **Improving short term retention is one of the main OKRs for Twitter in H2'19**
- Over the last one month period
 - 10% of DAU of Messages have sent an emoji as a message reply
 - This implies that emoji reactions can often replace the need for follow-up messages or replies in Messages
 - 14% of all message replies sent during a day are emojis
 - Currently ~37 million messages being sent daily
 - **3 most commonly used emojis (Thumbs up, The face with tears of joy, The Red heart) count as 5% of all message replies**
- **Request from users**
 - **Survey findings**
 - We recently sent out a survey to 10 million power users of Messages (power users = those who have used direct message at least 10/ last 30 days, and sent 30 messages in that period)
 - Details on the survey sent and its findings can be found [here](#)

- Ability to add emojis as a reaction counted as the 2nd most requested feature
- **Focus Group Discussions (FGD)**
 - We did an FGD in our SF office
 - Details can be found [here](#)
 - The FGD report also mentioned emoji replies as a 'must have' new feature
- **Zendesk Tickets**
 - [20% of tickets on Zendesk which are marked as Feature requests mentioned emoji reactions](#)
 - This included requests from
 - Play Store
 - Social Media requests
 - Support requests from Twitter app
- **Competition parity**
 - Facebook introduced the ability to react to DMs more than a year ago and our competitor intel team has mentioned that 1/4th of Facebook DM users in the last one month have used an emoji reaction

Why build this feature over other features in our backlog?

[Roadmap for Twitter Messages](#), [Items in our backlog](#) and [Prioritisation sheet here](#)

Pre Launch Data & Research

[Key Numbers for Twitter Messages](#)

[Request from users: Survey findings](#)

[Request from users: FGD findings](#)

[Report on impact of Twitter Messages on STR](#)

[Feature requests on Zendesk Report](#)

[Competitive Intel Report](#)

Main User Stories

- As a user, I would like to react with an emoji to a message sent to me
- As a user, I would like to inform the sender about my reaction
- As a user, I would like the ability to undo my reaction if needed
- As a user, I would like to express positive, neutral as well as negative emotions through this reaction feature

Goals of this feature

- Make Messages the best in class messaging product by introducing highly requested features like emoji reactions
- Competition parity
- Improve STR of Twitter users by giving the best messaging experience possible

Success metrics

- 5% of DAU of Messages should send a reaction
 - Half of DAU of Messages who have sent emoji as a message reply
- Reactions should be around 5% of messages sent daily
- Improve STR of new Twitter users by 10%

Potential metrics watch out / impact

- Messages sent daily
 - 14% of all message replies sent during a day are emojis
 - 3 most commonly used emojis (Thumbs up, The face with tears of joy, The Red heart) count as 5% of all message replies
 - If we introduce emoji reactions #messages sent daily will be negatively impacted
 - Based on anecdotes during FGDs, users send emojis as reply when they have nothing more to say
 - Reaction is even more low friction and impersonal (arguably) and hence it might indicate to the recipient that the sender is no longer interested in the conversation. This is a hypothesis on why messages sent might do down further with introduction of reaction emojis
 - We will validate this through UTs and also data collected post launch
- Unique message senders
 - Daily average of 4 million users who have sent an emoji as a message reply
 - Out of these 4 million, ~100k users sent an emoji as the only message during the day
 - We either need to change the definition of message senders to include emoji reaction senders or accept that this number will go down
- Short Term Retention (STR) of Twitter new users
 - Usage of Messages feature has a positive impact on STR of Twitter new users
 - Building a better Messaging product should help in improving STR
 - We will test impact on STR by doing an AB test
 - Control will be new users without this new reactions feature
 - Experiment variant will be the segment of new users who have access to emoji reactions
 - [Detailed experiment plan can be found here](#)

- Usage of each emoji
 - For now we are going with 7 most commonly used emojis to describe a range of emotions (from positive to negative)
 - We will monitor the usage of each

DACI

Decision	Driver	Approver	Contributors	Informed
We have decided to show only 7 emojis as of now. Those emojis have been selected based on this framework	Manasjyoti	Manasjyoti's Boss (Note: In some cases it can be Manasjyoti himself or some external stakeholder. Depends on who is the owner of this decision)	<Add relevant people who contributed to this decision here>	<Add relevant people who have been informed about this decision here>
<Add other important decisions taken here>				

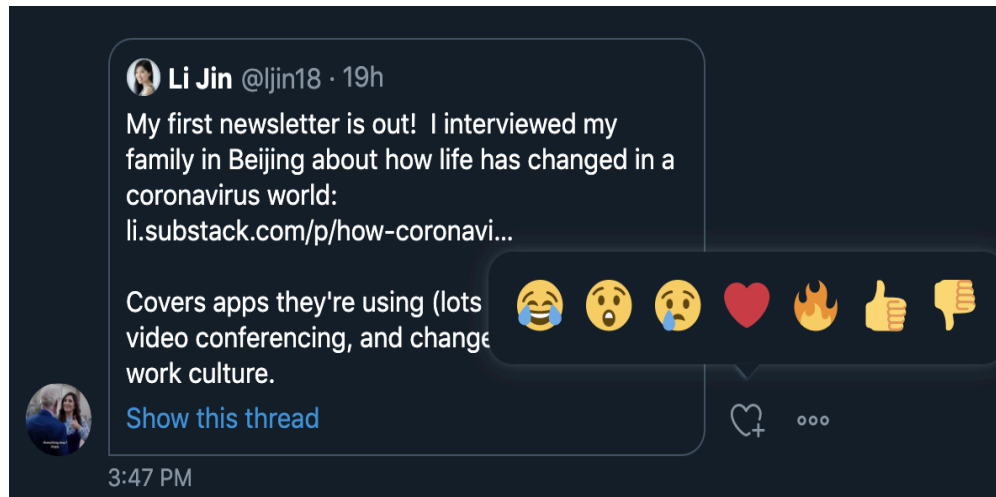
Product Requirements (The What)

Requirement	Priority	Phase/Milestone	Status
Show Reaction button (heart and plus icon) next to the message when user hovers over the message on Mobile apps (Android and iOS)	Must Have	M1	Done
React to a message by tapping the reaction button	Must Have	M1	Done

(heart and plus icon) and using the pop-up			
React to a message by long pressing on the message and then tapping the reaction button	Must Have	M1	Done
Show pop-up with 7 pre defined emojis Link to the emojis and why they were selected to M1 here	Must Have	M1	Done
On selecting emoji, give feedback to the sender by attaching emoji with the message	Must Have	M1	Done
Show reaction attached with the message to the recipient	Must Have	M1	Ongoing
Onboarding/ Discovery for this feature	Must Have	M1	Yet to Start
Send notification to recipient about this reaction by adding +1 on the Notification counter on Messages	Should Have	M2	Yet to Start
Remove/undo reaction by tapping on the emoji next to the message	Should Have	M2	Yet to Start
Remove/undo reaction by tapping on the same emoji on the popup	Should Have	M2	Yet to Start
Counter next to emoji reaction: Needed for group messages	Must have	M3	Yet to Start

Send push notification to recipient when she gets a reaction	Should have	M3	Yet to Start
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User Flows ([link to mocks](#))



How do we educate customers about this feature?

- <Onboarding flow for this feature come here>
- <Different hooks through which we can expose this feature to the user or remind her about its existence come here?>

Non-Product Requirements

Requirement	Priority	Phase/Milestone	PIC	Status
Marketing: Update Twitter Blog page on Messages	Must Have	Post M3	Marketing	Yet to Start
Marketing: Announce feature to the world through our social media accounts	Must Have	Post M3	Marketing	Yet to Start
Start PR for this feature	Must Have	Post M3	PR	Yet to Start

Out of scope for now

- Reacting to a message in the Message requests section
- Reacting with emojis other than the predefined 7 emojis launching with M1

Configurability

- This feature should be configurable based on
 - UserIds
 - Location
 - OS
 - Device
 - User segments

Roll out Plan

- M1
 - Alpha on 10th Nov
 - Beta on 20th Nov provided there are no major bugs or concerns in Alpha
 - Will launch on Prod as an experiment on 25th Nov
 - [Experiment plan](#)
- M2

- Alpha on 7th Dec
- Beta on 14th Dec provided there are no major bugs or concerns in Alpha
- Will launch on Prod after we have results on M1 experiment results
 - Rough timeline 20th Dec
- M3
 - Alpha on 5th Dec
 - Beta on 14th Jan provided there are no major bugs or concerns in Alpha
 - Prod on 24th Jan

[Detailed roll out plan with details on experiments we will be running](#)

[Post launch research plan comes here](#)

[Post launch impact analysis comes here](#)

Open Questions

- [Stakeholder from Marketing] How did we select the 7 emojis we are showing in M1
 - [Manasjyoti from Product]
 - We went through the most commonly used emojis
 - on social media in general
 - on twitter
 - on our competitors
 - Finally selection 7 to show all 3 types of emotions
 - Positive
 - Negative
 - Neutral
 - [Link to the emojis and why they were selected to M1 here](#)
- [Stakeholder from PR] Will we start shipping on Prod starting from M1? Should we wait till M3 for our PR drive around this feature?
 - [Manasjyoti from Product]
 - We will start doing experiments starting M1
 - PR can wait till all 3 Milestones are shipped on prod

Feature Development Checklist for M1

Items	Status	Date
PM Spec v1	Done	15 August

Strong WHY	Yes. Mentioned in the Spec	15 August
Kick Off with Design	Done	20th August
Wireframes	Done	4th September
Feedback on Wireframes & PM - Designer alignment	Done	8th September
Kick Off with Devs + QA + Design + Security Team + UX Writer	Done	10th September
Backend Tech Spec	Done	20th September
Frontend Tech Spec	Done	27th September
PM - Dev Huddle	Done	30th September
Spec Freeze (After iterations of scope cuts and creep based on Dev and Design discussions)	Done	2nd October
Design Freeze (with High fidelity designs shared on Zeplin)	Done	5th October
Roll Out Plan	Done	10th October
--- Dev ---	Ongoing for M1	
QA (includes backward compatibility)	To be done (TBD)	To be done (TBD)
Copy freeze	TBD	TBD
Alerts for failure	TBD	TBD
Metrics on backend	TBD	TBD
Analytics events	TBD	TBD
Design Sign Off	TBD	TBD
Product Security Design Review	TBD	TBD
PM Sign Off	TBD	TBD
QA Sign Off	TBD	TBD
HOD Sign Off	TBD	TBD

Demo to Stakeholders	TBD	TBD
Ship on Prod	TBD	TBD

MOMs

<MOMs for meetings held & discussions on Slack relevant to this feature are added/ linked from here>

Notes:

- This is just a template. The sections might vary slightly based on how complex the feature is
- What matters most is that the WHY and the WHAT (scope vs non scope, milestones) is clear
- Competitive analysis, Hypothesis, and screenwise walkthrough with changes are missing in this spec, but might be important for some features
- Only high level project status update is shared at the top
- Main tasks of the project is captured in Asana (both PDG and non PDG)
- Dev stories are tracked on Jira and ideally should be part of the spec