

Sentiment Analysis based on Tweets

“But like, how do you
REALLY fell?”

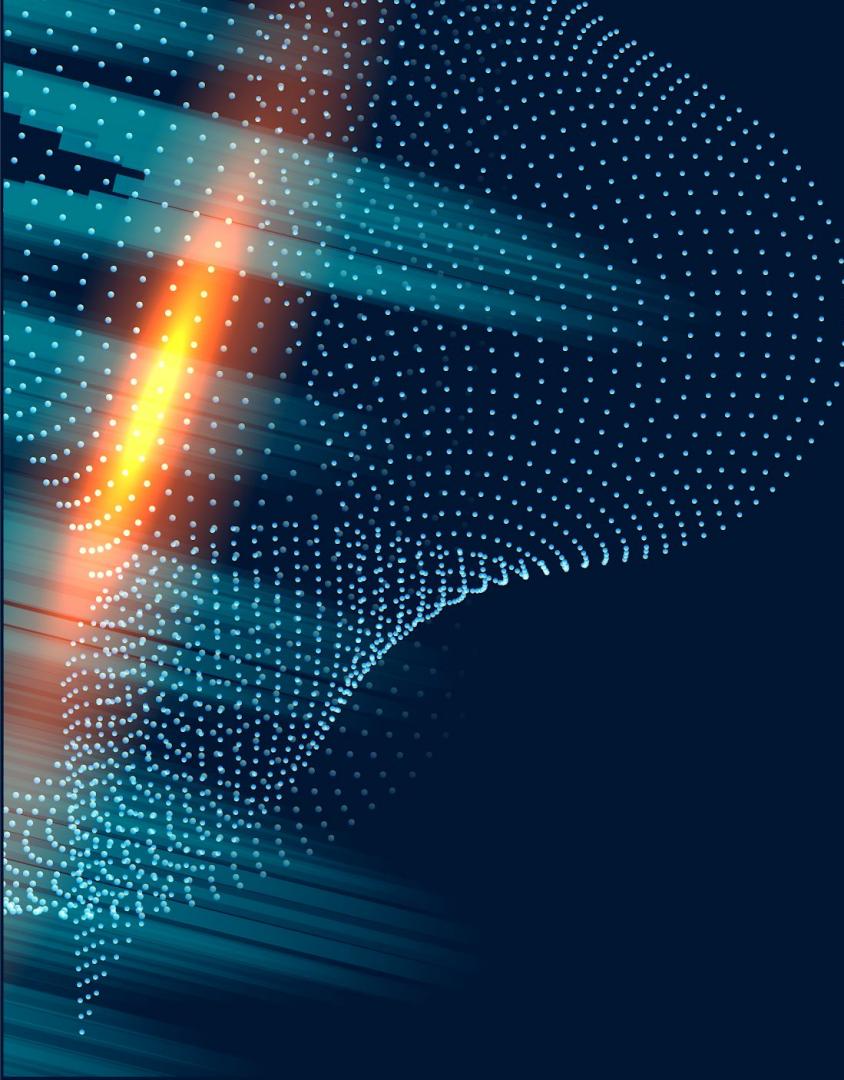
Presenters:

**Samuel
Song**

Data Scientist

**Scotty
Libby**

Data Scientist



Business Problem

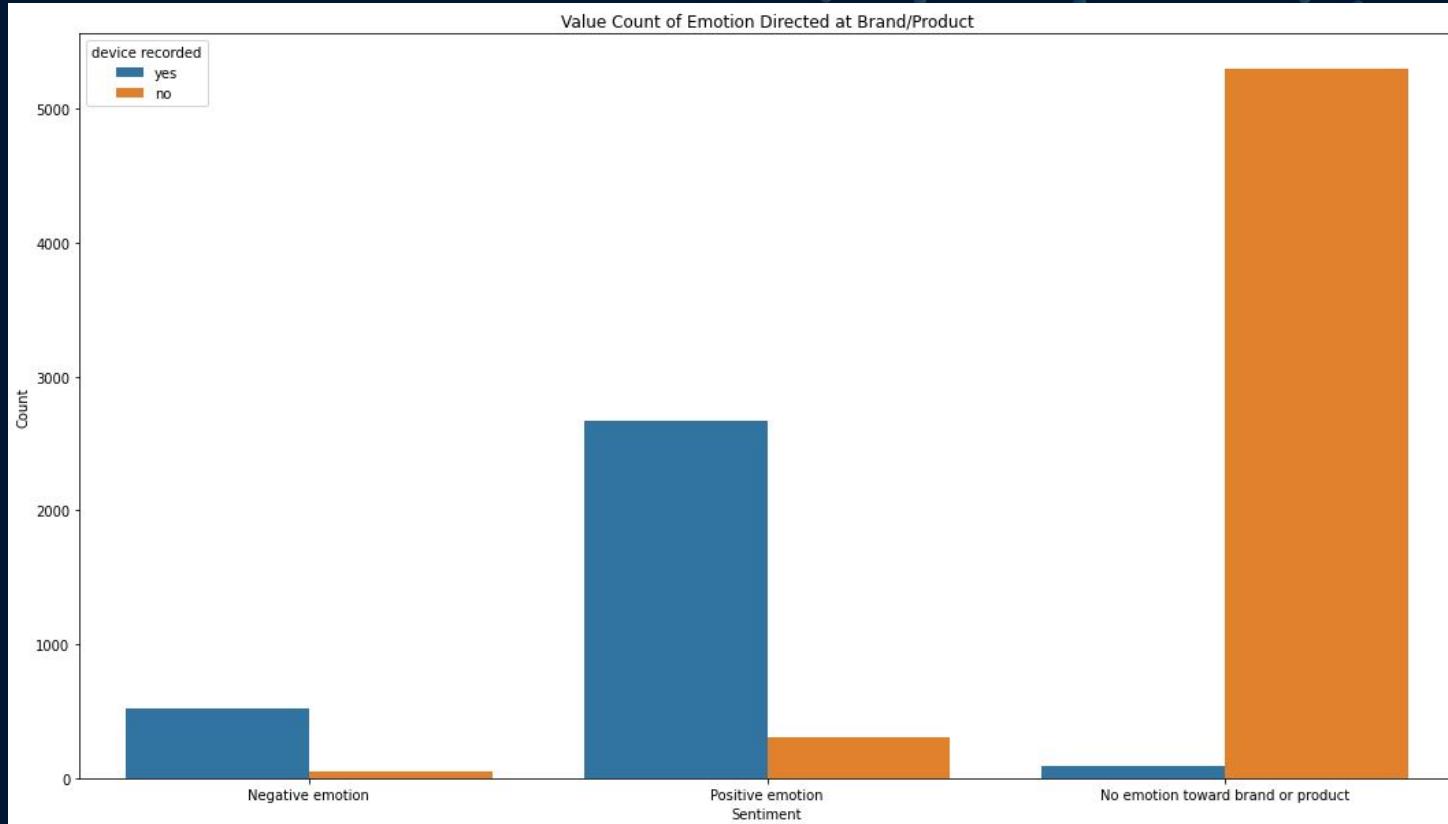
- Monitor Sentiment
- Public Opinion

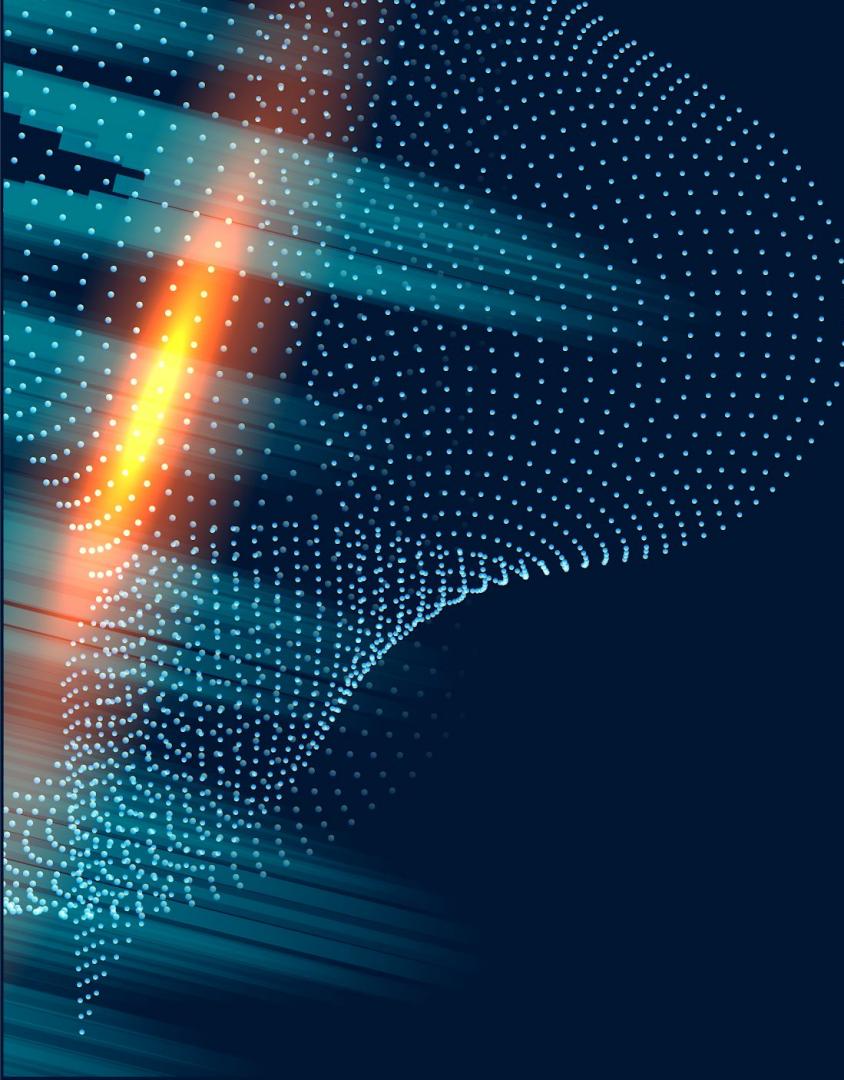
Data Understanding

- Analyze tweet sentiment towards brand/products
- Tweets collected from 2011 #SXSW convention
- Initial ground truth of sentiments labeled by humans
- Context is mostly sentiment for Apple/Google



Inconsistency in the data

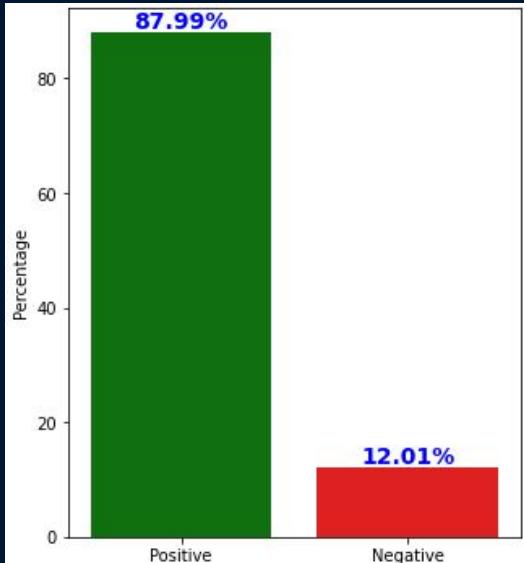




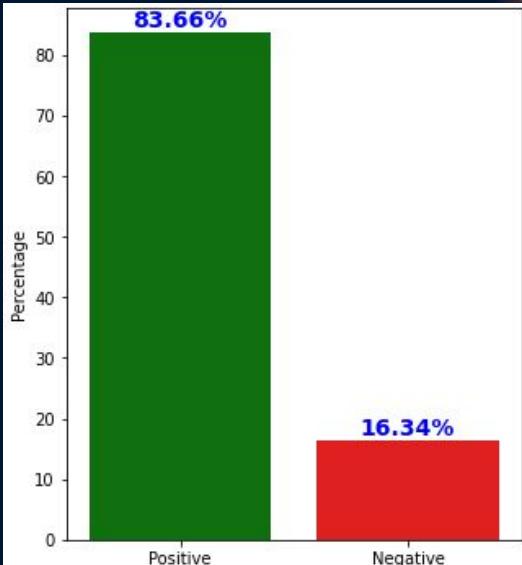
Public Reaction?

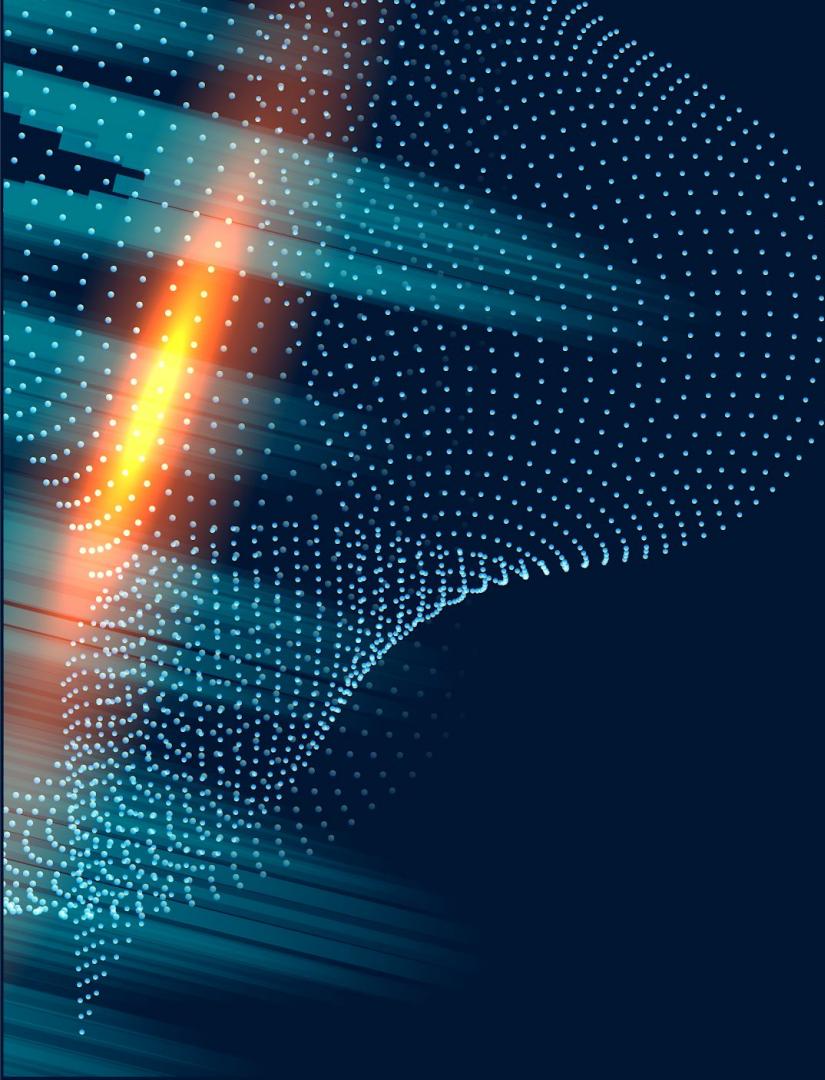
CONSUMER BASE REACTIONS

Apple



Google

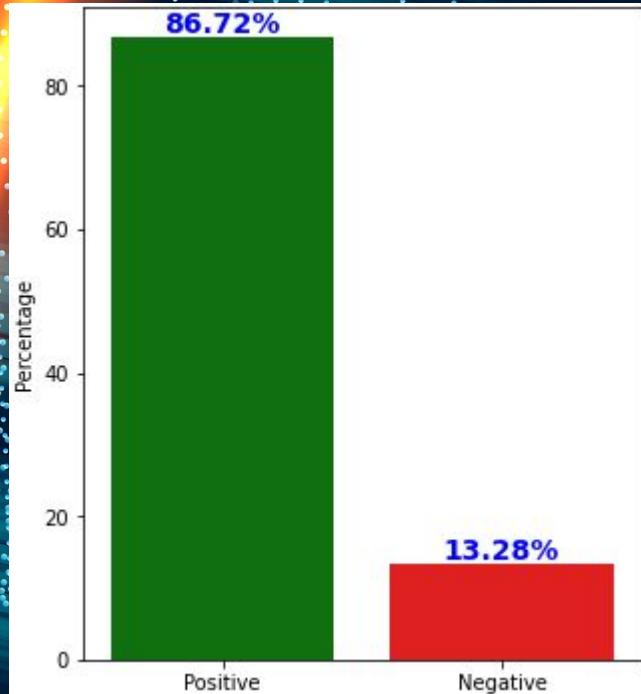




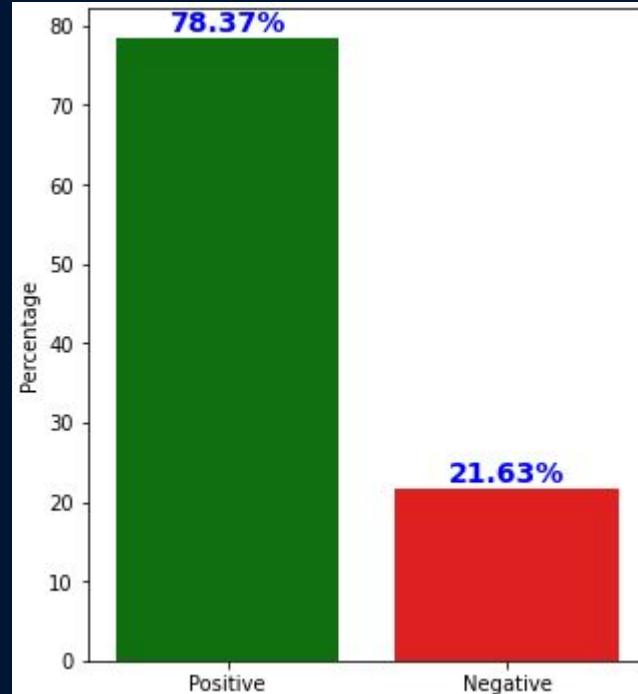
How did the public compare

iPhone vs iPad

iPad



iPhone



Final Models:

Positive/Negative

87% Accurate

RECOMMENDATIONS

Increase iPad marketing over iPhone

Increase customer relation efforts for Google

Use our model to be in the know!

Next Steps:



Re-Label neutral tweets

Human classification
can be inconsistent

We worked with
inaccurate data



Source more data!

The more data the
better!



Update the model

More recent data =
more relevant info

THANKS!

Do you have any questions?

samueld.song@gmail.com

ScottyDebuggin@gmail.com



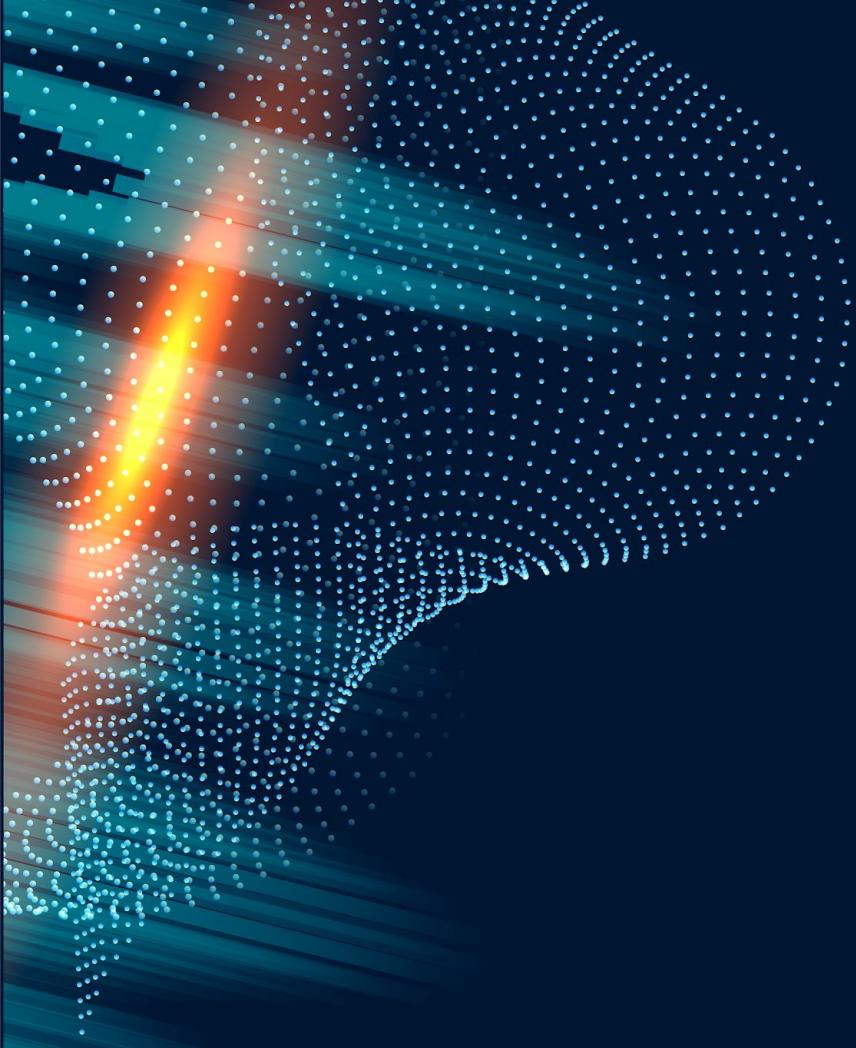
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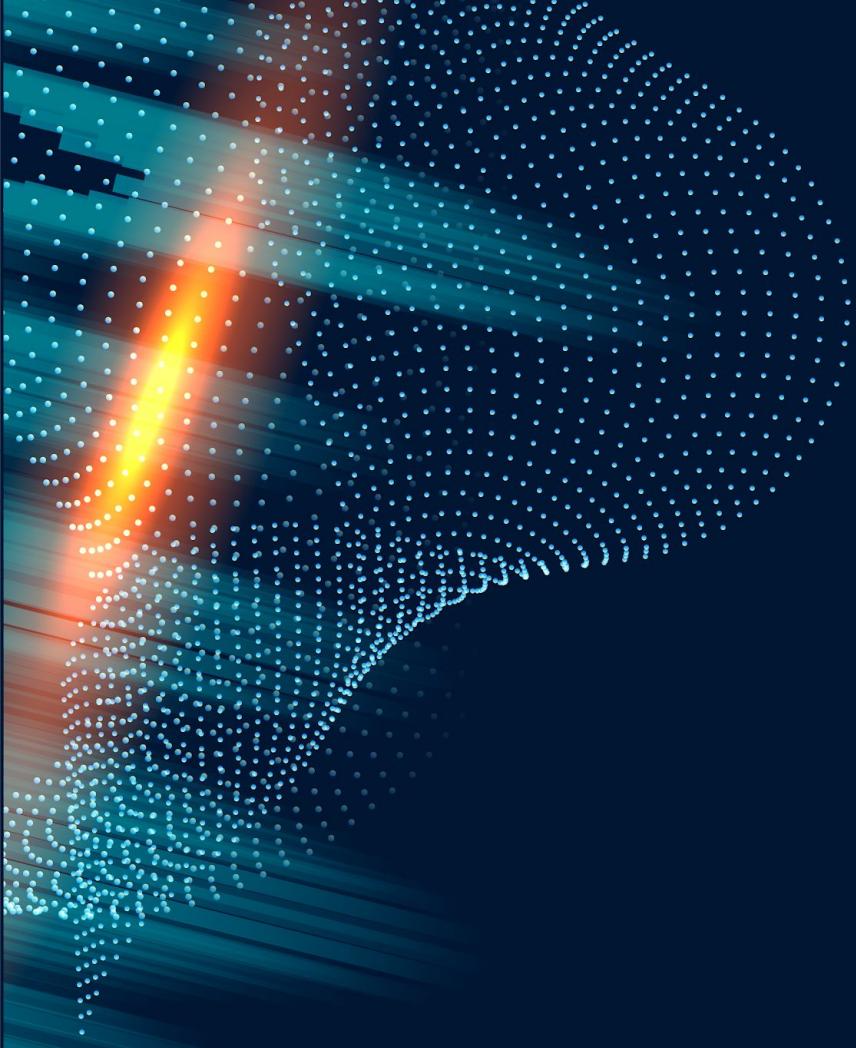
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	tweet_text	emotion_in_tweet_is_directed_at	is_there_an_emotion_directed_at_a_brand_or_product
9076	@mention your PR guy just convinced me to switch back to iPhone. Great #sxsw coverage. #princess	iPhone	Positive emotion
9077	Cue the hype RT @mention We interrupt your regularly scheduled #sxsw geek programming with big news {link} #google #circles	NaN	No emotion toward brand or product
9078	"papyrus...sort of like the ipad" - nice! Lol! #SXSW Lavelle	iPad	Positive emotion
9079	Diller says Google TV "might be run over by the PlayStation and the Xbox, which are essentially ready today." #sxsw #diller	Other Google product or service	Negative emotion
9080	Google says reports about launch of Circles social network at #sxsw are incorrect {link} No launch today at any rate.	NaN	No emotion toward brand or product
9081	#Apple guys screaming and running by line to open the shop #austin #sxsw #ipad2 #crazyco {link}	NaN	No emotion toward brand or product
9082	Google says the future is all around you! (ie, location and such): {link} #SXSW #CNN	NaN	No emotion toward brand or product
9083	Google says the future is location, location, location: {link} #SXSW #CNN	NaN	No emotion toward brand or product
9084	I've always used Camera+ for my iPhone b/c it has an image stabilizer mode. Suggestions for an iPad cam app w/ same feature? #SXSW #SXSWi	iPad or iPhone App	Positive emotion
9085	Google says: want to give a lightning talk to a #H4ckers audience at #SXSW tonight? Email ben.mcgraw @mention gmail.com for a spot on stage.	NaN	No emotion toward brand or product
9086	@mention Yup, but I don't have a third app yet. I'm on Android, any suggestions? #SXSW CC: @mention	NaN	No emotion toward brand or product
9087	Ipad everywhere. #sxsw {link}	iPad	Positive emotion
9088	Wave, buzz... RT @mention We interrupt your regularly scheduled #sxsw geek programming with big news {link} #google #circles	NaN	No emotion toward brand or product
9089	Google's Zeiger, a physician never reported potential AE. Yet FDA relies on physicians. "We're operating w/out data." #sxsw #health2dev	NaN	No emotion toward brand or product
9090	Some Verizon iPhone customers complained their time fell back an hour this weekend. Of course they were the New Yorkers who attended #SXSW.	NaN	No emotion toward brand or product

	tweet_text	emotion_in_tweet_is_directed_at	is_there_an_emotion_directed_at_a_brand_or_product	ipad	apple	iphone	google	android
9076	@mention your pr guy just convinced me to switch back to iphone. great #sxsw coverage. #princess	iphone	positive emotion	0	0	1	0	0
9077	cue the hype rt @mention we interrupt your regularly scheduled #sxsw geek programming with big news {link} #google #circles	google	no emotion toward brand or product	0	0	0	1	0
9078	"papyrus...sort of like the ipad" - nice lol! #sxsw lavelle	ipad	positive emotion	1	0	0	0	0
9079	diller says google tv "might be run over by the playstation and the xbox, which are essentially ready today." #sxsw #diller	google	negative emotion	0	0	0	1	0
9080	google says reports about launch of circles social network at #sxsw are incorrect {link} no launch today at any rate.	google	no emotion toward brand or product	0	0	0	1	0
9081	#apple guys screaming and running by line to open the shop #austin #sxsw #ipad2 #crazyco {link}	ipad, apple	no emotion toward brand or product	1	1	0	0	0
9082	google says the future is all around you! (ie, location and such): {link} #sxsw #cnn	google	no emotion toward brand or product	0	0	0	1	0
9083	google says the future is location, location, location: {link} #sxsw #cnn	google	no emotion toward brand or product	0	0	0	1	0
9084	i've always used camera+ for my iphone b/c it has an image stabilizer mode. suggestions for an ipad cam app w/ same feature? #sxsw #sxswi	ipad, iphone	positive emotion	1	0	1	0	0
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9086	@mention yup, but i don't have a third app yet. I'm on android, any suggestions? #sxsw cc: @mention	android	no emotion toward brand or product	0	0	0	0	1
9087	Ipad everywhere. #sxsw {link}	ipad	positive emotion	1	0	0	0	0
9088	wave, buzz... rt @mention we interrupt your regularly scheduled #sxsw geek programming with big news {link} #google #circles	google	no emotion toward brand or product	0	0	0	1	0
9089	google's zeiger, a physician never reported potential ae. yet fda relies on physicians. "we're operating w/out data." #sxsw #health2dev	google	no emotion toward brand or product	0	0	0	1	0
9090	some verizon iphone customers complained their time fell back an hour this weekend. of course they were the new yorkers who attended #sxsw.	iphone	no emotion toward brand or product	0	0	1	0	0







A GOOD WAY TO END THE PRESENTATION

Mercury is the closest planet to the Sun and the smallest one in the Solar System—it's only a bit larger than the Moon

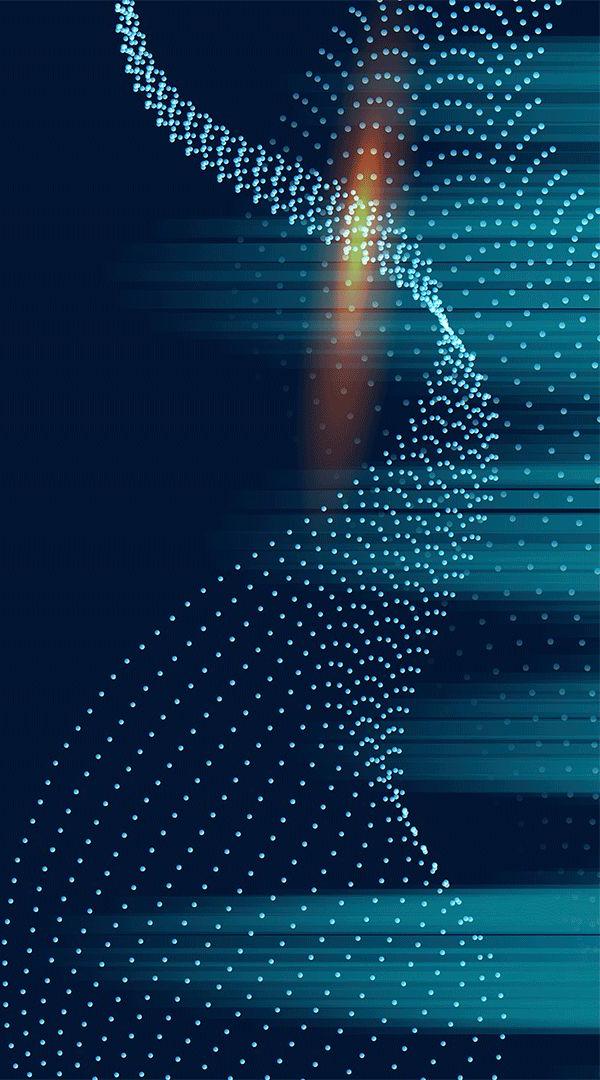
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Do you have any questions?
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ALTERNATIVE RESOURCES

PHOTOS:

- Low angle man with virtual reality simulator
- Young man working on an ethernet switch medium shot
- Motherboard with optical fiber cables
- High speed optical fiber with blue light

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- Particles background in gradient

PHOTOS:

- Skyscrapers with sunlight
- Vivid girl in vr headset having fun



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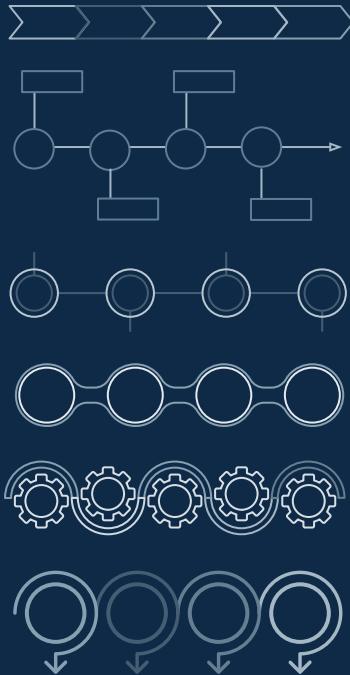
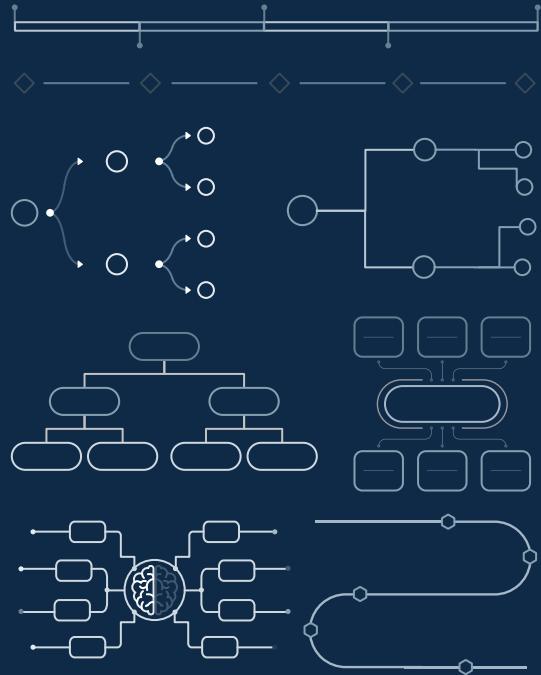
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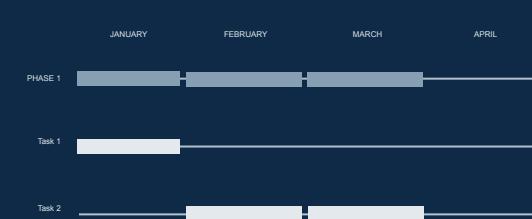
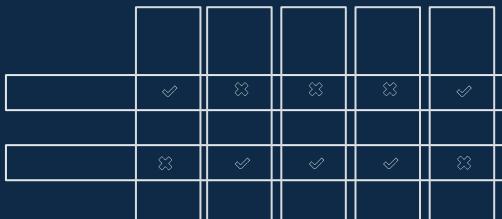
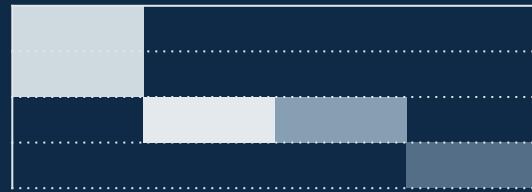
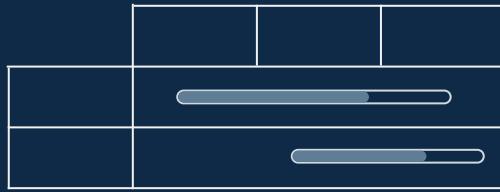
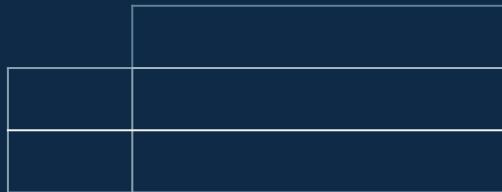
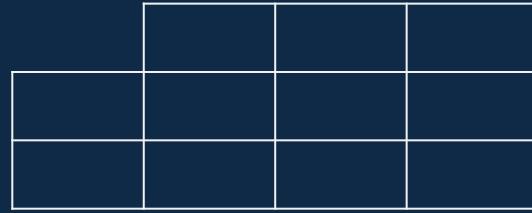
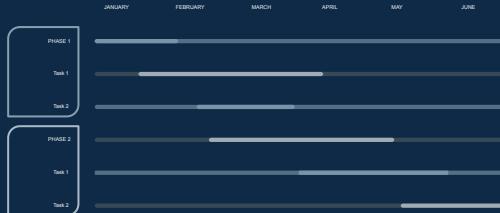
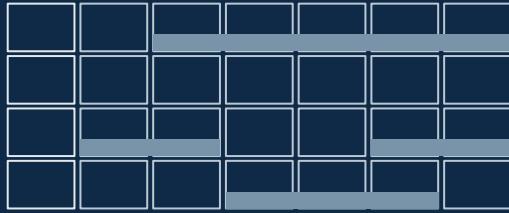
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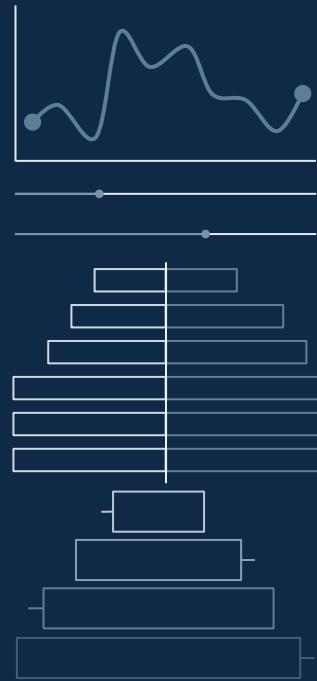
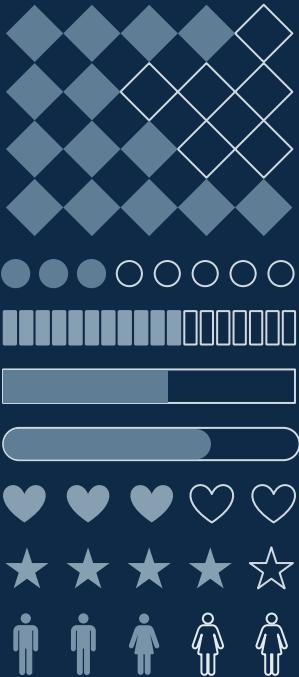
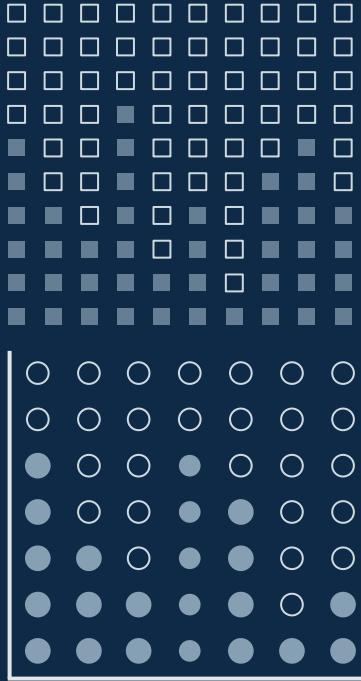












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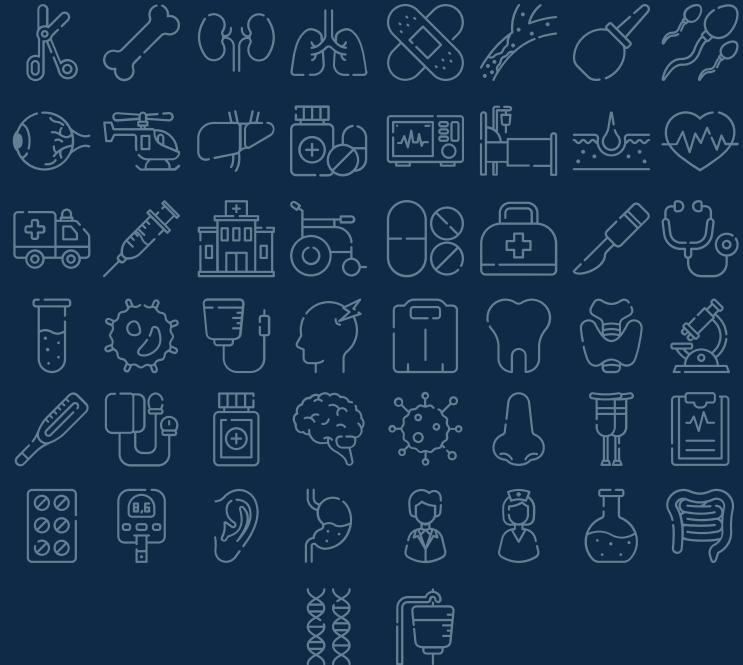
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