



APW 2021

SMART Healthcare Delivery

Teenager Group

Cyberbullying

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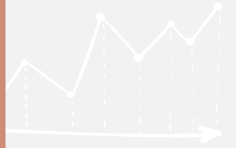
May 5th, 2021

PART 01

A Real Problem.



Amanda Michelle Todd (November 27, 1996 – October 10, 2012)



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PART 02

Cyberbullying: The Stats

- Cyberbullying Definition
- Statistics: Taiwan, South Korea, The U.S.
- Our Survey Results

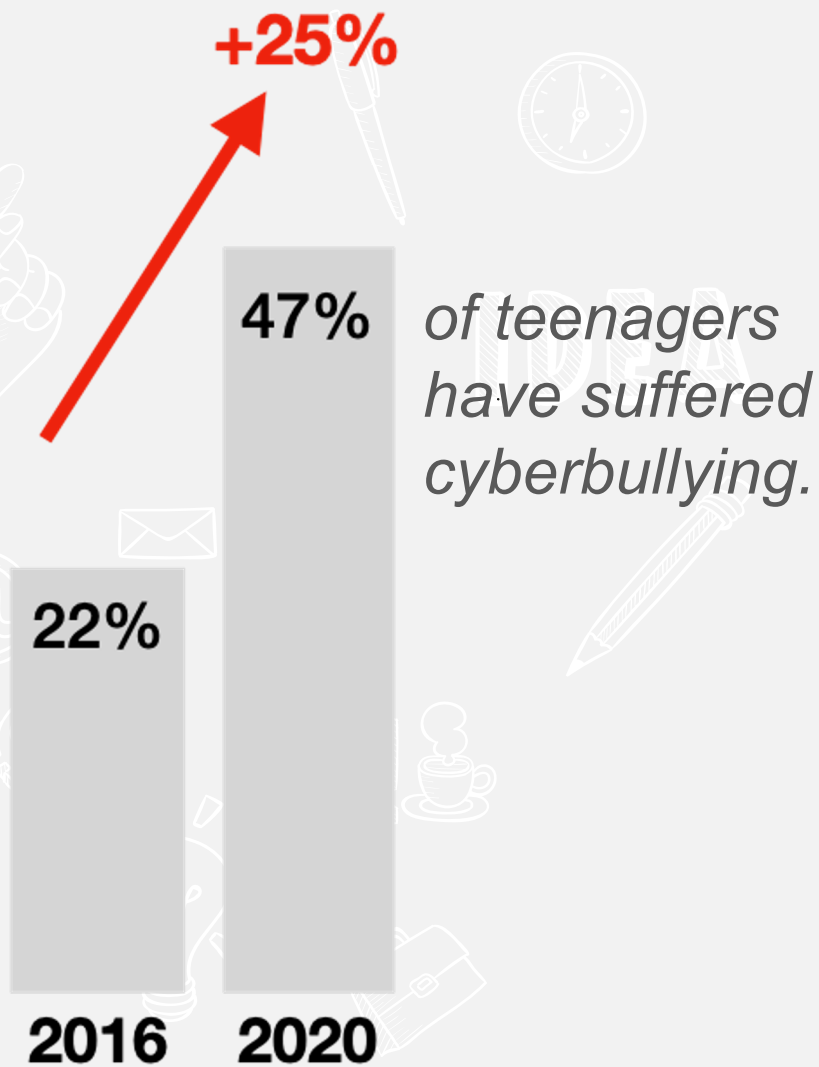


2.1 What is Cyberbullying?





2.2 Cyberbullying in Taiwan



11%

of victims have suicidal thoughts





2.3 Cyberbullying in South Korea

- **54.1%** increase in recent years (2016→2018)
- **Cyberbullying** is even more common than physical assault (2019)
- Various types of Cyberbullying:





2.4 Cyberbullying in the US

59% of U.S teens have personally experienced cyberbullying (2018)

A majority of teens have been the target of cyberbullying, with name-calling and rumor-spreading being the most common forms of harassment

% of U.S. teens who say they have experienced ___ online or on their cellphone



Note: Respondents were allowed to select multiple options. Those who did not give an answer or gave other response are not shown.

Source: Survey conducted March 7–April 10, 2018.

"A Majority of Teens Have Experienced Some Form of Cyberbullying"

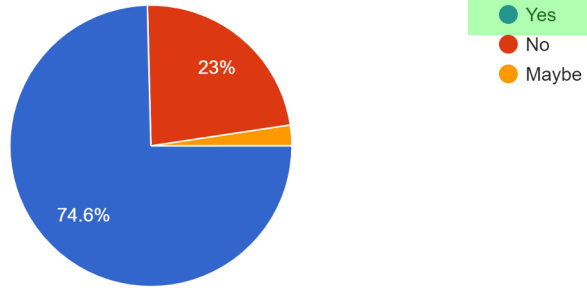
PEW RESEARCH CENTER



2.5 Real statistics from Alabama A&M

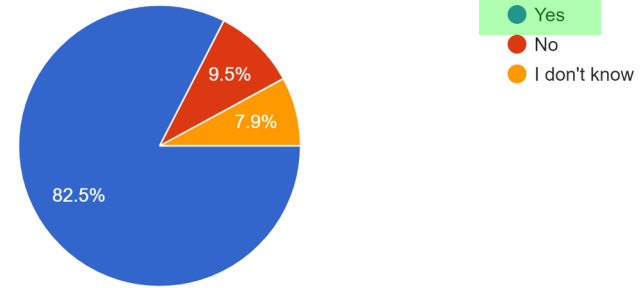
Have you ever witnessed cyberbullying?

126 responses



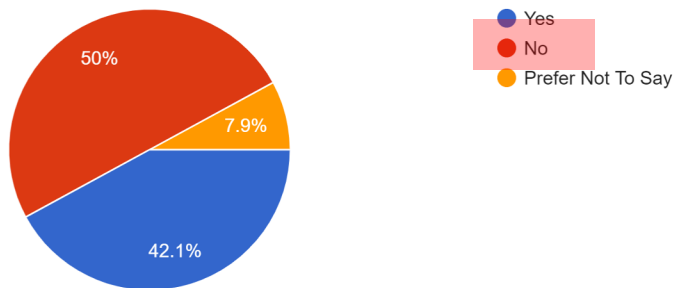
Do you think cyberbullying is a big problem?

126 responses



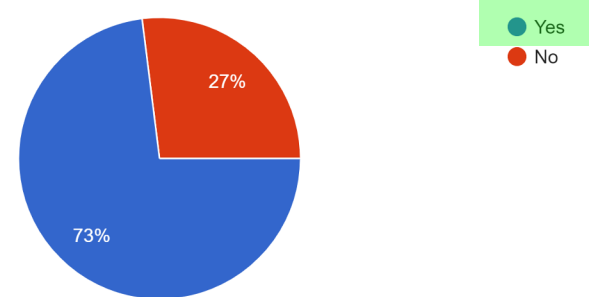
If yes, did you say anything?

126 responses



Would it help you recognize cyberbullying if there was an app for it?

126 responses





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PART 03

Current Solutions & the Need

- The Big Social Media Brands
- Other Initiatives
- The Need



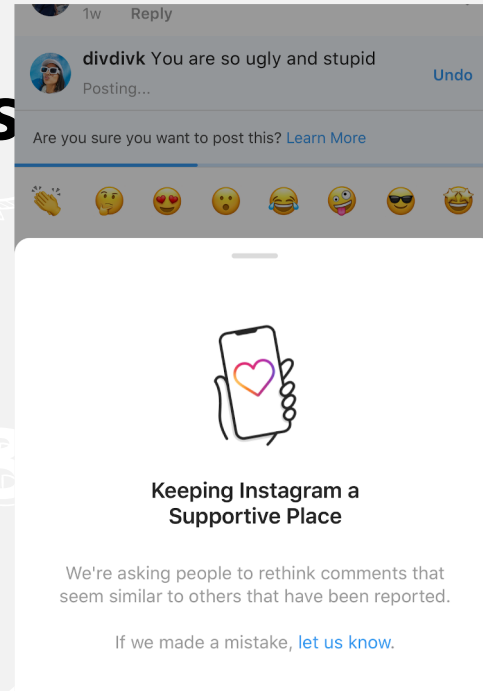
3.1 The Big Social Media Brands

Instagram



But I still have to see the mean comments...

- “Are you sure you want to post this?”
- “Shadow ban”



But I don't want to limit the positive people/comments...

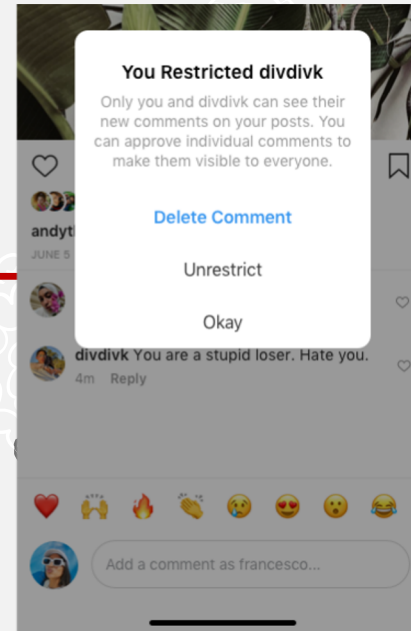
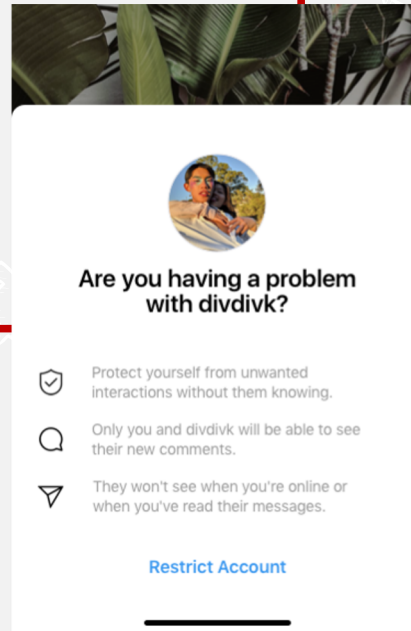
mute notifications for
h particular words,
etc.
who can respond to

Can't we stop it before going that far?

Facebook



- Scans posts and comments for suicidal language



ts
s' reach is limited

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3.2 Other Initiatives



ScienceDaily[®]

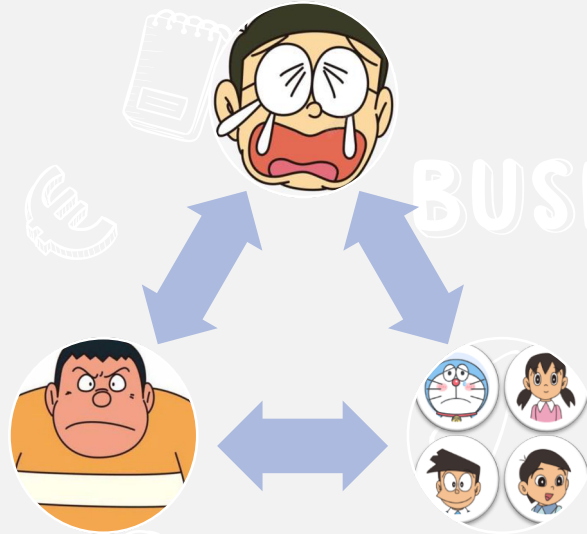
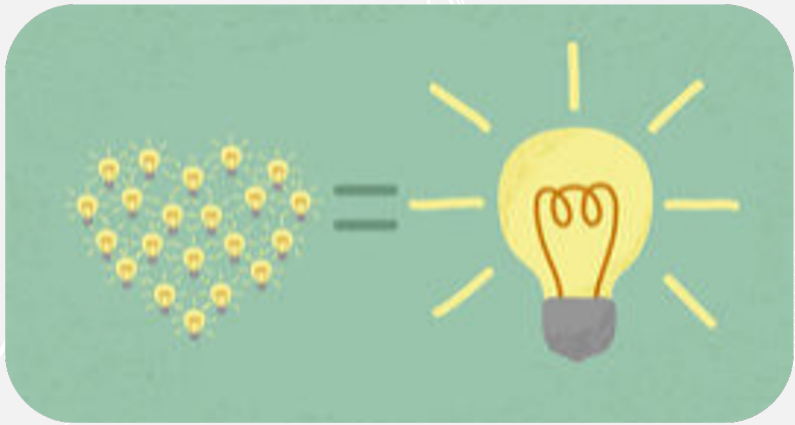
Your source for the latest research news



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3.3 The Need



Combine & Improve

Victim - Bully - Bystander

Incorporable

CyberPeace

Peace Us Back Together

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PART 04

The Solution: CyberPeace

- Solution
- Business Model



4.1 First, story time...



Although **Noby** is not good at sports and always gets zeros in exams, he is a happy boy in your class.



But recently, he has suffered a lot. Because **Fat Tiger** enjoys bullying him.

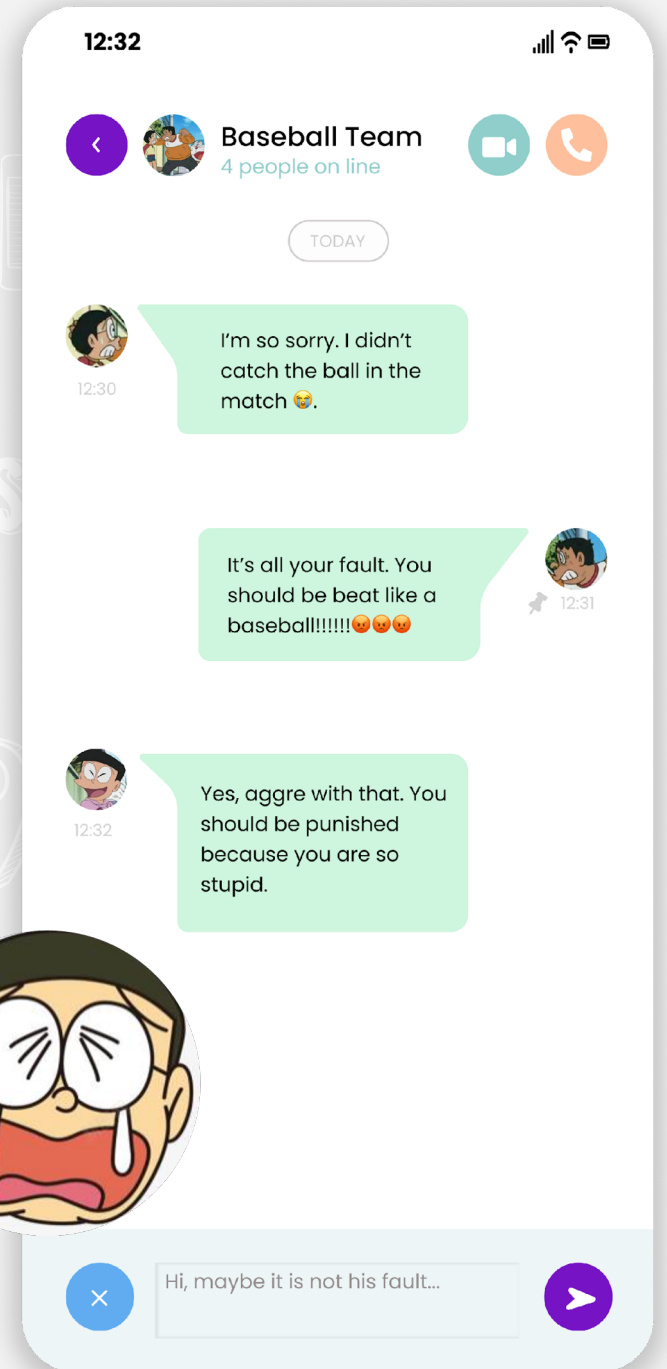
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With new technology, **Fat Tiger** not only beat **Noby** in reality but also chose to...

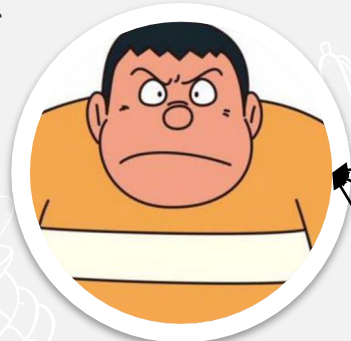


Noby finds there is no way to hide...





4.2 It is not only about one side!

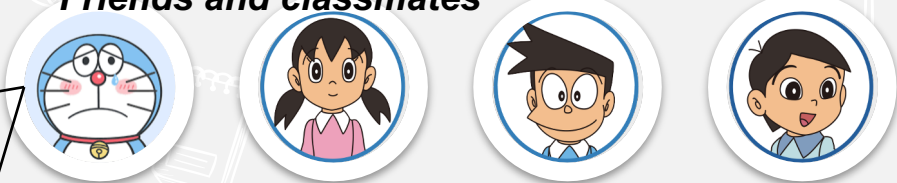


Bully

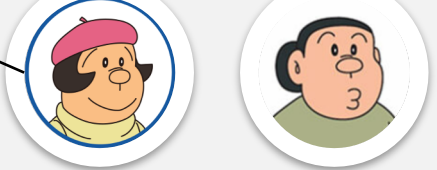


Victim

Friends and classmates



Bullier's families



Victim's families



Teacher



Bystanders

Generally, bystanders have 4 choices:

1. Support the victim
2. Support the bully
3. Walk away
4. Say both are guilty

Help the victim *and* bully by explaining how the bully is acting inappropriately.





4.3 Solution: CyberPeace

For *Victims*

- Set filters and blockers to words, topics, or people
- Provide links to helpful resources, both online and IRL
- Detect victims' mental condition. If suicidal thoughts were detected, give advice or report to parents or teachers if the situation is serious.

For *Bullies*

- “Are you sure you want to post this” notification
- Send educational materials when detecting bullying action.



Are you sure you want to post this? [Learn more about cyberbullying](#)



It's all your fault. You should be beat like a baseball!!!!!! 🤬🤬🤬



For *Bystanders*

- Can select the “bullying” you want to fix. A correction will be shown on the sentence. And a notification will be sent to the original author.
- Send educational material to bullies.
- Send encouraging words to victims.
- All this can be done anonymously.



12:30

I'm so sorry. I didn't catch the ball in the match 😞.



12:31



12:32

May 5th, 2021





It's all your fault. You should be beat like a baseball!!!!!! 🤬🤬🤬



12:31

Anonymous message

Hey, do not say rude words. It is not anyone's fault. We all take responsibilities.



4.4 Solution: encouraging rather than punishing

Sentiment rating system (Percentage + Emoji based)



Fat Tiger

Most frequent sentiment: "Angry"



Frequency of positive language: 25%



Blue Cat

Most frequent sentiment: "Happy"

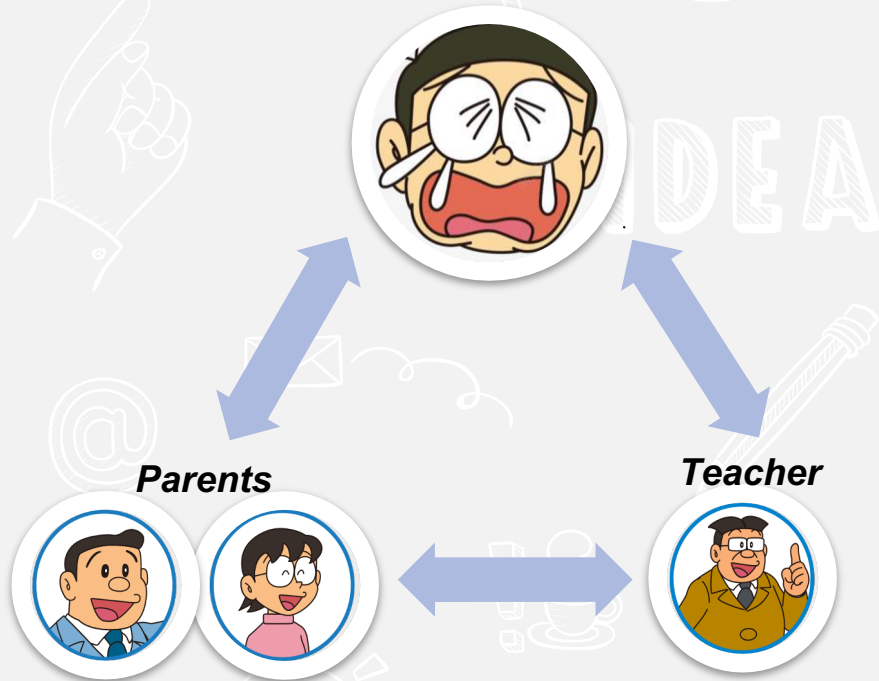


Frequency of positive language: 75%



4.5 Solution: education matters

Not only for teenagers, but also for teenagers' teachers and parents.



BUSINESS
Educate them about cyberbullying

- Online courses
- Regular online workshops
- A professional involved community
psychiatrist/counseling psychologist

Our vision is to decrease cyberbullying around the world !

Online Courses

Online workshops

Register

Meet with Dr. XXX

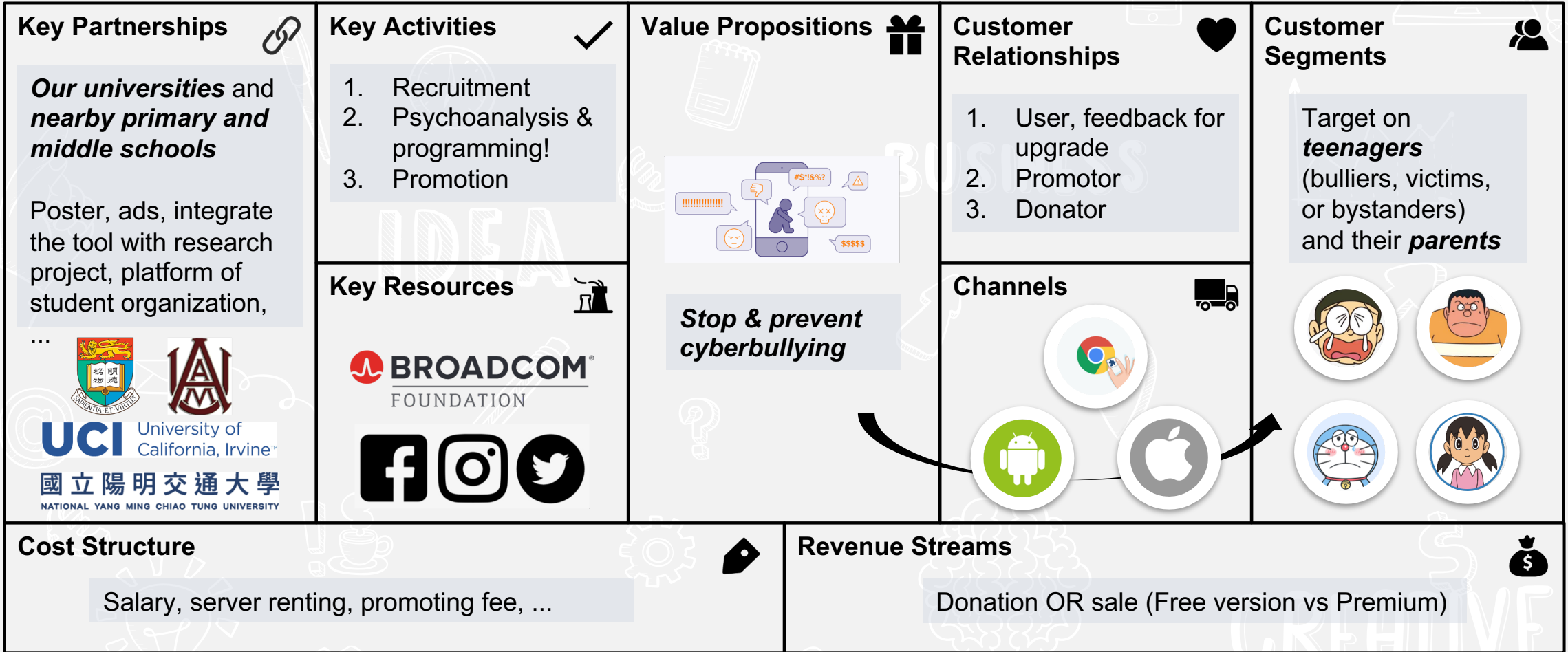
Make an appointment



4.6 Business Model

Challenge: tech performance of the NLP model

Challenge: at start point build the tool without support of the social network companies



1. Build the tool and upgrade it within nearby schools

2. Promote it to more teenagers and their parents



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PART 05

Summary

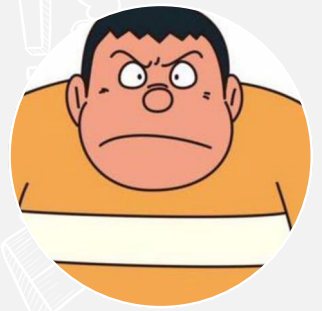
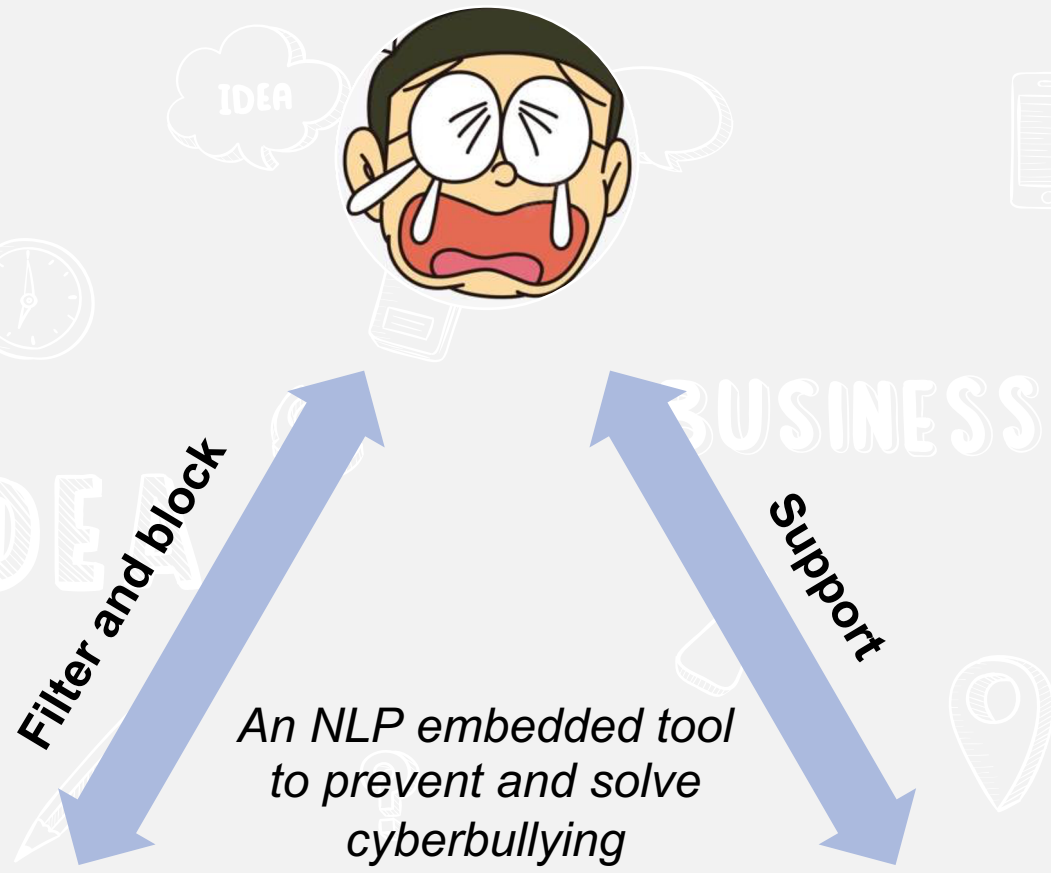


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5.1 Summary



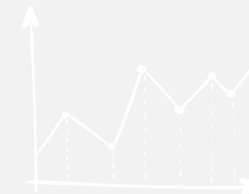
Condemn and help



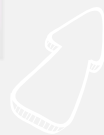
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BUSINESS



IDEA



CyberPeace

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Thank You!



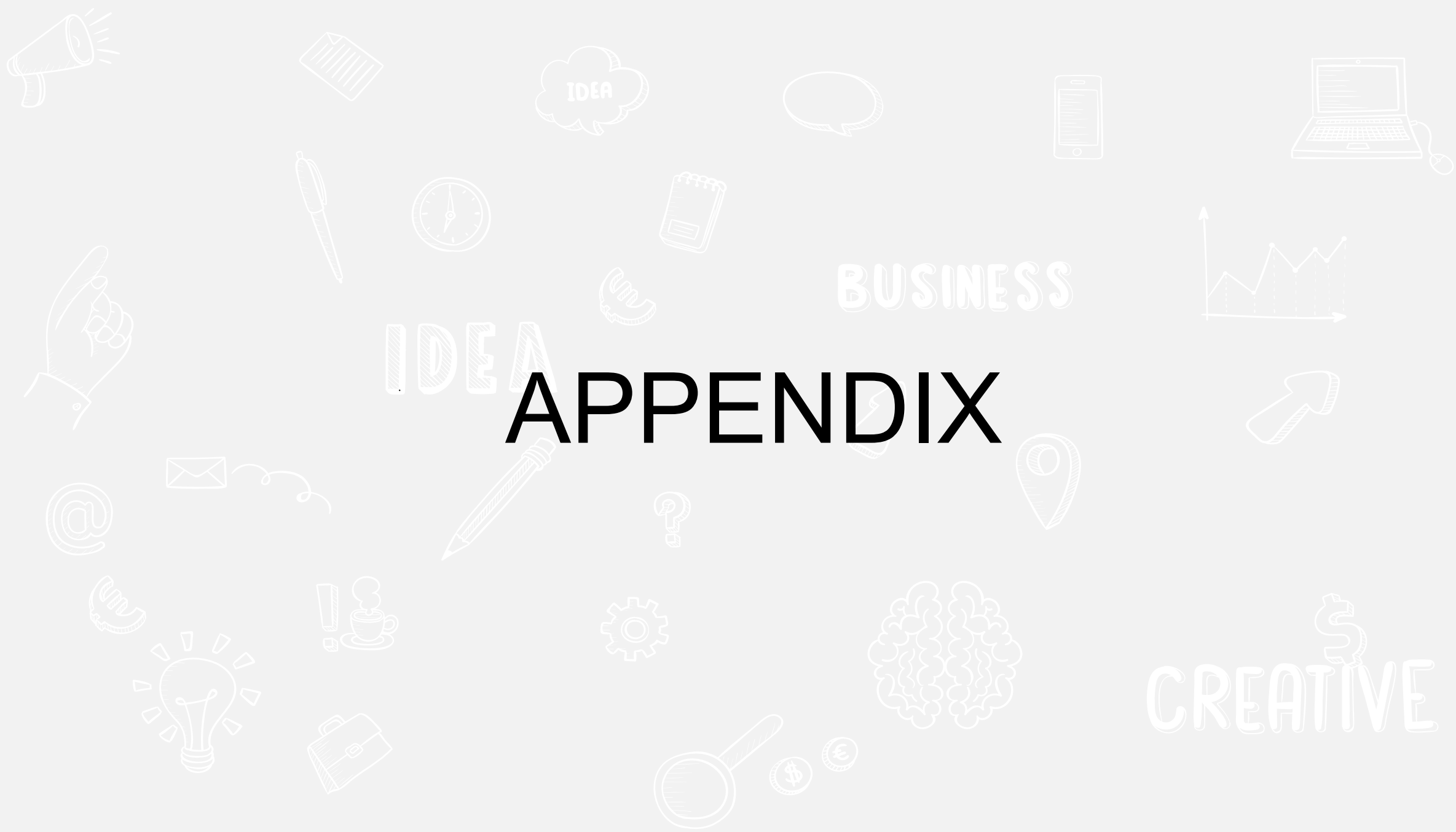
CyberPeace
Peace Us Back Together

APPENDIX

IDEA

BUSINESS

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Online resources



THE CYBERSMILE FOUNDATION

**STOMP
Out
Bullying™**

**End The Hate...
Change The Culture**



Childnet
International

Teenagers



- **Definition**

13-19 years old

- **Features**

Still growing

Big change from childhood to adulthood

Tech savvy (spending too much time on cell phone)

Puberty, change, emotions

Obesity

Stubborn (less afraid of healthy issues)

Risky: join more dangerous activities?

Peer pressure

“Trendy” is important

- **Significance**

Teenagers are the **future of the world**



4.4 The Draft of Business Model

1. First stage:

The most important thing is to build a **useful tool**. Profit making is not priority in this stage.

Where to start and the form of the tool: **Chrome extension** (for web page based social networks) and **a smartphone app** (for smartphone based social networks)

Key features: **accuracy, lite, fast, preserving privacy**

The tool should be free and advertisement free in the first stage.

We firstly introduce this tool to our universities and nearby middle schools and primary schools to test its performance and update it.

Conduct surveys throughout the different age groups to better understand what measures need to be taken in order for the app to be more efficient

2. Second stage:

Consider profit making after the tool works well and a large number of users are accumulated

The tool is used by C but is sold to B as a service / solution provider.

Advertisements throughout the app to bring in revenue from outside companies





4.3 Challenges

1

Tech : performance of the NLP based filters and detectors (currently, lots of negative comments on similar tools are about the performance)

2

The first step: build the tool without support of the social network companies

3

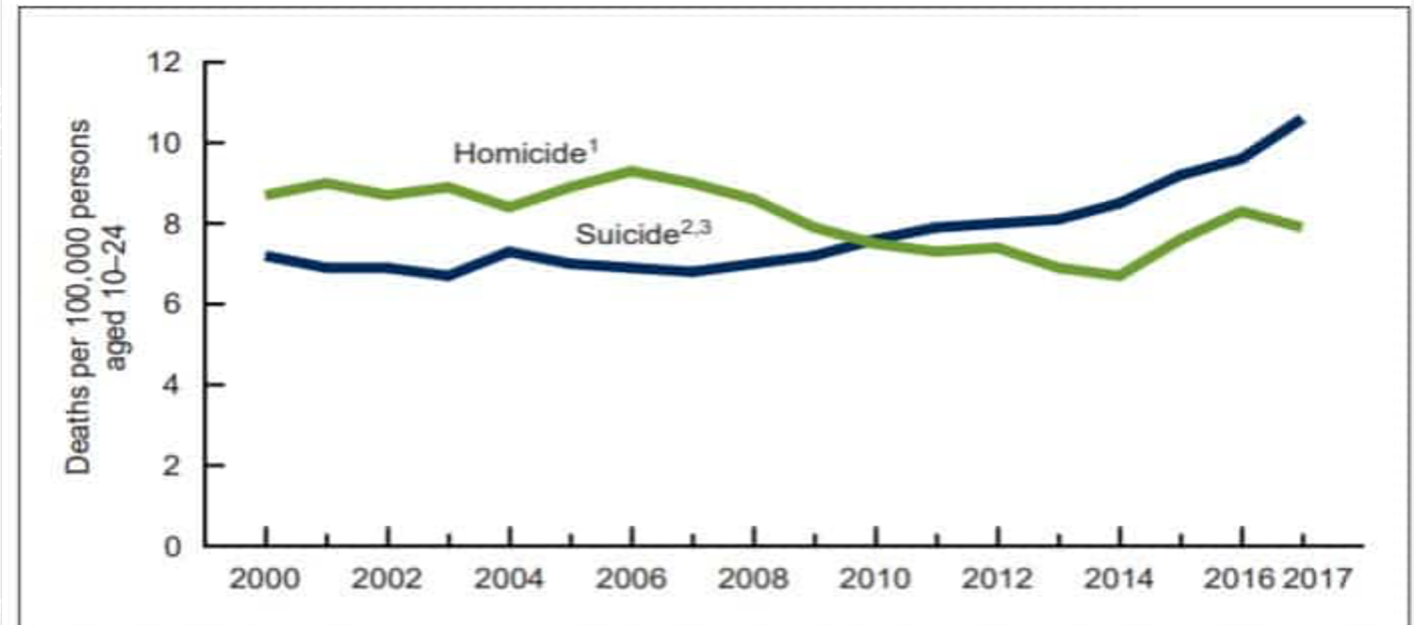
Will social media networks integrate tech into their apps ?

Cyberbullying in US and Globally

Cyberbullying may be contributing to the increase in youth suicides

- There has been a troubling rise in teen suicide rates in the past decade. The National Center for Health Statistics (NCHS) found that suicide is the second-leading cause of death among US residents aged 10 to 34.
- Although the NCHS report, which was released in April 2020, does not suggest a reason for the increase in suicides, cyberbullying may indeed be part of the equation. One 2018 study found that young adults under the age of 25 who were victimized by cyberbullying were twice as likely to commit suicide or self-harm in other ways.
- Additionally, research presented at the 2017 Pediatric Academic Societies Meeting revealed the number of children admitted to hospitals for attempted suicide or expressing suicidal thoughts doubled between 2008 and 2015. Much of the rise is linked to an increase in cyberbullying.
- More teen suicides are also now attributed in some way to cyberbullying (1, 2, 3) than ever before. Furthermore, young males are most likely to commit suicide than females, although teen suicides overall were up between 2000 and 2017.

Figure 1. Suicide and homicide death rates among persons aged 10–24: United States, 2000–2017



¹Stable trend from 2000 to 2007; significant decreasing trend from 2007 to 2014; significant increasing trend from 2014 to 2017, $p < 0.05$.

²Stable trend from 2000 to 2007; significant increasing trend from 2007 to 2017 with different rates of change over time, $p < 0.05$.

³Rate significantly lower than the rate for homicide from 2000 to 2009 and significantly higher from 2011 to 2017, $p < 0.05$.

NOTES: Suicide deaths are identified with *International Classification of Diseases, 10th Revision (ICD-10)* codes U03, X60–X84, and Y87.0; and homicide deaths with ICD-10 codes U01–U02, X85–Y09, and Y87.1. Access data table for Figure 1 at:

https://www.cdc.gov/nchs/data/databriefs/db352_tables-508.pdf#1.

SOURCE: NCHS, National Vital Statistics System, Mortality.

Possible solutions

- [This link](#) provides great insight into how an AI would be created to detect cyber bullying or harassing activity
- [This link](#) is another great source.

How Facebook, Instagram, and Twitter are protecting their users?

Facebook/Instagram:

We have a number of tools to help keep young people safe:

- You can opt to ignore all messages from a bully or use our [Restrict](#) tool to discreetly protect your account without that person being notified.
- You can [moderate comments](#) on your own posts.
- You can modify your settings so that only people you follow can send you a direct message.
- And on Instagram, we [send you a notification](#) you're about to post something that might cross the line, encouraging you to reconsider.

For more tips on how to protect yourself and others from cyberbullying, check out our resources on [Facebook](#) or [Instagram](#).

Twitter:

If people on Twitter become annoying or negative, we have tools that can help you, and

the following list is linked to instructions on how to set these up.

- [Mute](#) - removing an account's Tweets from your timeline without unfollowing or blocking that account
- [Block](#) - restricting specific accounts from contacting you, seeing your Tweets, and following you
- [Report](#) - filing a report about abusive behavior.





Anyone can become a victim of cyberbullying.

Facebook/Instagram:

We know that it can be hard to report someone, but it's never OK to bully anyone.

Reporting content to Facebook or Instagram can help us better keep you safe on our platforms. Bullying and harassment are highly personal by nature, so in many instances, we need a person to report this behavior to us before we can identify or remove it. Reporting a case of cyberbullying is always anonymous on Instagram and Facebook, and no one will ever know you let us know about this behavior. You can report something you experience yourself, but it's also just as easy to report for one of your friends using the tools available directly in the app. More information on how to report something is included in [Instagram's Help Center](#) and on [Facebook's Help Center](#). You could also let your friend know about a tool on Instagram called [Restrict](#), where you can discreetly protect your account without having to block someone -- which can seem harsh for some people.

Twitter:

We enabled [bystander reporting](#) which means that you can make a report on behalf of another person. This can now be done for reports of private information and impersonation as well.

Help lines around the world

Cybersmile:

<https://www.cybersmile.org/advice-help/category/who-to-call>

International child helpline:

<https://www.childhelplineinternational.org/child-helplines/child-helpline-network/>