

The Reasonable Developer

Paul Verbeek-Mast

Senior Software Engineer @ Confrere

Content warnings

Detailed description of sexual assault

Image of raw meat

Image of Mark Zuckerberg

“

I'm just an engineer.

“

Once the rockets are up,
who cares where they
come down?

– Tom Lehrer (in 'Wernher von Braun')



The Reasonable Developer

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Senior Software Engineer @ Confrere

Reasonable

having sound judgement; fair and sensible



Normal distribution &
standard deviation

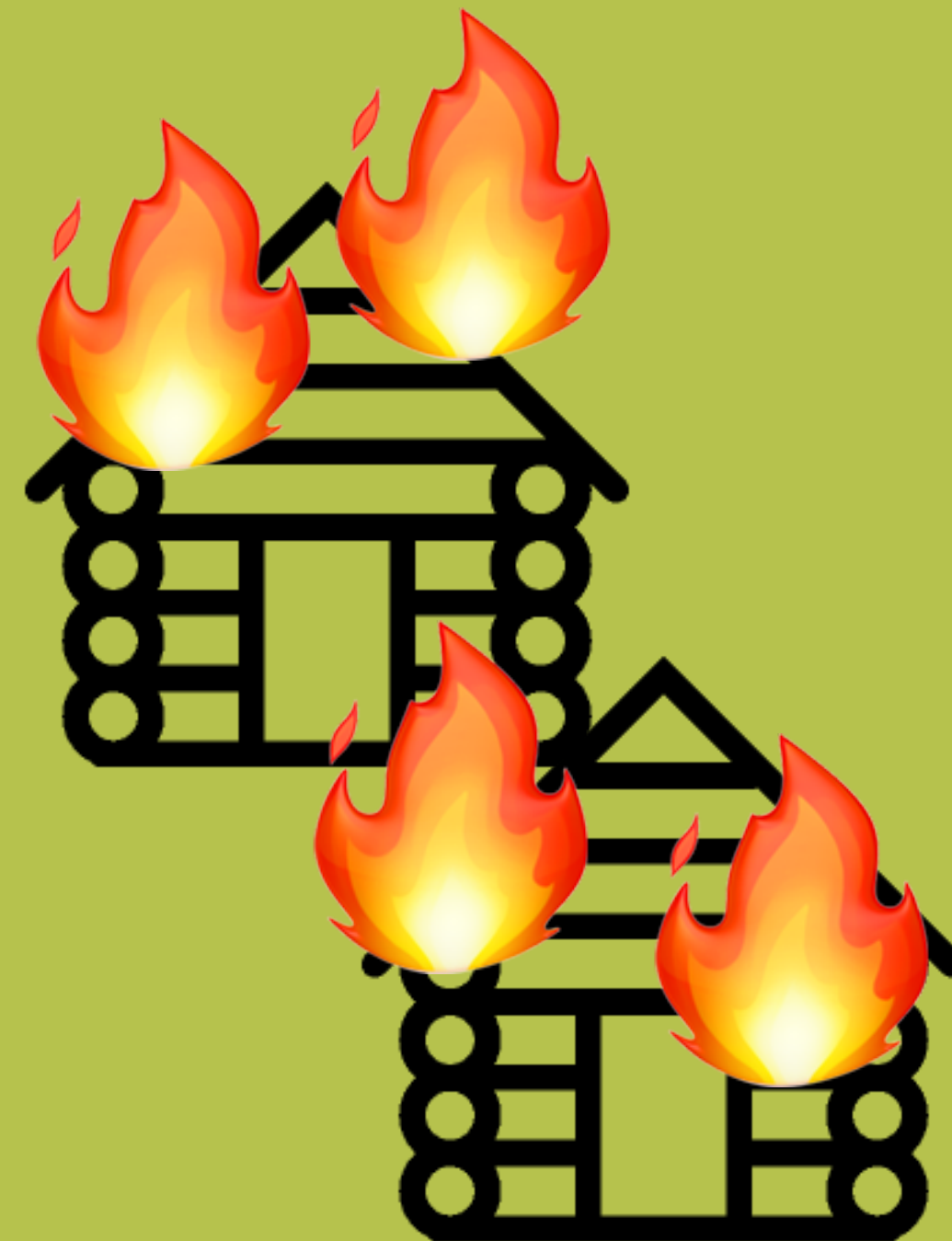
L'Homme Moyen
(The Average Man)



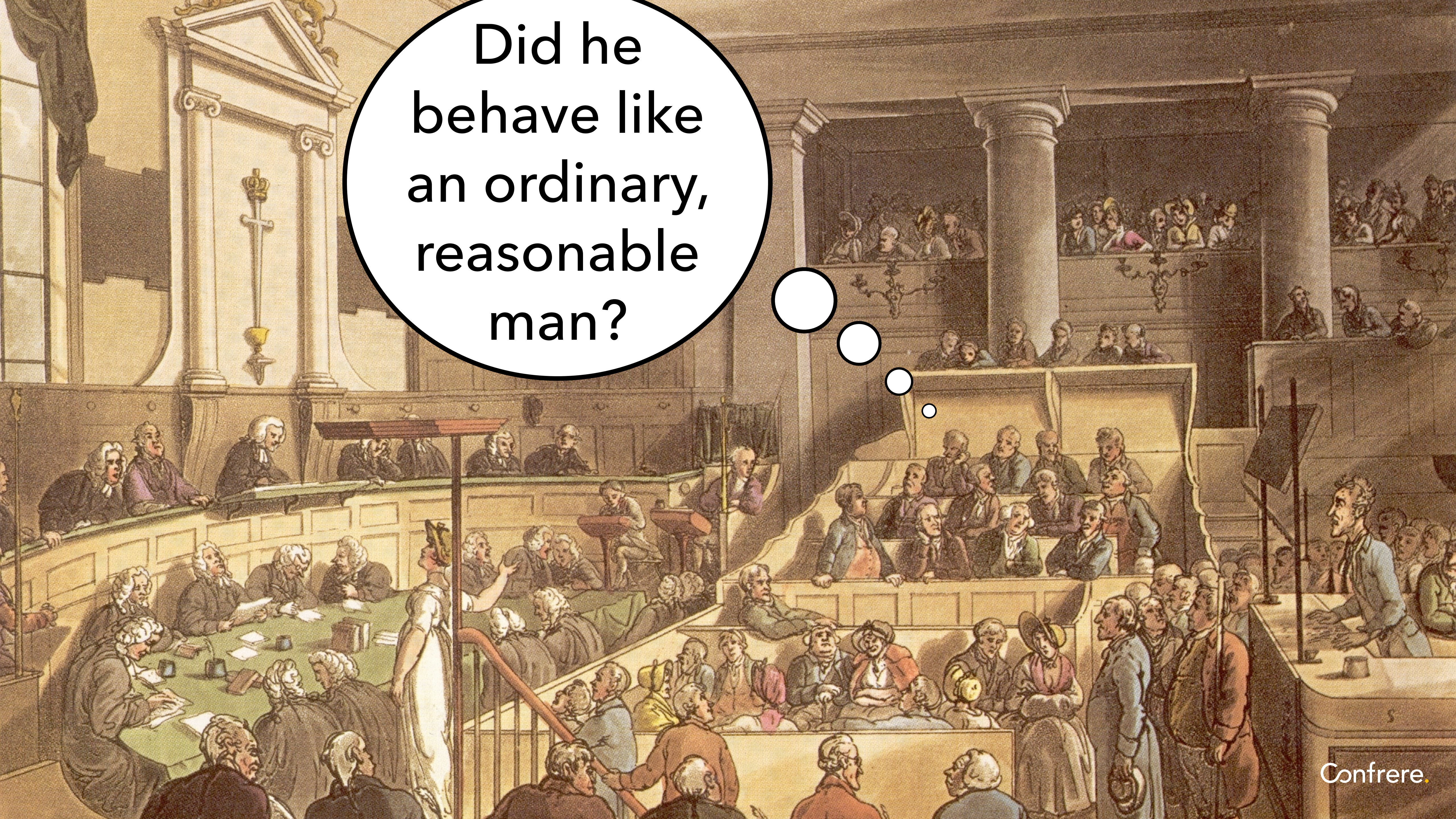
Menlove



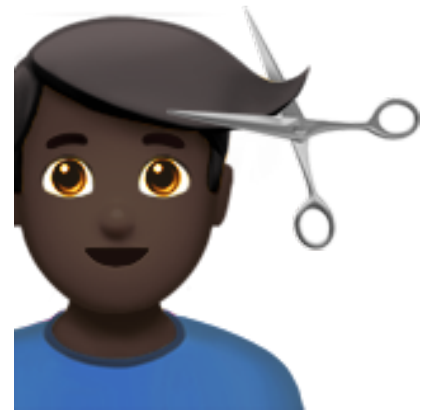
Vaughan



Did he
behave like
an ordinary,
reasonable
man?



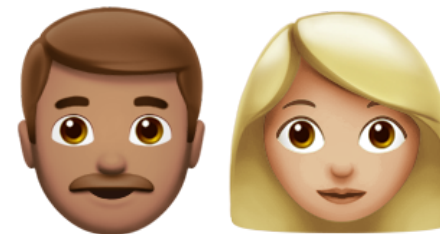
The Legal Village



reasonable hairdresser



reasonable officer



reasonable person

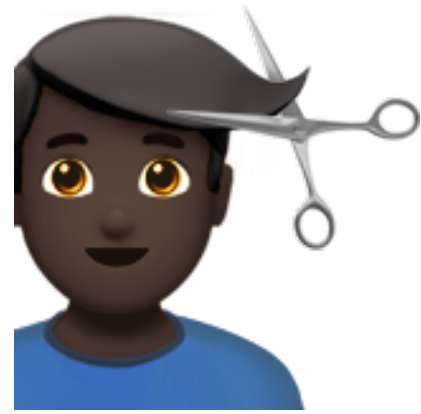


fair-minded and
informed observer



ordinary prudent
person of business

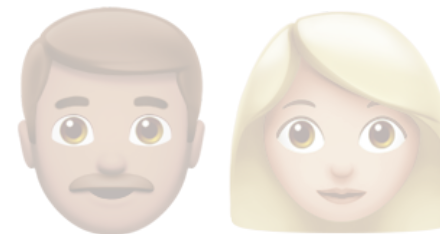
The Legal Village



reasonable hairdresser



reasonable officer



reasonable person



fair-minded and
informed observer



ordinary prudent
person of business

“

Fitbit helped expose
woman's false rape claim
in Lancaster County.



<https://twitter.com/internetofshit/status/692004889380179968>

Confrere.





facebook®

“

The ugly truth is that we believe in connecting people so deeply that anything that allows us to connect more people more often is de facto good.

– Andrew Bosworth, VP @ Facebook

<https://www.buzzfeed.com/ryanmac/growth-at-any-cost-top-facebook-executive-defended-data>



Google Analytics



You just missed it! Our last room sold out a few days ago.

Your dates are popular – we've run out of rooms at this property! Check out more below.

Profile Strength: **Intermediate**



Add a profile photo to help others recognize you

Members with a photo get up to 21x more profile views

Date of Birth:

** (eg. 05/21/1970)*

FACEBOOK PIXEL



Ethical dilemmas
are everywhere

Ethical dilemmas are everywhere

- What is your product when it's "free to use?"
- Are we bullying instead of persuading?
- What is "safe enough"?
- How much effort should we put into preventing misuse?
- Are we focussing enough on all our potential users?
- How much harm can our product cause?
- What are we sharing back to the community?

What is your product
when it's “free to use”?

Paying
Candy Crush
Saga users (3%)
paid on average
\$150

FREE"MIUM" ^{LATIN} → "NOT
REALLY"



Profile Strength: **Intermediate**



Add a profile photo to help others recognize you

Members with a photo get up to 21x more profile views

You pay with
your personal
information

“50% of mobile data is used to download ads”
—Yoav Weiss

Forbes

acature:
line
rketeer


3,139 views | Aug 23, 2018, 10:47am

Retail Earnings: The Best Of Times And The Worst Of Times

<https://confrere.com/pricing>



Steve Dennis Contributor ⓘ
Retail
I write on the reinvention of retail in the age of digital disruption

f
t
in



(AP Photo/Ted Shaffrey)

This is a big earnings week for retailers. As the reports roll in, it's increasingly clear that it's



Pricing



Café
Free

PERFECT FOR
Occasional use

Try for free

Desk
\$9/month

Per active team
member

PERFECT FOR
Consultants
Tutors
Sales Executives

Try for free

Office
\$19/month

Per active team
member

PERFECT FOR
Physicians
Therapists
Recruiters

Try for free

Company
\$49/month

Per active team
member

PERFECT FOR
Clinics

Try for free

MAX TEAM MEMBERS	3	Unlimited	Unlimited	Unlimited
<u>VIDEO CALLS AND VISITORS</u>	Unlimited	Unlimited	Unlimited	Unlimited
<u>PAYMENT INTEGRATION</u>		✓	✓	✓
<u>CUSTOMIZE TO FIT YOUR BRAND</u>		✓	✓	✓
<u>BANKID (NORWAY/SWEDEN)</u>			✓	✓
<u>API ACCESS</u>				✓
<u>OWN DOMAIN</u>				One-time fee

So Pro

You can use Notist for free, but it's so much better when you go pro.

You pay, we stay

We're all tired of building up content on sites that have no business model and just get shut down. That's so Web 2.0. We don't want that, so this is our business model.

You can use Notist for free for a handful of presentations each year, and without [some of the fancy features](#). If you use it a lot, or if you think you'd be sad if it went away, then we have pro accounts. These lift the restrictions for you and keep the lights on for us.

Pricing

Starter

Free

5 presentations a year
Basic profile features
A mild feeling of guilt

Pro Monthly

\$9

Unlimited presentations
Advanced editing
Biography and headshots
Custom domain
Access to teams

[Log in](#)

Pro Annual

\$99

Pay for 12 months and save
Fewer invoices for your accounts
A vague sense of wellbeing

[Log in](#)

Are we bullying
instead of
persuading?



Captain Pip's Marina & Hideaway

★★★

Marathon – Show on map (2 km from center)

In high demand! Booked 9 times in the last 24 hours

Great Value Today

Double Room

Only 1 room left on our site!

Risk Free: You can cancel later, so lock in this great price today!

Very Good

50+ reviews

8.5


Price for 3 nights

€ 393

includes taxes and charges

See our last available rooms

Best seller



Courtyard by Marriott Marathon Florida Keys

★★★

Marathon – Show on map (1.4 km from center)

4 people are looking right now

In high demand! Booked 22 times in the last 24 hours

Double Room

Only 5 rooms left on our site!

Risk Free: You can cancel later, so lock in this great price today!

Wonderful

50+ reviews

9.2


Guest Favorite

Price for 3 nights

€ 807

includes taxes and charges

See our last available rooms




Apartment

1 Bedroom - Boot Key Harbor Canal

Marathon – Show on map

You missed it!

Your dates are popular – we've run out of rooms at this property! Check out more below.



Blackfin Resort and Marina

★★

Marathon – Show on map (800 m from center)

Last booked: 35 minutes ago

Great Value Today

Double Room

In high demand – only 2 rooms left on our site!

Risk Free: You can cancel later, so lock in this great price today!

Very Good

50+ reviews


8.1

Price for 3 nights

€ 359

includes taxes and charges

See our last available rooms

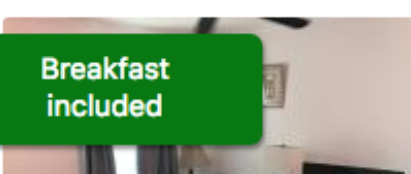


Vacation rentals might be an option for you.

Find the perfect property for your trip!

Show vacation rentals

Breakfast included



Coconut Cay Resort

★★★


Marathon – Show on map (2.9 km from center)

3 people are looking right now

Good

50+ reviews

7.9



Captain Pip's Marina & Hideaway

★★★

Marathon – Show on map (2 km from center)

In high demand! Booked 9 times in the last 24 hours

Great Value Today

Double Room

Risk Free: You can cancel later, so lock in this great price today!

Very Good

50+ reviews

8.5


Price for 3 nights

€ 393

includes taxes and charges

See

Best seller



Courtyard by Marriott Marathon Florida Keys

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Wonderful

50+ reviews

9.2


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See




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50+ reviews


8.1

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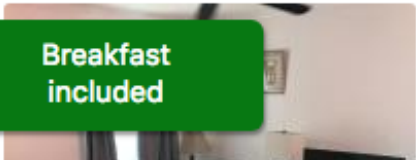
See



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Show vacation rentals

Breakfast included



Coconut Cay Resort

★★★


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3 people are looking right now

Good

50+ reviews


7.9



Captain Pip's Marina & Hideaway ★★★

Marathon – Show on map (2 km from center)

Great Value Today

Double Room 

Risk Free: You can cancel later, so lock in this great price today!

Very Good 8.5
50+ reviews


Price for 3 nights

€ 393

includes taxes and charges


See

Best seller



Courtyard by Marriott Marathon Florida Keys ★★★

Marathon – Show on map (1.4 km from center)

Double Room 

Risk Free: You can cancel later, so lock in this great price today!


Wonderful 9.2
50+ reviews
Guest Favorite

Price for 3 nights

€ 807

includes taxes and charges


See

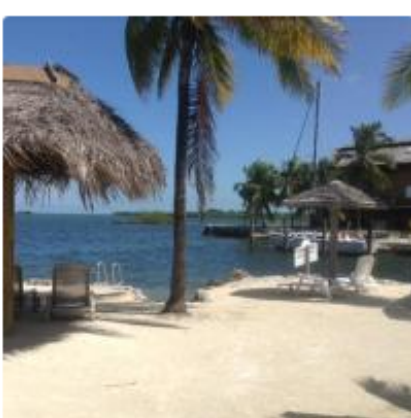


Apartment

1 Bedroom - Boot Key Harbor Canal

Marathon – Show on map


 **You missed it!**
Your dates are popular – we've run out of rooms at this property! Check out more below.



Blackfin Resort and Marina ★★

Marathon – Show on map (800 m from center)

Great Value Today

Double Room 

Risk Free: You can cancel later, so lock in this great price today!


Very Good 8.1
50+ reviews

Price for 3 nights

€ 359

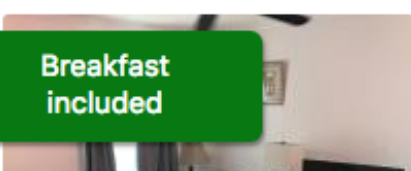
includes taxes and charges

See

 **Vacation rentals might be an option for you.**
Find the perfect property for your trip!

Show vacation rentals


Breakfast included



Coconut Cay Resort ★★★

Marathon – Show on map (2.9 km from center)

Good 7.9
50+ reviews



Captain Pip's Marina & Hideaway ★★★

[Marathon – Show on map](#)  (2 km from center)

[REDACTED]

[REDACTED]

Double Room 

[REDACTED]

Risk Free: You can cancel later **[REDACTED]**

[REDACTED]

[REDACTED] **8.5**


50+ reviews

Price for 3 nights

€ 393


includes taxes and charges

See **[REDACTED]** >




Courtyard by Marriott Marathon Florida Keys

★★★ **[REDACTED]**

[Marathon – Show on map](#)  (1.4 km from center)

[REDACTED]

[REDACTED]

Double Room 

[REDACTED]

Risk Free: You can cancel later **[REDACTED]**

[REDACTED]

[REDACTED] **9.2**


50+ reviews

Price for 3 nights

€ 807


includes taxes and charges

See **[REDACTED]** >




Apartment **1 Bedroom - Boot Key Harbor Canal**


[Marathon – Show on map](#)

 **You missed it!**

Your dates are popular – we've run out of rooms at this property! Check out more below.




Blackfin Resort and Marina ★★

[Marathon – Show on map](#)  (800 m from center)

[REDACTED]

[REDACTED]

Double Room 

[REDACTED]

Risk Free: You can cancel later **[REDACTED]**

[REDACTED]

[REDACTED] **8.1**


50+ reviews

Price for 3 nights

€ 359

includes taxes and charges

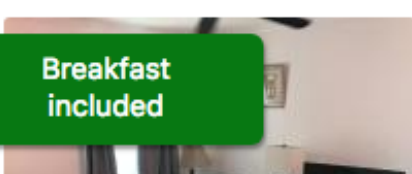
See **[REDACTED]** >



Vacation rentals might be an option for you.


Find the perfect property for your trip!

Show vacation rentals



Breakfast included


Coconut Cay Resort ★★★

[Marathon – Show on map](#)  (2.9 km from center)

[REDACTED]

[REDACTED] **7.9**

50+ reviews



Captain Pip's Marina & Hideaway

★★★

Marathon – Show on map

(2 km from center)

Double Room

Risk Free: You can cancel later

50+ reviews


8.5

Price for 3 nights

€ 393

includes taxes and charges

See >



Courtyard by Marriott Marathon Florida Keys

★★★

Marathon – Show on map

(1.4 km from center)

Double Room

Risk Free: You can cancel later

50+ reviews


9.2

Price for 3 nights

€ 807

includes taxes and charges

See >



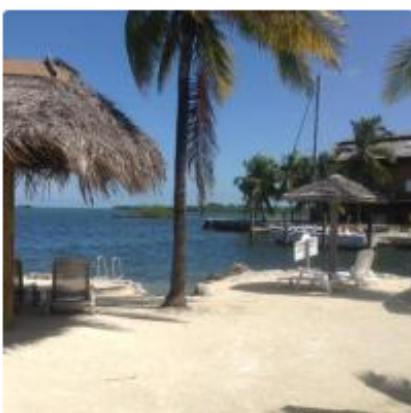
Apartment

1 Bedroom - Boot Key Harbor Canal

Marathon – Show on map

You missed it!

Your dates are popular – we've run out of rooms at this property! Check out more below.



Blackfin Resort and Marina

★★

Marathon – Show on map

(800 m from center)

Double Room

Risk Free: You can cancel later

50+ reviews

8.1

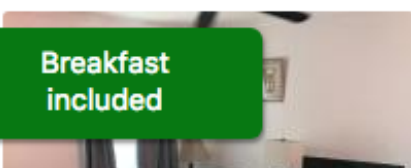
Price for 3 nights

€ 359

includes taxes and charges

See >





Breakfast included

Coconut Cay Resort


★★★

Marathon – Show on map

(2.9 km from center)

50+ reviews

7.9



Captain Pip's Marina & Hideaway ★★★

Marathon – Show on map (2 km from center)

Double Room 2 people

Risk Free: You can cancel later

50+ reviews


8.5

Price for 3 nights

€ 393

includes taxes and charges

See >



Courtyard by Marriott Marathon Florida Keys ★★★

Marathon – Show on map (1.4 km from center)

Double Room 3 people

Risk Free: You can cancel later

50+ reviews

9.2


Price for 3 nights

€ 807

includes taxes and charges

See >





Blackfin Resort and Marina ★★

Marathon – Show on map (800 m from center)

Double Room 2 people

Risk Free: You can cancel later

50+ reviews

8.1

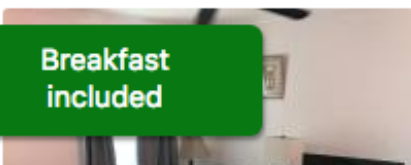
Price for 3 nights

€ 359

includes taxes and charges

See >





Coconut Cay Resort ★★★

Marathon – Show on map (2.9 km from center)

Breakfast included

50+ reviews

7.9



What is
“safe enough”?



Claudia Pellegrino @c_pellegrino · Apr 4

Does T-Mobile Austria in fact store customers' passwords in clear text

@tmobileat? @PWTooStrong @Telekom_hilft



T-Mobile Austria ✓

@tmobileat

Follow

Replying to @c_pellegrino @PWTooStrong @Telekom_hilft

Hello Claudia! The customer service agents see the first four characters of your password. We store the whole password, because you need it for the login for **mein.t-mobile.at** ^andrea

8:29 AM - 4 Apr 2018

546 Retweets 447 Likes



292

546

447





T-Mobile Austria  @tmobileat · Apr 5

Hi @c_pellegrino, I really do not get why this is a problem. You have so many passwords for every app, for every mail-account and so on. We secure all data very carefully, so there is not a thing to fear. ^Käthe



303



350



314



Eric™ @Korni22 · Apr 6

Well, what if your infrastructure gets breached and everyone's password is



T-Mobile Austria  @tmobileat · Apr 5

Hi @c_pellegrino, I really do not get why this is a problem. You have so many passwords for every app, for every mail-account and so on. We secure all data very carefully, so there is not a thing to fear. ^Käthe



303



350



314



Eric™ @Korni22 · Apr 6

Well, what if your infrastructure gets breached and everyone's password is published in plaintext to the whole wide world?



3

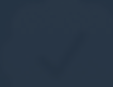


80



1.6K



T-Mobile Austria 

303

350

314



Eric™ @Korni22 · Apr 6

Well, what if your infrastructure gets breached and everyone's password is published in plaintext to the whole wide world?

3

80

1.6K



T-Mobile Austria ✓ @tmobileat · Apr 6

@Korni22 What if this doesn't happen because our security is amazingly good?
^Käthe

435

640

785



How much effort
should we put into
preventing misuse?


```
Terminal — top — 58x19
Processes: 193 total, 3 running, 4 stuck, 186 sleeping, 12
11:58:45 Load Avg: 2.09, 2.31, 2.26
CPU usage: 17.14% user, 12.4% sys, 70.81% idle
SharedLibs: 1008K resident, 0B data, 0B linkedit.
MemRegions: 101474 total, 3358M resident, 47M private, 682
PhysMem: 6203M used (1328M wired), 971M unused.
VM: 524G vsize, 1026M framework vsize, 7070012(0) swapins.
Networks: packets: 3757450/3794M in, 2789373/570M out.
Disks: 1170575/42G read, 1485800/49G written.

PID  COMMAND  %CPU  TIME  #TH  #WQ  #PORT
7459  mdworker  0.0    00:00.08  3    0    52
7458  mdworker  0.0    00:00.15  4    0    54
7449  zsh       0.0    00:00.04  1    0    19
7448  login     0.0    00:00.01  2    0    30
7447  top       18.0   01:06.16  1/1  0    26
7443  zsh       0.0    00:00.03  1    0    19
7442  login     0.0    00:00.16  2    0    30
7441  pbs       0.0    00:00.09  2    1    43
```

```

a:af -78 11 Y US WPA2(PSK/AES/AES)
9:cc -76 11 N -- WPA(PSK/AES,TKIP/TKIP) WPA2(PSK/AES,TKIP/TKIP)
0:24 -81 6 Y US WPA2(PSK/AES/AES)
f:f0 -33 4 Y -- WPA(PSK/AES,TKIP/TKIP) WPA2(PSK/AES,TKIP/TKIP)

RSSI CHANNEL HT CC SECURITY (auth/unicast/group)
6:ec -82 2 Y -- WPA(PSK/AES,TKIP/TKIP) WPA2(PSK/AES,TKIP/TKIP)
85 1 Y -- WPA(PSK/AES,TKIP/TKIP) WPA2(PSK/AES,TKIP/TKIP)
Y -- WEP
Y -- WPA(PSK/AES,TKIP/TKIP) WPA2(PSK/AES,TKIP/TKIP)
```

```
Terminal — zsh
igd[18]: network changed: v4(en0:192.168.0.13) DNS+
EventAgent[11]: Captive: en0: Not probing 'Surveillan
cates not captive)
EventAgent[11]: Captive: CNPluginHandler en0: Authent
nwindow[67]: CoreAnimation: warning, deleted thread w
on; set CA_DEBUG_TRANSACTIONS=1 in environment to log
[88]: Unrecognized leaf certificate
layUIAgent[7220]: 2016-04-13 11:51:38.354507 AM [AirP
ring: no
layUIAgent[7220]: 2016-04-13 11:51:38.387480 AM [AirP
ring: no
nel[0]: Google Chrome He (map: 0xffffffff8021a5a000) tri
nnest for map: 0xffffffff8021a5a000, region 0x7fff8e400
not abnormal for debuggers, this increases system mem
get exits.
nel[0]: Google Chrome He (map: 0xffffffff8021a5a2d0) tri
nnest for map: 0xffffffff8021a5a2d0, region 0x7fff8e400
not abnormal for debuggers, this increases system mem
rget exits.
nel[0]: Google Chrome He (map: 0xffffffff8023694870) tri
nnest for map: 0xffffffff8023694870, region 0x7fff8e400
not abnormal for debuggers, this increases system mem
rget exits.
nel[0]: Google Chrome He (map: 0xffffffff801b43a5a0) tri
nnest for map: 0xffffffff801b43a5a0, region 0x7fff8e400
not abnormal for debuggers, this increases system mem
rget exits.
in[7442]: USER_PROCESS: 7442 ttys002
in[7448]: USER_PROCESS: 7448 ttys003
omg webcam tape
```










Settings

Audio

Experience

Gameplay

Advanced

Teleport Bubble

Small Med Large

Ignore Bubble

Small Med Large

Show watch notifications

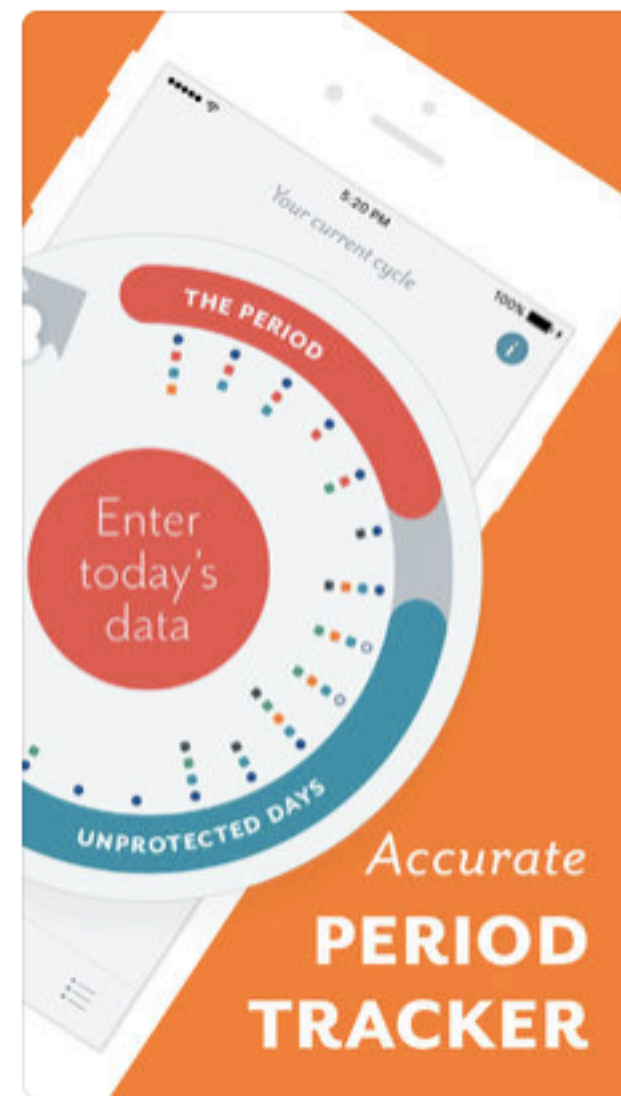
Matchmake me with senior players

Keep watch to open menu

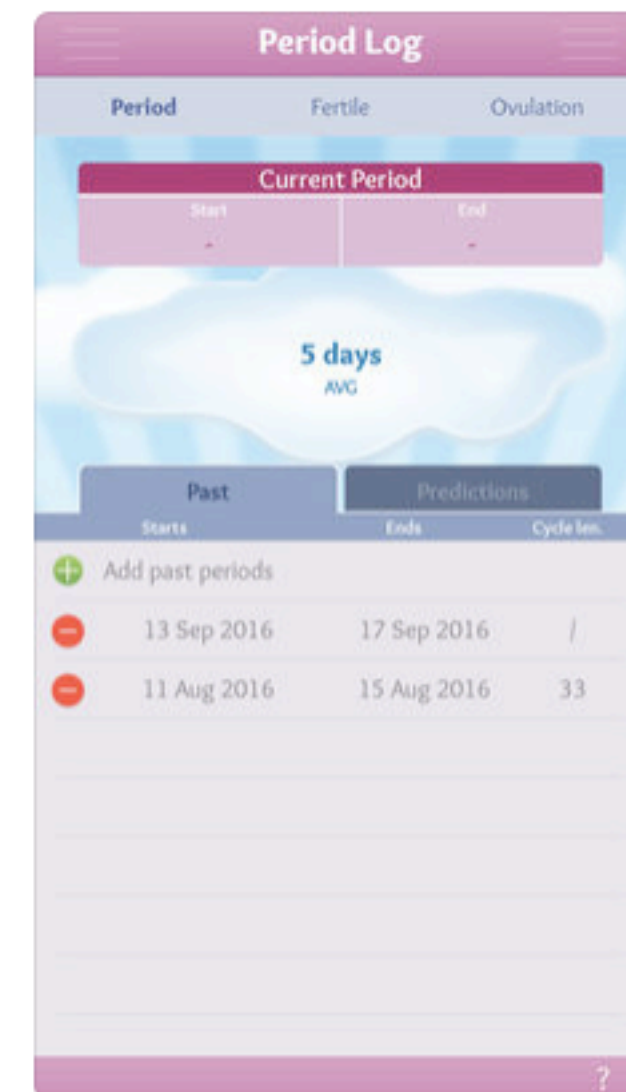
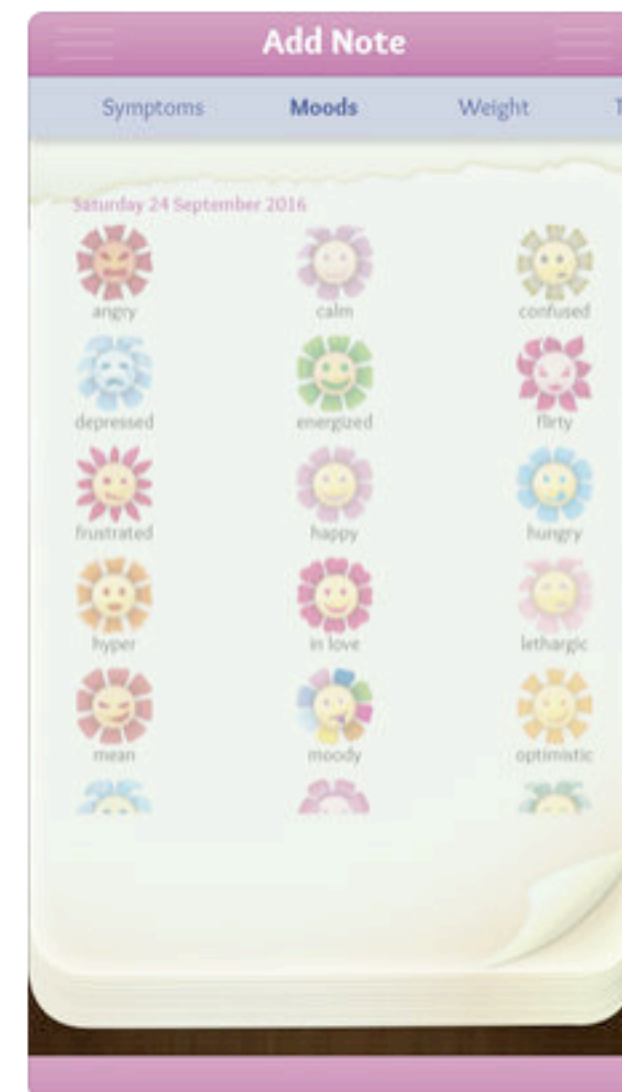
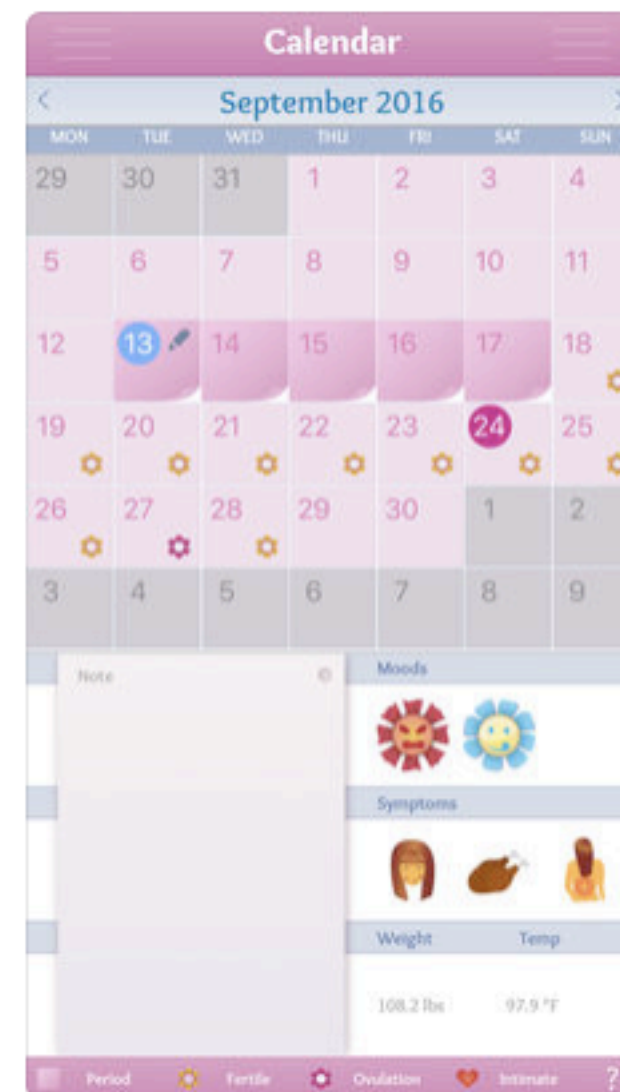
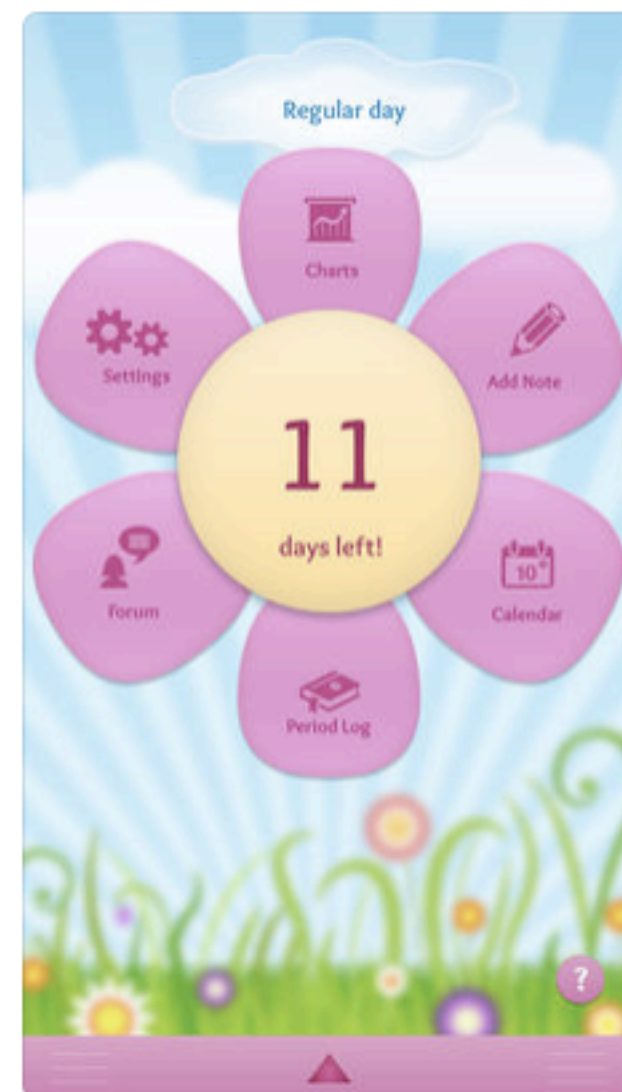
Notify me when I come online

Are we focussing
enough on all our
potential users?

How much harm
can our product
cause?



37 women who used the app came to Södersjukhuset for an abortion.



What are we
sharing back to the
community?

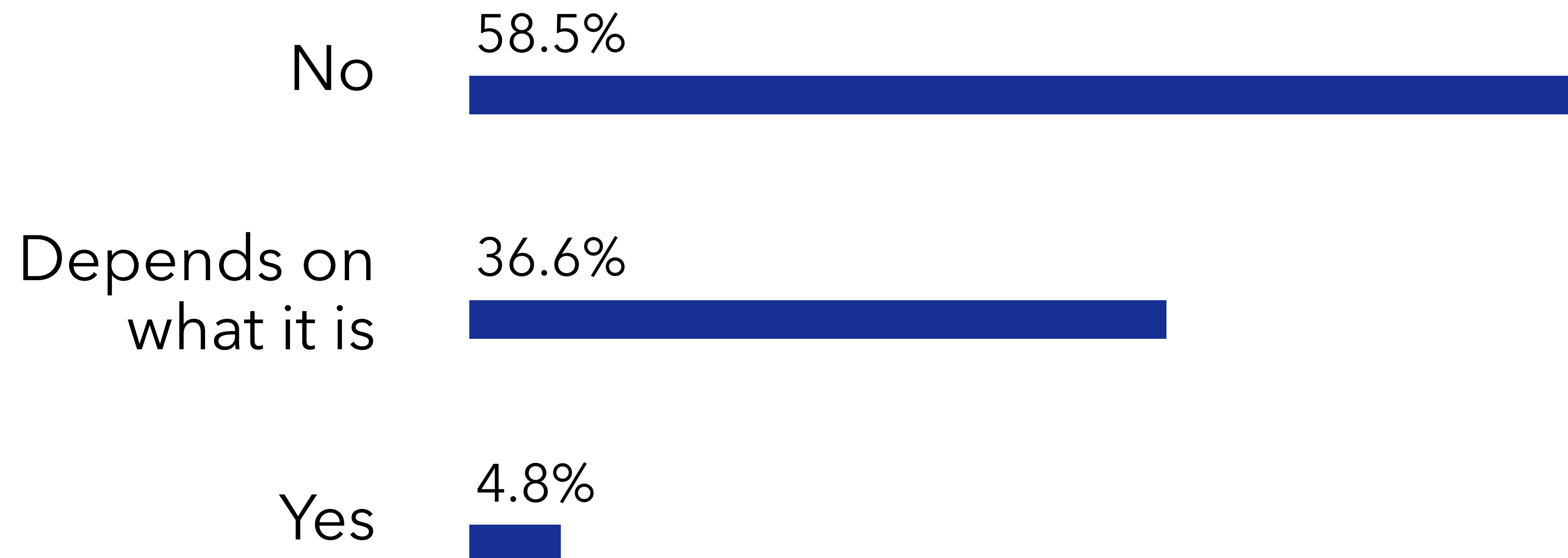


Australian Government

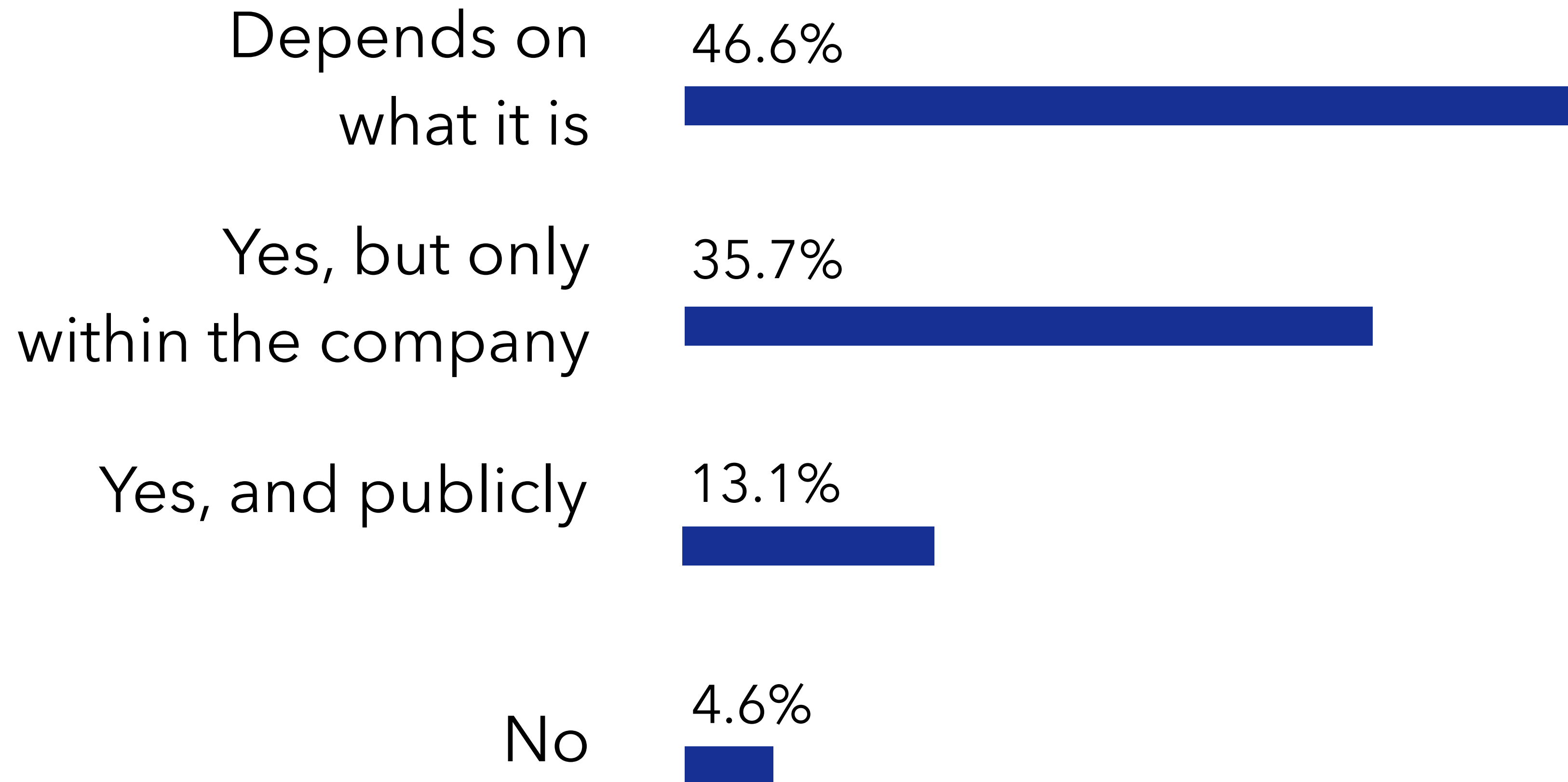
- What is your product when it's "free to use?"
- Are we bullying instead of persuading?
- What is "safe enough"?
- How much effort should we put into preventing misuse?
- Are we focussing enough on all our potential users?
- How much harm can our product cause?
- What are we sharing back to the community?



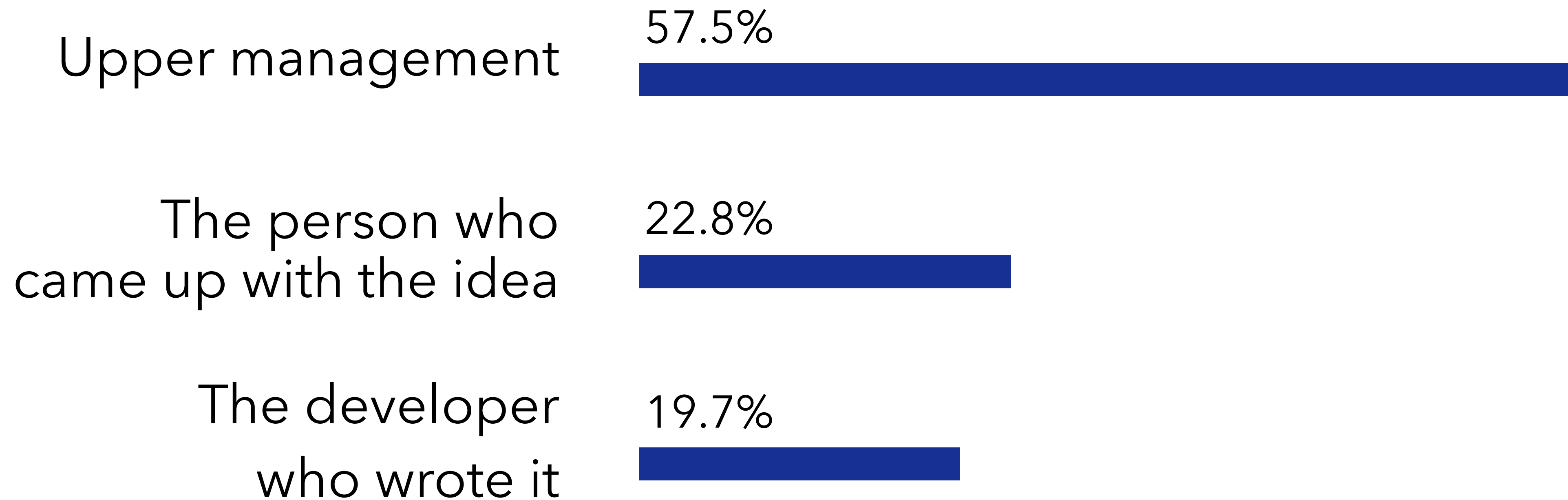
Would you write code that's clearly unethical?



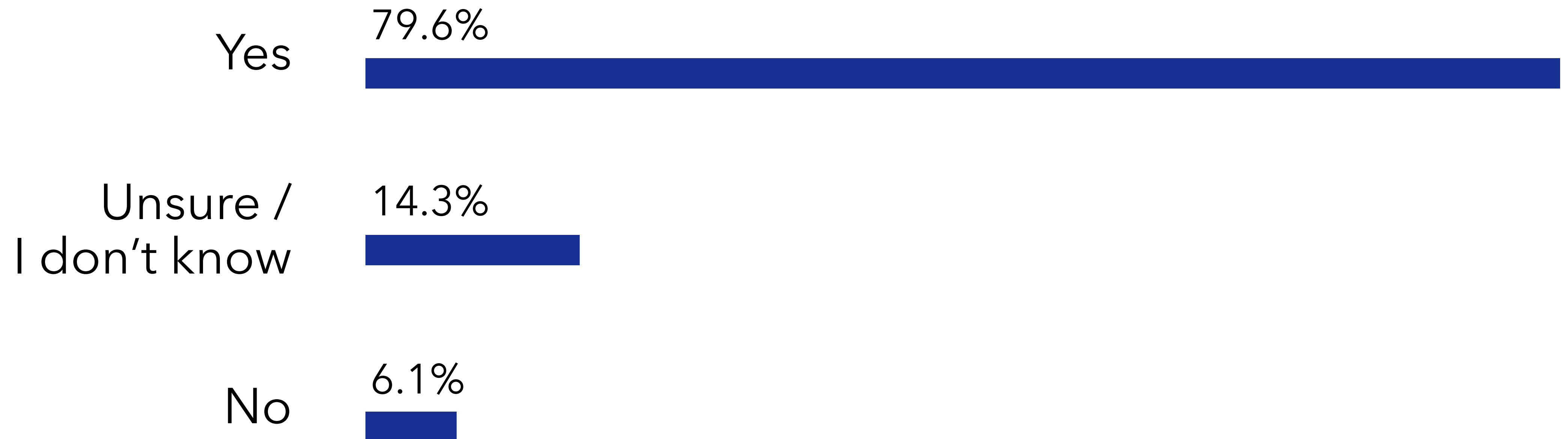
Would you report unethical code?



Who is ultimately most responsible?



Do developers have an obligation to consider the ethical implications of their code?

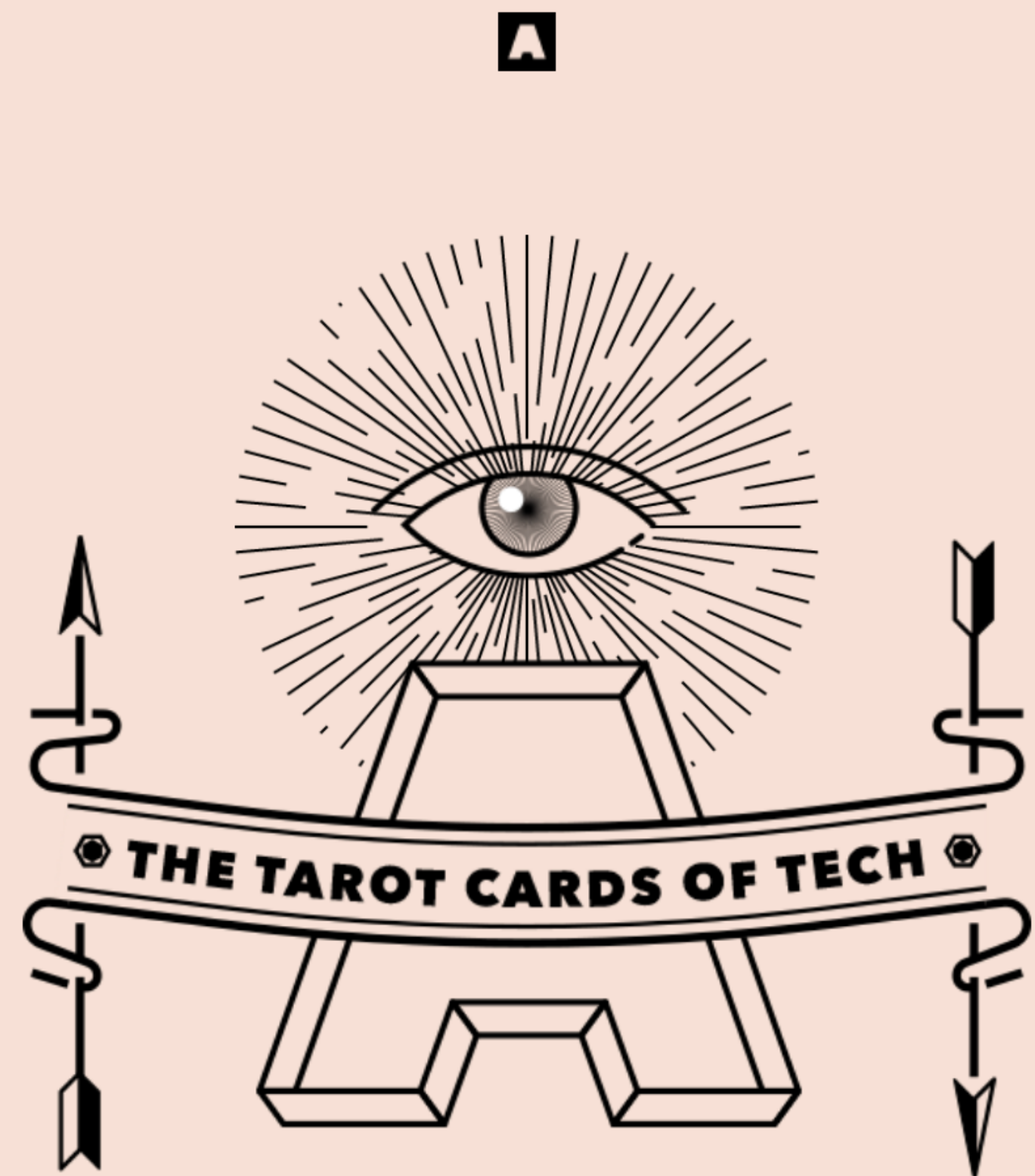


A Reasonable Developer

1. Does not write code that's clearly unethical;
2. Reports any unethical code;
3. Holds upper management responsible for accomplishing something unethical;
4. Is obligated to consider ethical implications of their code.

How to deal with ethical dilemmas.

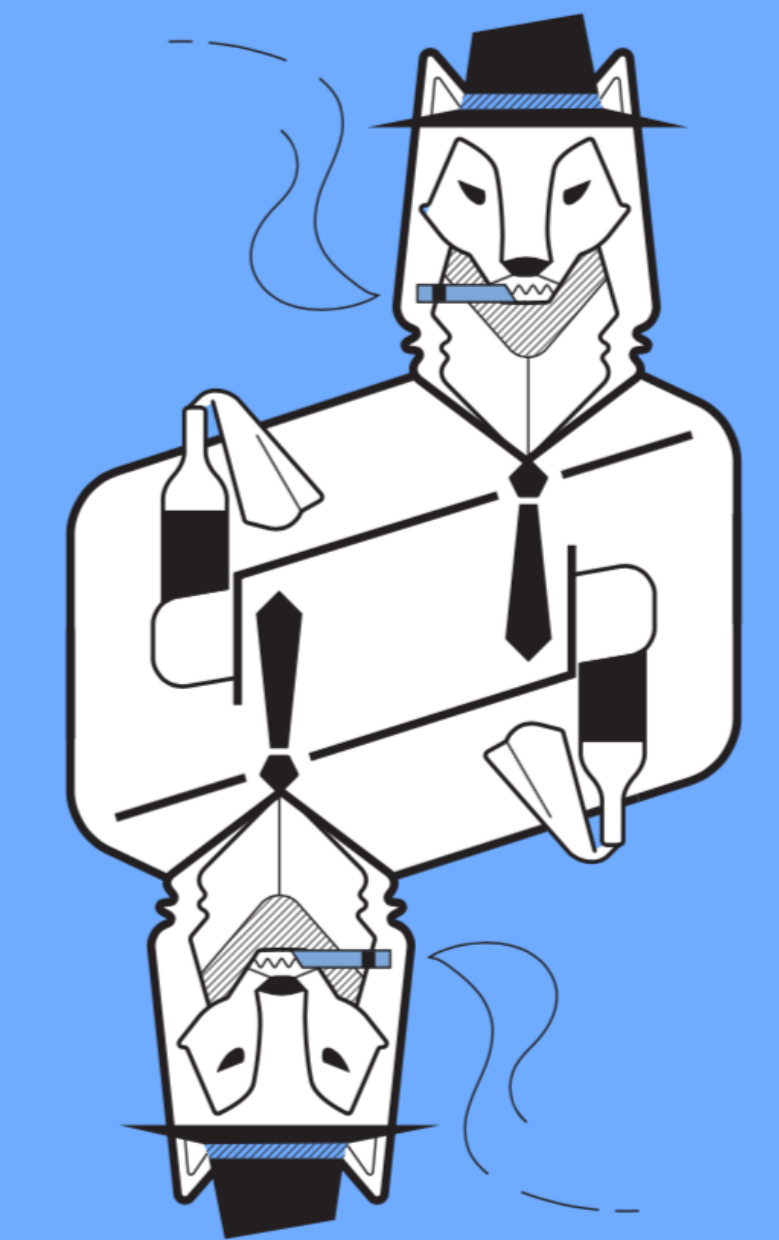
Think about the
ethical implications,
before and during development.



The Tarot Cards of Tech

by Artefact

<https://www.artefactgroup.com/the-tarot-cards-of-tech/>



THE
BIG BAD WOLF

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**What could a
"bad actor" do with
your product?**

What would predatory and
exploitative behavior look like
with your product?

What product features are most
vulnerable to manipulation?

Who could be targeted with
your product?





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Confrere

Create an internal
code of ethics

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Association for
Computing Machinery



IEEE

ACM Code of Ethics and Professional Conduct

“An ACM member should”

1. Avoid harm;
2. Contribute to society and to human well-being, acknowledging that all people are stakeholders in computing;
3. Be fair and take action not to discriminate;
4. Design and implement systems that are robustly and usably secure.

ACM Software Engineering Code

“A software engineer should”

1. Accept full responsibility for their own work;
2. Be careful to use only accurate data derived by ethical and lawful means, and use it only in ways properly authorized;
3. Avoid associations with businesses and organizations which are in conflict with this code.

ACM Code of Ethics and Professional Conduct

<https://www.acm.org/about-acm/acm-code-of-ethics-and-professional-conduct>

ACM Software Engineering Code (with IEEE)

<https://ethics.acm.org/code-of-ethics/software-engineering-code/>

IEEE Code of Ethics

<https://www.ieee.org/about/corporate/governance/p7-8.html>

What if you
encounter ethical
problems?

What is the problem exactly?

Who is affected?

What are the internal
procedures?

What are the alternative
actions?

ICAEW framework for resolving ethical problems

<https://www.icaew.com/technical/ethics/framework-for-resolving-ethical-problems>

Santa Clara University framework for ethical decision making

<https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/a-framework-for-ethical-decision-making/>

Ethics are an integral
part of software
development.

Don't just act
reasonable.

Act responsible.

Create you own
code of ethics.
And live by it.

You are not
“just an engineer.”

Thank you!

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