

The Ethics of Software

some practical considerations

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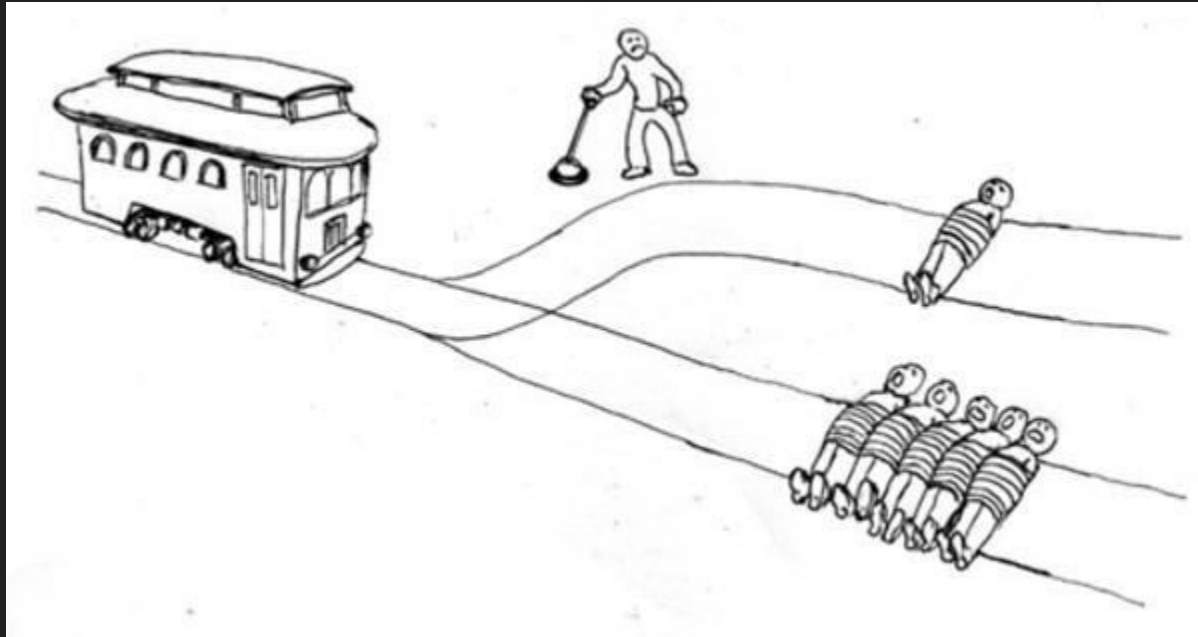
The Ethics of Software

some practical considerations

Software Engineering Ethics

Engineering Ethics

Applied Ethics



<http://knowyourmeme.com/memes/the-trolley-problem>



"Once the rockets are up,
who cares where they come down?
That's not my department,"
says Werner von Braun

And yet, given all of the above, Society still does not truly understand just how much it depends upon us. And we programmers don't truly understand it either. But consider this: People in our society interact with software *every single second of every single day*. There are hundreds of millions of lines of code running in the walls of our homes, in our appliances, in our automobiles, in our watches, in our phones, in our smoke alarms, in our burglar alarms, in our garage door openers, and even in our light switches.

Nothing happens in our society unless it is mediated by software. No commercial transaction takes place. No law gets enacted or enforced. No surgery is performed, No drug is created. No plane flies. No car starts. No alarm clock rings. No groceries get bought. No soccer game is played. No telephone rings. The lights don't turn on.

Without software -- *nothing works.*

Bad Pharma™

Ben Goldacre

Bestselling author of *Bad Science*

How drug companies
mislead doctors and
harm patients

364 pages



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Without software -- *nothing works.*

ACM Code of Ethics and Professional Conduct

Adopted by ACM Council 10/16/92.

Preamble

Contents & Guidelines

Preamble

Commitment to ethical professional conduct is expected of every member (voting members, associate members, and student members) of the Association for Computing Machinery (ACM).

This Code, consisting of 24 imperatives formulated as statements of personal responsibility, identifies the elements of such a commitment. It contains many, but not all, issues professionals are likely to face. [Section 1](#) outlines fundamental ethical considerations, while [Section 2](#) addresses additional, more specific considerations of professional conduct. Statements in [Section 3](#) pertain more specifically to individuals who have a leadership role, whether in the workplace or in a volunteer capacity such as with organizations like ACM. Principles involving compliance with this Code are given in [Section 4](#).

The Code shall be supplemented by a set of Guidelines, which provide explanation to assist members in dealing with the various issues contained in the Code. It is expected that the Guidelines will be changed more frequently than the Code.

The Programmer's Oath

18 November 2015

In order to defend and preserve the honor of the profession of computer programmers,

I Promise that, to the best of my ability and judgement:

1. I will not produce harmful code.
2. The code that I produce will always be my best work. I will not knowingly allow code that is defective either in behavior or structure to accumulate.
3. I will produce, with each release, a quick, sure, and repeatable proof that every element of the code works as it should.
4. I will make frequent, small, releases so that I do not impede the progress of others.
5. I will fearlessly and relentlessly improve my creations at every opportunity. I will never degrade them.
6. I will do all that I can to keep the productivity of myself, and others, as high as possible. I will do nothing that decreases that productivity.
7. I will continuously ensure that others can cover for me, and that I can cover for them.
8. I will produce estimates that are honest both in magnitude and precision. I will not make promises without certainty.
9. I will never stop learning and improving my craft.

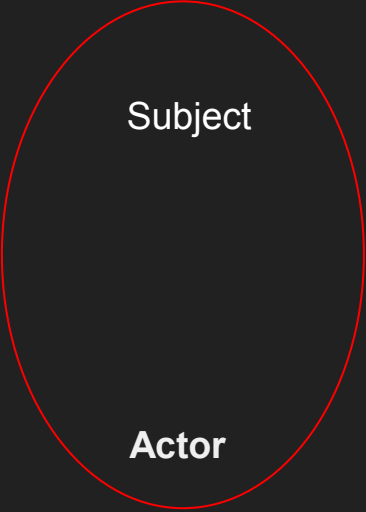
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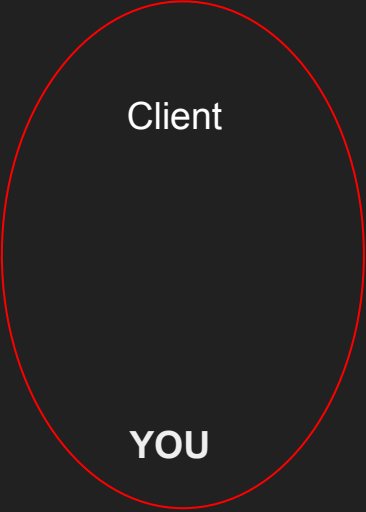
- Moral virtue
- Excellence
- Quality
- Duty

Duty



Subject

Actor



Client

YOU



Client

Colleagues

YOU

Diversity

Diversity

LEADING TEAMS

Defend Your Research: What Makes a Team Smarter? More Women

by **Anita Woolley** and **Thomas W. Malone**

FROM THE JUNE 2011 ISSUE

<https://hbr.org/2011/06/defend-your-research-what-makes-a-team-smarter-more-women>

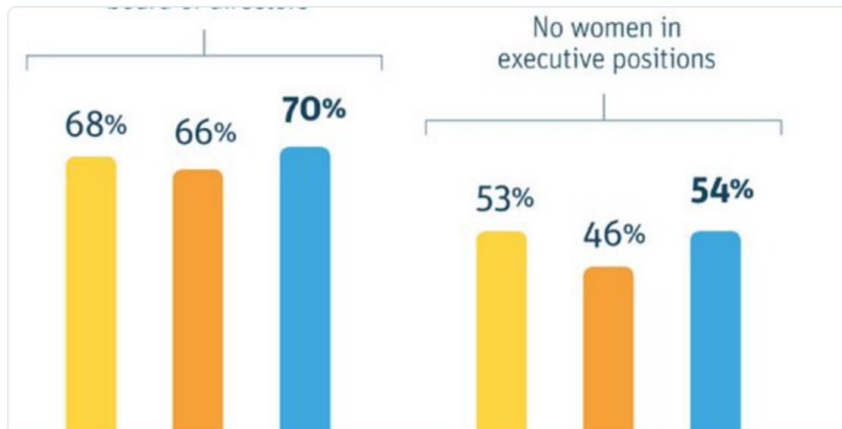


Sarah Lacy

@sarahcuda

Follow

"95% of white male respondents don't consider this a problem, 40% are sick of hearing about it"



White men to women and minorities in tech: We just DGAF

Silicon Valley Bank survey shows gender balance got slightly worse last year. It's easy to see why.

pando.com

RETWEETS

588

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2:28 PM - 15 Feb 2017



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424



Grady Booch ✓

@Grady_Booch

Following



Likewise: I will no longer speak on all male panels

Cindy Gallop ✓ @cindygallop

Why I Will No Longer Speak On All-Male Panels @scott_gilmore
macleans.ca/society/life/i... #adweekexeclab @adweek @nielsen #changetheratio

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58



6:10 PM - 7 Mar 2017



2

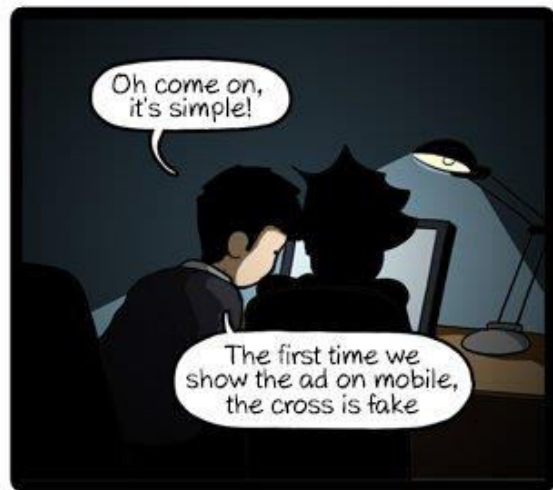


15



58





Before submitting the website to the client, my project manager decided to give it a quick test. She tried the quiz, then came over to my desk:

“The quiz doesn’t work,” she said.

“Oh. What’s broken?” I asked.

“Well, it seems that no matter what I do, the quiz recommends the client’s drug as the best possible treatment. The only exception is if I say I’m allergic. Or if I say I am already taking it.”

“Yes. That’s what the requirements say to do. Everything leads to the client’s drug.”

“Oh. Okay. Cool.”

*

And she was off.



Data Science Renee

@BecomingDataSci

 Follow



As a data scientist, you have a choice whether to work for a company that uses data obtained this way.

ACLU National  @ACLU

BREAKING: Congress fast-tracks resolution to allow internet providers to sell consumer data without permission aclu.org/news/aclu-comm...

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17

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19



7:40 AM - 9 Mar 2017

 1

 17

 19

The Distribution of Users' Computer Skills: Worse Than You Think

by [JAKOB NIELSEN](#) on November 13, 2016

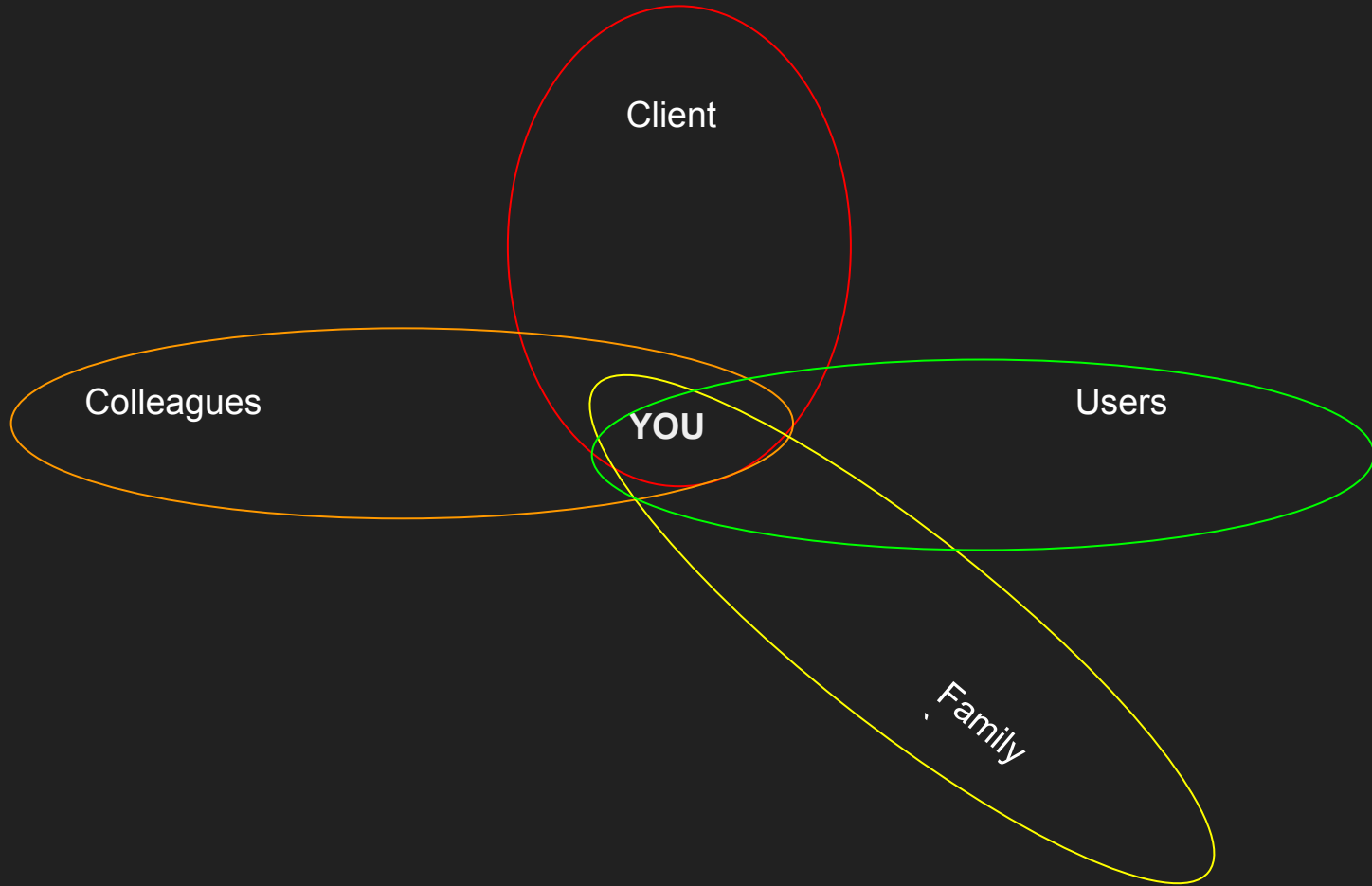
Topics: [Behavior Patterns](#) [Psychology and UX](#)

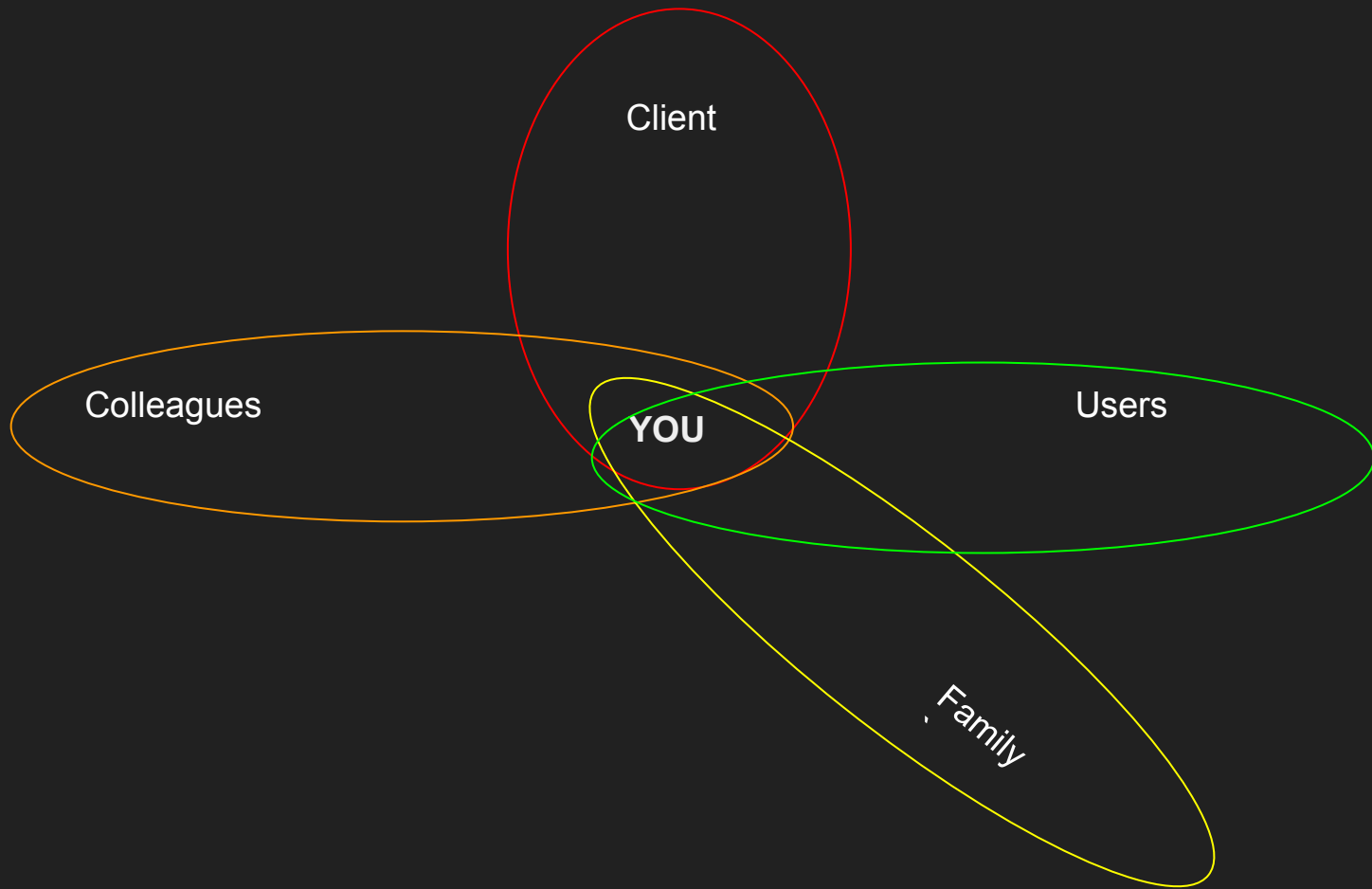
Summary: Across 33 rich countries, only 5% of the population has high computer-related abilities, and only a third of people can complete medium-complexity tasks.

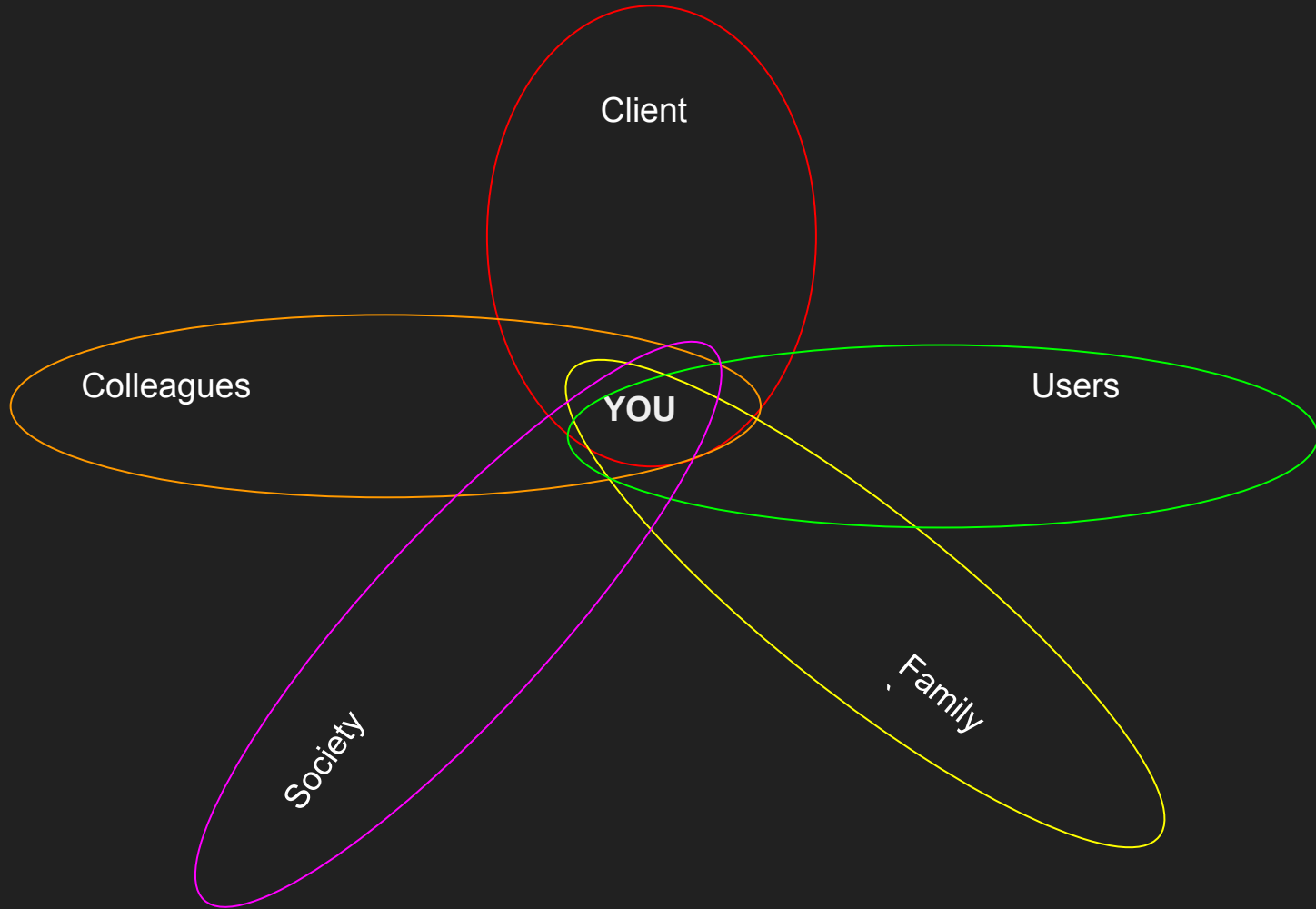
One of usability's most hard-earned lessons is that *you are not the user*. This is why it's a *disaster to guess* at the users' needs. Since designers are so different from the majority of the target audience, it's not just *irrelevant* what you like or what you think is easy to use — it's often *misleading* to rely on such personal preferences.

For sure, anybody who works on a design project will have a more accurate and detailed *mental model* of the user interface than an outsider. If you target a broad consumer audience, you will also have a higher IQ than your average user, higher *literacy levels*, and, most likely, you'll be younger and experience less *age-driven degradation* of your abilities than many of your users.

There is one more difference between you and the average user that's even more damaging to your ability to predict what will be a good user interface: skills in using computers, the Internet, and technology in general. Anybody who's on a web-design team or other user experience project is a veritable supergeek compared with the average population. This not just true for the developers. Even the less-technical team members are only "less-technical" in comparison with the engineers. They still have much stronger technical skills than most normal people. <https://www.nngroup.com/articles/computer-skill-levels/>







<https://www.nngroup.com/articles/computer-skill-levels/>

Intended Consequences

This 'defeat device' sounds like a sophisticated piece of kit.

Full details of how it worked are sketchy, although the EPA has said that the engines had computer software that could sense test scenarios by monitoring speed, engine operation, air pressure and even the position of the steering wheel.

When the cars were operating under controlled laboratory conditions - which typically involve putting them on a stationary test rig - the device appears to have put the vehicle into a sort of safety mode in which the engine ran below normal power and performance. Once on the road, the engines switched out of this test mode.

The result? The engines emitted nitrogen oxide pollutants up to 40 times above what is allowed in the US.

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Grady Booch ✓

@Grady_Booch

Following



A personal message to the developers who wrote the code for Uber's Greyball Tool: you are a disgrace to the industry



How Uber Deceives the Authorities Worldwide

A program uses data Uber collected to evade law enforcement in cities that resist the ride-hailing service, some current and former Uber employees said.

[nytimes.com](https://www.nytimes.com)

RETWEETS

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Uber says it will ban a secret software tool from being used to evade undercover regulators.

The software, called Greyball, seeks to identify officials around the world trying to catch Uber drivers operating illegally. It then denies them service.

The ride-hailing firm has been using the tool to secure early access to cities where its operations had not yet been authorized.



<https://www.nngroup.com/articles/computer-skill-levels/>

Unintended Consequences

As we know, there are known knowns;
there are things we know we know.

We also know there are known unknowns;
that is to say we know there are some things we
do not know.

But there are also unknown unknowns - the ones we
don't know we don't know. ...

**It is the latter category that tend to be the
difficult ones.**

Latest taxi and private hire vehicle statistics for England

At the end of March 2015:

- the total number of licensed taxi and private hire vehicles in England increased by 9.3% to 242,200 between 2013 and 2015. This was the highest number of licensed vehicles since comparable records were first collected in 2005
- 69% of all licensed vehicles in England were private hire vehicles
- licensed vehicles in London accounted for 35% of all licensed vehicles
- there were 297,600 driver licences in England
- an estimated 58% of licensed taxis were wheelchair accessible, this was 100% of taxis in London

<https://www.gov.uk/government/collections/taxi-statistics>



Trey Causey

@treycousey

Following



Call me cynical, but I don't think 'tweets in support' or MOOCs are helping with job displacement.



Andrew Ng

@AndrewYNg



Follow

AI researchers: As you plan your great 2017 projects, give some thought to helping w/job displacements our community will cause

RETWEETS

77

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167



2:43 PM - 31 Dec 2016 from [Mountain View, CA](#)



8



77



167



<https://www.nngroup.com/articles/computer-skill-levels/>

Unintended Consequences

**FAKE
NEWS!
BAD!!!**

Hurrah for the Blackshirts

BECAUSE Fascism comes from Italy, shortsighted people in this country think they show a sturdy national spirit by deriding it.

If their ancestors had been equally stupid, Britain would have had no banking system, no Roman law, nor even any football, since all of these are of Italian invention.

* * * * *

THE Socialists, especially, who jeer at the principles and uniform of the Blackshirts as being of foreign origin, forget that the founder and High Priest of their own creed was the German Jew Karl Marx.

Though the name and form of Fascism originated in Italy, that movement is not now peculiar to any nation.

By
**VISCOUNT
ROTHERMERE**

and disgusted by the incompetence of their elders in dealing with the depression that has followed on it. The other is made up of men too young to remember the war but ready to put all their ardour and energy at the service of a cause which offers them a vigorous constructive policy in place of the drift and indecision of the old political parties.

Blackshirts proclaim a fact which politicians dating from pre-war days will never face—that the new age requires new methods and new men. They base their contention on the

views" were an effective substitute in human affairs for action, the National Government would be the best that Britain has ever had. But the experience of the past two-years has proved that these futile and time-wasting devices are no more than a screen for inertia and indecision.

* * * * *

THE huge majority obtained by the present Government at the general election of 1931 was the last vote of confidence that the nation will ever give to Old Gang politicians. Two years from now another general election will be almost due. The whole future of Britain will depend upon its issue.

A prolongation of the present régime may be regarded, in the country's present mood, as out of the question. There will be a pronounced swing either to Right or Left.

Crazy News
Reef

Presented by

D. B. WYNDHAM LEWIS

OLD soldiers will note, with a flicker of recognition, one of the Morl "The Soldier's Return" a collection group, at the British Art Exhibition. The handsome, even foppish, young soldier, wearing an expensive red shirt and a natty velvet neckband, and looking like Squire Thornhill, is evidently his humble and astonished relatives. He became quartermaster-sergeant, and he is now going to buy the village. His father waggishly holds out to him a mug of rum. He ignores it. Rum is

Jimmy Wales accused of hypocrisy over Wikitribune

Daily Mail · 2 days ago

Who first reduced lying into an art, and adapted it to politics, is not so clear from history, although I have made some diligent inquiries.

....

There is one essential point wherein a political liar differs from others of the faculty, that he ought to have but a short memory, which is necessary, according to the various occasions he meets with every hour of differing from himself, and swearing to both sides of a contradiction, as he finds the persons disposed with whom he hath to deal.

...

The superiority of his genius consists in nothing else but an inexhaustible fund of political lies, which he plentifully distributes every minute he speaks, and by an unparalleled generosity forgets, and consequently contradicts, the next half hour.

Political Lying, Jonathan Swift

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Political Lying, Jonathan Swift



Ross Barnett and 1 other Retweeted



J. Guy Davidson @hatcat01 · 3h

Once you learn about confirmation bias you start seeing it everywhere.
@fbuontempo #ACCUConf



5



7



Jimmy Wales accused of hypocrisy over Wikitribune

Daily Mail · 2 days ago

Good: The internet gives everyone a platform
Bad : The internet gives everyone a platform



Steve Purcell

@sanityinc

Following



Computers are a multiplier for both human weakness and goodness. As software people we can choose what to amplify.

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11:52 PM - 15 Feb 2017



AND, A SHORT DISTANCE
AWAY...

MY FAULT--ALL
MY FAULT! IF
ONLY I HAD
STOPPED HIM
WHEN I **COULD**
HAVE! BUT I
DIDN'T--AND NOW
--UNCLE BEN--
IS DEAD...



AND A LEAN, SILENT FIGURE
SLOWLY FADES INTO THE
GATHERING DARKNESS, AWARE
AT LAST THAT IN THIS WORLD,
WITH GREAT POWER THERE
MUST ALSO COME -- GREAT
RESPONSIBILITY!



AND SO A LEGEND IS BORN
AND A NEW NAME IS ADDED
TO THE ROSTER OF THOSE
WHO MAKE THE WORLD OF
FANTASY THE MOST EXCITING
REALM OF ALL!



<https://forums.eidetscrollsonline.com/en/discussion/275152/be-excellent-to-each-other>