

ADD0

ALL DAY DEVOPS

NOVEMBER 6, 2019

Mykel Alvis

Blue-Collar Knowledge Work



welcome to fantasy island

- mykel alvis
- array consulting llc
- consultant/devops coach
- lawful evil with neutral tendencies
- fixated on deterministic outcomes
- raised in a very blue-collar environment
- works in an ostensibly white-collar job
- holder of several unpopular opinions

some of my unpopular opinions

- technology advances the world
 - but all advances aren't good for everyone
- toil has a value
 - but not intrinsic value
- software professionals frequently aren't
 - i'm sure you're shocked
- formal education is probably overrated
 - but not without value
- safety doesn't appear to be important
 - at least not important enough for me
- knowledge work -> mental manual work

- knowledge work is usually a white-collar job
- automation has reduced much white-collar toil
- this trend will continue after a fashion
- this makes knowledge work more like manual labor
- manual labor is generally easily replaceable
- generating and participating in a safe and learning culture can help us avoid some pitfalls, like having our jobs dissolve out from under us

what's blue collar work?

- term coined in 1924 in an iowa newspaper
- classifies people based on their work clothes
- consisting of various forms of manual labor

then what's white collar work?

- still classifying people based on their clothes
- office work
- specifically not manual labor
- “professionals” as opposed to “laborers”*

the asterisk in this presentation means that i might not necessarily agree with what i'm saying



observations about the
world - with disclaimer

380 - 500nm vs 400 - 700 nm

how do we distinguish blue-collar
work from white collar work?

sweat of the brows vs thoughts in the heads

blue-collar

- manual
- skilled, semi-skilled, or unskilled
- work is externalized

white-collar

- office or knowledge
- generally considered to be skilled, possibly highly*
- work is internalized

dolla dolla bills y'all

blue-collar

- pay is usually hourly
- unionization is frequent
- frequently considered low-paying*
- cost is typically low

white-collar

- pay is often salaried
- unionization is infrequent
- frequently considered higher-paying (than some blue-collar job*)
- cost can be high

madd skillz

blue-collar

- jobs
- advancement within job
- promotions are often terminal

white-collar

- careers
- advancement within domain
- promotions often open new opportunities

fungibility is a fun word to say

blue-collar

- considered replaceable
- replacements are often equivalents

white-collar

- possibly difficult to replace
- replacements are often not equivalent

welcome to your caste

blue-collar

- lower social standing*
- possibly due to lower pay

white-collar

- higher social standing*
- possibly due to not having to lift heavy things or have grease under your nails



on to other (related) things

toil

whazzat?

toil

/toil/

verb

verb: **toil**; 3rd person present: **toils**; past tense: **toiled**; past participle: **toiled**; gerund or present participle: **toiling**

work extremely hard or incessantly. "we toiled away"

Similar: work hard, labor, work one's fingers to the bone

Opposite: rest, relax

noun

noun: **toil**; plural noun: **toils**

exhausting physical labor. "a life of toil"

Origin

Middle English (in the senses 'contend verbally' and 'strife'): from Anglo-Norman French toiler 'strive, dispute', toil 'confusion', from Latin tudiculare 'stir about', from tudicula 'machine for crushing olives', related to tundere 'crush'.

[Oxford](#)

my definition

toil: repetitive, non-novel work

warning: curve ahead

one of my opinions:
toil has value and is the means by which we
measure the cost of a process

now with added opinions (and retsyn)

- without doing repetition, people have trouble understanding what and how to automate
- repetition appears necessary to detect and validate the pattern
- frequency and duration are indicators of the value of a task or the negative value of a delay
- this doesn't mean you should continue to toil

warning: data ahead

- 5-minute/day delay for 100 developers is ~2183 hours of lost productivity a year
- 100-hour/quarter delay for 1 person is 400 hours
- i'll let you do the math (hint: $2183 > 400$)
- to do the math, you need to get the metric
- to get the metric, you need to do at least some of the toil



professionals

it's a trap

- there are no validating entities that ensure that someone is a professional software ____ (developer, tester, architect, etc)
- thus, the only qualification for being a professional software ____ is to profess it
- oh, and then you generally need to prove it

warning: twisty opinions ahead

- much work done by “software professionals” is not particularly professional, and frequently not novel
- even if there were validating entities, sometimes the work would be...unprofessional
- try this query, do some reading, and see if you actually measure up

<https://www.google.com/search?q=what+does+it+mean+to+be+a+professional>



education

it costs HOW MUCH to go to stanford?

another of my opinions:
the value of a formal education in software is
questionable (but not zero)

i'm sure it's not just me

- full disclosure: some, such as your humble presenter, don't learn well in formal situations
- others do
- i do not have a formal degree in anything
- a degree doesn't make you good at anything
- hopefully you learned to learn
- but was it worth a quarter-mil?



safety

we can't stop here; this is bat country

a safe learning culture (for knowledge work) is
one in which it is intrinsically safe to make
mistakes, and those mistakes are used as a
learning opportunity to improve the work and the
culture

i'm a loser, baby, so why don't you fire me

- safe cultures aren't ones that don't fail
- safe cultures are where it safe to fail
- software tends to infrequently produce explosions, but it frequently produces loss
- producing safety around failure makes novel work more attainable because experimentation has fewer consequences

aren't there people for this?

- OSHA
- NSC (India)
- EU-OSHA

safe knowledge work

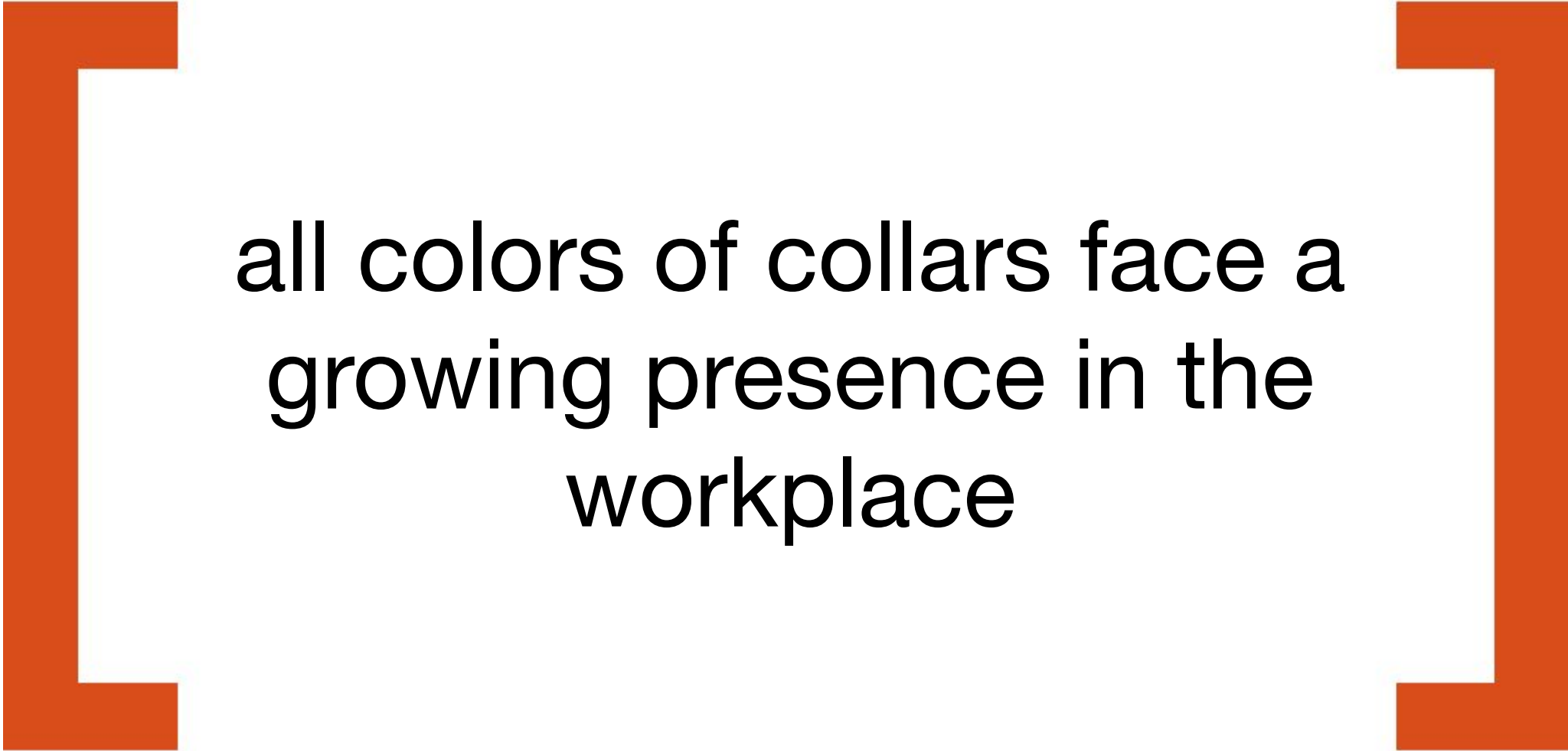
safety in knowledge work is underrepresented;
knowledge *worker* safety, doubly so



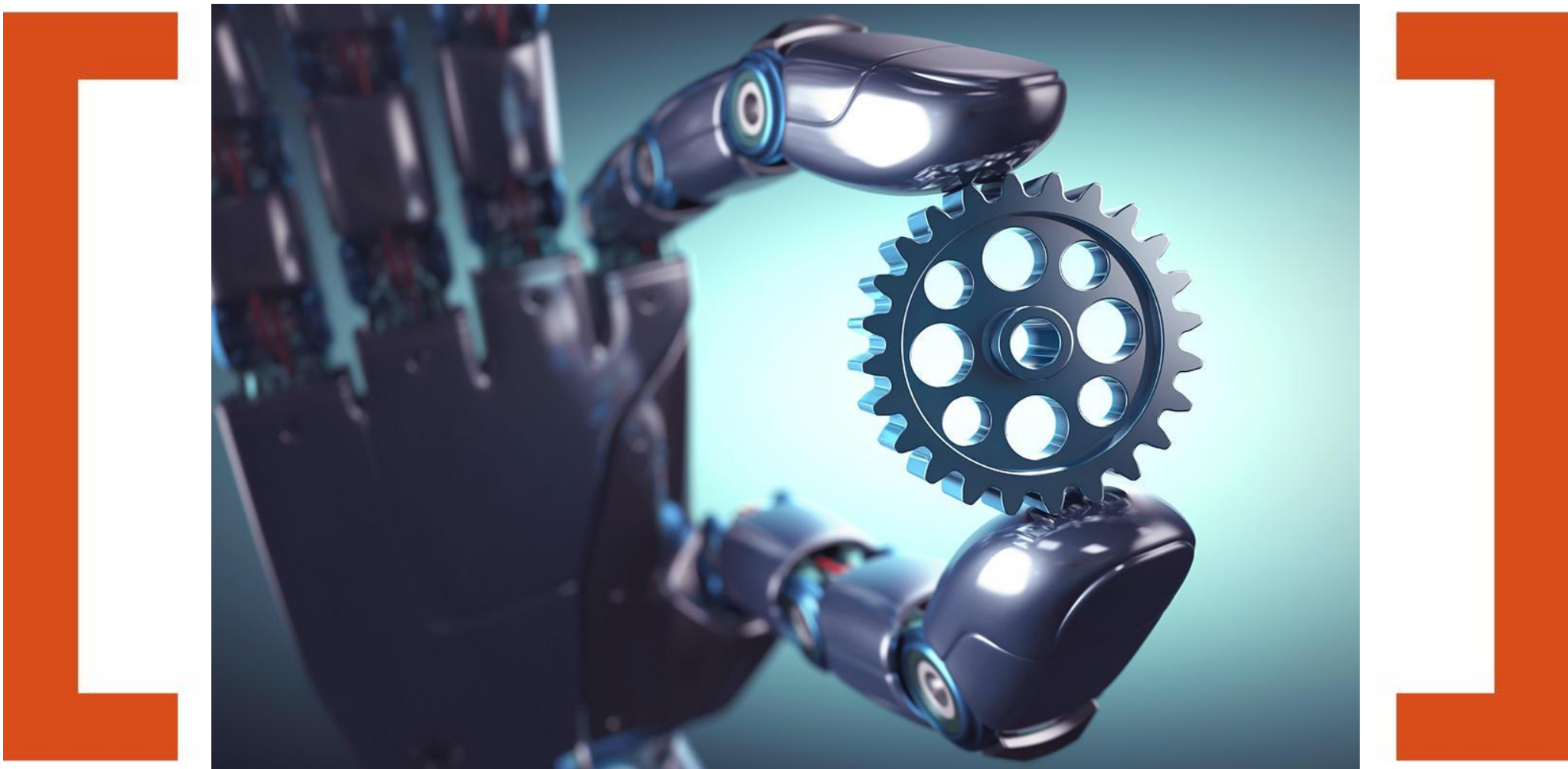
informative
intermission







all colors of collars face a
growing presence in the
workplace





behold the wonders of the
automated future!

welcome our new robot overlords

- automation threatens 80% of jobs paying less than \$20US per hour [\[1\]](#)
- statisically, that's over half of american workers [\[2\]](#)



you need money

an inconvenient maxim

- the world is not in a post-scarcity economy
- money is the medium by which commodity exchange is transacted
- unless you already have money, you need a way to obtain it
- i counsel against trying bank robbery
- off-the-grid homesteaders don't count

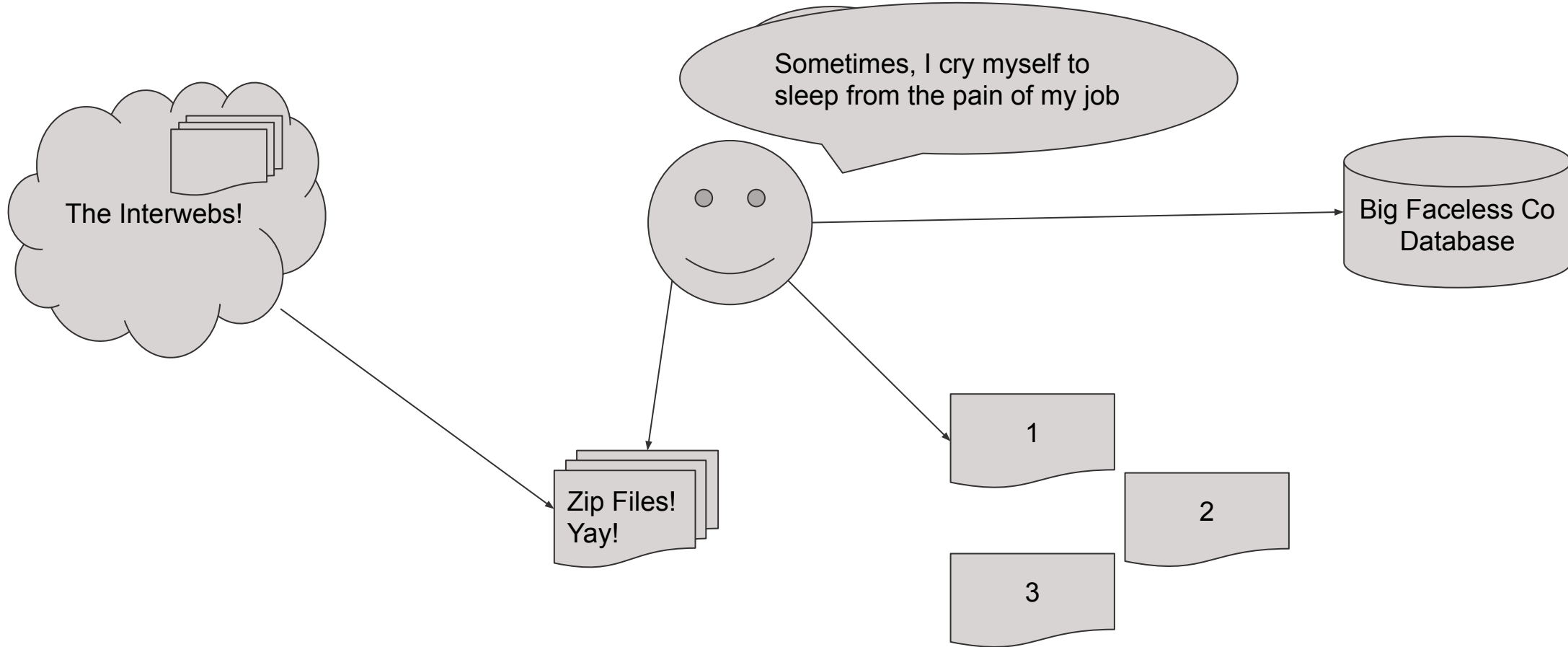


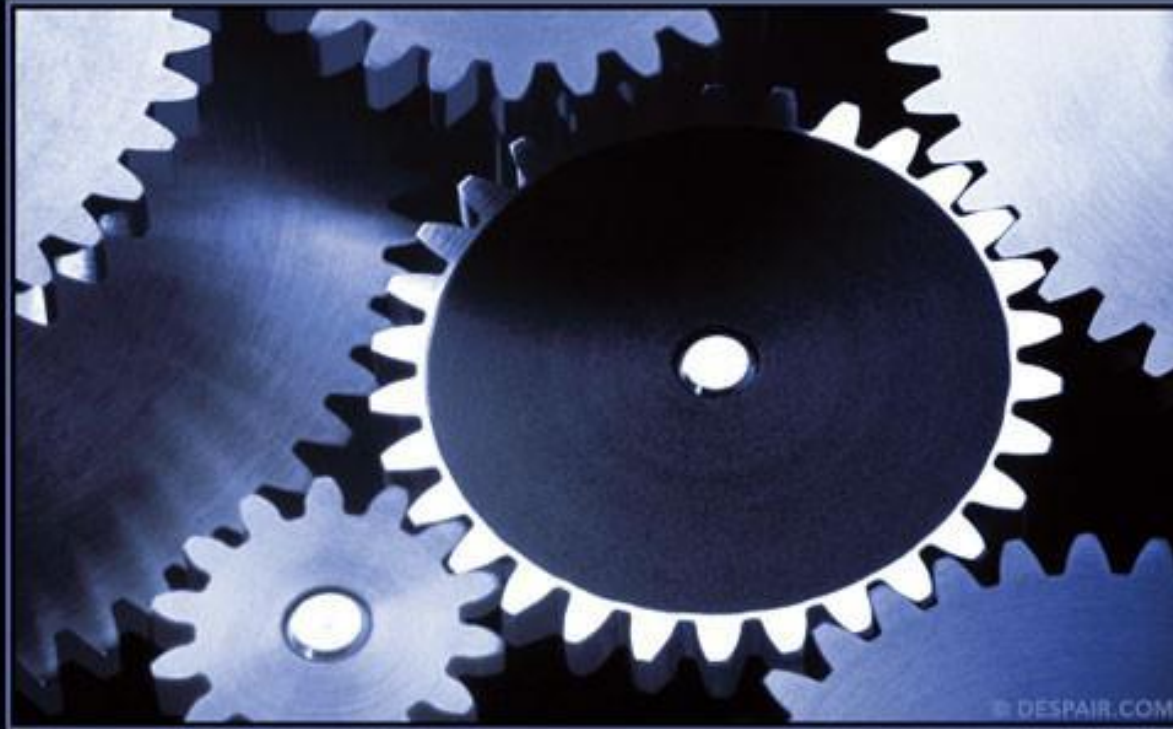
the reduction of toil

work less, play more? i don't think so...

- automation has been a central tenet of devops from essentially the beginning
- devops has obsoleted the efforts, if not the skills, of many lower-skill knowledge workers

world's most boring knowledge work example





WORTH

JUST BECAUSE YOU'RE NECESSARY DOESN'T MEAN YOU'RE IMPORTANT.

whose side are you on, anyway?

automate af

- this is pointless toil!
- we should replace jeff's job with a shell script!
- let all the glorious work be done by a machine!
- NOW, FOO!

learned helpless

- change isn't zero-cost
- required effort and focus
- some resources are always scarce
- accepts some toil



mental manual labor

oops

i made up a term, and then remembered to
google and see if it already existed.
it did.

what the heck is mental manual labor

- somewhat repetitive
- typically not novel
- frequently requires human intervention
- subject to progressive replacement via iterative automation
- the supply side of this consumer operation is probably also mental manual labor



where is all this going?

which percent am i, again?

- decades of increasing “have”/”have not” division
- concurrent with, but not *necessarily* caused by, increase in knowledge work
- economic disparity is a real thing
- addressing it is way out of my wheelhouse
 - this is why i tend not to post on twitter a lot



addressing the distinctions



education

go to school. or don't.

- school isn't bad, but it's not essential
- currently there are no licensure requirements
- education requirements are lax
- there exist code camps, udemy *et al*, and stack overflow
- lack roundness, but also lack huge debt

pay

disrespect requirements; acquire currency

- pay tends to be about type of work and years of experience
- also time within a specialty
- also race, gender, sex, and other stuff
- aptitude counts
- also persistence. maybe more.



fungibility

you can take this job and shove it

- demand for talent far outweighs supply
- supply is growing rapidly
- barriers to entry are low
- at entry-to-lower skills, workers are interchangeable



respect

find out what it means to me

- “working with computers” can be similar to wizardry in a bad way
- difficult to point out what you actually did
- very difficult to quantify how much you did
- you will probably have to accept the understanding of your peers
- also cut yourself some slack. you’re a wizard.



final thoughts

what does the future hold

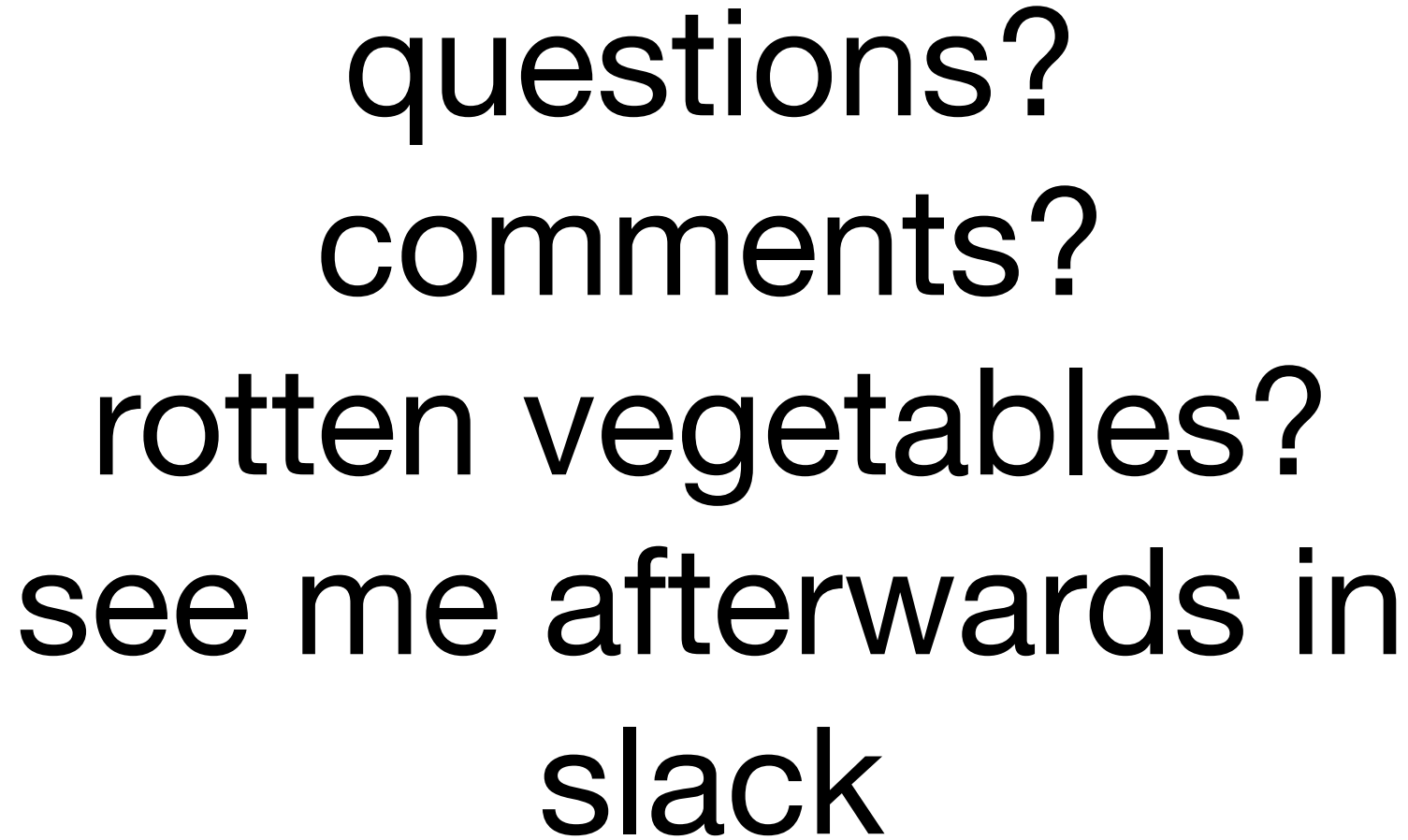
- economies change
- software changes as fast or faster
- “careers” are now “gigs”
- icemen used to deliver ice
- then along came refrigeration

what else does the future hold

- change is inevitable
- today's unfathomable wizardry is tomorrow's well-trained machine learning algorithm
- you signed up for a lifelong learning exercise
- develop and be a part of a culture of safe learning



most of all:
remember the iceman



questions?
comments?
rotten vegetables?
see me afterwards in
slack



this presentation

or
email me



namaste, nerds!

SPONSORS

Sponsorship packages for All Day DevOps are available. If your organization is interested, please contact us for details.

DIAMOND SPONSORS



GOLD SPONSORS



COMMUNITY ADVOCATES AND VIEWING PARTY SPONSORS



MEDIA SPONSORS

