

imagine a world in which every single
human being is liberated by software

“free as in” ... ?

...

code freedom
and modern political philosophy

Why are we here?

“freedom” is not well-defined

**IANAPhilosopher, but
here's some philosophy**

what political
philosophers
talk about
when
they talk about
philosophy



first question:
what is *justice*?

second question:
**what *systems* best get us to
justice?**

**in some sense, this is an
engineering problem!**

**the philosophers
(before Richard)**

John Locke

1632-1704



**justice is protection of
“life, ... liberty, or possessions”:
the “natural rights”**

**introduces idea that
individual *freedom*
is key part of justice**

**the best system is
one the people agree to**

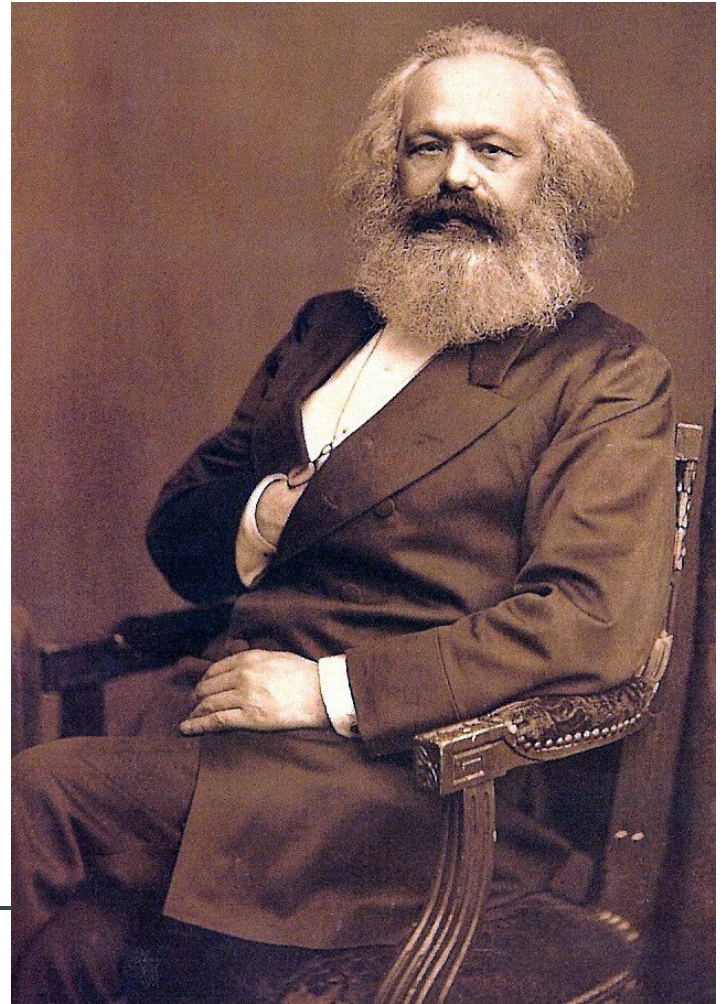
negative approach to rights:

system protects what you have -
but doesn't give more

**no health? no property?
Locke isn't so hot.**

Karl Marx

yeah, that guy



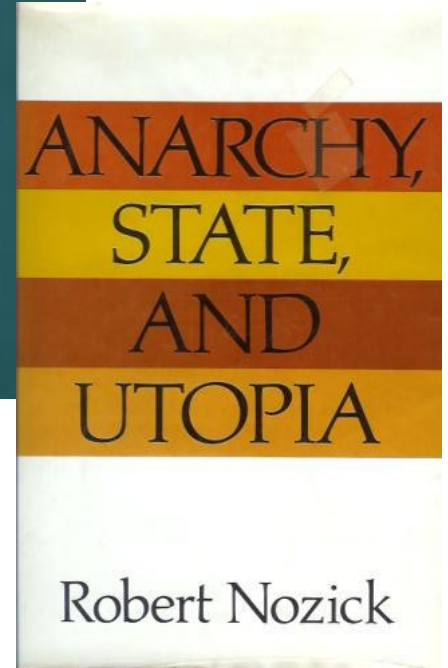
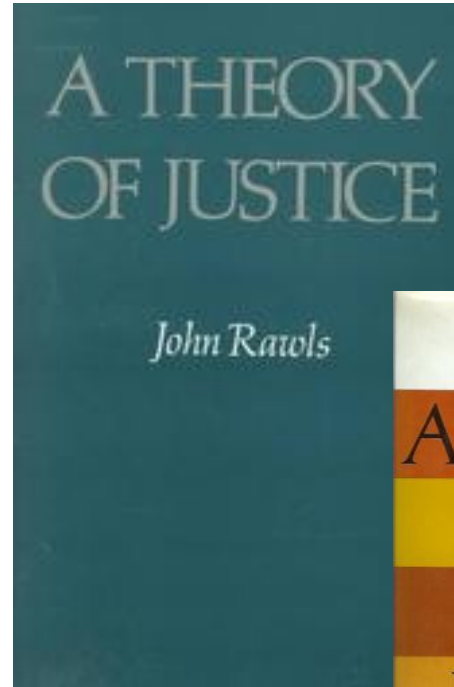
“to each according to *need*”

just system meets those
positive needs

**wishes away
scarcity and difference**

Rawls and Nozick

plurality and the 1970s



—

disagree about justice
and systems

**agree that modern theories
of justice must deal with
*difference***

“capability theory”

the new (well, ‘90s) hotness



**Sen's concern: theory
didn't help real people**

to put it another way:
effective freedom

key observation #1:

permission and resources
may not be enough

need *capability* to act,
not mere permission

examples

college degrees are great!

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**(but not enough in face of
sexism in hiring)**

**Somalia (1995-2000): no
government regulation!**

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government regulation!**

**also no power or running
water**

justice requires people to have *capability*
to act: combination of resources, skills,
opportunities, etc.

**key observation #2:
with finite resources, picking
what to focus on is key**

example

	Philippines	South Africa
Gross National Income per capita (ppp)	\$ 4,002	\$9,812

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Gross National Income per capita (ppp)	\$ 4,002	\$9,812
Life expectancy (years)	72.3	52
Mean years of schooling	8.7	8.2

So how do you pick which capabilities to focus on?

**no single metric; can include:
local cultural nuance
democratic choices
data!
old-fashioned philosophizing**

shared theme:
focus on qualities of
people, not things

**no one right approach -
which frustrates philosophers
(and engineers)**

bottom line:

**ask about capabilities, *not*
freedom, to make sure you're
asking the right question**

so what does this mean for code?

**the two questions:
which justice?
what systems?**



which justice?

**four freedoms are great -
when we remember people**

**free software *licenses* can be
like Somali governments:
permissive but not supportive**

**we often protect
the nobles from
the King**



what system?

**should focus on building
human capability**

or to put it another way:
effective freedom

**four suggestions inspired
by the capability approach**

#1: empathy

have empathy: listen to *all*
our potential users about
what empowers them

capability approach reminds us:

**freedom is about *people*, not
code**

**excited to see FSF's survey
and new priorities list!**

also reminds us: *effectiveness*
requires diversity of input

have empathy: make our
communities as empowering
as our licenses

bad sign:

“open source and feelings”

#2: humility

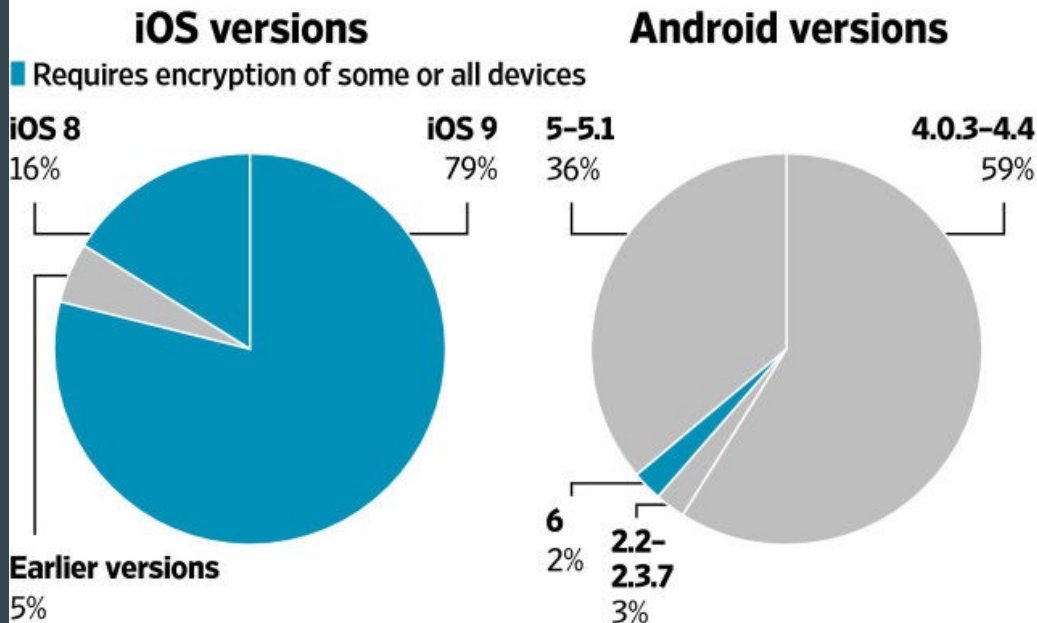
have humility: libre-licensed
code doesn't automatically
empower *people*

encryption:

95% iOS,
2% Android

Slices of Software

Nearly all iPhones are encrypted but few Android phones are. About 2% of Android phones run the latest software codenamed Marshmallow, which requires higher-end devices to be encrypted, while Google has also encrypted its Nexus devices since version 5.0 (Lollipop).



Note: Android has allowed users to turn on encryption since version 4.0. Apple iOS 8 and 9 automatically encrypt phone data.

Source: The companies

“run the program *as you wish*”

**remember: we often reduce this
to licensing**

**when we admit freedom is
complex, we build better
systems to improve it**

#3: impact

**have impact: make our tools as
empowering as our licenses**

github reminds us that
***ease of use* matters**

**netsplit.de says IRC has
~600K active users.**

Slack has 2+M. In 2 years.

**capability approach typically
assumes democracy - because
morally *and* pragmatically better**

**Boston can lead revolution
again - but *only if* we
pragmatic impact, not just
philosophical**

#4: evolve

**evolve: consider supplementing
the four code freedoms with
user freedoms**

**for the vast majority of users,
the way we interpret the four
freedoms is not enough**

**capability approach helps
us ask the question:**

**what user capabilities
should we focus on?**

**unfortunately,
does not answer
the question**



field research?



ONE: DESIGN WITH THE USER

- › Develop context-appropriate solutions informed by user needs.
- › Include all user groups in planning, design, implementation, and evaluation.
- › Develop projects in an incremental and iterative manner.
- › Design solutions that learn from and enhance existing workflows, and plan for organizational adaptation.
- › Ensure solutions are sensitive to, and useful for, the most marginalized populations: women, children, those with disabilities, and those affected by conflict and disaster.



TWO: UNDERSTAND THE ECOSYSTEM

- › Participate in networks and communities of like-minded practitioners.



FOUR: BUILD FOR SUSTAINABILITY

- › Plan for sustainability from the start, including planning for long-term financial health (e.g., assessing total cost of ownership).
- › Invest in local communities and developers by default, and help catalyze their growth.
- › Engage with local governments to ensure integration into national strategy, and identify high-level government advocates.



FIVE: BE DATA DRIVEN

- › Design projects so that impact can be measured at discrete milestones with a focus on outcomes rather than outputs.
- › Evaluate innovative solutions and areas where there are gaps in data and evidence.



SEVEN: REUSE AND IMPROVE

- › Use, modify, and extend existing tools, platforms, and frameworks when possible.
- › Develop in modular ways and use approaches that are interoperable over those that are monolithic by design.



EIGHT: ADDRESS PRIVACY AND SECURITY

- › Assess and mitigate risks to the security of users and their data.
- › Consider the context and the privacy of personally identifiable information when designing solutions and mitigate accordingly.
- › Ensure equity and fairness, co-creation, and protect the interests of the end-users.



NINE: BE COLLABORATIVE

design principles?

codes of conduct?

voting with our code!

**imagine a world in which every single
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Further reading

[The Individual and the Political Order](#)

is a great intro to political philosophy

This

[intro to the capability approach](#) is strong, as is [Stanford's](#).

UNICEF's [Digital Principles](#) is a great, pragmatic approach to values-centered software design.

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