THE
REVOLUTION
WILL NOT
BE TERRAFORMED

austin parker │ social.ap2.io │ @austinlparker@hachyderm.io

Hello, I'm Austin. You might know me from the internet, but if you don't, you're probably about to get a pretty good idea about my whole deal from this talk…

I'm the head of developer relations at Lightstep, a servicenow company.

I'm interested in observability, but I'm very interested in people, and organizations, and how they function…

Today, I want to take you through the past twenty-odd years of sociotechnical movements, how they've been commodified, and how this has influenced the discipline of SRE.

SRE IS A REACTION TO COMMODIFICATION

@austinlparker@hachyderm.io

Briefly, we can say that all sociotechnical movements - like SRE - are a reaction to the commodification of prior movements.

I wrote a blog about this a couple of years ago, you can find it on my website (linked through bio) that discusses this more in depth, so I'm not going to dwell on it for too long.

Let's start at the beginning <next>

A BRIEF HISTORY OF SOCIOTECHNICAL MOVEMENTS

@austinlparker@hachyderm.io

[title]

Let's briefly talk about three major sociotechnical movements over the past three decades… <next>

- AGILE
- DEVOPS
- SRE

The agile manifesto was created in 2001 and began with these words (above). To quote the rest of the manifesto:

Individuals and interactions over processes and tools, Working software over comprehensive documentation, Customer collaboration over contract negotiation, Responding to change over following a plan. That is, while there is value in the items on the right, we value the items on the left more.

One exciting fact of being acquired by a very large enterprise software company is you realize how many incredibly successful businesses haven't even sniffed agile. This is because they don't need to in some ways - excel is, after all, the most business-critical piece of software in the world. What the enterprise needs is hierarchy and scale, and the ability to execute across hundreds of thousands of people, and *manage* them.

This stands in contrast to the underlying philosophy of agile -

"At the core, I believe Agile Methodologists are really about "mushy" stuff—about delivering good products to customers by operating in an environment that does more than talk about "people as our most important asset" but actually "acts" as if people were the most important, and lose the word "asset". So in the final analysis, the meteoric rise of interest in—and sometimes tremendous criticism of—Agile Methodologies is about the mushy

stuff of values and culture."

Agile was a reaction to prior systems of control and management like SCRUM and waterfall; It was bottoms-up rather than top-down.

What began as an explicitly "mushy" (and anarchic) practice was commodified, to shift power back

Agile has been commodified, turned into a product - things like SAFe, or even Jira, or numerous sort of 'agile certifications' and consultancies, etc.

It can be bought and sold.

DEVOPS

"<mark>Developers are even worse than networking people</mark>. Show me a developer who isn't crashing production systems, and I'll show you one who can't fog a mirror. Or more likely, is on vacation."

@austinlparker@hachyderm.io

The commodification of agile led to the rise of DevOps - again, a practitioner-led movement that emphasized local decision-making and control. There's a direct thru line from agile in the early 00's to the advent of DevOps in 2009 and beyond with DevOpsDays, etc.

Beyond the human factors, DevOps sought to professionalize and bring rigor to operations and administration work, both by giving developers greater ownership of their systems, but also by emphasizing the importance of engineering rigor via automation, etc…

Like clockwork, books like The Phoenix Project (excerpted above) and an array of 'devops in a box' SaaS platforms sprung up, turning it into a commodity that can be bought and sold, papering over the cultural aspects and emphasizing the technical ones.

Think about the examples Amy gave in her plenary session - 'developer productivity suites' tie into this by controlling and turning productivity into metrics; instead of looking at tickets closed, it's deploys per day… either way, "when measures become a metric"

SRE

"I claimed that <mark>system administration was a form of human-computer engineering</mark>. This was strongly rejected by some reviewers, who said "we are not yet at the stage where we can call it engineering." At the time, I felt that the field had become lost, trapped in its own wizard culture, and could not see a way forward. Then, Google drew a line in the silicon, forcing that fate into being. The revised role was called SRE, or Site Reliability Engineer."

@austinlparker@hachyderm.io

And thus, the reaction to the commodification of DevOps… is SRE. In many ways, SRE synthesizes the 'mushy' parts of agile with the IT tooling and process/automation driven approach of DevOps.

Agile, DevOps, SRE all point towards a cultural reformation where the people that do the work and are responsible for the work get to make the decisions about the work.

I don't think that it's an accident that the SRE Handbook has been one of the most popular O'Reilly books for nearly seven or eight years now. If you can sell agile, if you can sell devops, then you can sell SRE - but it was successfully fenced off from being easily *productized* (although that doesn't stop people from trying), but it can absolutely become *commodified*. How many SRE initiatives have been launched by rote repetition of lessons learned by Google, even if those lessons don't make sense for the organization implementing them?

FINDING COMMONALITIES

As I've said, these movements all build on each other, and they seem to rise in popularity as each is diminished by commodification.

What do they all have in common? It's spelled out in the Agile manifesto - individuals and interactions.

Can we trace these commonalities back further, though? I believe so… <next>

SRE
AND THE
ANARCHIST
TRADITION

@austinlparker@hachyderm.io

Stripping away the tech, what are these movements really built upon?

Broadly, they emphasize local control, self-organization, distributed decision making, and communality.

These themes, and others, are explored in anarchist and left-libertarian philosophies.

I want to dwell on two in particular - the ideas of mutual aid, as described by Peter Kropotkin and the idea of social ecology as described by Murray Bookchin.

MUTUAL AID

"But it is not love and not even sympathy upon which Society is based in mankind. It is the conscience - be it only at the stage of an instinct - of human solidarity. It is the unconscious recognition of the force that is borrowed by each man from the practice of mutual aid; of the ==close dependency of every one's happiness upon the happiness of all==; and of the sense of justice, or equity, which brings the individual to consider the rights over every other individual as equal to his own."

@austinlparker@hachyderm.io

Peter Kropotokin was a russian anarchist born in the 19th century who is known for several formative anarchist texts such as 'The Conquest of Bread' and 'Mutual Aid: A Factor of Evolution'. While he has a rather fascinating personal story, I'd like to focus more on the second book I mentioned, on mutual aid.

What is mutual aid? It's a term that's become significantly en vogue over the past several years depending on your circles, often being used as a proxy for charity…

If we read the texts, we find a more interesting historical view

"If we knew no other facts from animal life than what we know about the ants and the termites, we already might safely conclude that mutual aid (which leads to mutual confidence, the first condition for courage) and individual initiative (the first condition for intellectual progress) are two factors infinitely more important than mutual struggle in the evolution of the animal kingdom."

@austinlparker@hachyderm.io

Kropotkin argues against the dominant view of darwinian evolutionary struggle, which posited that animals - and thus, humanity - was strictly governed by 'survival of the fittest'. He uses many examples of social group behavior amongst various animals and insects, noting that creatures such as ants - whose conspicuous coloring, tiny stingers, and relatively soft carapaces (when compared to more individualistic insects) would seem to indicate that they would suffer the predations of larger predators. However, ants work together! Two ants belonging to the same nest will gladly share food, each member of the nest shares in the labor of foraging and protecting their domain, and they even display prosocial behavior; a greedy ant will be set upon by its fellows for refusing to aid another of its kin.

Ants, small as they be, have formed a mutual network of support where each individual supports the other, and through their collective will, they are able to not only subsist, but thrive! This sort of collective collaboration is seen throughout the animal kingdom -- bees will temporarily divide their labor on an ad-hoc basis to perform whichever work is required, and offer hospitality to bees from other swarms rather than pointlessly fighting them.

"The bright and sunny days are lost sight of in the gales and storms... [Historians] hand down to posterity the most minute descriptions of every war, every battle and skirmish ... but they hardly bear a trace of the countless acts of mutual support and devotion which every one of us knows ... they hardly take notice of what makes the very essence of our daily life - our social instincts and manners."

@austinlparker@hachyderm.io

Beyond the animal kingdom, Kropotkin looks to recorded history and pre-history, drawing forth many examples of this same sort of mutual support in cultures throughout time.

This line strikes me as poignant, though - the histories we write of our work are oriented in a similar way. Postmortems and incident writeups invariably are a record of the struggles - we don't comment on all the times that things worked well, we don't necessarily record the hits, just the misses…

SRES JOB IS TO BUILD MUTUAL CONFIDENCE, AND THUS SUPPORT INDIVIDUAL INITIATIVE

@austinlparker@hachyderm.io

A successful SRE practice draws from the tradition of mutual aid by building support networks and *empowering people*. It's about building a commons that allows for individual initiative and mutual confidence to flourish.

SOCIAL ECOLOGY

"Social ecology is based on the conviction that nearly all of our present ecological problems originate in deep-seated social problems … In effect, the way human beings deal with each other as social beings is crucial to addressing the ecological crisis."

@austinlparker@hachyderm.io

Let's look at another prominent anarchist thinker, Murray Bookchin.

Bookchin was a 20th century philosopher, anarchist, ecologist, and fan of decentralization. Shoutout to another Vermont King. Broadly, his work focuses on the progress towards post-scarcity societies, of how humanity can live in concert with nature, and the synthesis of social and technological solutions to common ecological problems. Sounds familiar…

I'll be excerpting a collection of his essays titled "Social Ecology and Communalism".

Summarize bookchin solving ecological problems via more distribution of power, and the idea that we should all have a say in the ecology of earth, irrespective of wealth, and without denying the ability and capacity of humanity to solve problems via technology in contrast to other ecological thinkers that focus on de-growth or primitivism.

"The point social ecology emphasizes is not that moral and spiritual persuasion and renewal are meaningless or unnecessary; they are necessary and can be educational. But modern capitalism is *structurally* amoral and hence impervious to moral appeals."

Inevitably, this discussion leads to questions of power relationships.

I mentioned this earlier; that success is invariably co-opted and commodified, this is why. The structural incentives for the world of business are immune to your - and my - moral posturing. Framing SRE work as a moral imperative is good, it's persuasive, but it's only persuasive to other human beings. I can sit here and talk about the underpinnings of mutual aid for hours, but business cares about business and there are significant structural incentives for that.

"Power will always belong to elite and commanding strata if it is not institutionalized in face-to-face democracies, among people who are fully empowered as social beings to make decisions in new communal assemblies ... Power that does not belong to the people invariably belongs to the state and the exploitative interests it represents."

@austinlparker@hachyderm.io

I've spent a lot of time talking around this point, but let's be explicit for a moment: the co-option and commodification of sociotechnical movements is about power in the workplace, and by extension, society. Success is co-opted not *only* because there's structural incentives for it, but also because it *blunts the effectiveness of practitioner-led movements*. Agile, DevOps, SRE - they're good ideas, but they're also threats to hierarchy. Again, this isn't subtext, this is the text of the agile manifesto! Customer collaboration over contract negotiation -- an empowered SRE team or group of developers would be free to directly address the needs of their users and make radical, sweeping changes to products and processes, if it was agreed upon.

At the core of these movements is a structural critique of the way we do things, and that critique has been co-opted by capitalism's infinite resiliency and capacity to subsume threats to itself.

SRE BUILDS CITIZENS, NOT WORKERS

@austinlparker@hachyderm.io

We need to take Bookchin's advice and build a spirit of communality, by empowering people to become active citizens rather than passive and replaceable workers

SRE AREN'T HEROES THEY ARE ORGANIZERS

@austinlparker@hachyderm.io

SRE's shouldn't be mythic heroes, nor should they be plumbers - an SRE is an organizer, someone that empowers people to speak as one and work in concert.

SRE CREATES CONFIDENCE THROUGH EDUCATION

@austinlparker@hachyderm.io

We must focus on education, not dogma. We need to embrace responsible consumption and cultivation, not only of technology, but of knowledge and learning.

SRE SUPPORTS INITIATIVE THROUGH STRUCTURES

@austinlparker@hachyderm.io

We need to recognize the role of leaders, but not to put them on a pedestal, and create formal structures and regulations so that they're accountable to their peers. Not just for people, but technology as well.

SRE SHOULD NOT CENTRALIZE POWER, BUT DISTRIBUTE IT

@austinlparker@hachyderm.io

Ultimately, we should always seek to distribute and decentralize power.

If I can leave you with one thing, it's to not listen just to what I have to say. Go out, do some reading that isn't published by O'Reilly (with the exception of my next book, Learning OpenTelemetry, coming this fall. You can also pick up a copy of Distributed Tracing in Practice. Great book.), learn about the deep roots of philosophical and political thought that underpins the world around us. Read, learn, and pass it on to the next generation.

THANK
YOU

Works Cited -
- The Agile Manifesto (agilemanifesto.org, 2001)
- The Phoenix Project (Kim, et al., 2013)
- Site Reliability Engineering (Beyer, et al., 2016)
- Mutual Aid: A Factor of Evolution (Kropotkin, retrieved from Project Gutenberg, 2003)
- Social Ecology and Communalism (Bookchin, retrieved from New Compass, 2006)

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Thank you for your time.