Building an engineering culture

Every business can be a technology business
I’m an engineer.
I’m an engineer. I solve problems like an engineer.
Turn a sales/marketing company into a technology company.
Other companies interviewed

- Autopay
- Etsy
- Kitfox Games
- Mapzen
- + 2 others
1. Assess your tech culture.
2. Scale it.
3. Sustain and evolve.
0. Culture wars.
Bros? Ninjas? Rockstars?
Tech culture
Tech culture

Pull requests
Pairing
Code reviews
Rubber ducking
“Help me make this better.”
Good tech teams are extremely powerful collaborators—their efforts towards readable code, helpful comments, and "plug-and-play" systems go far beyond the necessary."
Assess your culture.
Who is part of “engineering”?

Are the software engineers “rockstars” and the IT team “barriers”?
Who is part of “engineering”?
Make a bigger tent.
Quality Assurance
Professional and client services
Customer support


Elise Wei - Engineering Director

“My team’s work—client services—is not as simple to understand as the product team’s. But we know the client voice is important.”
DevOps

Embrace methodologies that blur the lines between historically different teams.
Embedded teams

Embedding individuals from one team into another as part of a rotation can build relationships and shared purpose.

It can also help technologists evolve their communication style into one which accommodates a range of backgrounds and experience.
“I could proudly say I'd simultaneously helped customers, improved my knowledge of the product, and befriended more than a dozen coworkers through actual work.”
"The support tour kicked my ass."
Continuous improvement
"Learning and teaching is part of our culture. We have weekly meetings just for reviewing what people need help on."
“I feel happier if I can have success with others. I’d rather have a buddy. I really value having a team.”
A low-functioning team might get work done, but it doesn’t know what it’s working towards.”
Post-Mortems
As engineers, the only time we get feedback is when it’s negative. 
You have to change this.”
Culture is like web performance:

When it’s going well you don’t notice it.”
Scale it.
You can’t affect this change in the whole organization. You need buy-in from key people, as far up the chain as you can go.
An entire company has to have agility. Everything starts at the top.”
You need lieutenants on the ground.
When I mentor someone, I listen to how they do things and then tell them:

‘This is what you do today, but how can you do it better tomorrow?’
“Smart and gets things done.”
"Entrepreneurial leaders are the champions of someone else getting things done."
How you know it’s working

“Your team is talking to each other!”
Surround yourself with great thinkers. You’re the average of the 5 people you interact with the most.”
“Having a diverse set of mentors has been crucial to my success.”
“A healthy team has good affinities—they get each other’s edges. Everyone can’t have the same background.”
Tools of change.

Collaborative documents and team chat are often seen purely as planning and operational tools—

But they are tremendously powerful cultural drivers.
CHMOD 777 *

Whenever possible, fail open.
Engineers are familiar with post-mortem, and engineering failures have lots of facts—chat logs, commit messages.

It’s harder to get to blamelessness with other teams.”
Patches welcome.

A “pull request” has broad and powerful implications:

“I’m asking for feedback. I’m unafraid of doing that publicly. I’m expecting respectful criticism.”
“A dysfunctional team might do code reviews only when they have something to show off, not when they have a problem to solve.”
"I love when people code review me. I don’t think anybody’s timid about it."
Evolve it.
Onboard early and often.

Onboarding is critical in establishing, maintaining, and growing a culture.

Is new employee training a part of everyone’s responsibility?
Are they asked to meet with a diverse audience in the organization early on to build relationships?
“Welcome, $HUMAN”
“Everyone at Safari…”

Treats others with respect
Is always candid; always kind
Helps others
Invests in incremental self-improvement over time
Shares bad news early

Uses Safari for 10 minutes every single workday
Provides feedback to help their manager improve
Participates in every meeting or else declines
Avoids work outside of tickets
Always practices empathy
Disenfranchises others due to identity, abilities, or location.

Is ever more than 2 minutes late without telling the organizer before the meeting starts.

“No one at Safari...”
Reward craftspeople.

Engineers seek to improve their craft, and are naturally open to mentorship and continuous learning in a culture where those activities are valued. **Culture needs to be crafted.**

Reinforce the value of “non-productive” activities like onboarding, training, and experimentation.
The structure that the company puts in place is going to bias people towards different behaviors.”

Morgan Evans - Learning and Development Program Manager
“Minimum Viable Bureaucracy”
“Avoid process for the sake of process. You’re striving for process for the sake of progress”
Deploy continuous improvement.

Embrace continuous change and constantly re-evaluate processes and interactions.

What works early on may not work 6 months later.
“Make sure that each team member also has an emotionally safe way to regularly express anxieties, uncertainties, and criticisms of processes.”
I don’t want everyone to be striving 100% of the time, but they should have enough imagination that they want something more. In aggregate we all get lifted up.”
Small pieces, loosely joined.

Establish a culture of timeliness.
Ask for feedback from people under you in the org chart.
Establish a world-writeable culture.
Fail open.
Kathy Keating - VP, Software Engineering

“How do you know if a culture is flourishing?

Does it feel right?

Are we making progress?

Are we happy?”
“Be brutally honest about what your company is: ‘This is what we do well & what we don’t do well.’

Now imagine a better version of that and plot a course.”
Thank you

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