

Practical Engineering Management

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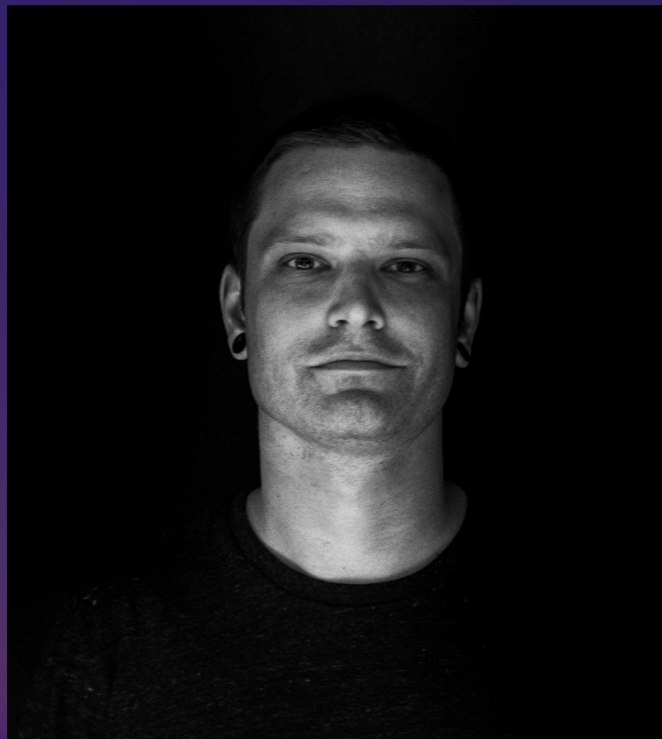
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Ryan Burgess

Software Engineering Manager

 @burgessdryan

 Ryan Burgess





**FRONT END
HAPPY HOUR**

Jem Young

Software Engineering Manager

 @jemyoung

 Jem Young



101

- The path to leadership
- Understanding the role
- Surviving the first 30 days

102

- Team success
- Hiring
- Partnerships
- Feedback
- Change management

Who's this course for?

- Engineers
- Engineers looking to be managers
- Team leads
- Engineering Managers

Goals of this course

- Offer valuable strategies for navigating challenging scenarios
- Equip you with effective tools
- Share valuable perspectives on management

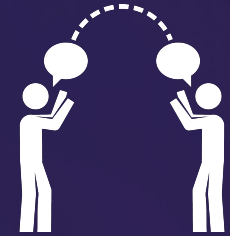
Exercise



Scenario



**Ask a
manager**



Why is management difficult?

Every situation is different

It requires many skills

It requires a lot of context switching

**You need to adapt to new challenges, technologies, &
market conditions**

You're dealing with interpersonal challenges

It often requires experience

It's hard to measure

Team success



Team vision, roadmaps & planning

Team vision

- High-level statement that outlines your goals
- Doesn't include specific details

Roadmap

- More detailed and practical
- Outlines milestones & timelines
- Breaks down the vision into shorter-term objectives

Measuring impact

OKRs (Objectives and Key Results)

Objectives

- Aspirational goals
- Typically qualitative
- Provide a direction
- Quarterly or annual basis

Key Results

- Specific, measurable, and time-bound outcomes
- Track progress toward achieving the objectives
- Each objective may have multiple key results

Example: OKRs

Objective: Enhance Application Performance

KR: Reduce the average application loading time to under 2 seconds

KR: Decrease the error rate to less than 1%

KR: Improve server response times with 95% of requests served in under 100 milliseconds

KPIs (Key Performance Indicators)

- Specific, quantifiable metrics that measure performance or progress in a particular area
- Often tied to operational or tactical objectives
- Typically monitored on an ongoing basis

Example: KPIs

KPI: Application Response Time

The target may be to maintain an average response time under 500 ms for all critical user actions

Involve your team in these metrics

Team Charter

Why is a team charter important?

Clarity on the team's mission and goals

Clear alignment for partners and stakeholders

Team accountability

Questions to ask

- Who are our customers?
- What do we own, or what are we responsible for?
- What don't we do?
- Why does our team exist?
- How do we operate?
- How are we successful as a team?

Exercise



Team charter

30 minutes

You have a team charter, now what?

What do you do with a charter?

- Share it with your team
- Share it with your leadership team
- Share it with partners
- Share with customers
- Revisit from time to time - 1 to 2 times a year

Recap

- Roadmaps
- Measuring impact
- Team charter

Hiring & recruiting



First steps

What skills does your team need?

- Outline the required skills
- Outline what experience is required
- Ask your team what skills they would like to see in a candidate

What is additive to your team?

- Consider diversity
- Lived experiences
- Team dynamics
- Communication skills
- Leadership skills

Job description

Job title

- Use a title that accurately reflects the role and responsibilities
- Avoid using internal jargon or ambiguous titles that may confuse potential candidates

Include a concise job summary

- Provide a brief overview of the position and its importance within the organization
- Highlight the primary purpose and objectives of the role

Highlight key responsibilities for the role

- List the main duties and tasks the employee will be expected to perform
- Use action verbs to describe each responsibility (e.g., "Manage," "Develop," "Coordinate")
- Be specific and avoid vague language

Be clear with the required qualifications

- Clearly state the minimum education, experience, and skills necessary for the position
- Differentiate between "required" and "preferred" qualifications
- Be realistic with the requirements “20 years of React”

Highlight company culture

- Celebrate the company culture
- Describe the company culture, values, and work environment to attract candidates who align with the culture

Be inclusive and try to avoid bias

Avoid using gender-specific pronouns like "he" or "she."

Avoid mentioning age-related preferences

Example: We are seeking a young, dynamic developer.

Avoid using "ninja," "rock star," or "guru"

Leverage a tools like [Textio](#) to check for gender bias

Interview panel

Creating an interview panel

- Put together a plan for the interviewers on your panel
- Outline what you want each interviewer to cover
- Have alternates for your interview panel

Example: Interview section outline

Collaborative partnerships

- What does a healthy partnership look like?
- What roles has the candidate played in building partnerships?
- How do they approach unhealthy partnerships?
- How do they navigate objectives that aren't clear?
- How do they deal with tensions and/or conflicts?

How do you provide a great candidate experience?

Responding in a timely fashion

Let candidates know who they are meeting

Setting clear timelines and expectations

Let candidates know what you're evaluating

Provide options for technical exercises

Close out and provide feedback

Recap: Candidate experience

- Responding in a timely fashion
- Let candidates know who they are meeting
- Setting clear timelines and expectations
- Let candidates know what you're evaluating
- Provide options for technical exercises
- Close out and provide feedback

Networking

Always be networking!

- Don't wait for a role to be open on your team
- Make connections and build relationships
- Check in with connections

Tools for networking

- LinkedIn
- Twitter
- Conferences
- Events/Meetups
- Coffees/lunches
- Slack communities

Content networking

- Create tech blog posts
- Share update on Twitter, LinkedIn, etc
- Speak / attend conferences
- Podcasts

Create a dream hire list

People you'd jump at the chance to hire

Dream hire list

- Stay in touch with this list of people
- Grab coffee, lunch, dinner, phone call, message, etc

Who should be on a dream hire list?

**Someone you have worked with previously and know
are amazing**

Someone who has been referred to you by others

**Someone whose work you have seen publicly
(publications, conferences, tech blogs, open source)**

Someone who left your company that you would rehire

Exercise



Dream hire list

20 minutes

Sourcing

General tips

- It's going to take (a lot of) time and it's an investment
- Get creative. Try new things to find potential candidates
- Even if you don't have an open role, keep sourcing

Look at your network

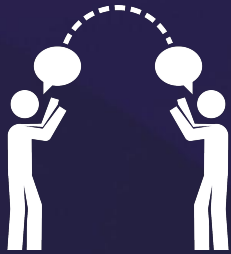
Look at candidates from the past who passed on roles

Referrals are extremely important and often lead to great hires!

Set up a sourcing hour

- Ask your team to look through their LinkedIn for candidates they'd recommend for the role

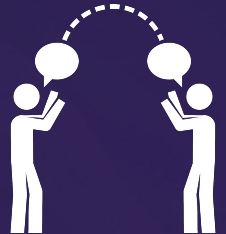
Ask a manager



Sourcing

When you have a new role how do you start sourcing candidates?

What is the best advice you have for sourcing?



Recap

- What is needed for the role
- Job descriptions
- Interview panel
- Networking & sourcing

Building strong partnerships



What does a healthy partnership look like?

There's mutual trust

There's transparency and communication

There's alignment on goals

Shared responsibility for the outcomes

Recap: Healthy partnerships

- There's mutual trust
- There's transparency and communication
- There's alignment on goals
- Shared responsibility for the outcomes

Why is it important to have strong partnerships?

Your team likely has dependencies on partner teams

**Collaborative partnerships foster diverse perspectives,
ideas, and innovation**

Wider range of resources, expertise, and capabilities

Partners can offer assistance, advice, and guidance

How do you build strong partnerships?

Build trust with your partners

**Effective communication (regular check-ins,
communicate changes)**

Align on clear expectations

Adaptability (open to changes, embracing new ideas)

Understand your partner's goals

Make sure your partner understands *your goals*

Be open to **help your partner**

Building a high performing team



What does high performance mean?

Your team is exceeding expectations

**High degree of efficiency, effectively utilizing
resources**

Your customers/stakeholders are satisfied

Leadership values your team's output

Your team is having an impact on the business

There's continuous improvement

Your team is consistent

Recap: High performing team

- Your team is exceeding expectations
- High degree of efficiency, effectively utilizing resources
- Your customers/stakeholders are satisfied
- Leadership values your team's output
- Your team is having an impact on the business
- There's continuous improvement
- Your team is consistent

How do you know your team is performing?

There's clear goals and alignment on the work

Your team is executing and delivering

You receive unsolicited positive feedback about people

Every individual on your team impresses you

Your team is excited about the work

Individuals are growing their skills and impact

There's room for healthy debate

Recap: How do you know your team is performing?

- There's clear goals and alignment on the work
- Your team is executing and delivering
- You receive unsolicited positive feedback about people
- Every individual on your team impresses you
- Your team is excited about the work
- Individuals are growing their skills and impact
- There's room for healthy debate

What does **NOT measure performance?**

Lines of code isn't a good measurement

Number of commits isn't a good measurement

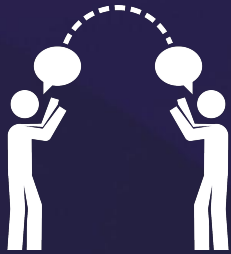
Time-based metrics aren't useful

Quantity over quality doesn't measure performance

Recap: What aren't ways to measure performance?

- Lines of code
- Number of commits
- Time-based metrics
- Quantity of quality

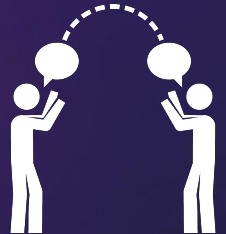
Ask a manager



Measuring performance

What have you found useful to know if your team is performing?

What are things you've found that don't actually help know if your team is performing?



Are you having growth conversations with your team?

Clearly communicate the expectations and performance standards

Understand what growth means to each individual

Work on a growth plan with individuals

Provide feedback, constructive & positive

Shared ownership between manager & engineer

Be an **advocate for individuals on your team**

Exercise



Growth reflection

15 minutes

Recap

- Strong partnerships
- High performing teams
- Growth conversations

Dealing with Conflict



How do managers deal with conflict?

Scenario



Dealing with conflict

15 minutes

Scenario 1: Interpersonal conflict in the team

Engineer 1 brings up an issue in a 1:1 with you that Engineer 2 on your team is being aggressive in code reviews.

How do you approach this scenario?

Scenario 2: Partner disagreement

An engineer on your team is having troubles working with another individual contributor on a partner team.

How do you approach this scenario?

Scenario 3: Customers

Your team has internal customers that use the product that your team works on. A customer comes to you and shares how unhappy they are with the product.

How do you approach this scenario?

Scenario 4: Leadership

Your direct manager is asking your team to add additional scope that your team doesn't have bandwidth to successfully deliver without impacting the current work.

How do you approach this scenario?

Giving & receiving feedback



Creating physiological safety

- Be vulnerable
- Create an environment of trust
- Share mistakes you've made
- Building trust with your direct reports

Giving feedback isn't easy

Giving feedback is easy to avoid

Types of feedback

- General growth feedback
- Positive reinforcement
- Critical feedback

Should you give feedback in a group setting?

Should you give feedback in Slack?

How do you approach critical feedback conversations?

Setting up for critical feedback

The right time and place



Assume best intent



Be clear and concise

Frame the feedback from your observations

Provide concrete examples

Be empathetic and understanding

Be patient and open to discussion

What are mistakes to avoid when giving feedback?

Things to avoid when providing critical feedback

- Avoid piling on too much feedback at once
- Avoid using harsh or hurtful language
- Avoid making the feedback personal
- Avoid providing vague feedback

Don't wait to give feedback

Avoid piling on too much feedback at once

Avoid making the feedback personal

Avoid providing vague feedback

What's next after giving critical feedback?

Let the person have time to digest and reflect

Provide written feedback to emphasize expectations

Ask the individual to **outline a plan for
meeting expectations**

How will you be helping as a manager?

Provide ongoing feedback

If things aren't improving, prepare for what's next

Effectively receive feedback

- Assume best intent
- Be an active listener
- Ask clarifying questions
- Reflect on the feedback

You don't have to agree with all feedback

Things to avoid when receiving feedback

- Try not to take it personally
- Avoid becoming defensive or making excuses
- Don't interrupt or argue

Encouraging feedback from your team

- Share ideas of areas of how you're looking to improve
- Thank individuals for providing feedback
- Share the feedback you've received with your team

Scenario



Giving Feedback

Scenario 1: Receiving feedback

An engineer on your team is frustrated with a decision you've made as a manager to leverage a new technology. The engineer has constructive feedback for you.

Change management



Change management

Transitioning individuals, teams, and organizations from their current state to a desired future state in order to achieve business goals.

Examples of change management

- Reorgs
- Layoffs
- Technology changes
- New strategic initiatives
- New priorities
- Employment changes

How do you approach change management?

Digest the changes

- What are the changes?
- What is the need for the change?
- How do they impact your team?
- How do you feel about the changes?
- Are you missing clarity?

Sharing changes with your team

- Clearly state the change
- Identify the reasons and drivers behind the change
- Share how you see this impacts the team
- Be transparent about your thoughts on the changes

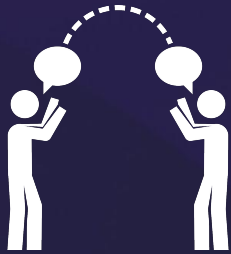
Involve the team

- Allow your team space to process the changes
- Leave room for questions
- Invite their input
- Address any concerns
- Offer follow up support

Follow ups

- Provide feedback up the leadership chain
- Get answers to questions your team has
- Circle back with the team

Ask a manager

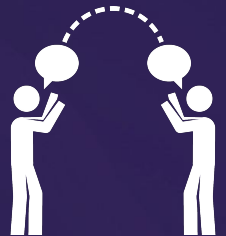


Change management

What have you found most difficult dealing with change management?

What have you found is helpful when approaching changes with your team?

What do you wish you knew about change management before being a manager?



Recap

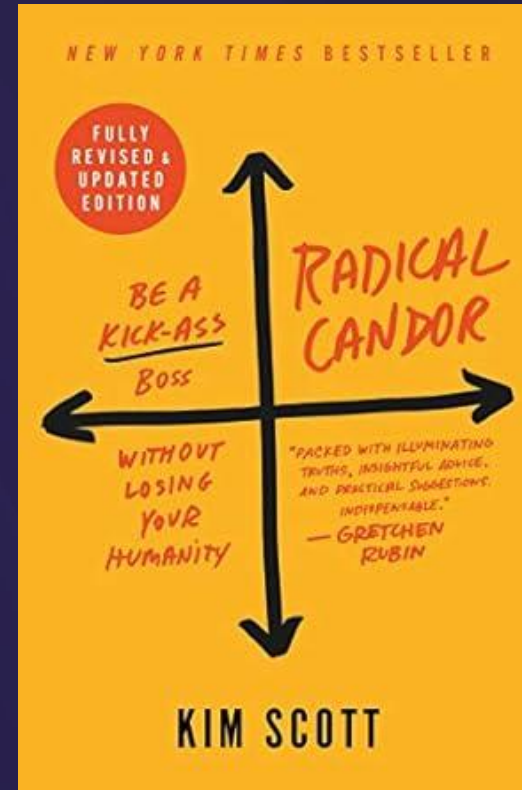
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Leadership resources

github.com/ryanburgess/engineer-manager

Radical Candor

By Kim Scott



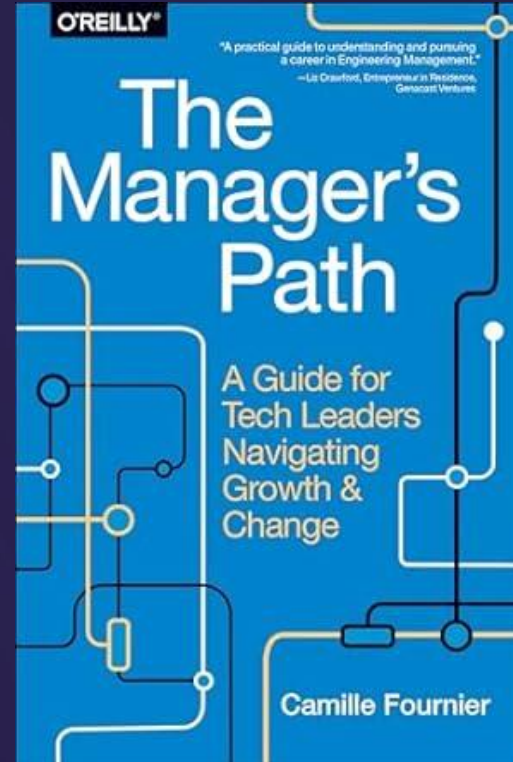


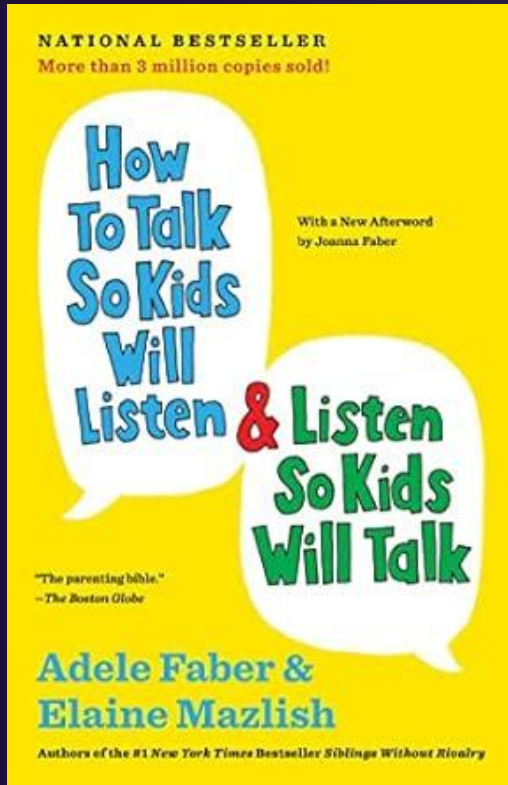
Engineering Management for the Rest of Us

By Sarah Drasner

The Manager's Path

By Camille Fournier





How to Talk So Kids Will Listen & Listen So Kids Will Talk

By Adele Faber, Elaine Mazlish

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