Help! I'm a Research Software Manager!

Four practices to be the manager your team, and research, needs

US-RSE Virtual Workshop 2021   Jonathan Dursi

Congratulations!

Research deserves the best support we can offer

Not A Promotion,
It's a Career Change

You've gone from
a very experienced coder to
a very junior manager

No One Tells Us How

- Different work

- Need different set of skills

- Academia doesn't explicitly teach us these

- Few good examples

- Easy to feel at sea

photo credit: Mubariz Medizadeh on unsplash.com

But we can learn
and master new tools

Because great management:

- **is not** mysterious

- **is not** about personality type

- **is not** super complex or hard

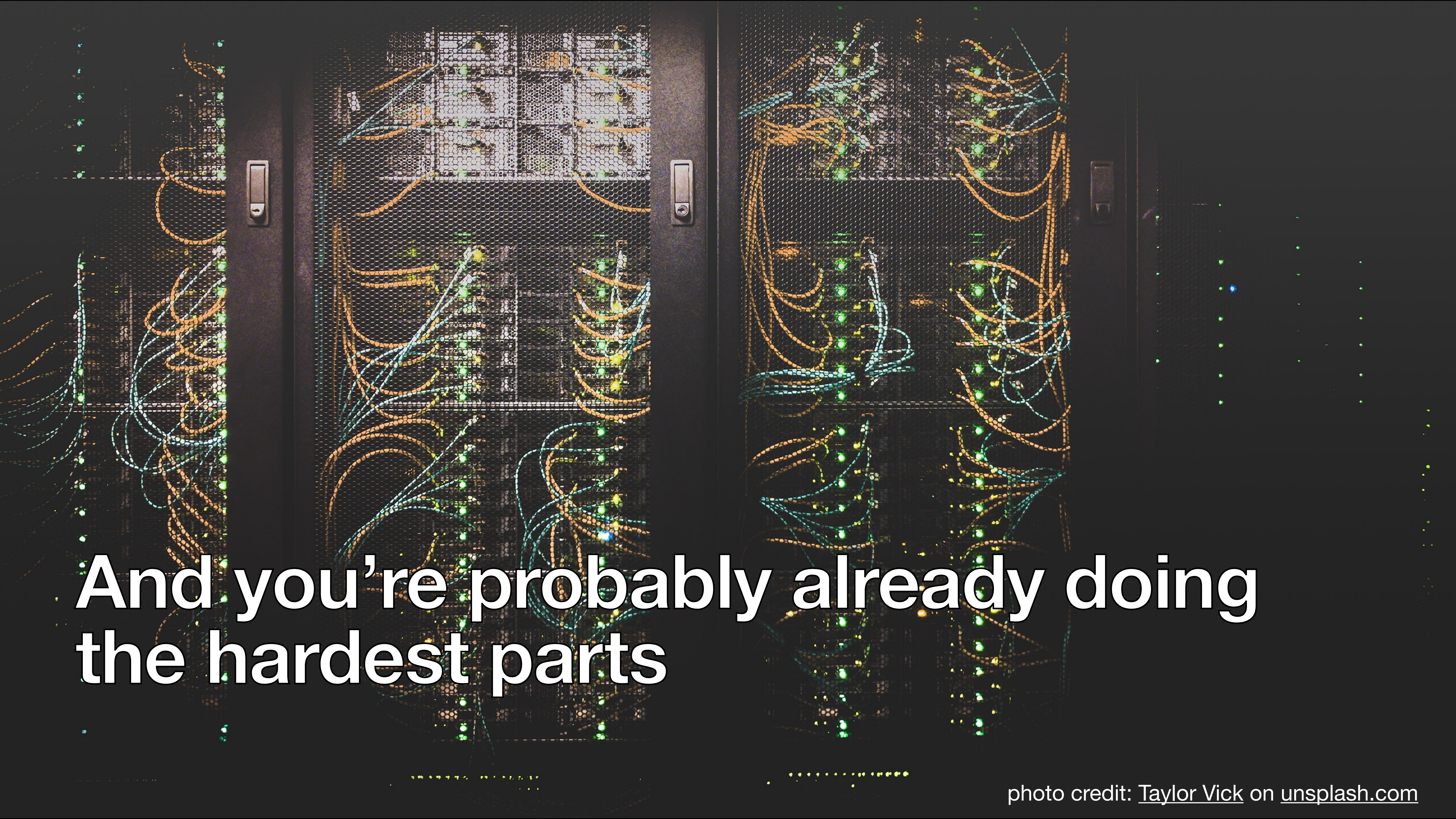- **is** about learning and applying a new set of skills and practices

photo credit: Julie Molliver on unsplash.com

We know what good managers do

And you're probably already doing
the hardest parts

Google
Project Oxygen

- 2009: Do managers matter?

Abstract

Google's Project Oxygen started with a fundamental question raised by executives in the early 2000s: do managers matter? The topic generated a multi-year research project that ultimately led to a comprehensive program, built around eight key management attributes, designed to help Google employees become better managers. By November 2012, the program had been in place for several years, and the company could point to statistically significant improvements in managerial effectiveness and performance. Now executives were wondering: how could Google build on the success of this project, extending it to senior leaders, teams, and other constituencies while striving to create truly amazing managers?

Keywords: Organizational Behavior; Business Policy; General Management; Human Resource Management; Management; Leadership; Human Resources

Google
Project Oxygen

- 2009: Do managers matter?

- Data comes in: Um, yeah.

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FACULTY   RESEARCH   FEATURED TOPICS   ACADEMIC UNITS

CASE | HBS CASE COLLECTION | APRIL 2013 (REVISED OCTOBER 2013)

Google's Project Oxygen: Do Managers Matter?

by David A. Garvin, Alison Berkley Wagonfeld and Liz Kind

PRINT   SHARE   EMAIL

Abstract

Google's Project Oxygen started with a fundamental question raised by executives in the early 2000s: do managers matter? The topic generated a multi-year research project that ultimately led to a comprehensive program, built around eight key management attributes, designed to help Google employees become better managers. By November 2012, the program had been in place for several years, and the company could point to statistically significant improvements in managerial effectiveness and performance. Now executives were wondering: how could Google build on the success of this project, extending it to senior leaders, teams, and other constituencies while striving to create truly amazing managers?

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Language: English   Format: Print   24 pages

EDUCATORS   PURCHASE

Google
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- 2009: Do managers matter?

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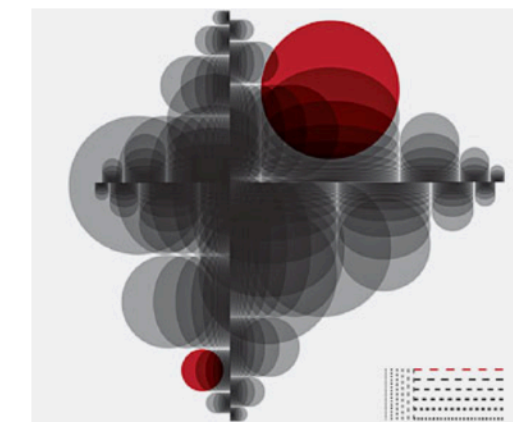

Google

Harvard Business Review

Leadership Development | How Google Sold Its Engineers on Management

How Google Sold Its Engineers on Management

by David A. Garvin

From the December 2013 Issue

Summary | Save | Share | Comment 7 | Print | $8.95 Buy Copies
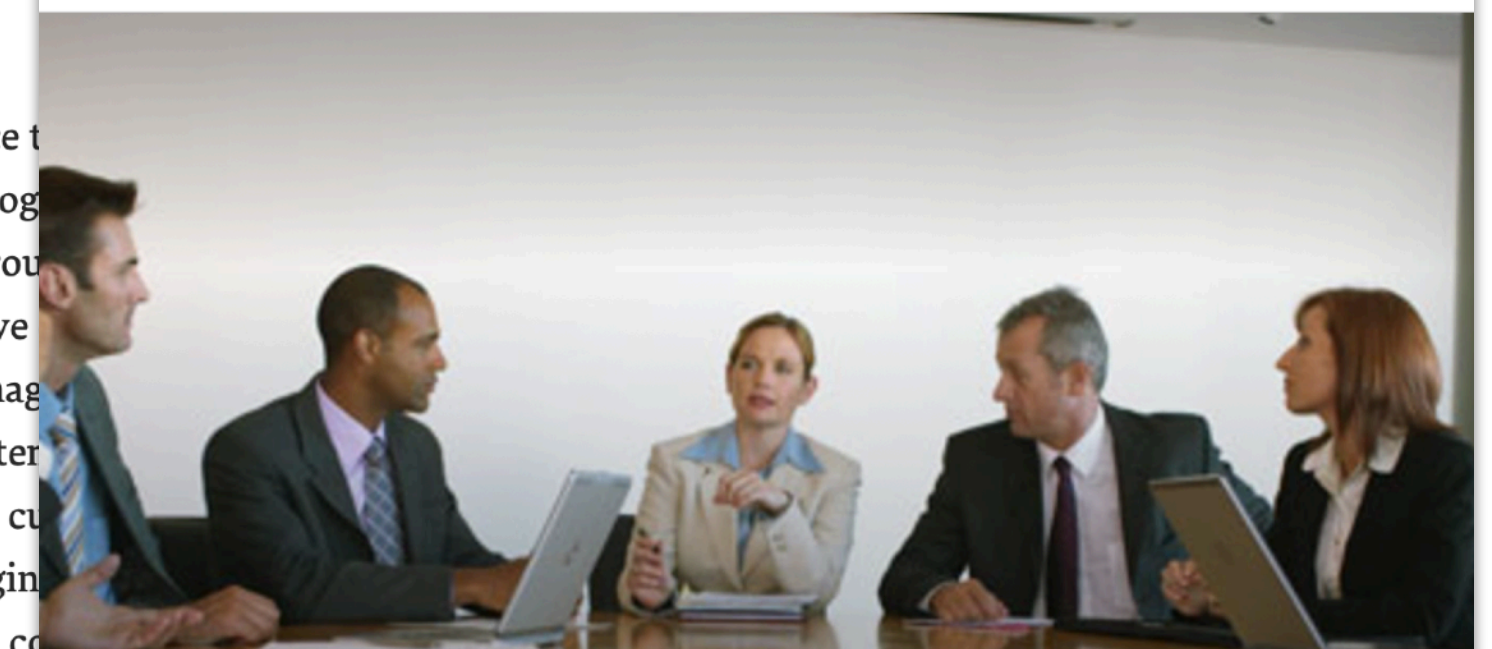
Artwork: Chad Hagen, Graphic Composition No. 1, 2009, digital

Since the early days of Goog... through... have... value of manag... skepticism ste... technocratic cu... software engin... it, "We are a co...

TheStreet.

JIM CRAMER INVESTING PERSONAL FINANCE RETIREMENT TECHNOLOGY MARKETS HOW-TO VIDEO FINANCIAL ADVISOR CENTER

Google's Project Oxygen Pumps Fresh Air Into Management

It's time to make leadership simple again.

BRAD HALL · FEB 11, 2014 11:48 AM EST

Google
Project Oxygen

- 2009: Do managers matter?

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- Management training <u>available online</u>

Google
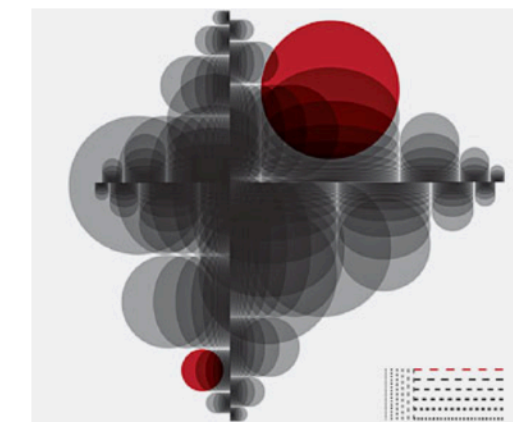## Project Oxygen

- 2009: Do managers matter?

- Data comes in: Um, yeah.

- 2012: Management starts to change across the company

- Management training <u>available online</u>

- What Google found wasn't new, but has been very influential in computing

How Google Sold Its Engineers on Management

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Google's Project Oxygen Pumps Fresh Air Into Management

re:Work

SUBJECTS ▾   GUIDES   CASE STUDIES   BLOG

Managers

Managers matter a lot and can have a huge impact on employee performance. Support your people by sharing what makes a great manager, providing development opportunities, celebrating great managers, and more.

Google
Project Oxygen

Things Great Managers Do

1. Good coaches.
2. Empower their team, not micro-manage.
3. Express interest in their team members' success and personal well-being.
4. Productive and results-oriented.
5. Good communicators and they listen to the team.
6. Help employees with career development.
7. Have a clear vision and strategy for the team.
8. Have key technical skills that help them advise the team

Key Shortcomings of Poor Managers

1. Have trouble making a transition to manager
2. Lack a consistent approach to performance management and career development
3. Spend too little time managing and communicating

RSE is collaborative
and collaboration is hard

Academic collaborative project:

- Learn underlying needs from domain experts and team members

- Get agreement on objectives

- Get everyone working on their part

- Make sure grad students, postdocs develop their skills

- Get the software done, papers out, and resulting presentations

photo credit: Christina @ wocintechchat.com on unsplash.com

Things Great Managers Do

1. Are good coaches.

2. Empower their team, not micro-manage.

3. Express interest in their team members' success and personal well-being.

4. Have productive and results-oriented focus.

5. Good communication and they listen to the team.

6. Help employees with career development.

7. Have a clear vision and strategy for the team.

8. Have key technical skills that help them advise the team

✓ Help grad students and postdocs upskill

✓ Get everyone working on their own part

✓ Learn and meet team members needs

✓ Get the software and paper out

✓ Communicate needs between domain experts and software developers; presentations

✓ Help grad students and postdocs upskill

✓ Understand and communicate objectives

✓ Have technical skills needed for project to advance

Just Need To Avoid Pitfalls - Learn the Basics

1. **Having trouble making a transition to manager**
2. **Lacking a consistent approach to performance management**
3. **Spending too little time managing and communicating**

But How?

Four things you can start doing to be a great manager

Well understood, time-tested, management techniques

One you can start now

- **Weekly one-on-ones** with your team members

Two you can start soon

- **Frequent, specific, feedback** - positive and negative - to your team members

- **Judiciously and increasingly delegate responsibility** to your team members

And one ongoing:

- **Understand that you're not a software developer** anymore

Avoiding Pitfalls

1. Having trouble making a transition to manager
2. Lacking a consistent approach to performance management
3. Spending too little time managing and communicating

✓ Acceptance

✓ Feedback, Delegation

✓ One-on-ones

Weekly one-on-ones

The simplest and most important thing you can start doing for your team

Weekly One-on-Ones
Learn and build trust

- **Every week**, have **scheduled** 30min one-on-one meetings with each direct report

- **Not** status report - get that elsewhere

- 10 minutes - whatever they want to talk about

- 10 minutes - whatever you have on your list to talk with them about

- 10 minutes - the future and their career development

photo credit: Christina @ wocintechchat.com on unsplash.com

Weekly One-on-Ones
Learn and build trust

- Pretty uncommon in academia

- Incredibly common elsewhere

- Lots of resources
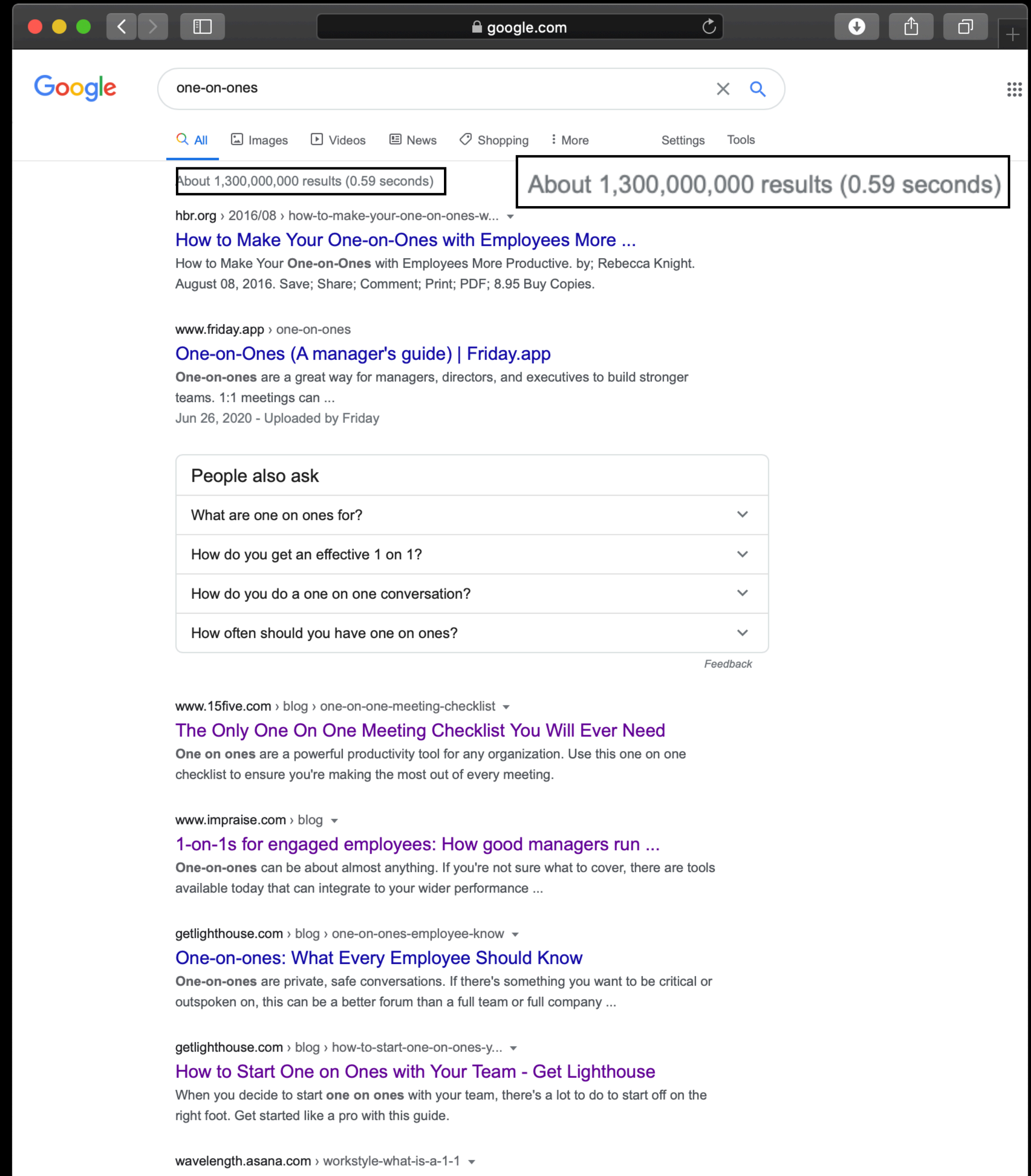
Weekly One-on-Ones

Learn and build trust

- Show they have your undivided attention

    - Have a recurring appointment and don't skip them

    - Take notes, without a keyboard

- Learn about your team member and their work

- Learn things that they need from you (information, get things unstuck, introductions, career development)

- Let them know they'll get them

- Build trust by following through

- Review notes periodically

photo credit: Christina @ wocintechchat.com on unsplash.com

Weekly One-on-Ones

Learn and build trust

- Easily the most valuable time you'll spend a manager

- By doing this, you'll:

  - Understand your team members much better

  - Understand what's going on much better

  - Show you care and build trust

  - Start feeling like you can manage

Frequent, Specific, Feedback

Let people know how they're doing

Specific Feedback
Behaviour and Impact

- Developers deserve to know what they're doing well and what they should change, as early as possible

- Software developers <u>feel more productive</u> when they're getting useful feedback about job performance

- Lots of research on what works:

  - Prompt

  - Specific - know what to do

  - Focus on behaviour + impact

photo credit: Jon Tyson on unsplash.com

Specific Feedback
Behaviour and Impact

- SBI: situation, behaviour, impact

- Bad: "Nice job on the presentation!"

- Good: "In today's presentation, you covered the background material very clearly. It really helped Prof X's group understand what we need to do"

photo credit: Jon Tyson on unsplash.com

Specific Feedback
Behaviour and Impact

- SBI: situation, behaviour, impact

- Bad: "You need to get better at doing code reviews"

- Good: "On the PR for the updated model, it took a week for you to do the review. That blocked Nayeli's progress for half the sprint".

photo credit: Jon Tyson on unsplash.com

Specific Feedback
Behaviour and Impact

- Not about blame or praise, but clarity of expectations

- Nudging people to those expectations *in the future*

- Most feedback should be positive

- Take time to call out specific things they're doing that help you or the team

- Frequent, small, early feedback prevents many Big Conversations

photo credit: Jon Tyson on unsplash.com

Increasingly Responsible Delegation

Help your team members grow and take increasing responsibility

Increasing Delegation

Helping your team members grow

- Keep an eye out for matches between:

  - Tasks of yours you already know how to do

  - Team members for whom the task might be a bit of a welcome stretch

- Tell them why you think this would be a good match for them and ask if they'd be willing to do it

- If so, give them support they need as they learn

photo credit: Scott Graham on unsplash.com

Increasing Delegation

Helping your team members grow

- Done well helps your team members grow their skills,

- **And** gives you room to grow and tackle new challenges

- Requires knowledge of your team members (one-on-ones)…

- …and the ability to give them guidance (specific feedback)

photo credit: Scott Graham on unsplash.com

You're not a developer anymore

Growing into your new role starts with leaving your old one behind

Accept your new role

Help your team members

- The job is to make your team more effective, not write code yourself

- You're no longer a <u>maker, you're a multiplier</u>

- "Glue work": coordination, collaboration, prioritization, conflict resolution, decision making

- Helping your team members advance their skills and careers

- A lot easier to do let go of coding tasks when you know what management tasks look like

photo credit: <u>Gaelle Marcel</u> on <u>unsplash.com</u>

You can do this

You can do this
You've learned harder stuff

- Mastering new techniques is hard

- Starting some of these practices may be uncomfortable

- You've learned harder skills than these, and felt awkward or clumsy until you mastered them

- But they were necessary for what you wanted to accomplish

photo credit: Jordan Wozniak on unsplash.com

You can do this
You've learned harder stuff

- Start one-on-ones in the coming month - give you time to prepare

- Over a couple months, learn about giving specific feedback, then start

- As you get to know your team members career goals better, start targeted delegation

- If you're doing some or most of these things after 4-6 months, you're doing great

- And there's lots of resources to help

photo credit: Jordan Wozniak on unsplash.com

Research deserves the best support we can offer
And you can be the manager your team, and research, needs

Resources

Weekly One-on-Ones

Resources

- Manager-Tools basics podcasts

- The Manager's Path: Camille Fournier

- re:Work @ Google one-on-one guide

- An online list of good one-on-one resources.

- Huge list of potential questions

- My quickstart guide for remote one-on-ones early in the pandemic

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Specific Feedback
Resources

- Manager-Tools basics podcasts

- re:Work @ Google's Situation-Behaviour-Impact model

- Three feedback models

- Don't use "sandwich" feedback, it doesn't work

- Software developers feel more productive when they're getting useful feedback about job performance

photo credit: Jon Tyson on unsplash.com

Delegation
Resources

- Manager-Tools basics podcasts

- Manager-Tools Responsibility Ladder podcasts

- An Engineering Team where Everyone is a Leader - Gergely Orosz

photo credit: Scott Graham on unsplash.com

Growing Into Your Role

Resources

- re:Work new manager training guide

- The Manager's Path: Camille Fournier

- Lab Dynamics: Cohen & Cohen

- Rands (tech) leadership slack

- I have a weekly link roundup newsletter on the topic of managing research computing teams

photo credit: Gaelle Marcel on unsplash.com

Resources

At https://www.ResearchComputingTeams.org/USRSE2021 you can find

- A PDF of these slides

- A video recording of this talk, and

- An ebook with step-by-step instructions to starting one-on-ones with your team over the course of a month