



TRIBAL KNOWLEDGE

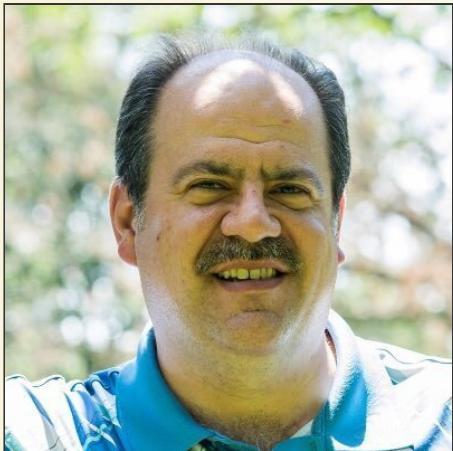
in

AGILE TEAMS

Jeffrey A. Miller - @xagronaut

KNOWLEDGEPLAYBOOK.COM

JEFFREY A. MILLER



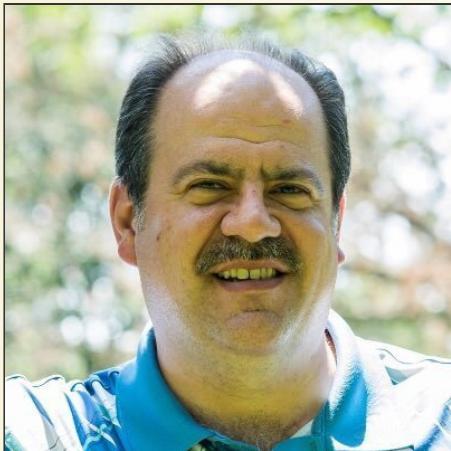
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- Full stack Microsoft developer
- Certified Neo4j developer
- Continuous Delivery lead
- Conference speaker

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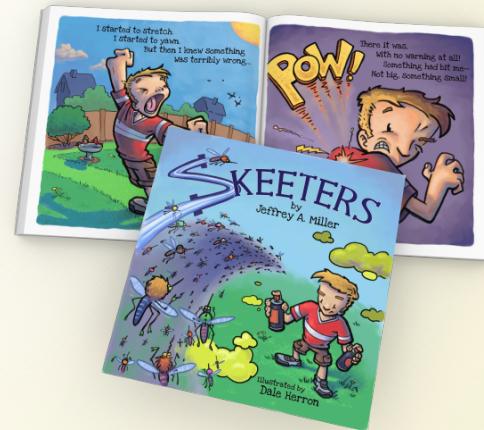


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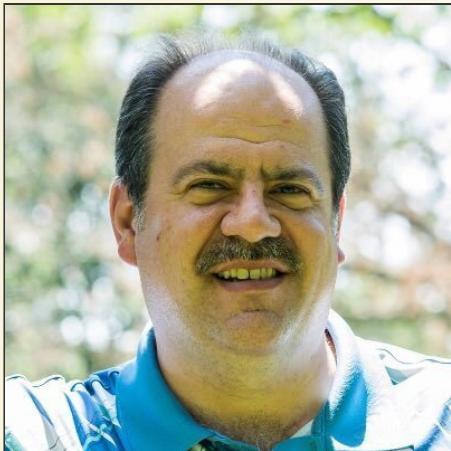
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- Children's author ("Skeeters")



skeeterbooks.com

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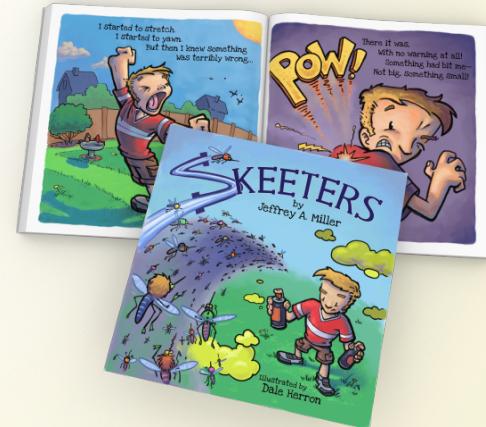


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- Conference speaker
- Children's author ("Skeeters")
- **New dad**



skeeterbooks.com



SLIDE 1 OF 1

PRESENTATION

intentionally

LEFT BLANK



TRIBAL KNOWLEDGE?



TRIBAL KNOWLEDGE?

INFORMATION KNOWN

WITHIN A TRIBE but

UNKNOWN OUTSIDE -

Wikipedia



IMAGINE...

IMAGINE...

YOU'RE

DOING IT

WRONG!!

SORRY



ARE YOU FEELING...

ARE YOU FEELING...

EMBARRASSMENT?

ARE YOU FEELING...

EMBARRASSMENT?

FRUSTRATION?

ARE YOU FEELING...

EMBARRASSMENT?

FRUSTRATION?

ANGER?

ARE YOU FEELING...

EMBARRASSMENT?

FRUSTRATION?

ANGER?

#TRIBAL.KNOWLEDGE.FAIL





STOP

**STOP -
IT'S NOT
YOUR FAULT!**

A photograph of several wooden figurines, some light-colored and some dark, standing in a cluster on a dark, textured surface. The figurines have simple, rounded shapes.

WHAT YOU
DON'T KNOW...

THE PROBLEM

LEAKS WILL COST YOU

- Waiting for answers
- Introduction of defects
- Outages
- Non-adherence to standards
- Rework

**WHEN DO LEAKS
HAPPEN?**





YOU'RE FIRED!

A photograph of two men in business attire performing a dynamic kick. The man on the left, wearing a dark suit, white shirt, and red tie, is in mid-air, having just kicked his right leg forward. The man on the right, wearing a light-colored shirt, dark tie, and dark trousers, is also in mid-air, leaning forward with his right leg extended. They are set against a plain white background.

YOU'RE FIRED!

A dark grey rectangular banner positioned horizontally across the middle of the image. It features the words "YOU'RE FIRED!" in large, white, bold, sans-serif capital letters at the top, and "I QUIT!" in the same style below it.

I QUIT!

A photograph of a woman with dark hair and a man with a full, reddish-brown beard shaking hands. They are both smiling. The woman is wearing a white blouse with small black dots and dark trousers. The man is wearing a light blue shirt and a red tie. They are outdoors, with a white building and some greenery in the background.

YAY! PROMOTION!



RETIREMENT



OUT SICK! :-(|

VACATION!





VACATION!

OR NIGHTMARE?

OR WORSE...

OR WORSE...

PASSED AWAY

SUDDENLY

WHY THIS IS HARD

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- You can't know everything

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- Tacit knowledge is hard to transfer
- Sometimes experts can't teach

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- You can't know everything
- Tacit knowledge is hard to transfer
- Sometimes experts can't teach
- Misconceptions about "Agile" and documentation
- **NO SILVER BULLETS**

WHATS IN THE WAY?

WHY WE DON'T DO IT

WHY WE DON'T DO IT

- Not enough time
- Past failures/apathy
- Memory fades, urgency fades

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- Team/management
resistance
- Interruptions, lunch

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A photograph showing several hats displayed in open, vintage-style trunks. One trunk in the foreground contains a dark brown leather hat, a straw hat with a white band, and a large straw hat with a wide brim. Another trunk behind it holds a large, colorful, circular straw hat with concentric red, yellow, and green bands. To the right, there are more straw hats of various styles and colors, including a yellow one with a blue band and a red one with a yellow butterfly emblem. The trunks are made of dark wood with gold-colored metal hardware.

TOO MANY HATS!

THE SOLUTION?

THE SOLUTION?

LET'S NOT DO THIS

AGAIN



LET'S TIME TRAVEL!



IMAGINE...

IMAGINE...
YOU'RE
SMILING!!??

STRATEGY:

My Plan:

CREATE A KNOWLEDGE PLAYBOOK

My plan:

WHAT'S IN IT?

WHAT'S IN IT?

- Situational guidance

WHAT'S IN IT?

- Situational guidance
- Reference material

WHAT'S IN IT?

- Situational guidance
- Reference material
- Checklists
- Templates

WHAT'S IN IT?

- Situational guidance
- Reference material
- Checklists
- Templates
- Questions

WHAT'S IN IT?

- Situational guidance
- Reference material
- Checklists
- Templates
- Questions
- KIT = Keep It Together

KNOWLEDGE BASE -

PICK ONE

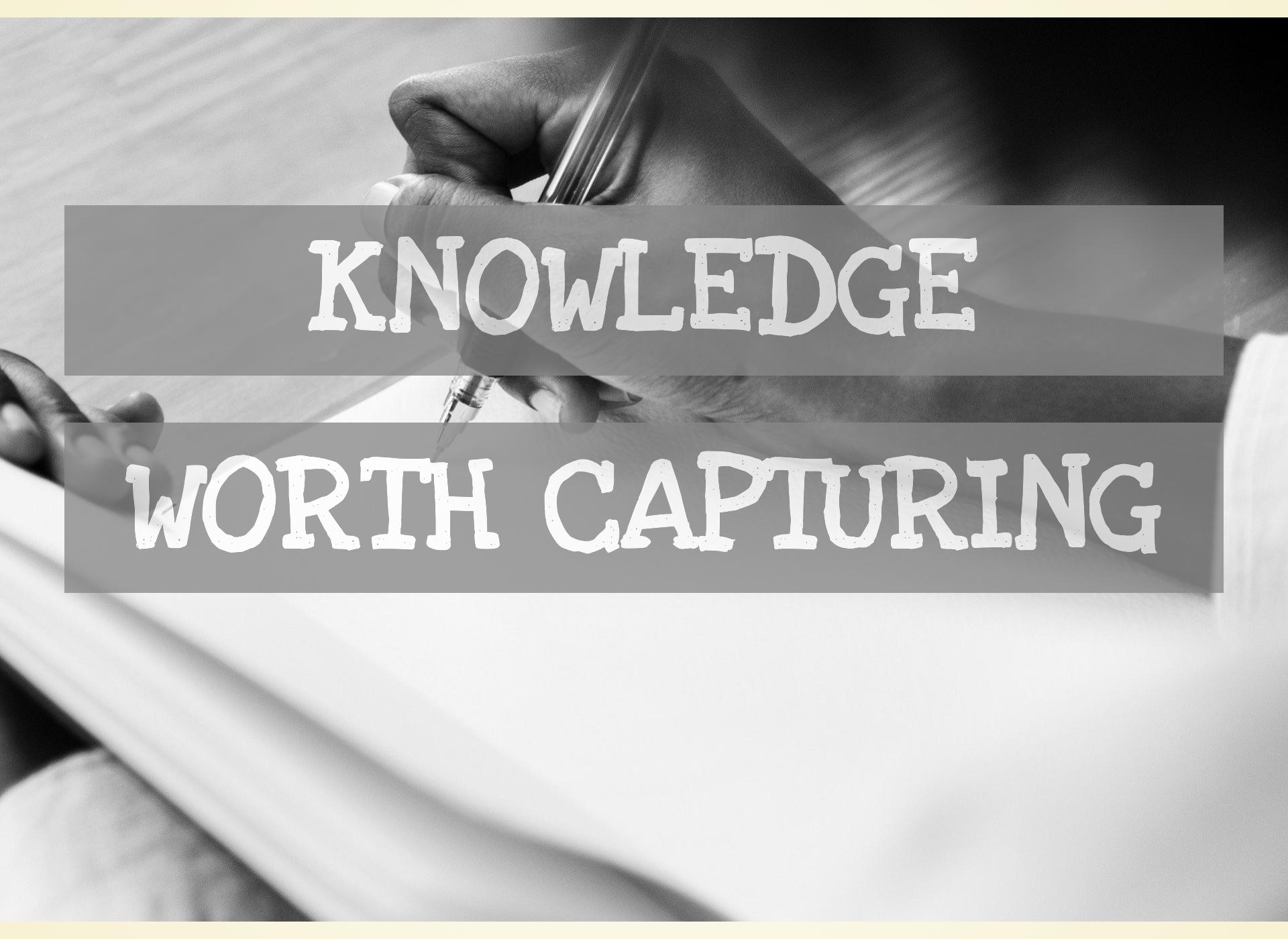
- OneNote or Wiki
- Found reference
- Troubleshooting notes
- Pick one, stick with it
- Do it now



<https://wikimatrix.org/>

WHY WIKI WORKS

- Participation is *welcome by default*
- Information is *more discoverable*
- New content is *introduced easily*
- Out-of-date content is *easily updated*
- Intent is *expressed* before *action*



**KNOWLEDGE
WORTH CAPTURING**

STRATEGY: START WITH YOURSELF

Personal capture methods
turn ideas into action!

PERSONAL CAPTURE

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- Paper: Notebook or Journal

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- Paper: Notebook or Journal
- OneNote or EverNote

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- Paper: Notebook or Journal
- OneNote or EverNote
- Simple Word docs

PERSONAL CAPTURE

- Paper: Notebook or Journal
- OneNote or EverNote
- Simple Word docs
- Whiteboard photos

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- Whiteboard photos
- Mind maps (Freeplane!)

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- Paper: Notebook or Journal
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- Simple Word docs
- Whiteboard photos
- Mind maps (Freeplane!)
- SnagIt (\$) or Greenshot (free)

STRATEGY:

MAKE

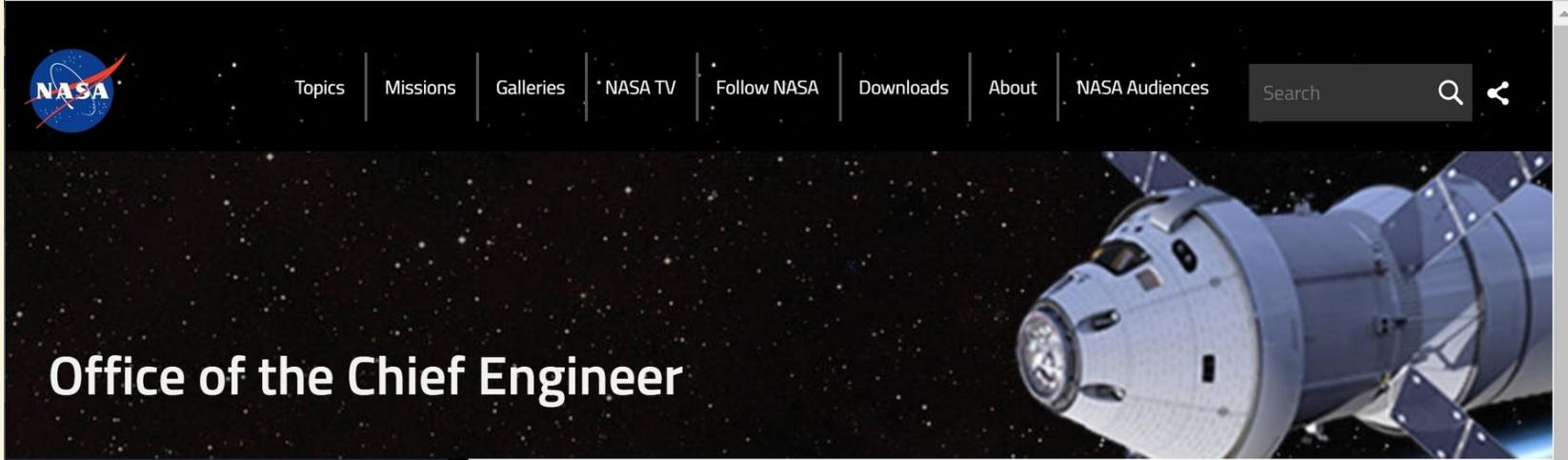
RETROSPECTIVES

COUNT

NASA LESSONS LEARNED

nasa.gov/offices/oce/functions/lessons/index.html

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NASA Lessons Learned

The NASA Lessons Learned system is a database of lessons learned from contributors across NASA and other organizations. It contains the official, reviewed learned lessons from NASA programs and projects. Its varied contents are sought by thousands of visitors a month who represent a multitude of disciplines including science, engineering, education, manufacturing, and project management.

The system and its content are managed by the NASA Lessons Learned Steering Committee (LLSC), composed of members from all NASA Centers. The Lessons Learned system curator, who serves under the direction of the LLSC Chairperson, has operational responsibilities for the system.

The Lessons Learned system contains a growing database, with lessons added on a fairly regular



The NASA Lessons Learned system includes lessons learned from the loss of the Space Shuttle Columbia

TIP:

NAME YOUR LESSONS

**ARTICULATE THEM, IN WRITING
DEBRIEF YOURSELF (QUICKLY!)**

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DEBRIEF YOURSELF (QUICKLY!)**

**DON'T LET A BAD PROJECT BE
VAGUELY BAD. NAME THE PROBLEMS.**

USE RETRO RESULTS IN PLANNING

Review past retrospectives after each release and each quarter. Put worthwhile changes on the backlog.

**STRATEGY:
BLAMELESS
POSTMORTEMS**

**STRATEGY:
IMPROVE YOUR
ONBOARDING**



U-HAUL

ONE-WAY & IN-TOWN MOVES

**DRIVE A U-HAUL
LATELY?**

A white U-Haul truck with red stripes and a red tow-haul mode truck are parked at a gas station. The U-Haul truck has "UHAUL" and "ONE-WAY & IN-TOWN MOVES" printed on it. The tow-haul mode truck has "CLOTH SEAT • A/C • AUTOMATIC" and "UNDER LOAD CROSS" printed on its side.

UHAUL

ONE-WAY & IN-TOWN MOVES

Move Faster
UHAUL

RIGHT EQUIPMENT
LOWEST COST

THE TALE OF TOW-HAUL MODE



**TOW
HAUL**

**WHAT'S THIS
LIGHT?**



WHAT'S THIS
BUTTON?

GOOGLE SEARCH: "TOW/HAUL"

SITE:UHAUL.COM

*GOOD SERVICE. TRUCK WORKED OK,
...THE LIGHT FOR TOW/HAUL WAS ON THE
ENTIRE TIME.*

*CLEARER INSTRUCTION ON THE
HOW AND WHY OF "TOW/HAUL" INDICATOR
LIGHT.*

*IT POPS ON AS A DEFAULT AND
GREATLY INCREASES GAS CONSUMPTION
IF ONE ISN'T HAULING A TRAILER OR
PULLING A CAR.*

THE STAFF WAS FRIENDLY...

I WISH THE TOW/HAUL FEATURE

WOULD HAVE BEEN EXPLAINED TO ME

IN THE BEGINNING.

*I GOT INTO THE TRUCK AND STARTED IT, THE
TOW HAUL LIGHT WAS ON,*

*I CALLED THE OFFICE BEFORE I LEFT...TO ASK
WHAT THE LIGHT WAS ON FOR?*

*...THE MAN IN THE OFFICE EXPLAINED IT TO
ME...*

*I GOT INTO THE TRUCK AND STARTED IT, THE
TOW HAUL LIGHT WAS ON,*

*I CALLED THE OFFICE BEFORE I LEFT...TO ASK
WHAT THE LIGHT WAS ON FOR?*

*...THE MAN IN THE OFFICE EXPLAINED IT TO
ME...*

WITHOUT MAKING ME FEEL STUPID.

ONBOARDING ADVICE

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- Always think like "the new guy"

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- Always think like "the new guy"
- Consider the perspective of others

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- Work together to update the docs

ONBOARDING ADVICE

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- Work together to update the docs
- Create a record...or *recording!*

BOOKMARKS ARE A NEWBIE'S BEST FRIEND

- Googling is fun, but it's expensive
- Examples of good bookmarks:
 - SharePoint docs you've found
 - Internal resources
 - Timesheet system
 - Help Desk/Service Requests
- Easy to do, export/import works!



UNDISCOVERED TREASURE



UNDISCOVERED TREASURE



IS WORTHLESS

DEMO YOUR DOCS AND TOOLS

Share what you've created during iteration reviews to help spread the word to the your team. Way to go!

DISCOVERABILITY

- Put things where they can be found
- Spell correctly
- Avoid acronyms and jargon
- Make links from other places
- Pick good stand-alone titles

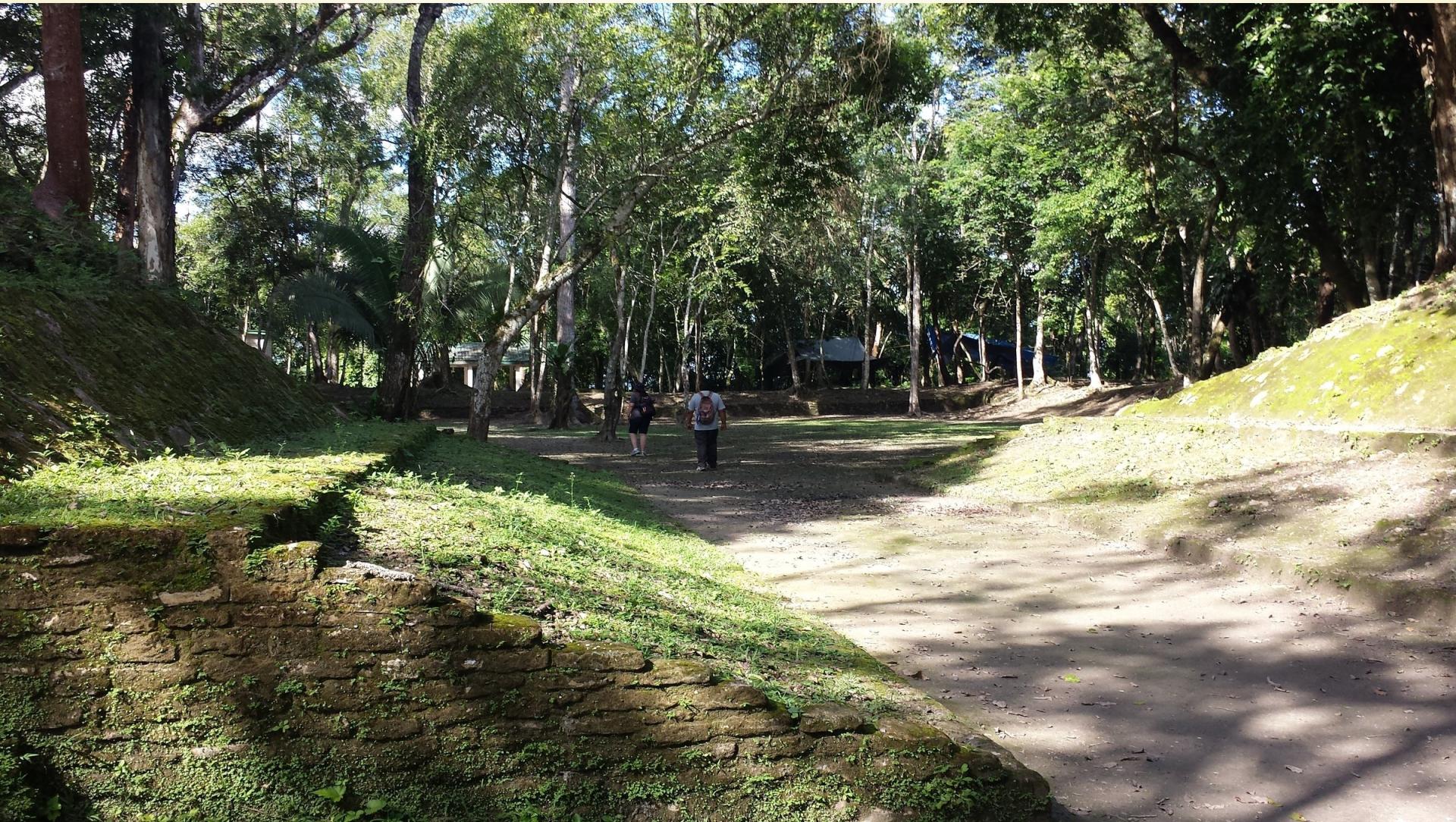
BIG & VISIBLE

Make sure the team has the best chance of seeing need info.

Posters for the win!

**KNOWLEDGE
WORTH SAVING**

STRATEGY:
SCAVENGER HUNT
A.K.A.
"ARCHAEOLOGY"



TOUR GUIDES CAN HELP (IF YOU CAN FIND THEM)



SHAREPOINT

"Where information goes to die!"



SHAREPOINT

"Where information goes to die!"

JUST KIDDING (MOSTLY)

STRATEGY:

SCAVENGER HUNT:

RAID SHAREPOINT

STRATEGY:

SCAVENGER HUNT:

MINE YOUR HARD

DRIVE

STRATEGY: TRANSFORM EMAIL

EMAIL WOES

- long, messy threads
- read? who knows?
- cluttered mailboxes
- retention limits

MAKE EMAIL WORK

MAKE EMAIL WORK

- Create smart categories:
Knowledge Base and *Onboarding*

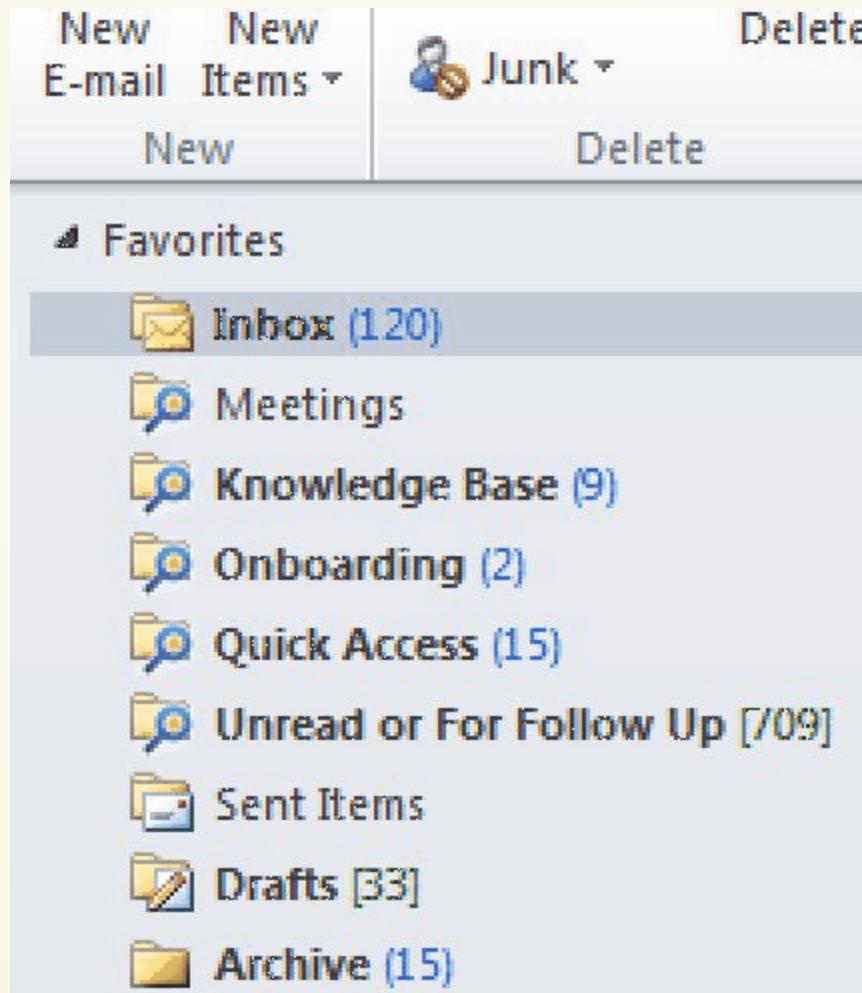
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- Create **Quick Steps** for quick filing

MAKE EMAIL WORK

- Create smart categories:
Knowledge Base and *Onboarding*
- Create **Quick Steps** for quick filing
- Create **Search Folders** to find fast

SEARCH FOLDERS



AND WORK!

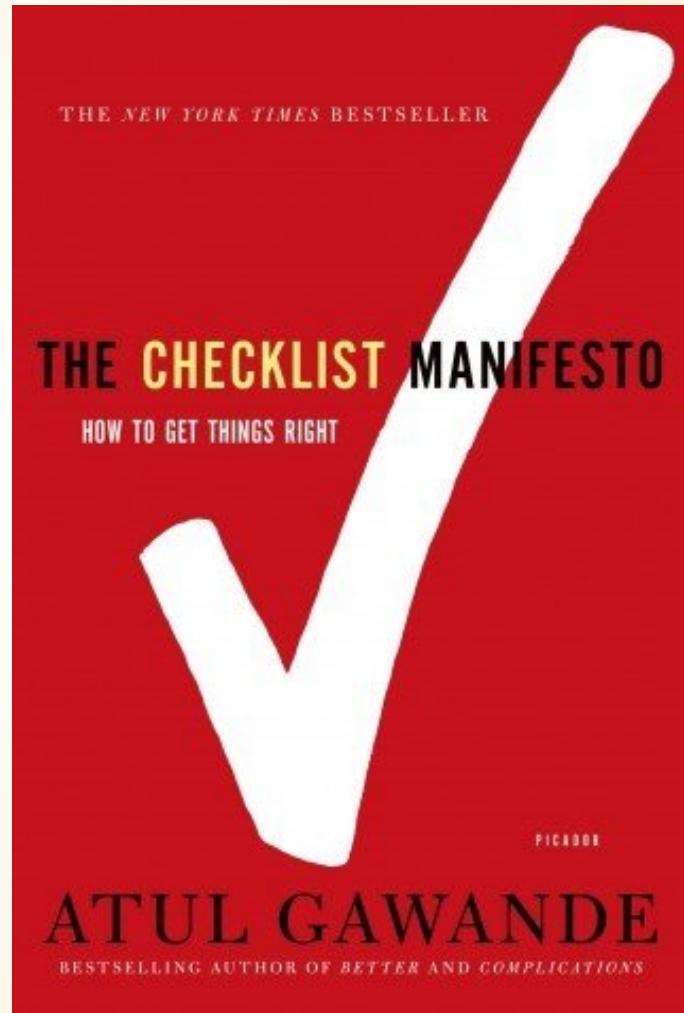
- Automate common responses and infrequent requests
- Use email signatures for common copy
- Send to OneNote can work wonders

STRATEGY: USE CHECKLISTS



CHECKLIST MANIFESTO

by Atul Gawande





The induction of anaesthesia

Before skin incision

Before patient leaves operating room

NIN

PATIENT HAS CONFIRMED

- IDENTITY
 - SITE
 - PROCEDURE
 - CONSENT

SITE MARKER/NOT APPLICABLE

ANAESTHESIA SAFETY CHECK COMPLETED

PULSE OXIMETER ON PATIENT AND FUNCTIONING

DOES PATIENT HAVE A:

KNOWN ALLERGY?

NO

YES

DIFFICULT AIRWAY/ASPIRATION RISK?

NO

YES, AND EQUIPMENT/ASSISTANCE AVAILABLE

RISK OF >500ML BLOOD LOSS
(7ML/KG IN CHILDREN)?

NO

YES, AND ADEQUATE INTRAVENOUS ACCESS
AND FLUIDS PLANNED

TIME OUT

- CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE
 - SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM
 - PATIENT
 - SITE
 - PROCEDURE

ANTICIPATED CRITICAL EVENTS

- SURGEON REVIEWS: WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?
 - ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNs?
 - NURSING TEAM REVIEWS: HAS STERILITY (INCLUDING INDICATOR RESULTS) BEEN CONFIRMED? ARE THERE EQUIPMENT ISSUES OR ANY CONCERNs?

HAS ANTIBIOTIC PROPHYLAXIS BEEN GIVEN
WITHIN THE LAST 60 MINUTES?

- YES
 NOT APPLICABLE

IS ESSENTIAL IMAGING DISPLAYED?

- YES
 NOT APPLICABLE

SIGN OUT

NURSE VERBALLY CONFIRMS WITH THE TEAM:

- THE NAME OF THE PROCEDURE RECORD
 - THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT (OR NOT APPLICABLE)
 - HOW THE SPECIMEN IS LABELLED (INCLUDING PATIENT NAME)
 - WHETHER THERE ARE ANY EQUIPMENT PROBLEMS TO BE ADDRESSED
 - SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERN FOR RECOVERY AND MANAGEMENT OF THIS PATIENT

EFFECTIVE CHECKLISTS

- Stick to one page
- Use natural "pause points"
- Use dark text on a light background
- Are not a tutorial
- Protect against mistakes
- Use the right type:
 - Read-Do vs. Do-Confirm

**STRATEGY:
AUTOMATE YOUR
KNOWLEDGE!**

INSPECTOR VIEWS

- Database view that demonstrates a problem
- Confirms the current state
- Contains troubleshooting info

TEMPLATES

- mailto: links can do more!
- Embed them in documents
- Code generation
- Code snippets, keystrokes, macros
- Common AND infrequent requests

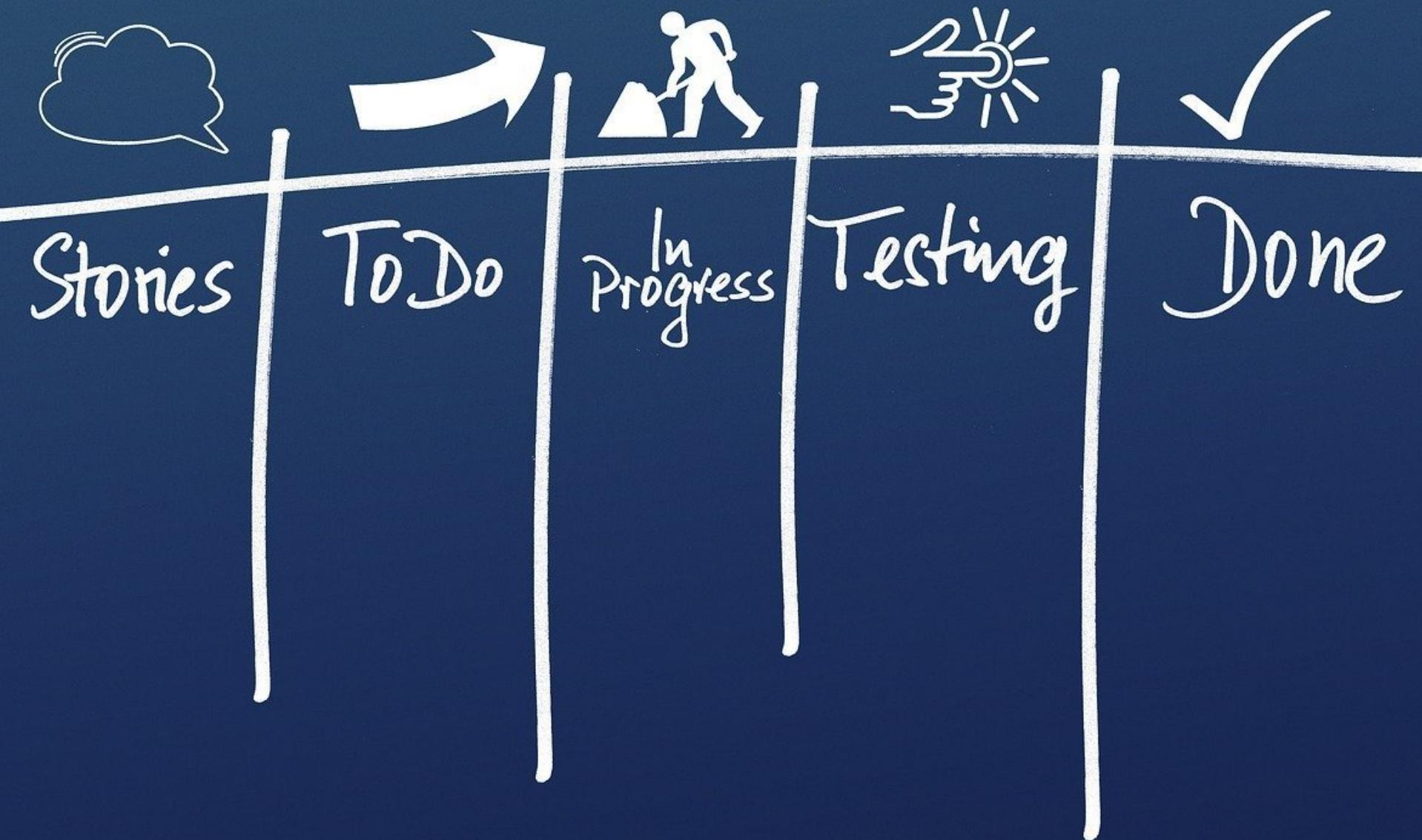
TEMPLATES

- mailto: links can do more!
- Embed them in documents
- Code generation
- Code snippets, keystrokes, macros
- Common AND infrequent requests
 - "CRUD mutator" workflow

STRATEGY:
ASK POWERFUL
QUESTIONS

**STOP LEAVING
OTHERS OUT!**

**ASK:
WHO HAVE I
MISSED?**







WHAT IS "READY?"

WHAT IS "DONE?"



WHAT IS "READY?"

WHAT IS "DONE?"

IS IT "DONE-DONE?"

**ASK:
WHAT DID WE DO
LAST TIME?**



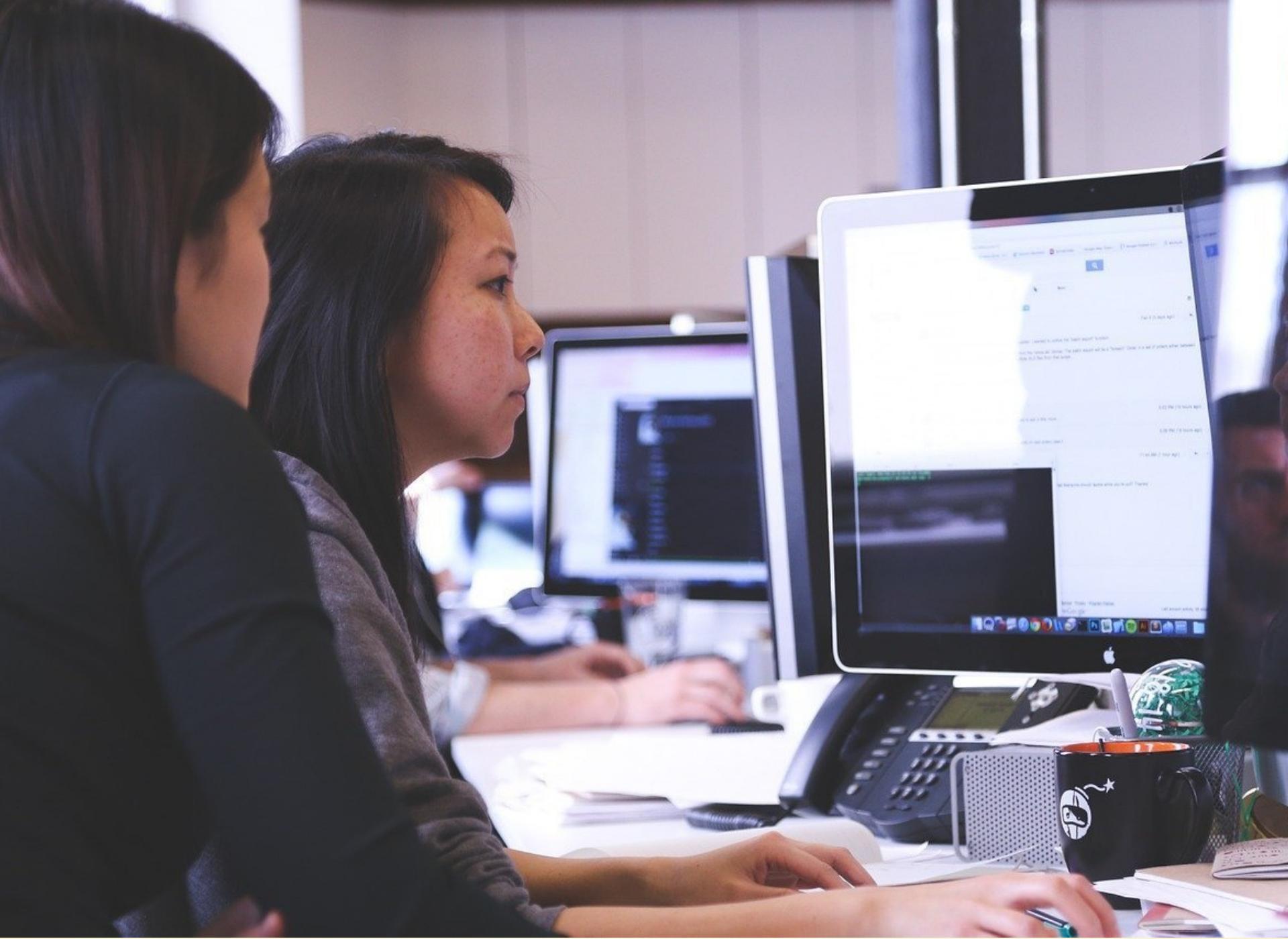
LUNCH-AND-LEARN

LUNCH-AND-LEARN

- Learn something new
- Demonstrate your learning
- Practice your speaking skills
- Build buy-in for new tech
- Duh...Lunch!

INVEST IN OTHERS

- Blog about it & build an audience
- Release examples on Github
- Answer Q's on Stack Overflow
- Use social media to help seekers



A photograph showing two people from behind, looking at a computer screen. The screen displays a software interface with multiple windows open. The person on the right is holding a pen, suggesting they are writing code or pointing at the screen.

TDD + PAIR PROGRAMMING

Writing tests together increases
your bus number...*fast!*

PULL REQUESTS + CODE REVIEWS

GitHub Enterprise & Azure DevOps
can enforce a pull request/code
review model. Great idea!

NOW WHAT?

- Start now
- Start small
- Start with yourself
- Up your game!
- Make something great
- Share with others
- Build momentum

ATTITUDE?

18 Then I hated all my labor in which I had toiled under the sun, because I must **LEAVE IT TO THE MAN WHO WILL COME AFTER ME.**

19 And **WHO KNOWS WHETHER HE WILL BE WISE OR A FOOL? YET HE WILL RULE OVER ALL MY LABOR** ... This also is vanity.

King Solomon - Ecclesiastes 2:18-19 (NKJV)

**STOP MAKING
EXCUSES!**



LONER?



LONER?



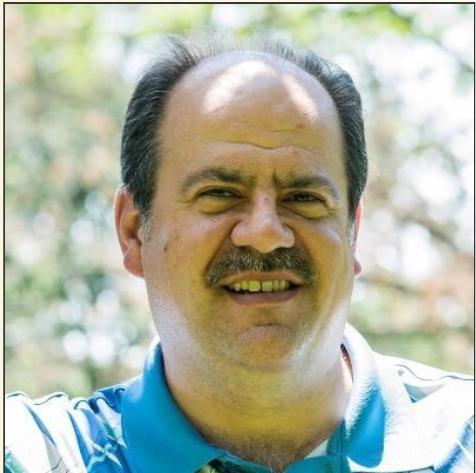
OR LEADER?

LEAVE IT BETTER!

Try to **LEAVE THIS WORLD**
A LITTLE BETTER THAN YOU FOUND IT
and, when your turn comes to die, you can
die happy in feeling that at any rate
YOU HAVE NOT WASTED YOUR TIME
but have **DONE YOUR BEST.**

Robert Baden-Powell

Slides at: KNOWLEDGEPLAYBOOK.COM



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