

TRIBAL KNOWLEDGE

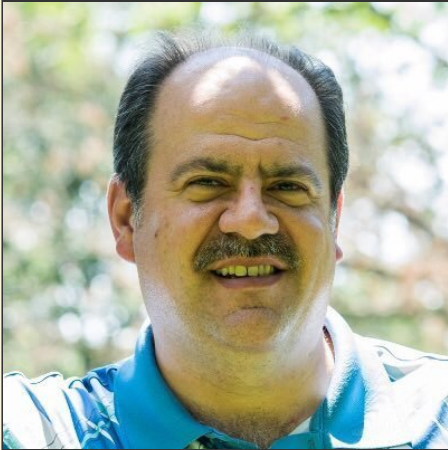
in

AGILE TEAMS

Jeffrey A. Miller - @xagronaut

KNOWLEDGEPLAYBOOK.COM

JEFFREY A. MILLER



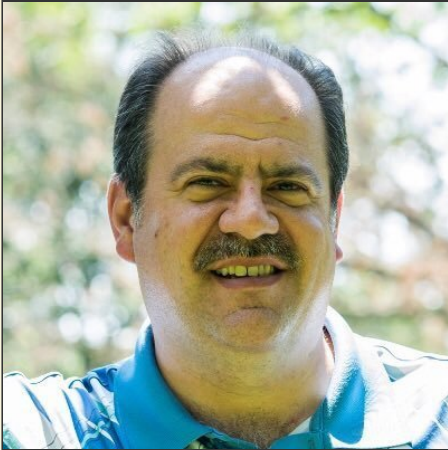
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- Full stack Microsoft developer
- Certified Neo4j developer
- Continuous Delivery lead
- Conference speaker

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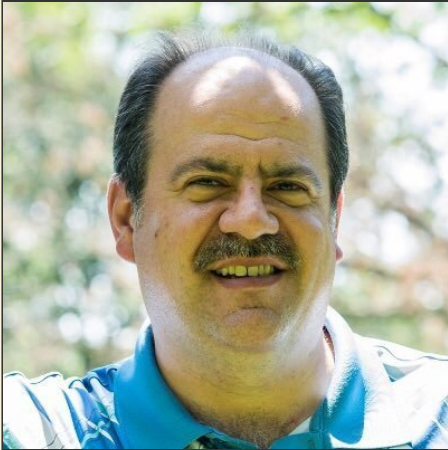
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- Children's author ("Skeeters")



skeeterbooks.com

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



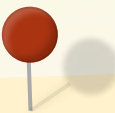
skeeterbooks.com



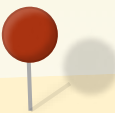
SLIDE 1 OF 1
PRESENTATION

intentionally

LEFT BLANK

A red pushpin is pinned to the top center of the yellow sticky note.

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...

EMBARASSMENT?

FRUSTRATION?

ARE YOU FEELING...

EMBARASSMENT?

FRUSTRATION?

ANGER?

ARE YOU FEELING...

EMBARASSMENT?

FRUSTRATION?

ANGER?

#TRIBAL_KNOWLEDGE_FAIL





STOP



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

A collection of wooden pawns, some light-colored and some dark, are arranged on a dark, textured surface. A semi-transparent dark rectangle is overlaid in the center, containing the text "WHAT YOU DON'T KNOW..." in a white, stylized font.

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?**



A full-page illustration on a light yellow background. Two men in business suits are shown in mid-air, kicking each other. The man on the left wears a dark suit, glasses, and a red scarf, and is smiling. The man on the right wears a white shirt and a dark tie, and has a pained or shouting expression. A dark grey horizontal band across the middle of the image contains the text 'YOU'RE FIRED!' in a white, distressed, all-caps font.

YOU'RE FIRED!



YOU'RE FIRED!

I QUIT!

A woman with dark hair and bangs, wearing a white patterned blouse, is smiling and shaking hands with a bearded man. The man is wearing a light blue shirt and a red tie, and is also smiling. They are outdoors, with string lights visible in the background. A dark grey banner with white text is overlaid on the image.

YAY! PROMOTION!



RETIREMENT



OUT SICK! :-)

VACATION!



The background of the image is a close-up of a sandy beach. Scattered across the sand are various seashells, including scallops, conch shells, and small pebbles. A single starfish is visible on the right side. Two dark, horizontal rectangular bars are superimposed over the image, one above the other. The top bar contains the word "VACATION!" in a white, bold, serif font. The bottom bar contains the words "OR NIGHTMARE?" in the same font style.

VACATION!

OR NIGHTMARE?

OR WORSE...

OR WORSE...

PASSED AWAY

SUDDENLY

WHY THIS IS HARD

WHY THIS IS HARD

- You can't know everything

WHY THIS IS HARD

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

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- Misconceptions about "Agile" and documentation

WHY THIS IS HARD

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



WHAT'S 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

WHY WE DON'T DO IT

- Not enough time
- Past failures/apathy
- Memory fades, urgency fades
- Team/management resistance
- Interruptions, lunch

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- **NO SILVER BULLETS**



TOO MANY HATS!

THE SOLUTION?

THE SOLUTION?

LET'S NOT DO THIS


AGAIN



LET'S TIME TRAVEL!



IMAGINE...



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

A close-up photograph of a person's right hand, with bright pink nail polish, holding a silver and black ballpoint pen. The hand is positioned over an open, cream-colored notebook with a light blue grid pattern. The words "My Plan:" are handwritten in black ink on the right-hand page. The notebook is resting on a light-colored wooden surface with a visible grain. A dark grey rectangular banner is superimposed over the lower half of the image, containing the word "STRATEGY:" in large, white, bold, serif capital letters.

My Plan:

STRATEGY:

A hand holding a black pen is positioned over an open notebook. The notebook has a light-colored cover and a grid-patterned page. The words "My Plan:" are handwritten in black ink on the page. A dark grey rectangular overlay is placed over the notebook, containing the text "CREATE A KNOWLEDGE PLAYBOOK" in a white, bold, sans-serif font. The background is a light-colored wooden surface with a vertical grain.

CREATE A KNOWLEDGE PLAYBOOK

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

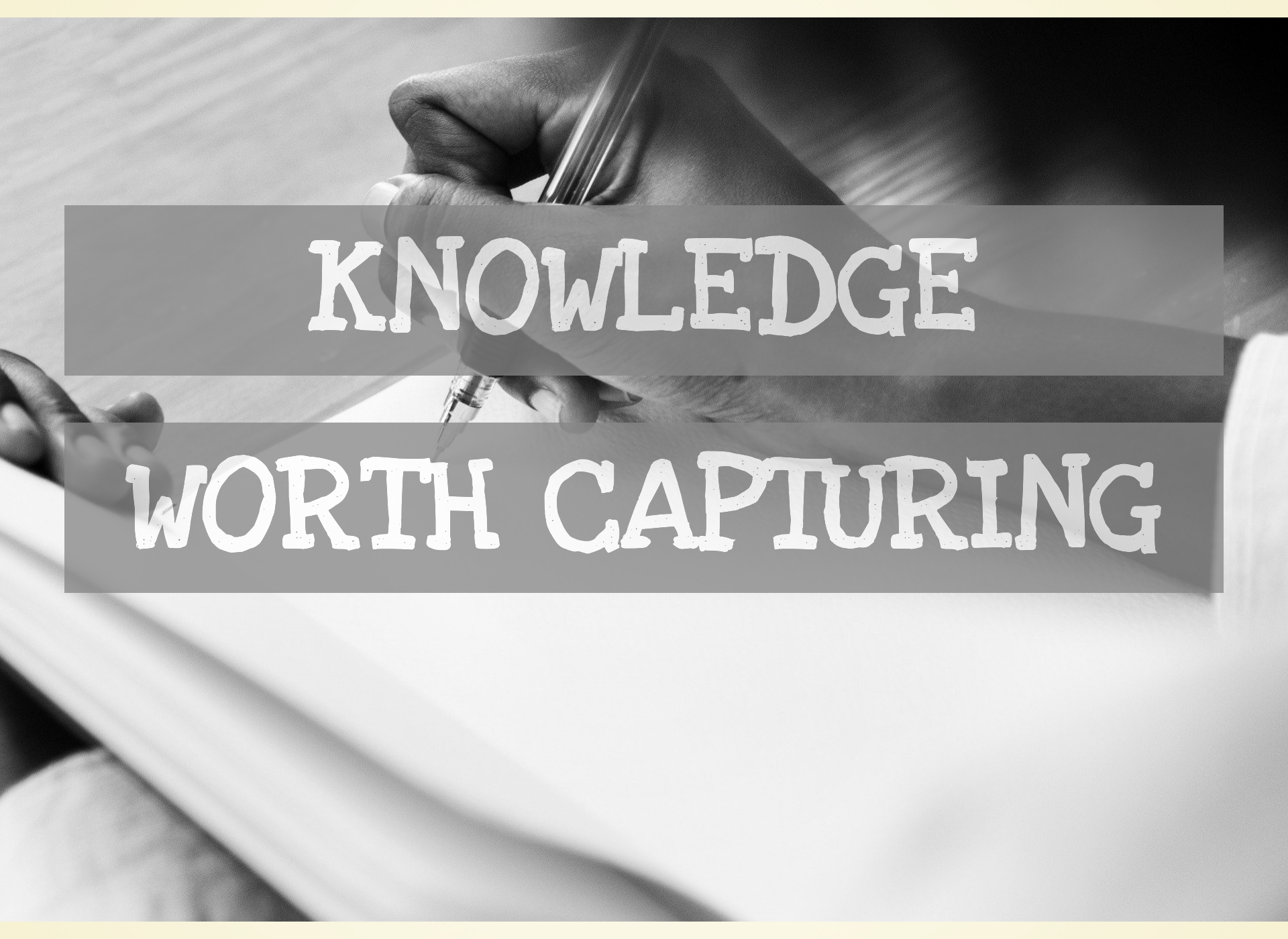
- OneNote or Wiki
- Found reference
- Troubleshooting notes
- Pick one, stick with it
- Do it now



<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***

A black and white photograph of a hand holding a pen, writing on a document. The image is slightly blurred, giving it a sense of motion or focus on the act of writing. The text is overlaid on a semi-transparent dark grey rectangular background.

KNOWLEDGE

WORTH CAPTURING

STRATEGY: START WITH YOURSELF

Personal capture methods
turn ideas into action!

PERSONAL CAPTURE

PERSONAL CAPTURE

- Paper: Notebook or Journal

PERSONAL CAPTURE

- Paper: Notebook or Journal
- OneNote or EverNote

PERSONAL CAPTURE

- 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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- Paper: Notebook or Journal
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- Simple Word docs
- Whiteboard photos
- Mind maps (Freeplane!)

PERSONAL CAPTURE

- Paper: Notebook or Journal
- OneNote or EverNote
- 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 NASA Lessons Learned system includes lessons learned from the loss of the Space Shuttle Columbia

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

TIP:

NAME YOUR LESSONS

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

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NAME YOUR LESSONS

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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?

DC 4578



THE TALE OF TOW-HAUL MODE

A close-up photograph of a vehicle's dashboard. The focus is on a glowing yellow indicator light that reads "TOW HAUL" in two lines. Above the light, there are some white markings, including the letter "L" and a red dash. To the right, a portion of a black circular button with an orange lever is visible. The dashboard surface is dark and textured.

TOW
HAUL

WHAT'S THIS
LIGHT?



BEFORE PROCEEDING
RELEASE PARKING BRAKE

WHAT'S THIS
BUTTON?

The image shows a close-up of a car's gear shift knob. The knob is black with a silver-colored base. On the side of the knob, there is a white icon of a truck with a trailer, which is a common symbol for the parking brake. To the right of the truck icon is a small white triangle. In the background, a warning label is visible, which reads "BEFORE PROCEEDING" and "RELEASE PARKING BRAKE". The text "WHAT'S THIS BUTTON?" is overlaid on the image in a large, white, stylized font.

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

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



A close-up photograph of a hand holding a piece of aged, yellowed parchment. The parchment is marked with a red 'X' and several dashed lines, suggesting a treasure map. The hand is wearing a silver ring with a diamond. The background is a soft, out-of-focus blue.

**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!"



The background of the image is a foggy cemetery. In the foreground, there is a green lawn with several dark, weathered tombstones. In the background, many more tombstones are visible, but they are shrouded in a thick, grey fog, making them appear as silhouettes. The sky is a pale, overcast blue-grey.

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***

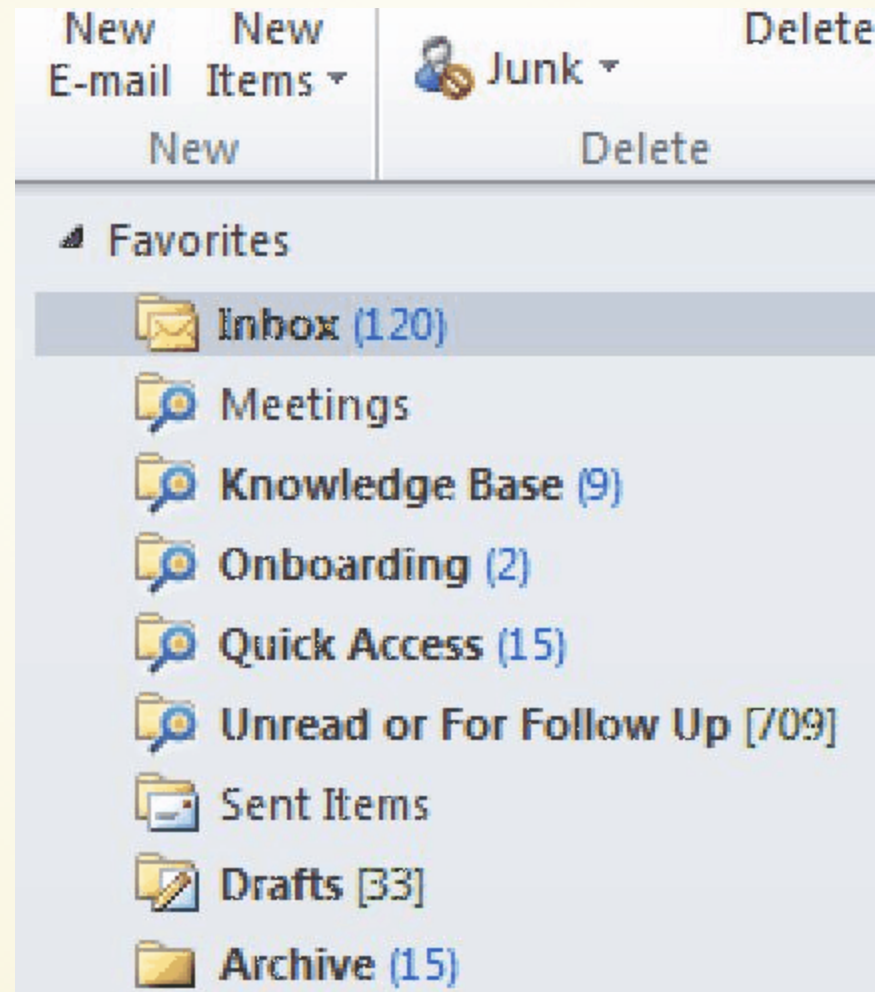
MAKE EMAIL WORK

- Create smart categories:
Knowledge Base and ***Onboarding***
- 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

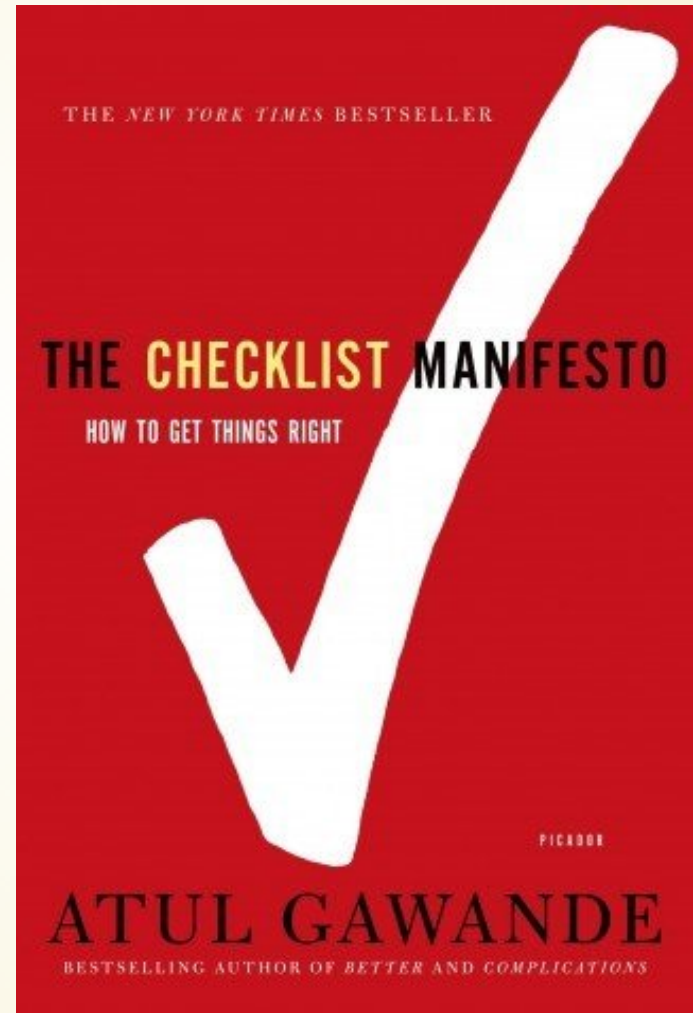
A close-up photograph of a person's hand holding a white dry-erase marker, checking off items on a checklist. The checklist is on a white sheet of paper with the word 'Checklist' printed at the top. Several checkboxes are visible, with the first three already marked with checkmarks. The hand is in the process of marking the fourth checkbox. The background is a light-colored wooden surface.

Checklist

**STRATEGY:
USE CHECKLISTS**

CHECKLIST MANIFESTO

by Atul Gawande





SURGICAL SAFETY CHECKLIST (FIRST EDITION)

Before induction of anaesthesia ▶▶▶▶▶▶▶▶ Before skin incision ▶▶▶▶▶▶▶▶▶▶▶▶▶▶ Before patient leaves operating room

TIME IN
PATIENT HAS CONFIRMED • IDENTITY • SITE • PROCEDURE • CONSENT
SITE MARKED/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
<input type="checkbox"/> CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE
<input type="checkbox"/> SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM • PATIENT • SITE • PROCEDURE
ANTICIPATED CRITICAL EVENTS
<input type="checkbox"/> SURGEON REVIEWS: WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?
<input type="checkbox"/> ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?
<input type="checkbox"/> 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? <input type="checkbox"/> YES <input type="checkbox"/> NOT APPLICABLE
IS ESSENTIAL IMAGING DISPLAYED? <input type="checkbox"/> YES <input type="checkbox"/> NOT APPLICABLE

SIGN OUT
NURSE VERBALLY CONFIRMS WITH THE TEAM:
<input type="checkbox"/> THE NAME OF THE PROCEDURE RECORD
<input type="checkbox"/> THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT (OR NOT APPLICABLE)
<input type="checkbox"/> HOW THE SPECIMEN IS LABELLED (INCLUDING PATIENT NAME)
<input type="checkbox"/> WHETHER THERE ARE ANY EQUIPMENT PROBLEMS TO BE ADDRESSED
<input type="checkbox"/> SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS 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?**



Stories

To Do

In Progress

Testing

Done



WHAT IS "READY?"



WHAT IS "READY?"

WHAT IS "DONE?"



WHAT IS "READY?"

WHAT IS "DONE?"

IS IT "DONE-DONE?"

ASK:

**WHAT DID WE DO
LAST TIME?**



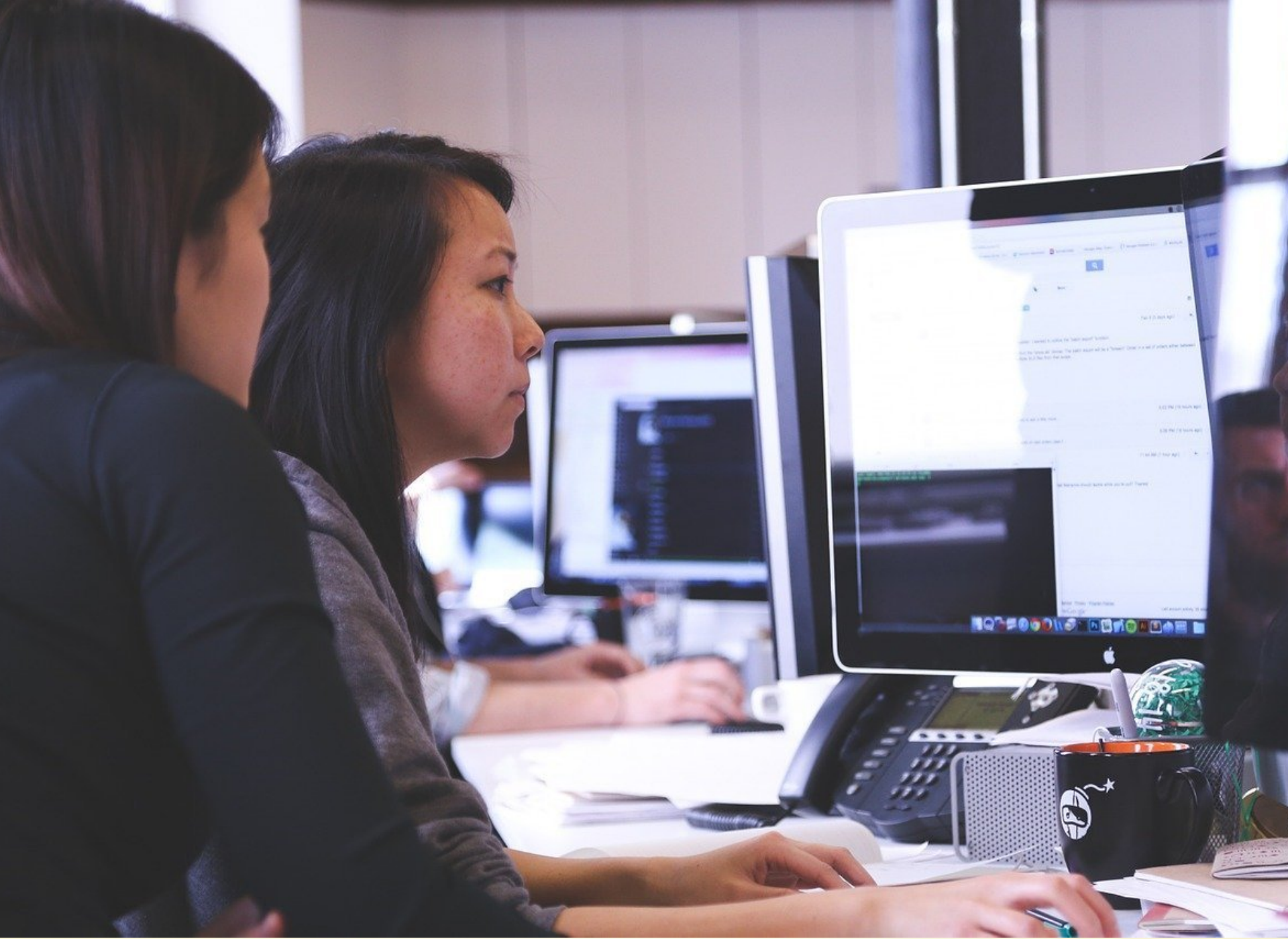
LUNCH-AND-LEARN

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 background image showing two people, likely developers, looking at a computer screen in an office environment. The screen displays some code or a web application. The text is overlaid on a semi-transparent grey box.

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?



A group of wooden chess pawns, light-colored with spherical heads and conical bodies, are arranged on a dark, textured surface. The pawns are clustered together, with some in the foreground and others receding into the background. The lighting is soft, highlighting the texture of the wood and the surface.

LONER?

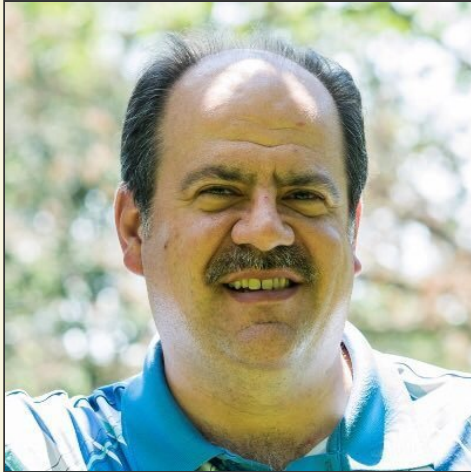
OR LEADER?

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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Check out *Skeeters*:
skeeterbooks.com

