A BETTER PROFESSIONAL YOU

Michael A Heroux

# SOME THOUGHTS ON TIME MANAGEMENT
A PRINCIPLES APPROACH

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Time Multipliers

○ Commit some time to Important but not Urgent work.

○ Be done-done.

○ Leave breadcrumbs.

○ Engage in complementary multi-tasking.

○ Leave slack in your schedule.

○ Work with synergistic people.

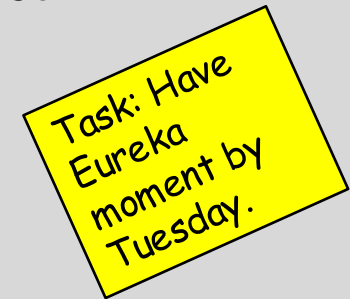○ How can we do this? Consider Kanban.

Notebook – Kanban Onramp

- Knowledge is created on the edges:
  - Conversation between you and others
  - Reading, watching, listening to resources
- Capture ideas in real time
  - Small pocket notebook & pen for "on the go"
  - Notebook for the workplace
  - Archived for looking back
- Digital Options:
  - OneNote (Microsoft) – Great for conferences, blending images and notes
  - Evernote – Similar to OneNote
  - Simple text file – Most flexible and resilient digital option
  - Smart watch
- Next: All these great ideas. How to manage? Kanban!
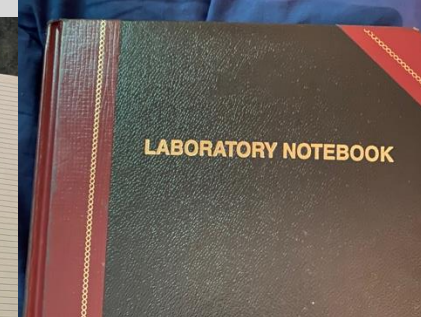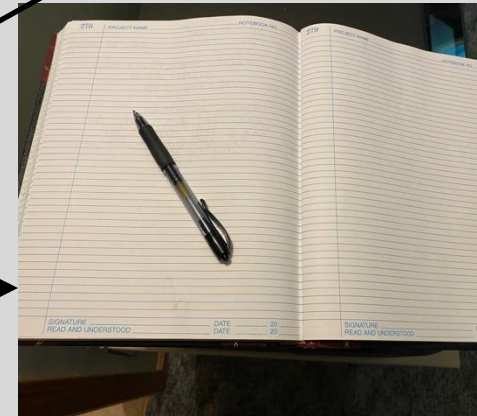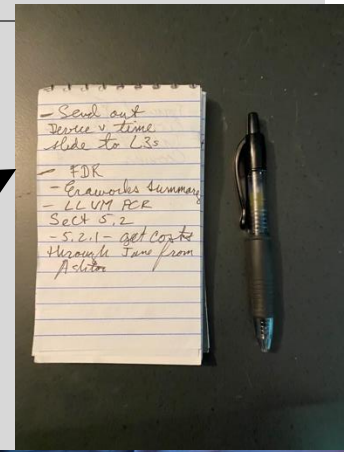
Kanban principles

- Limit number of "In Progress" tasks

- Productivity improvement:
  - Optimize "flexibility vs swap overhead" balance. No overcommitting.
  - Productivity weakness exposed as bottleneck. Team must identify and fix the bottleneck.
  - Effective in R&D setting. Avoids a deadline-based approach. Deadlines are dealt with in a different way.

- Provides a board for viewing and managing issues

Task: Have Eureka moment by Tuesday.

Basic Kanban

Backlog	Ready	In Progress	Done
• Any task idea • Trim occasionally • Source for other columns	• Task + description of how to do it. • Could be pulled when slot opens. • Typically comes from backlog.	• Task you are working on *right now*. • **The only Kanban rule: Can have only so many "In Progress" tasks.** • Limit is based on experience, calibration. • **Key: Work is *pulled*. You are in charge!**	• Completed tasks. • Record of your life activities. • Rate of completion is your "velocity".

Notes:
- Ready column is not strictly required.
- Other common column: In Review
- Can be creative with columns:
  – Waiting on Supervisor Confirmation.

Personal Kanban

- Personal Kanban: Kanban applied to one person.
  - Apply Kanban principles to your life.
  - Fully adaptable.

- Personal Kanban: Commercial book/website
  - Useful, but not necessary.

Personal Kanban
Mapping Work | Navigating Life

http://www.personalkanban.com
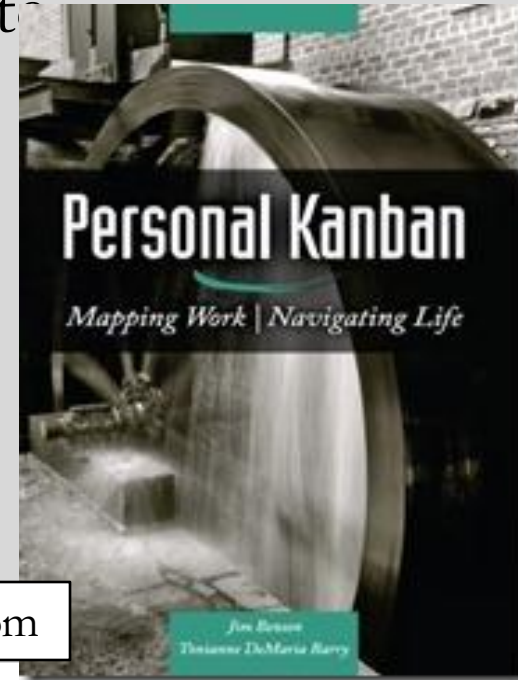
Kanban Tools

- Wall, whiteboard, blackboard: Basic approach.

- Software, cloud-based:
  - Trello, JIRA, GitHub Issues.
  - Many more.

- I use Trello (browser, iPhone, iPad).
  - Can add, view, update, anytime, anywhere.
  - https://trello.com/b/04MQXyLo/personal-work-tasks

Big Question: How many tasks?

○ Personal question.

○ Approach: Start with a realistic list of what you are working on right now. See how it goes.

○ Use a freeway traffic analogy:
  ○ Does traffic flow best when fully packed? No.
  ○ Same thing with your effectiveness.

○ Spend time consulting board regularly.
  ○ Brings focus.
  ○ Enables reflection, retrospection.

○ Use slack time effectively.

Create a Kanban Board

- Go to https://github.com/<GitHubID>
- Click on Projects Tab
- Select New Project
- Select "Board" option
- Result: First Kanban board!

Time Multipliers

Kanban assists you with these principles:

- Commit some time to Important but not Urgent.

- Be done-done.

- Leave breadcrumbs.

- Complementary multi-tasking.

- Leave slack in your schedule.

Not this one:

- Work with synergistic people.

Importance of "In Progress" Concept for you

- Junior community members:
  - Less control over task.
  - Given by supervisor.
- In Progress column: Protects you.
  - If asked to take on another task, respond:
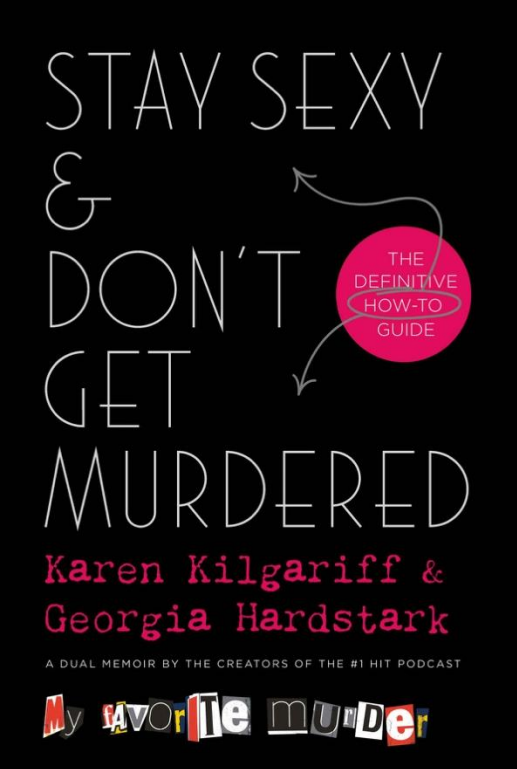   - Is this important enough to become less efficient?
    - Sometimes it is.

Productivity++

✔ Traceable

✔ In Progress

✔ Sustainable

✔ Improved

Version 1.3

https://github.com/trilinos/Trilinos/wiki/Productivity---Initiative

Complementary Multi-tasking.

STAY SEXY & DON'T GET MURDERED
THE DEFINITIVE HOW-TO GUIDE
Karen Kilgariff & Georgia Hardstark
A DUAL MEMOIR BY THE CREATORS OF THE #1 HIT PODCAST
My Favorite Murder

THE DYSLEXIC ADVANTAGE

THE NEW YORK TIMES BESTSELLER
THE CHECKLIST MANIFESTO
HOW TO GET THINGS RIGHT
ATUL GAWANDE

HARD NSON
VIRGIN WAY

make it stick
The Science of Successful Learning

THE GREAT COURSES
How We Learn
Professor Monisha Pasupathi
University of Utah

THE GREAT COURSES
Understanding the Mysteries of Human Behavior
Professor Mark Leary

Jeffrey Pfeffer
Stanford Business School
LEADERSHIP BS
Fixing Workplaces and Careers One Truth at a Time
Read by Mike Chamberlain

SOFT SKILLS
The software developer's life manual

The Pragmatic Programmers
((•o AUDIO BOOK o•))

The Agile Samurai
How Agile Masters Deliver Great Software

THE GREAT COURSES
Transformational Leadership:
How Leaders Change Teams, Companies, and Organizations
Professor Michael A. Roberto
Bryant University

THE GREAT COURSES
Theories of Human Development
Professor Malcolm W. Watson
Brandeis University
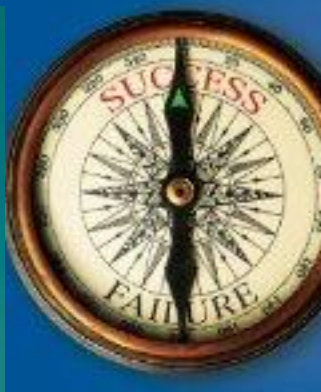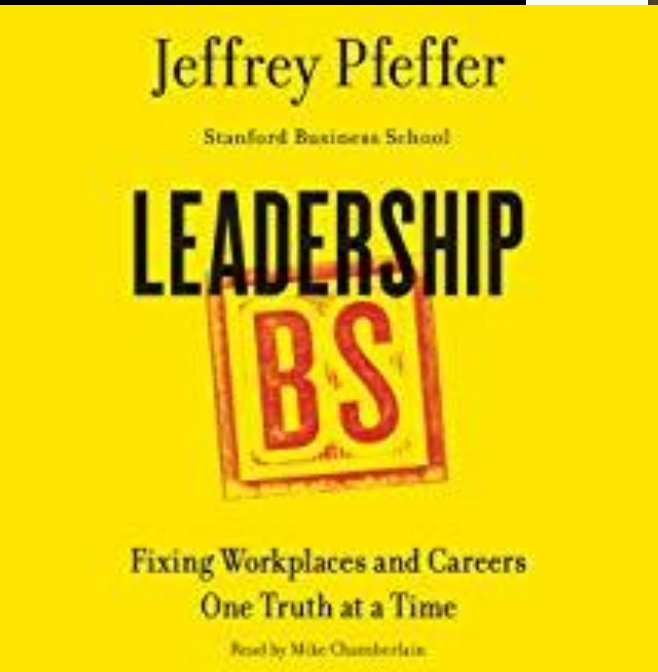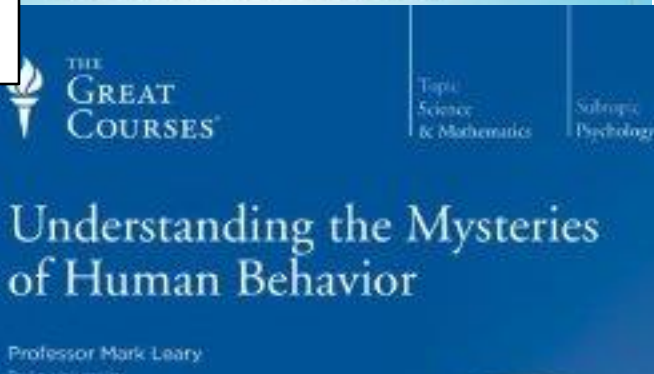
SUCCESS FAILURE

YOUR DIGITAL PRESENCE

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Digital Platforms for Communication

◦ **REMINDER: Free digital platforms are:**

  ◦ Free as in no out-of-pocket expense, or "freemium" (pay for some features).

  ◦ NOT free as no-cost:

    ◦ Your information (usually anonymized) is mined and used.

    ◦ When paired with other information outside the system, can quickly and uniquely identify you.

◦ Takeaway: Be careful what you share, or if you share at all.

◦ Having said that:

  ◦ These platforms are useful for making others aware of you, your projects.

  ◦ They are indispensable for distributed collaboration. Just be careful with sharing scope.

LinkedIn

- Professional Networking Site.
- Owned by Microsoft.
- Used for professional news, recruiting, community stature.
- Skills and Endorsements.
- A professional version of FaceBook.

GitHub
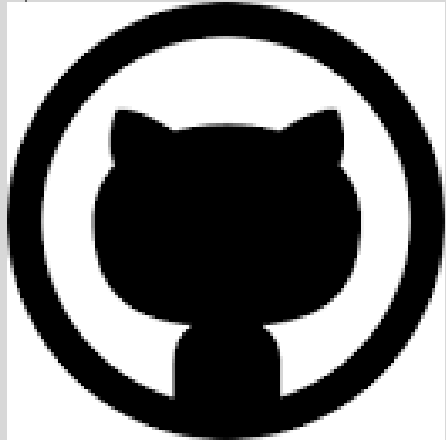
- GitHub is an information management and collaboration platform.
- It is useful for software projects (you know this) and much more (you may not know this).
- Formatted documents: Markdown - https://www.markdownguide.org/cheat-sheet/
- Types of organizations:
  - You (your GitHub ID):
    - maherou – mine
    - https://maherou.github.io – My website
    - https://github.com/maherou – Uses a newer GitHub profile repo – Enables configurable README.md
  - Others:
    - BetterScientificSoftware: Org for advancing, well, better scientific software.
      - Multiple repos: PSIP-Tools, Trust-Tools.
      - Special repo: https://betterscientificsoftware.github.io
    - Collegeville: Educational org
      - https://github.com/Collegeville
      - Research student repos.
      - Project repos.
      - Issues-only repo: https://github.com/Collegeville/Labora
      - Team policy: https://github.com/Collegeville/Labora/blob/master/TeamPolicy.md
      - Workshop repos: https://github.com/Collegeville/Workshops
      - Generated website: https://collegeville.github.io/Workshops/

AI AND YOU

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Powerful Questions

Kids to Adults: Why? ➡️ Why? ➡️ Why?

You to AI Bot: How? ➡️ How? ➡️ How?

Prompt:

I <describe your job>. How can you help me do my job better?

AI and Alignment

THE ALIGNMENT PROBLEM
Machine Learning and Human Values
BRIAN CHRISTIAN
Best-Selling Author, *Algorithms to Live By*

◦ AI enables the creation of powerful tools

◦ The consequences of design choices are much higher

◦ Key concept: Alignment

◦ Increased demand:
  ◦ Domain knowledge: What the tools are supposed to do
  ◦ Human knowledge: Understanding humans, our needs, how to design
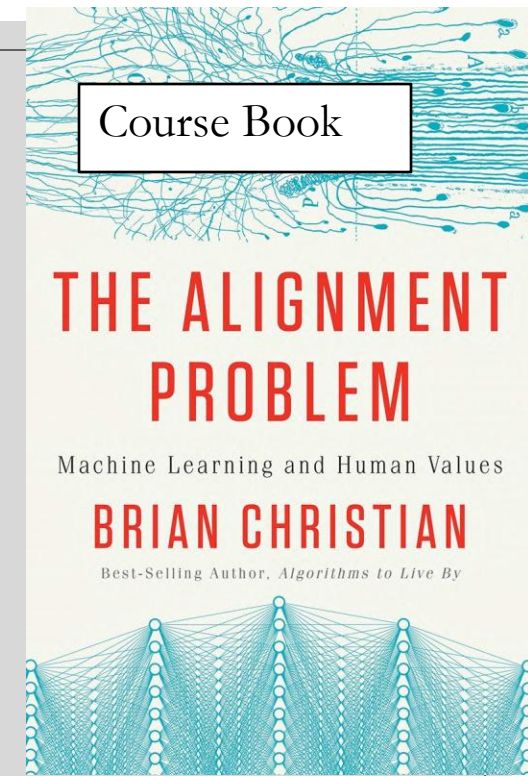
Automation Anxiety: Will AI Replace Me?

◦ April 24, 1907, NYC lamplighters strike: 25,000 lamps went unlit

◦ No lamplighters today

◦ AI will not replace you

◦ You+AI will replace you

> **Consciousness is the way information feels as we process it.**
>
> Demis Hassabis, Google DeepMind, 2024 Nobel Prize Winner in Chemistry

Lessons from the Industrial Revolution

○ *It wasn't the steam engine alone that caused the Industrial Revolution. It was the thousands of specific machines invented by skilled craftsmen that used steam to augment or do existing work that created the Revolution.*

Ethan Mollick

Reading Recommendation: One Useful Thing https://www.oneusefulthing.org
Blog by Ethan Mollick

Your Own Personal Writing Team

Authoring
- Brainstorm topics
- Generate outline
- Recursively provide more detail

Assessment
- Request AI review of content

Improvement
- Steel-manning other perspectives
- Refine content – understandable by a novice, TL;DR, etc.

Corporate executives have a writing team; now you do, too!

AI Summary

AI is changing everything: Yes, I know this sounds grandiose, but I believe it

- Helping with tedious tasks
- Upscaling our technical skills
- Fundamentally reshaping the research enterprise

Some impacts:

- Many mechanical skills and activities are being automated
- The importance of soft skills is increasing, alignment is why
- Scientific progress will be limited by imagination

Final Thoughts on AI

Generative AI Tools are transforming the workplace and R&D

- Many of our mechanical tasks can automated or accelerated
- Our competitiveness as an R&D organization means we need to learn these tools
- Any job can be made productive, especially the mundane tasks

The industrial revolution succeeded by the work of thousands of people

- Success with AI will be the same
- We are the key to success

You+AI will replace You

High points

- Time is precious: Manage it well, even in this early phase of your life.
- Structure your life so you are effective (character) and efficient (competent).
- Always improve: Build habits so learning is naturally part of your life.
- Seek diverse content: Needed for big picture thinking.
- Establish (or not) your online presence.

Challenge One

◦ Establish a personal note taking system

◦ How will you capture ideas that emerge in real time?

◦ How can you capture visual and text content?

Challenge Two

◦ Establish a work management platform

◦ Will Kanban work for you?

◦ Something else?

◦ What tools?

Challenge Three

- Create your own GitHub pages website:
  - Start from an existing site you like:
    - Fork it
    - Rename it to github-id.github.io (example maherou.github.io)
  - Clone it (recommend using GitHub Desktop Client)
  - Edit using:
    - GitHub web-based editor (for small changes or creating a new file)
    - VS Code (my favorite Markdown editor)
  - Commit back to main GitHub repo
  - Make sure GitHub pages features are enabled for the repo in Settings
  - Wait for it to compile (automatically done using Jekyll)
  - View the site at https://github-id.github.io

Challenge Four

- Create a LinkedIn account
- Add bio, experience, interests
- Invite people to connect (you can invite me, I will accept)
- Consider doing skills tests, getting recommendations, …

Challenge Five

◦ Invest in learning how to use generative AI tools

◦ Be creative, make AI your intellectual companion

◦ Create a collection of advisory personas: Your personal team

◦ You and AI are better than you alone