

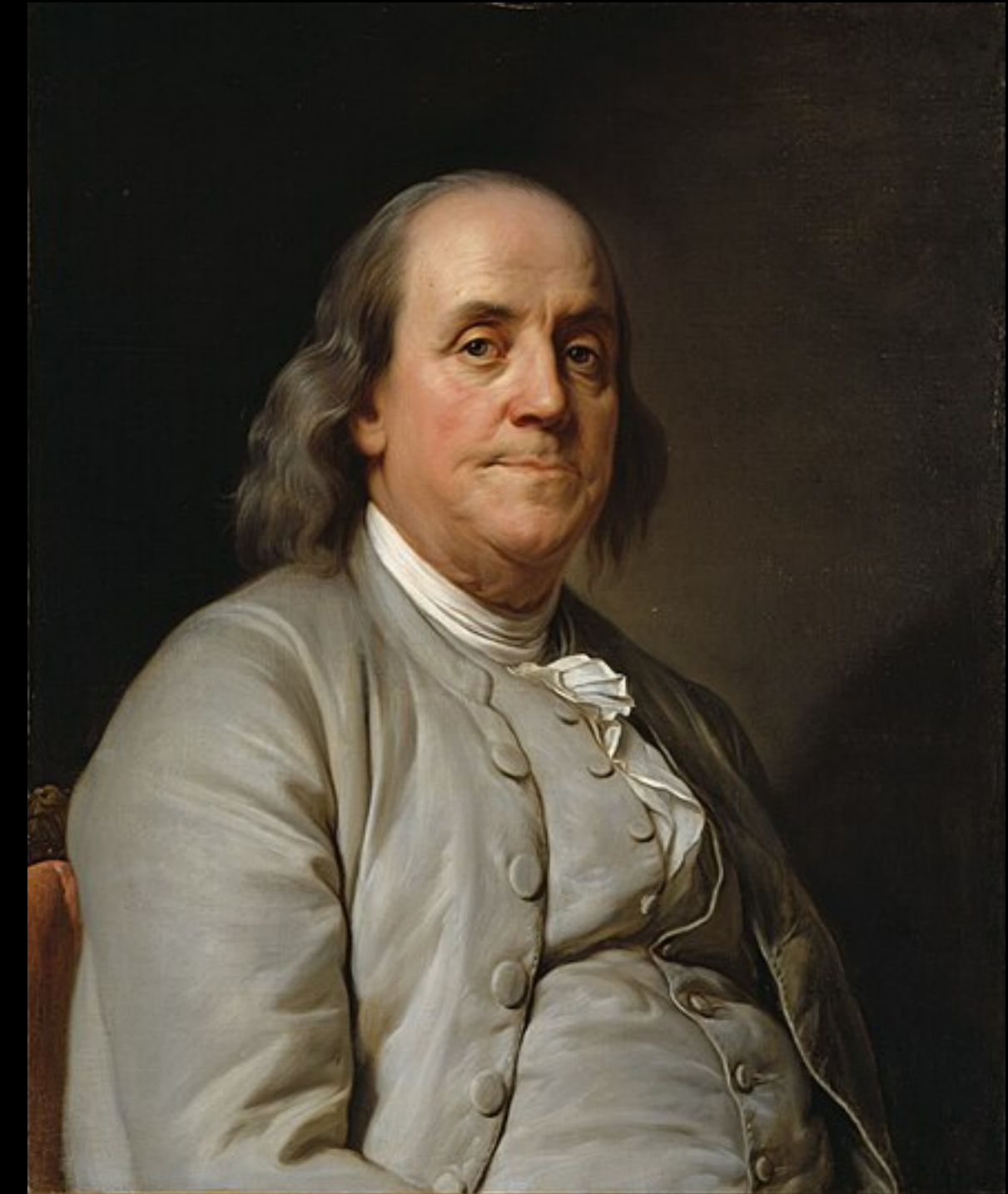
# IT Documentation

Less is more

James Reynolds, July 17, 2024

# The Great Certainties in Life

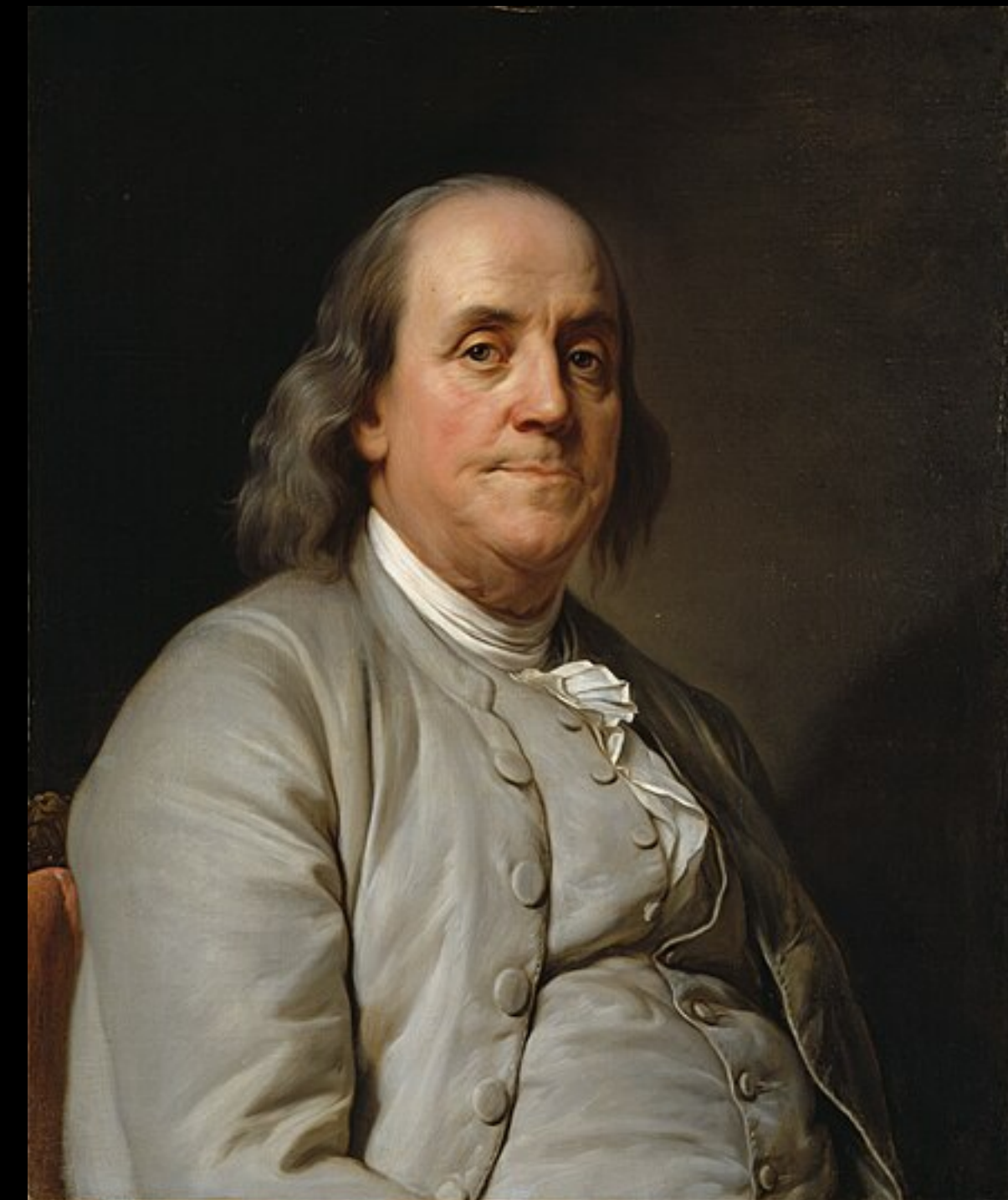
“In this world nothing can be said to be certain, except death and taxes.” — Benjamin Franklin



# The Great Certainties in Life

“In this world nothing can be said to be certain, except death and taxes.” — Benjamin Franklin

And turnover! Everyone of us will either be fired, quit, retire, or die!



# Will Your Department Survive You Leaving?

- I started IT in early 2000 at the College of Fine Arts, there were 2 of us
- By late 2000, we hired Dan Hutten as a 3rd person, and the 2 of us moved on
  - I was young and still don't really know what happened
- Dan is good natured about it and it allowed him to shine
- I am aware of this happening in other places and it didn't turn out so well

# Documentation to the Rescue!

- Documentation doesn't just solve the turnover problem
- Do You Want To Take Vacation?
- Is your memory very good?
  - Can you remember all the steps to create SSL certificates?
  - SSL certs was my first documentation and is central in my documentation
- But there's another problem...

# IT Silos

Quoting *Course Book, ITIL Foundation, 2020, r1.4.0*

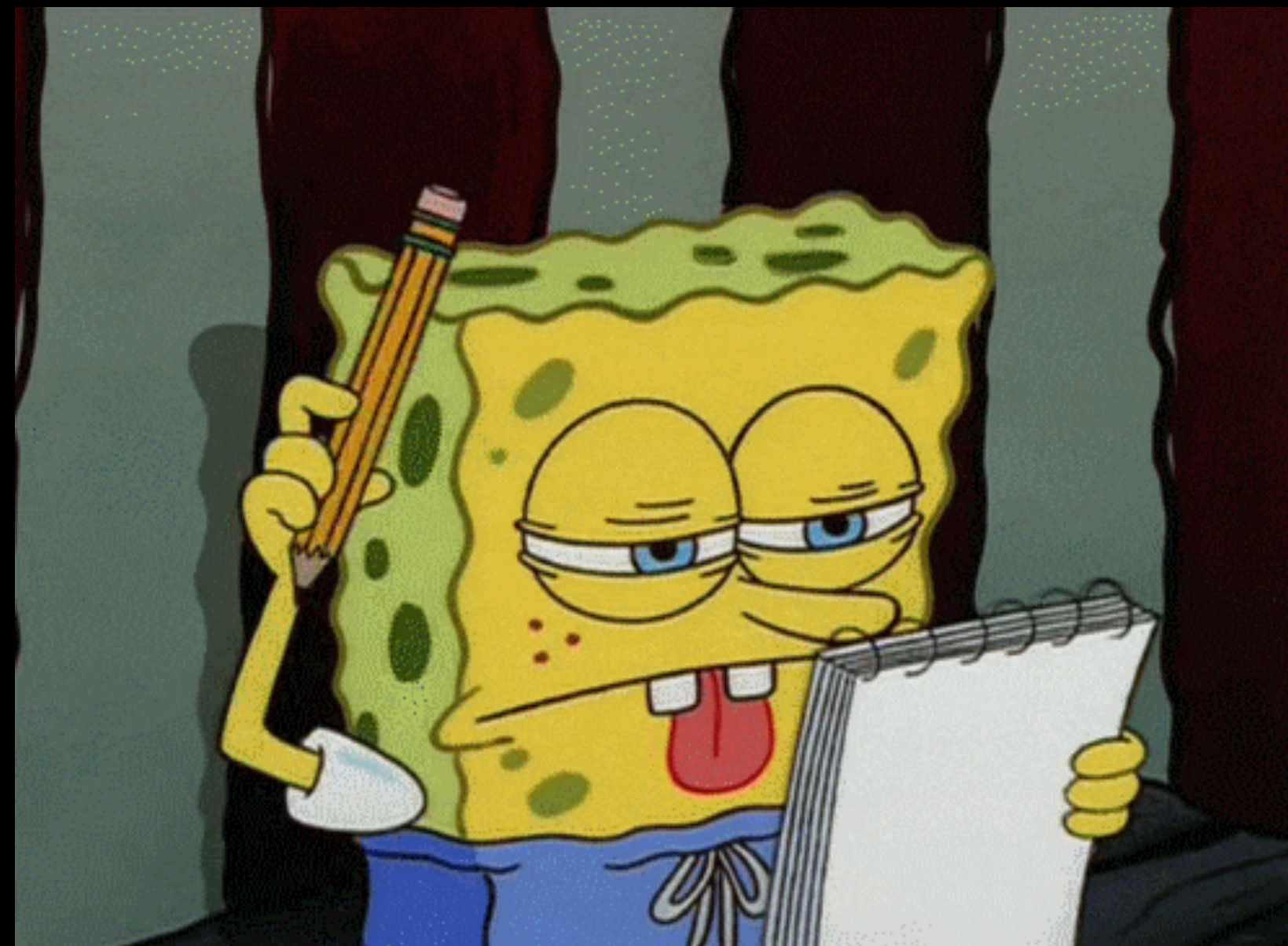
- “The **biggest challenge** for organizations today is the presence of organizational silos.”
- “Silos are usually due to the inability of different business units to collaborate.”
- “Silos occur when people work in isolation, and information sharing is limited to only a few people.”
- “Silos are **resistant to change** and **prevent easy access** to the information and specialized expertise that exists across the organization.”



# Does The U Have an IT Silo Problem?

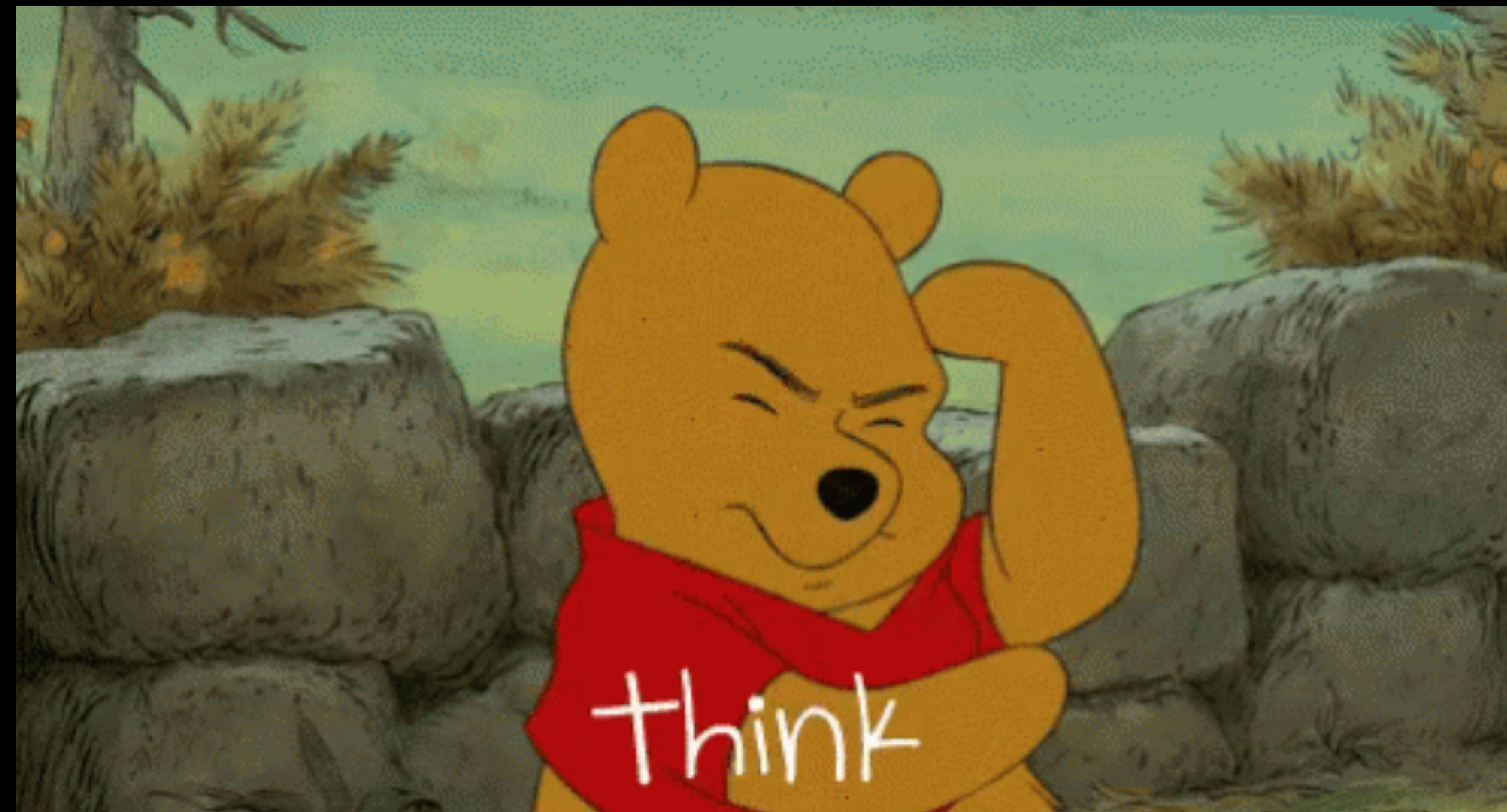


# Does The U Have an IT Silo Problem?





# Does The U Have an IT Silo Problem?



# Does The U Have an IT Silo Problem?





# Our Culture vs Other Cultures

## Why You Should Care

- I really like my job and working at the U
- I like the autonomy, constantly learning, the challenges
- I like being part of the community, I like that we have amazing people here
- The experiences I've had here are mind blowing (some bad but most good)
- I have made lifelong friends (still sharing my location w/ some of them)
- Let me just share some pictures

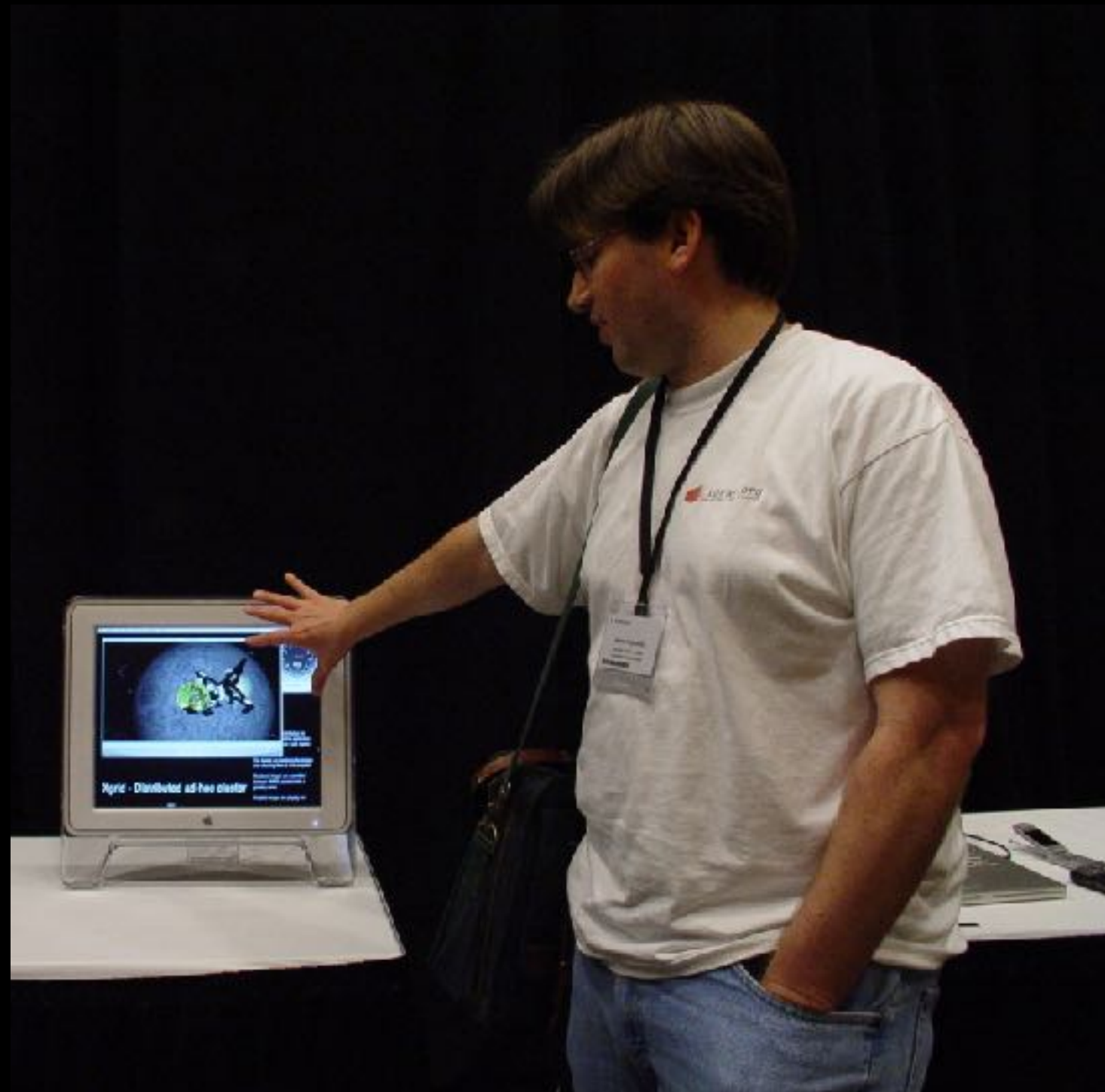
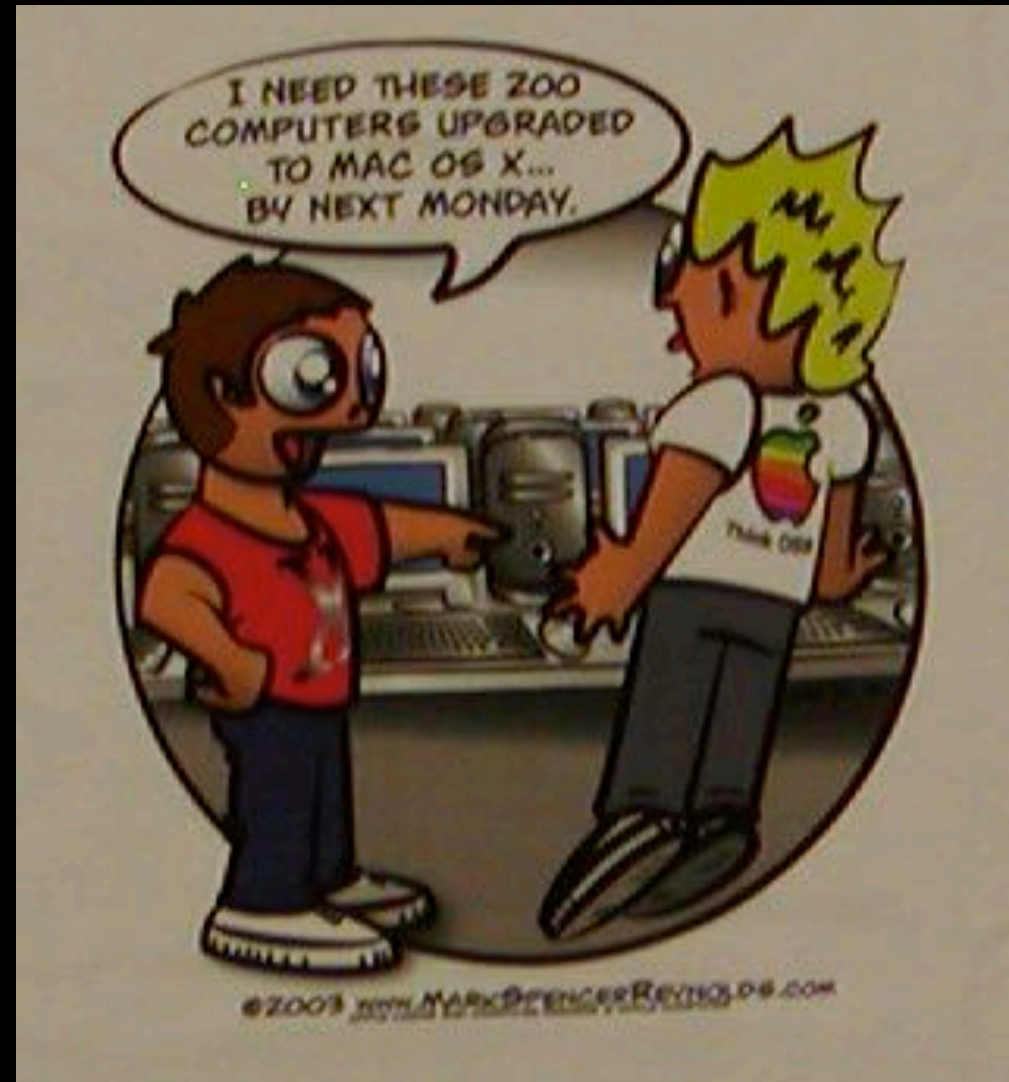


























# What Scares Me?

- Someday, someone powerful might decide to solve the silo problem

# My Proposal? We Solve It Ourselves

- We get to keep what we like (our independence) and feel good that we fixed a big problem

# How to Solve It?

- Mac Managers and IT Professionals meetings (and parties)
  - Come. Contribute. Socialize.
  - If you're hot stuff, come make us feel bad and give us something to strive for
  - If you're a manager, please don't encourage but require your staff to attend
- Find other IT on campus and grant them emergency powers
  - BeyondInsight Password Safe actually makes this possible (and it's logged)
  - Organize ourselves by college or a similar sized org
- Documentation



# How to Write Documentation?

- Bad documentation is better than no documentation—learn as you go
- Start by cleaning up and saving the best of your Terminal history
- Think of your future replacement and write to them
- Keep it in one place; use long descriptive names so you can search
  - If you can't find it, it's the same as not having it
- Force yourself to use it by doing so much you can't remember everything
  - This was kind of the philosophy behind the Franklin Planner 40 years ago

# How to Write Documentation?

- SOP (Standard Operating Procedure)
  - Step-by-step instructions for routine operations
- How to know if you've succeeded?
  - Do you use it?
  - Could someone from another department fill in for a day?
  - When you give your 2 weeks notice, will your boss panic?

# Tip #1: Use Markdown

- Ubiquitous, cross platform, and easy
- If you don't know it you're living in Dinoland
- Used for websites, documentation, notes, books, presentations, email, AI

# Markdown in One Slide

# H1

## H2

### H3

**\*\*bold\*\*** or `__bold__`

*\*italic\** or `_italic_`

`[title](link.html)`

`![alt text](image.jpg)`

Lists

1. 1st item

1. 2nd item

- 1st item

- 2nd item

\* 3rd item

+ 4th item

--- or \*\*\* (hr)

> blockquote

``code``

code

```

code

```

Any HTML!



# Markdown Footnote

- More syntax
  - Tables, strikethrough, task list, emoji, HTML classes
- Several flavors add syntax for things like superscript, subscript, footnote, etc.
  - Github, Kramdown, Pandoc, MultiMarkdown, etc
  - “Comparison of syntax extensions in Markdown flavors”  
[gist.github.com/vimtaai/99f8c89e7d3d02a362117284684baa0f](https://gist.github.com/vimtaai/99f8c89e7d3d02a362117284684baa0f)

# Markdown Apps

- Many of these are cross platform, sync across devices, and are versioned
- Free: VSCode, MacDown, Simplenote, Obsidian, MindForger, Bear
- Commercial: Marked 2, Typora, iA Writer, Quiver, LightPaper, Ulysses, Caret, Boostnote
- Webapps: StackEdit, dillinger.io, editor.md
- I'm surprised Apple's apps (Notes, Mail) don't support it

# Tip #2: Use Versioning, Like git

- CHPC runs a Gitlab server that is open to all on campus (and is firewalled)
- Or you can run your own: <https://hub.docker.com/r/gitlab/gitlab-ce>
- Yes, git is hard to learn
- CHPC has classes: <https://chpc.utah.edu/presentations/IntroGit.php>
- We could have a hands-on class
- Here's one good link: <https://rogerdudler.github.io/git-guide/>

# Git in One Slide

```
git init
git clone <url>
git status
git diff <file>
git add <file>
git commit -m "<message>"
git push
git pull
```

```
git config ...
git rm <file>
git mv <src> <dest>
git log
git branch
git checkout <name>
git stash ...
git reset ...
```

# The Many Apps

- Apple's Notes, Box, Teams, OneNote, Joplin, Obsidian, Confluence, SharePoint, Notion, Evernote, Document360, Helpjuice, ClickUp
- Wiki: Gollum, Tettra, Wiki.js, Nuclino, Github Wiki (Gollum fork), You Need A Wiki + Google Drive, XWiki  
<https://stream.lib.utah.edu/index.php?c=details&id=13489>
- Static Site Generators: Jekyll, Hugo, Eleventy, Gatsby, MkDocs, Docusaurus
- Deploy: Github Pages (Jekyll), Cloudflare, WordPress, Read the Docs, Netlify, Vercel, Pantheon (free tiers)
- Demo: <https://pages.github.com/>

# My Attempt to Fix the Silo Problem

- <https://gitlab.chpc.utah.edu/it-professionals/community>
  - Let's use the tools that has turned open source into such a powerful force
  - New employee resources
  - Vendors
  - Org histories and descriptions
  - People spotlights
- Demo



# Keeping a Local Copy With Gollum

- Demo
  - Local Docker Desktop
    - Firewalled with Murus
  - Localhost Webpage
  - Local Filesystem
  - Remote Gitlab

**Questions?**