

# Everything an Engineer Needs to Know that has NOTHING to Do With Engineering



Chris Cilino



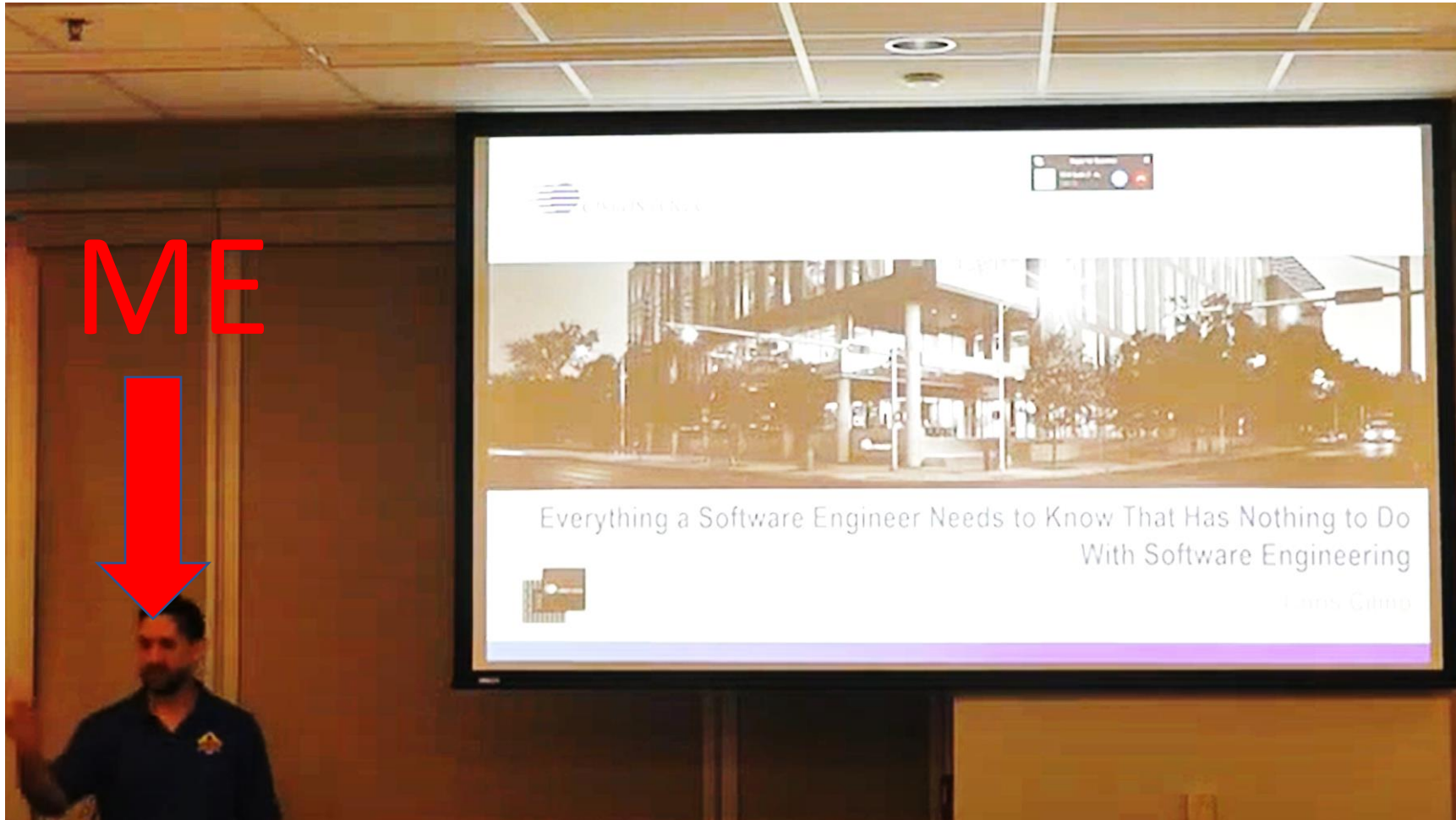
# Everything an Engineer Needs to Know that has NOTHING to Do With Engineering (Part 2)



Chris Cilino

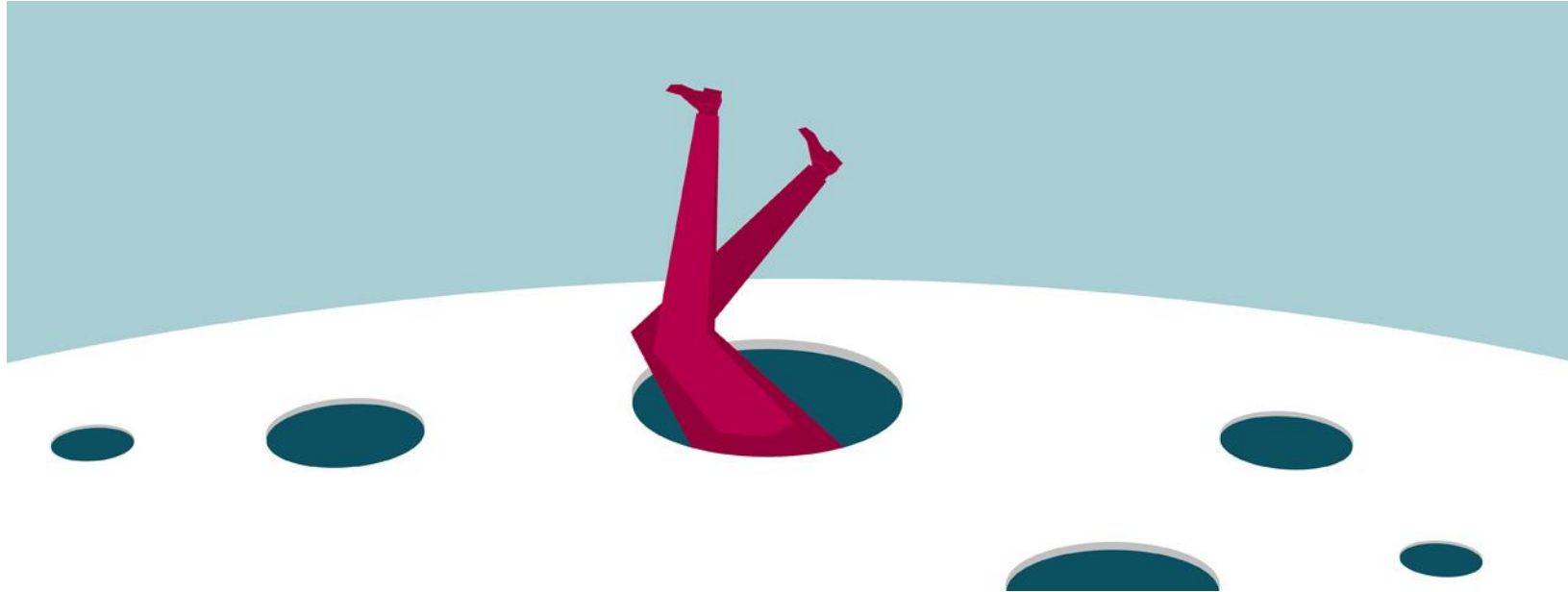


# CLA Summit 2018



[http://bit.ly/ChrisCilino\\_EverythingYouNeedToKnow](http://bit.ly/ChrisCilino_EverythingYouNeedToKnow)

# Part 1 Was...



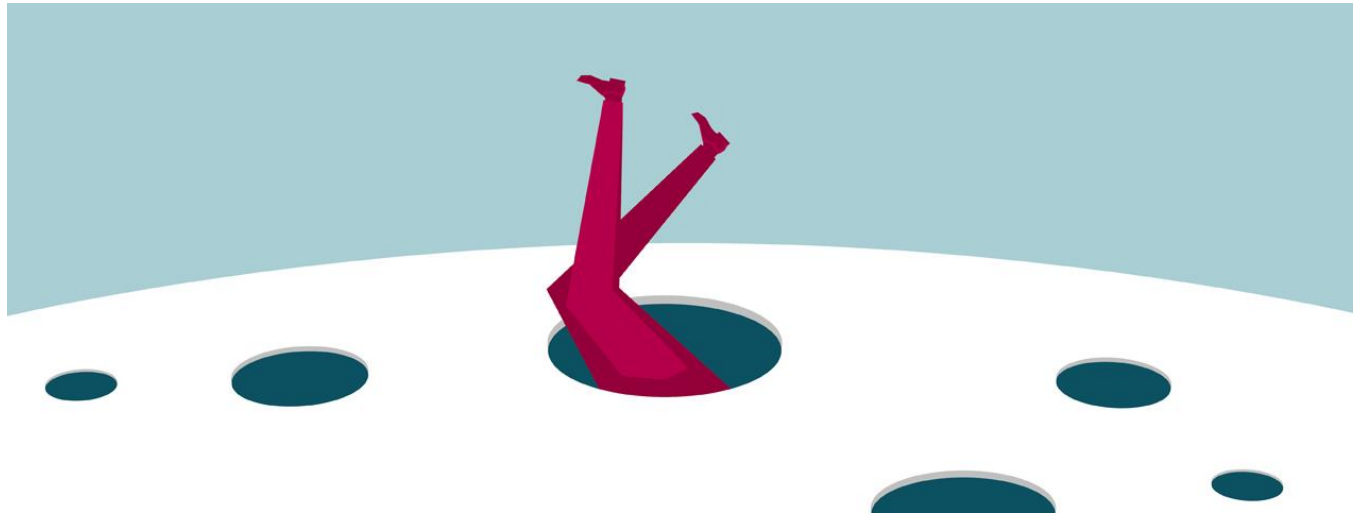
Proverbs based on my failures.

# Thesis of Part 1: It's All About Trust

The degree to which you are trusted will determine your political efficiency \ efficacy.

Until you are trusted, you will have to do a lot of debating to affect change.  
Until you are trusted, you only be able to affect small changes.

# What This Presentation Is



More proverbs I've learned throughout my career.



Lessons I've learned...

# What This Presentation Is



Lessons I've learned...

**Or Not**

# Chris Cilino

-  DMC Senior Project Engineer
  - 2021 to Present
-  GCentral
  - 2019 to Present: Founder, President, Treasurer
-  PetranWay
  - 2019 to 2022: Owner
-  Composed Systems
  - 2018-2019
-  LabVIEW Center of Excellence Tech Lead
  - 2017-2018
-  LabVIEW Champion
  - 2017 - Present ([bit.ly/lv\\_champions](http://bit.ly/lv_champions))
-  Certified LabVIEW Architect
  - 2014 - Present
-  Cirrus Logic Framework Architect
  - 2016 - 2018
-  National Instruments
  - 2005 – 2016: Applications Engineer, DAQ R&D, LabVIEW Marketing



[linkedin.com/in/chriscilino](https://linkedin.com/in/chriscilino)



DMC ([dmcinfo.com](http://dmcinfo.com))



[www.gcentral.org](http://www.gcentral.org)



[bit.ly/ChrisCilino\\_ChampionProfile](http://bit.ly/ChrisCilino_ChampionProfile)

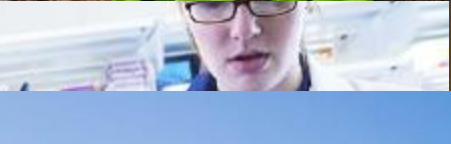
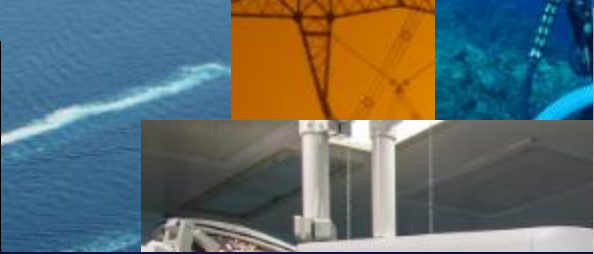
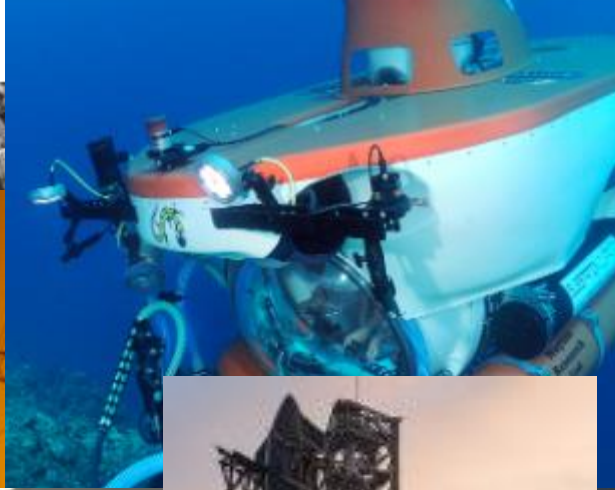
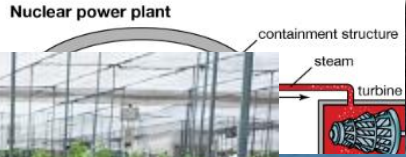


NI Community Name: [Chris Cilino](#)

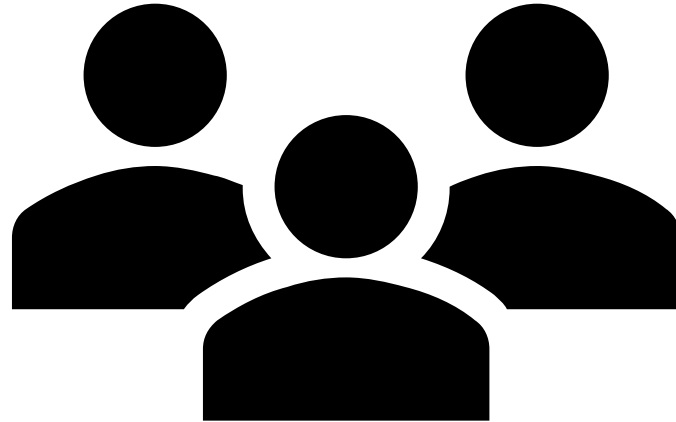


I Believe...

# I Believe....



I Believe....



# I Believe....



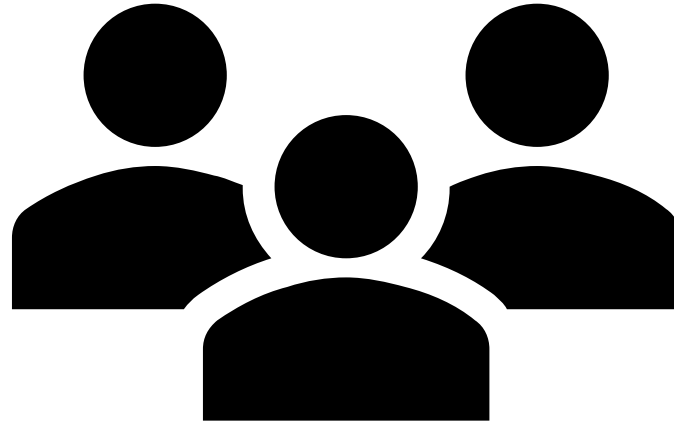
GCentral  
GCentral.org

“Enabling the LabVIEW community to make the best version of itself by removing barriers to collaboration.”



G Idea Exchange  
Gie.gcentral.org

“Helping the G Programming Community share in the development of the tools it needs.”



# I Believe....



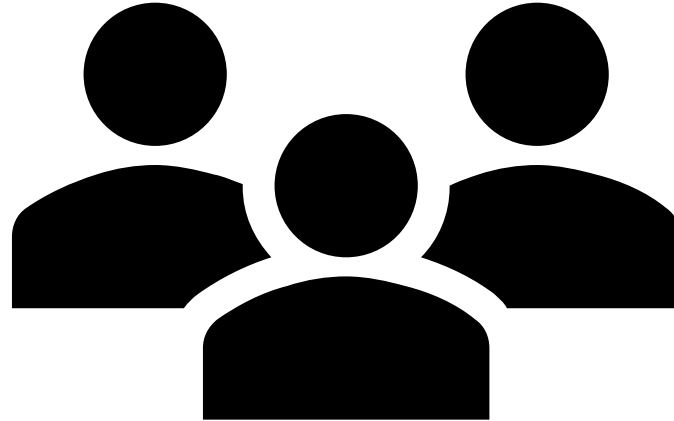
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GDevCon.com



VIPM.IO

**VIPM**

# I Believe....



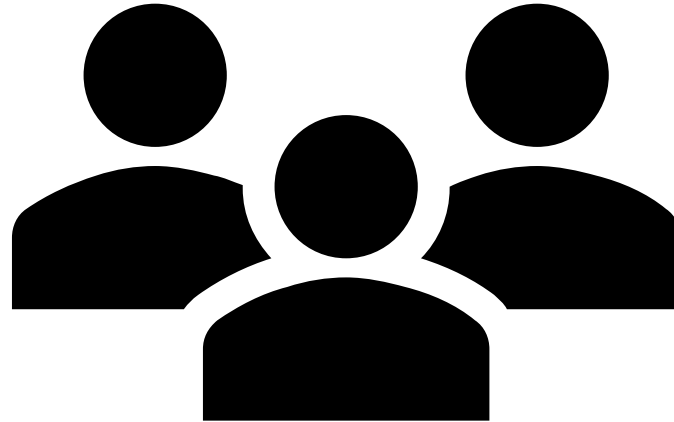
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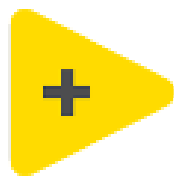


GDevCon.com



VIPM.IO

**VIPM**



LabVIEW™ Community Edition

# Career

# Collaboration



# Career

- Choose where you work every day
- The 2 reasons you work anywhere
- Your 3 choices
- The value of your work

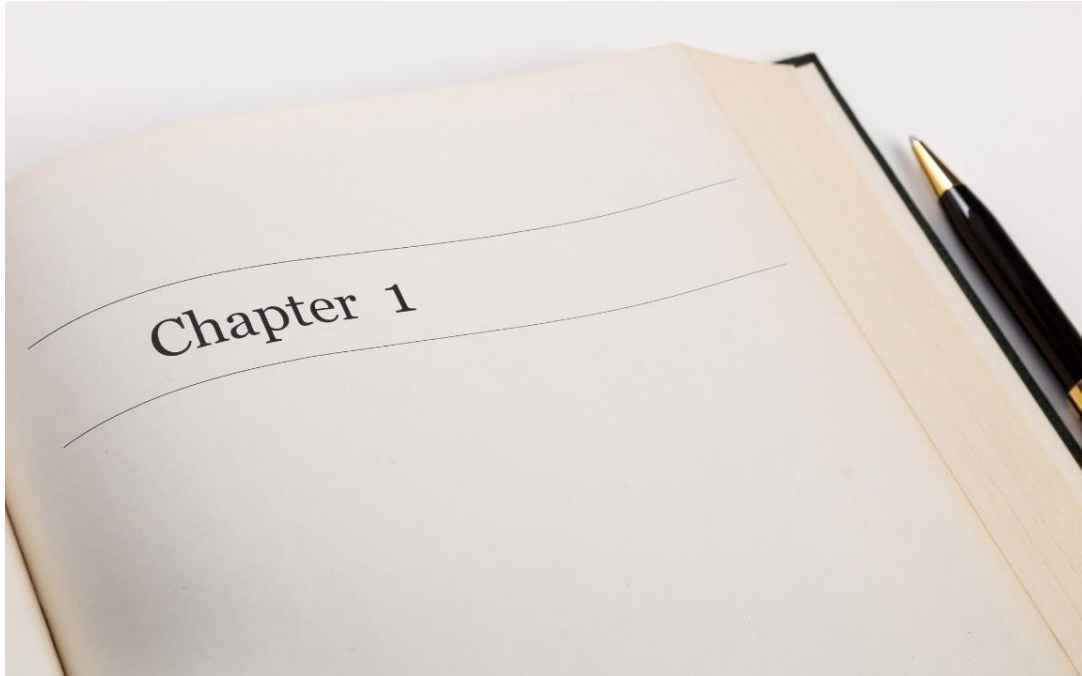
# Collaboration

- Communicate in diamonds
- Cadence and clarity
- The power of silence





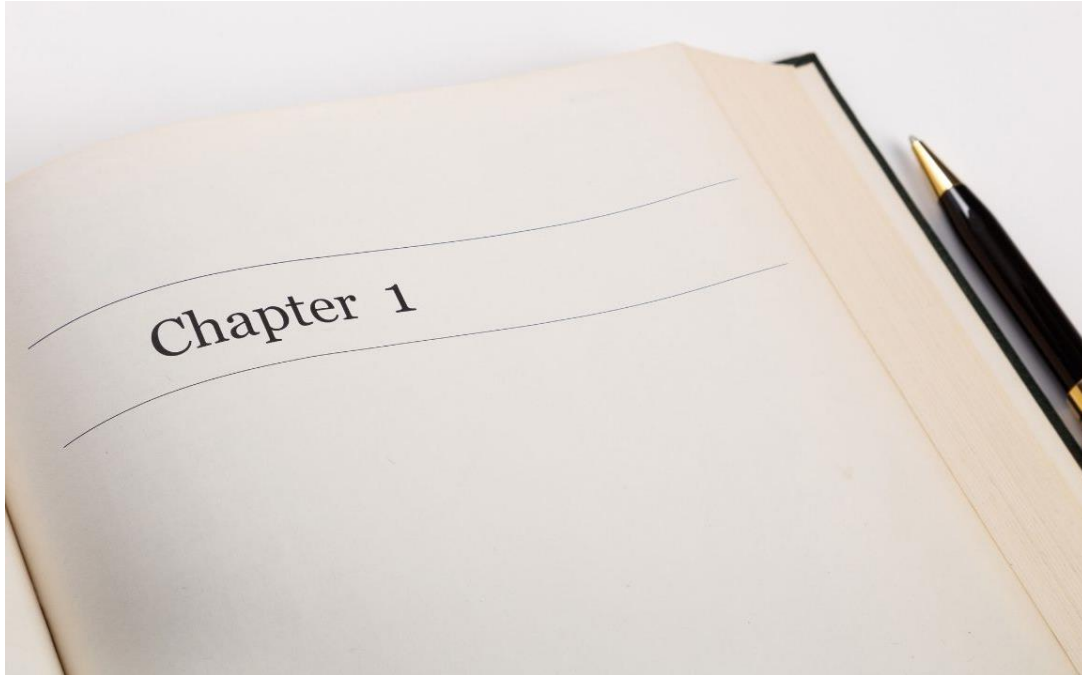
# Choose Where You Work Every Day



Choice -> Ownership -> Passion

Passion fuels creativity, quality,  
and impact.

# Choose Where You Work Every Day



Choice -> Ownership -> Passion

Passion fuels creativity, quality,  
and impact.

Choose where you write the  
story of your career.

# Choose Where You Work Every Day



Always be cultivating options: Branding

Your ONE picture everywhere



# Choose Where You Work Every Day



Always be cultivating options: Branding

What do you want to be known for?

My three greatest strengths are:

- Creating solutions using a long term perspective.
- Connecting experts together to solve complex problems.
- Asking questions that lead to concrete and constructive answers.

# Choose Where You Work Every Day



Always be cultivating options: Branding

ONE-STOP GATEWAY TO  
**Business Freedom**  
for next-gen entrepreneurs and creators

**Larry Hawkins II** (He/Him) · 1st  
Intuitive Strategic Creative with a Passion for People | "Life is happening for you, not to you"

Onelink Solutions

Mississippi State University

The image shows a LinkedIn profile banner for Larry Hawkins II. The banner has a blue gradient background with a circular profile picture of Larry on the left. The text on the banner reads "ONE-STOP GATEWAY TO Business Freedom for next-gen entrepreneurs and creators". Below the banner, there is a notification bell icon, the name "Larry Hawkins II (He/Him) · 1st", and a bio: "Intuitive Strategic Creative with a Passion for People | 'Life is happening for you, not to you'". At the bottom right, there are two logos: "Onelink Solutions" and "Mississippi State University".

# Choose Where You Work Every Day



Always be cultivating options: Awareness

- Contribute on NI.com community forums
- Create VI Packages for distribution
- Create Open source repositories for code
- Give presentations (GDevCon)
- Volunteer: GCentral, GDevCon
- Share on LinkedIn

# Choose Where You Work Every Day



Always be cultivating options: Awareness

**Don't brag.**

Bragging is self-centered

# Choose Where You Work Every Day



Always be cultivating options: Awareness

**Don't brag.**

Bragging is self-centered

**Do serve.**

Serving is others-centered



# The 2 Reasons You Work Anywhere

# The 2 Reasons You Work Anywhere



# The 2 Reasons You Work Anywhere



# The 2 Reasons You Work Anywhere

If either condition fails, you shake hands and part ways.

This is business



# Your Three Choices...

... if you find yourself in a situation at work you don't like.

# Your Three Choices...

... if you find yourself in a situation at work you don't like.

1. Cause Change
2. You Change
3. You Leave

# Your Three Choices

Before you leave...



# Your Three Choices - Cause Change - Directly



Depending on size of initiative you'll need to make a business plan.

You're asking your company to spend money on your idea. Help them understand the cost and value.



# Story Time - Confluence



## Evaluate Confluence for adoption at DMC



Created by Chris Cilino

Last updated: Mar 02, 2023 • 6 min read • 18 people viewed • 1,1 Page numbering is off

- Purpose And Summary
- Problem
- BOOM (Building On Our Mistakes)
- Ultimate Impact
- Quarterly Reports
- Concerns
  - Yet Another Tool
  - Security
    - Atlassian Security Resources
      - Multi Factor Authentication
  - Single sign-on
    - Cloud
    - Data Center
    - Server
  - Cost
    - Addons
    - Payment Options
  - Eating Our Own Dog Food

### Purpose And Summary

This proposal is to fund an internal project designed to evaluate / demo tools that improve DMC's ability to capture, evolve, and disseminate knowledge.

This space acts as a demonstration of confluence to solve the problems described in the [Knowledge Capture and Distribution Strategy](#). Confluence addresses this problem by satisfying the following personas and their requirements.

Phase 2 - Core proposal.

- Proposal ROI Analysis and Anecdotal Costs
- Persona Analysis And User Stories
- Confluence and DMC: Security Concerns
- Confluence Evaluation



Story Time –



LabVIEW Atlassian API

All of my MIT Licensed Toolkits and APIs:

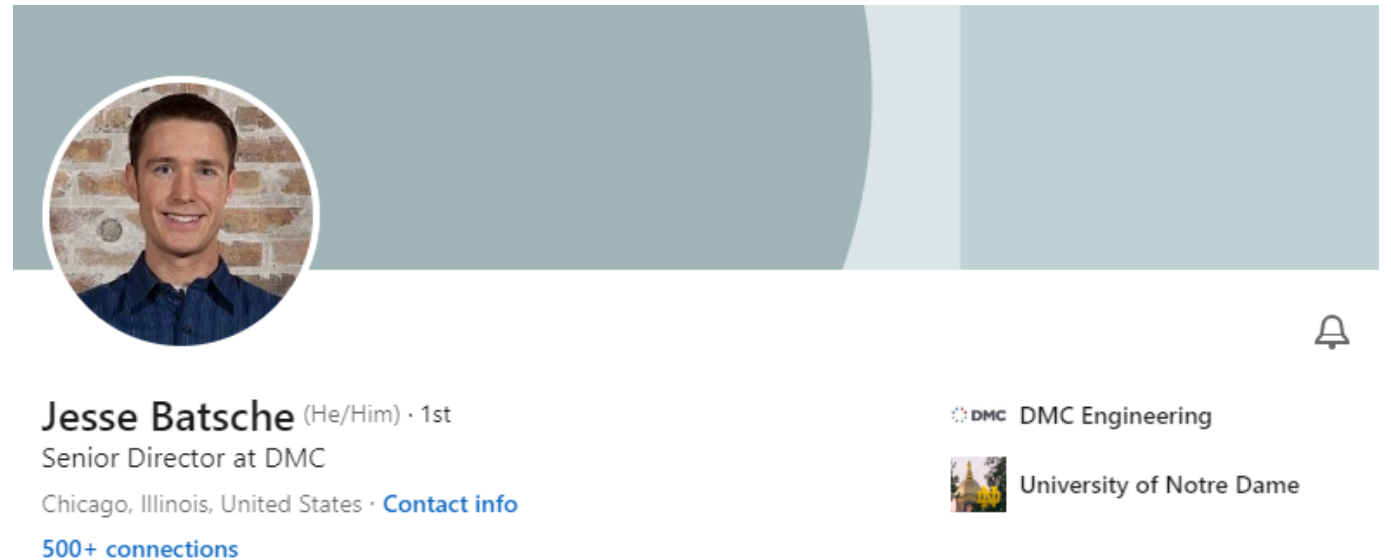
<https://www.petranway.com/implementation>

The MIT Licensed LabVIEW Atlassian API:

<https://bitbucket.org/ChrisCilino/labview-atlassian-api/src/master/>

# Story Time – Cause Change

Thank you DMC for **trusting** me and letting me cause change!  
Thank you Jesse Batsche for **supporting** me!

A LinkedIn profile card for Jesse Batsche. It features a circular profile picture of a man with short brown hair, wearing a blue button-down shirt, set against a brick wall background. To the right of the profile picture is a large, light blue rectangular banner. Below the profile picture, the name "Jesse Batsche" is displayed in bold black text, followed by "(He/Him) · 1st" in a smaller font. Underneath, his title "Senior Director at DMC" is listed, along with his location "Chicago, Illinois, United States" and a link to "Contact info". At the bottom left of the profile card, it shows "500+ connections". On the right side of the profile card, there is a notification bell icon and two organization logos: "DMC DMC Engineering" and "University of Notre Dame".

# Your Three Choices - Cause Change - Indirectly



A screenshot of the Jira Software interface. The top navigation bar includes "Your work", "Projects", "Filters", "Dashboards", "People", "Apps", and a "Create" button. The main content area shows the "Issues" section for the "Nucleus Software project". A table lists several issues with columns for Type, Key, Summary, and Assignee. The issues include "PDF preview not working correctly on IE 11", "Bad JSON data coming back from API", "Type on landing page needs fixing", "Fix up the navigations menu slide for mobile", "Minor visual tweaks to the feedback form", "Remove old feature flag for last campaign", "404 Error in the landing page", "Events page still uses old company logo", and "Video autoplays with sound on About Us page".

A screenshot of the GitLab Issues page. The top navigation bar includes "Projects", "Groups", "Activity", "Milestones", and "Shippets". The main content area shows a list of open issues for the "GitLab Community Ed." project. The issues include "Add group wiki page support", "Merge train/Release train/Merge when master succeeds: run build on merged code before merging", "Custom Roles", "Please bring squash option when merging MRs to CE", "Customize branch name when using create branch in an issue", "Move Fast-Forward Merge and Semi-Linear Merge to CE", "Provide an option/toggle in settings so that private repo commits show up on public user profile graph", "Lets encrypt support for GitLab Pages", and "Shared CI runners for groups". Each issue entry includes a title, a brief description, and various status tags.

# Your Three Choices - You Change

Complaining about a problem without posing a solution is called whining.

– Teddy Roosevelt

# Your Three Choices - You Leave

# Your Three Choices



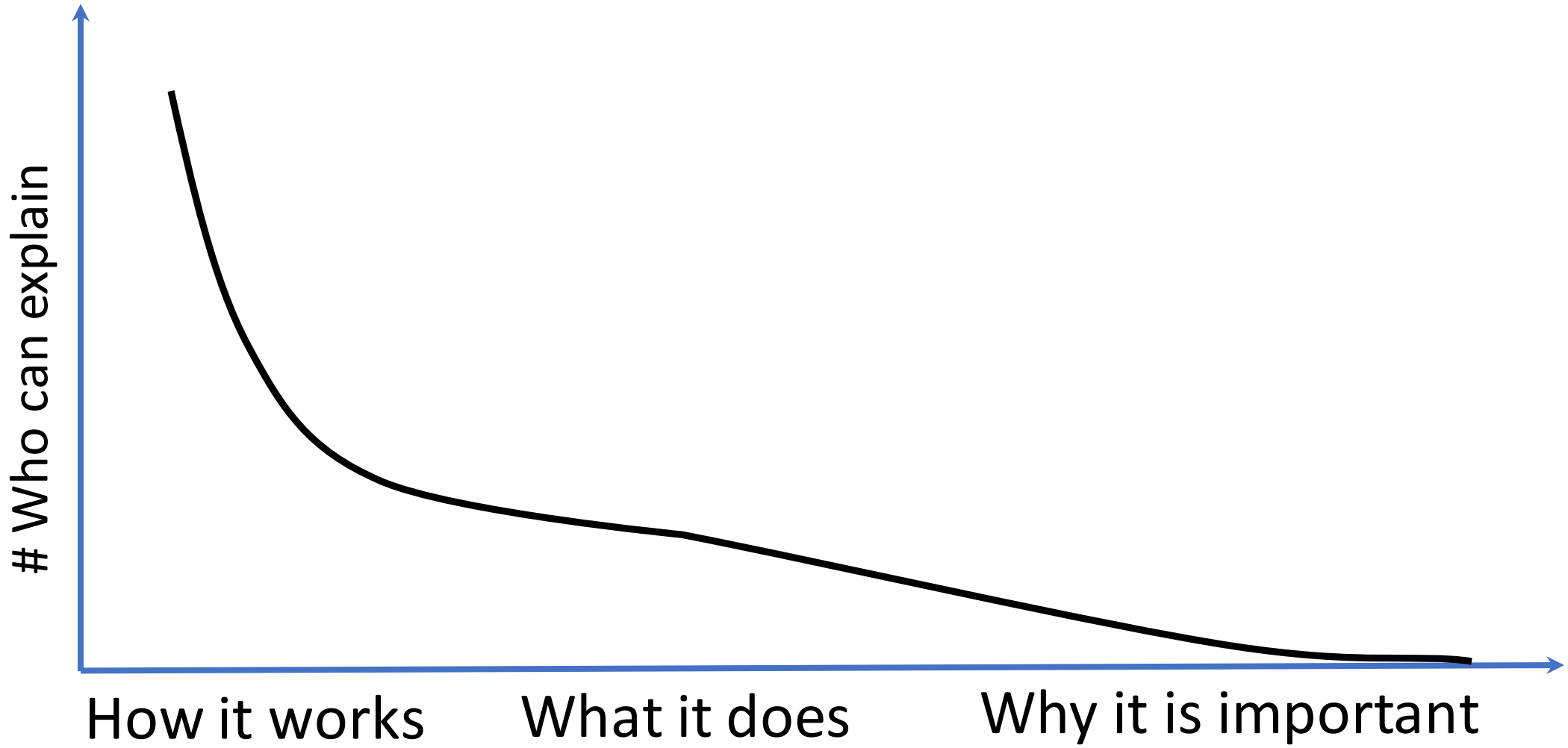
IMHO: Any company worth building your career at will have a path to cause change.

If there is no path to cause change (and they are not willing to bring a path into existence), leave.

# The Value of Your Work – “Value Proposition”



# The Value of Your Work – “Value Proposition”



# The Value of Your Work

What's the value of a hammer?



# The Value of Your Work



How it works

# The Value of Your Work

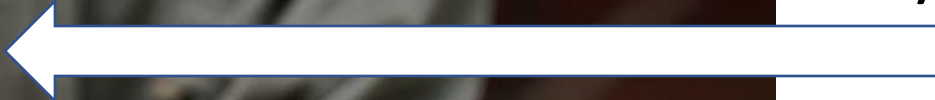


What it does

# The Value of Your Work



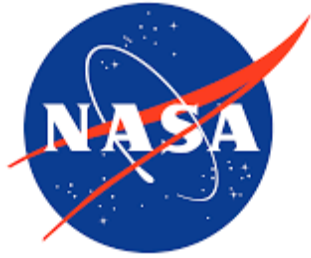
Why it is important



Enables a person to build

# The Value of Your Work

- IMHO: The true value of your work (aka the value proposition) always centers on and ends with the PERSON.
- Agile User Stories are awesome!
  - As a <persona> I need <feature> so that I can <purpose>
- By understanding the value propositions of your work
  - Gives your work meaning and is therefore rewarding
  - Instills confidence in your prospective users and customers



**NORTHROP  
GRUMMAN**



**DMC**

Smart People. Expert Solutions.®

<https://www.dmcinfo.com>

## NASA Space Launch System (SLS) Booster Obsolescence Life Extension (BOLE)

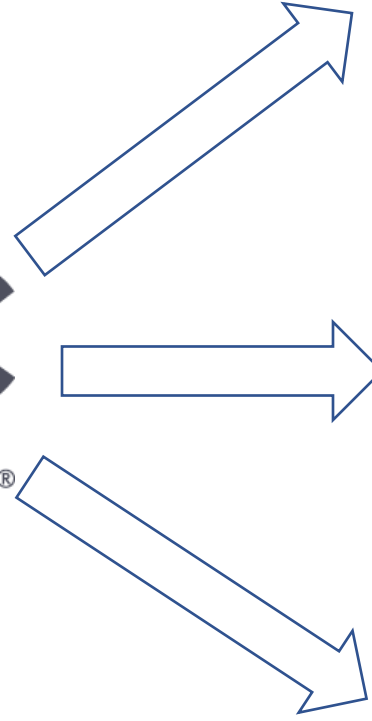


# The Value of Your Work



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- Aerospace and Defense
- Agriculture
- Automotive
- Chemical
- Consumer Goods
- Energy and Utilities
- Food and Beverage
- Green Tech
- Infrastructure
- Medical and Pharmaceutical
- Oil and Gas Engineering
- Packaging Machinery Programming
- Parcel and Material Handling
- Printing
- Semiconductor
- Specialty Machinery
- Telecommunications

<https://www.dmcinfo.com/about/industries-served>

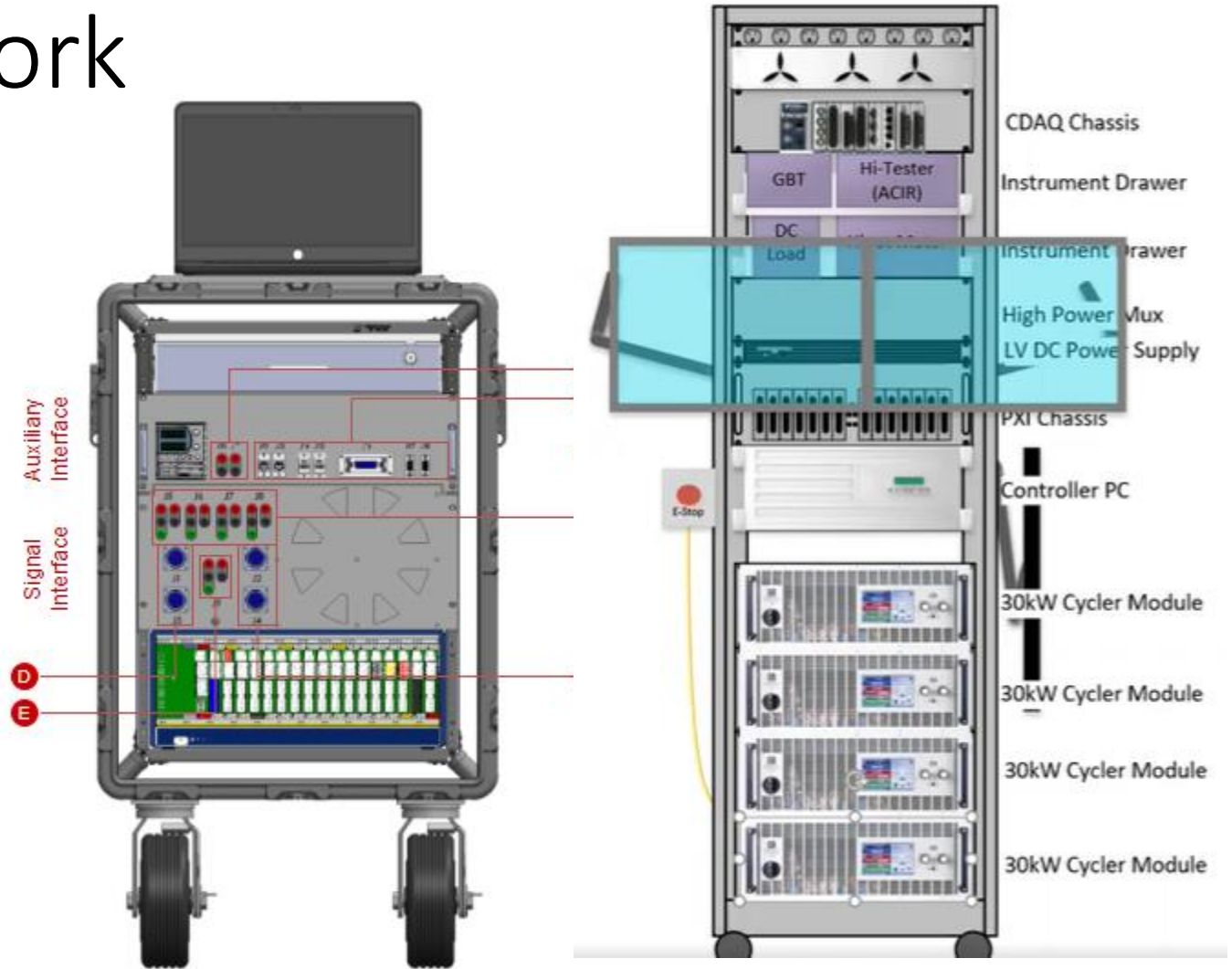


# The Value of Your Work



# DMC

Smart People. Expert Solutions.®



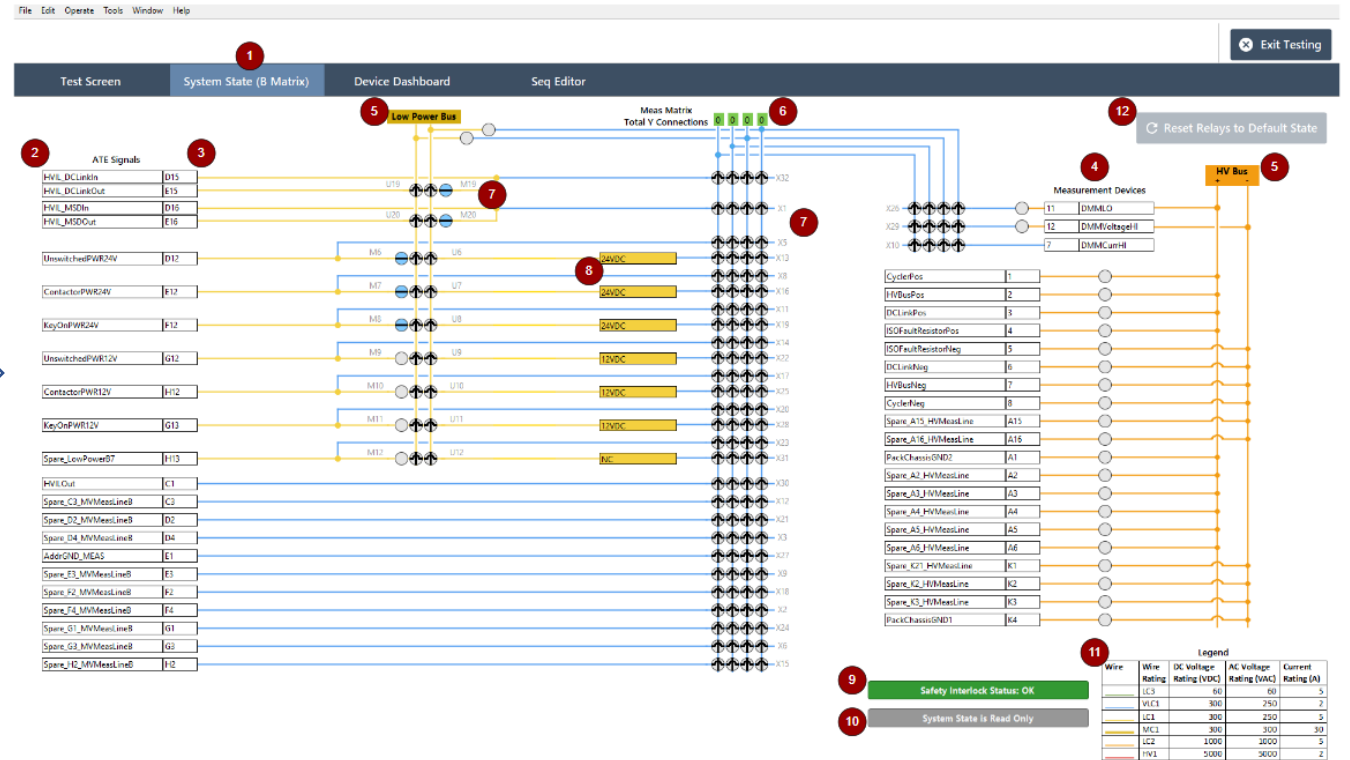
<https://www.dmcinfo.com/about/industries-served>

# The Value of Your Work



# DMC

Smart People. Expert Solutions.®



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# The Value of Your Work

“Software exists to change people’s workflows”  
- Allen Smith

# Career

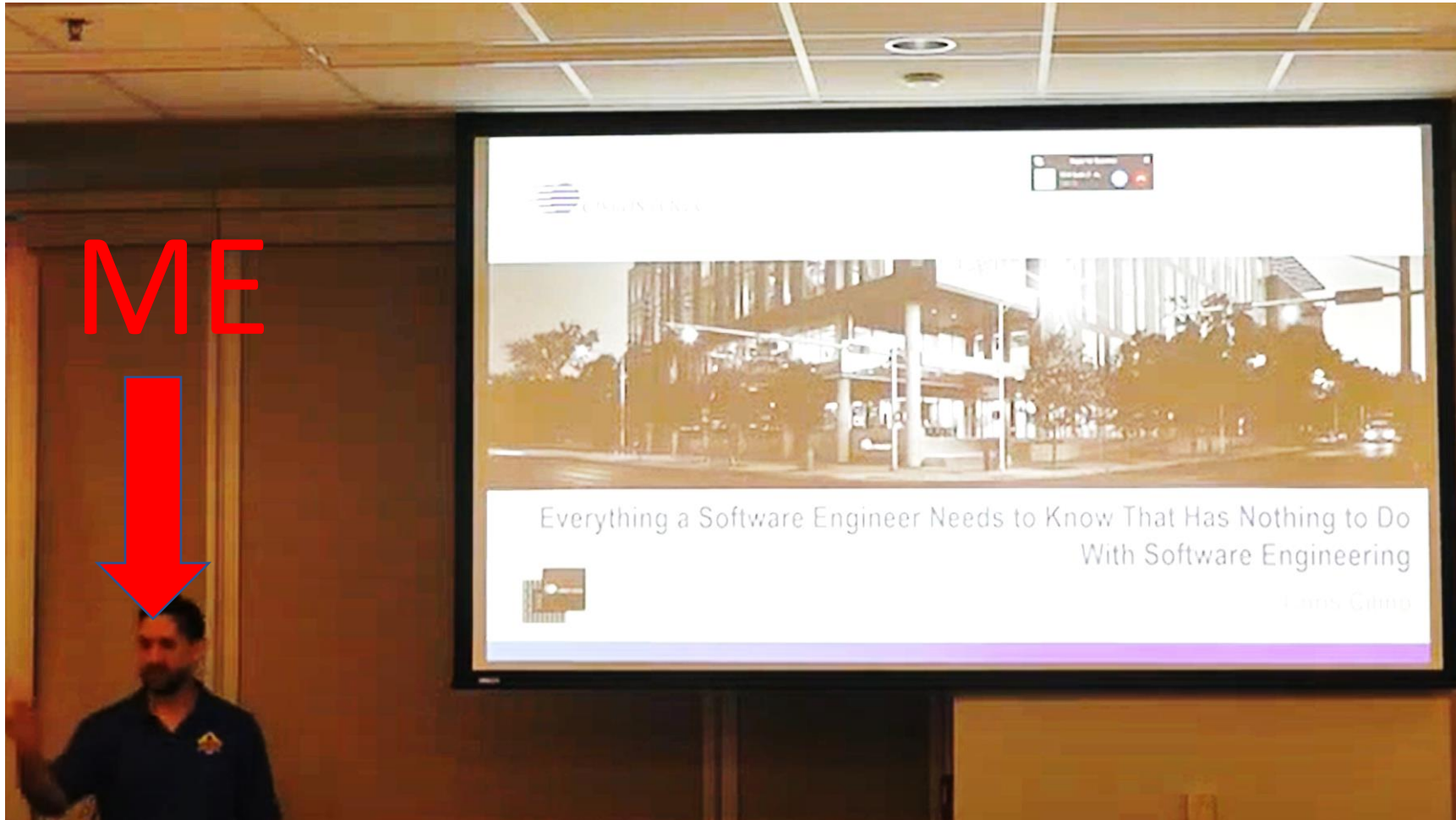
- Choose where you work every day
- The 2 reasons you work
- Your 3 choices
- The value of your work

# Collaboration

- Communicate in diamonds
- Cadence and clarity
- The power of silence

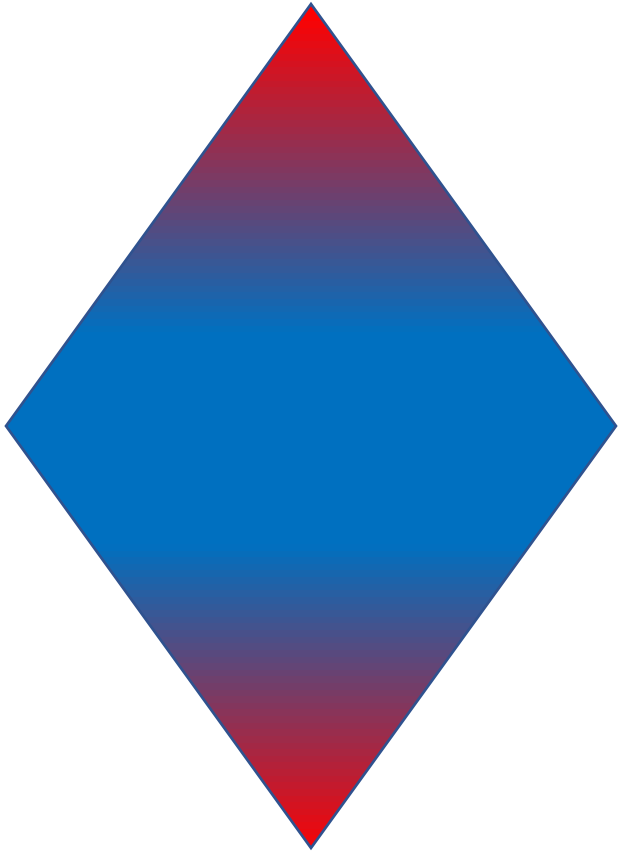


# CLA Summit 2018

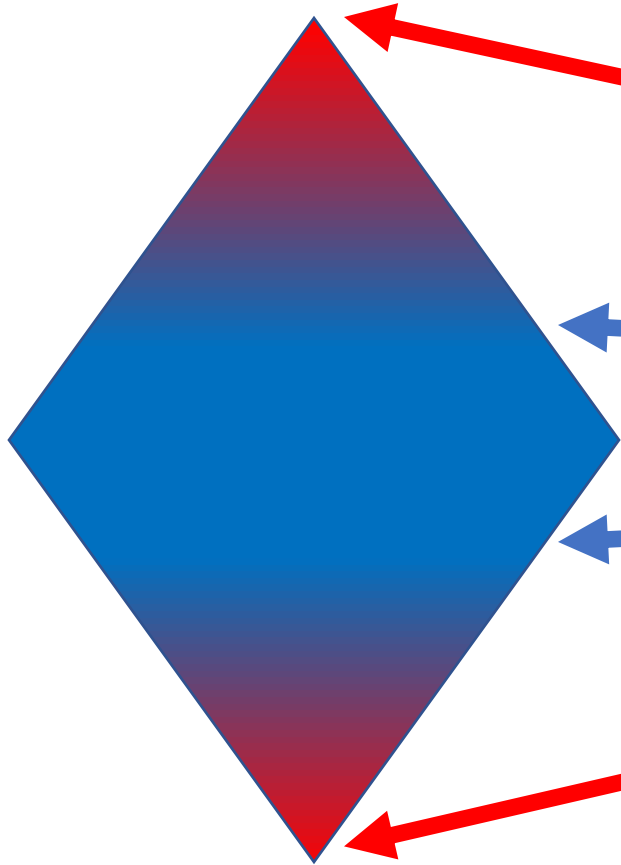


[http://bit.ly/ChrisCilino\\_EverythingYouNeedToKnow](http://bit.ly/ChrisCilino_EverythingYouNeedToKnow)

# Communicate In Diamonds

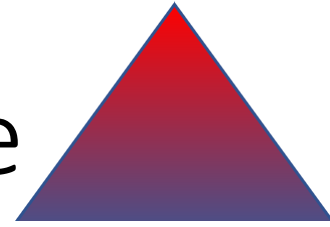


# Communicate In Diamonds



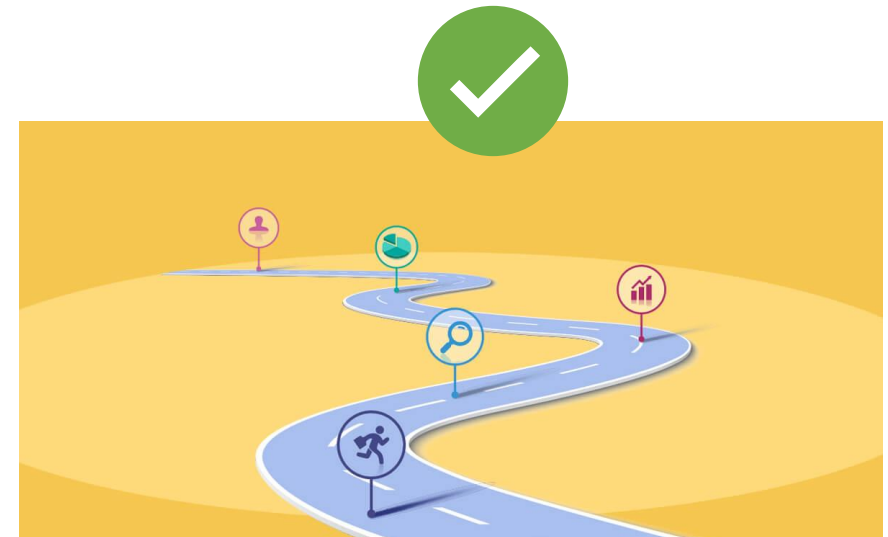
- Start with your point
- Provide data
- Provide rationale
- End with your point

# Communicate In Diamonds – Start with the



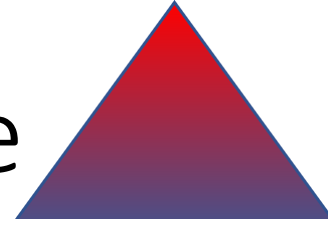
Improves listener engagement by providing relevance.

They'll be willing to go on your journey if they know the destination (else they are writing a blank check).





# Communicate In Diamonds – Start with the

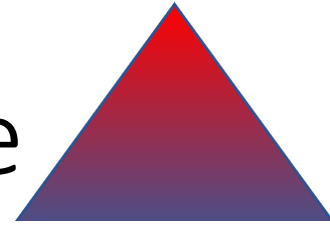


Respects your listener: maybe they already know your point. Don't waste their time.

Value the attention someone GIVES you (you don't have right to it).

**RESPECT**

# Communicate In Diamonds – Start with the



Why don't we start with the point?

1. We haven't thought through the journey we're going to take someone on. Prep for your conversations. Have a plan.
2. As the
  1. Communicator we think in terms of dependencies and building on first principles leading to a conclusion. Prioritize understanding.
  2. Listener we are investing time and mental resources, which are both precious. Evaluate you in context of all tasks.

**PUT YOURSELF IN YOUR LISTENER'S SHOES!**

# Communicate In Diamonds – Present data



Data = facts.

No interpretation or characterization.

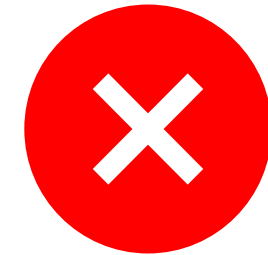
Avoid subjective words.

“Better”

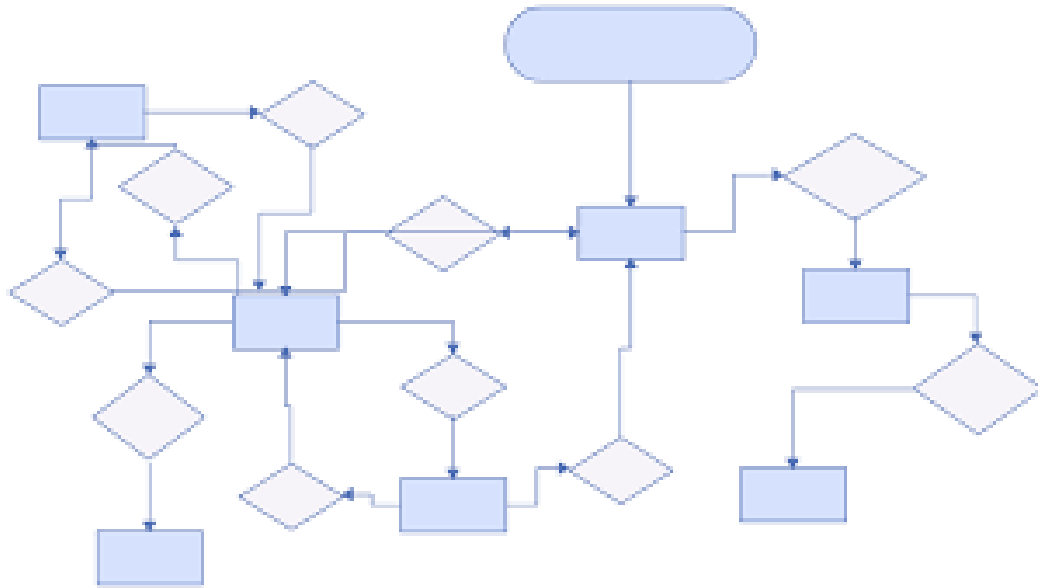
“You’ll like it..”

“We feel...”

“I believe...”



# Communicate In Diamonds – Synthesize



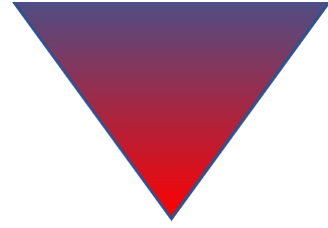
Use Logic, reason, and intuition to set up your conclusion, “the point”.

“Since x yields y”

“The data suggests”

“Therefore, I recommend”

# Communicate In Diamonds – End with the



Have a call to action.

Clearly state a question soliciting their decision.

Clearly state a recommendation and solicit agreement.

# Cadence and Clarity

Why do some people's words just seem to “stick”?

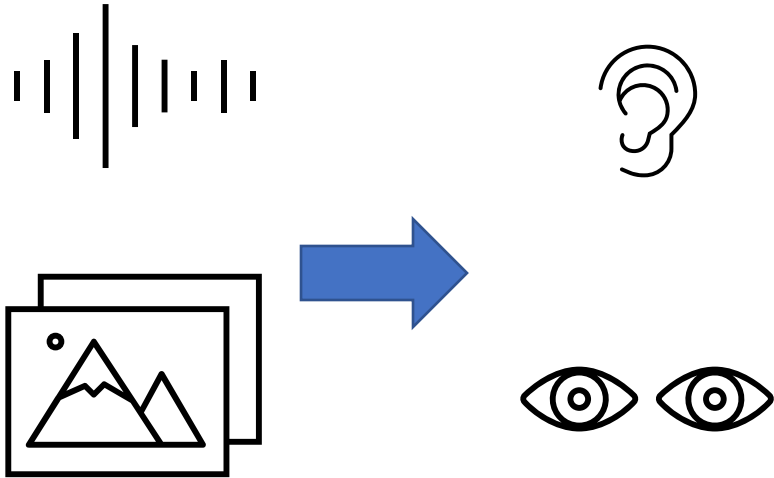
# Cadence and Clarity

Why do some people's words just seem to "stick"?



# Cadence

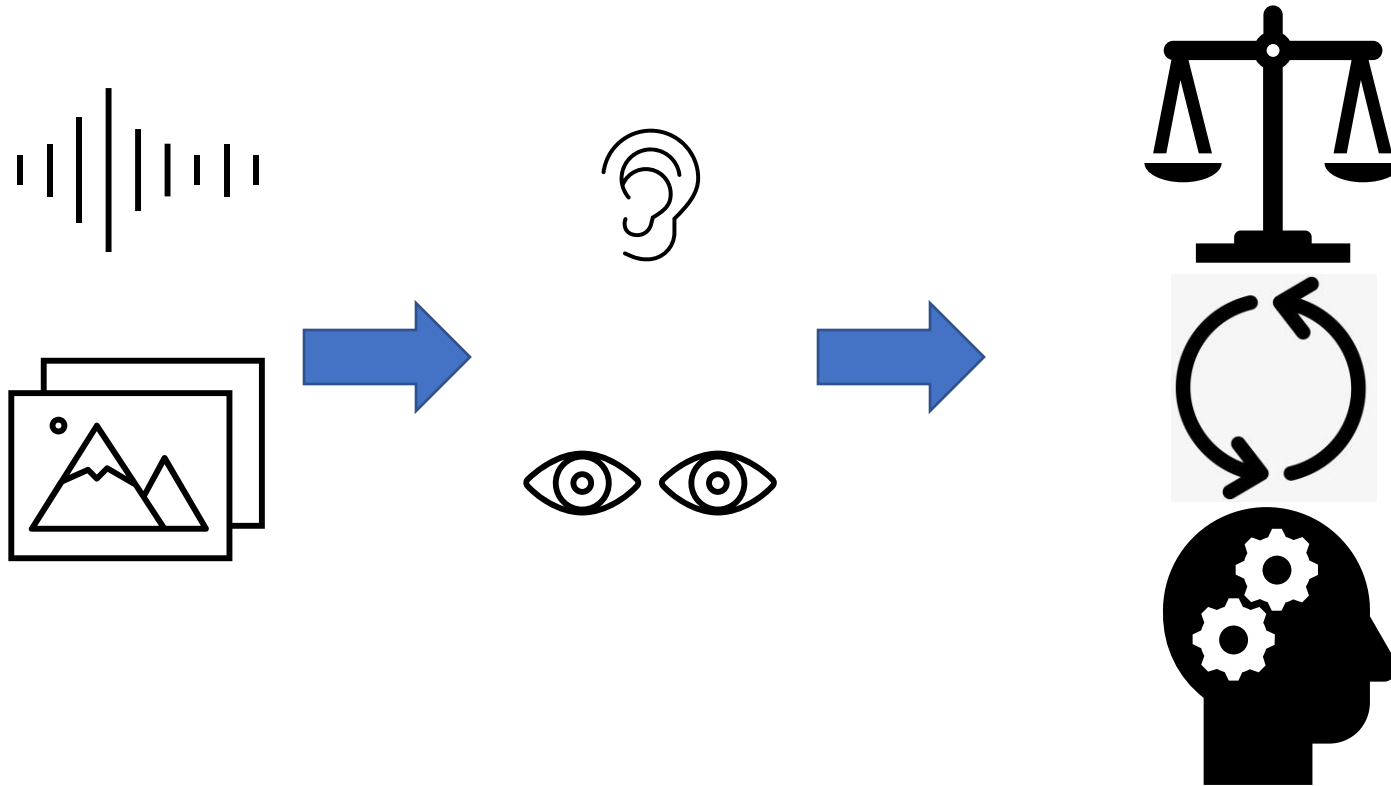
Rate at which thoughts are introduced



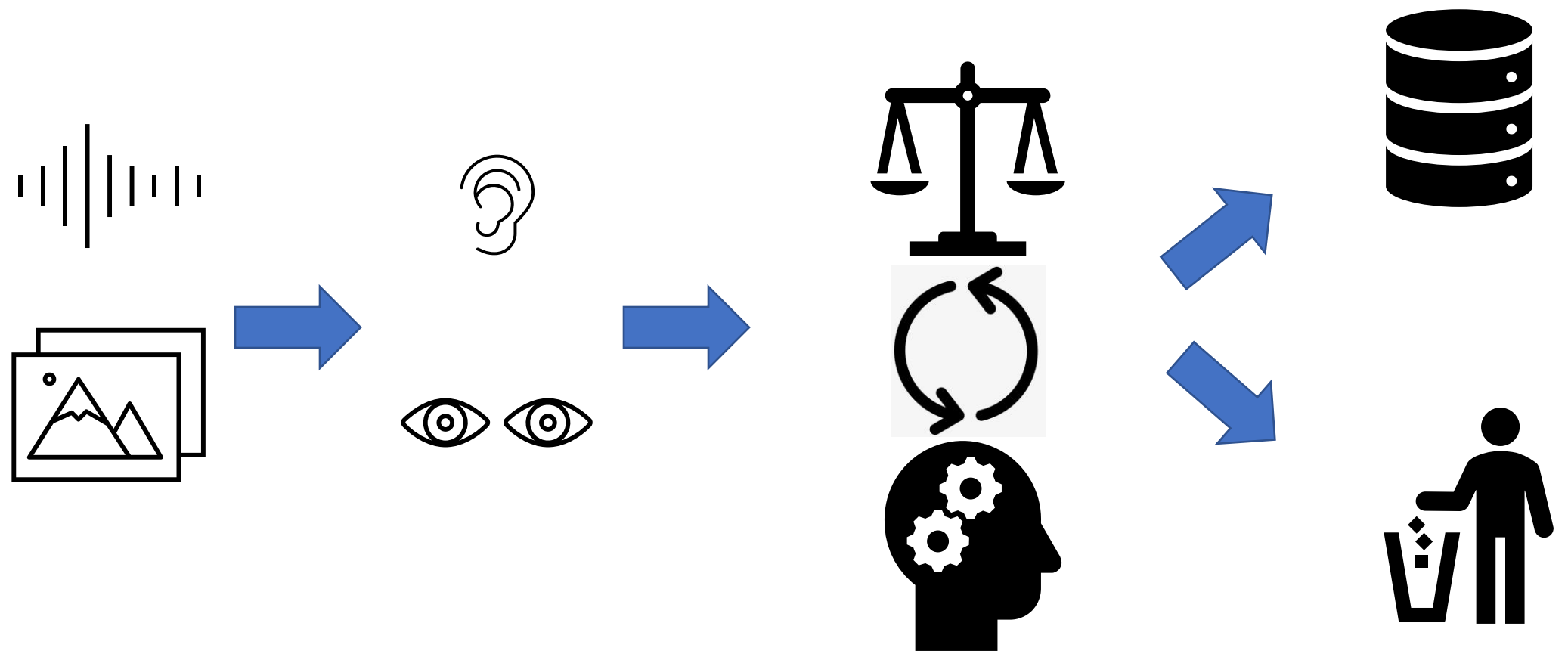


# Cadence

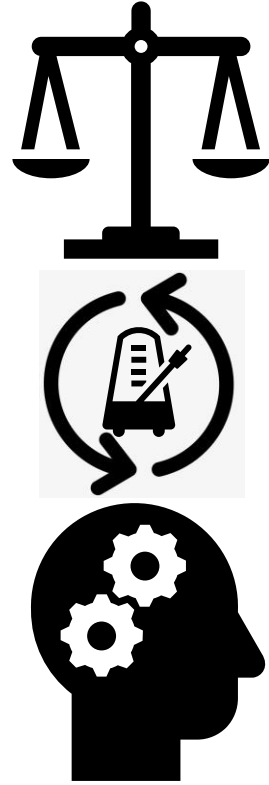
Rate at which thoughts are introduced



# Cadence



Cadence 



# The Power of Silence



# The Power of Silence



# The Power of Silence

Why are we afraid of silence?

Because we believe silence...

# The Power of Silence

Why are we afraid of silence?

Because we believe silence...

1. makes us look unintelligent
2. allows for interruption

# The Power of Silence

Why are we afraid of silence?

Because we believe silence...

1. makes us look unintelligent
2. allows for interruption

As a result, we fill the air with unclear, unintentional, inaccurate words.



# Clarity

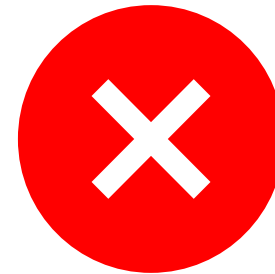


Words have meaning; find the words that accurately convey your idea.

## Nouns



## Pronouns



# Clarity



Words have meaning; find the words that accurately convey your idea.

Words are hard! (the older I get, the more I value poetry).

Improve your words by

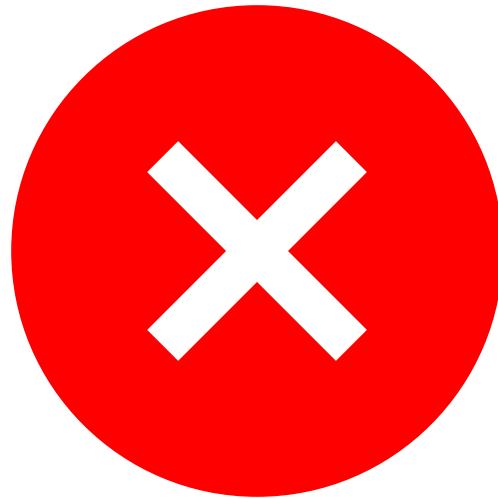
- Listening to others
- Reading
- Writing where you will be the only reader

# Clarity



Words have meaning; find the words that accurately convey your idea.

Non sequiturs: a conclusion or statement that does not logically follow from the previous argument or statement.



# Clarity



Words have meaning; find the words that accurately convey your idea.

Avoid filler words (like, kinda, um um um).... Use silence instead

# Cadence and Clarity – Story Time

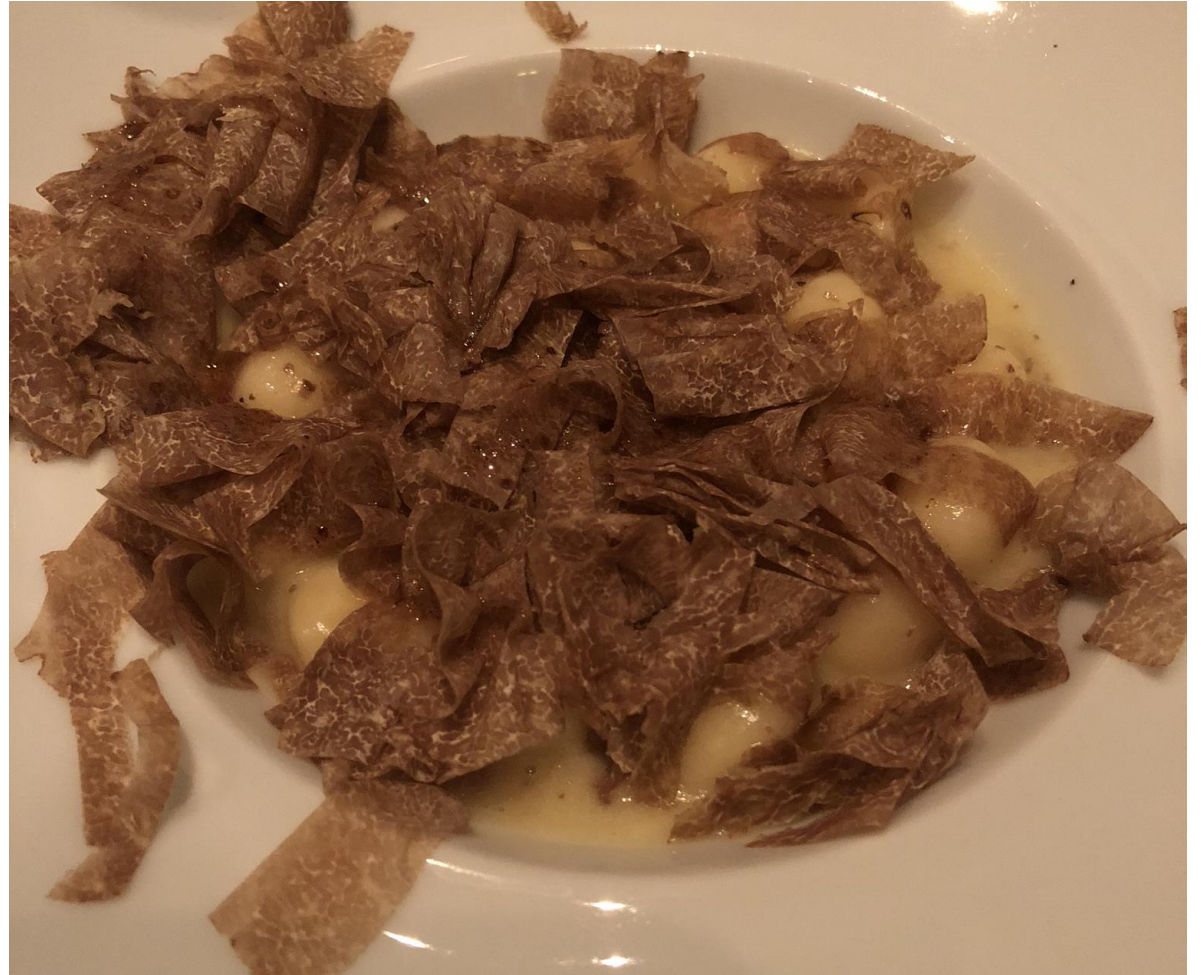
# Cadence and Clarity



# Cadence and Clarity



# Cadence and Clarity



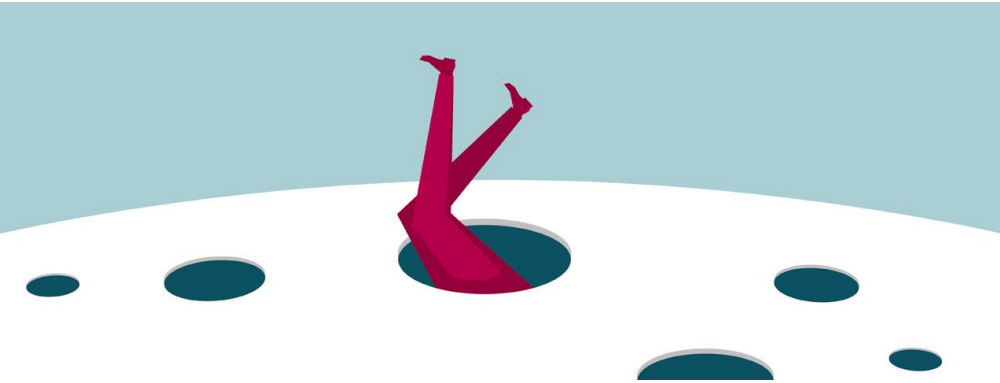


# Any Thoughts \ Questions?

Do This



Not That



# Everything an Engineer Needs to Know that has NOTHING to Do With Engineering (Part 2)



Chris Cilino



