

# Introduction to the Knowledge Aware Certification Program



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#KAConf20



# IKAA

INTERNATIONAL KNOWLEDGE  
AWARE ASSOCIATION



## Introduction - Knowledge Aware Certification Program

# Agenda



- ❖ Value of Knowledge
- ❖ Traditional approach knowledge capture
- ❖ Knowledge Aware Concept
- ❖ Certification program
- ❖ Q&A

# Knowledge – Personal Experience



Built up Engineering Teams  
In USA & Japan



Author and initiator  
of Design Handbooks



Lessons Learned

Outsourcing



Sustainability



# Knowledge Aware: Polling Question

## To What Degree Does Your Organization Prioritize Knowledge?

- Primary emphasis is on end-of-career knowledge capture and / or enhancing searchability
- Organizational knowledge isn't a big priority for our organization currently
- Organizational knowledge is a priority, but we haven't adopted an effective solution, yet
- Primary emphasis is leveraging knowledge aware methods / putting knowledge to work

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# Knowledge is the value of an entity

*The only thing that gives an organization a competitive edge, the only thing is that is sustainable is:*

- ✓ *What it **knows***
- ✓ *How it uses what it **knows***
- ✓ *How fast it can **know** something new*

*\*Laurence Prusak, Founder of Institute of Knowledge Management (IKM)*

There is an intrinsic value to one company's collective knowledge of:

- Standards
- Guidelines
- Experiences ("know-what" & "know-how")
- Best Practices
- Work Methods
- Design for Manufacturing (DFM) guidelines



An organization's **KNOWLEDGE** achieves its highest value when it can be reused and made available to the right person at the right time.

# Legacy Approaches vs Knowledge Aware Knowledges Management



- Document Centered approach
- People Centric Approach
- Model Centric Approach



Figure 2: The Document-Centric approach requires searching through document repositories to find the next step in the process or technical know-how.

*Knowledge Packets are structured, granular units of retained know-how; purpose-built to efficiently capture, share, re-use, and provision knowledge.*



Figure 4: Knowledge Packets replace the document form of knowledge capture.

- Structured Knowledge packages
- Provisioning Knowledge
- Share and reuse
- Validated

# Knowledge Aware – Certification



- Be trained and prepared for the application of Knowledge Aware
- Be a change agent in your organization
- Understand the system and be the subject matter expert
- Create value for your organization in shortest amount of time





# Knowledge – Personal Experience

BS / Bradley University 1991 & MS / Rensselaer Polytechnic Institute 1999

- Draftsman 1987-1989
- Design Engineering 1989-1997
- Knowledge-based Engineering 1997-2004
- Engineering Math Based Applications 2004-2006
- Integrated Powertrain Solutions 2006-2009
- Advanced Planning & Test Concepts 2009-2013
- Knowledge Management 2013-current (*Dream Job!*)

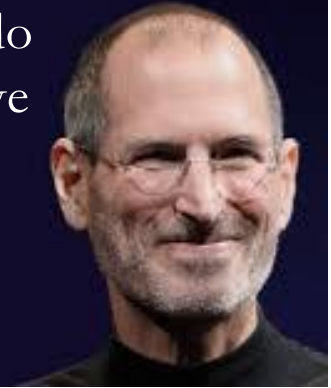


*Hello! My  
name is* **Tim**



“The only way to do  
great work is to love  
what you do”

– *Steve Jobs*



# The Cognitive Loading Problem

## Cognitive Load

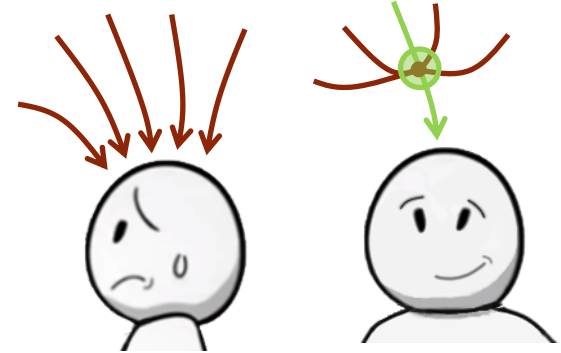
The resource demand to process knowledge and information on the brain's working memory.

The number of people in knowledge work jobs—that is, nonroutine cognitive occupations, such as this employee of the real estate analytics firm CoStar Group—has more than doubled in the last 30 years and there's no sign of it slowing down. PHOTO: AGENCE FRANCE-PRESSE/GETTY IMAGES

Our brains can only process so much !



*“Non-routine cognitive occupations have more than doubled in the last 30 years – there is no sign of it slowing down”*



✓ Knowledge Provisioned

# The Cognitive Loading Problem



*“Non-routine cognitive occupations have more than doubled in the last 30 years – there is no sign of it slowing down”*

The number of people in knowledge work jobs—that is, nonroutine cognitive occupations, such as this employee of the real estate analytics firm CoStar Group—has more than doubled in the last 30 years and there's no sign of it slowing down. PHOTO: AGENCE FRANCE-PRESSE/GETTY IMAGES



## Knowledge Aware: Polling Question

# To What Degree Do You Feel Prepared to Administer Knowledge Aware Techniques?

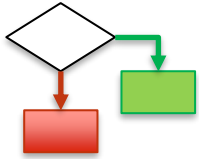
- I desire to become acclimated and learn about Knowledge Aware. I am just beginning.
- I feel I could do a few things on my own and make use of Knowledge Aware techniques.
- I feel can efficiently apply Knowledge Aware to my own work area. Practical experience?
- My ability is such that I can instruct others in knowledge aware methods / advanced topics

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# Learn Cognitive Load Reduction Techniques



**Certified Knowledge Aware means you are:**

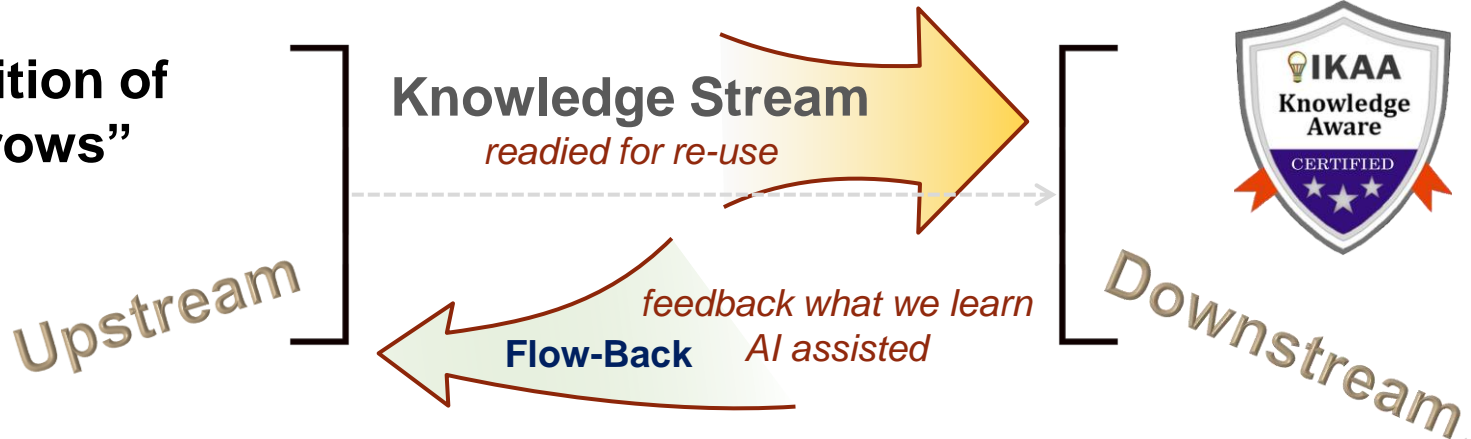


**able to** Recognize then Reduce Decision-Making Risks

**able to** Apply Knowledge Aware Techniques

**able to** Measure the Effectiveness of Applied Knowledge

**Definition of  
“Arrows”**



# Knowledge Aware – Certification



Coming  
in 2021!

## CERTIFIED

- On-Demand

**Build your Knowledge Aware skillset** through fundamentals training developed by IKAA subject-matter experts

- Virtual Seminar

**Connect with subject-matter experts** and industry-based professionals experienced in Knowledge Aware



## PROFESSIONAL

- Participate in-person in a Professional training **class designed to gain first-hand experience** with Knowledge Aware in application.
- Plan then bring **your own projects** so they can be **designed with Knowledge Aware principles** then taken back to your home environments.



## INSTRUCTOR

- **Become a Knowledge Aware Instructor**
- **Learn advanced topics** on applying tools and techniques beyond the Professional-level through teaching others.
- *More to be announced*

*Lower decision-making risks within your organization through the provisioning of knowledge*





# Knowledge Aware Certification – Value for you and your organization



You will be recognized as a Change Agent with an ability to:

- Identify knowledge provision opportunities that reduce decision-making risks
- Apply Knowledge Aware techniques and tools that benefit company processes
- Measure the value-effectiveness of applied knowledge in the flow of work
- Implement the Knowledge Aware process within your organization



Other Benefits:

- You will be connected with other professionals as part of the Knowledge Aware network
- You will gain direct access to cutting-edge knowledge delivery methods that will positively affect your company's bottom line.

<http://kacertification.org/>



## Knowledge Aware: Polling Question

# To What Degree Do You Feel You Would Have Interest in Becoming Knowledge Aware Certified?

- I would have interest in being Knowledge Aware Certified by the IKAA when the courses becomes available.
- I have a moderate degree of interest but would like to learn more before deciding.
- Thank you but I have no interest.

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# Thank You

Knowledge Aware Certification