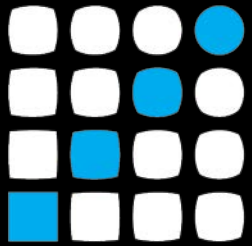


EUROPE'S LEADING AEM DEVELOPER CONFERENCE

28th – 30th SEPTEMBER 2020

Creating Print Media at Scale with AEM

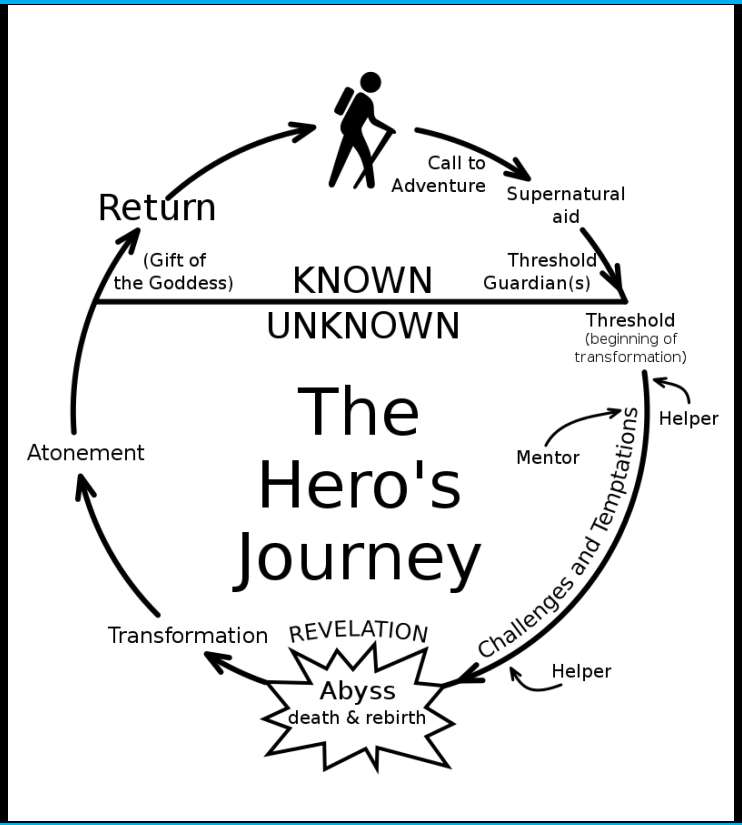
Harold Putman – Sr. Web Developer, Lexmark International

About Harold Putman

- Certified AEM Developer/Architect
- Lexington, Kentucky USA
- Using AEM at Lexmark since 5.6 (2013)

https://www.lexmark.com

An AEM Story



- Ordinary life
- Call to adventure
- The ordeal
- Triumph & transformation

Ordinary Life

Photo by Filip Mishevski on Unsplash

Problem of Print Media

- Printed datasheets ~100 new products year
- 30 languages, 59 locales
- Expensive to create
- Low impact on sales

Content Analysis

Images

Marketing

Diagram

Specs

Three Major Issues

- Localization
- Layout
- Maintenance

Photo by Giorgio Parravicini on Unsplash

The Call to Adventure

Photo by Patrick Hendry on Unsplash

adaptTo()

The promise of AEM Sites

- Already integrated with PIM
- Established localization process
- HTML layout is flexible
- AEM development is in marketing - not IT

Photo by Chris Barbalis on Unsplash

Refusing the Call

Doubts

- Are HTML documents suitable for printing?
- Can AEM create PDF we need?
- New users in AEM authoring environment?
- Could reviewers give up control?

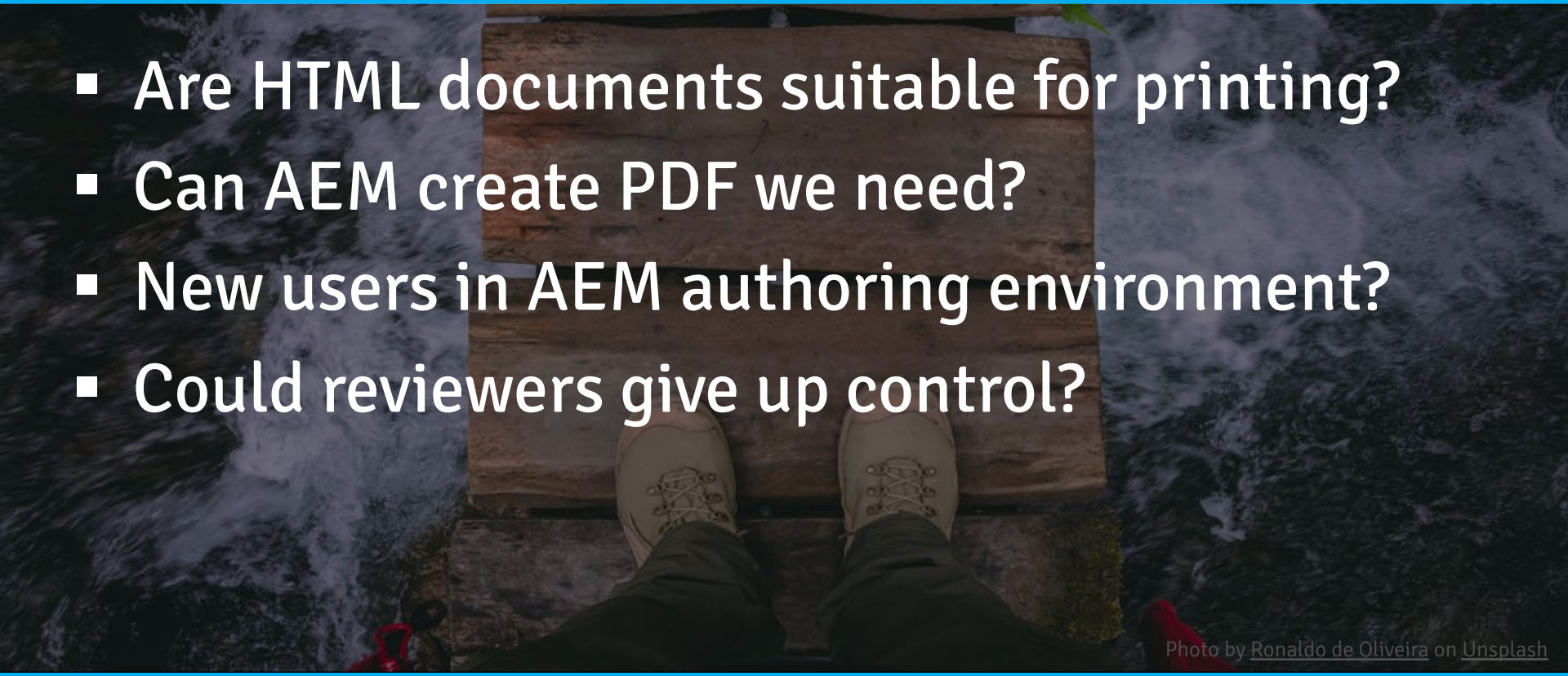


Photo by Ronaldo de Oliveira on Unsplash

Meeting the Mentor

Sprint Zero

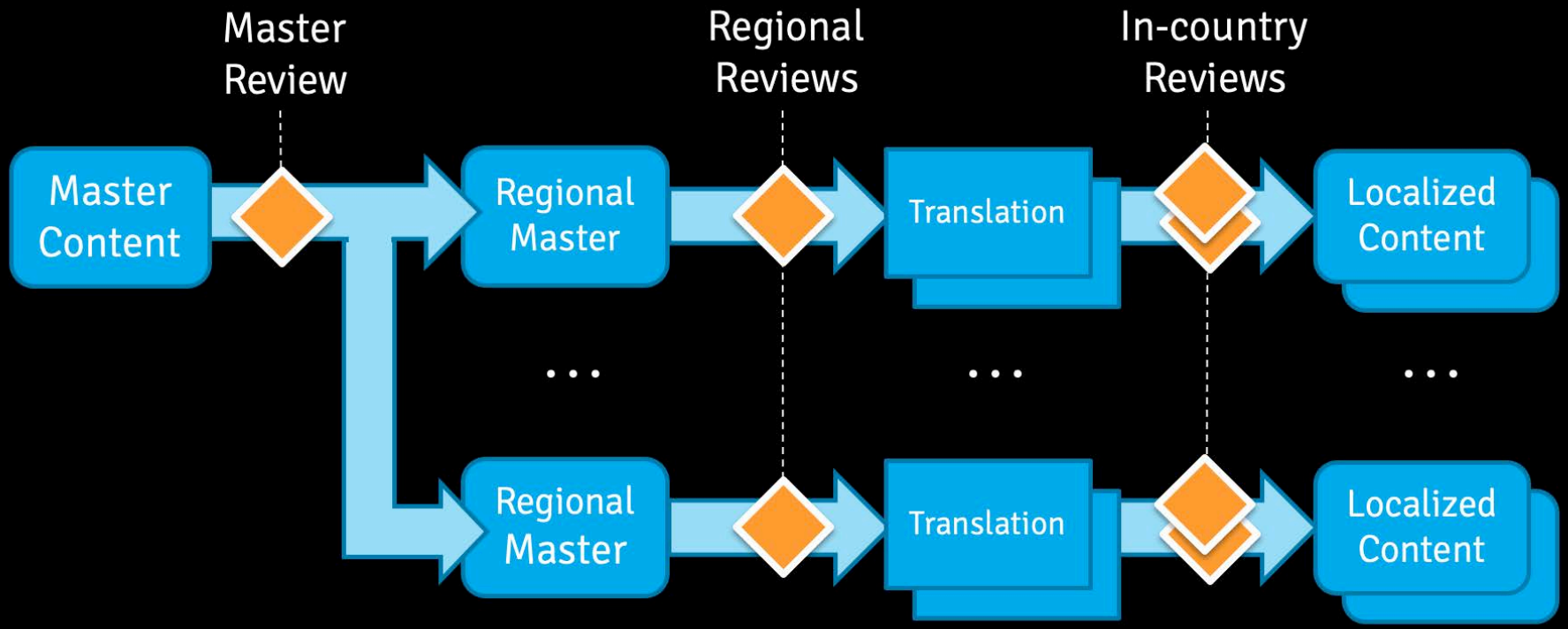
- Simplified universal brochure design
- PDF generation proof of concept
- AEM 6.4 structured content fragments

adaptTo()

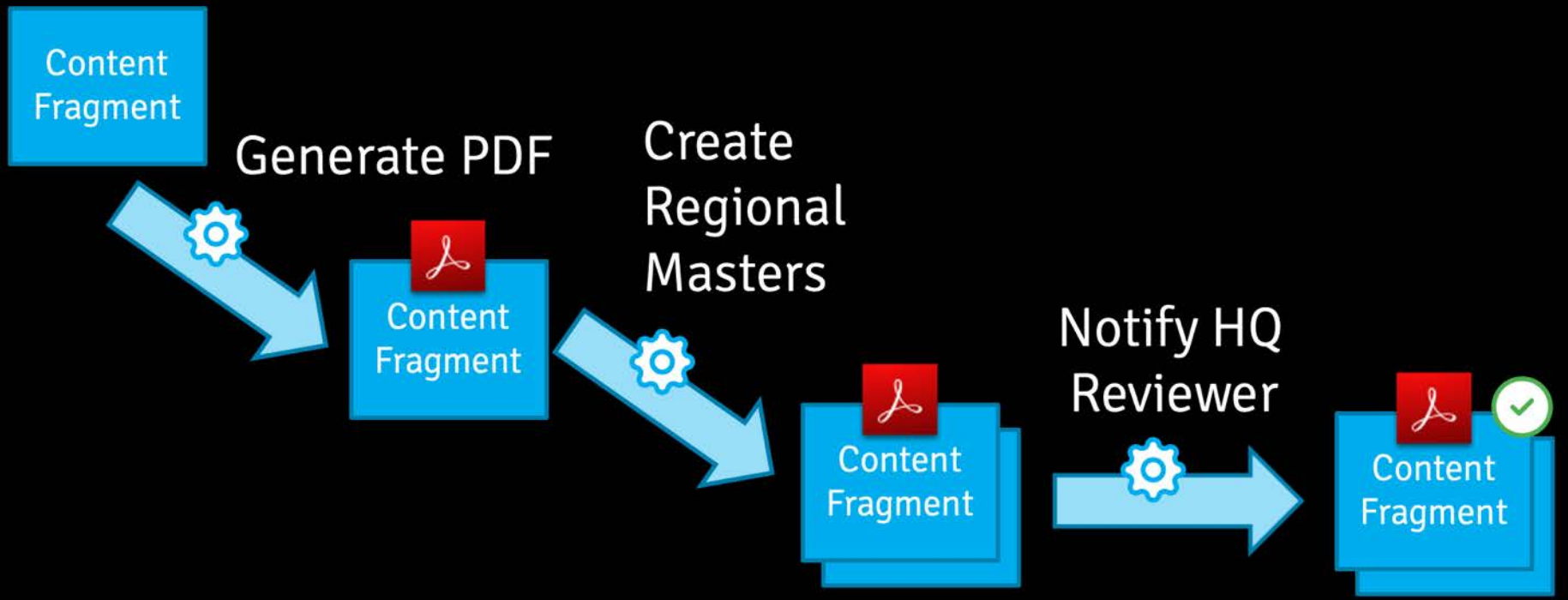
Crossing the Threshold

Photo by Josh Hild on Unsplash

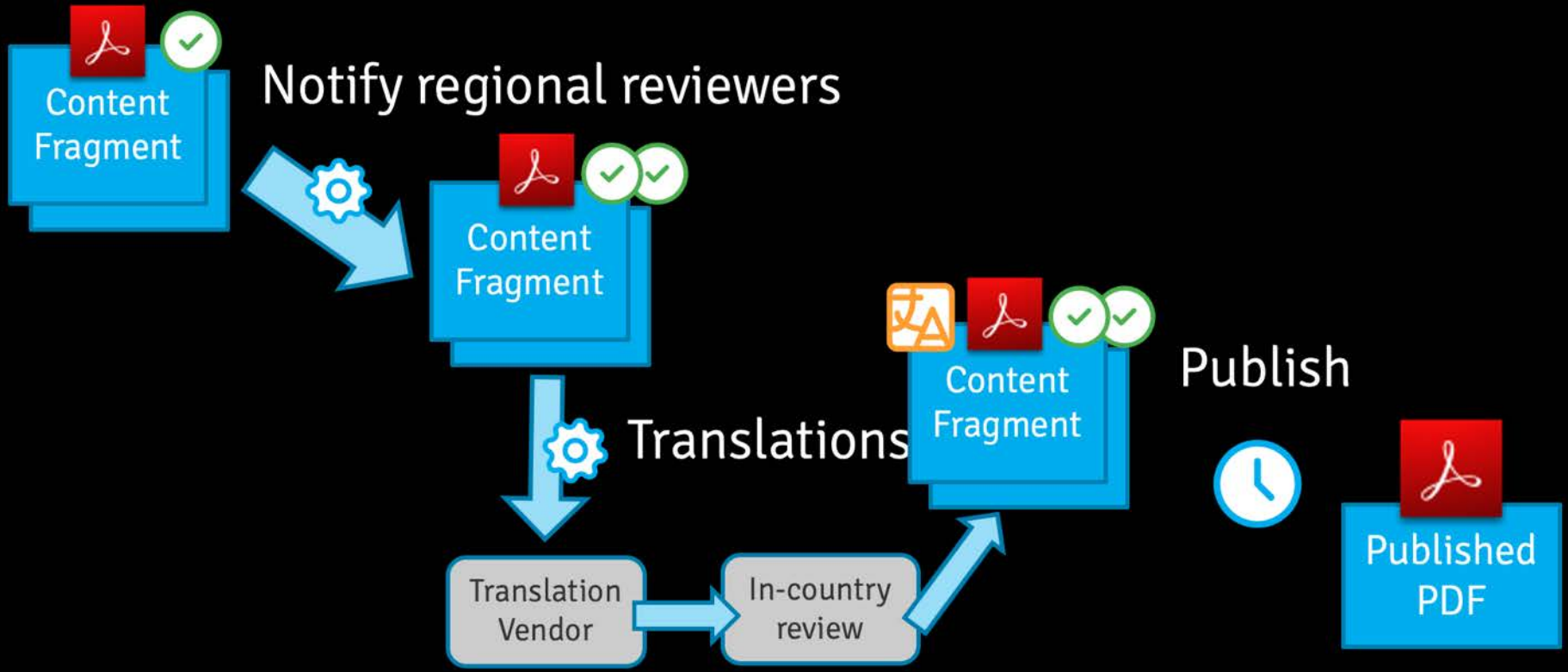
A Simplified Process



Implementation



Implementation (continued)



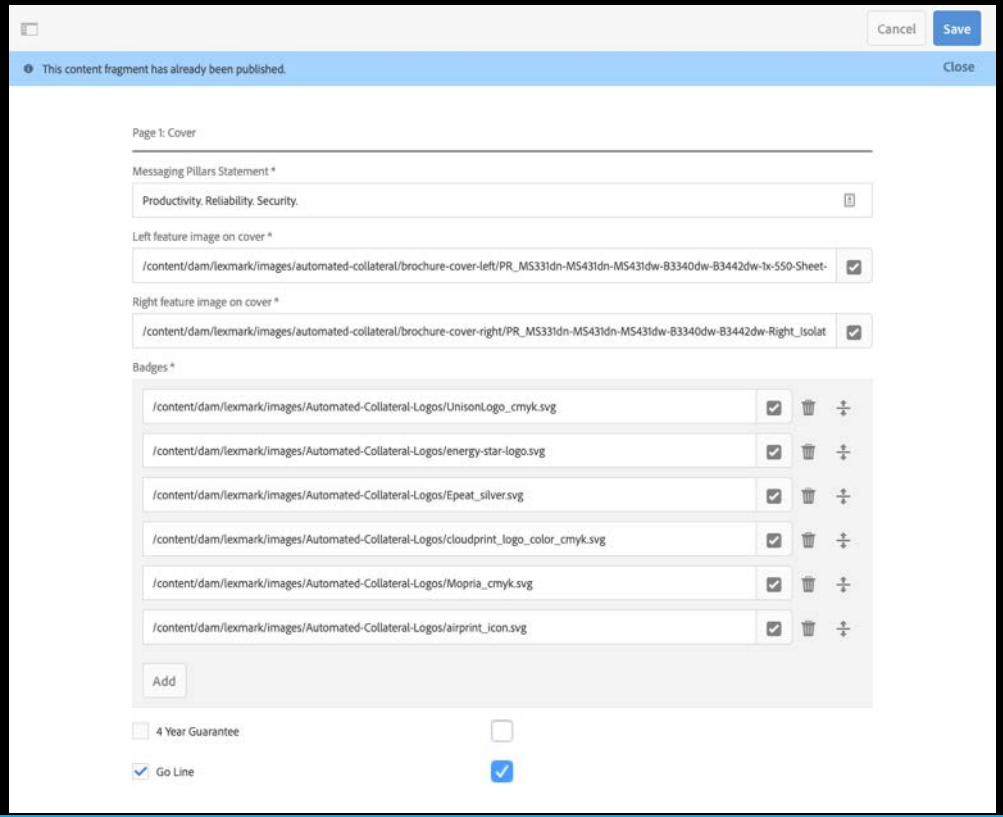
Demo

https://youtu.be/Mu7YefRIIXw

Customized Content Fragments

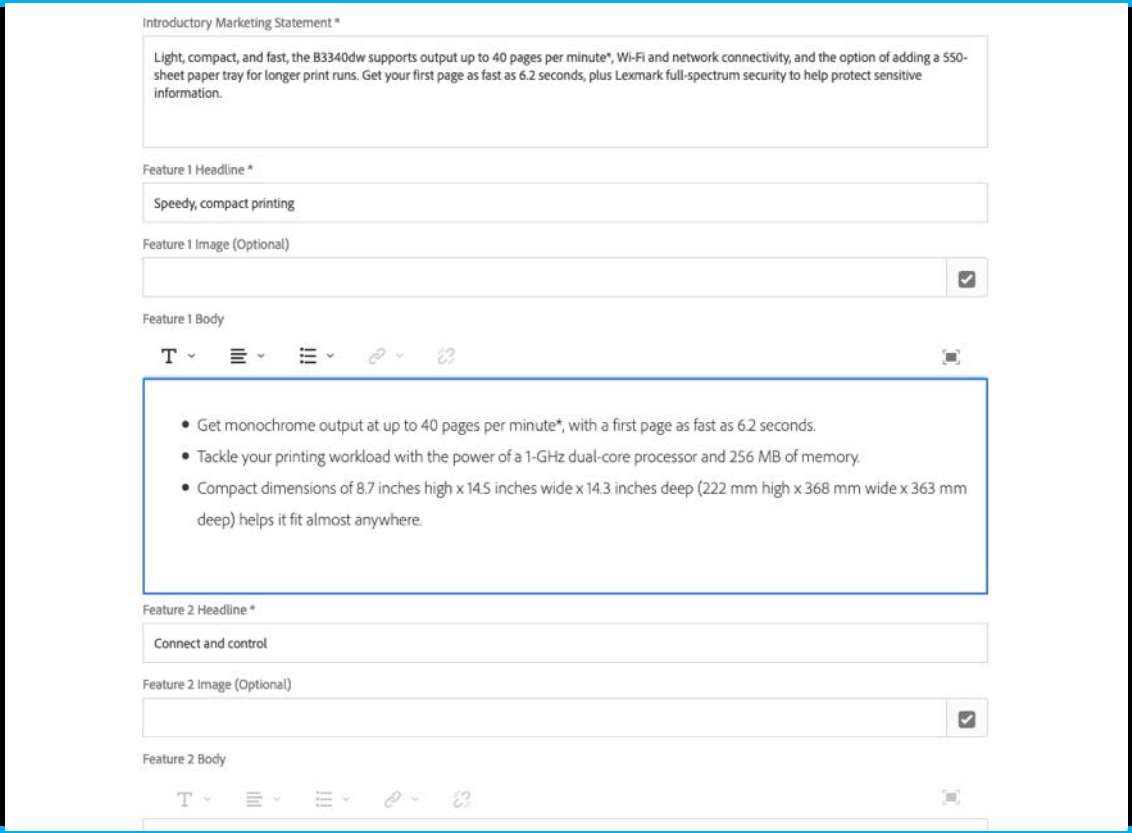
- *Content Fragment Model* defines brochure elements
- Extended *Metadata Schema* to include
  - Review process states
  - Translation requests
  - Publish dates

Authoring Fragments



- Model defines authoring form
- Customized creation wizard to attach product info

Entering Content



- Focus on content
- Basic formatting

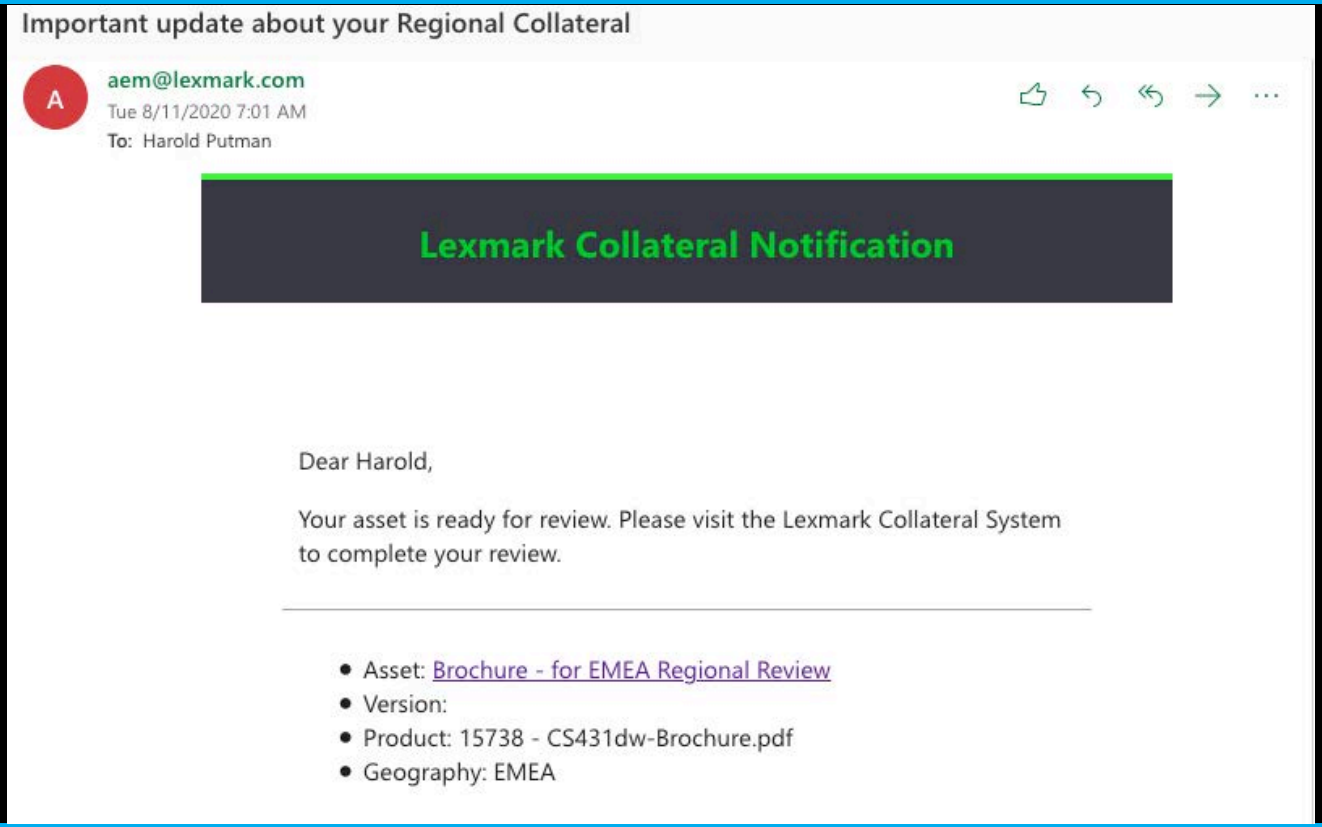
Custom Field Type

- Copy and modify existing component
- Edit content fragment model reference new slingResourceType

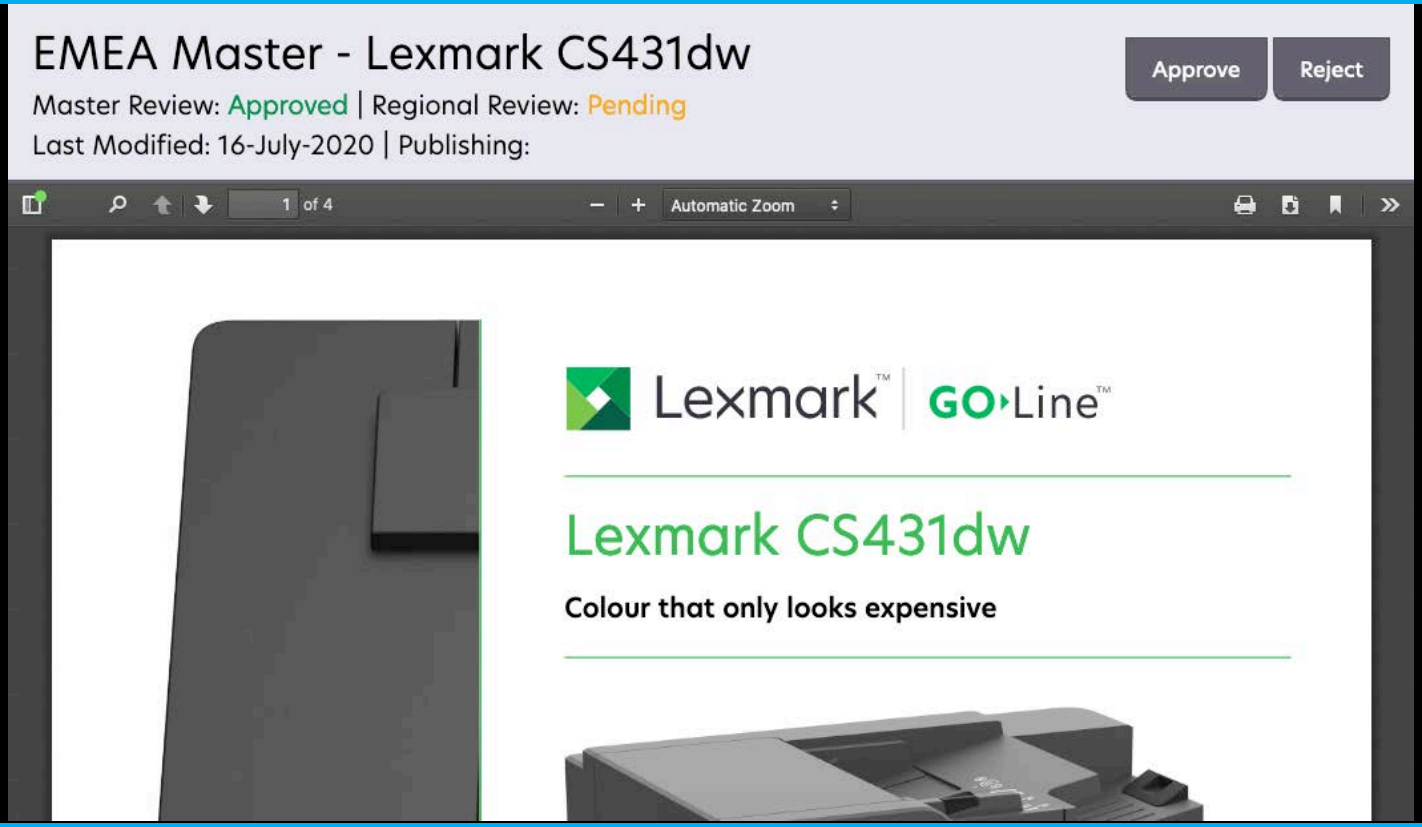
Making PDF

- Carefully crafted AEM page (HTML)
- Render PDF with Prince
- Analyze result / make it fit

Seamless Review Experience

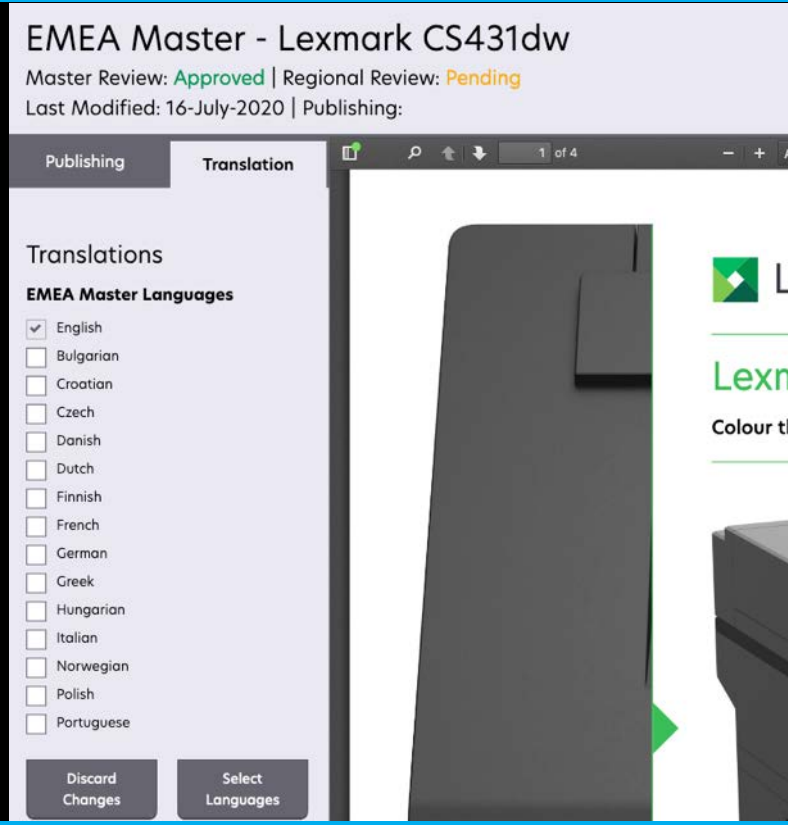


Intuitive Review Experience



Integrating with Translation Vendor

- Easily request languages
- Automate translation connector interface
- Vendor-supplied API



The Ordeal

Our Ordeal

- Colliding workflows
- Lost translations
- Troubled footnotes

Colliding Workflows

COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:24	05-Sep-2019 15:24	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.p...
COMPLETED	workflow-service (wfrancis)	05-Sep-2019 15:24	05-Sep-2019 15:24	CG Generate original renditi...	1.76	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.p...
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:23	05-Sep-2019 15:23	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/prc/master/MS310d-Brochure.p...
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:23	05-Sep-2019 15:23	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/anz/master/MS310d-Brochure....
COMPLETED	wfrancis	05-Sep-2019 15:23	05-Sep-2019 15:23	CG Generate Masters	1.138	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.pdf
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:24	05-Sep-2019 15:24	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.p...
COMPLETED	workflow-service (wfrancis)	05-Sep-2019 15:24	05-Sep-2019 15:24	CG Generate original renditi...	1.76	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.p...
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:23	05-Sep-2019 15:23	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/prc/master/MS310d-Brochure.p...
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:23	05-Sep-2019 15:23	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/anz/master/MS310d-Brochure....
COMPLETED	wfrancis	05-Sep-2019 15:23	05-Sep-2019 15:23	CG Generate Masters	1.138	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.pdf
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:24	05-Sep-2019 15:24	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.p...
COMPLETED	workflow-service (wfrancis)	05-Sep-2019 15:24	05-Sep-2019 15:24	CG Generate original renditi...	1.76	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.p...
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:23	05-Sep-2019 15:23	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/prc/master/MS310d-Brochure.p...
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:23	05-Sep-2019 15:23	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/anz/master/MS310d-Brochure....
COMPLETED	wfrancis	05-Sep-2019 15:23	05-Sep-2019 15:23	CG Generate Masters	1.138	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.pdf
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:24	05-Sep-2019 15:24	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.p...
COMPLETED	workflow-service (wfrancis)	05-Sep-2019 15:24	05-Sep-2019 15:24	CG Generate original renditi...	1.76	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.p...
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:23	05-Sep-2019 15:23	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/prc/master/MS310d-Brochure.p...
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:23	05-Sep-2019 15:23	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/anz/master/MS310d-Brochure....
COMPLETED	wfrancis	05-Sep-2019 15:23	05-Sep-2019 15:23	CG Generate Masters	1.138	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.pdf
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:24	05-Sep-2019 15:24	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.p...
COMPLETED	workflow-service (wfrancis)	05-Sep-2019 15:24	05-Sep-2019 15:24	CG Generate original renditi...	1.76	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.p...
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:23	05-Sep-2019 15:23	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/prc/master/MS310d-Brochure.p...
COMPLETED	workflow-service (iss-servic...	05-Sep-2019 15:23	05-Sep-2019 15:23	DAM Update Asset	1.214	/content/dam/lexmark/collateral/brochures/anz/master/MS310d-Brochure....
COMPLETED	wfrancis	05-Sep-2019 15:23	05-Sep-2019 15:23	CG Generate Masters	1.138	/content/dam/lexmark/collateral/brochures/na/master/MS310d-Brochure.pdf

javax.jcr.InvalidItemStateException

Lost Translations

5/2/19 5:15 PM

I just tried submitting sk_sk from en_gb and it got EST words=0 and went right to NTR

Troubled Footnotes

- Custom symbols
- Mixed formats
- Breaking layout

All information is subject to change without notice. Lexmark is not liable for any errors or omissions

[1] Print and copy speeds measured in accordance with ISO/IEC 24734 and ISO/IEC 24735 respecti
[2] "Recommended Monthly Page Volume" is a range of pages that helps customers evaluate Lexm
print on the device each month. Lexmark recommends that the number of pages per month be wit
supplies replacement intervals, paper loading intervals, speed, and typical customer usage. [3] "M
could deliver in a month using a multishift operation. This metric provides a comparison of robustn
replacement cartridges designed for use in a specific geographical region. See www.lexmark.com/
standard pages as listed. Declared yield value in accordance with ISO/IEC 19798. [6] Printers are s
printerlicense for details.

Triumph

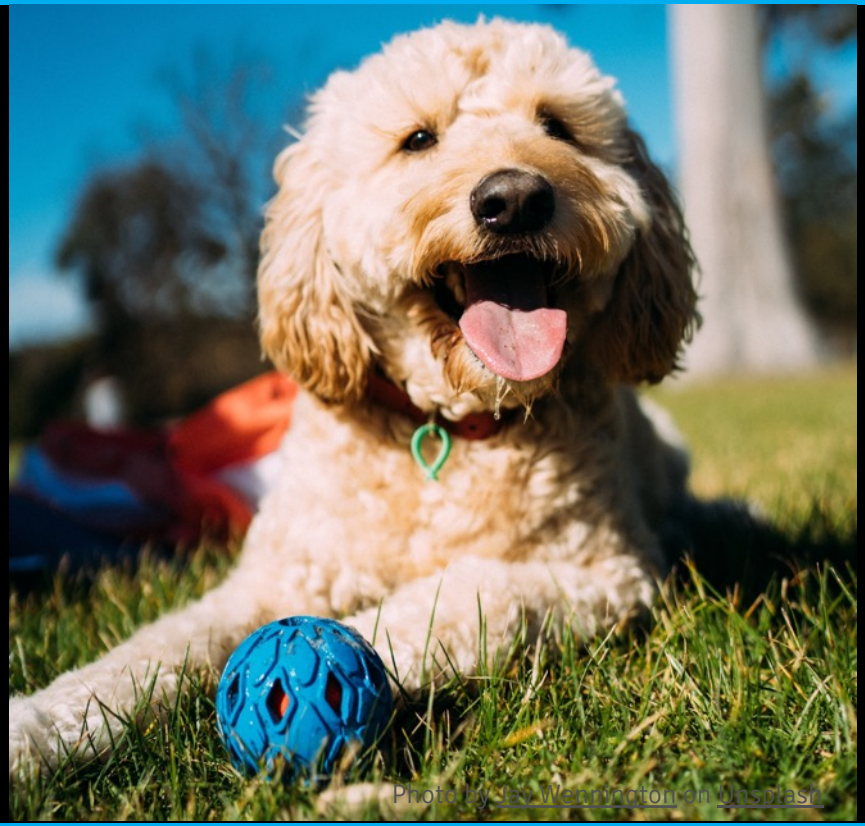


Photo by Jay Wennington on Unsplash

Resulting Brochure

Images

Marketing

Diagram

Specs

Lessons Learned

You can spell

AWESOME

with AEM

but you have to add your own

W-O-E-S

Lessons Learned

- Challenge assumptions
- Leverage management support
- Listen to stakeholder needs
- Assure stakeholders of progress
- Negotiate changes in process

Transformation

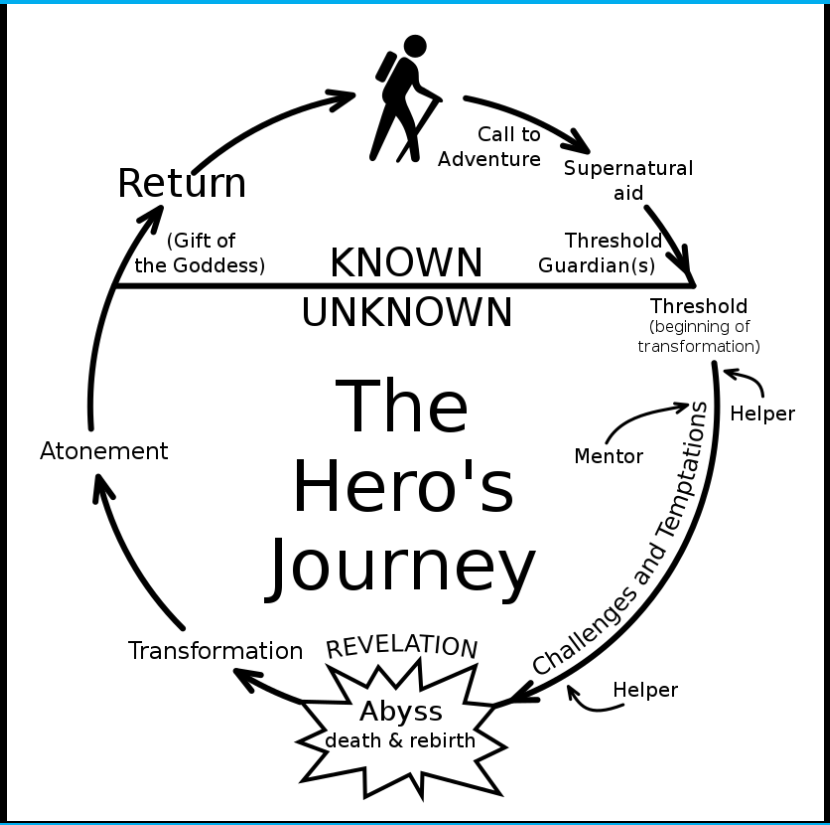
Business Transformed

- Brochures generated from AEM
- Requests for local tweaks have disappeared
- Brochures stay up to date and accurate
- InDesign authors can focus on other things

Development Team Transformed

- Embraced new features
  - Touch UI
  - Structured content fragments
- Extended the reach of AEM

Your Adventure Awaits…



Questions?

Appendix

Credits

I was first introduced to the idea of using the Hero's Journey for something other than literature by Donald Miller who created StoryBrand, a digital marketing company built around this idea. Inspiration for using it in a presentation came from This Classic Storytelling Model Will Help You Give a Mesmerizing Presentation by Alex Blinkoff. Examples from well-known movies inspired by Sarah McQuire's article What Your 6 Favorite Movies Have in Common [Infographic]. I never actually read the original idea from Joseph Campbell, but you can find it in his 1949 book The Hero with a Thousand Faces. This concept has been applied to everything from advertising to psychotherapy, so why not explore software development? Enjoy the adventure!