



Future of Tech Comm

Keith Schengili-Roberts • September 25, 2018



Keith Schengili-
Roberts

Who's This Guy?



What I do:

- DITA Evangelist & Market Researcher at IXIASOFT
- Chair of OASIS DITA Adoption Committee
- Member of OASIS DITA Technical Committee and LwDITA Sub-committee
- Lecturer on Information Architecture at the University of Toronto
- 12+ years of experience with DITA XML



AKA “DITAWriter”

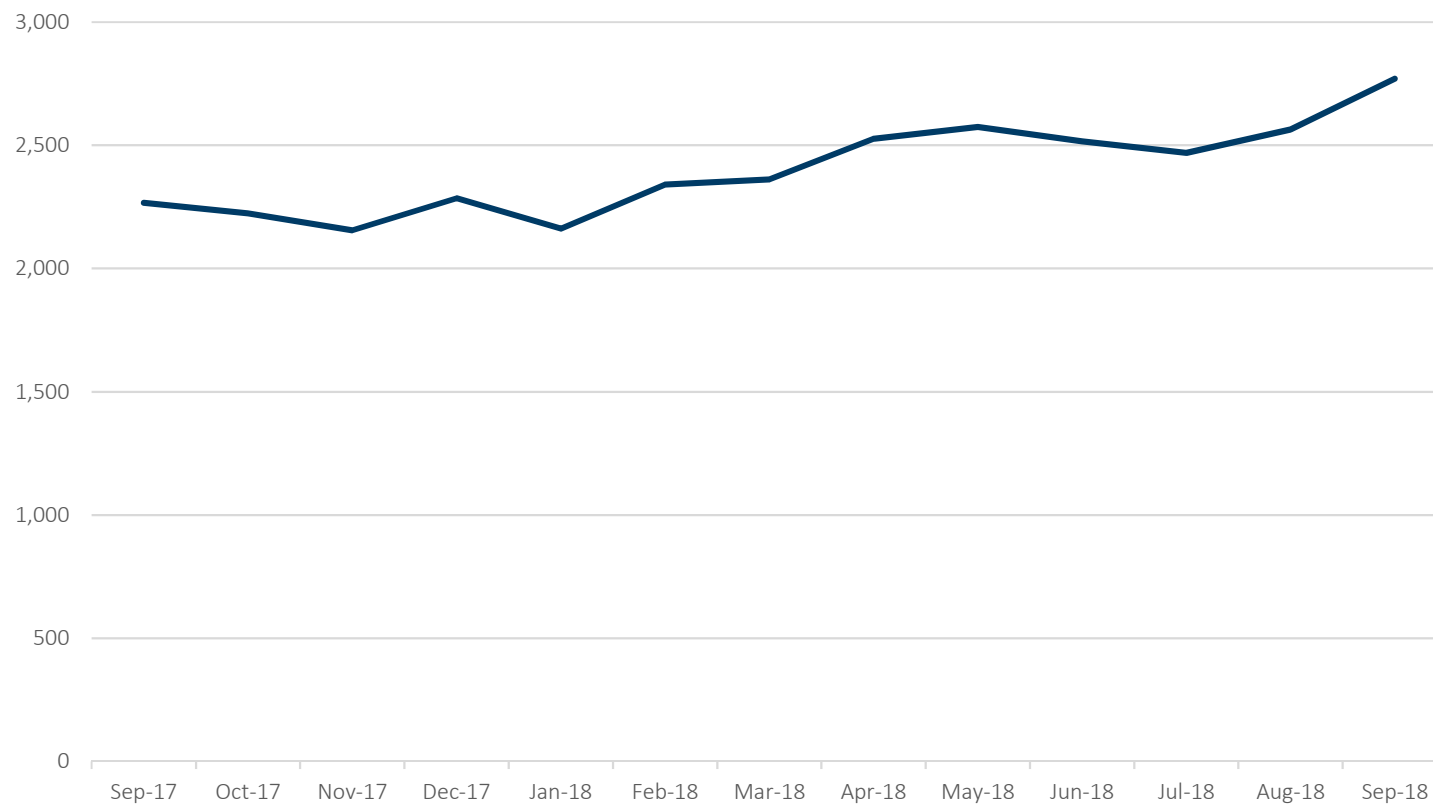
- Industry blog started 6+ years ago
- Over 297,000 hits(!)
- Regularly updated info on DITA conferences, DITA books, companies using DITA, DITA CMSes, DITA editors, other DITA tools, and DITA consulting firms
- News and views on DITA use
- Also features interviews with those making a difference in the world of DITA

The screenshot shows the DITAWriter website homepage. At the top, there is a navigation bar with links for ARTICLES, NEWS, INTERVIEWS, WEBINARS, SOFTWARE UPDATES, DITA CONSULTANTS, and ABOUT. A search bar is located on the right. Below the navigation bar is the site's logo, which includes the text "<di>a>Writer" and a circular icon with the word "STRATEGY". A secondary navigation bar lists categories: DITA CONFERENCES, DITA BOOKS, COMPANIES USING DITA, DITA CMSes, DITA EDITORS, and DITA TOOLS. The main content area features a large banner image with a clock face and the text "DON'T WAIT FOR THE DITA 2.0 STANDARD TO MIGRATE TO DITA". Below the banner are tabs for "Latest Blogs", "Popular", and "Recommended". The "Latest Blogs" section displays two articles: "SIGDOC 2017: EDUCATING TOMORROW'S TECHNICAL COMMUNICATORS" and "DON'T WAIT FOR THE DITA 2.0 STANDARD TO MIGRATE TO DITA". On the right side, there is a "FOLLOW ME ON TWITTER" section with a tweet from @ditawriter and a "RECENT POSTS" section listing various articles.



Right Now is a Good Time to Be a Tech Writer

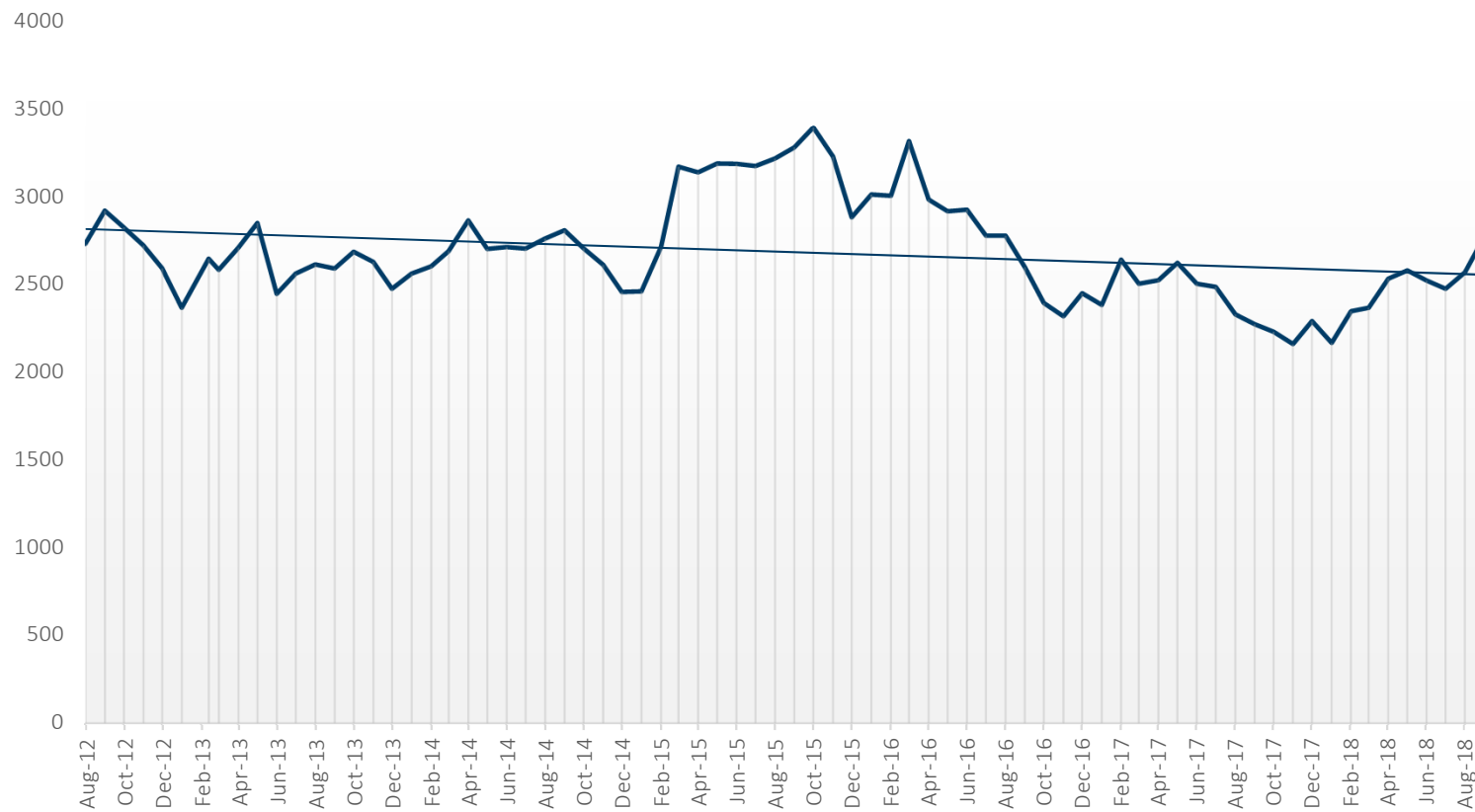
"Technical Writer" Job Posting on Indeed.com
Sept 2017-2018





...Or is It?

"Technical Writer" Job Listings on Indeed.com for Q3 2012 - Sept 2018





The Rise of Markdown in Programming Environments

- In recent years there has been a shift from using XML or HTML for programming documentation
- One example: Microsoft has moved the authoring of their developer/IT docs to Markdown
- Clients and industry contacts confirm that there is a call for being able to work with Markdown content with DITA

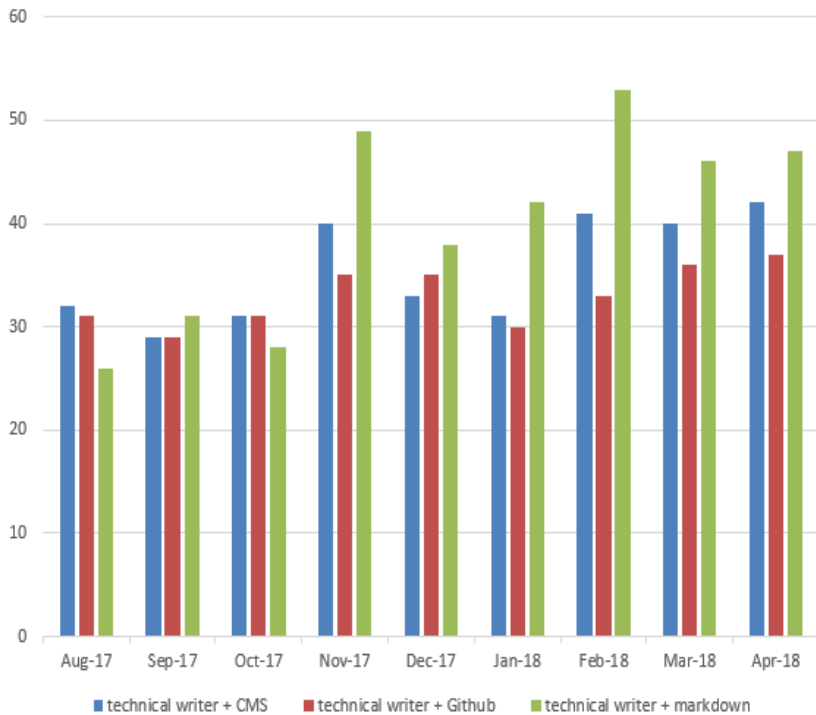
The screenshot shows two versions of an article. The top version is from ars TECHNICA, featuring a dark header with the site name, a 'SUBSCRIPTIONS' button, and a search icon. The article title is 'Microsoft unveils new effort to make its developer, IT documentation great again' by Peter Bright, dated 5/4/2016. The content discusses Microsoft Intune's security features. The bottom version is from TechNet, showing a similar article layout with a navigation menu and a search bar. The caption below the screenshots reads: 'Above: the new docs.microsoft.com appearance. Below: the same article in old TechNet.'

Microsoft's developer documentation used to be the model that all others should follow. The documentation itself was thorough, combining reference material with usage guides and sample code. Its use of, at the time, novel JavaScript and XML techniques (known in those days as dynamic HTML, or DHTML) made it easy to browse through the documentation and quickly switch between

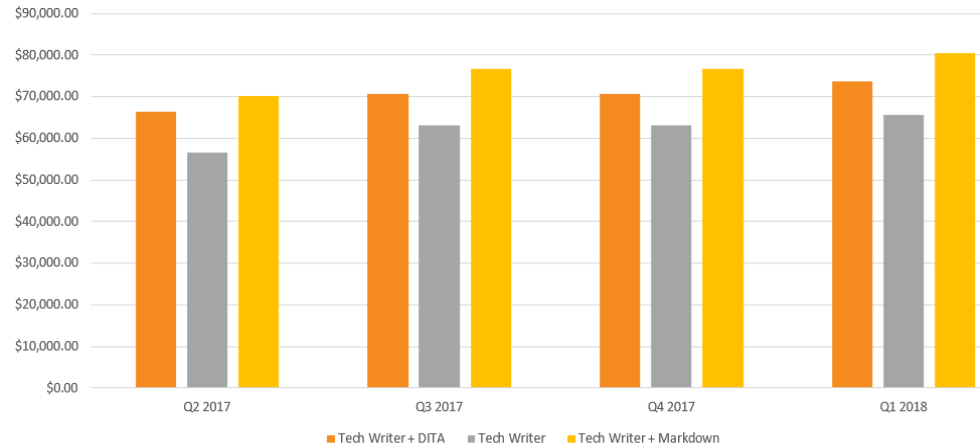


Markdown in Tech Docs More Prevalent

Rise of New Technologies/Tools in Technical Writer Job Postings on Indeed.com

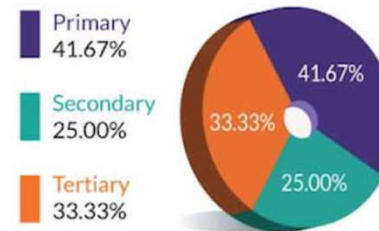


Avg. Wage Rates for Technical Writers + Specific Skill per Quarter from Q2 2014 - Q1 2018



Q2 What are the tools you use today to create content?

Markdown or similar



From the CIDM/DCL 2018 Following the Trends survey

- But one thing Markdown doesn't do at all: reuse!



Lightweight DITA (MDITA) to the Rescue!

- This is one of the scenarios that led to the development of Markdown-flavoured LwDITA (MDITA)
- Official OASIS Committee Note outlining usage is now available
- MDITA comes in two types:
 - MDITA Core (GitHub-flavored, no keys)
 - MDITA Extended (GitHub with YAML headers and keys)



The Future is Now

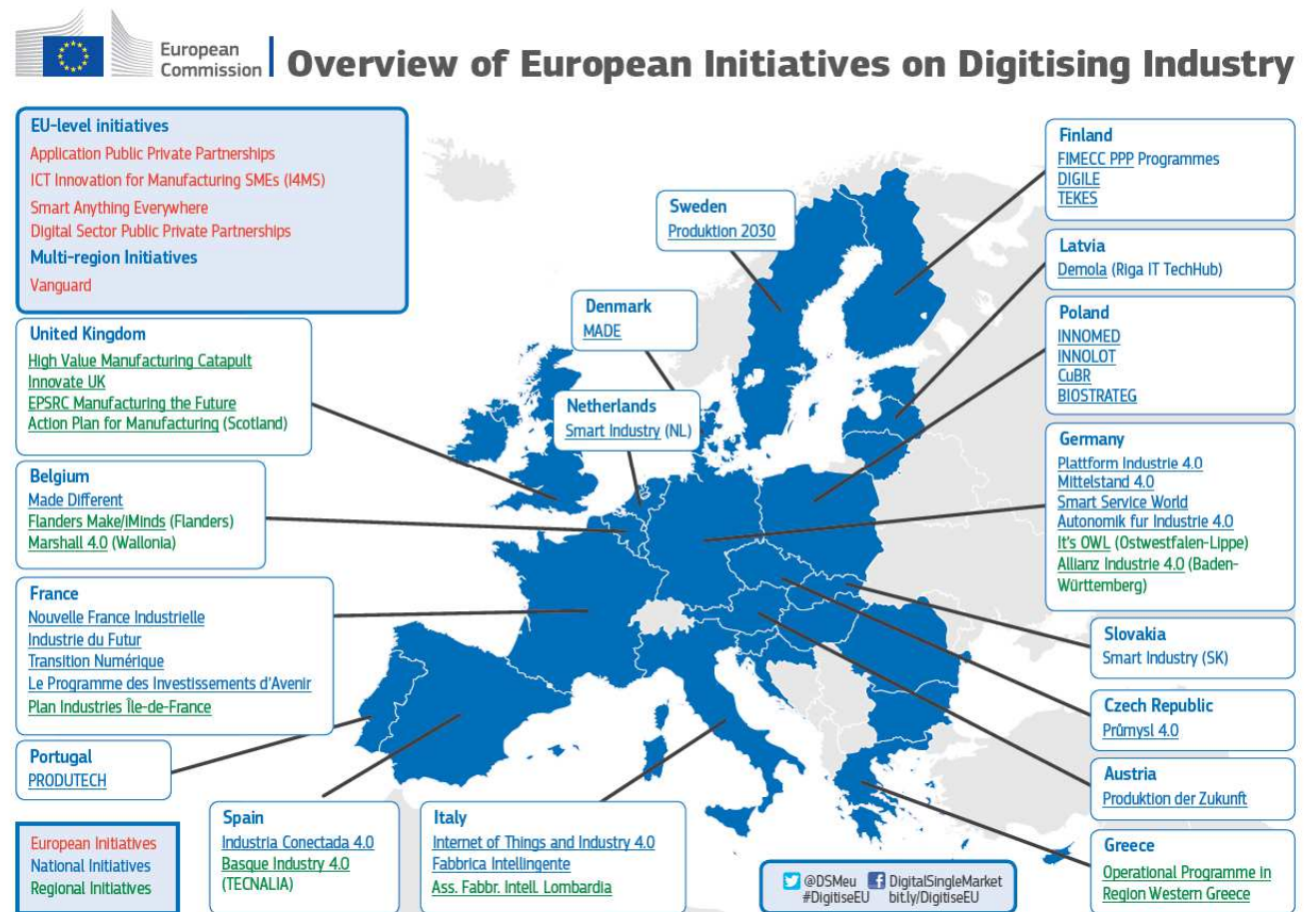
- Oracle is testing Markdown to DITA, and plans to trial MDITA later this year
- Other companies (primarily within the software sector) are also using Markdown and migrating the content to DITA





What is Information 4.0?

- Strong push for this within Europe, and while it may go under different names (as you see here in this EU infographic) in a nutshell it is about bringing together automation and data exchange within manufacturing systems





Best Single-slide Explanation of Information 4.0

Information 1.0	Information 2.0	Information 3.0	Information 4.0
One Format One Owner One Delivery One Publisher	Many Formats One Owner One Delivery One Publisher	Many Formats Many Owners Many Deliveries One Publisher	Many Formats Many Owners Many Deliveries Many Publishers
The Emergence of Content 4.0 for Industry 4.0			
Content 1.0 Publications	Content 3.0 Topics	Content 3.0 Components	Content 4.0 Molecules & Objects
 Illustration collaboratively produced by Marie Girard (IBM) & Joe Gollner (Gnostyx)			
Industry 1.0	Industry 2.0	Industry 3.0	Industry 4.0

- Industry 3.0 roughly represents where we are now
- Industry 4.0 is “smart content” where content is managed at a fine-grained level and incorporates information on how, when and where they behave

Image courtesy of Joe Gollner



Many Publishers, Collaborative Documentation

- Consider a device built from many parts from different manufacturers (such as a train diesel engine)
- Ideally, for maintenance purposes, it requires a manual that documents all of its component parts made by multiple manufacturers
- iiRDS can step in, creating: “dynamic documentation that can be assembled according to application and context”



Diesel train engine model from 3DHorse.com



What is iiRDS?

- iiRDS: “intelligent information Request and Delivery Standard”, designed to enable applications to exchange technical documentation across suppliers and devices
- Each real-world object is reflected in a digital asset *described* by iiRDS
- Firms create topics in bulk, and iiRDS describes these topics and their relationships, so that a document can be generated on demand based on context
- iiRDS metadata can also enrich content and enable semantic searches, search facets, etc.

tekom Request for Comments

iiRDS Specification

intelligent information Request and Delivery Standard



Request for Comments - 20 October 2017

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[RDF Schema](#)

Previous Version:

[First Public Working Draft](#)

Other Resources:

[Website](#)
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https://iirds.tekom.de/fileadmin/tekom_iirds/iirds_specification/index.html



DITA Code Samples with iIRDS

- With the parson DITA plugin, a new @qualification-role attribute is added to the DITA framework. In this example, the role is assigned to a table row:

```
<row information-  
subject="diagnostics"  
qualification-  
role="serviceTechnician">  
    <entry>The rotor does not  
turn even though the device is  
switched on.</entry>  
    <entry>The gear unit is  
damaged.</entry> <entry>Have the  
gear unit replaced.</entry>  
</row>
```

- Subject scheme maps provide the values for the attribute (customer-specific values in this case):

```
<subjectScheme>  
<subjectHead><subjectHeadMeta><navtitle>Skill  
level</navtitle></subjectHeadMeta>  
</subjectHead>  
<subjectdef keys="qualification-roleClass">  
    <subjectdef keys="service-technician">  
        <topicmeta><navtitle>Service  
technician</navtitle></topicmeta>  
    </subjectdef>  
    <subjectdef keys="operator">  
<topicmeta><navtitle>Operator</navtitle></top  
icmeta>  
    </subjectdef>  
</subjectdef>  
</subjectScheme>
```



About Chatbots and AI

- While a “sexy” topic at recent techcomm conferences, much of this is FUD:
 - They are *not* likely to replace technical writer jobs (though call-center staff should be worried)
 - Little understanding of the business fundamentals and scenarios in which they work best
 - More of a focus on its supposed potential than the mechanics
 - Consensus is that it is too early in development for immediate, widespread use





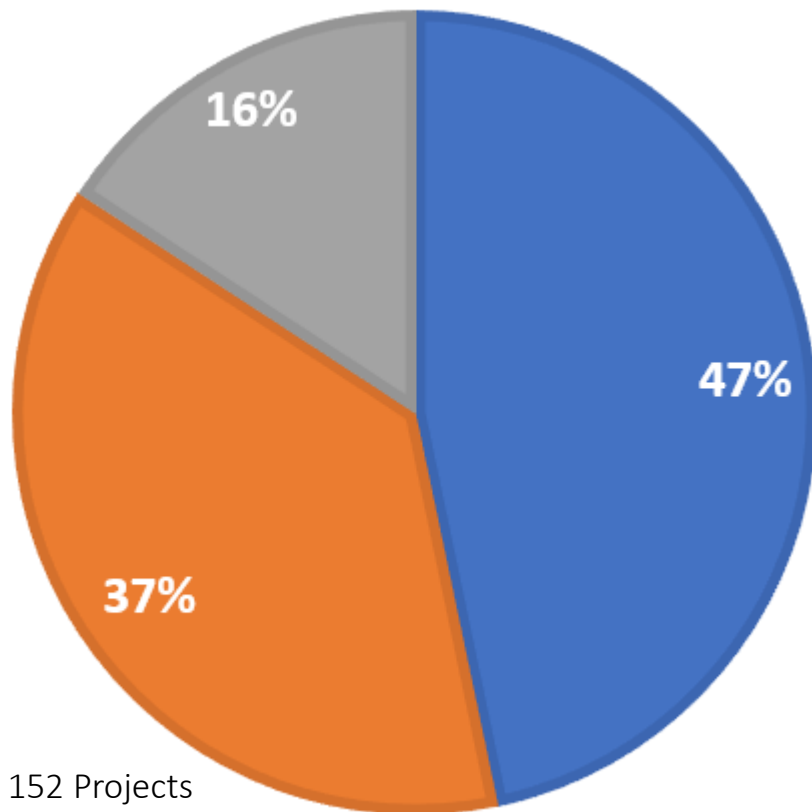
Business Capabilities and the Three Types of AI

- **Cognitive process automation:** typically back-office administrative and financial activities; e.g. “reading” legal and contractual documents using natural language processing
- **Cognitive insight:** detecting patterns in vast volumes of data and interpret their meaning; predict what a customer is likely to buy and pitch targeted ads
- **Cognitive engagement:** intelligent agents that offer 24/7 customer service addressing a broad and growing array of issues from password requests to technical support questions—all in the customer’s natural language



Harvard Business School Survey on AI Usage

COGNITIVE PROJECT DEPLOYMENTS BY TYPE



Count: 152 Projects

■ Cognitive process automation ■ Cognitive insight ■ Cognitive engagement

- “The companies in our study tended to use cognitive engagement technologies more to interact with employees than with customers. That may change as firms become more comfortable turning customer interactions over to machines.”
- Point being is that cognitive engagement chatbots are still very much an emerging technology, still considered too new within the business community for wide deployment *for now*.



Integrating DITA Content with Chatbots

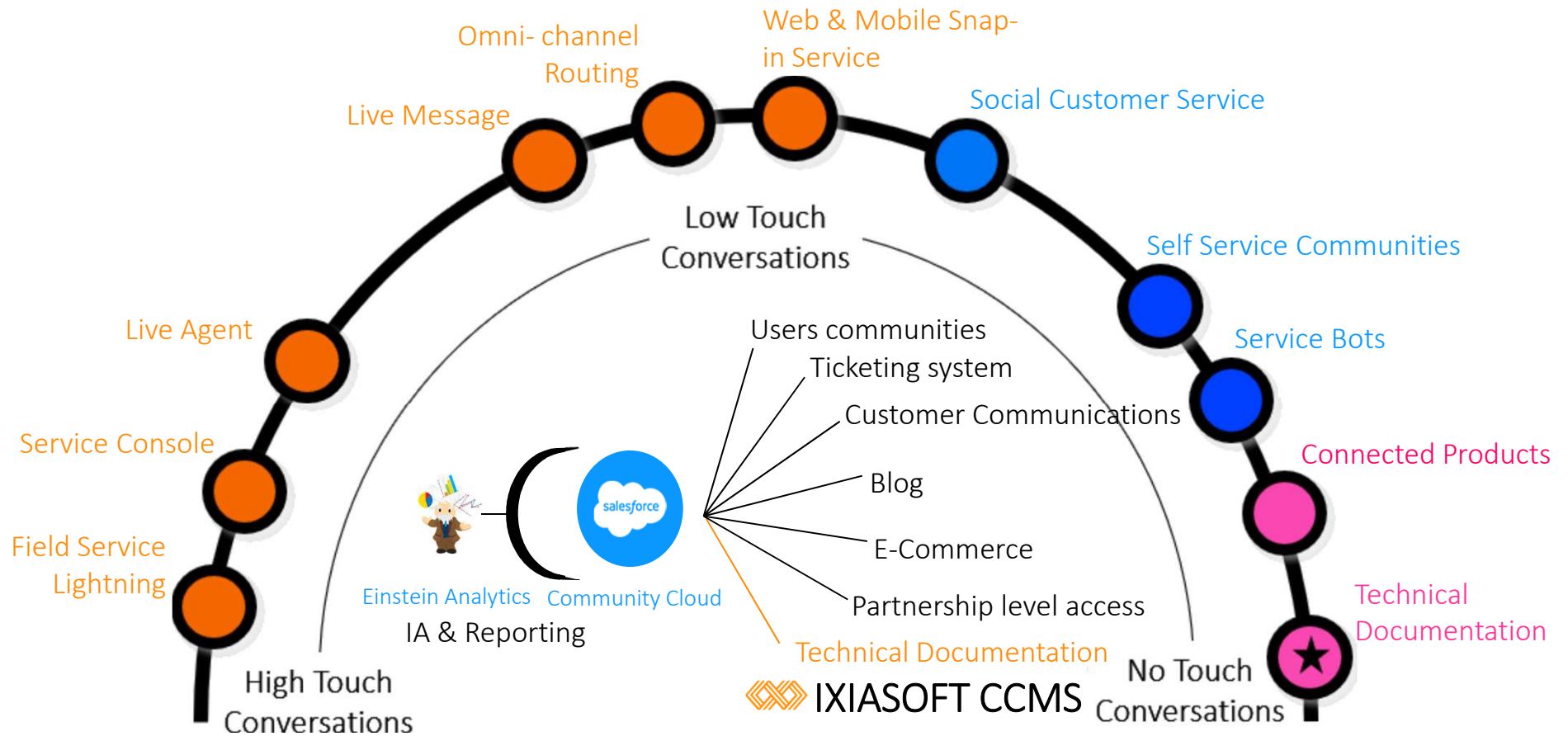
- Think of chatbots as a new, complementary channel for content delivery that works best with structured content
- DITA definitely has a role here; not directly in the chatbot “conversation”, but in providing technical content when it is needed



Image from
SoftBank Robotics US



Chatbots as *Part* of Overall User Experience





Are Chatbots Transformative?

- Potentially yes, but we are definitely in the *early* stages
- In the short term, *from a tech docs perspective*, it is likely to be rolled out as a complementary platform for answering users' queries
- From a business perspective, costs of failure are high; expect firms to be cautious when implementing chatbots



Image from icraftcorner.com



Q&A

- Blog on www.ixiasoft.com
- Twitter: @IXIASOFT and @KeithIXIASOFT
- IXIASOFT DITA CMS Users LinkedIn group
- OASIS DITA Adoption Committee articles
- Member of OASIS DITA Technical Committee



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