

# Content Strategy Applied



Oct 29-30, 2019  
San Jose, CA



platinum sponsors



PRECISION  
CONTENT.com

hosted by



PayPal

organized by



The Content  
Wrangler

## Supporting the Information-enabled Enterprise Re-engineering for Better Flow with Microcontent

Rob Hanna, Precision Content @CSA 2019

# Rob Hanna

Co-Founder and Chief Information Architect at Precision Content

2014 STC Fellow

Voted into the Top 25 Global Content Experience Influencers for 2017

Helping our clients empower their people through better content, processes, and technology

Twitter: @singlesourceror



THAT MATTER MOST  
IN THE  
DIGITAL CONTENT  
INDUSTRY

# Session agenda

Information-enablement through intelligent microcontent

In this session, you will learn about

- microcontent principles
- Enterprise Content Metamodel, and
- microcontent structures.

# What is information enablement?

The key for highly-competitive, Exponential Organizations (ExO)<sup>1</sup> is to reach a level of information enablement that allows them to disrupt their industries.

It is information-enablement that will drive these organizations to improve the flow of information across all areas of their business to leverage advances in artificial intelligence and omnichannel delivery – reaching all corners of their enterprise.

*This flow will necessitate the distillation of its high-value content into constituent components of **microcontent** that can transcend traditional content silos.*

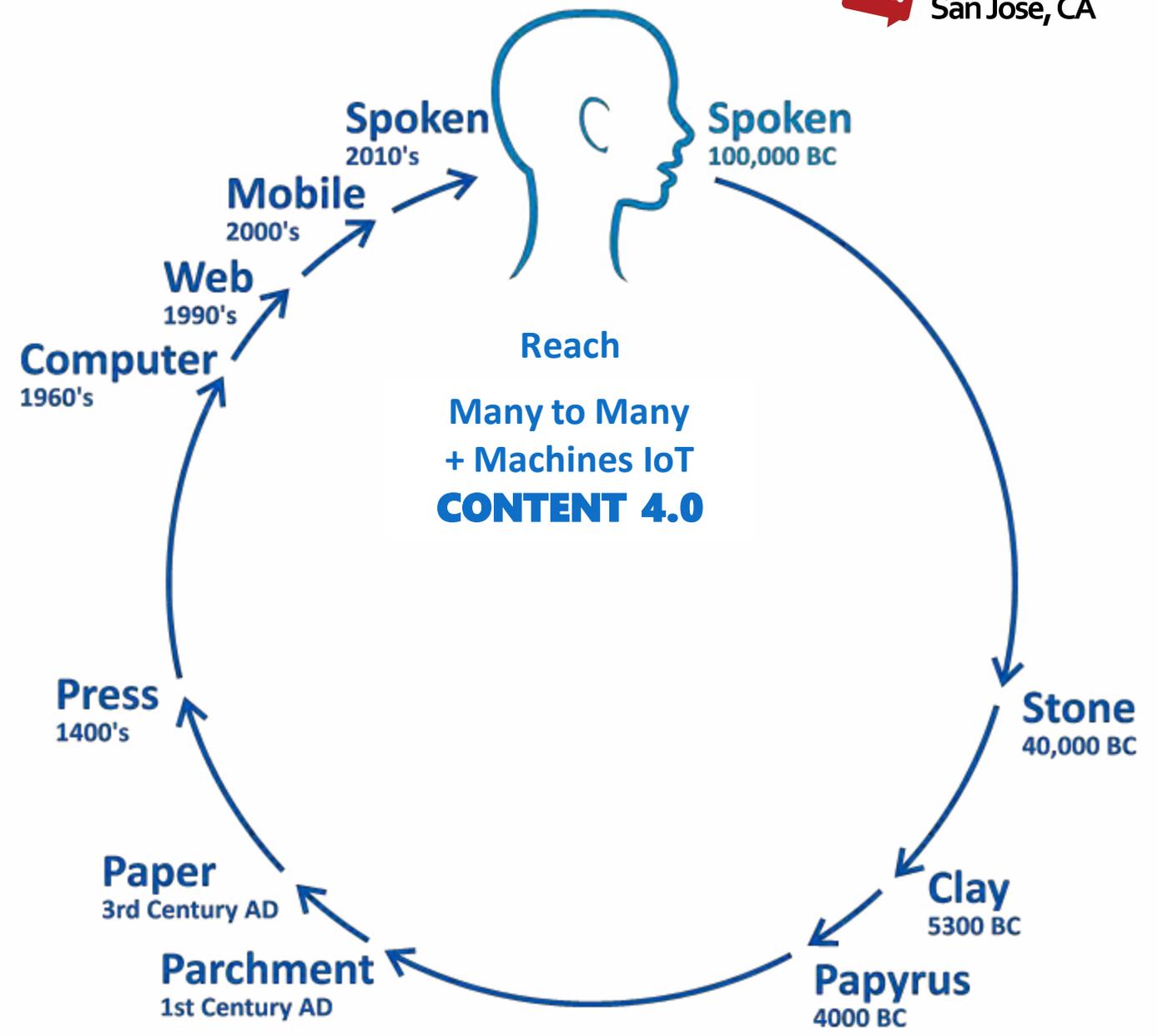


<sup>1</sup> Exponential Organizations, by Salim Ismail, Michael S. Malone, et al. 2014

# Brief history of content

What goes around ...

*... comes around*



# Complexity of content grows bigger



Scroll

Codex

Document

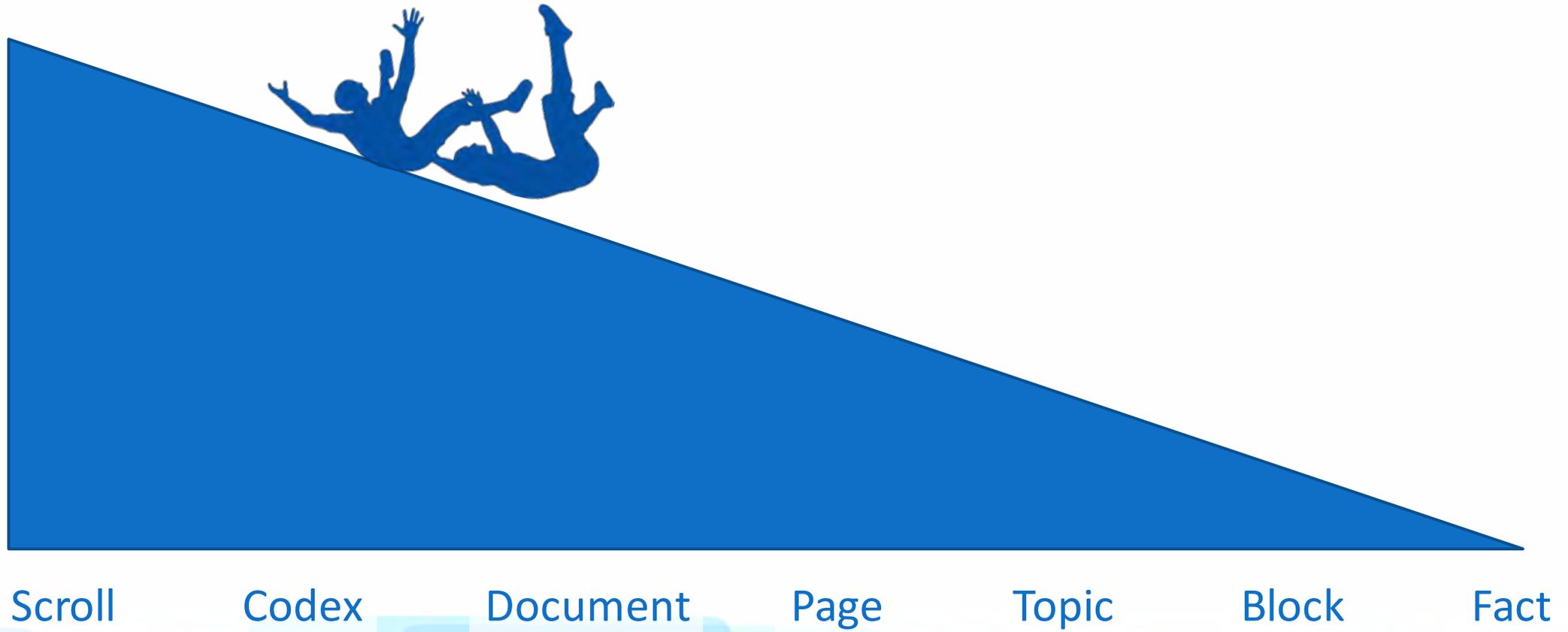
Page

Topic

Block

Fact

# Units of content get smaller



# Volume of content grows exponentially

80% of this is *Dark Data* ...

Inaccessible ROT

- R – redundant
- O – obsolete, or
- T – trivial

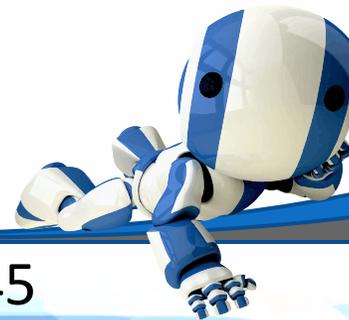
1700

1900

1945

2014

2020



# Will Artificial Intelligence be the Answer?

*How will AI make sense of our content when we can barely make sense of it ourselves?*

**TIME**  
SPECIAL EDITION

## Artificial Intelligence

The Future of  
Humankind



CSA

Oct 29-30, 2019  
San Jose, CA



Cover: Special Edition of TIME Magazine  
Editor: Nancy Gibbs, 2017  
Available on newsstands

# Robots writing fake news

In mid-February 2019, researchers at the OpenAI project unveiled an AI-driven deep learning application that can make up stories that could pass for human-authored content.

The OpenAI team says<sup>1</sup> their system

- sets a record for performance on Winograd schemas
- achieves near-human performance on the Children’s Book Test, and
- generates its own text, including highly convincing news articles and Amazon reviews.

“Due to our concerns about malicious applications of the technology, we are not releasing the trained model”, OpenAI blogged.

While many of the apparent short-comings of the demo appeared to be minor for an early demonstration of the technology, one stood out above the others – it could not research stories on its own – it had no capacity to determine what was real.



<sup>1</sup>An AI helped us write this article, Kelsey Piper, Feb 14, 2019

<https://www.vox.com/future-perfect/2019/2/14/18222270/artificial-intelligence-open-ai-natural-language-processing>



Companies that can leverage AI  
to increase the speed and  
precision of the flow of  
information are ushering in the  
next industrial revolution.

Wes O'Donnell - Managing Editor, InCyberDefense - August 15, 2019

# Microcontent

Is content that is

- about one primary idea, fact, or concept
- easily scannable
- labelled for clear identification and meaning, and
- *appropriately written* and formatted for use anywhere and any time it is needed.

**It's not microcontent just because it's small**



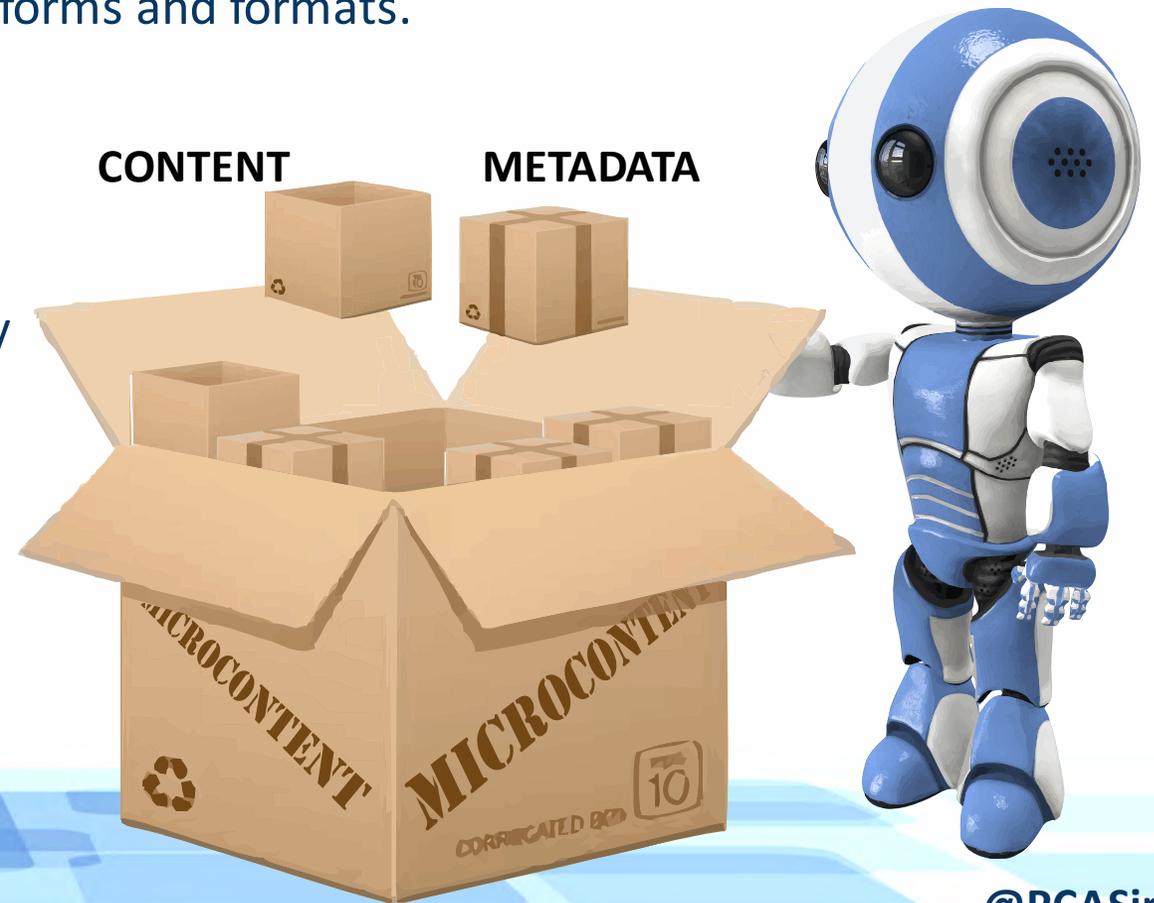
# Microcontent as a medium for exchange

Microcontent is not strictly an input nor an output format. Instead, microcontent is a medium for exchanging information across different platforms and formats.

Units of microcontent need to contain

- piece of standalone content, and
- metadata records.

Content and metadata need to be automatically extracted at publishing time.



# Content as a Service (CaaS)

Content as a service is a service-oriented model where the service provider hosts collections of content in the cloud and delivers the content on demand to the service consumer via web services.

This serves as a centralized repository where content has been optimized for delivery against any number of source formats. The content and associated metadata are extracted and normalized so that other services can more readily consume that content on demand.

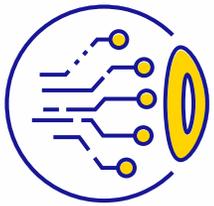
CaaS is more commonplace in content marketing where content is served via subscription.

The CaaS model is well suited meet the needs of

- mobile apps
- omnichannel publishing, and
- conversational UIs.

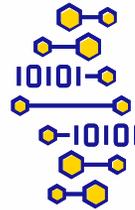


# Four Principles of Intelligent Microcontent



## 1. Focus

Limit microcontent to a single answer to a question



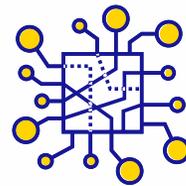
## 3. Structure

Use predictable patterns and language



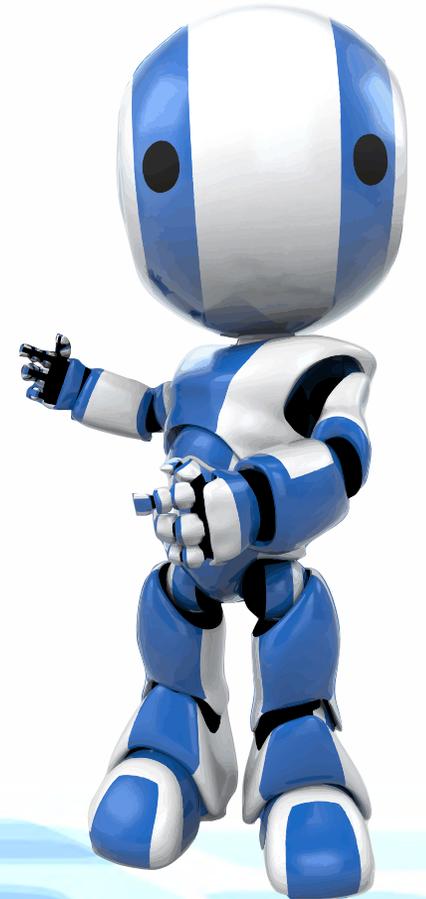
## 2. Function

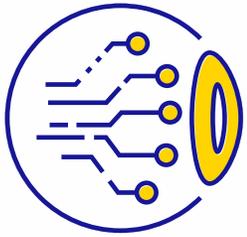
Classify microcontent to identify intended user response



## 4. Context

Make microcontent easily relatable to other content





# Focus

Microcontent must be about only one thing



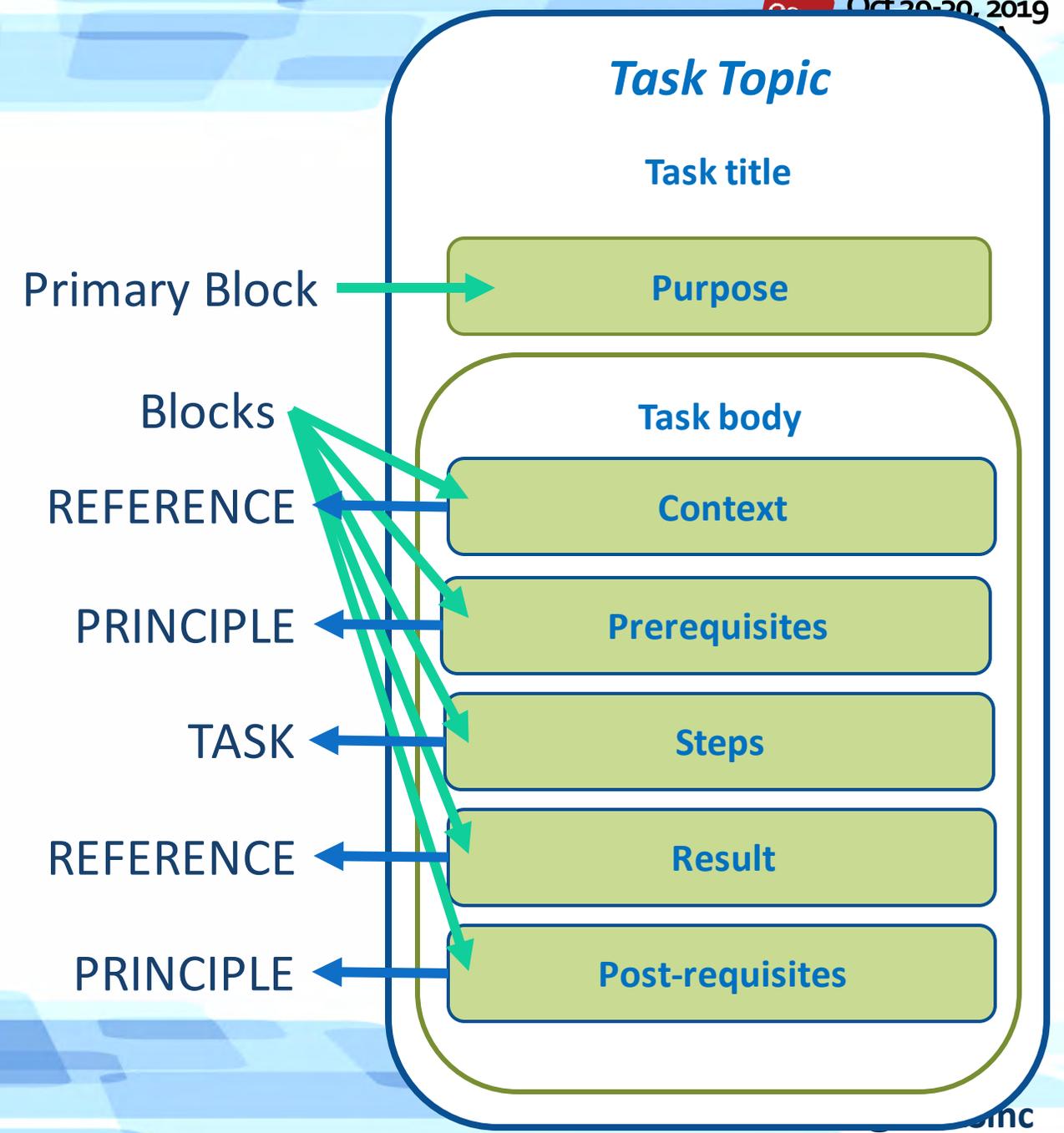


# Topic architecture

Consider what happens if we focus writing at the block-level within topics

The short description supports the title of the topic as a block

Every block is an information type supporting the topic





# Difference between topics and blocks

## TOPICS

All content is authored, reviewed, and approved as a topic

Topics represent individual files that are versioned and uniquely identified

Topics consist of one or more blocks

Topics represent a unit of work

Topics can be reduced to a block

Topics are suitable for publishing to print and online as pages

## BLOCKS (MICROCONTENT)

All content exists inside blocks contained within topics

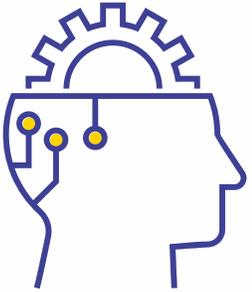
Blocks are virtual as part of a topic or referenced by a topic

Blocks exist in one or more topics

Blocks are a medium for interchange

Blocks can be expanded to a topic

Blocks are suitable for publishing to chatbots and automated assistants as responses

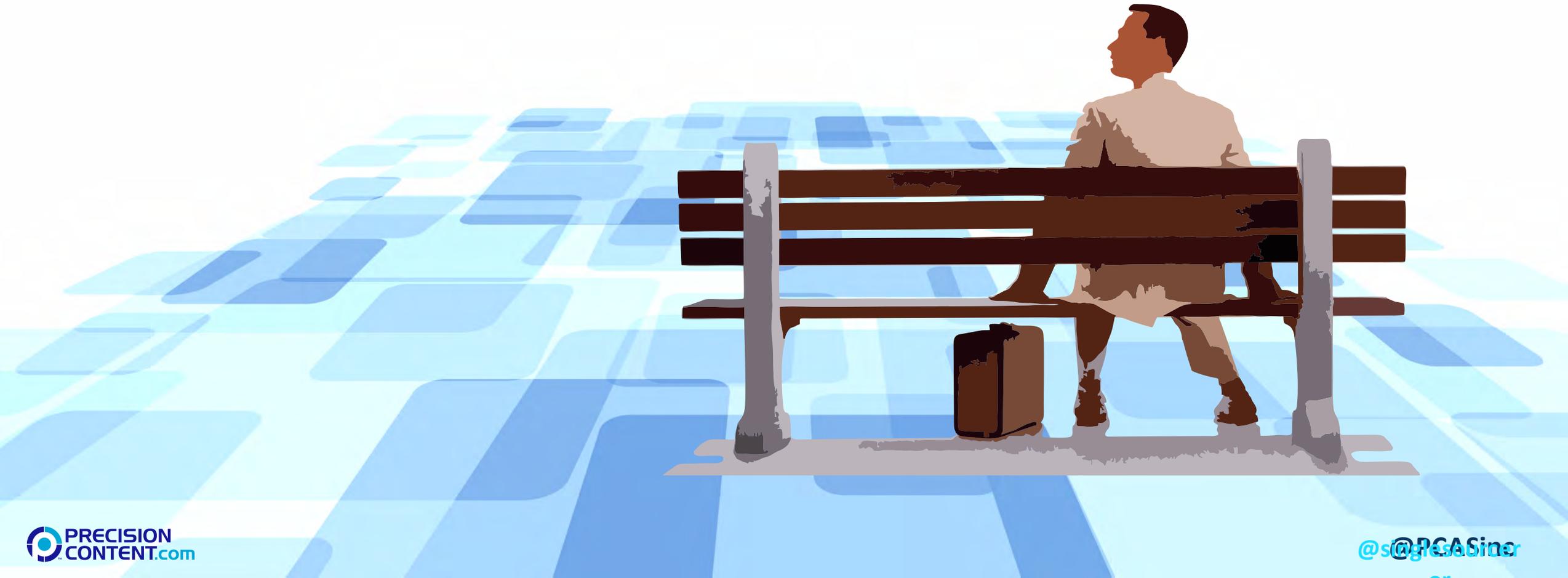


# Function

Microcontent must be categorized to identify user intent



# Information is what information does





# Making a Cup of tea

What is the ...  
*Intended Reader  
Response?*



**2<sup>nd</sup> Person, present tense**

*... to instruct you on how to make tea.*

**3<sup>rd</sup> Person, present tense**

*... to describe to you how tea is made.*

**1<sup>st</sup> Person, past tense**

*... to engage you in a story about tea.*



# Precision Content information types



## Reference

- DESCRIBES things the reader needs to KNOW



## Process

- ILLUSTRATES things the reader needs to UNDERSTAND about how things work, and



## Task

- INSTRUCTS the reader on how to PERFORM steps to get things done



## Principle

- ADVISES the reader about what they need TO DO or NOT DO and WHEN.



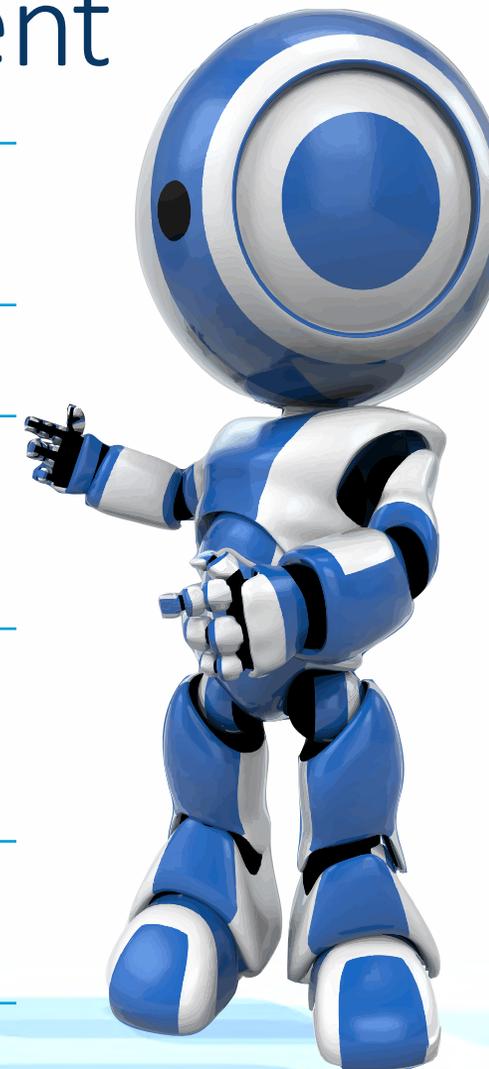
## Concept

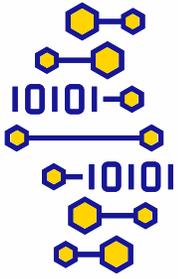
- EXPLAINS things the reader needs to COMPREHEND



# Information Typing Informs Intent

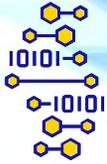
Concept	Example Definition Contrast	What is a...? What is important about...? What's the difference between...?
Task	Steps Resolution	How do I...? What is the outcome of...?
Reference	Result Outcome Purpose Description	What is this about? What does it do? What are the facts of...?
Process	Stages When/Then	Why am I performing this task? Who performs this task? How does this work? What happens when...?
Principle	Applicability Statement	What must I do if...? What must I not do if...? When must I...?





# Structure

Microcontent must use predictable patterns and language



# Excerpt from a medical journal...

pN3 description only closely mirrors descriptions for pN3a + pN3b + pN3c

Use of footnotes confusing

“Clinically detected” and “Not clinically detected” are not exact opposites, and

Inconsistent enumeration of lymph nodes

pN2	Metastases in 4-9 axillary lymph nodes; or in clinically detected**** internal mammary lymph nodes in the absence of axillary lymph node metastases	**** "sn" is used only if a sentinel node evaluation was performed after treatment. If no subscript is attached, it is assumed that the axillary nodal evaluation was by axillary node dissection (AND). The X classification will be used (ypNX) if no yp post-treatment SN or AND was performed. N categories are the same as those used for pN.
pN2a	Metastases in 4-9 axillary lymph nodes (at least one tumor deposit greater than 2.0 mm)	
pN2b	Metastases in clinically detected**** internal mammary lymph nodes in the absence of axillary lymph node metastases	
pN3	Metastases in ten or more axillary lymph nodes; or in infraclavicular (level III axillary) lymph nodes; or in clinically detected**** ipsilateral internal mammary lymph nodes in the presence of one or more positive level I, II axillary lymph nodes; or in more than three axillary lymph nodes and in internal mammary lymph nodes with micrometastases or macrometastases detected by sentinel lymph node biopsy but not clinically detected****; or in ipsilateral supraclavicular lymph nodes	<b>Distant Metastases (M)</b> M0 No clinical or radiographic evidence of distant metastases cM0(+) No clinical or radiographic evidence of distant metastases, but deposits of molecularly or microscopically detected tumor cells in circulating blood, bone marrow, or other nonregional nodal tissue that are no larger than 0.2 mm in a patient without symptoms or signs of metastases

pN3 Metastases in ten or more axillary lymph nodes; or in infraclavicular (level III axillary) lymph nodes; or in clinically detected\*\*\*\* ipsilateral internal mammary lymph nodes in the presence of one or more positive level I, II axillary lymph nodes; or in more than three axillary lymph nodes and in internal mammary lymph nodes with micrometastases or macrometastases detected by sentinel lymph node biopsy but not clinically detected\*\*\*\*; or in ipsilateral supraclavicular lymph nodes

pN3a Metastases in ten or more axillary lymph nodes (at least one tumor deposit greater than 2.0 mm), or metastases to the infraclavicular (level III axillary lymph) nodes

pN3b Metastases in clinically detected\*\*\*\* ipsilateral internal mammary lymph nodes in the presence of one or more positive axillary lymph nodes; or in more than three axillary lymph nodes and in internal mammary lymph nodes with micrometastases or macrometastases detected by sentinel lymph node biopsy but not clinically detected\*\*\*

pN3c Metastases in ipsilateral supraclavicular lymph nodes

- Notes:
- \*\*\*\* "Not clinically detected" is defined as not detected by imaging studies (excluding lymphoscintigraphy) or not detected by clinical examination.
  - \*\*\* "Clinically detected" is defined as detected by imaging studies (excluding lymphoscintigraphy) or by clinical examination and having characteristics highly suspicious for malignancy or a presumed pathologic macrometastasis based on fine needle aspiration biopsy with cytologic examination.



# After restructuring ...

44.2% reduction in word count

20% reduction in passive voice

18.4% increase in Flesch Reading Ease score

30% increase in white space

Elimination of footnotes, and

Addition of labels and visual elements

## Metastases

### Pathological node level 3 definitions

The following table is used by clinicians to classify metastases found in regional lymph nodes.

Node level...	Which includes...	Describes metastases found in...
pN3	pN3a	10 or more axillary lymph nodes where at least one deposit is greater than 2.0 mm. any number of infraclavicular (level III axillary) lymph nodes.
	pN3b	<ul style="list-style-type: none"><li>any number of ipsilateral internal mammary lymph nodes detected by<ul style="list-style-type: none"><li>clinical exam</li><li>fine needle aspiration biopsy, or</li><li>imaging study, and</li></ul></li><li>any number of level I or II axillary lymph nodes.</li></ul>
	pN3c	Any number of ipsilateral supraclavicular lymph nodes.



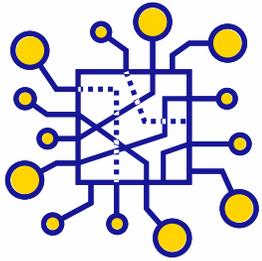
# What's behind the content

With specially-designed XML markup, machines can now easily parse this content into any number of types of healthcare applications.

**Content is human- and machine-ready!**

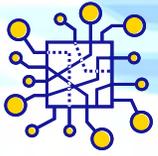
Specialized DITA XML identifies the specific values laid out in the previous table

```
<cs-tmn-categories>
  <cs-tmn-category>pN3</cs-tmn-category>
    <cs-tmn-subcat>pN3a</cs-tmn-subcat>
      <cs-tmn-criteria>10 or more axillary lymph nodes
        where at least one deposit is greater than
        2.0mm</cs-tmn-criteria>
      <cs-tmn-criteria>any number of infraclavicular
        (level III axillary) lymph nodes.</cs-tmn-criteria>
    <cs-tmn-subcat>pN3b</cs-tmn-subcat>
      <cs-tmn-criteria>any number of ipsilateral internal
        mammary lymph nodes detected by ...</cs-tmn-criteria>
</cs-tmn-categories>
```

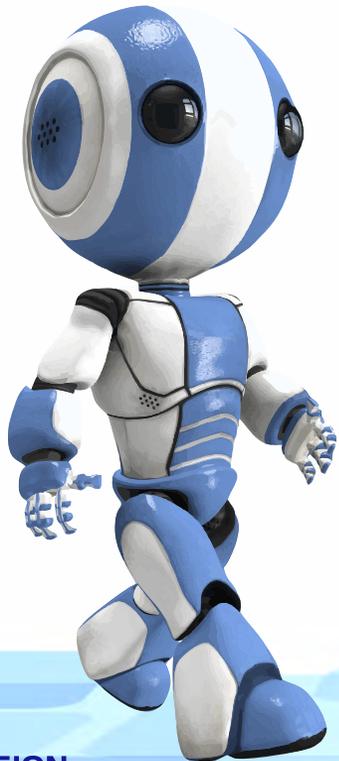


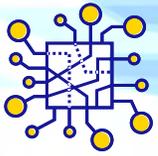
# Context

Microcontent must be easily relatable to other content



# Context from the source



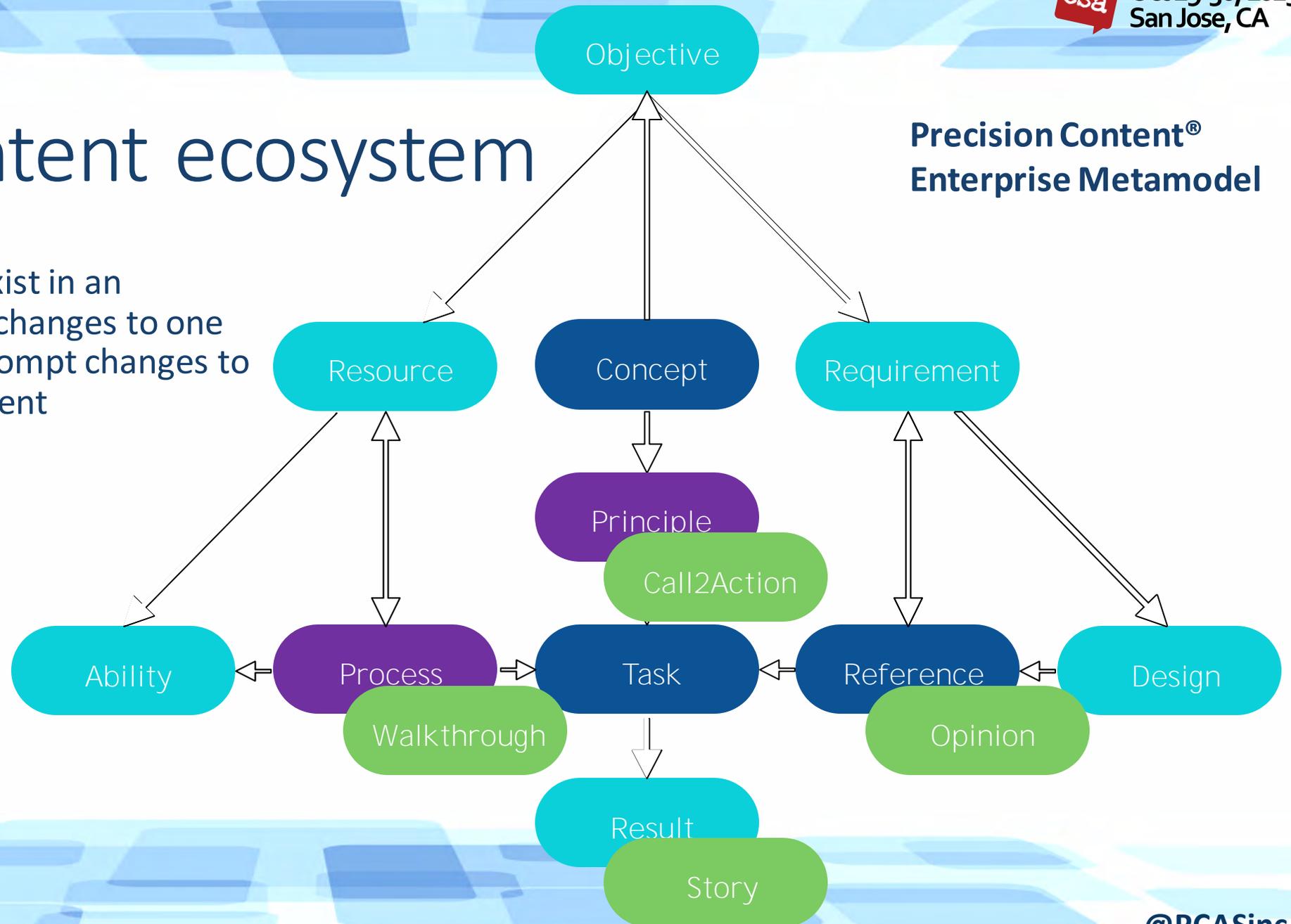


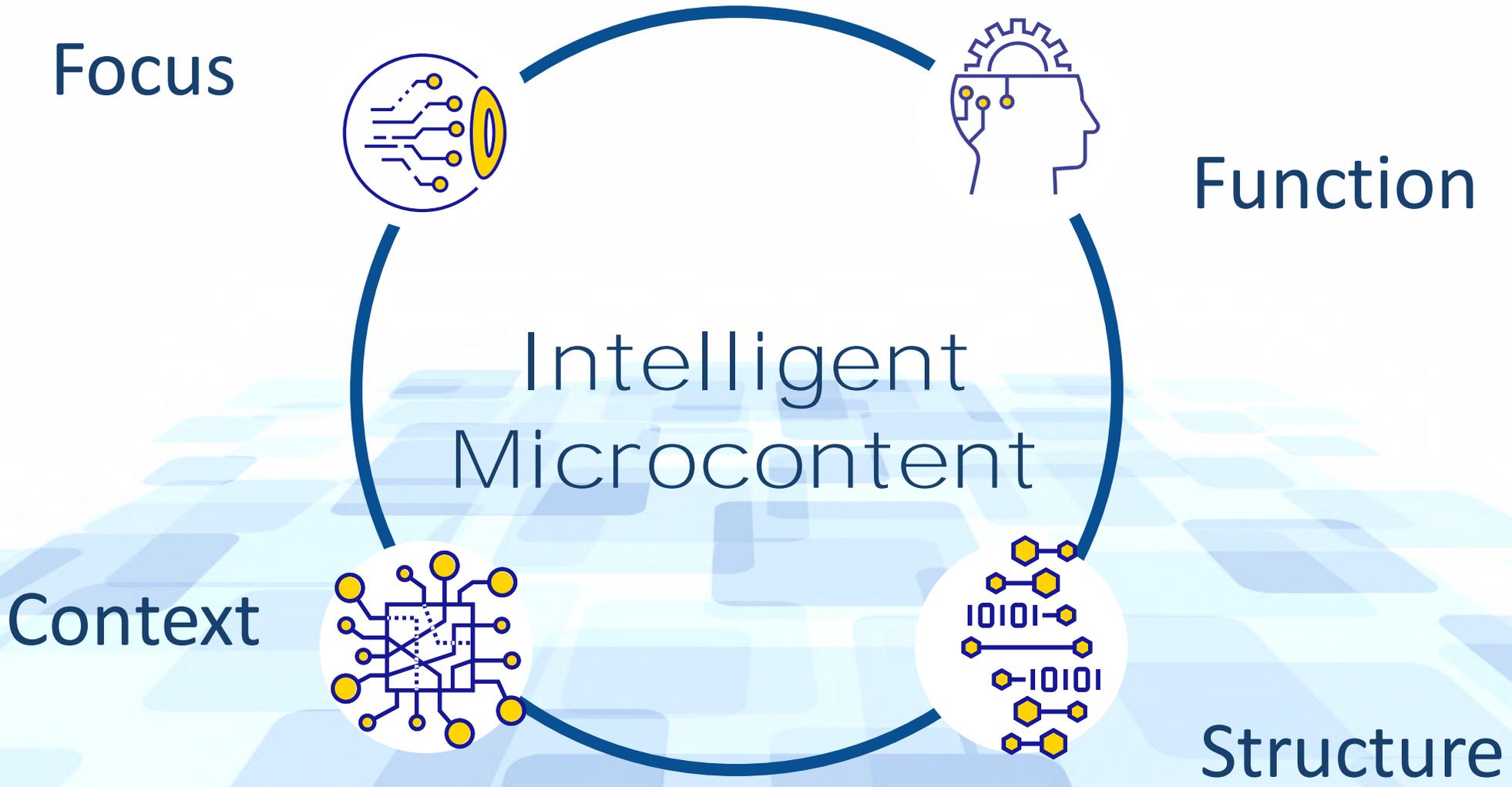
# Our content ecosystem

Precision Content®  
Enterprise Metamodel

Content objects exist in an ecosystem where changes to one type of content prompt changes to other related content

- DITA
- PCDITA
- Enterprise
- Marketing





# Microcontent publishing

# Microcontent management system



The screenshot shows the WittyParrot web interface. The main content area displays a document titled "Ordered lists: Rules of ord...". The content is circled in yellow and labeled "CONTENT". The content includes a metadata field "Last modified by Tim Grantham on 10/27/2017 at 1:03:38 PM" and a list of instructions: "Write ordered lists using these rules:" followed by three bullet points: "write the list items in the correct sequence", "number each list item, and", and "do not add grammar to the list." The right sidebar is also circled in yellow and labeled "METADATA". It contains sections for "FACETS" (Principle), "TAG CLOUD" (a word cloud with "ordered lists" being prominent), and "HISTORY" (New Version Created for Wit on Oct 27, 2017 1:03:39 PM by Tim Grantham).

WittyParrot stores content and metadata in containers called Wits.

Content can be authored or loaded from Office documents or DITA content using our WittyDITA plug-in.

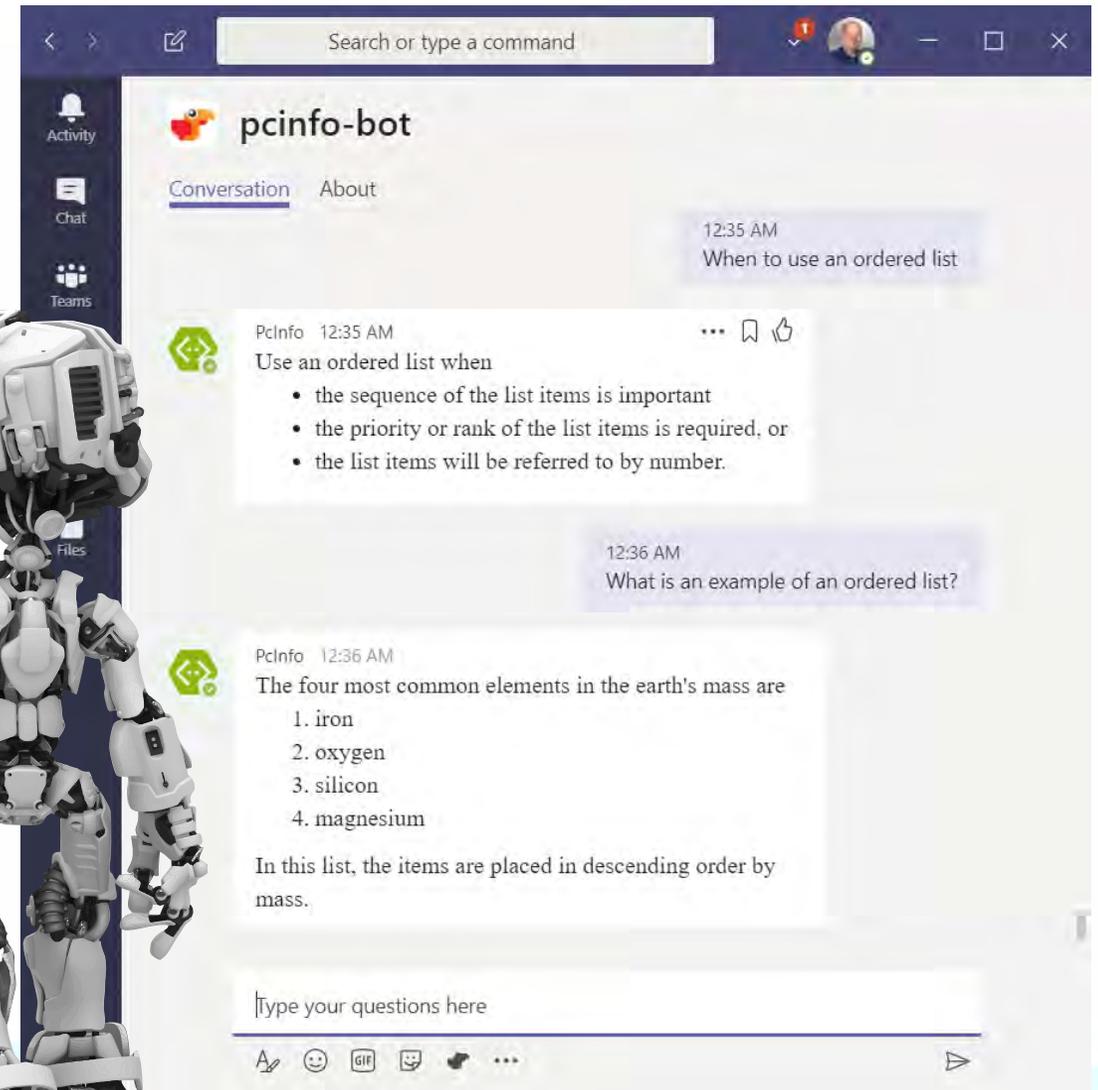
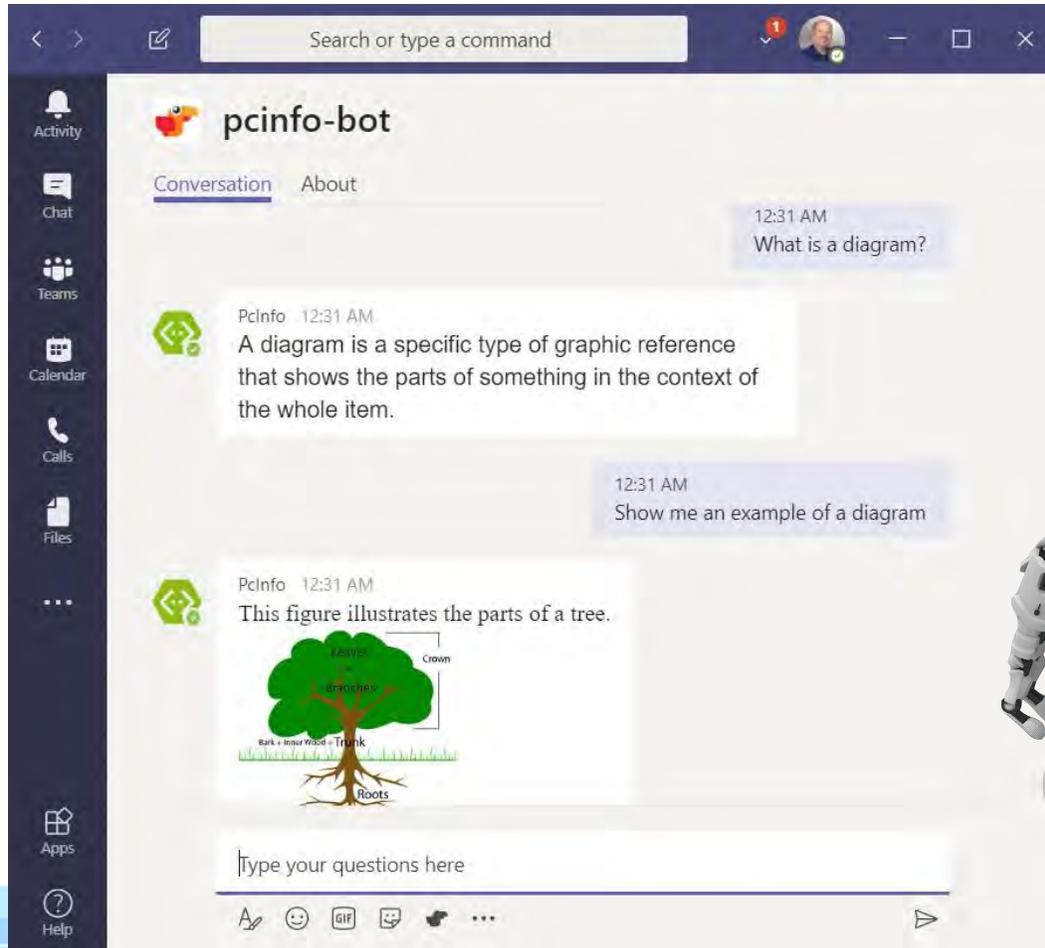
These Wits become searchable and servable across many channels such as

- Chatbots
- Microsites
- Office 365
- Dynamics
- Salesforce, and more.

# Render as a microsite

The screenshot shows a web browser window with two tabs: 'WittyParrot' and 'PcContentMS'. The address bar shows the URL: <https://microsite.wittyparrot.com/microsite/43d256d1-9467-4e8a-ba1f-aff4c8>. The page header includes the Precision Content.com logo and the title 'PcContentMS'. The breadcrumb trail is 'Home > PcContentMS'. A search bar contains the text '3 by 3 rule'. The main content area is divided into three columns. The left column is titled 'GROUP BY PAGE GROUP' and lists 'WriterGuide (4)' and 'Sales & Marketing (2)'. The middle column contains three sections: '3 by 3 rule: Statement' (repeated), '3 by 3 rule: Examples' (with text: 'Here are examples of lists constrained by the 3 by 3 rule. List with more than three'), and 'Inline lists: Examples of an inline list' (with text: '"The baker assembles the ingredients for'). The right column is titled '← 3 by 3 rule: Statement' and contains the text 'Write items as a list only if' followed by a bulleted list: '• there are more than three items or' and '• any of the items is more than three words long.'. On the far right, there are icons for 'Files' (with a red notification bubble) and 'Print'.

# Render as chatbot

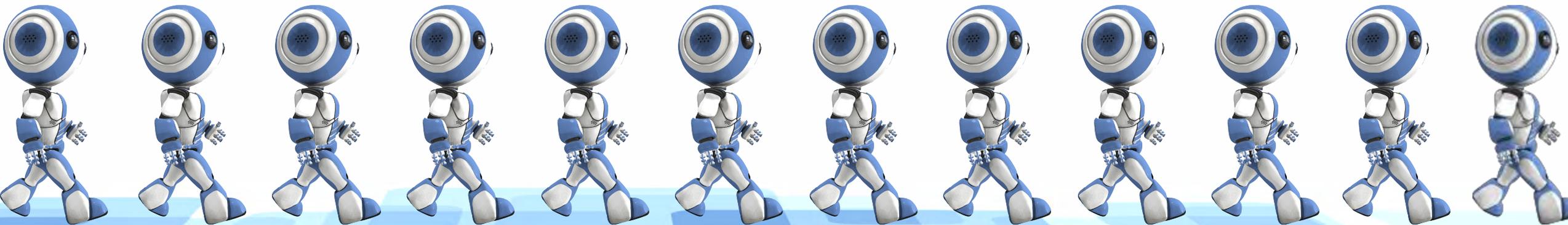


# Render as slides



A screenshot of a web browser displaying a slide titled "Constructing Paragraphs". The browser tabs include "WittyParrot", "PcContentMS", and "Content Services | Precision Co". The address bar shows "https://wit.wittyparrot.com/wit/preview/3f5060c7-6fb6-424a-98...". The slide content includes a list of guidelines for paragraph construction and a Precision Content logo in the bottom left corner. The browser interface shows a search bar, navigation icons, and a sidebar with various document management tools. The slide footer indicates "SLIDE 1 OF 1".

**Our journey towards  
microcontent is simply  
the next step in the evolution  
of intelligent content needed to  
support omnichannel delivery.**

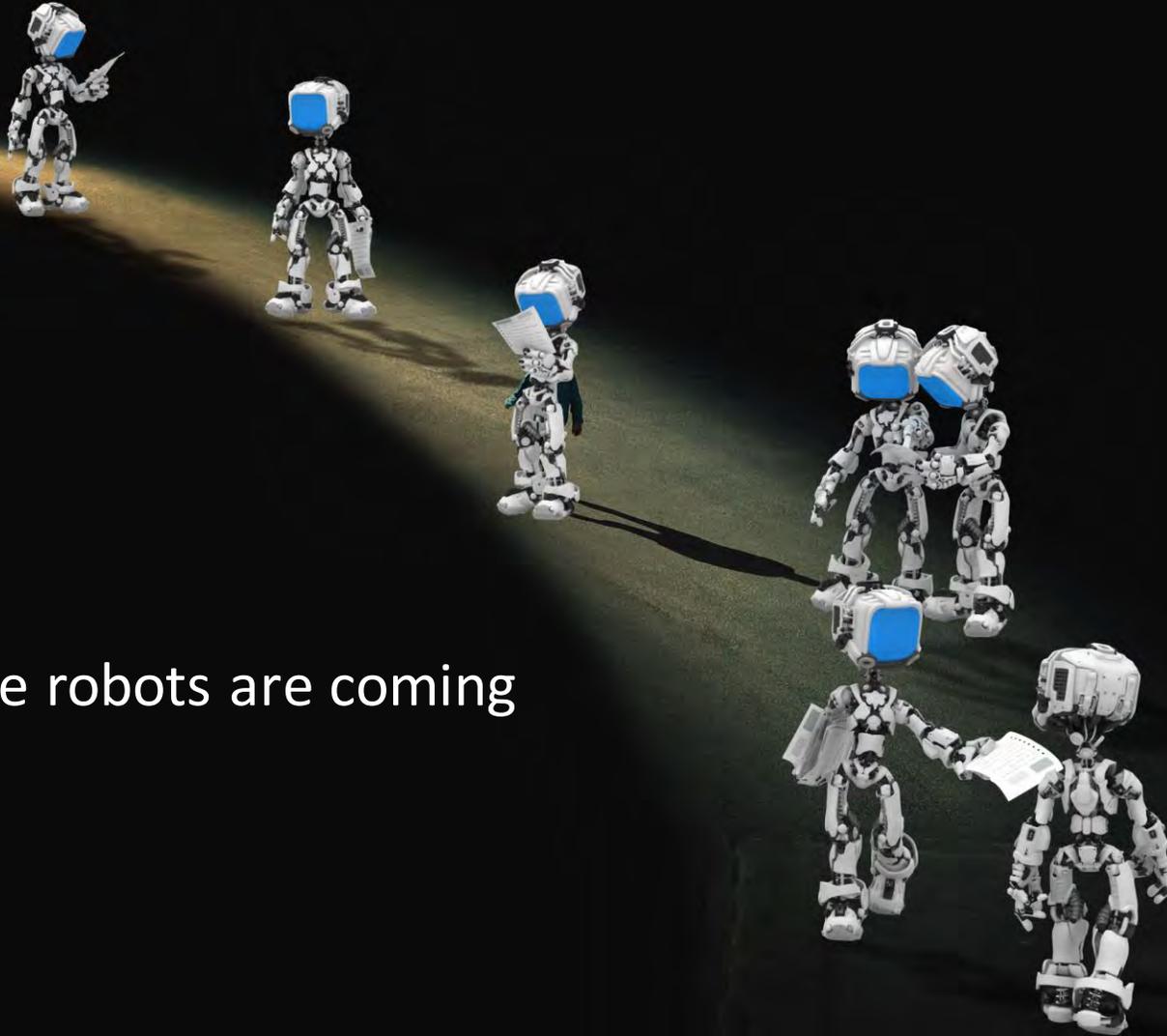


# Microcontent will change how we work with information

Create and publish microcontent to your enterprise to improve usability and precision of your content, and future-proof your content for what lies ahead.

See your high-value microcontent published by  
Sales and marketing  
Learning and development, and  
Technical publications.

The technology is coming. It won't slow down, and it won't solve this on its own.



The robots are coming

We can either learn how to write  
for both bots and humans or  
miss out on a transformational  
opportunity for our profession.

**DO YOU SPEAK ROBOT?**

# Questions?

Rob Hanna

Chief Information Architect

[rob@precisioncontent.com](mailto:rob@precisioncontent.com)

Precision Content

[www.precisioncontent.com](http://www.precisioncontent.com)

@singlesourceror



Ask me about ...



Information Architecture

Content Strategy



Content Transformation



Skills Training



Publishing Technologies



DITainPrint  
GET THE WORD OUT