Knowledge Graphs From the Perspective of Dialogic Marketing Communications

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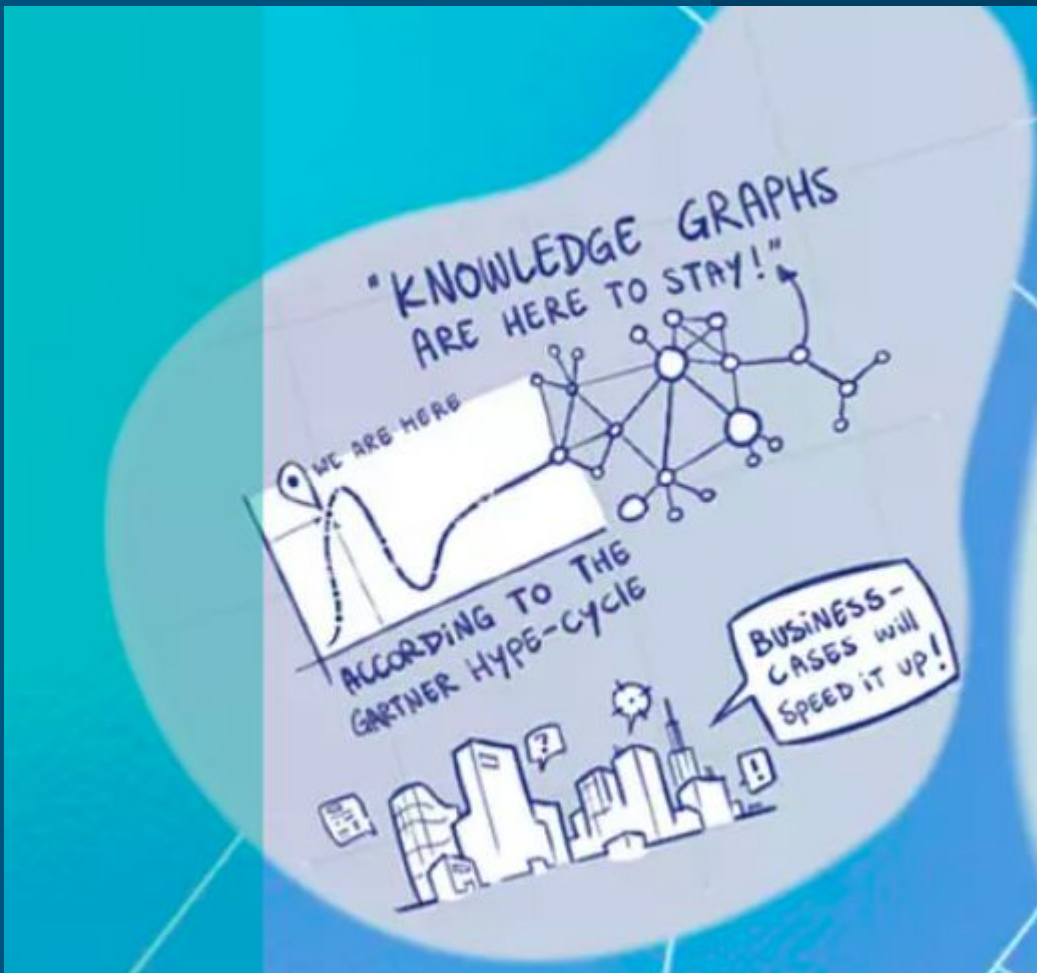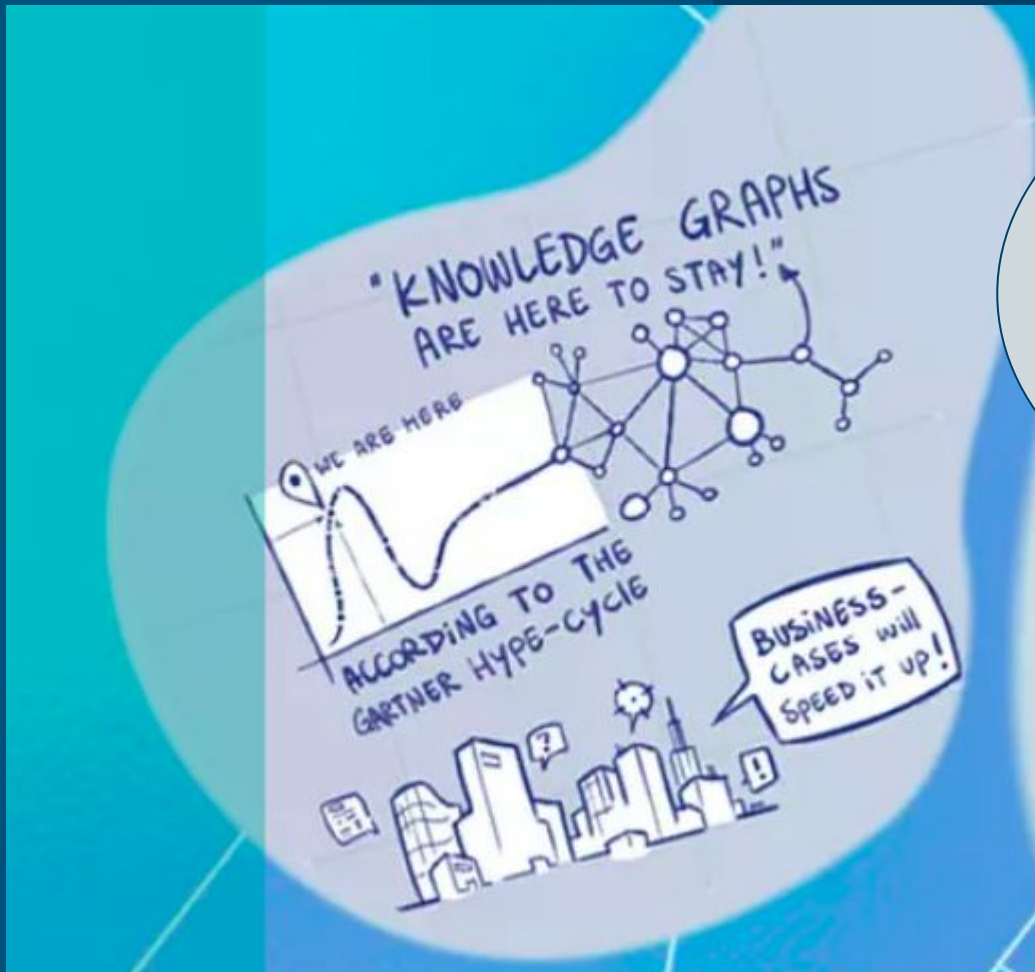
Research Relevancy

Research Problem

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Research Relevancy

Research Relevancy (3)

Awesome!
1. Can I have one for for marketing communications?

2. Wait! Do I need one?

1. **You could**, but more research and experiments are needed. Up to date we can learn from Salzburgerland and their twist of a knowledge graph for online marketing.
2. Wait! **YES.**

Academia answer:

In information-intensive environments, building relationships online is important for organizations that want their messages to be greeted and reciprocated by stakeholders

Sophisticated customer databases, when used properly, allow for interactive, open dialogue and the creation of personal relationships.

Knowledge management and customer relationship management show a high synergy potential in an integrated approach .

Industry answer:

Tell, Don't Sell [ref. Man in the Chair]

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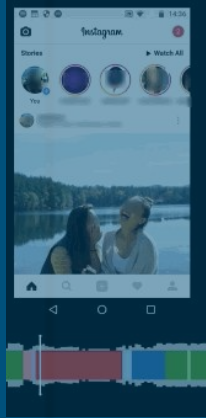# Before we start looking for answers...

Let's agree on the terms to avoid inconsistencies...

Research terms

Marketing Communications

Knowledge graph

Dialogue

"Whole" → Contextualisation → "Part" → Integration → "Whole"

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Research terms

Marketing Communications

- Marketing communications are the means by which a supplier of goods, services, values and/or ideas represents itself to its target audience with the goal of stimulating dialogue leading to better relationships \cite{egan_marketing_2019} by conveying messages that are relevant and significant

- For example, Smith and Taylor (2002) suggest Advertising, Sales Promotion, Publicity/Public Relations, Personal Selling, Direct Marketing, Sponsorship, Exhibitions, Packaging, Point of Sale/Merchandising, Word-of-Mouth, E-marketing, Corporate Identity

In my research, I am looking at these from the perspective of the **knowledge-related artifacts** (to use the KM paradigm of describing content) that enable marketing communications professionals to lead information-rich, meaningful dialogue with contextual and relevant knowledge, pertinent to the person with whom they interact.

In other words: What content do I create in each and every of this situation? And where do I get that content from?
[Academia translation: How are marketing communications ideated, planned and operationalized and what tools are used for these knowledge-intensive activities]

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Research terms

Dialogue

- One way to define dialogue is as a culturally and historically specific way of social discourse accomplished through the use of language and verbal transactions. In a dialogic interaction, the communication is looked not only from the perspective of the referential (descriptive) function of language, to use Jakobson's distinctions, but also but also from the phatic (interaction-driven) and metalingual (self-describing) functions of language.
- On the plane of public communication, dialogue is seen as a process towards coherence
- In marketing communications, dialogue is of strategic importance. The concept is an integral part of the theory of relationship marketing as a means for customer satisfaction and retention.

In my research, I look at dialogue as a factor for differentiation on the market. And I use Bohm's way of seeing dialogue:

"*In a dialogue, each person does not attempt to make common certain ideas or items of information that are already known to him. Rather, it may be said that the two people are making something in common, i.e., creating something new together.*"

In which we acknowledge:

"the free flow of meaning"

the inconvenient messiness of communication

The need for testing ground for the limits of assumed knowledge

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Research terms

Knowledge graph

- Knowledge graphs are critical to many enterprises today: They provide the structured data and factual knowledge that drive many products and make them more intelligent and magical. (Noy et al. 2019)
- A knowledge graph is a programmatic way of modelling a knowledge domain with the help of subject-matter experts, data interlinking, and machine learning algorithms. Used by several software giants, they are regarded as key enablers for various technologies including question answering, personal assistants and artificial intelligence across all sectors.
-

In my research, I look at the knowledge graph as a living system helping marketing communications professionals do their knowledge-intensive job better. That is:

1. Create relevant content
2. Take better decisions
3. Understand the customer and their communication and life scenario

Additionally, I view a company's knowledge graph not only as a proprietary system, but also a system that allows the organization to enrich the Web of data and ultimately share knowledge on the Web, rather than churn our content marketing pieces without thinking about their data (semantic annotation) aspect.

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Research Results

Theory intersections

Practical implications

A use case

A conceptualization of a knowledge graph for marketing communications

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Research Results

Theory Intersections

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Research Results

The EC activities–mechanism connection
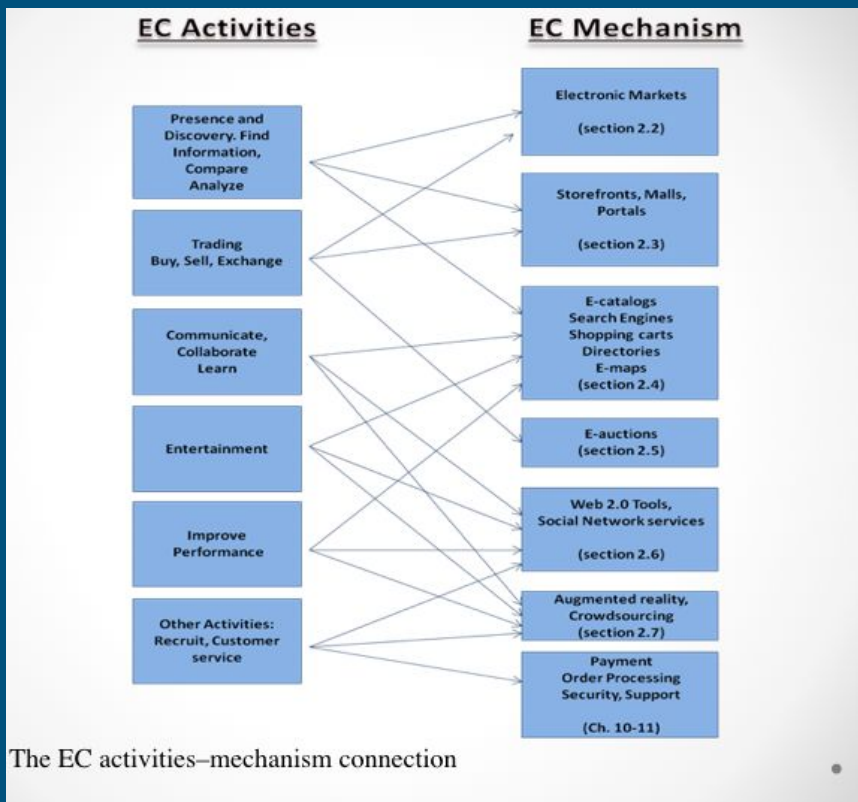
On a very abstract level, these are: a. Meaning b. Relationships. Knowledge.

At the level of content and customer relationships, these are: context-aware content, knowledge discovery, meaningful interaction across channels.

Research Results Theory Intersections

Mapping challenges in marketing communications on the Web to the affordances of the Semantic Web and its recent reincarnation (Sequeda, 2020) - knowledge graphs

Marketing communications need	Semantic Web main threads	Intersection value (thruogh semantic Web's reincarnation - knowledge graphs)
Meaningful interaction (as opposed to mass marketing one-way pitches)	Design of complex applications	Dynamically created content. Context-aware communication and decision making
Management of information flows (as opposed to manipulating the marketing mix)	Facilitate search	Search, navigation, immersive environments, knowledge bases.
Continuous engagement (as opposed to disparate transactions)	Interoperability	Continuum of interactions across channels, devices, flows

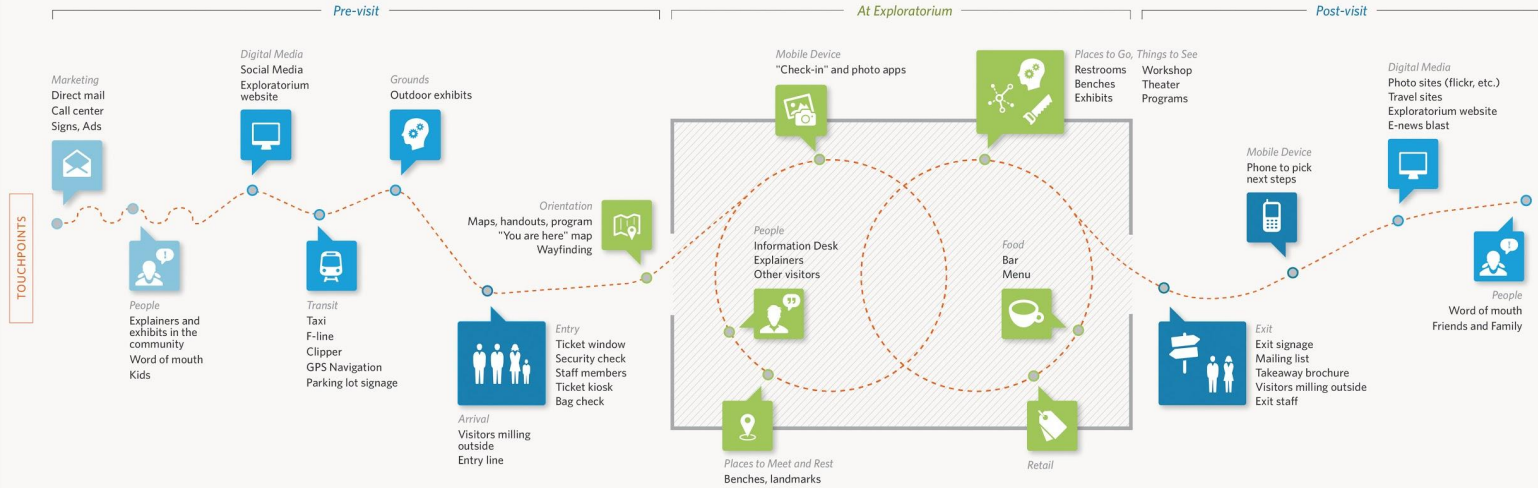**KGC** The Knowledge Graph Conference

Research Results

Practical implications

Some digital marketing communications touchpoints (engagement opportunities + Data points)

The Visitor Journey
Where are you supporting their needs and actions?

Pre-visit | At Exploratorium | Post-visit

TOUCHPOINTS

Marketing
Direct mail
Call center
Signs, Ads

People
Explainers and exhibits in the community
Word of mouth
Kids

Digital Media
Social Media
Exploratorium website

Transit
Taxi
F-line
Clipper
GPS Navigation
Parking lot signage

Grounds
Outdoor exhibits

Orientation
Maps, handouts, program
"You are here" map
Wayfinding

Arrival
Visitors milling outside
Entry line

Entry
Ticket window
Security check
Staff members
Ticket kiosk
Bag check

Mobile Device
"Check-in" and photo apps

People
Information Desk
Explainers
Other visitors

Places to Meet and Rest
Benches, landmarks

Food
Bar
Menu

Retail

Places to Go, Things to See
Restrooms
Benches
Exhibits
Workshop
Theater
Programs

Mobile Device
Phone to pick next steps

Exit
Exit signage
Mailing list
Takeaway brochure
Visitors milling outside
Exit staff

Digital Media
Photo sites (flickr, etc.)
Travel sites
Exploratorium website
E-news blast

People
Word of mouth
Friends and Family

|	GET THE IDEA	PLAN THE DAY	GET INSIDE	DO THE MUSEUM		WHAT'S NEXT	RETURN TO LIFE
ACTIONS	• See something cool on social media • See crowds outside • Hear about in news media • Learn via word of mouth	• Understand the options • Buy tickets online • Print ticket • Group local activities	• Wait in lines • Digest ticketing options • Collect materials • Check bags • Use bathrooms • Gather group	• Pick an exhibit • Become engaged • Stay together • Tinker • Watch programs • Look for resting place	• Seek help • Snack • Try on clothes • Look for value	• Consider membership • Leave • Get bags • Judge experience • Re-orient upon exit • Find car • Have dinner nearby	• Look and upload photos • Seek more information about exhibits • Learn more about a topic • Share what I learned • Write review • Notice Exploratorium branding in the city
QUESTIONS	• How do I find what I need to know? • What do we do once we're there? • Are my kids too young? • Is this stuff for adults? • How much time will it take?	• Where is it? • How do I get there? • What should I bring? • Where do I park?	• Where do I get tickets? • Why did the line stop? • Is it worth becoming a member now? • What should I see? • Where can I put my stuff? • Where is our meeting spot?	• Where are the bathrooms? • Where is [a specific exhibit]? • Is everyone together? • Why can't I find a staff person? • What else should I see?	• What's cheap in the store? • What did I miss?	• What did you think? • How do I get out of here? • Do we have all our stuff? • What are upcoming events? • Where is my car? • How do I remember this?	• What else can I do? • Where can I find more information about that thing? • How do I tell others what I did?

Research Results

Use cases

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Where are we now? A KG use case for marketing communications: Chatbots as enablers of dialogue.

How can KG enable the interaction of users with various content?

• e-marketing: with reasoning methods and tools, we can derive dialog-based bots
for specific tasks and domains from a Knowledge Graph.

• e-commerce: based on the semantic descriptions of services and products, a goal-
oriented dialog can be designed improving the process of reserving, renting, booking, or buying goods and services.
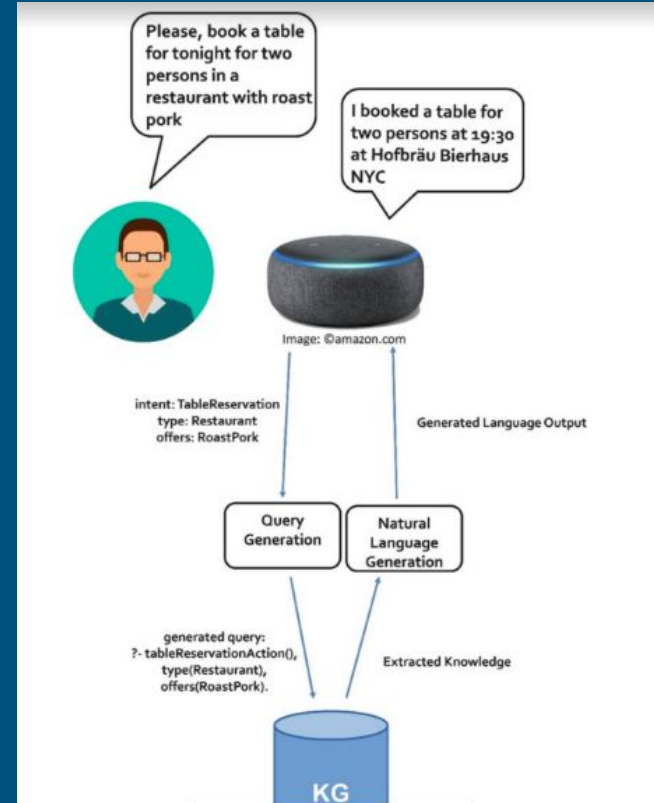
Research Results
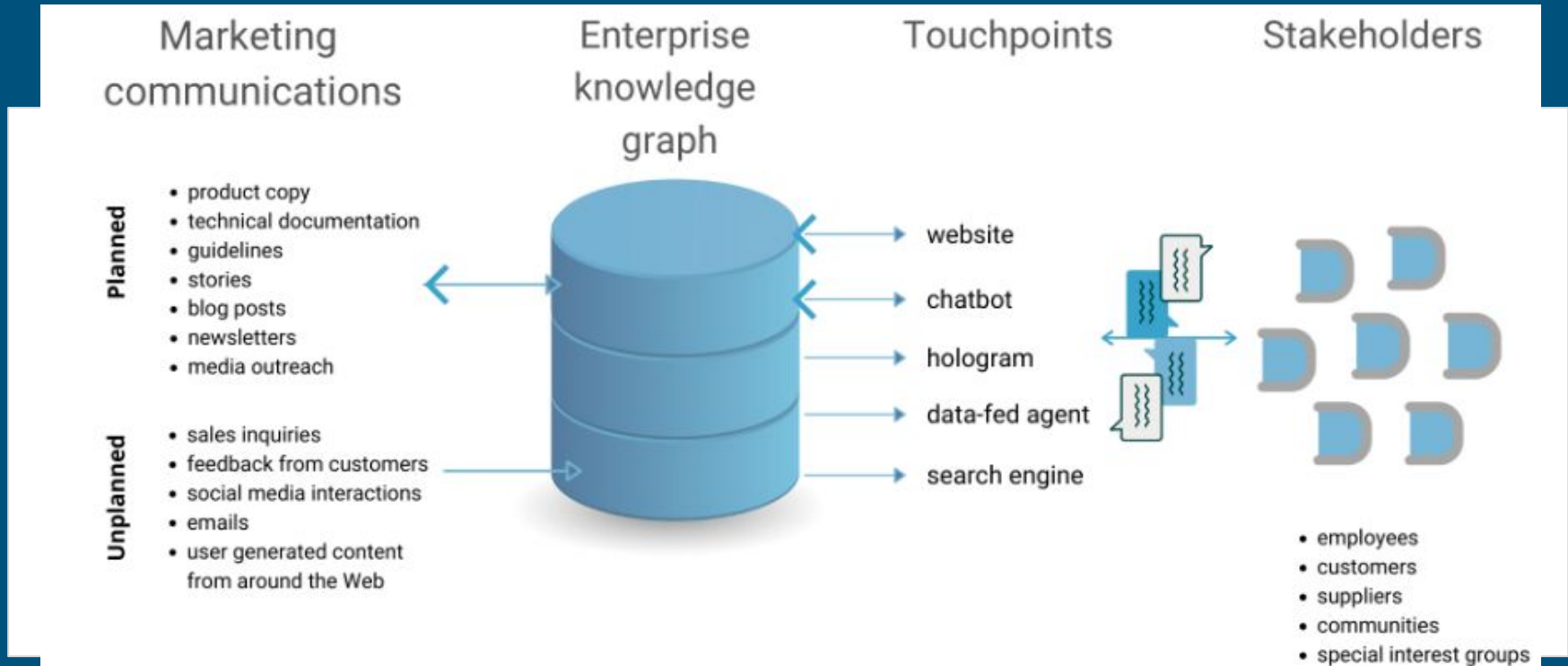
Research Results

How to get there?

By iteratively answering the following questions and codifying the answers into explicit knowledge:

- **What knowledge is needed for each content piece creation?** (*SME interviews, broader knowledge, research, product information*)

- **How is this knowledge is transformed during publication and distribution process?** (*comments, shares, annotations*)

- **What knowledge-related artifacts are created?** (*document types/digital object types*)

- **How are they accessed by stakeholders?** (platforms, channels, physical environments)

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Research Future Agenda

More research is needed at the intersection of dialogic communication for building relationships of value and the technological solutions that underpin efficient search, relevant content recommendation and immersive content navigation environments - all of which are part of the marketing communications processes.

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Research Future Agenda

The following questions emerge for future research:

1. What are the practical steps and the technologies needed to bring that conceptual model into practice?

2. What are the barriers for adopting or tailoring an existing knowledge graph technology for marketing communications?

3. Can a knowledge graph, being an architecture with interlinked content (e.g. product information, blog posts, eWom, comments) increase business value (i.e. decreased cost of customer acquisition and retention through timely, meaningful content), employee efficiency (decreased frustration, relevant customer service through access to rich, contextual information), customer satisfaction (i.e. better information accessibility, less frustration)?

4. How existing strategies for improving marketing communications can be enhanced with a knowledge graph and what would be the change management cost of such an approach?

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For that, we need more interdisciplinary collisions and encounters to allow synthesis based on the immense potential of the knowledge graph machine analysis and computation to know more and do more. To connect better.

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So, thank you for listening and caring!

To continue the dialogue ping me on Twitter @TheodoraPetkova.

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