

ICKM suceg | 2019

*15° International Conference on Knowledge Management
2° Internatoinal Seminar on Corporate Universities and Government Schools*



INTERNATIONAL COUNCIL ON
KNOWLEDGE MANAGEMENT



How to Apply AI and KM to the Post-truth Era of Fake News

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Overview

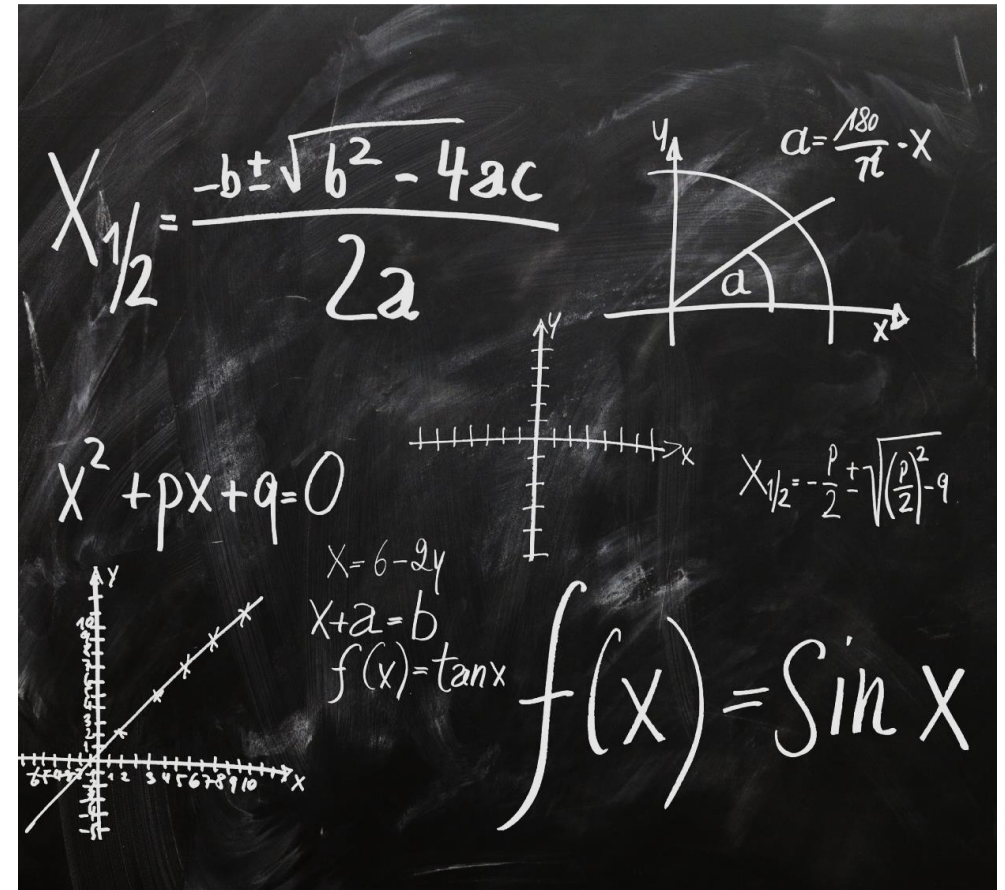
- What is post-truth?
 - A new world and a new vocabulary
 - History of post-truth – is it really new?
 - Why is the post-truth world different today?
- Role of literacy and curriculum
 - “Metaliteracy” skills for professionals
- Role of policy and legislation
 - National government legislation
 - Information policy in companies
- Role of technology: social media, artificial intelligence
- What can we do to help our students?

Facts = Truth

Opinions = ??? Post-truth

In a post-truth world, we are deliberately looking for facts that support our beliefs, opinions & conclusions...

Post-truth is the “public burial of objective facts by an avalanche of media appeals to emotion and personal belief” (*Oxford Dictionary*)



We are prone to “confirmation bias” – we believe, accept & repeat statements that support our established views. We reject or avoid any statements that go against our views, even if well-supported by evidence (Enfield, 2007).

There is even a new word for studying post-truth

- **Agnotology*** vs epistemology
 - Epistemology = the study of knowledge
 - Agnotology = the study of ignorance
 - Ex: link between smoking and cancer or, more recently, human-based climate change
 - Pseudo- academic or pseudo-scientific reports

**(2016 New Word of the Year – Oxford English Dictionary)*

History

- This is not a new phenomenon but....the advent of the Internet and social media have definitely increased the **geographic reach** (it is worldwide) and **the speed** at which we share our crowd-sourced content with our circle of friends & family
- Whereas in the past only powerful people, billionaires or major corporations could generate significant doubt, today social media lets anyone present "false news" & have an impact

[< 2000]

One-to-many
communications:

TV, radio...gossip, rumours
e.g. George Orwells War of
the Worlds

[2000+]

Networked
multimedia
digital
information
systems

[2016-2017]

Peak? Merging of
private & public
spheres

[2018]

First legislation
with fines 50m
euro if not
removed
(Germany)

[2018+]

Hybrid AI +
People fact
checkers - - -The
Internet of Things

Why is the world different today?

Information Overload

- So many channels pushing information at us in real time
- “we live in a world where there is more and more information and less and less meaning” (Baudrillard, 1994, p. 79).

There is also the phenomenon in Information Behavior:

- **Information Avoidance** = people are very ready to ignore facts, not accept claims
- They also lack time to verify everything so avoidance is a good way of coping with information overload

Info Overload + Info Avoidance – Time = Post truth

Crowd-sourced content

Most people read news through their social networks not newspapers, newsfeeds or television news (over 66% from FB in US).



GroupThink – fastest speed of sharing is between close networks of trusted colleagues, family and friends – the more it is repeated the more it is believed (“Repetition theory (Hasher et al, 1977))



Trust + Share Speed + Repetition = Post truth

Filter bubbles (Curtis, 2016)

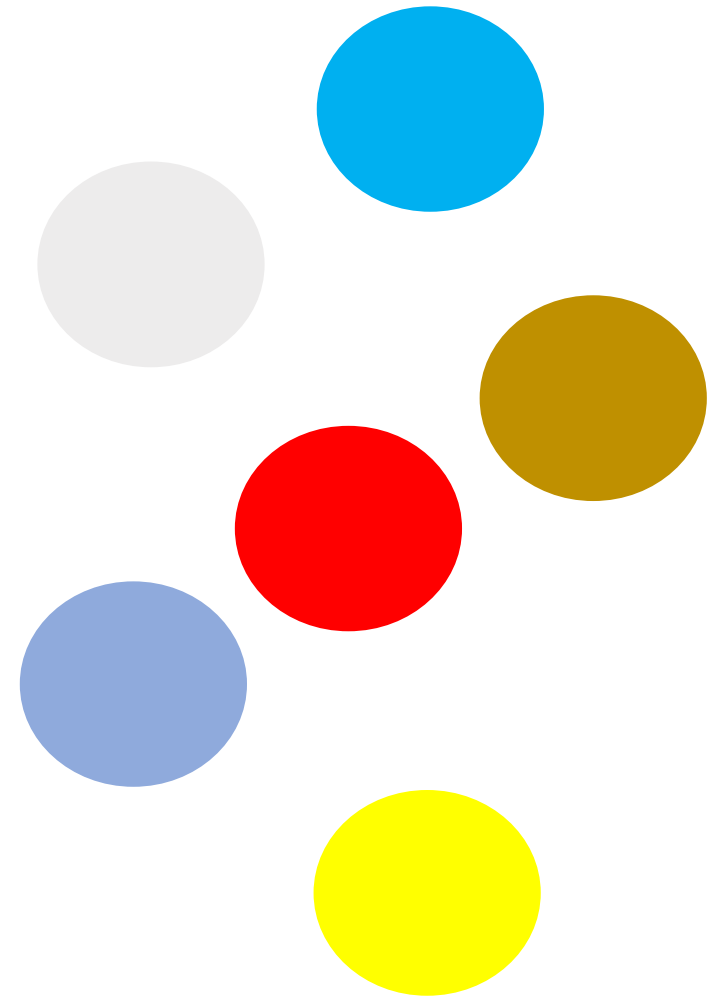
Filter bubbles are applied to all contemporary mediated content

Everyone lives in their own bubble of content created by personalization algorithms of the social media services (artificial intelligence used to recognize your patterns)

In this way, you only receive content that you would react to favorably or find interesting

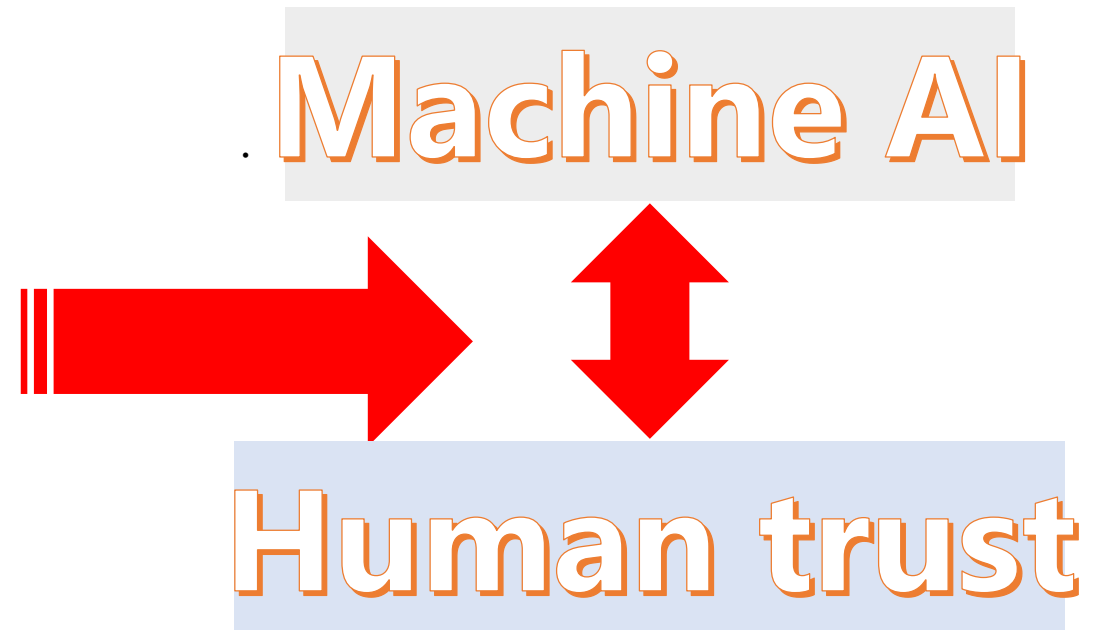
Same algorithms used in database marketing to sell you things you are likely to buy

We also create our own social media bubbles and choose to live in them (e.g. FB) - - but the scale today is exponentially greater and the speed of sharing takes only one click or "like"



Value is measured by reach (#likes) not validity

How can KM help?



To manage information is to filter it - - better

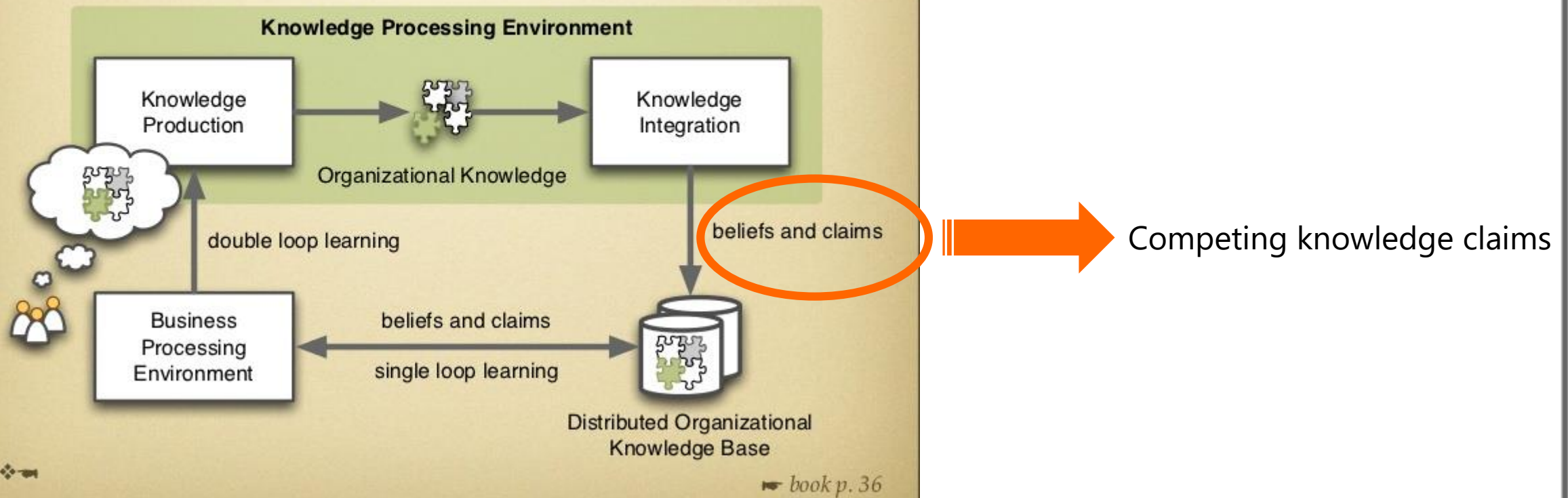
Knowledge Management

"KM processes can be used at the individual, group/community and organizational levels to filter, validate, preserve and act upon valid content".

McElroy (2003)

Every item in a knowledge management system starts off as a **"knowledge claim"** - - needs to be validated, tagged and recommended before it can be used

McElroy Cycle



Scottish Justice System: 3 verdicts



"Not Proven"

Knowledge claims are either accepted, rejected or labelled "not proven." The community of **trusted users** provide feedback via the KM system when they use the knowledge.

How can artificial intelligence (AI) help?



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- Gather all samples of writing online in order to identify the author



FABIAN LANGE

- Analyze all hiring, promotion data to identify racial and/or gender bias



KARYN MOFFATT

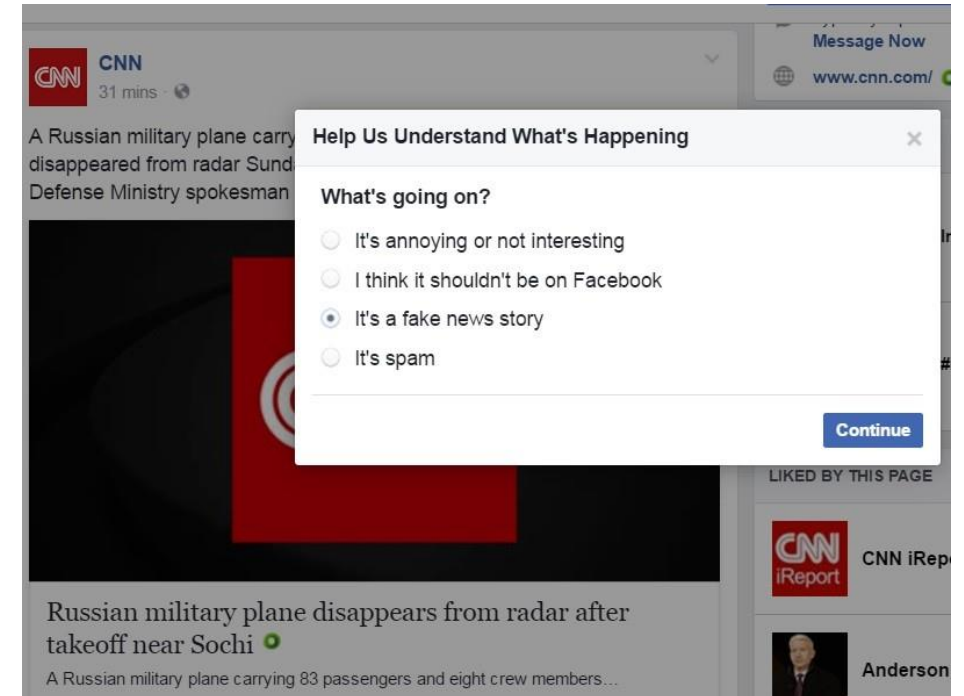
- Ethical use of AI – Ex: Amazon no longer uses AI because it was found to be biased against women in the hiring process
- webcrawlers identified potential candidates but the algorithm “learned” a bias towards resumes from men
- Garbage In Garbage Out – the sample is important
- Microsoft also uses an automated process for job resume analysis

AI can help identify cognitive bugs and biases in our reasoning BUT need hybrid systems: AI + knowledgeable people

EX: FACEBOOK

Increase trust in your own networks

- FB uses 3rd party fact checkers to verify news stories and flag any ones that are false
- Users can also report fake news by clicking on the post
- Other sites such as FactCheck.org



Information exists/is shaped by both context + community

How can we help?

■ CURRICULUM:

- Beyond information literacy – **metaliteracy**, assessing the credibility of sources, triangulating (gathering data from multiple sources and see if they agree or refute), critical reasoning skills
- How to spot fake websites, altered images, misinformation, fraudulent requests

■ INFORMATION PROFESSIONALS

- Transferring these skills to the workplace, supporting knowledge workers, sharing their skills, helping them to evaluate the reliability, accuracy and source of information used in decision making
- **Information behavior models + Knowledge management process lifecycles**

■ ARTIFICIAL INTELLIGENCE

- Ensure algorithms are not biased, use pattern recognition to identify fake news, hoaxes and their authors
- Carry out **sentiment analysis** (opinion mining) – identify emotional content and emotional reactions (Feldman, 2013)

What should we do?

- Multiple types of **literacy** (McKay & Jacobsen, 2014) in our schools and professional training
- We need to make our content accessible to all e.g. **open access** to scholarly works such as eMIT OCW (OpenCourseWare) puts all MIT courses on the web
- Our graduates need to be able to make use of **hybrid AI** tools to identify information sources, combat confirmation bias and groupthink – can use AI to screen out bias
- Information professionals need to better **market** this skill they already have in their toolkits
- The Information Schools, especially the iSchools, need to assume more of a **leadership role** and increase their visibility in the post-truth world –

Online video-rich university courses, libraries, museums and archives open to all (Kaufmann, 2017)

Some resources

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15ª Conferência Internacional de Gestão do Conhecimento
2º Seminário Internacional de Universidades Corporativas e Escolas de Governo

**Thank you very much for inviting me to
speak**

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