Unit 1: Introduction to Knowledge Representation and Reasoning

Formative Activities.

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Activity 1
Look at the seven topics described briefly below. Which of them would you consider yourself as ‘knowing’, and which would you consider yourself as having information about?

Answer:

A second language in which you are fluent.	‘knowing’
The content of a television news programme. A close friend.	'having information about'
A close friend.	‘knowing’
A company’s annual report.	'having information about'
Your close friend’s partner whom you have yet to meet.	'having information about'
The weather on the other side of the world.	'having information about'
The weather where you are now.	‘knowing’

Activity 2
What would you suggest is the primary characteristic that distinguishes the ‘having information’ situations from the ‘knowing’ situations you categorised in the previous activity? You will need to make sure that your description does not simply describe information or data but must particularly take account of the former.

From Kendel & Creen (2007) An Introduction to knowledge engineering. Springer.

Answer:

The primary characteristic of when someone 'knows information' lies in the depth and comprehensive understanding of that information, often accompanied by personal experience, expertise, or internal insight into the subject matter. This means that one doesn't merely possess surface-level facts but also has the capability to analyse, apply, and reproduce this information across various contexts.

The fundamental characteristic of when someone 'has an understanding of information' is the presence of basic details or data about that information. This understanding may remain superficial and not necessarily encompass profound comprehension or expertise.

Furthermore, it is worth noting that in situations where an individual has information, it can originate from various sources such as books, the internet, news, experts, among others. In contrast, 'knowledge' often includes personal experiences, internal understanding, and learning acquired from other individuals.

Let's consider an example from the field of crime and detective work to illustrate this concept. A detective has information about a crime from various sources, including witness testimonies, physical evidence, and surveillance camera records. However, the detective also 'knows' the local nuances and the residents, thanks to their professional and personal experiences, as well as their work on previous cases. This knowledge becomes a pivotal factor in the successful investigation of crimes, highlighting how a diversity of sources and profound understanding of local specifics can be critical for a detective.

Therefore, the distinction between information and knowledge depends on the sources, the depth of understanding, and the level of personal connection to the subject, and their interplay can be profoundly significant, particularly in the context of criminal investigations.

References:

Kendal, S. & Creen, M. (2007) *An Introduction to Knowledge Engineering*. Springer Verlag. ISBN 1846284759.