

常识与AGI

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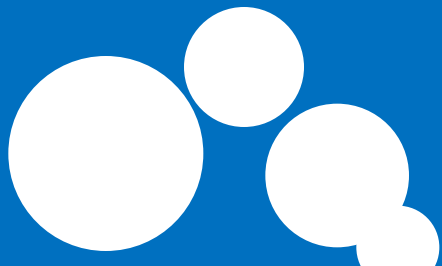
AI传统“常识”构成及其失败历程

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我们的观点



1. 直观的常识



1.1 常识（托马斯·潘恩）



导言

论政府的起源与目的，兼议英国政体

论君主制与世袭制

对当前北美形势的看法

论现阶段北美的能力，兼谈几点杂感

附记

1.2 常识（梁文道）



抗战：为什么它还没有结束

自虐：我们总是喜欢作贱自己

政府：它的界限在哪里

合法性：政府起码要保障人民的生命安全

特供：怎样区分君主立宪与共和

民主：一种自我修正的漫长道路

城管（一）：汽车的城市还是人的城市

城管（二）：市容重要还是生计重要

企业责任：不下毒是做人责任，而非企业责任

富豪：既不是贵族，也不是资本家

老师：一种基础的职业

大学：宽容是大学的本质

“真”：“范跑跑”的真性情

足球：中国社会困境的折射

刘翔：一个偶像吃掉了一个活人

浮躁：这个时代的集体病症

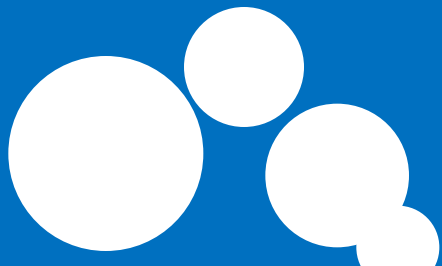
套话：老百姓的真心话

1.3 2018公务员录用考试专项题库：常识判断



国家方针政策
马克思主义哲学与政治经济学
文化常识
文学常识
历史常识
科技史
前沿科技
生活常识
自然地理
法理学
宪法
经济学
管理学
公文基础知识

2. 常识的学界统计



Common knowledge

3,900,000

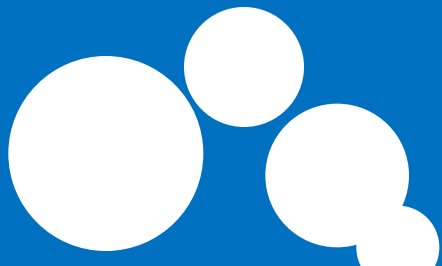
Journal of Economic Theory
Econometrica
Philosophy and Rhetoric
The American Economic Review
Games and Economic Behavior
College & Undergraduate Lib...
Information & Computation
Common Knowledge
Accounting Horizons
Qualitative Research
Frontiers in Physiology
Tobacco Control
Cognitive Science
Erkenntnis
Journal of Logic and Computation
Journal of Monetary Economics
The Economic Journal

Common sense

3,970,000

IEEE Software、Antipode、Intelligence
Ethical Theory and Moral Practice
International Journal of Human-comput...
Bulletin of the History of Medicine
Politics、Abacus、Magnetic Resonance in Me...
Management Decision
Iowa Law Review、Studies in History and Philosophy
Journal of the Royal Society of Medicine
American Journal of Geriatric Psychiatry
Journal of the History of Philoso...
Philosophy, Psychiatry, & Psy...
The Journal of Higher Education
Science、Philosophy and Phenomenologica...
Environmental Health、Industrial Law Journal
Cambridge Journal of Economics
JAMA Neurology、Journal of Ethnobiology and ...
The Philosophical Quarterly

3. 何为常识



Common knowledge

From Wikipedia, the free encyclopedia

*Not to be confused with Common sense.
For the logical concept, see Common knowledge (logic).*



This article **relies largely or entirely on a single source**. Relevant discussion may be found on the [talk page](#). Please help [improve this article](#) by introducing [citations](#) to additional sources. *(August 2016)*

Common knowledge is *knowledge* that is known by everyone or nearly everyone, usually with reference to the *community* in which the term is used. Common knowledge need not concern one specific subject, e.g., *science* or *history*. Rather, common knowledge can be about a broad range of subjects, such as science, literature, history, and entertainment. Often, common knowledge does not need to be *cited*. Common knowledge is distinct from *general knowledge*. The latter has been defined by differential psychologists as referring to "culturally valued knowledge communicated by a range of non-specialist media", and is considered an aspect of ability related to intelligence.^[1] Therefore, there are substantial individual differences in general knowledge as opposed to common knowledge.

In broader terms, common knowledge is used to refer to information that a reader would accept as valid, such as information that many users may know. As an example, this type of information may include the temperature in which water freezes or boils. To determine if information should be considered common knowledge, you can ask yourself who your audience is, are you able to assume they already have some familiarity with the topic, or will the information's credibility come into question.

Many techniques have been developed in response to the question of distinguishing truth from fact in matters that have become "common knowledge". The *scientific method* is usually applied in cases involving phenomena associated with astronomy, mathematics, physics, and the general laws of nature. In legal settings, *rules of evidence* generally exclude *hearsay* (which may draw on "facts" someone believes to be "common knowledge").

"Conventional wisdom" is a similar term also referring to ostensibly pervasive knowledge or analysis.

Common sense

From Wikipedia, the free encyclopedia

Not to be confused with Common knowledge.

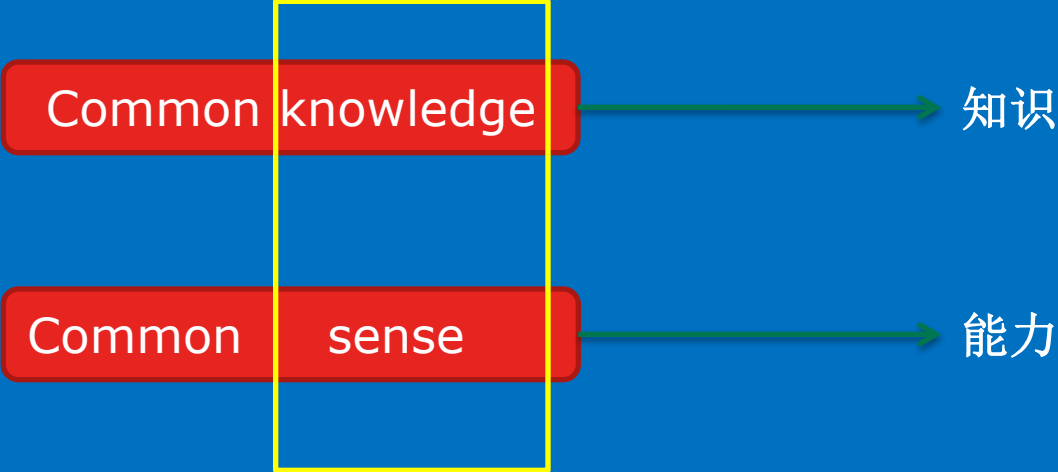
For the American revolutionary war pamphlet by Thomas Paine, see Common Sense (pamphlet). For other uses, see Common sense (disambiguation).

Common sense is a basic ability to perceive, understand, and judge things that are shared by ("common to") nearly all people and can reasonably be expected of nearly all people without need for debate.^[1]

The everyday understanding of common sense derives from philosophical discussion involving several European languages. Related terms in other languages include Latin *sensus communis*, Greek κοινή αίσθησις (*koinë aisthēsis*), and French *bon sens*, but these are not straightforward translations in all contexts. Similarly in English, there are different shades of meaning, implying more or less education and wisdom: "good sense" is sometimes seen as equivalent to "common sense", and sometimes not.^[2]

"Common sense" has at least two specifically philosophical meanings. One is a capability of the animal soul (Greek *psukhē*) proposed by Aristotle, which enables different individual senses to collectively perceive the characteristics of physical things such as movement and size, which all physical things have in different combinations, allowing people and other animals to distinguish and identify physical things. This common sense is distinct from basic sensory perception and from human rational thinking, but cooperates with both. The second special use of the term is Roman-influenced and is used for the natural human sensitivity for other humans and the community.^[3] Just like the everyday meaning, both of these refer to a type of basic awareness and ability to judge that most people are expected to share naturally, even if they can not explain why.

All these meanings of "common sense", including the everyday one, are inter-connected in a complex history and have evolved during important political and philosophical debates in modern western civilisation, notably concerning science, politics and economics.^[4] The interplay between the meanings has come to be particularly notable in English, as opposed to other western European languages, and the English term has become international.^[5]



中文处于极度混淆的情况

Common Knowledge
Common Sense
General knowledge



常识

Academic Integrity At MIT : A Handbook for Students

What is Common Knowledge?

Broadly speaking, common knowledge refers to information that the average, educated reader would accept as reliable without having to look it up. This includes:

Information that most people know, such as that water freezes at 32 degrees Fahrenheit or that Barack Obama was the first American of mixed race to be elected president.

Information shared by a cultural or national group, such as the names of famous heroes or events in the nation's history that are remembered and celebrated.

Knowledge shared by members of a certain field, such as the fact that the necessary condition for diffraction of radiation of wavelength from a crystalline solid is given by Bragg's law.

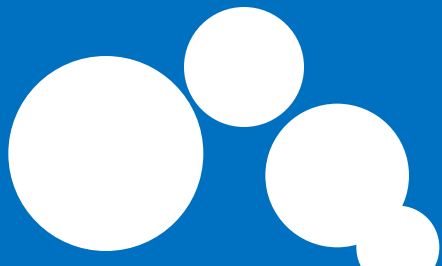
However, what may be common knowledge in one culture, nation, academic discipline or peer group may not be common knowledge in another.

Academic Integrity At MIT : A Handbook for Students

What is not Common Knowledge?

1. Datasets generated by you or others.
2. Statistics obtained from sources such as the US Census Bureau and the Bureau of Labor Statistics.
3. References to studies done by others.
4. Reference to specific dates, numbers, or facts the reader would not know unless s/he had done the research.

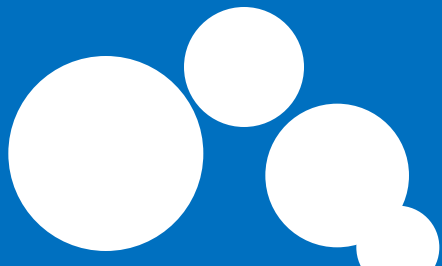
4. 常识对AI的重要性

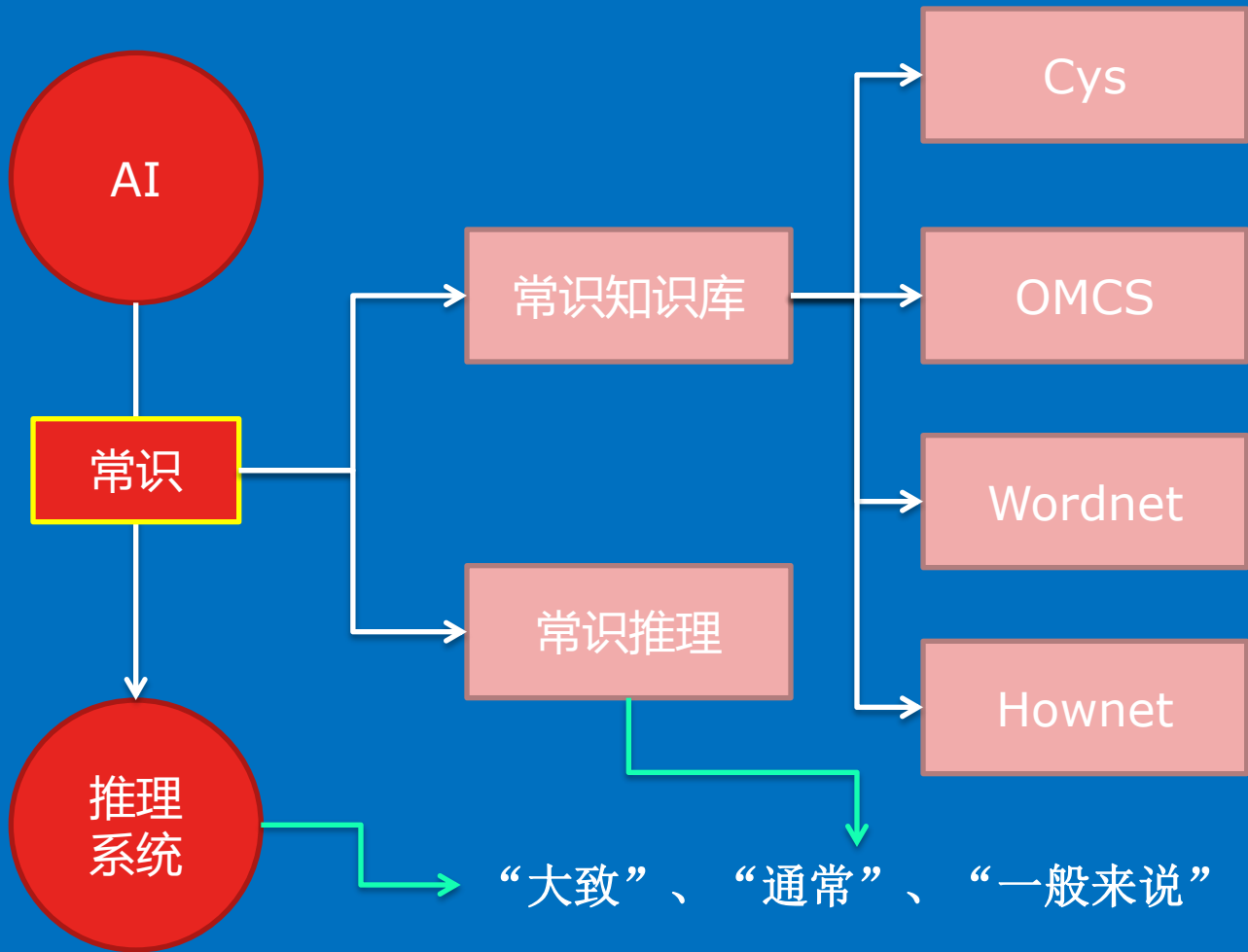


在开发专家系统时，一个常见的问题就是**专家所提供的知识不足以推出所需的结论，而中间所缺乏的是“常识”**，就是平常人际交流时无需说出的那些人人知道的事情。在计算机不能自动获取这种知识的情况下，有必要把有关事实存进一个“常识知识库”里面。

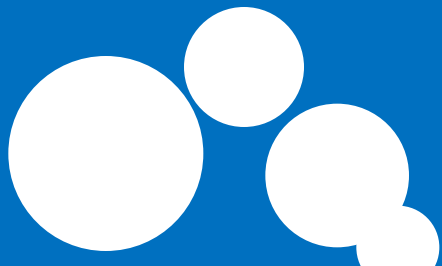
这个知识库和前述“专家知识库”相比有两个主要不同点：首先，这个库是**通用**的，不用为每个应用系统建一个；其次，这个库要比专家知识库大好几个数量级，因为“常识”实在是**太多**了。

5. AI传统“常识”构成及其失败历程





6. 我们的观点



- 1、知识是经验，所有的知识最初都源自于个体经验，个体经验的积累和传承成为集体经验而得以共享
- 2、不存在绝对意义的完备知识，因为经验总是有限的，从而知识也就没有绝对意义的正确性
- 3、常识一词的生活所指及其全部的所能指，泛而含混
- 4、常识的操作性定义是，个体与环境交互中，围绕自我而构建的个体及外部的最小适应经验的总和

5、常识虽具有个体和群体差异性，但相对而言，还是存在很多的共性

6、这些共性主要表现为0~3岁婴幼儿的适应性上

谢谢！

