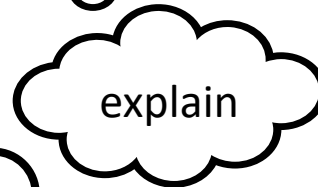
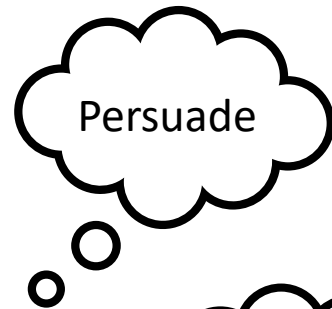


Block 1: Argumentation in real life

idea, ...
reasons given
argument. no
exchange of
different c
...ically

What is an argument? Why do we argue?

- “A statement, reason, or fact for or against a point.” ¹
- “A course of reasoning aimed at demonstrating truth or falsehood” ²
- “A discussion involving differing points of view” ³
- “An address or composition intended to convince or persuade” ⁴



1. <http://www.dictionary.com/browse/argument>
2. <https://www.thefreedictionary.com/argument>
3. <http://www.dictionary.com/browse/argument>
4. <http://www.dictionary.com/browse/argument>

Argumentation

“A verbal, social, and rational activity aimed at convincing a reasonable critic of the acceptability of a standpoint by putting forward a constellation of propositions justifying or refuting the proposition expressed in the standpoint.”

(F. H. Van Eemeren and R. Grootendorst, 2004)

Importance

Practical (human) reasoning is non-monotonic, i.e., previously obtained conclusions or earlier made assumptions may be redacted in the light of new and possibly conflicting information.

(S. Modgil, 2017)

Importance

Practical (human) reasoning is non-monotonic, i.e., previously obtained conclusions or earlier made assumptions may be redacted in the light of new and possibly conflicting information.

(S. Modgil, 2017)

- Argumentation, as a major topic in the logical study of non-monotonic reasoning, deals with uncertain, incomplete and conflicting information.
- Argumentation is used as a reasoning mechanism and for interacting with others, thus making it an indispensable part of communication allowing distributed non-monotonic reasoning via dialogues.
- Argumentation provides the tools to construct, analyze, and evaluate arguments, aiding transparent and interactive decision-making.

Within AI

The extensive use of artificial intelligence (AI) drives the need of developing artificial cognitive systems that can reason in a manner like those of humans. *(L. Michael and A.C. Kakas, 2016)*

Within AI

The extensive use of artificial intelligence (AI) drives the need of developing artificial cognitive systems that can reason in a manner like those of humans. *(L. Michael and A.C. Kakas, 2016)*

- Due to its logical foundations and rule-governed mechanisms, argumentation provides the appropriate support for computational reasoning engines.
- The dialectical nature of argumentation and its similarity with common-sense reasoning makes it easier for users to understand its concepts and interrogate AI systems.
- Joint reasoning through dialogues between individuals and AI agents can be used so that the decision-making process of AI agents and its ethical implications are well-adjusted to adhere to human values.

Let's argue!

1. Form pairs
2. Find a discussion topic
3. Argue about it
4. Make notes (you'll need them later)

Example statements

- Artificial intelligence is good/bad for society.
- Laptops should be allowed/banned in classrooms.
- College education should (not) be free.
- Schools should ban/allow fast food.
- Social media has (not) improved people's relationships.
- Animal testing should (not) be allowed.
- It is better to be an early bird/a night owl.
- Pineapple is (not) an acceptable pizza topping.
- A student's grade in gym should (not) affect their grade point average.
- Cars should (not) be banned from city centers.
- (Not) all graffiti is art.

Argumentation

“A verbal, social, and rational activity aimed at convincing a reasonable critic of the acceptability of a standpoint by putting forward a **constellation of propositions** justifying or refuting the proposition expressed in the standpoint.”

(F. H. Van Eemeren and R. Grootendorst, 2004)



Arguments