

Uberwrong Logic

by Sven Nilsen, 2022

In this paper I present an isomorphic interpretation of Answered Modal Logic that combines impressiveness with correctness, which can be used as a more intuitive logic for reasoning. Philosophically in sense of Heidegger, this logic also shows an interpretation of authenticity.

Uberwrong Logic is a 4-value logic defined as following:

00 = unimpressively wrong = wrong
01 = unimpressively correct = obvious
10 = impressively wrong = uberwrong
11 = impressively correct = smart

The word “uberwrong” is a made up to describe something impressively wrong. Hence, the name of this logic comes from this new word.

Uberwrong Logic uses the same truth tables as Answered Modal Logic^{[1][2]}.

The basic intuition that determines Uberwrong Logic is the following:

$\text{uberwrong} \wedge \text{smart} == \text{uberwrong}$

For example, when composing^[3] two systems, both which are impressive, but where one is wrong and the other is correct, one gets a “uberwrong” system, that is “impressively wrong”, because errors propagate by composition.

The rest of the truth table of AND is derived using common mathematical properties such as symmetry^[4], idempotence^[5], independent determinance of the second bit, and lost impressiveness. One gets the exact same truth table for AND as for Answered Modal Logic, hence one can translate back and forth to make reasoning easier.

There are two involution^[6] operators in Uberwrong Logic:

noti	Flips impressiveness	\neg in Answered Modal Logic
notc	Flips correctness	\neg in Answered Modal Logic

Other truth tables follow from the definition of AND and NOTC (as NOT) to construct NAND^[7]:

$\text{nand} \iff \text{notc} \cdot \text{and}$

Uberwrong Logic can be used to translate back and forth to Answered Modal Logic. This is beneficial, since Answered Modal Logic is very hard to reason about and Uberwrong Logic is more intuitive.

Using the philosophy of Martin Heidegger^[8], one can think about there being 8 authentic operators and 8 inauthentic operators. To convert the authenticity of some operator f , one can use the normal path^[9] $f[\text{noti}]$. For example, and might be thought of as an authentic construction with the corresponding inauthentic construction $\text{and}[\text{noti}]$, which constructs impressiveness from anything by combining it with uberwrong statements. Noticably, smart statements do not have this property.

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