Machine learning for computational creativity evaluation

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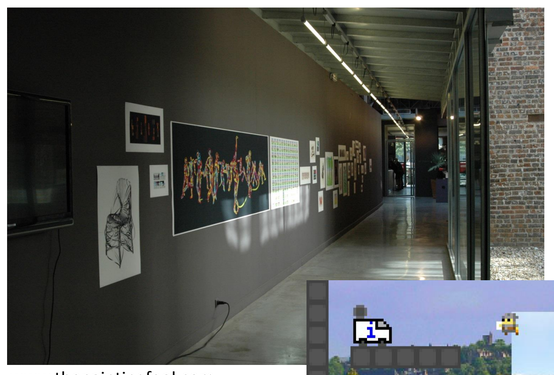
TASK
Development of evaluation models for computer generated creative artefacts , such as fictional ideas, poems, paintings, slogans, scientific hypotheses, music, games, …

Current focus: fictional (What-if…) ideas.



www.thepaintingfool.com

www.gamesbyangelina.org

- What if birds are not singing, but screaming, because they are afraid of heights?
- What if rocks are actually soft but tense up when we touch them?
- What if there would be a little bee that couldn't make honey?
- What if all animals speak a universal language and we are the only odd ones out?

PROBLEM
It is much easier to generate, than to evaluate:

- typicality
- novelty
- quality
- *fictionality*
- *narrative potential*
- …

A million monkeys typing

RELATED CONSIDERATIONS

system autonomy ⟺ output quality

curration coefficient

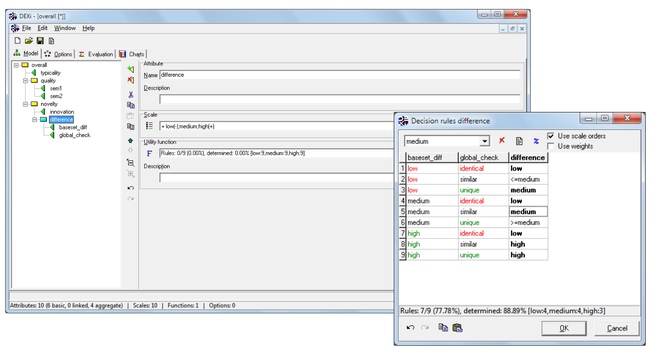
DATA

artefacts → evaluations

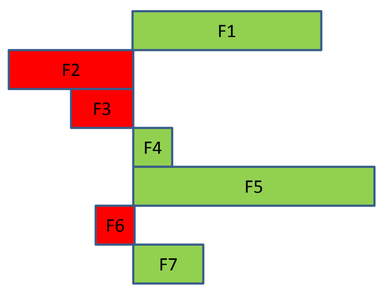
BoW	*length*	*sentiment*	*semantic ftrs.*	*actuality*	*rhyming*	*ambiguity*	…	gender	age	interests	…	$score_i$

SETTING

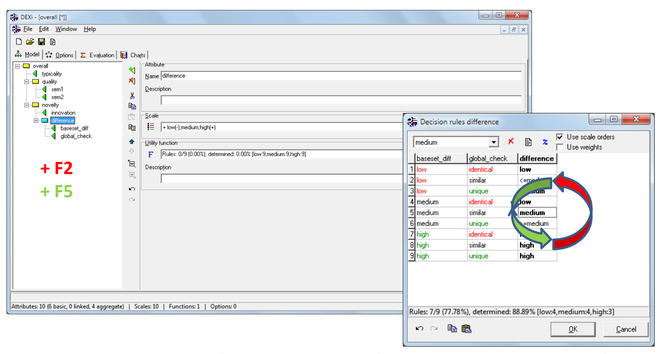
baseline
(hierarchical rule-based expert model)



ML



baseline + ML



Research question: How much better results (if at all) than baseline can we get by employing machine learning and by including machine learned features in expert models?

FIRST IMPRESSIONS

- Features are very artefact specific
- Evaluation is laborious
- Low inter-evaluator agreement

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