

Defaults in Description Logics: So Simple, So Difficult

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Frame systems—the ancestors of Description Logics—supported a form of defeasible inheritance and overriding. Such nonmonotonic features disappeared from implementations after the logical reconstruction of frame systems, although applications provide interesting use cases for nonmonotonic inferences. This talk gives an overview of the nonmonotonic DLs introduced so far, and illustrates the many complexity issues that affect them (which probably explain the lack of support to nonmonotonic reasoning in DL reasoners). Research never surrenders, though: a pragmatic change of perspective yields encouraging results, that bring the quest for low-complexity, nonmonotonic DLs closer to its goal.