Integrity checking for combined databases

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The problem of checking the integrity of a data integration system is more delicate a matter than checking the consistency within a single database, as the integrity may be violated even when each source is consistent with its own local integrity constraints. An elegant and efficient approach to the problem is the generalization of simplification techniques for integrity checking in traditional databases to the combined case, in which the knowledge of local consistency is employed, perhaps together with given a priori constraints on the combination, in order to obtain optimal tests. In this talk we describe this technique and show examples for both the local-as-view and global-as-view approaches to data integration.