

- FRANCISCO HERNNDEZ-QUIROZ, RAYMUNDO MORADO, *Unbounded effectiveness: Turing's departure from Hilbert's desiderata*.

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The recent origins of our current notion of effective procedure can be traced back to Hilbert's work on the Entscheidungsproblem in the early XX century. Hilbert stated a set of requirements for an acceptable solution to this problem. It is normally taken for granted that Turing built on these desiderata for constructing his own notion of effective procedure. However, it is not often realized that in the process of developing his own notion, Turing made a series of background assumptions, some of them consistent with Hilbert's desiderata, but some others diverging in fundamental ways from Hilbert. In this paper we analyse these assumptions. First, we consider Hilbert's notion, then Turing's model and its presuppositions, and, finally, their relationship to Hilbert's desiderata. This approach sheds light on both Turing's achievement and the choices he was forced to make on Hilbert's notion because of the limitations he uncovered.