A knotoid is an equivalence class of an embedding of an arc into Euclidean 3-space with respect to isotopy that fixes the projection of its endpoints via a specific projection of 3-space into the plane that keeps the image of the arc under this isotopy in the complement of two lines that project to the endpoints. In this way one can use the planar diagram of the knotoid with Reidemeister moves that do not shift arcs across the endpoints. This talk discusses the application of virtual knot theory to the study of knotoids. The work is joint work with Neslihan Gugumcu. (Received January 12, 2017)