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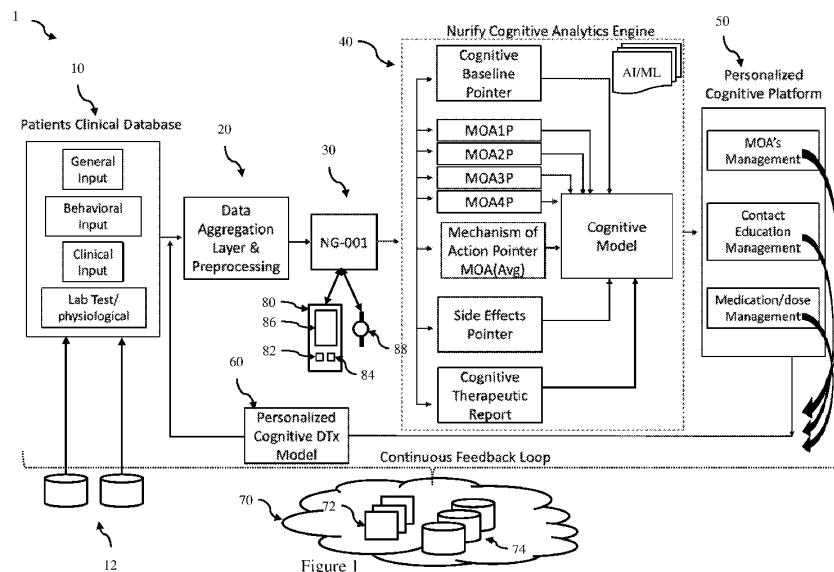
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(54) Title: SYSTEM AND METHOD FOR DELIVERING PERSONALIZED COGNITIVE INTERVENTION



(57) Abstract: A computational personalized cognitive therapeutic system for treating patients with Mild Cognitive Impairment, Alzheimer's Disease dementia and related conditions is described. The system comprises a patient clinical database, a digital cognitive therapy delivery module, a cognitive analytics engine, and a personalised cognitive platform configured to personalize a cognitive digital therapy model. The personalised cognitive digital therapy model defines specific digital treatments to be delivered to the patient using the digital cognitive therapy delivery module each with a different mechanism of action. Digital cognitive biomarkers are collected for each therapy along with behavioural and physiological bio markers from wearable and medical devices. They are processed by the cognitive analytics engine using artificial intelligence or machine learning methods to estimate metrics and generate alerts. The metrics are used to assess treatment progress and personalize the cognitive digital therapy model for the patient including adjustment

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of digital therapies and medication. Alerts may be generated if adverse side effects are observed. This process is iteratively repeated to provide improved treatment overtime.