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AI and Healthcare: towards a Digital Twin?

Nicholas Ayache

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AI & Healthcare : Towards a Digital twin?

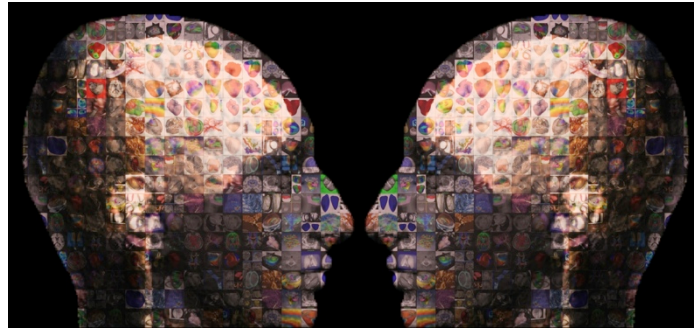
Nicholas Ayache¹,

¹Inria,

Epione Team,

Sophia Antipolis, France

¹nicholas.ayache@inria.fr



Abstract—The "Personalized Digital Patient" or "Digital Twin" is a digital representation of the patient's anatomy and physiology based on models whose parameters can be learnt automatically from real or simulated medical images and additional clinical, biological, behavioral, and environmental data. Advanced algorithms can then use the learnt parameters to serve the three pillars of digital medicine: computerized assistance to diagnosis, prognosis and therapy. The presentation will illustrate these points and insist on the importance of geometrical, statistical and biophysical modeling of life and imaging processes.

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