

## **Digital Predictions: Children's futures, opportunities and obstacles**

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Early childhood is seen by many as the ideal time to shape, support and encourage the child in order to become fully emotionally, intellectually and socially competent adults in the future. Discussions about the degree that children can participate and have agency in these processes are ongoing. However, what happens with these agentic capacities – of adults and children – when decisions are made on the basis of big data analytics and predictive algorithms?

Predictive algorithms are being enacted in the everyday in multiple ways: autosuggested google search terms; Amazon recommendations; google map travel time forecasts, or more controversially in predictive policing practices, for example. Prediction entails forecasting possible outcomes based on modelling, pattern detection and recognition through the (supervised and/or unsupervised) analysis of large data sets using iterative machine learning algorithmic processes (McQuillan, 2016). These practices inform strategies, policies and planning.

Within the contemporary child's digital ecosystem/s, there are multiple and diverse predictive practices currently and potentially at play. In the health sector, for example, predictive machine learning algorithms are being applied to anticipate the likelihood of genetically detectable disorders in IVF pre-implantation screening (Regalado, 2017) or for the child's possibility of developing autism (Ananthaswamy, 2017); in the education sector, they are being applied to educational data to identify students at risk or those in need of particular types of targeted intervention (Smith, 2017; Clow, 2013), in the commercial sector they are being used to nudge particular types of purchasing decisions or to prompt data disclosures.

This presentation explores a number of predictive practices in early childhood initiatives to identify issues and opportunities that need to be accounted for as a result of these predictive potentials and starts compiling a picture of the digital child's possible future. In doing so, the paper raises questions about the broader ethical, and normative issues that become apparent for child rearing practices, and agency when predictive practices and risk aversion drive the choices that are made available, hidden or negated.

#### References:

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