



Workshop 17 Report : Managing risk in a predictive manner to enhance decision making based on real-time analysis of data

Using predictive data in social protection, a new form of moral hazard?"

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The workshop examined real-time analytics within the context of the social protection industry. Many social protection agencies are promoting a digital first service delivery model, where many citizen needs can be met by empowering people to help themselves using online and mobile technologies. This approach needs to be underpinned by sophisticated data analytics to provide decision making support to

1. segment people for different service approaches ;
2. predict situations where people may be vulnerable and/or at risk of compliance failure requiring an intervention; and
3. recommend intervention options and pathways based on known outcomes.

Sarah Johnson, Chief Actuary for the National Disability Insurance Agency in Australia, provided an overview using predictive data to manage outcomes and the financial viability of the National Disability Insurance Scheme.

The workshop attendees were asked to consider a new form of moral hazard arising from these predictive models. Moral hazard, an economic term from the insurance industry, finds its way to the social protection industry in a similar manner - ie. people undertake more risky behaviour on the basis they are insured, over and above what they would normally take. Using predictive models in social protection brings an increased risk of behavioural change amongst case workers as they could potentially over rely on the accuracy of the machine based analysis and withdraw from exercising their professional judgment. They are at risk of treating machine based predictive models as an

insurance like safety net to their professional judgment. Decision making risk is transferred from the human case worker to the machine.

The workshop discussion highlighted a significant difference between the health and social protection sectors in the acceptance and integration of predictive analytics tools within formal decision making processes. Since the time of Hippocrates, clinical medicine is a discipline of systematic study through an evidence based approach to diagnosis and treatment. In contrast social protection case workers manage the variance and unpredictability of human behaviour which is both rational and irrational. Understanding and managing the human behavioural dimension defines a case workers professional expertise. While there is little doubt predictive models can make vast improvements in the efficiency and effectiveness of decision making for improving people's social and economic outcomes, the integration with the human dimension of the social protection system will determine their ultimate value.

As the quality and accuracy of predictive analytics becomes more widespread, policy makers and administrators must ensure the professional skills of case workers remain an essential and valued component of social protection decision making. As the world goes evermore digital, predictive analytics will become a powerful tool for optimising social protection expenditure through enabling better outcomes. Workshop 17 at the European Social Network annual conference was a timely reminder of the need to explore new risks arising from predictive analytics.

