Towards Full Scale Population Dynamics Modelling with an Agent Based and Micro-simulation Based Framework

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***Abstract*— Microsimulation and multi agent based simulation are two popular simulation techniques which give us results that could be related to the real world phenomena. Simulation in general has been an important method for analyzing many phenomena and has been used extensively in modelling and simulating the population dynamics. The usage of these techniques have enabled us to perform various different multi-dimensional policy experiments of the 'virtual' population and analyze the impact of those policies. These two techniques are popular but there is a need to build a generalized and full scale modelling of population dynamics which can support simulation of various kinds with millions of agents. There are some differences between the two techniques and also there are some drawbacks. The model should incorporate positive aspects of the microsimulation and agent based modelling and should support simulation of all the demography related aspects.**

Keyword— Agent Based Modelling, Microsimulation, Demography, Full Scale Social Simulation, Population Dynamics.

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