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To support effective, efficient, transparent, and timely decision-making processes, as well as to guide industry planning and public policy development, the creation of a digital twin (DT) for logistics and supply chain systems (LSCS) is essential. This presentation begins by introducing the background of the logistics and supply chain industry, the motivations driving this research, and the concept of DT along with its potential benefits. Subsequently, a novel conceptual DT framework for LSCS is presented. Each element of this framework is associated with distinct requirements and objectives, which open avenues for new research and pose challenges for practical implementation. Addressing these challenges will require advanced analytics and modeling techniques to meet the demands of this emerging agenda. Finally, the presentation will discuss ethics and data governance frameworks, highlighting their importance in ensuring responsible and secure implementation of DTs in LSCS.