

Table 2. Detailed List of Published Literature Incorporating AI in the Subject of Walkability .

	Use, Perspective		Teaching							Learning				Inference				
			Feature			Data type				Machine Learning	Expert System	Robotics	Computer Vision	Automation Mapping of Streetscape Features	Evaluation of Walkability	Detection of Streetscape Features	Correlation Analysis with Walkability and Its Factors	Pedestrian Route Design
	Population	Egocentric (E) / Allogocentric (A)/ Both (B)	Spatial	Physical	Perceptual	Historical data	Survey	Sensor data	Imagery data									
Adams et al. (2022)	G	B						SVI	GIS									
Alfosool et al. (2022)	G	A						AI	GIS	SL								
Bandini and Gasparini (2020)	S Y	-					PD			RL								
Blečić et al. (2015a)	G	A							GIS		DSS							
Blečić et al. (2015b)	G	E						AI	GIS		DSS GA							
Blečić et al. (2018)	G	E						SVI		CNN								
Bustos et al. (2021)	G	E				HA		SVI		DRN								
D'Orso and Migliore (2018)	G	A							GIS		DSS							
Giles-Corti et al. (2014)	G	A									DSS							
Gorrini & Bandini (2019)	S	A							GIS		DSS							
Koo et al. (2022a)	G	B						SVI	GIS		DSS	IS						
Koo et al. (2022b)	G	B						SVI	GIS			SS						
Kim et al. (2022)	G	E					BSD	SVI		DT								
Ku et al. (2022)	D	E						SVI		CNN								
Lai and Kontokosta (2018)	G	A							GIS	UCA								
Lee et al. (2022)	G	E						SVI		LR, RF GBA		SS						
Li et al. (2020)	ST	B					TF	SVI	GIS	CNN	DSS							
Yunqin Li et al. (2022)	G	E						PSVI		CNN								
Lucchesi et al. (2023)	G	E						SVI		DNN								
Ma et al. (2021)	G	B						SVI		CNN								
Miranda et al. (2021)	G	B					GPS	AI SVI			DSS	SS						
Nag and Goswami (2022)	G	B						DV	GIS		DSS							
Ning et al. (2022)	D	E						SVI				SS						
Nagata et al. (2020)	S	B						SVI	GIS	CNN	DSS							
Shao et al. (2021)	G	B						SVI	GIS	FCN	DSS							
Theodosiou et al. (2022)	G	E						SPC		CNN								

Wang et al. (2019)	S	E						SVI		FCN								
Yang et al. (2022)	G	E						SVI		LR			SS					
Yin and Wang (2016)	G	E						SVI		ANN								
Yuan and Chen (2022)	G	E						SVI		CNN								
Yue et al. (2022)	G	E						SVI		CNN								
Zhao et al. (2016)	G	B						SVI		FNN								
Zhang et al. (2021)	G	E	-	-	-			SVI		CNN								
Zhou et al. (2019)	G	E						SVI		CNN								

Notes:

Aerial Image (AI), Allocentric (A), Artificial Neural Networks (ANN), Bio-Signal data (BSD), Convolutional Neural Networks (CNN), Decision Support systems (DSS), Decision Tree (DT), Deep Residual Networks (DRN), Disabled pedestrian (DP), Egocentric (E), Egocentric and Allocentric (B), Fully Convolutional Networks (FCN), Fuzzy Neural Networks (FNN), Genetic Algorithm (GA), Geographic information system (GIS), Global Positioning System (GPS), General pedestrian (G), Gradient boosting algorithms (GBA), Historical Accident statistics (HA), Instance Segmentation (IS), Logistic Regression (LR), Physiological Data (PD), Panoramic Street View Image (PSVI), Random Forest (RF), Reinforcement Learning (RL), Senior pedestrian (S), Semantic Segmentation (SS), SmartPhone Camera (SPC), Street View Image (SVI), Student pedestrian (ST), Supervised Learning (SL), Traffic Flow (TF), Unsupervised Clustering Algorithms (UCA), Youth pedestrian (Y)