

Article analysis

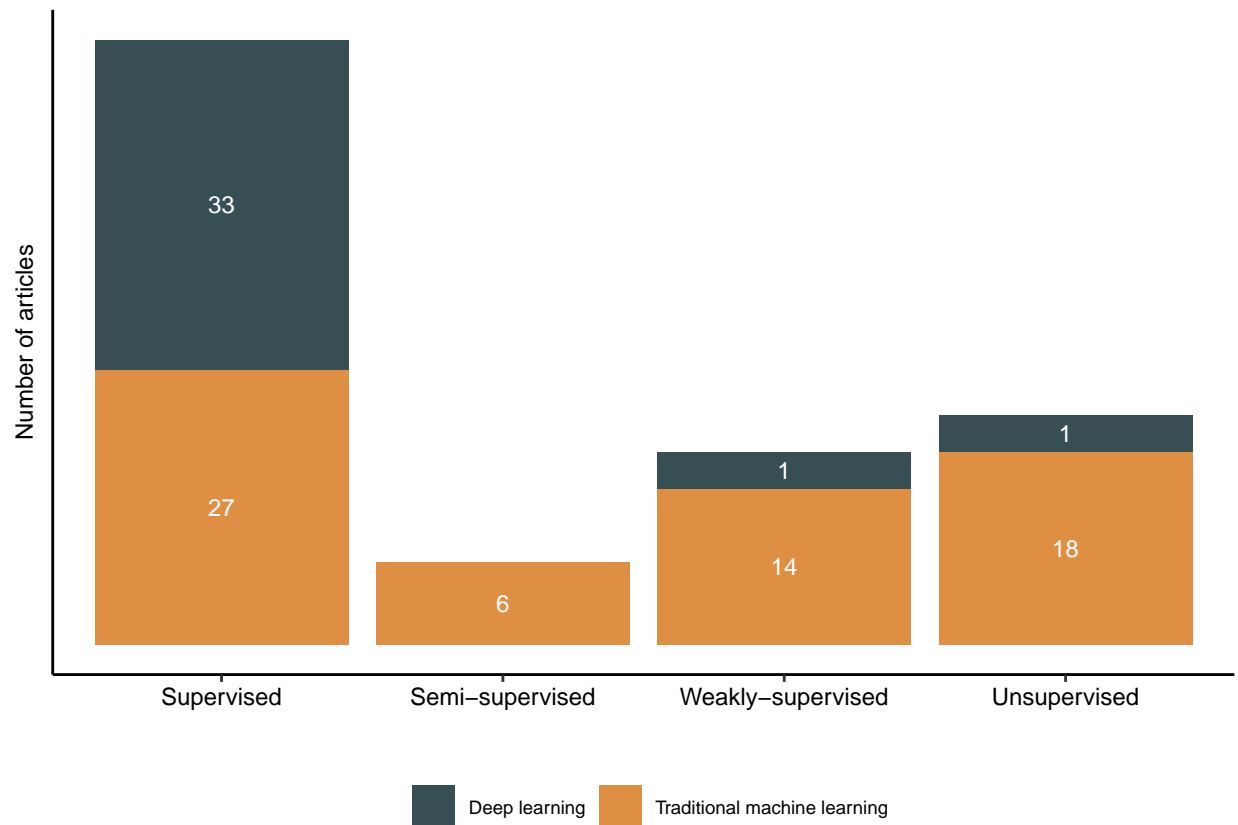
Siyue Yang, Jessica Gronsbell

Last Updated: 10/10/2022

Contents

1	Overview	2
1.1	Traditional ML methods	2
1.2	DL methods	3
2	Phenotypes	4
2.1	More nuanced phenotype	4

1 Overview



1.1 Traditional ML methods

Table 1: Common traditional machine learning methods (Count > 1)

ML	Traditional ML method	Count
Supervised	Random forest	14
Supervised	Logistic regression	11
Supervised	SVM	11
Supervised	L1 logistic regression	8
Supervised	Decision trees	4
Supervised	XGBoost	4
Supervised	Naive Bayes	3
Weakly-supervised	PheNorm	3
Weakly-supervised	MAP	2
Weakly-supervised	Random forest	2
Unsupervised	LDA	5
Unsupervised	K-means	4
Unsupervised	UPGMA Hierarchical clustering	2

[1] "There are 18 papers using multiple traditional machine learning methods"

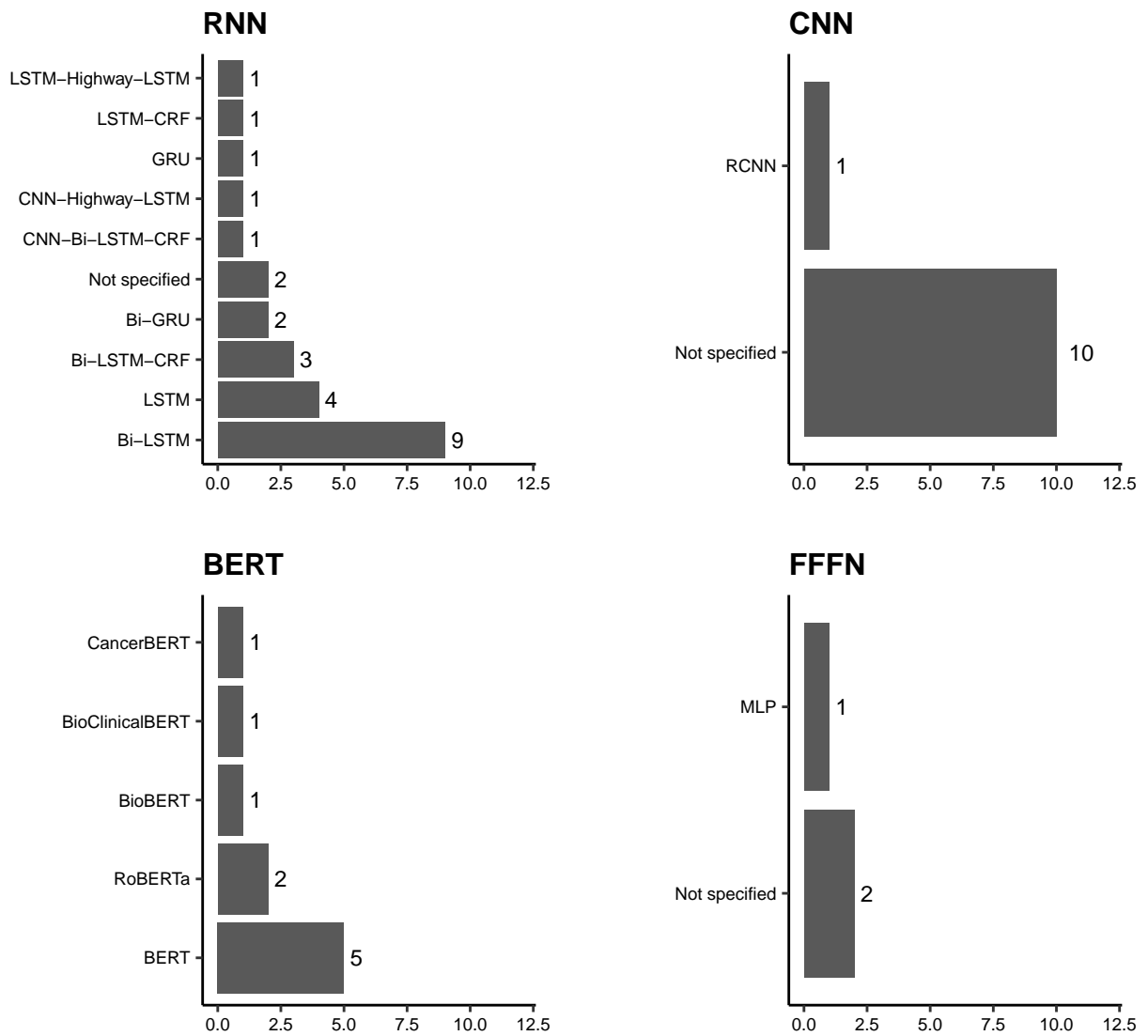
1.2 DL methods

Table 2: Common deep learning methods (Count > 1)

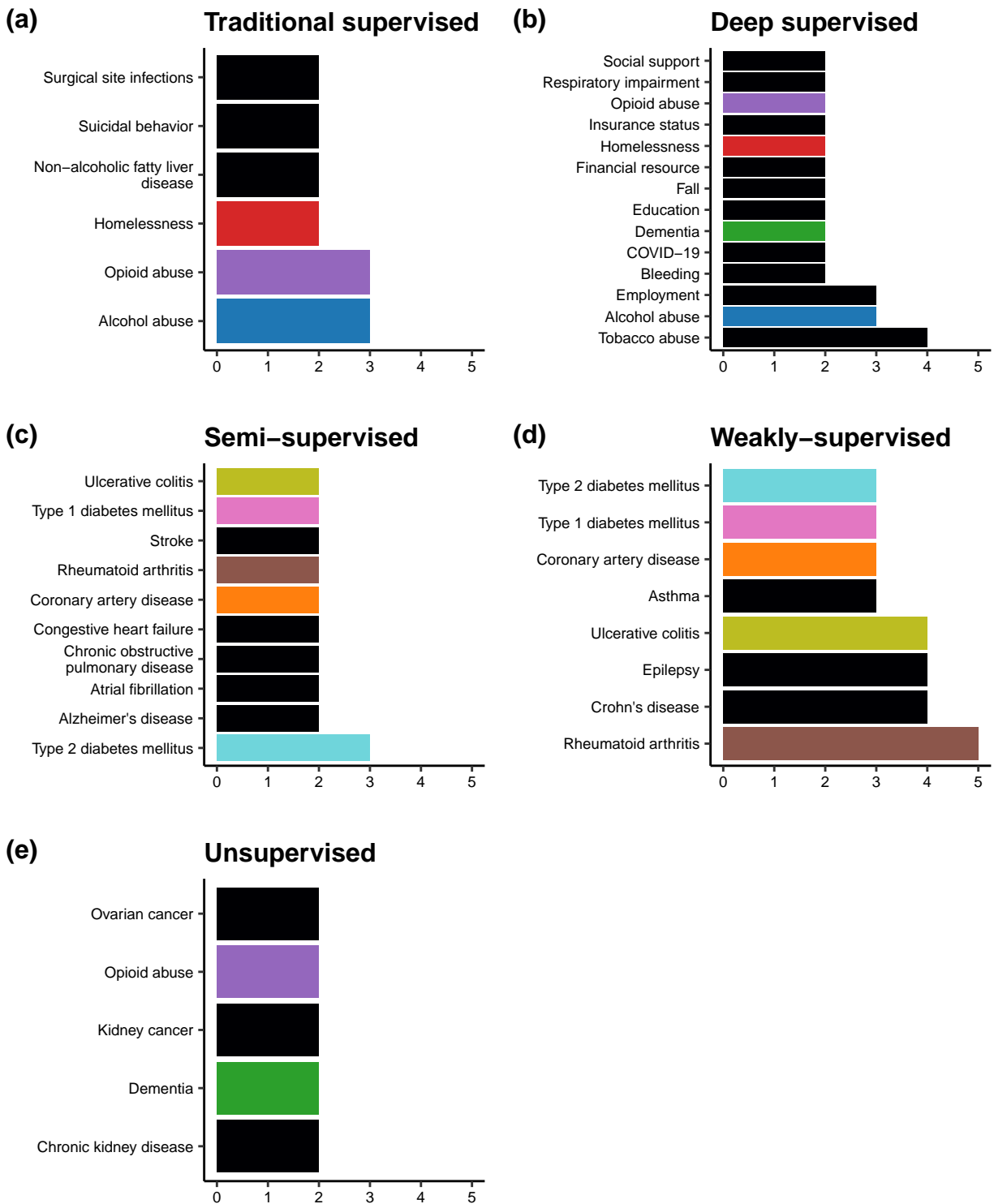
DL method	ML	Count
BERT	Supervised	7
CNN	Supervised	11
FFNN	Supervised	3
RNN	Supervised	19

[1] "There are 5 papers using multiple deep learning methods"

1.2.1 Deep neural network variants



2 Phenotypes



2.1 More nuanced phenotype