CONFRONTO SPIDER WEB METHOD CON STATO DELL'ARTE

OUTPUT NO WEB BALANCED DECISION TREE (432 IMG PER SESSO)

Criterion = "gini" max_depth = 13

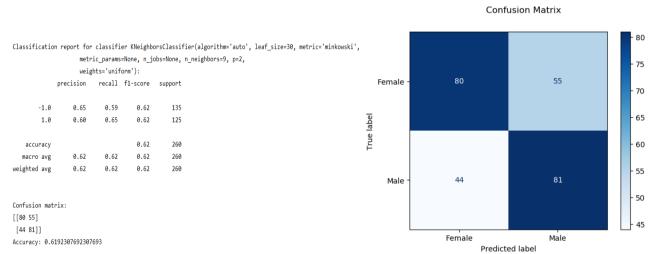
Accuracy: 0.583

Criterion = "entropy" max_depth = 13

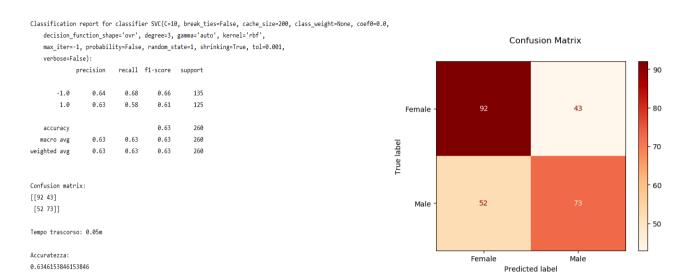
Accuracy: 0.503

OUTPUT NO WEB BALANCED K NEAREST NEIGHBORS (432 IMG PER

SESSO)



OUTPUT NO WEB BALANCED SVM (432 IMG PER SESSO)



OUTPUT NO WEB DECISION TREE (1000 IMG)

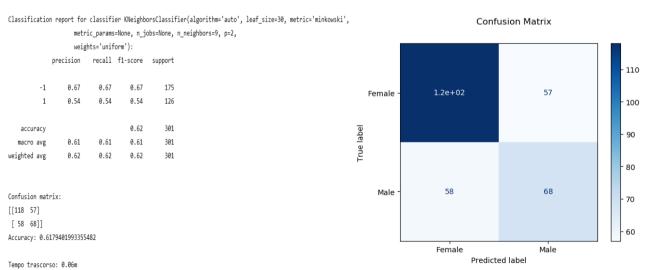
Criterion = "gini" max_depth = 13

Accuracy: 0.534

Criterion = "entropy" max_depth = 13

Accuracy: 0.566

OUTPUT NO WEB KNN (1000 IMG)



OUTPUT NO WEB SVM (1000 IMG)

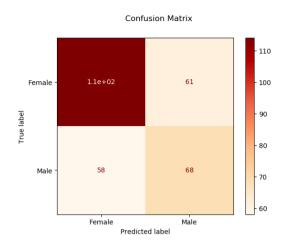
Classification report for classifier SVC(C=10, break_ties=False, cache_size=200, class_weight=None, coef0=0.0, decision_function_shape='ovr', degree=3, gamma='auto', kernel='rbf', max_iter=-1, probability=False, random_state=1, shrinking=True, tol=0.001, verbose=False):

	precision	recall	T1-score	support
-1	0.66	0.65	0.66	175
1	0.53	0.54	0.53	126
accuracy			0.60	301
macro avg	0.59	0.60	0.60	301
weighted avg	0.61	0.60	0.61	301

Confusion matrix: [[114 61] [58 68]]

Tempo trascorso: 0.07m

Accuratezza: 0.6046511627906976



OUTPUT SPIDER WEB DECISION TREE (1000 IMG)

Criterion = "gini" max_depth = 13

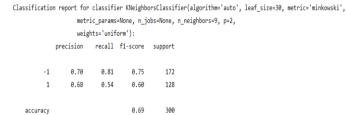
Accuracy: 0.666

Criterion = "entropy" max_depth = 13

Accuracy: 0.623

OUTPUT SPIDER WEB KNN (1000IMG)

Confusion Matrix



300

Confusion matrix: [[139 33]

[59 69]]

weighted avg

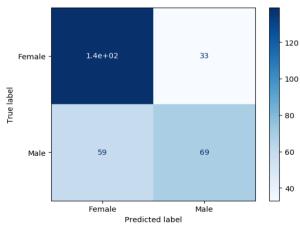
Accuracy: 0.69333333333333334

0.69

0.67

0.68

0.69



OUTPUT SPIDER WEB SVM (1000IMG)

Classification report for classifier SVC(C=10, break_ties=False, cache_size=200, class_weight=None, coef0=0.0, decision_function_shape='ovr', degree=3, gamma='auto', kernel='rbf', max_iter=-1, probability=False, random_state=1, shrinking=True, tol=0.001,

verbose=False):

precision recall f1-score support

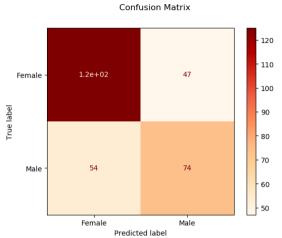
-1	0.70	0.73	0.71	172
-1	0.70	0.75	0.71	1/2
1	0.61	0.58	0.59	128
accuracy			0.66	300
macro avg	0.65	0.65	0.65	300
weighted avg	0.66	0.66	0.66	300

Confusion matrix: [[125 47] [54 74]]

Tempo trascorso: 0.06m

0.66333333333333333

Accuratezza:



OUTPUT SPIDER WEB BILANCIATO DECISION TREE (432 IMG PER SESSO)

Criterion = "gini" max_depth = 13

Accuracy: 0.635

Criterion = "entropy" max_depth = 13

Accuracy: 0.594

OUTPUT SPIDER WEB BILANCIATO KNN (432 IMG PER SESSO)

Classification report for classifier KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski',

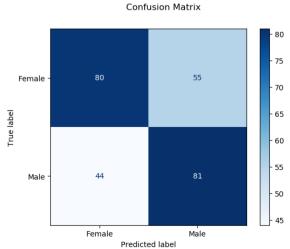
metric_params=None, n_jobs=None, n_neighbors=9, p=2,

	MeIR	gnes= unii	orm):	
	precision	recall	f1-score	support
-1	0.65	0.59	0.62	135
1	0.60	0.65	0.62	125
accuracy			0.62	260
macro avg	0.62	0.62	0.62	260
weighted avg	0.62	0.62	0.62	260

Confusion matrix: [[80 55]

[44 81]] Accuracy: 0.6192307692307693

Tempo trascorso: 0.04m



OUTPUT SPIDER WEB BILANCIATO SVM (432 IMG PER SESSO)

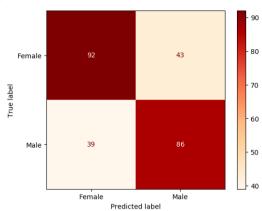
Classification report for classifier SVC(C=10, break_ties=False, cache_size=200, class_weight=None, coef0=0.0, decision_function_shape='ovr', degree=3, gamma='auto', kernel='rbf',

max_iter=-1, probability=False, random_state=1, shrinking=True, tol=0.001, verbose=False):

	precision	recall	f1-score	support
-1	0.70	0.68	0.69	135
1	0.67	0.69	0.68	125
accuracy			0.68	260
macro avg	0.68	0.68	0.68	260
weighted avg	0.69	0.68	0.68	260

Confusion matrix: [[92 43] [39 86]]

Tempo trascorso: 0.06m



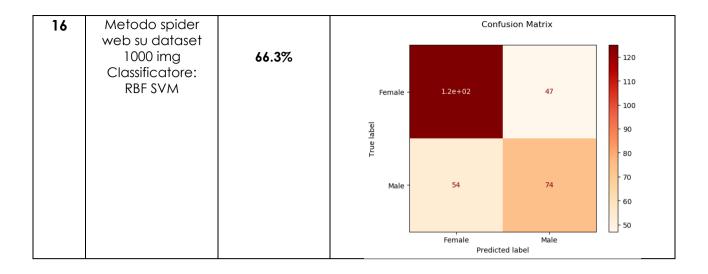
Confusion Matrix

TABELLE RIASSUNTIVE

#Test	Configurazione	Accuratezza		Out	put	
1	Metodo no spider				_	
	web su dataset					
	bilanciato (432					
	img per sesso)	58.3%				
	Classificatore:					
	Decision Tree					
	(gini, max_depth					
	= 13)					
2	Metodo no spider					
	web su dataset					
	bilanciato (432					
	img per sesso)	50.3%				
	Classificatore:					
	Decision Tree					
	(entropy,					
	max_depth = 13)					
3	Metodo spider					
	web su dataset					
	bilanciato (432					
	img per sesso)	63.5%				
	Classificatore:					
	Decision Tree					
	(gini, max_depth					
	= 13)					
4	Metodo spider					
	web su dataset					
	bilanciato (432					
	img per sesso)	59.4%				
	Classificatore:					
	Decision Tree					
	(entropy,					
_	max_depth = 13)					
5	Metodo no spider			Conf	usion Matrix	
	web su dataset	/1.00/				- 80
	bilanciato (432	61.9%				
	img per sesso)					- 75
	Classificatore: KNN		Female -	80	55	- 70
	KININ					
			apel			- 65
			True label			- 60
			Male -	44	81	- 55
			Male		-	- 50
						- 45
				Female Predict	Male ed label	
				riculct		

6	Metodo spider		Confusion Matrix			
	web su dataset bilanciato (432	61.9%				80
	img per sesso)	01.7/0				- 75
	Classificatore:		Female -	80	55	
	KNN					- 70
			True label			- 65
			巿			- 60
			Male -	44	81	- 55
						- 50
				Female	Male	- 45
				Predic	ted label	
7	Metodo no spider web su dataset			Con	fusion Matrix	
	bilanciato (432	63.4%				- 90
	img per sesso) Classificatore:		Female -	. 92	43	- 80
	SVM RBF		remaie -	32	45	80
			True label			- 70
			True			
			Male -	52	73	- 60
			Marc			- 50
				Female Predic	Male ted label	
8	Metodo spider web su dataset			Con	fusion Matrix	_
	bilanciato (432	68.4%				- 90
	img per sesso) Classificatore:		Familia	e - 92	43	- 80
	SVM RBF		Female	9-2	43	
			True label			- 70
			True			- 60
			Male	39	86	- 50
						30
				Female	Male	- 40
9	Metodo no spider			Predic	ted label	
'	web su dataset					
	1000 img Classificatore:	53.4%				
	Decision tree(gini,					
10	max_depth=13) Metodo no spider					
	web su dataset					
	1000 img Classificatore:	56.6%				
	Decision	30.0,0				
	tree(entropy, max_depth=13)					
	max_depth=13)					

11	Metodo spider					1
''	web su dataset					
	1000 img	66.6%				
	Classificatore:	00.070				
	Decision tree(gini,					
	max_depth=13)					
12	Metodo spider					
12	web su dataset					
	1000 img	62.3%				
	Classificatore:	02.576				
	Decision tree(gini,					
	max_depth=13)					
13	Metodo no spider			Conf	usion Matrix	
13	web su dataset			Com	usion Matrix	
	1000 img	61.7%				
	Classificatore:	01.776				- 110
	KNN					110
	NININ		Female -	1.2e+02	57	100
						- 100
			le e			
			True label			- 90
			Τ̈́			
						- 80
			Male -	58	68	
						- 70
						- 60
				Female	Male ed label	
	Adada da setala e		 			
14	Metodo spider			Conf	usion Matrix	
	web su dataset	40.0~				
	1000 img	<u>69.3%</u>				
	Classificatore:					- 120
	KNN		Female -	1.4e+02	33	
						- 100
			pel			
			True label			
			F			- 80
			Male -	59	69	- 60
						- 40
				Female	Male	
				Predict	ed label	
15	Metodo no spider			Conf	usion Matrix	
	web su dataset					
	1000 img	60.4%				- 110
	Classificatore:					
	RBF SVM		Femal	e - 1.1e+02	61	- 100
			abel			- 90
			True label			
			-			- 80
			Mai	e - 58	68	
			1			- 70
				Female	Male	- 60
					ed label	
			-			



Accuracy migliore ottenuta: **69.3**% sulla configurazione 4c4s calcolata tramite il metodo spider web su 1000 immagini usando il classificatore KNN.