

Supplementary online material for
*“On the evaluation of BERT-based models for Italian
Sentiment Analysis”*

Steve Azzolin - NLU 2020/2021

Introduction

- This SOM is aimed at gathering together the detailed results, along with further plots and analysis, presented in the [project's report](#)
- For details about the models, datasets, and training/testing procedure check out the report

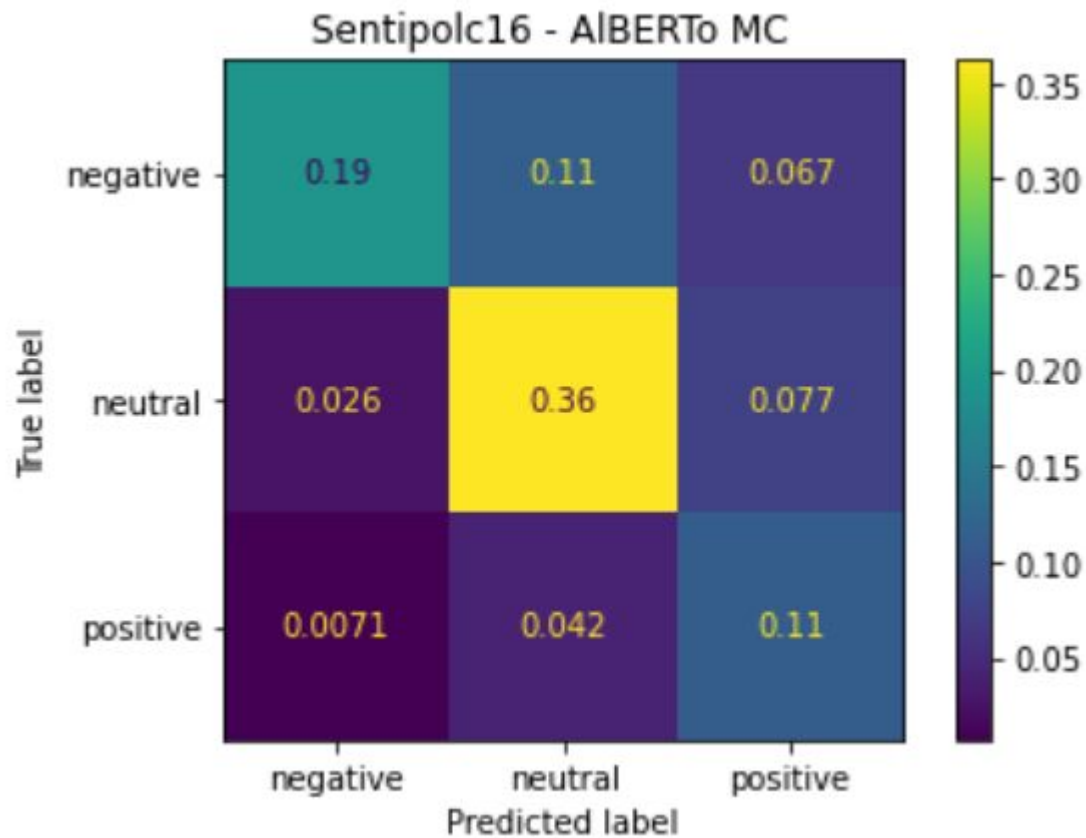
SENTIPOLC16

- AIBERTo MC

	precision	recall	f1-score	support
negative	0.85	0.51	0.64	734
neutral	0.70	0.78	0.74	914
positive	0.44	0.69	0.54	316
accuracy			0.67	1964
macro avg	0.66	0.66	0.64	1964
weighted avg	0.71	0.67	0.67	1964

SENTIPOLC16

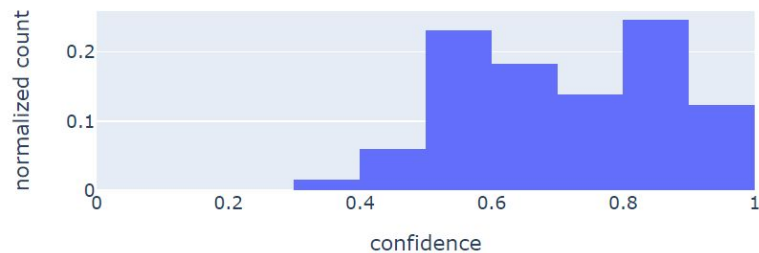
- AIBERTo MC



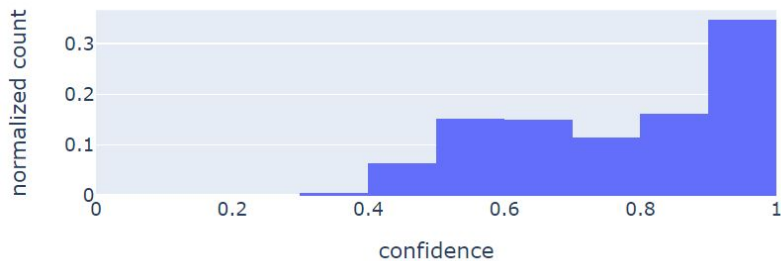
SENTIPOLC16

- AIBERTo MC

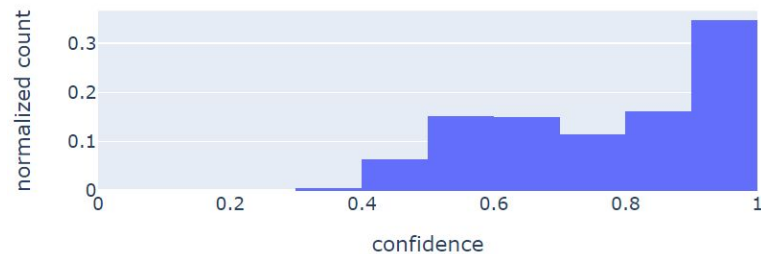
AIBERTo MC's confidence distribution for Sentipolc16 - false negative



AIBERTo MC's confidence distribution for Sentipolc16 - false neutral



AIBERTo MC's confidence distribution for Sentipolc16 - false positive



SENTIPOLC16

- AIBERTo MC
 - by analyzing the distribution of irony in the predictions errors:
 - 531 samples without irony
 - 125 samples with irony

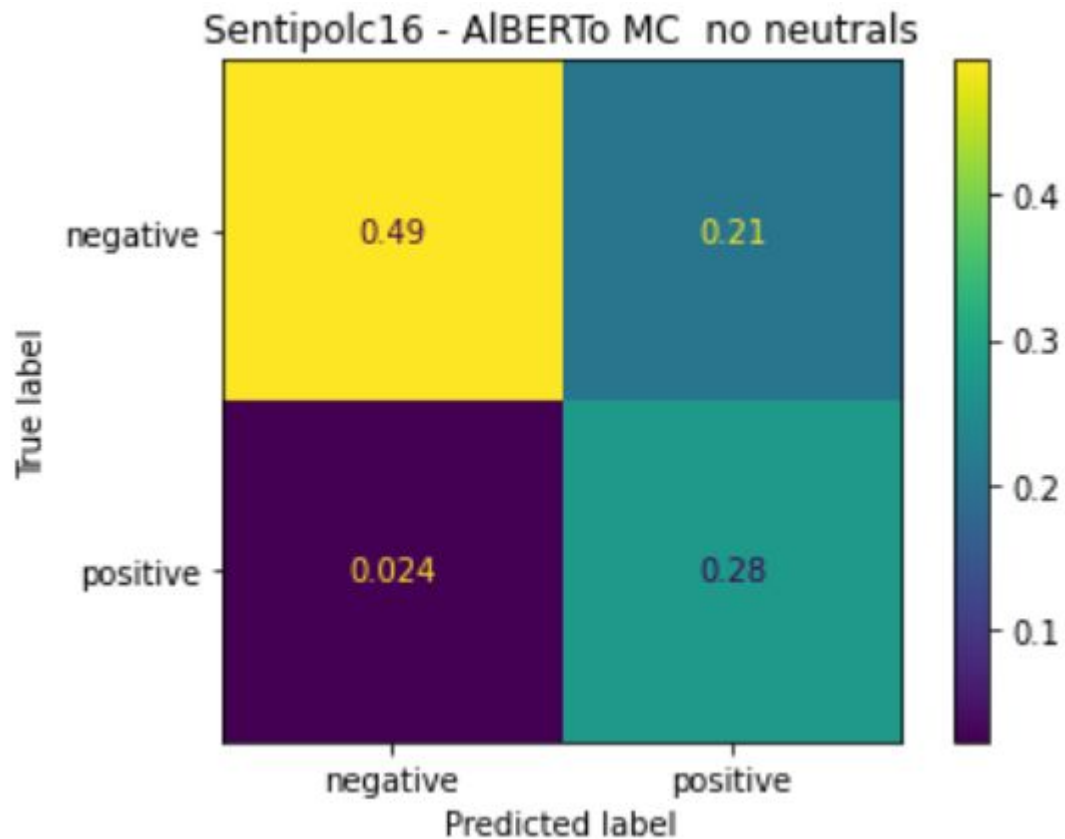
SENTIPOLC16

- AIBERTo MC no neutrals

	precision	recall	f1-score	support
negative	0.95	0.70	0.81	734
positive	0.57	0.92	0.71	316
accuracy			0.77	1050
macro avg	0.76	0.81	0.76	1050
weighted avg	0.84	0.77	0.78	1050

SENTIPOLC16

- AIBERTO MC no neutrals



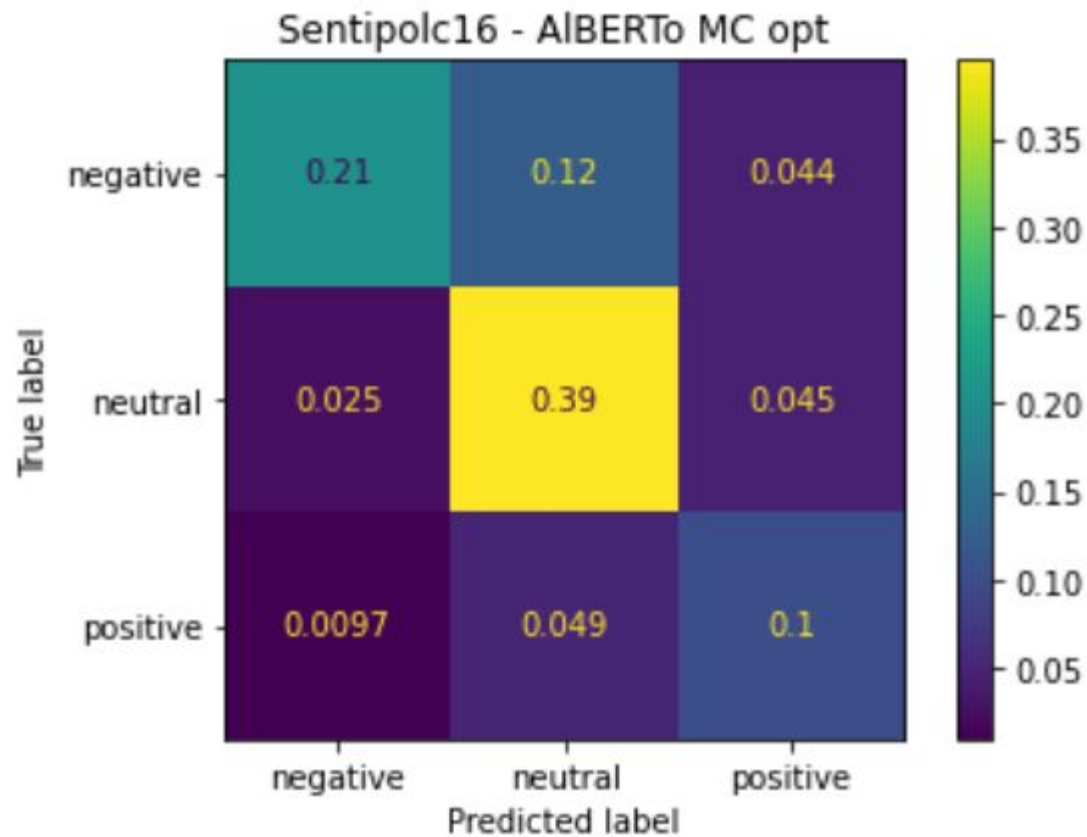
SENTIPOLC16

- AIBERTo MC opt

	precision	recall	f1-score	support
negative	0.85	0.55	0.67	734
neutral	0.70	0.85	0.76	914
positive	0.53	0.63	0.58	316
accuracy			0.70	1964
macro avg	0.69	0.68	0.67	1964
weighted avg	0.73	0.70	0.70	1964

SENTIPOLC16

- AIBERTO MC opt



SENTIPOLC16

- AIBERTO MC opt

AIBERTO MC opt's confidence distribution for Sentipolc16 - false ne



AIBERTO MC opt's confidence distribution for Sentipolc16 - false ne



AIBERTO MC opt's confidence distribution for Sentipolc16 - false po



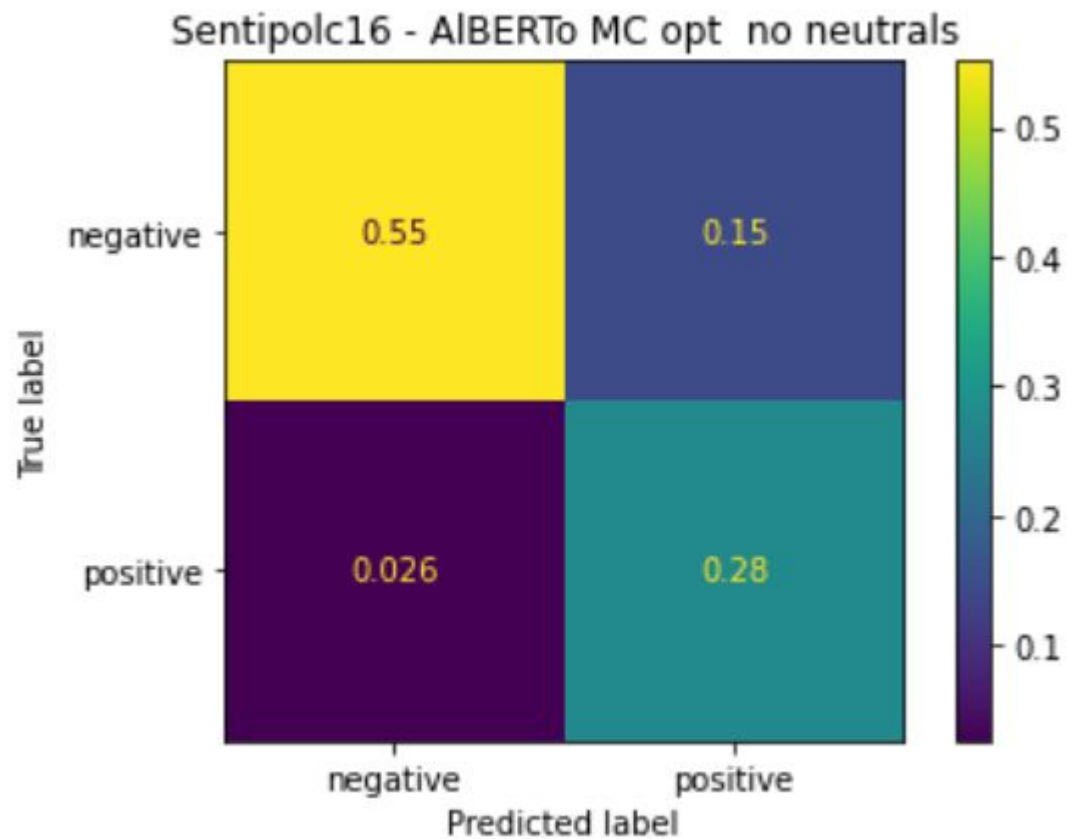
SENTIPOLC16

- AIBERTo MC opt no neutrals

	precision	recall	f1-score	support
negative	0.96	0.79	0.86	734
positive	0.65	0.91	0.76	316
accuracy			0.83	1050
macro avg	0.80	0.85	0.81	1050
weighted avg	0.86	0.83	0.83	1050

SENTIPOLC16

- AIBERTO MC opt no neutrals



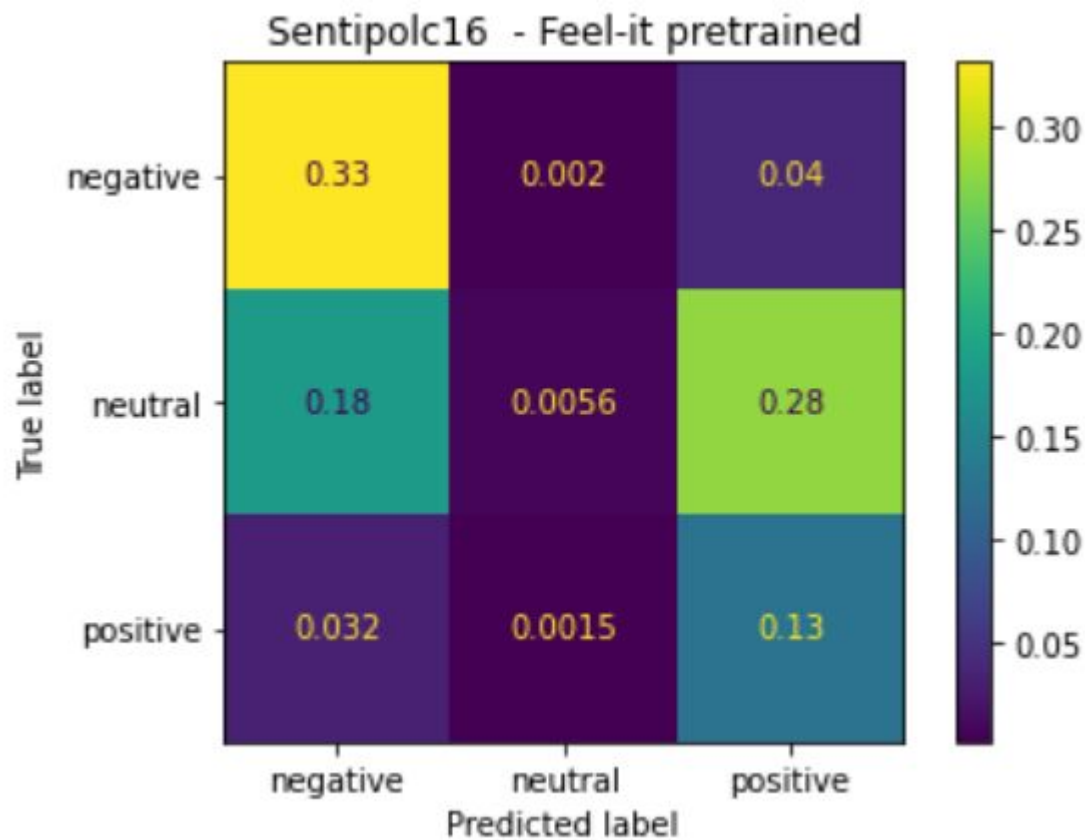
SENTIPOLC16

- Feel-it
 - 18 samples were assigned to the class neutral, of which 11 were correct, out of 914 neutrals

	precision	recall	f1-score	support
negative	0.61	0.89	0.72	734
neutral	0.61	0.01	0.02	914
positive	0.29	0.79	0.42	316
accuracy			0.47	1964
macro avg	0.50	0.56	0.39	1964
weighted avg	0.56	0.47	0.35	1964

SENTIPOLC16

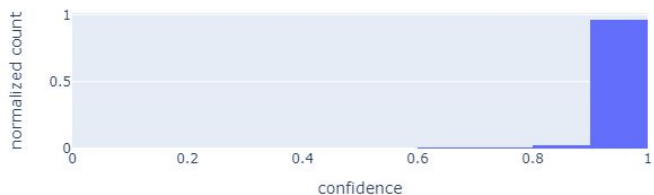
- Feel-it



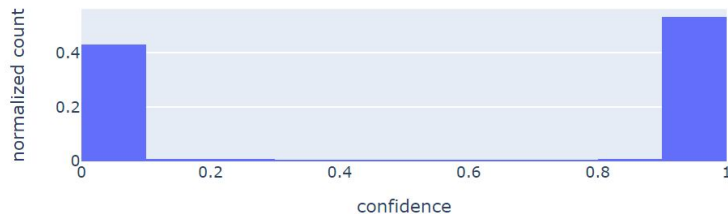
SENTIPOLC16

- Feel-it

Feel-it model pretrained's confidence distribution for Sentipolc16 - false n



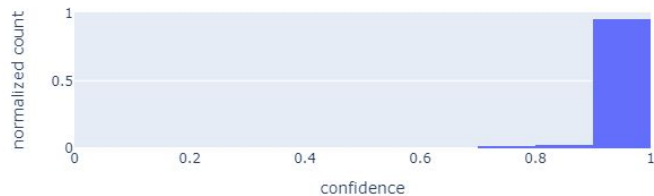
Feel-it model overall confidence distribution



Feel-it model pretrained's confidence distribution for Sentipolc16 - false n



Feel-it model pretrained's confidence distribution for Sentipolc16 - false p



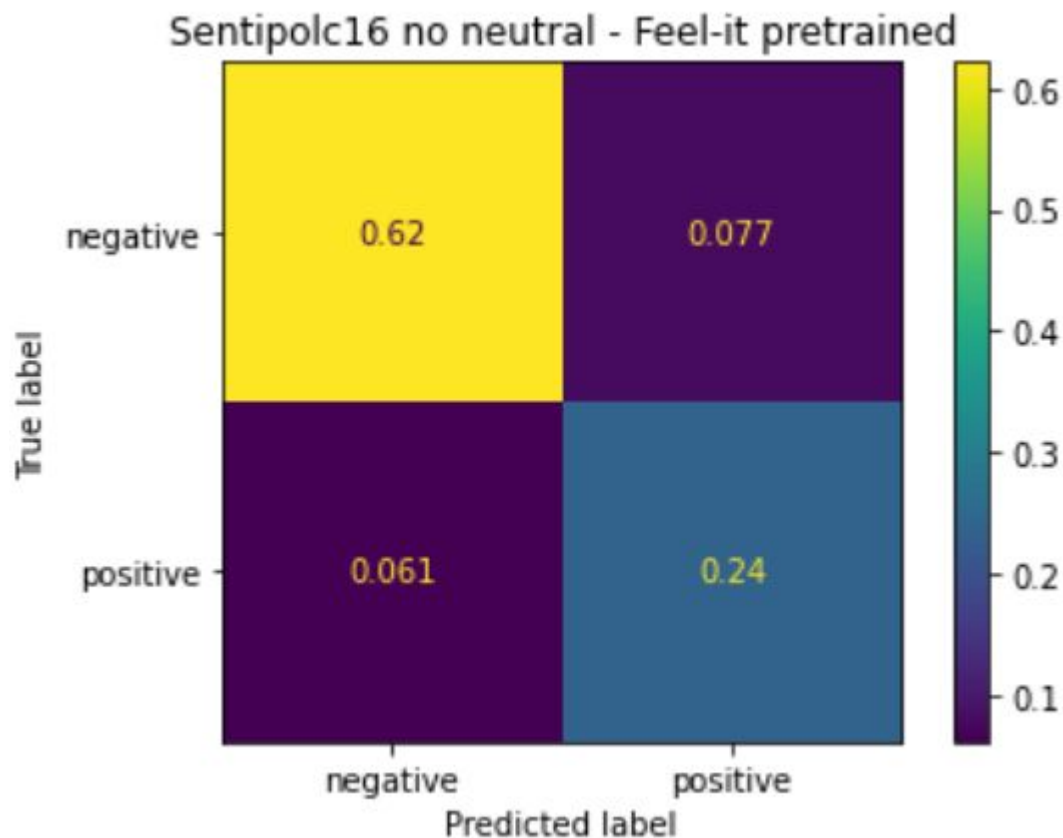
SENTIPOLC16

- Feel-it no neutrals

	precision	recall	f1-score	support
negative	0.91	0.89	0.90	734
positive	0.76	0.80	0.78	316
accuracy			0.86	1050
macro avg	0.83	0.84	0.84	1050
weighted avg	0.86	0.86	0.86	1050

SENTIPOLC16

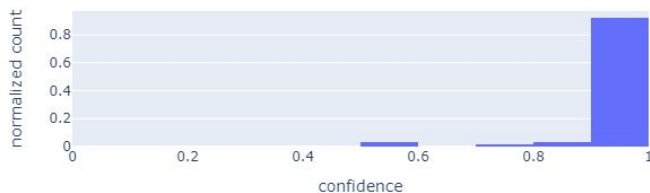
- Feel-it no neutrals



SENTIPOLC16

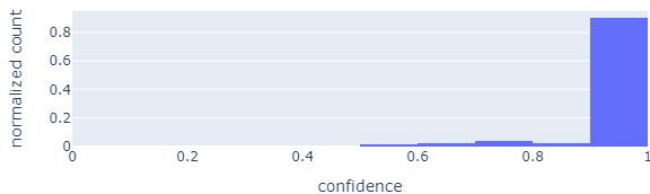
- Feel-it no neutrals

Feel-it model pretrained's confidence distribution for Sentipolc16 no neutrals



false negatives

Feel-it model pretrained's confidence distribution for Sentipolc16 no neutrals



false positives

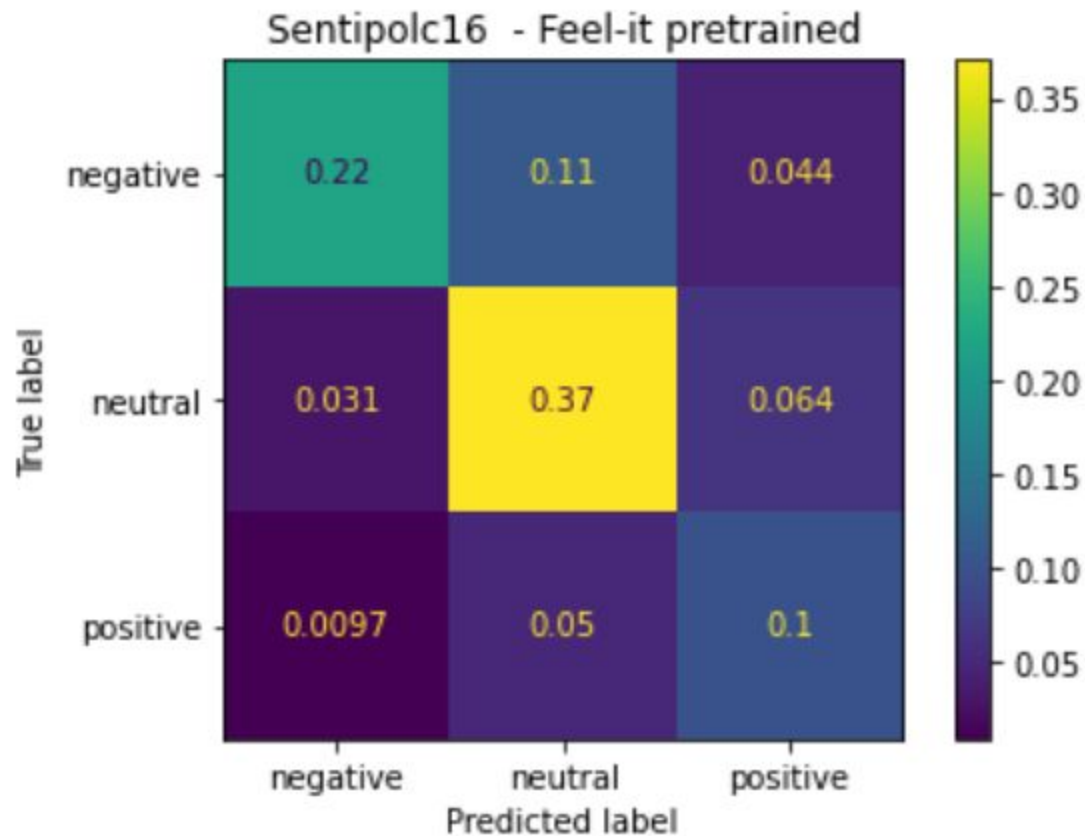
SENTIPOLC16

- Feel-it fine tuned on SENTIPOLC16

	precision	recall	f1-score	support
negative	0.82	0.65	0.73	734
neutral	0.71	0.77	0.74	914
positive	0.50	0.62	0.55	316
accuracy			0.70	1964
macro avg	0.68	0.68	0.67	1964
weighted avg	0.72	0.70	0.71	1964

SENTIPOLC16

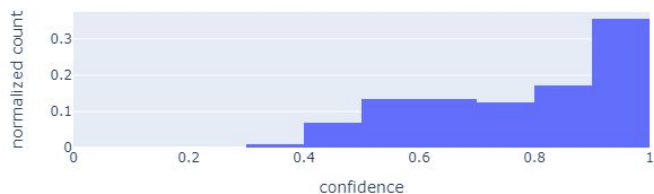
- Feel-it fine tuned on SENTIPOLC16



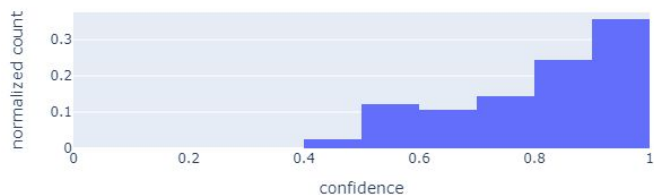
SENTIPOLC16

- Feel-it fine tuned on SENTIPOLC16

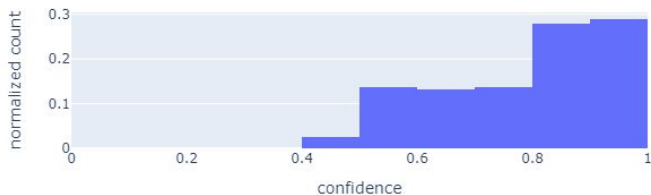
Feel-it model MC fine tuned's confidence distribution for Sentipolc16 - false negatives



Feel-it model MC fine tuned's confidence distribution for Sentipolc16 - false neutrals



Feel-it model MC fine tuned's confidence distribution for Sentipolc16 - false positives



SENTIPOLC16

- Dataset examples (predictions made by AIBERTto MC)
 - <user> ci hai illuse 😊😭 vabbè oltre ad essere un cantante perfetto sei anche un tatuatore (pred=negative, label=positive)
 - ho tutto ciò di cui ho bisogno ora non potrei chiedere di più (pred=negative, label=positive)
 - <hashtag> la buona scuola </hashtag> senti matteo siamo prontissimi a incontrarti veniamo a roma quando vuoi paginadopopagina ti spieghiamo come funziona (pred=positive, label=negative)
 - renzi e i <number> punti per la buona scuola ma servirebbe un ripasso di grammatica <url> <url> (pred=positive, label=negative)
 - contribuire a progettare la buona scuola comunque la si pensi sul governo renzi questa è la piattaforma <url> (pred=neutral, label=neutral)
 - la buona scuola di renzi pillole di riforma <url> (pred=neutral, label=neutral)
 - la buona scuola un anno per cambiare la scuola italiana <url> (pred=neutral, label=neutral)
 - a scuola torna il gessetto ma è digitale ecco la penna interattiva made in italy <url> anche questa è <hashtag> la buona scuola </hashtag> (pred=neutral, label=neutral)
 - per chi ancora non lo sapesse è in onda online il <hashtag> renzi show </hashtag> il più grande spettacolo mai visto <hashtag> passo do pop as so </hashtag> <hashtag> scuola </hashtag> <hashtag> la buona scuola </hashtag> (pred=positive, label=negative)
 - <hashtag> la buona scuola </hashtag> tutto pienamente condivisibile peccato che rimarranno solo buone intenzioni <url> <url> (pred=positive, label=negative)
 - <user> come volevasi dimostrare <hashtag> la buona scuola </hashtag> è una scuola ingiusta ! (pred=negative, label=negative)

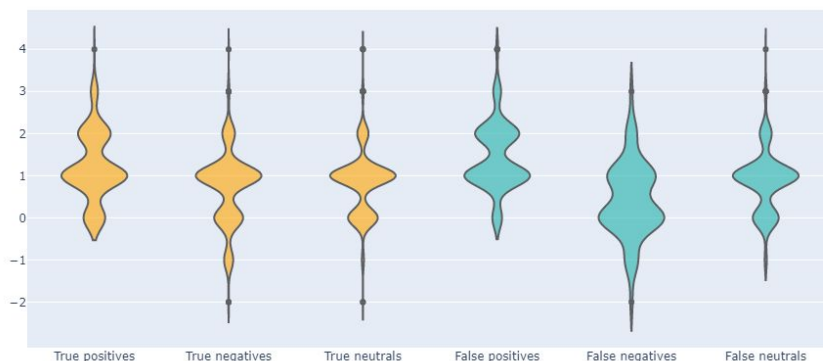
SENTIPOLC16

- Dataset examples (predictions made by AIBERTo MC)
 - <user> ci hai illuse 😊😭 vabbè oltre ad essere un cantante perfetto sei anche un tatuatore (pred=negative, label=positive)
 - ho tutto ciò di cui ho bisogno ora non potrei chiedere di più (pred=negative, label=positive)
 - <hashtag> la buona scuola </hashtag> senti matteo siamo prontissimi a incontrarti veniamo a roma quando vuoi paginadopopagina ti spieghiamo come funziona (pred=positive, label=negative)
 - renzi e i <number> punti per la buona scuola ma servirebbe un ripasso di grammatica <url> <url> (pred=positive, label=negative)
 - contribuire a progettare la buona scuola comunque la si pensi sul governo renzi questa è la piattaforma <url> (pred=neutral, label=neutral)
 - la buona scuola di renzi pillole di riforma <url> (pred=neutral, label=neutral)
 - la buona scuola un anno per cambiare la scuola italiana <url> (pred=neutral, label=neutral)
 - a scuola torna il gessetto ma è digitale ecco la penna interattiva made in italy <url> anche questa è <hashtag> la buona scuola </hashtag> (pred=neutral, label=neutral)
 - per chi ancora non lo sapesse è in onda online il <hashtag> renzi show </hashtag> il più grande spettacolo mai visto <hashtag> passo do pop as so </hashtag> <hashtag> scuola </hashtag> <hashtag> la buona scuola </hashtag> (pred=positive, label=negative)
 - <hashtag> la buona scuola </hashtag> tutto pienamente condivisibile peccato che rimarranno solo buone intenzioni <url> <url> (pred=positive, label=negative)
 - <user> come volevasi dimostrare <hashtag> la buona scuola </hashtag> è una scuola ingiusta ! (pred=negative, label=negative)

SENTIPOLC16

- Further error analysis:
- I computed the number of word that carry sentiment polarity for each sample
 - sentiment score = sum of sentiment polarity for each word (positive=+1, negative=-1)
 - a word carries sentiment polarity if EvSent predicts either positive/negative for that single word
- Analyze the distribution of such sentiment scores (SENTIPOLC16 only)

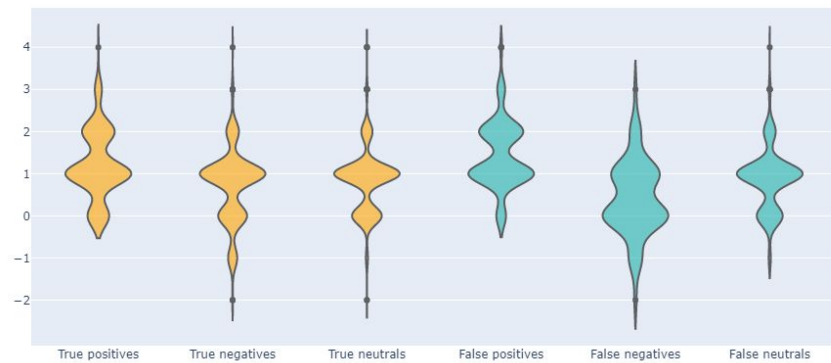
Distribution of sentiment lexicon's scores and model's predictions



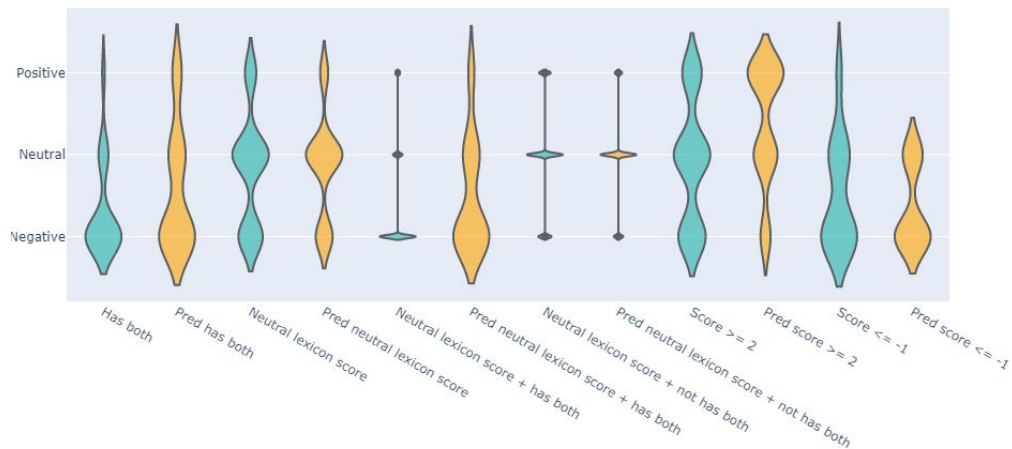
SENTIPOLC16

- I computed the number of word that carry sentiment polarity for each sample
 - sentiment score = sum of sentiment polarity for each word (positive=+1, negative=-1)
 - a word carries sentiment polarity is EvSent predicts either positive/negative
- Analyze the distribution of such sentiment scores (SENTIPOLC16 only)

Distribution of sentiment lexicon's scores and model's predictions



Distribution of sentiment lexicon's scores and model's predictions



SENTIPOLC16

- Subjectivity classification task
 - the goal was to reproduce the results presented in the AIBERTO paper

Model	Objective F1	Subjective F1	Macro F1
AIBERTO	0.74	0.84	0.79
Our AIBERTO	0.73	0.82	0.78

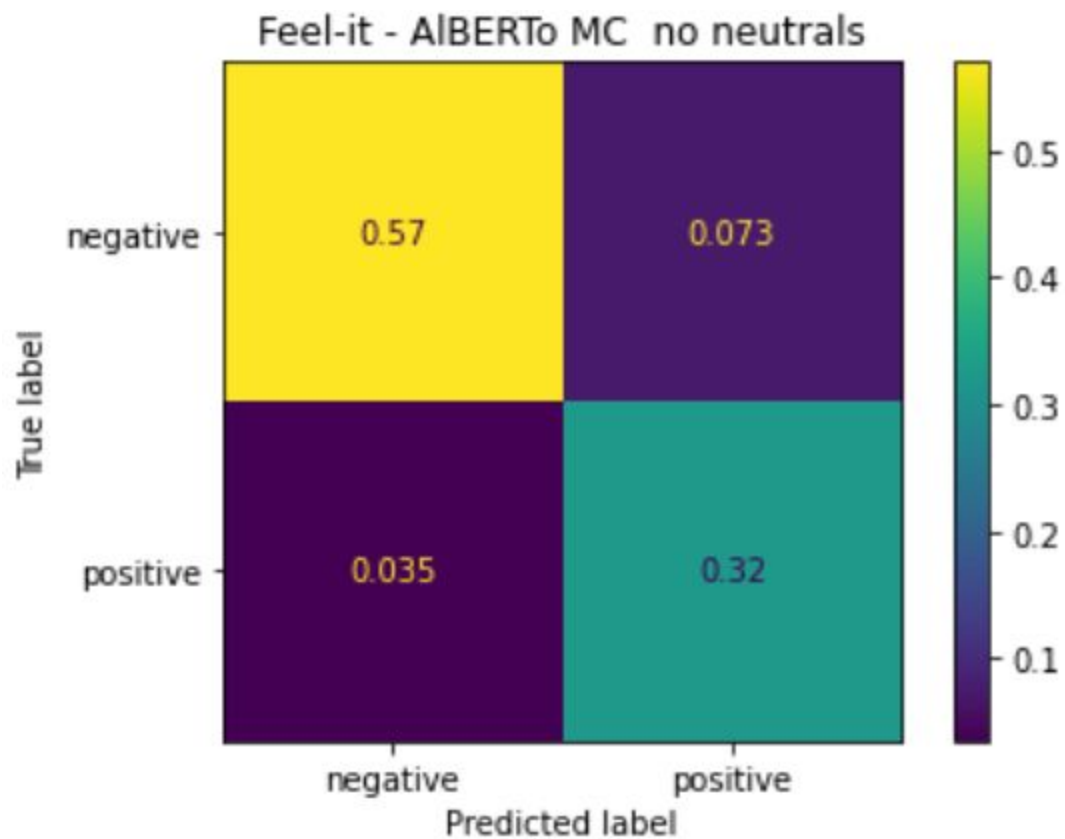
FEEL-IT

- AIBERTo MC no neutrals

	precision	recall	f1-score	support
negative	0.94	0.89	0.91	1309
positive	0.82	0.90	0.86	728
accuracy			0.89	2037
macro avg	0.88	0.89	0.89	2037
weighted avg	0.90	0.89	0.89	2037

FEEL-IT

- AIBERTO MC no neutrals



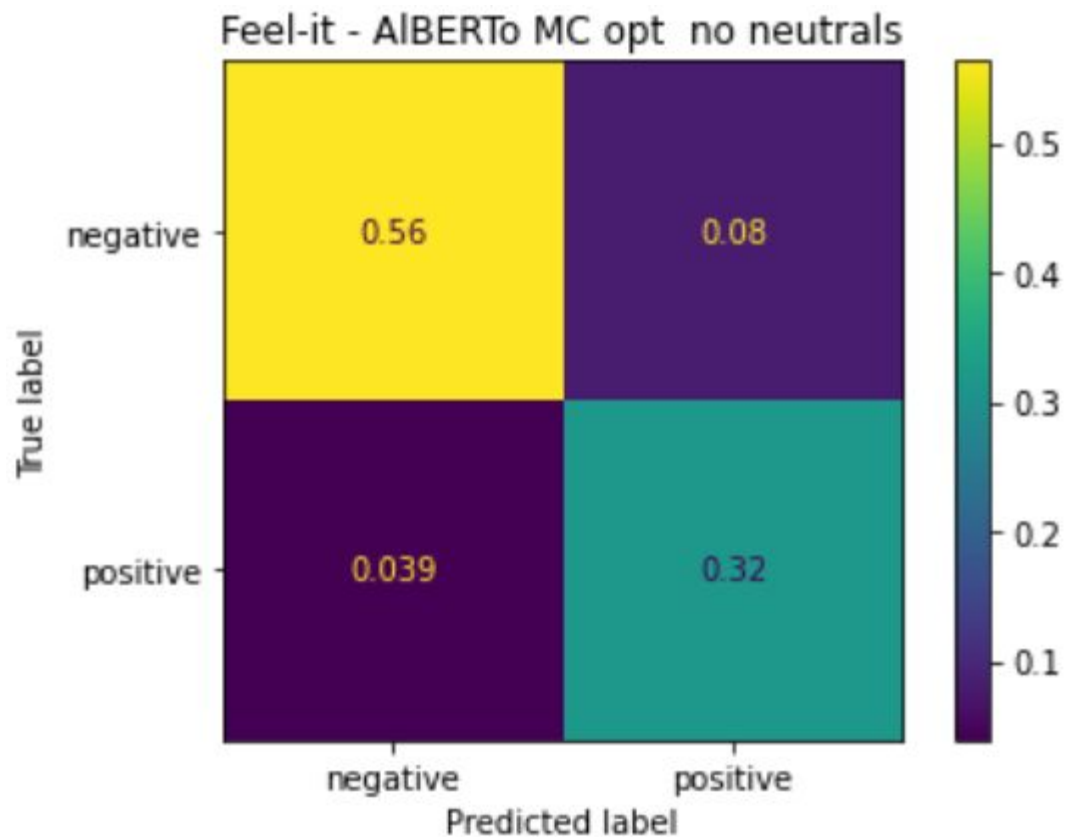
FEEL-IT

- AIBERTo MC opt no neutrals

	precision	recall	f1-score	support
negative	0.93	0.88	0.90	1309
positive	0.80	0.89	0.84	728
accuracy			0.88	2037
macro avg	0.87	0.88	0.87	2037
weighted avg	0.89	0.88	0.88	2037

FEEL-IT

- AIBERTO MC opt no neutrals



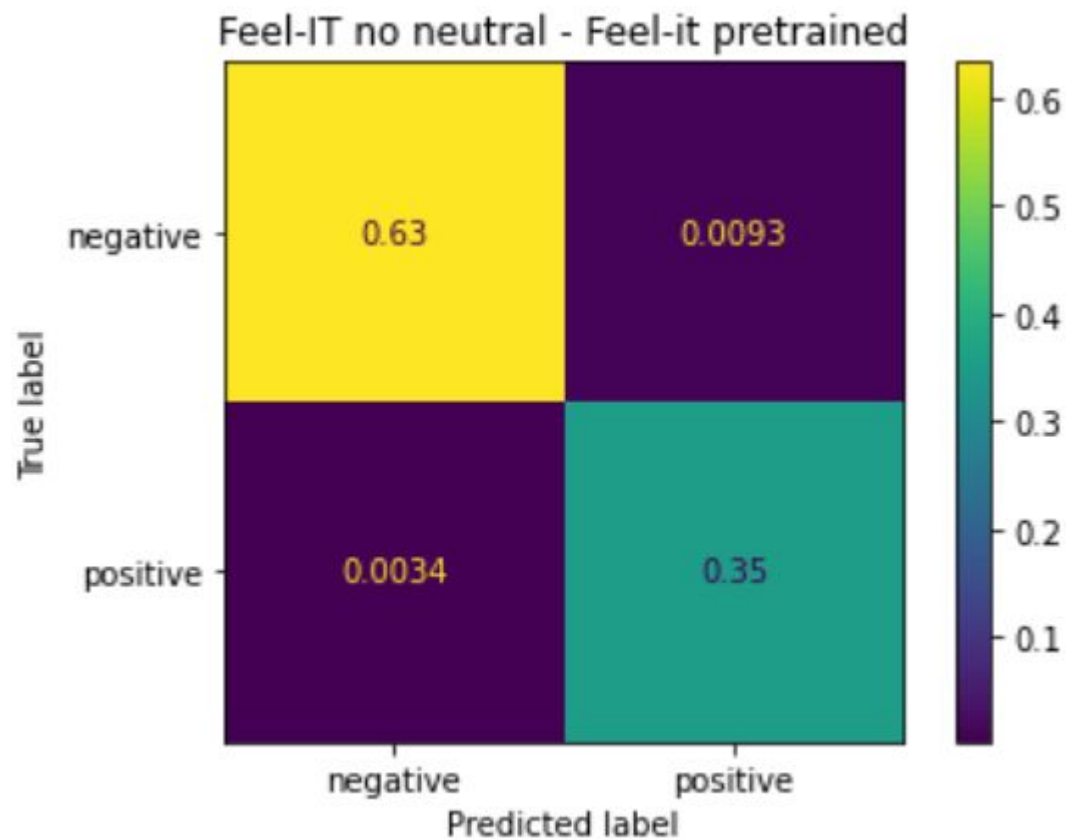
FEEL-IT

- Feel-IT model

	precision	recall	f1-score	support
negative	0.99	0.99	0.99	1309
positive	0.97	0.99	0.98	728
accuracy			0.99	2037
macro avg	0.98	0.99	0.99	2037
weighted avg	0.99	0.99	0.99	2037

FEEL-IT

- Feel-IT



FEEL-IT

- Dataset examples (predictions made by AIBERTo MC)
 - daniela è negativa raga tutto apposto (pred=negative, label=positive)
 - si cazzo (pred=negative, label=positive)
 - avete imprigionato il mio cuore <hashtag> elisa di rivombrosa </hashtag> (pred=negative, label=positive)
 - per chi volesse approfittare fino a esaurimento scorte (pred=negative, label=positive)
 - condoglianze vivissime a <user> per la perdita del suo amato padre cieli blu campione nella vita e nel campo <hashtag> totti </hashtag> (pred=positive, label=negative)
 - tanto lo so che non uscirà nemmeno mezza foto e io piangerò per anni e anni <hashtag> one direction </hashtag> (pred=positive, label=negative)
 - non potrei essere più felice <user> mi sei mancato da morire bentornato a casa (pred=positive, label=positive)

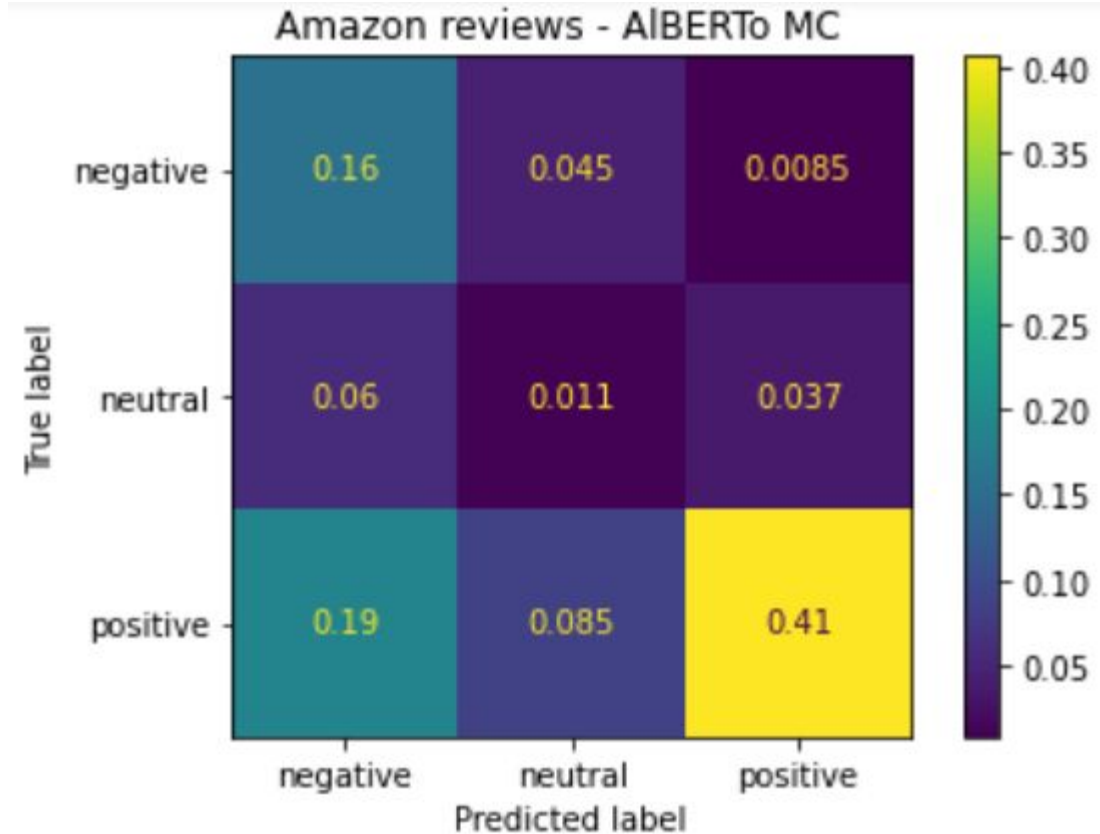
Amazon reviews

- AIBERTo MC

	precision	recall	f1-score	support
negative	0.39	0.75	0.51	75
neutral	0.08	0.11	0.09	38
positive	0.90	0.60	0.72	239
accuracy			0.58	352
macro avg	0.46	0.48	0.44	352
weighted avg	0.70	0.58	0.61	352

Amazon reviews

- AIBERTo MC



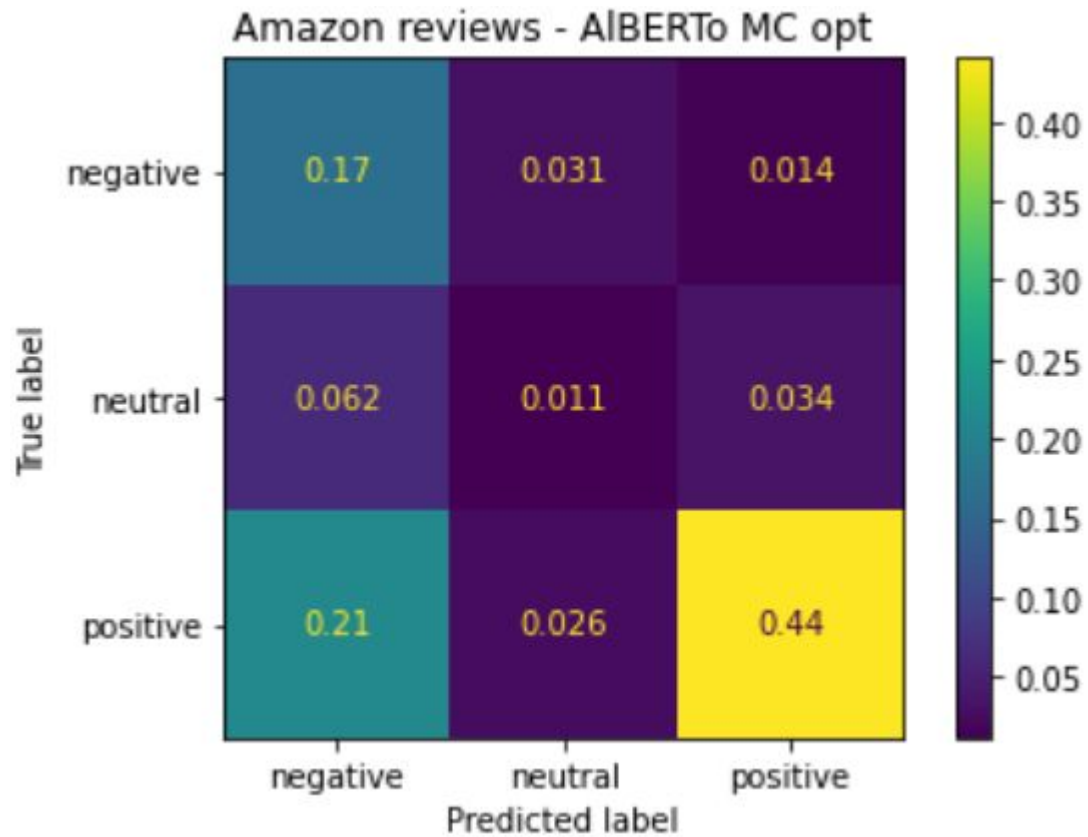
Amazon reviews

- AIBERTo MC opt

	precision	recall	f1-score	support
negative	0.38	0.79	0.51	75
neutral	0.17	0.11	0.13	38
positive	0.90	0.65	0.75	239
accuracy			0.62	352
macro avg	0.48	0.51	0.46	352
weighted avg	0.71	0.62	0.63	352

Amazon reviews

- AIBERTO MC opt



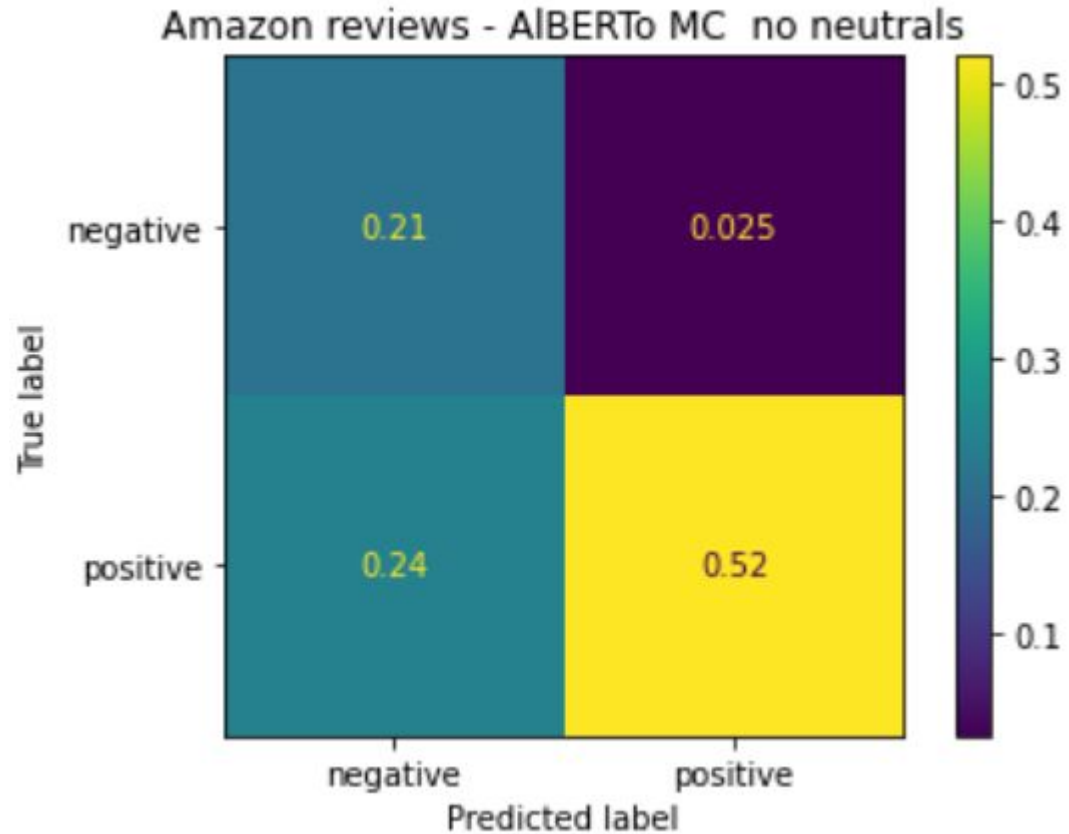
Amazon reviews

- AIBERTO MC no neutrals

	precision	recall	f1-score	support
negative	0.47	0.89	0.61	75
positive	0.95	0.68	0.80	239
accuracy			0.73	314
macro avg	0.71	0.79	0.70	314
weighted avg	0.84	0.73	0.75	314

Amazon reviews

- AIBERTO MC no neutrals



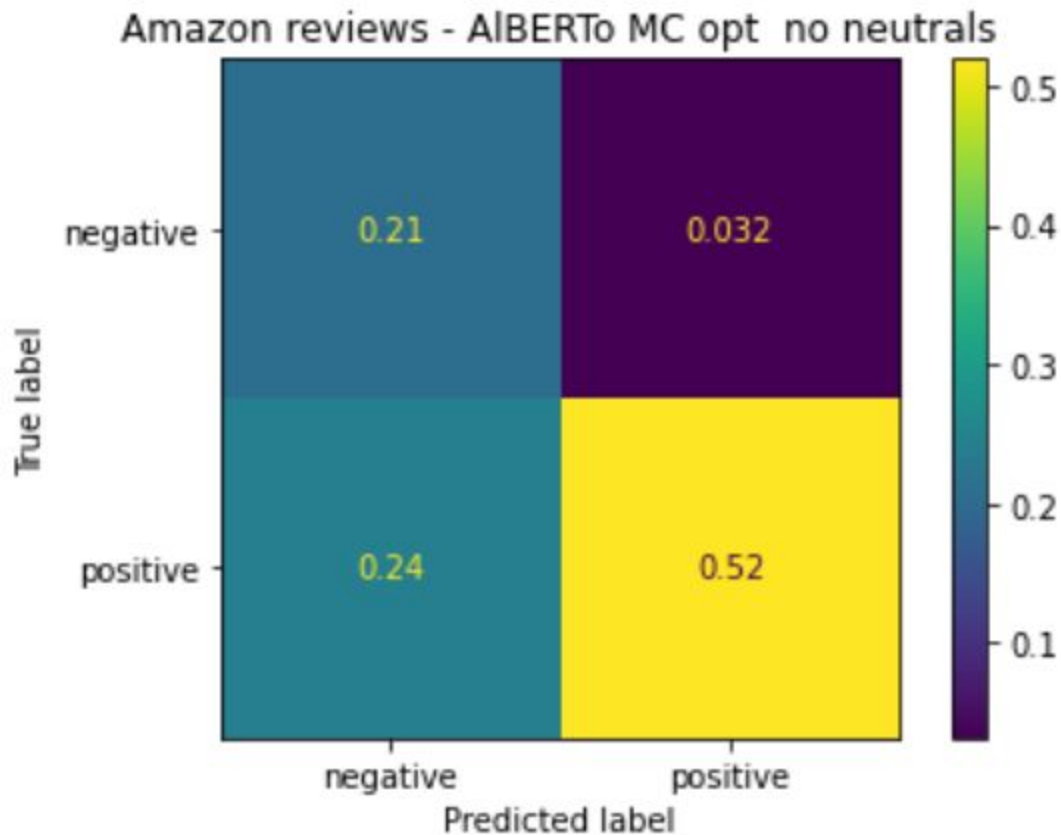
Amazon reviews

- AIBERTo MC opt no neutrals

	precision	recall	f1-score	support
negative	0.46	0.87	0.60	75
positive	0.94	0.68	0.79	239
accuracy			0.73	314
macro avg	0.70	0.77	0.70	314
weighted avg	0.83	0.73	0.75	314

Amazon reviews

- AIBERTO MC opt no neutrals



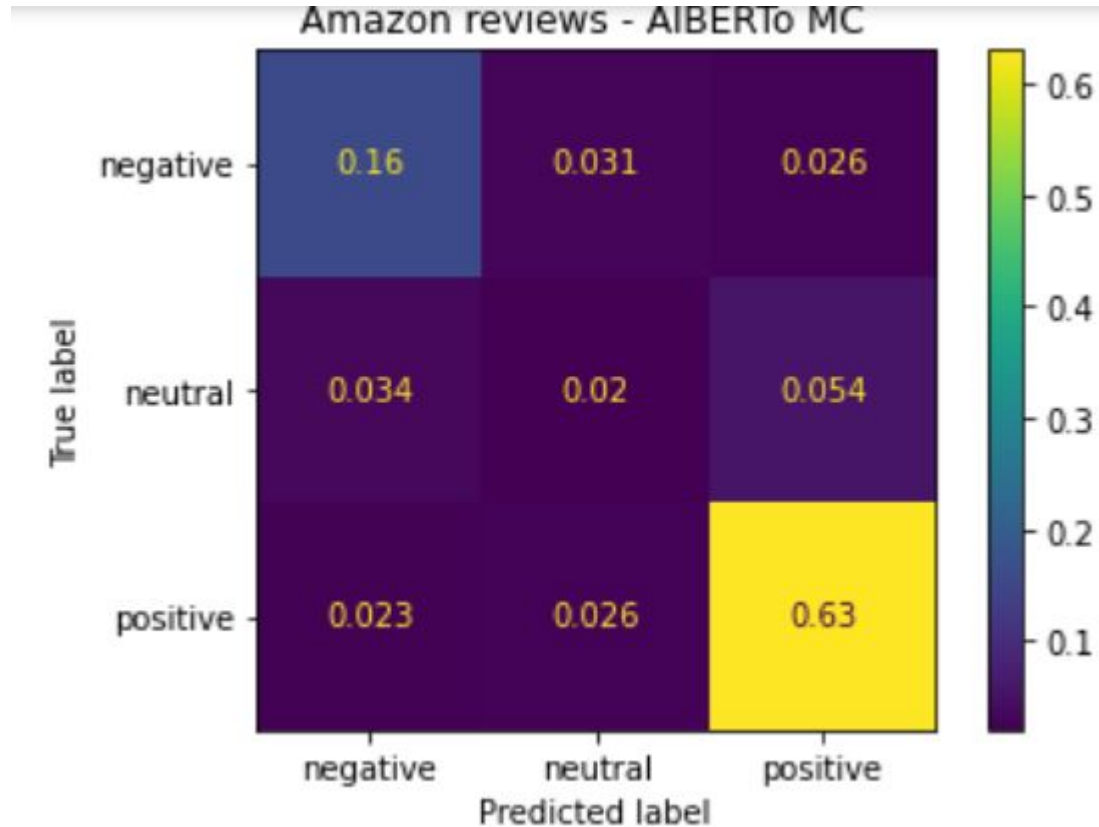
Amazon reviews

- AIBERTO MC fine-tuned

	precision	recall	f1-score	support
negative	0.73	0.73	0.73	75
neutral	0.26	0.18	0.22	38
positive	0.89	0.93	0.91	239
accuracy			0.81	352
macro avg	0.63	0.62	0.62	352
weighted avg	0.79	0.81	0.80	352

Amazon reviews

- AIBERTO MC fine-tuned



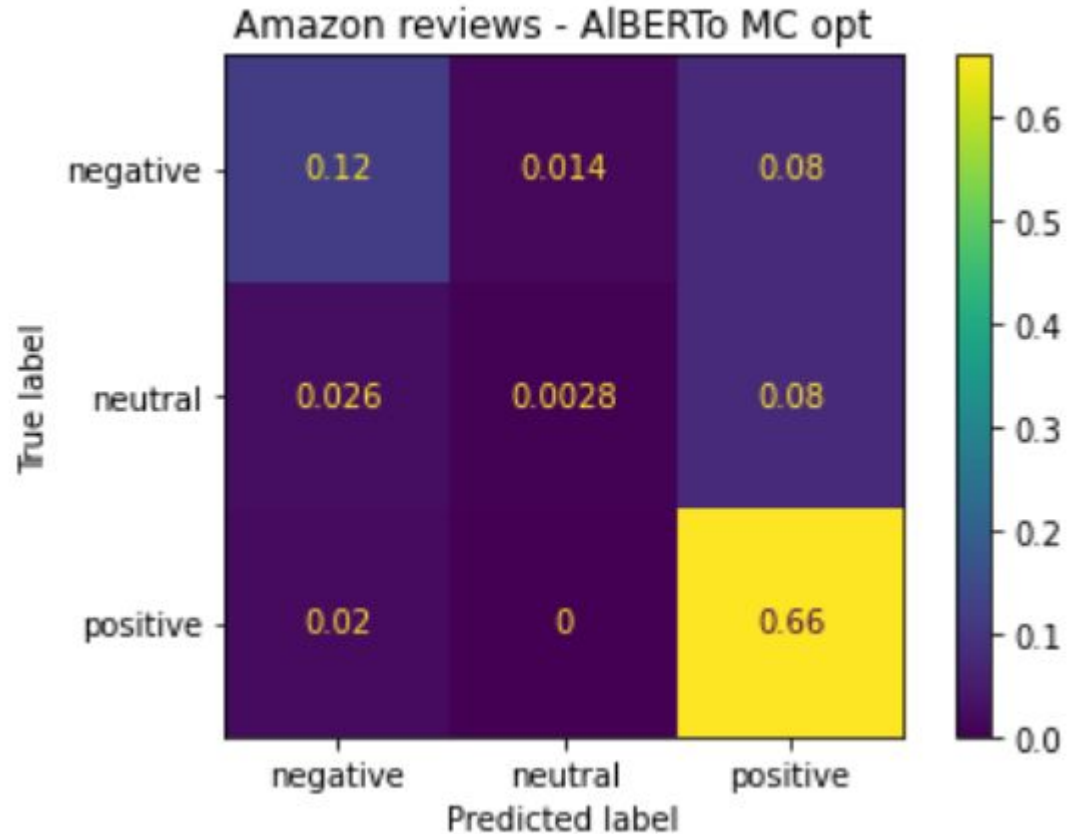
Amazon reviews

- AIBERTo MC opt fine-tuned

	precision	recall	f1-score	support
negative	0.72	0.56	0.63	75
neutral	0.17	0.03	0.05	38
positive	0.81	0.97	0.88	239
accuracy			0.78	352
macro avg	0.57	0.52	0.52	352
weighted avg	0.72	0.78	0.74	352

Amazon reviews

- ALBERTo MC fine-tuned



Amazon reviews

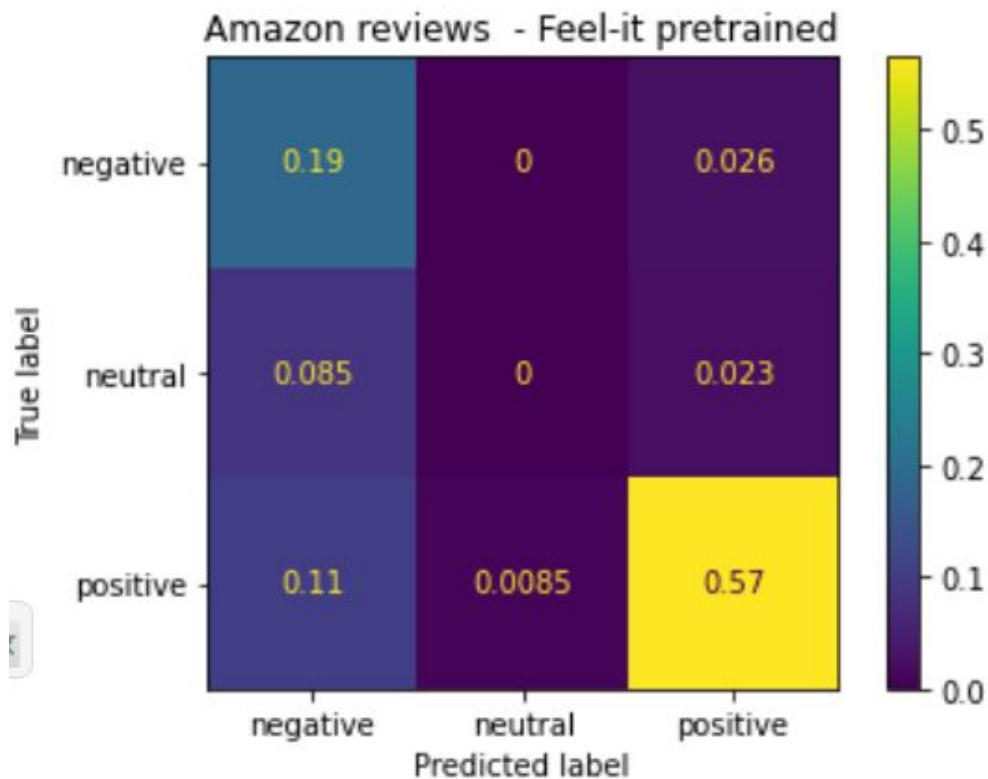
- Feel-IT

- 3 samples were assigned to the class neutral, of which 0 were correct, out of 38 neutrals

	precision	recall	f1-score	support
negative	0.50	0.88	0.63	75
neutral	0.00	0.00	0.00	38
positive	0.92	0.83	0.87	239
accuracy			0.75	352
macro avg	0.47	0.57	0.50	352
weighted avg	0.73	0.75	0.73	352

Amazon reviews

- Feel-IT



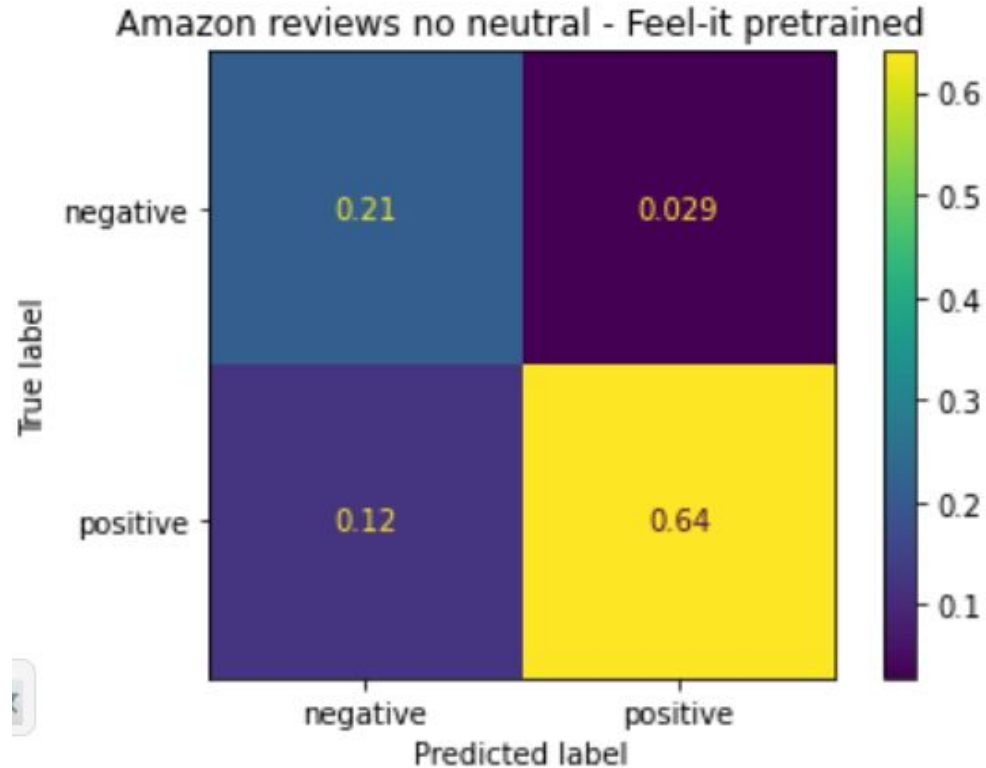
Amazon reviews

- Feel-IT no neutrals

	precision	recall	f1-score	support
negative	0.63	0.88	0.74	75
positive	0.96	0.84	0.90	239
accuracy			0.85	314
macro avg	0.80	0.86	0.82	314
weighted avg	0.88	0.85	0.86	314

Amazon reviews

- Feel-IT no neutrals



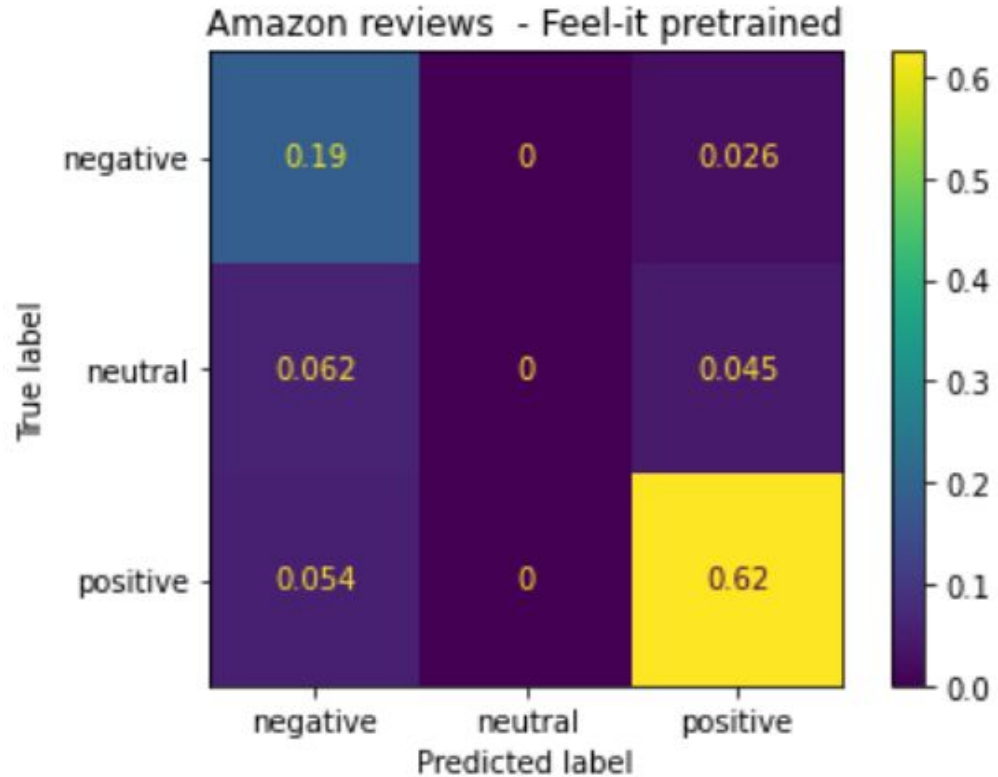
Amazon reviews

- Feel-IT fine-tuned

	precision	recall	f1-score	support
negative	0.62	0.88	0.73	75
neutral	0.00	0.00	0.00	38
positive	0.90	0.92	0.91	239
accuracy			0.81	352
macro avg	0.50	0.60	0.54	352
weighted avg	0.74	0.81	0.77	352

Amazon reviews

- Feel-IT fine-tuned



Amazon reviews

- Dataset examples (predictions made by AIBERTto MC)

- mhn ho dovuto restituire il prodotto era un regalo ma non rispecchiava i desideri della persona a cui avrei dovuto regalarlo sarebbe un buon prodotto ma purtroppo il filo è di troppo ingombro (pred=neutral, label=neutral)
- quando si attiva é velocissimo ricarica rapidamente ma talvolta fa contatto e la carica non si attiva (pred=neutral, label=neutral)
- frullatore difficile da montare in più il boccale perde acqua (pred=negative, label=neutral)
- tablet android <number> il tablet non mi ha soddisfatto la qualità dello schermo è bassa c'erano segni di usura sullo schermo probabilmente il tablet era già stato utilizzato dato che all'avvio ho trovato app aperte e non la classica configurazione abbastanza veloce nella navigazione d'altronde per il costo non potevo aspettarmi di più non l'ho resistito solo perché per l'utilizzo che ne faccio io cioè vedere qualche film e per i social mi va bene bene gli accessori prodotto discreto (pred=negative, label=neutral)
- professionale ? ? ? premetto che non sono un esperto e che lo uso per il fai da te ho scelto la fascia professionale perché mi avevano detto che la base era come comprare una cinesata detto questo ho notato che il mandrino non serra bene e comunque non è così facile e immediato da sbloccare oltretutto mi sembra leggermente decentrato <number> mm ma per quello che mi serve direi che è sufficiente peccato perché da questa gamma mi aspettavo di più (pred=negative, label=neutral)
- buona ! ottimo colore ! proprio come tutti i crazy color sono molto più duraturi degli altri che ho provato forse unica pecca è la tonalità molto chiara infatti consiglio di fare al seguito di una decolorazione per il resto non rovina i capelli quindi consiglio (pred=positive, label=neutral)

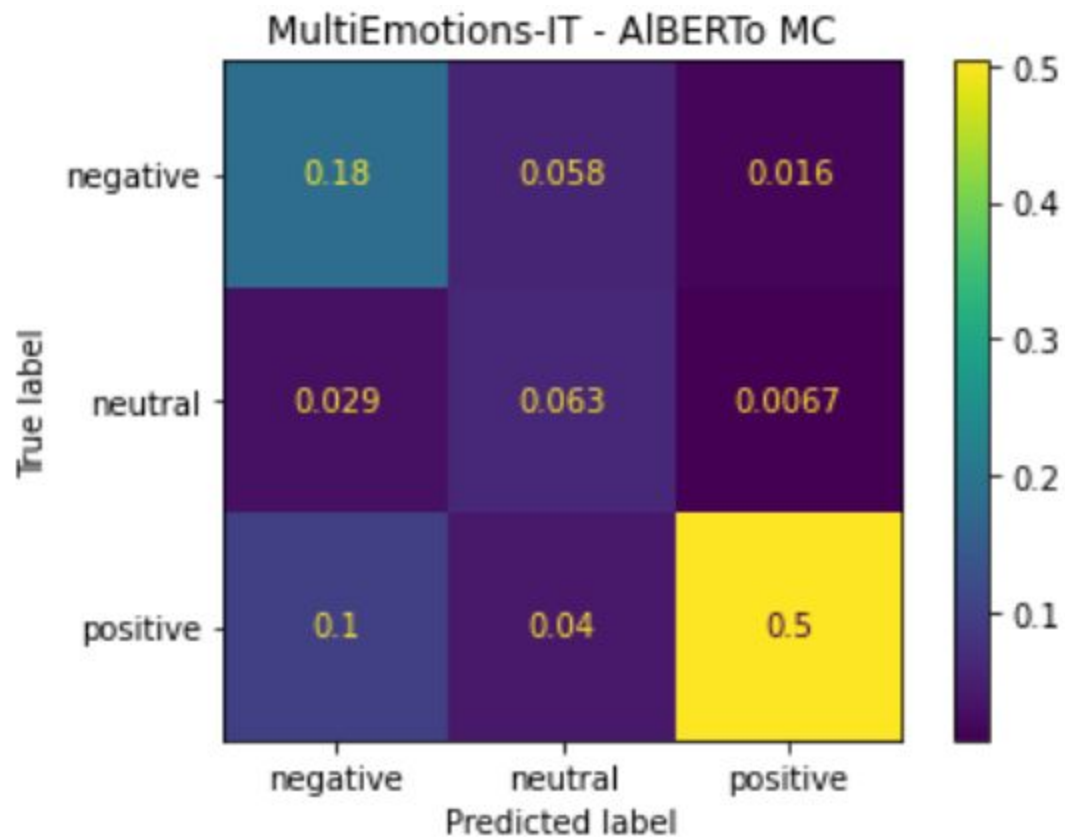
MultiEmotions-IT

- AIBERTo MC

	precision	recall	f1-score	support
negative	0.59	0.71	0.64	115
neutral	0.39	0.64	0.48	44
positive	0.96	0.78	0.86	288
accuracy			0.75	447
macro avg	0.64	0.71	0.66	447
weighted avg	0.81	0.75	0.77	447

MultiEmotions-IT

- AIBERTo MC



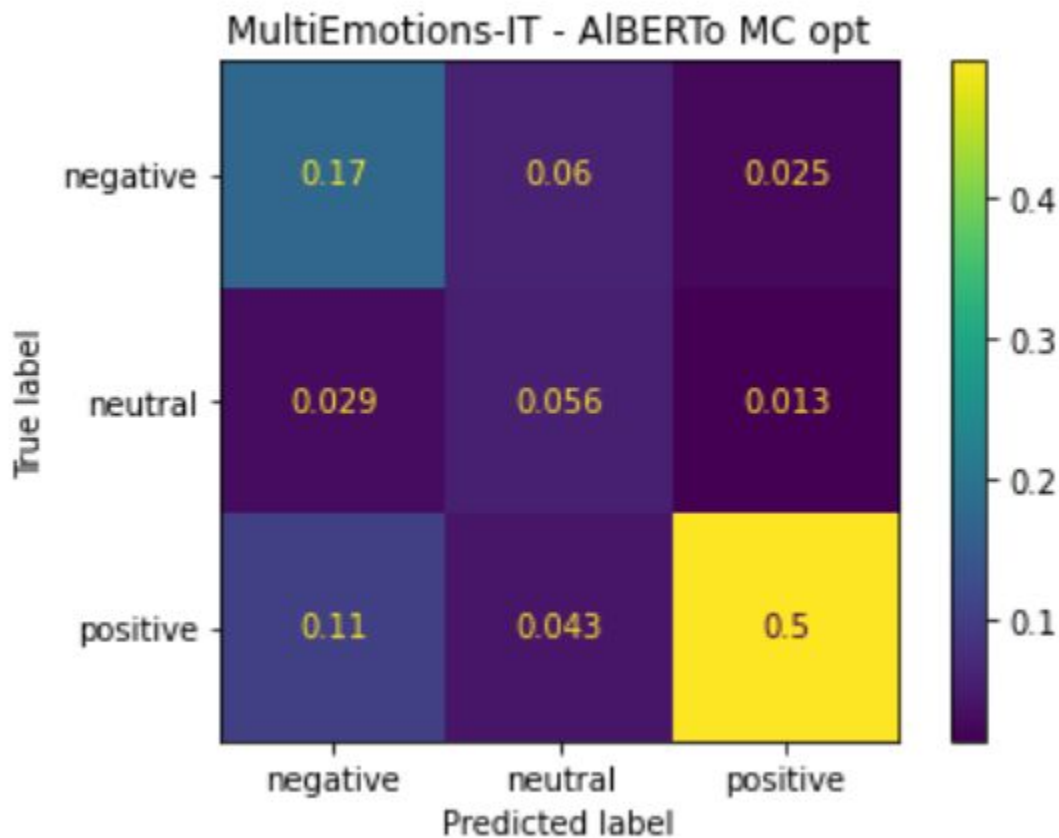
MultiEmotions-IT

- AIBERTo MC opt

	precision	recall	f1-score	support
negative	0.56	0.67	0.61	115
neutral	0.35	0.57	0.43	44
positive	0.93	0.77	0.84	288
accuracy			0.72	447
macro avg	0.61	0.67	0.63	447
weighted avg	0.78	0.72	0.74	447

MultiEmotions-IT

- AIBERTO MC opt



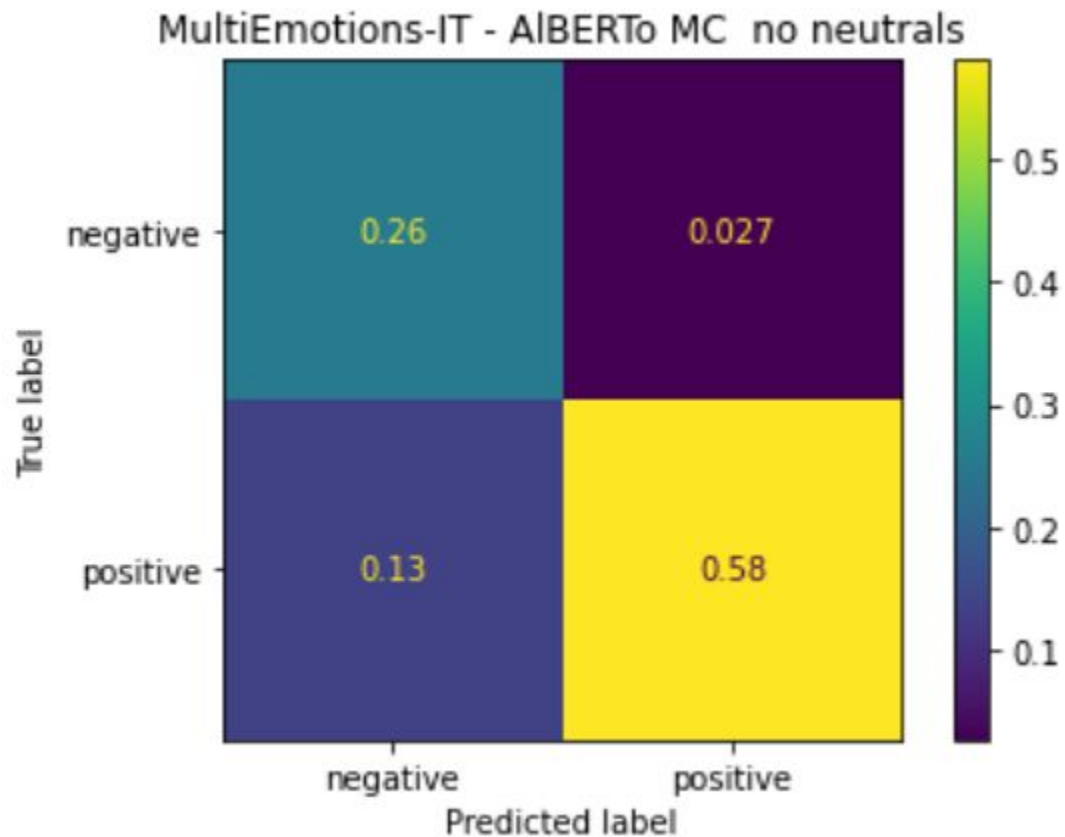
MultiEmotions-IT

- AIBERTo MC no neutrals

	precision	recall	f1-score	support
negative	0.66	0.90	0.76	115
positive	0.96	0.81	0.88	288
accuracy			0.84	403
macro avg	0.81	0.86	0.82	403
weighted avg	0.87	0.84	0.84	403

MultiEmotions-IT

- AIBERTO MC no neutrals



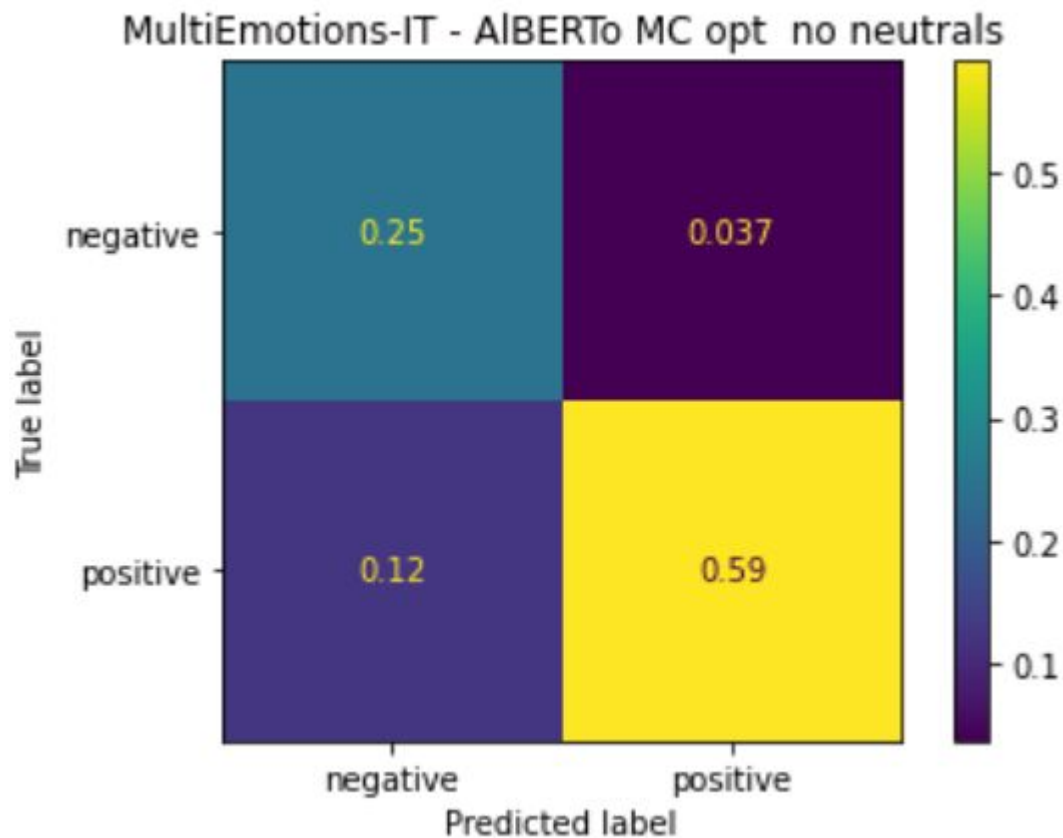
MultiEmotions-IT

- AIBERTo MC opt no neutrals

	precision	recall	f1-score	support
negative	0.67	0.87	0.75	115
positive	0.94	0.83	0.88	288
accuracy			0.84	403
macro avg	0.80	0.85	0.82	403
weighted avg	0.86	0.84	0.84	403

MultiEmotions-IT

- AIBERTo MC opt no neutrals



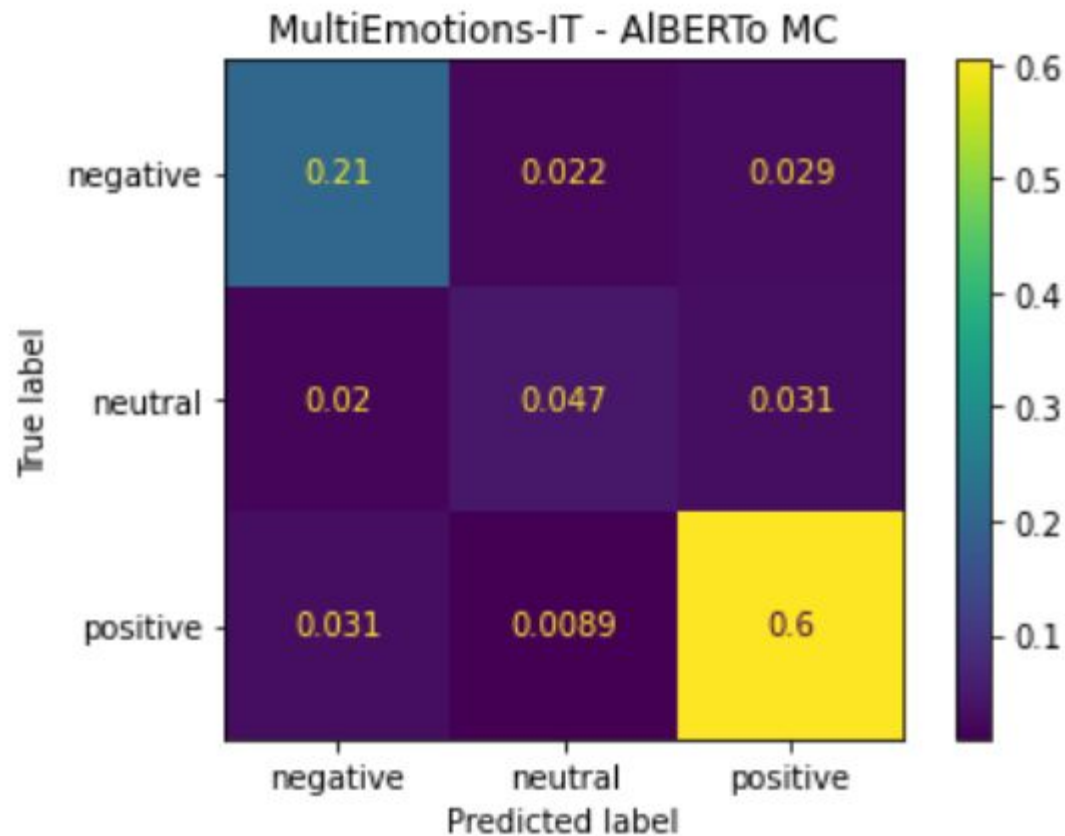
MultiEmotions-IT

- AIBERTo MC fine-tuned

	precision	recall	f1-score	support
negative	0.80	0.80	0.80	115
neutral	0.60	0.48	0.53	44
positive	0.91	0.94	0.92	288
accuracy			0.86	447
macro avg	0.77	0.74	0.75	447
weighted avg	0.85	0.86	0.85	447

MultiEmotions-IT

- AIBERTO MC fine-tuned



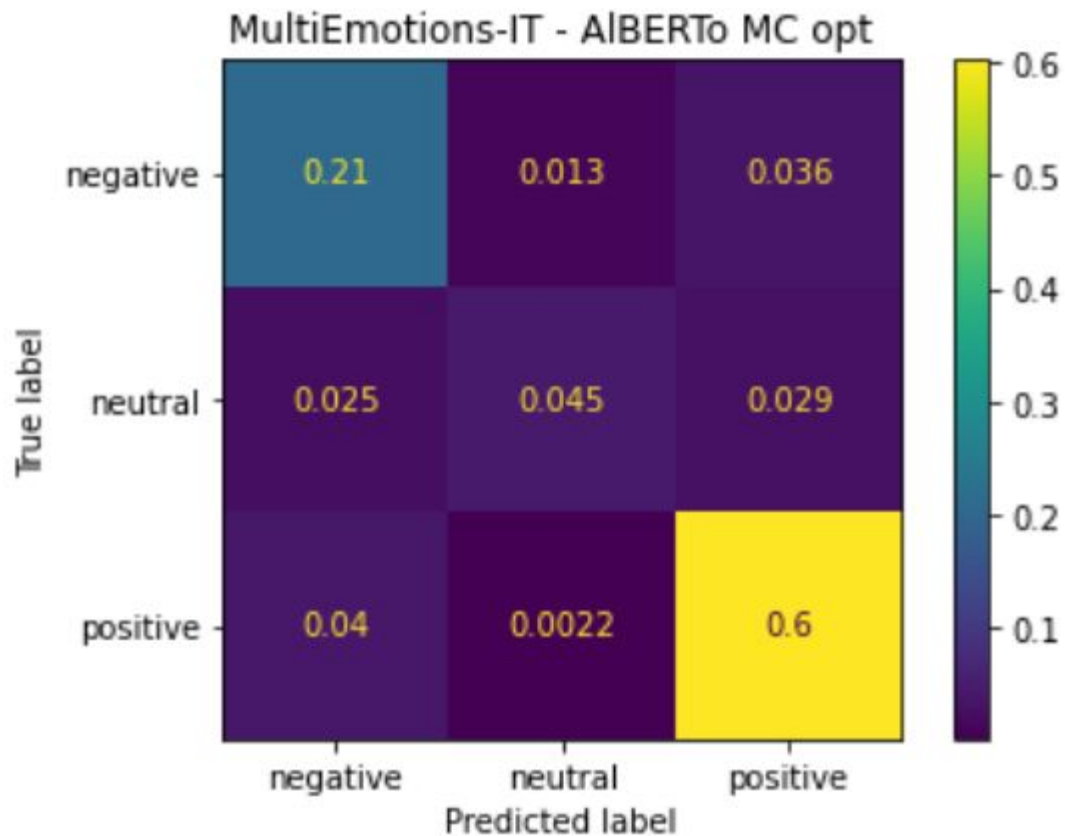
MultiEmotions-IT

- AIBERTo MC opt fine-tuned

	precision	recall	f1-score	support
negative	0.76	0.81	0.78	115
neutral	0.74	0.45	0.56	44
positive	0.90	0.93	0.92	288
accuracy			0.85	447
macro avg	0.80	0.73	0.76	447
weighted avg	0.85	0.85	0.85	447

MultiEmotions-IT

- ALBERTo MC opt fine-tuned



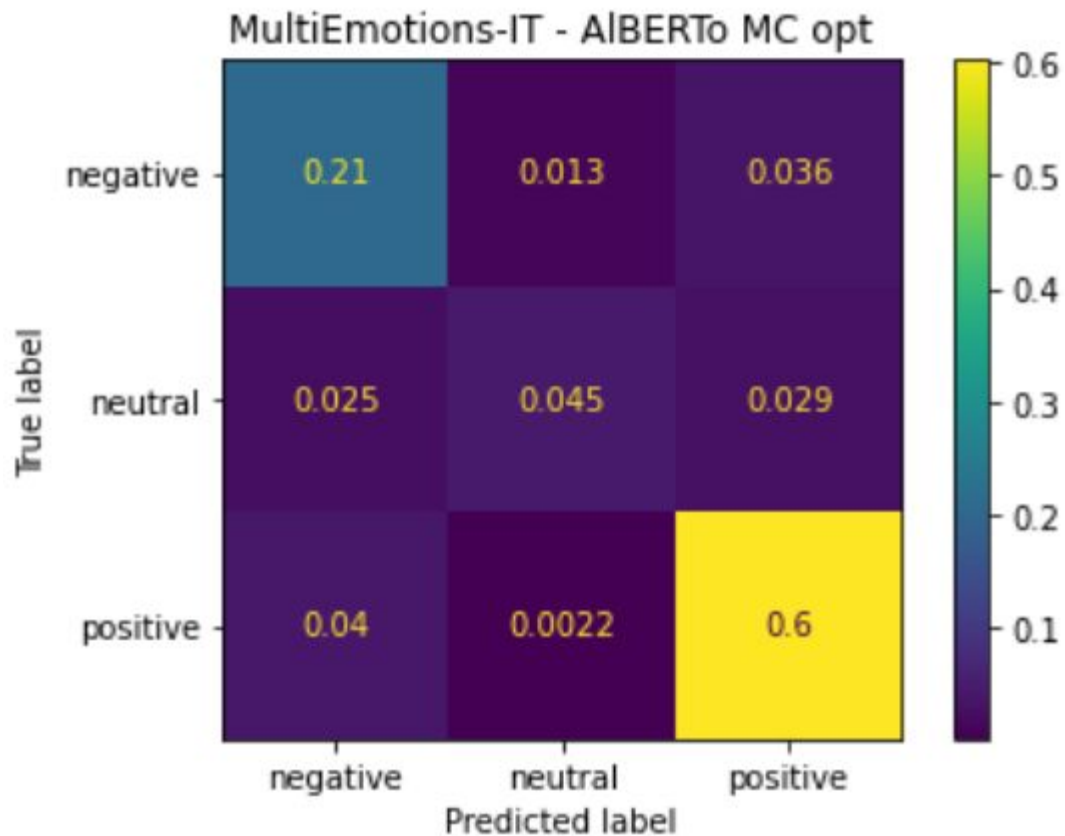
MultiEmotions-IT

- AIBERTo MC opt fine-tuned

	precision	recall	f1-score	support
negative	0.76	0.81	0.78	115
neutral	0.74	0.45	0.56	44
positive	0.90	0.93	0.92	288
accuracy			0.85	447
macro avg	0.80	0.73	0.76	447
weighted avg	0.85	0.85	0.85	447

MultiEmotions-IT

- ALBERTo MC opt fine-tuned



MultiEmotions-IT

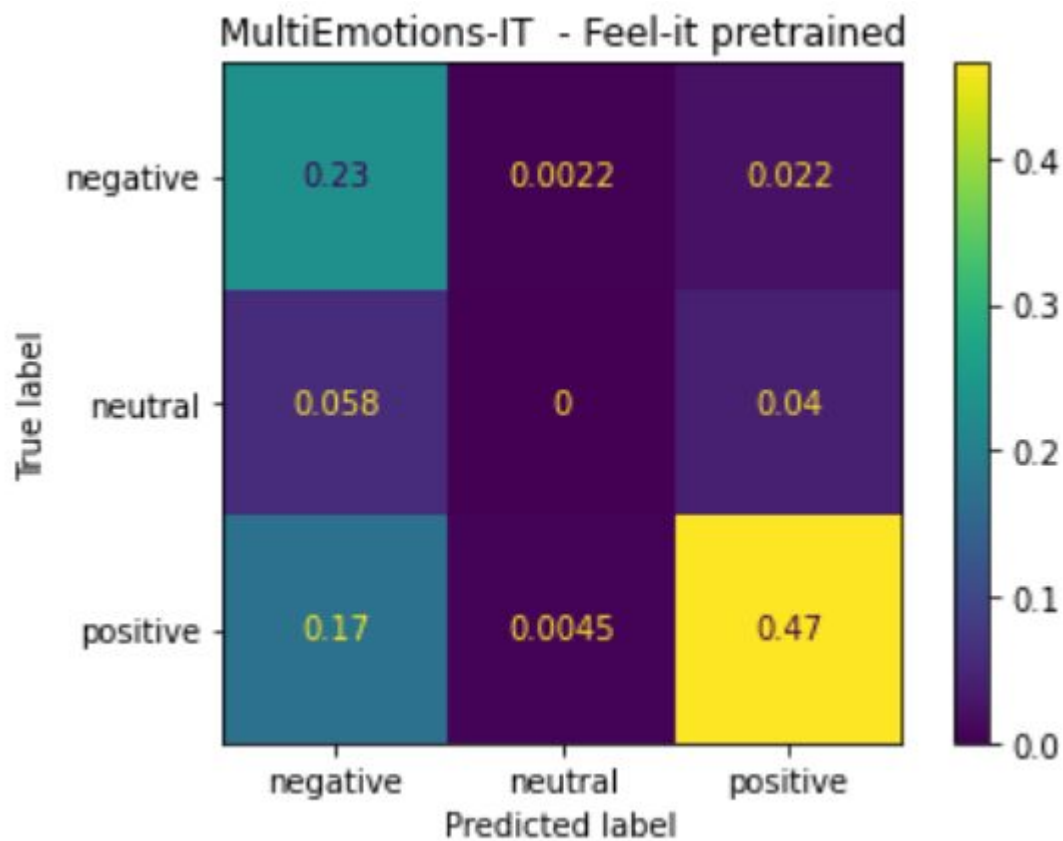
- Feel-IT

- 3 samples were assigned to the class neutral, of which 0 were correct, out of 44 neutrals

	precision	recall	f1-score	support
negative	0.50	0.90	0.64	115
neutral	0.00	0.00	0.00	44
positive	0.88	0.72	0.79	288
accuracy			0.70	447
macro avg	0.46	0.54	0.48	447
weighted avg	0.70	0.70	0.68	447

MultiEmotions-IT

- Feel-IT



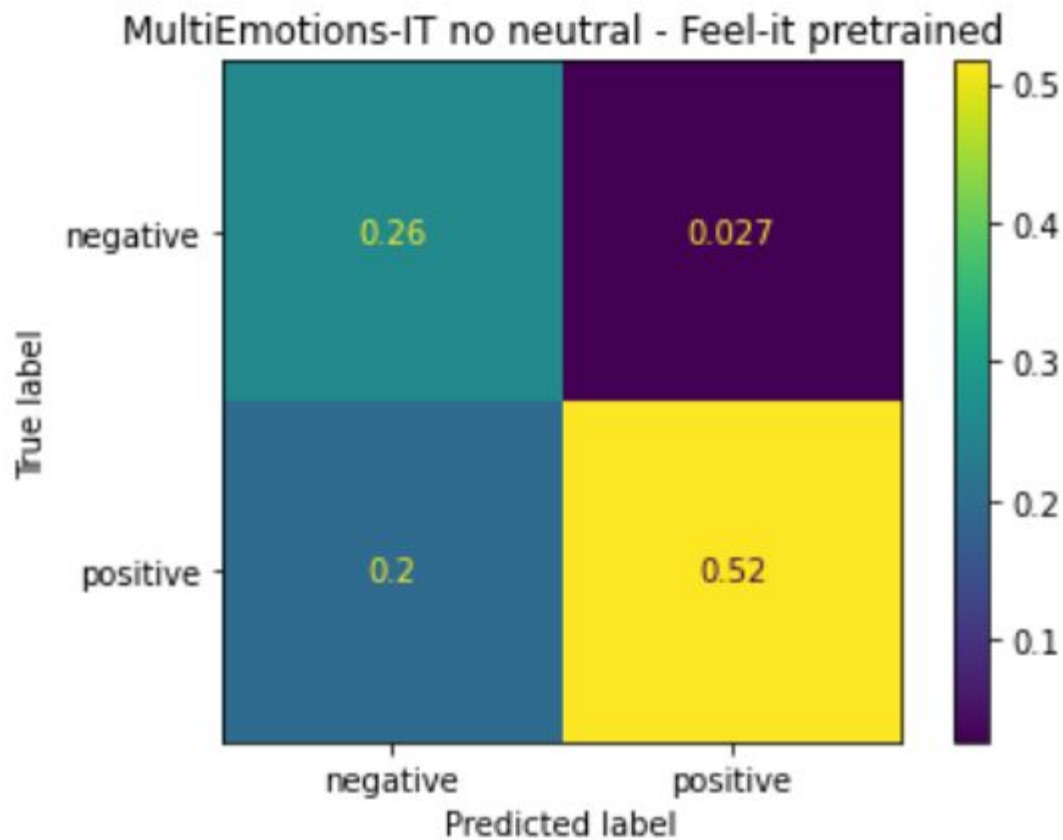
MultiEmotions-IT

- Feel-IT no neutrals

	precision	recall	f1-score	support
negative	0.57	0.90	0.70	115
positive	0.95	0.72	0.82	288
accuracy			0.77	403
macro avg	0.76	0.81	0.76	403
weighted avg	0.84	0.77	0.78	403

MultiEmotions-IT

- Feel-IT no neutrals



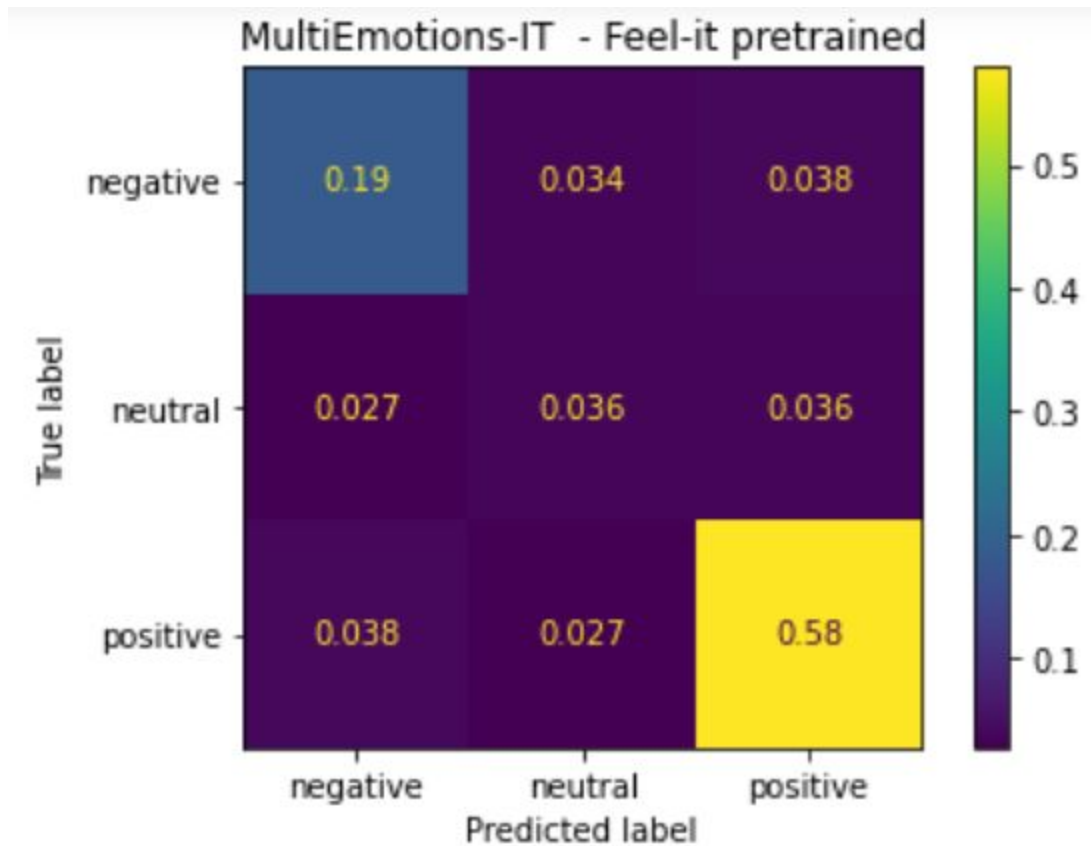
MultiEmotions-IT

- Feel-IT fine-tuned

	precision	recall	f1-score	support
negative	0.74	0.72	0.73	115
neutral	0.37	0.36	0.37	44
positive	0.89	0.90	0.89	288
accuracy			0.80	447
macro avg	0.67	0.66	0.66	447
weighted avg	0.80	0.80	0.80	447

MultiEmotions-IT

- Feel-IT fine-tuned



MultiEmotions-IT

- Dataset examples (predictions made by AIBERTO MC)
 - é dedicata a tutti i ragazzi che hanno bisogno di credere nella vita (pred=positive, label=neutral)
 - dividerei con la mia famiglia che proprio quella del mulino bianco non è ma c'è l'amore ! (pred=positive, label=neutral)
 - nn hanno capito un cazzo dovevi arrivi primo sei mio amore (pred=negative, label=positive)
 - sono riuscita a piangere (pred=negative, label=positive)
 - i vostri pubblicitari sono geni del marketing (pred=negative, label=positive)
 - sarei grato alla barilla e alle marche di pasta italiane di comprare grano italiano per aiutare veramente il paese grazie (pred=positive, label=negative)
 - e simpatica come una cartella di equitalia (pred=positive, label=negative)

Coadapt valence

- AIBERTo MC

	precision	recall	f1-score	support
negative	0.53	0.78	0.63	120
neutral	0.85	0.60	0.70	265
positive	0.50	0.74	0.60	54
accuracy			0.66	439
macro avg	0.63	0.70	0.64	439
weighted avg	0.72	0.66	0.67	439

Coadapt valence

- AIBERTO MC opt

	precision	recall	f1-score	support
negative	0.47	0.75	0.58	120
neutral	0.81	0.48	0.60	265
positive	0.41	0.70	0.52	54
accuracy			0.58	439
macro avg	0.57	0.64	0.57	439
weighted avg	0.67	0.58	0.59	439

Coadapt valence

- AIBERTO MC no neutrals

	precision	recall	f1-score	support
negative	0.93	0.93	0.93	120
positive	0.83	0.83	0.83	54
accuracy			0.90	174
macro avg	0.88	0.88	0.88	174
weighted avg	0.90	0.90	0.90	174

Coadapt valence

- AIBERTo MC opt no neutrals

	precision	recall	f1-score	support
negative	0.89	0.92	0.90	120
positive	0.80	0.74	0.77	54
accuracy			0.86	174
macro avg	0.84	0.83	0.84	174
weighted avg	0.86	0.86	0.86	174

Coadapt valence

- AIBERTO MC fine-tuned

	precision	recall	f1-score	support
negative	0.76	0.72	0.74	120
neutral	0.84	0.86	0.85	265
positive	0.73	0.74	0.73	54
accuracy			0.81	439
macro avg	0.78	0.77	0.78	439
weighted avg	0.81	0.81	0.81	439

Coadapt valence

- AIBERTo MC opt fine-tuned

	precision	recall	f1-score	support
negative	0.70	0.67	0.68	120
neutral	0.80	0.84	0.82	265
positive	0.73	0.67	0.70	54
accuracy			0.77	439
macro avg	0.75	0.72	0.73	439
weighted avg	0.77	0.77	0.77	439

Coadapt valence

- Feel-it

- 3 samples were assigned to the class neutral, of which 3 were correct, out of 265 neutrals

	precision	recall	f1-score	support
negative	0.39	0.93	0.55	120
neutral	1.00	0.01	0.02	265
positive	0.24	0.67	0.35	54
accuracy			0.34	439
macro avg	0.54	0.53	0.31	439
weighted avg	0.74	0.34	0.21	439

Coadapt valence

- Feel-it no neutrals

	precision	recall	f1-score	support
negative	0.86	0.93	0.89	120
positive	0.80	0.67	0.73	54
accuracy			0.84	174
macro avg	0.83	0.80	0.81	174
weighted avg	0.84	0.84	0.84	174

Coadapt valence

- Feel-it fine-tuned

	precision	recall	f1-score	support
negative	0.75	0.74	0.75	120
neutral	0.85	0.85	0.85	265
positive	0.72	0.76	0.74	54
accuracy			0.81	439
macro avg	0.78	0.78	0.78	439
weighted avg	0.81	0.81	0.81	439

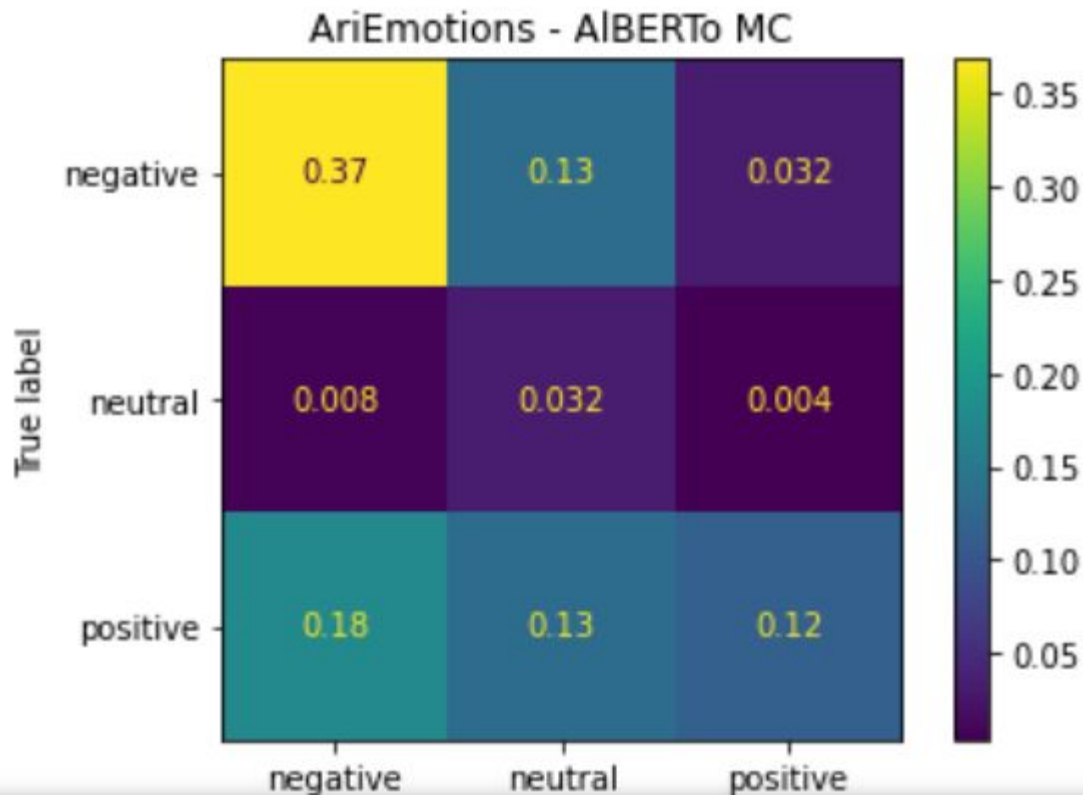
AriEmozione 1.0

- AIBERTo MC

	precision	recall	f1-score	support
negative	0.67	0.69	0.68	133
neutral	0.11	0.73	0.19	11
positive	0.76	0.27	0.40	106
accuracy			0.52	250
macro avg	0.51	0.56	0.42	250
weighted avg	0.68	0.52	0.54	250

AriEmozione 1.0

- AIBERTo MC



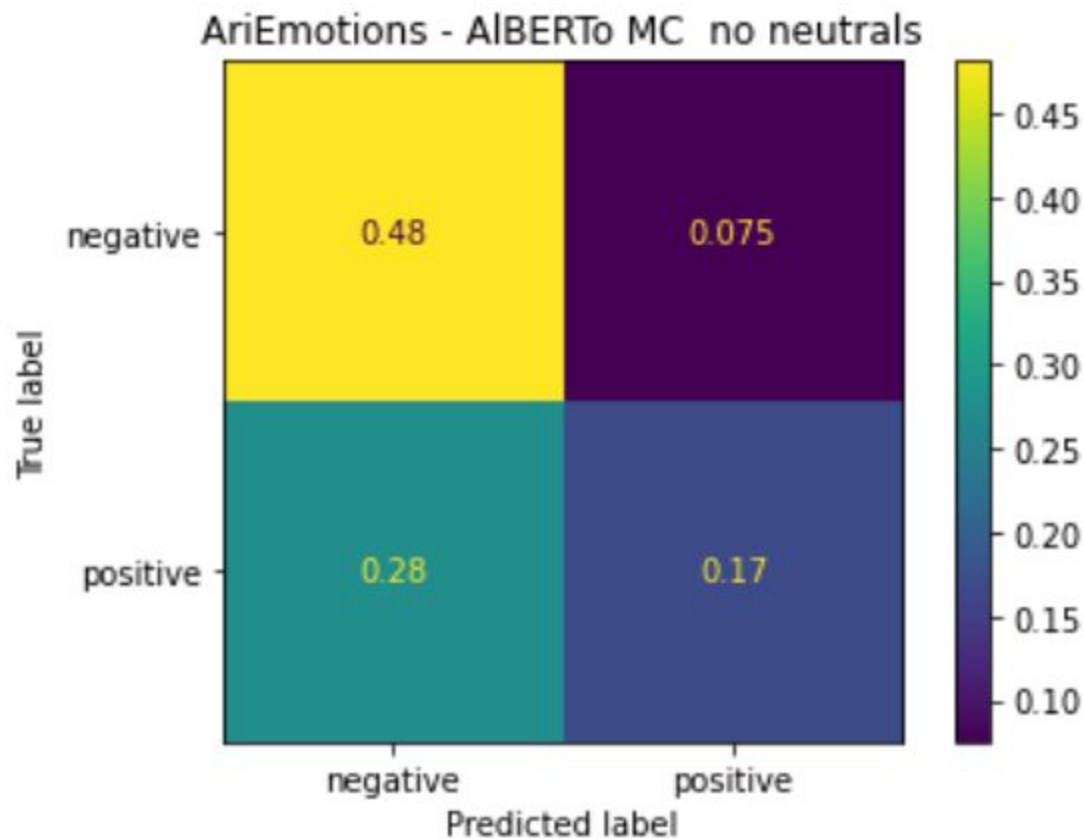
AriEmozione 1.0

- AIBERTo MC no neutrals

	precision	recall	f1-score	support
negative	0.64	0.86	0.73	133
positive	0.69	0.38	0.49	106
accuracy			0.65	239
macro avg	0.66	0.62	0.61	239
weighted avg	0.66	0.65	0.62	239

AriEmozione 1.0

- AIBERTO MC no neutrals



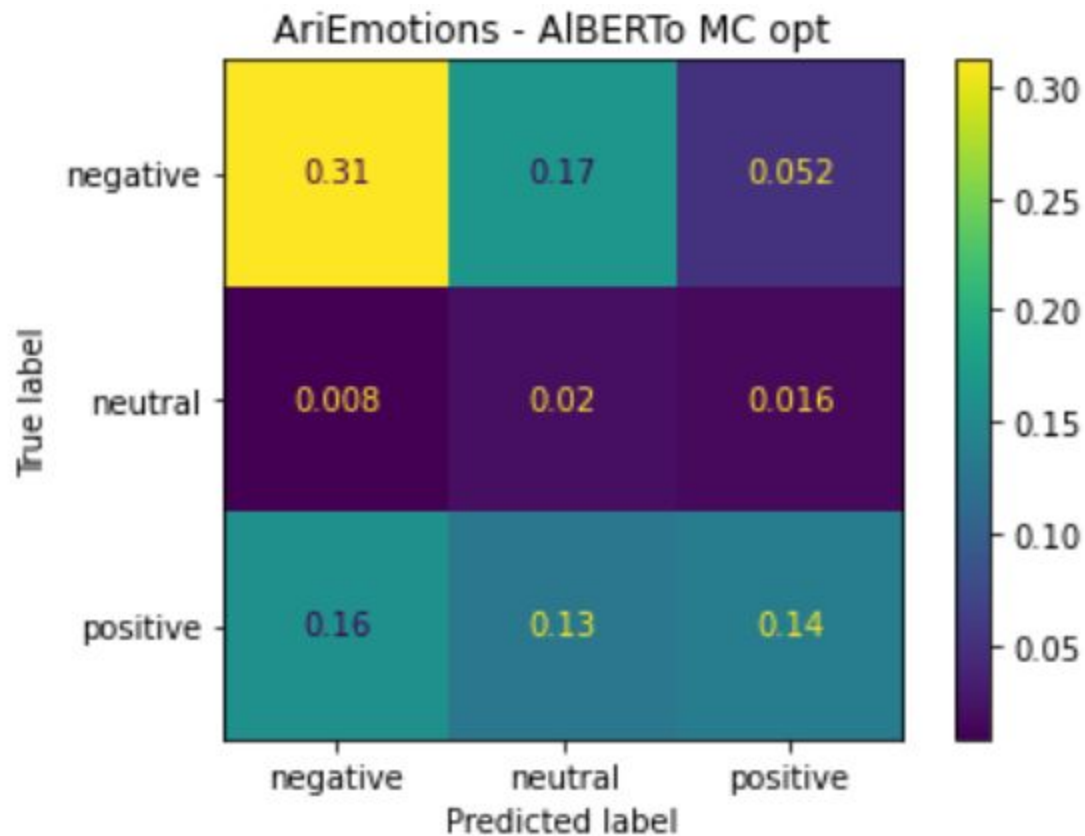
AriEmozione 1.0

- AIBERTo MC opt

	precision	recall	f1-score	support
negative	0.65	0.59	0.62	133
neutral	0.06	0.45	0.11	11
positive	0.67	0.32	0.43	106
accuracy			0.47	250
macro avg	0.46	0.45	0.39	250
weighted avg	0.63	0.47	0.52	250

AriEmozione 1.0

- AIBERTO MC opt



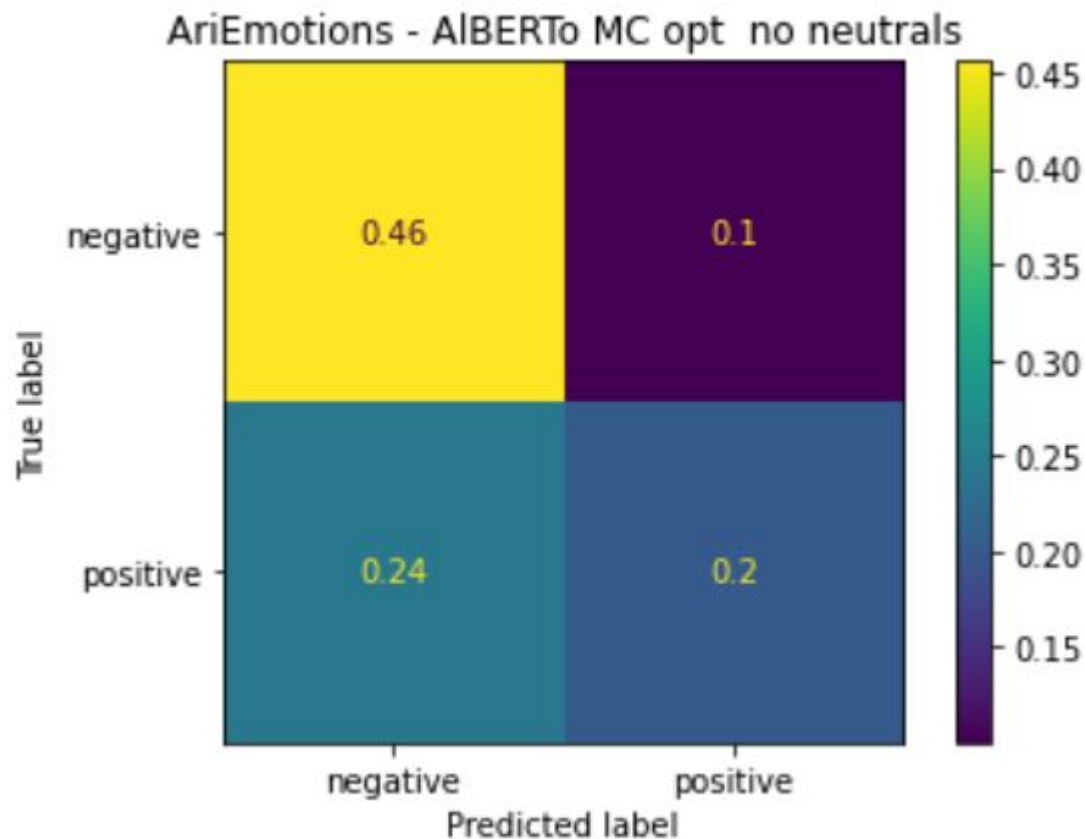
AriEmozione 1.0

- AIBERTo MC opt no neutrals

	precision	recall	f1-score	support
negative	0.65	0.82	0.73	133
positive	0.67	0.45	0.54	106
accuracy			0.66	239
macro avg	0.66	0.64	0.63	239
weighted avg	0.66	0.66	0.64	239

AriEmozione 1.0

- AIBERTO MC opt no neutrals



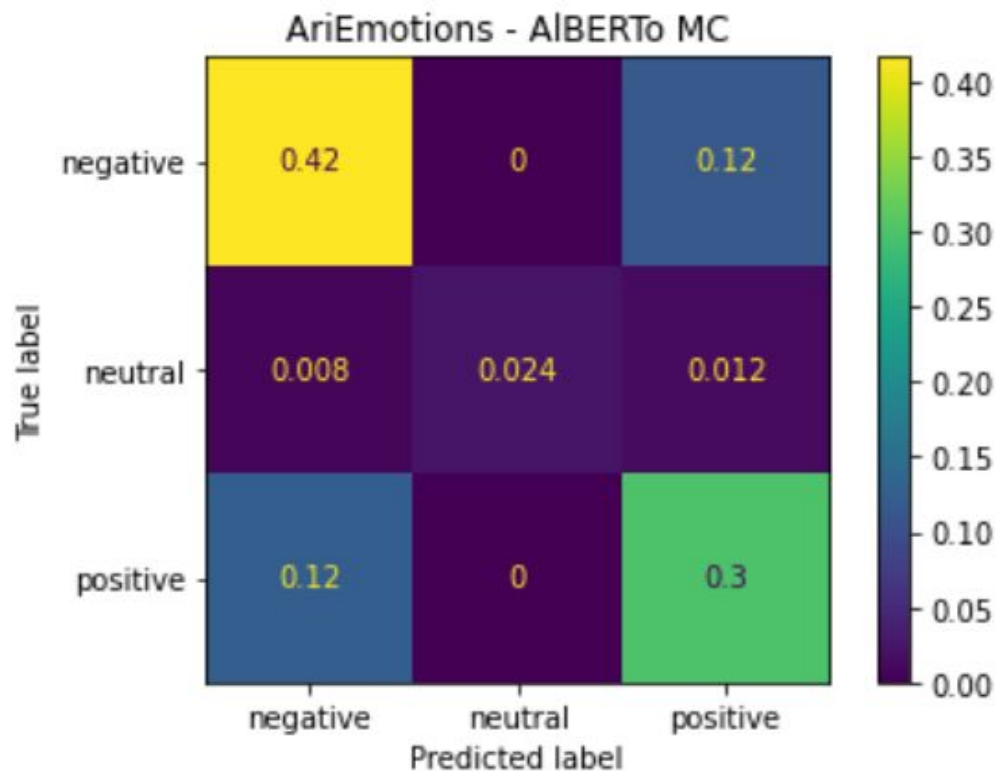
AriEmozione 1.0

- AIBERTo MC fine-tuned

	precision	recall	f1-score	support
negative	0.76	0.78	0.77	133
neutral	1.00	0.55	0.71	11
positive	0.70	0.71	0.70	106
accuracy			0.74	250
macro avg	0.82	0.68	0.73	250
weighted avg	0.75	0.74	0.74	250

AriEmozione 1.0

- AIBERTO MC fine-tuned



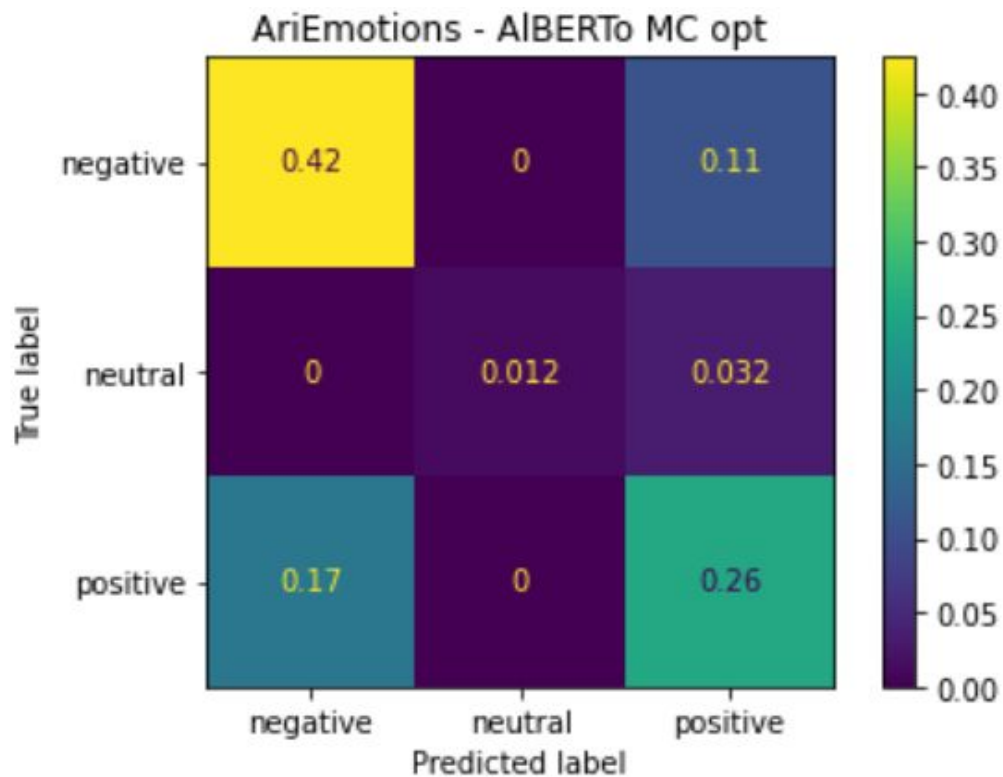
AriEmozione 1.0

- AIBERTo MC opt fine-tuned

	precision	recall	f1-score	support
negative	0.72	0.80	0.75	133
neutral	1.00	0.27	0.43	11
positive	0.65	0.60	0.62	106
accuracy			0.69	250
macro avg	0.79	0.56	0.60	250
weighted avg	0.70	0.69	0.68	250

AriEmozione 1.0

- ALBERTo MC opt fine-tuned



AriEmozione 1.0

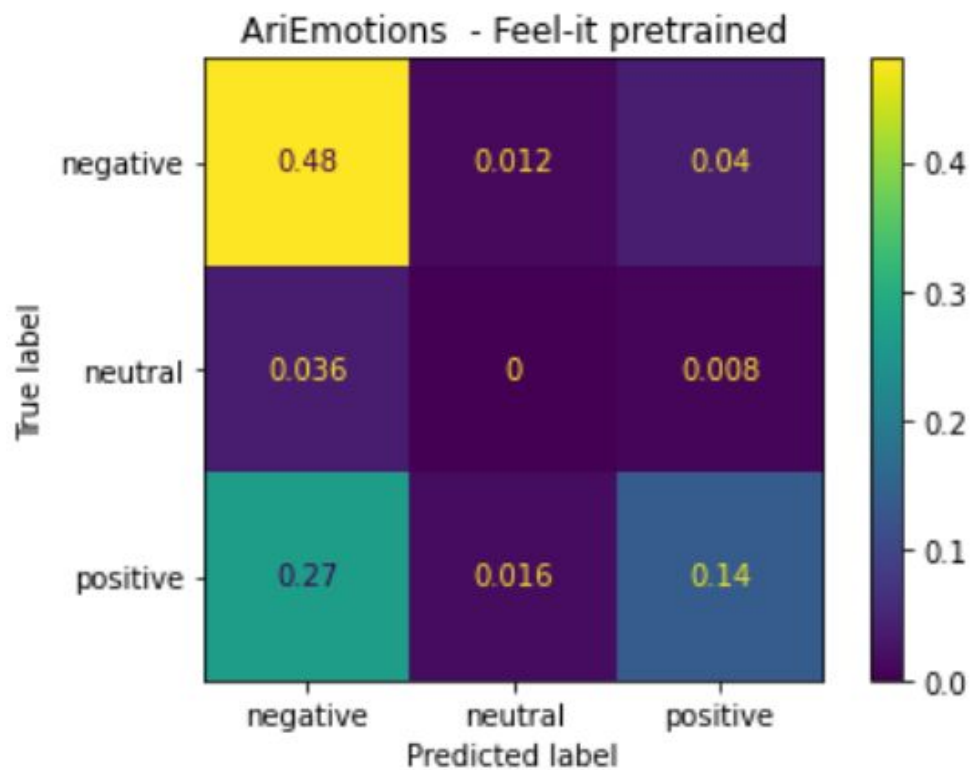
- Feel-IT

- 7 samples were assigned to the class neutral, of which 0 were correct, out of 11 neutrals

	precision	recall	f1-score	support
negative	0.61	0.90	0.73	133
neutral	0.00	0.00	0.00	11
positive	0.74	0.33	0.46	106
accuracy			0.62	250
macro avg	0.45	0.41	0.40	250
weighted avg	0.64	0.62	0.58	250

AriEmozione 1.0

- Feel-IT



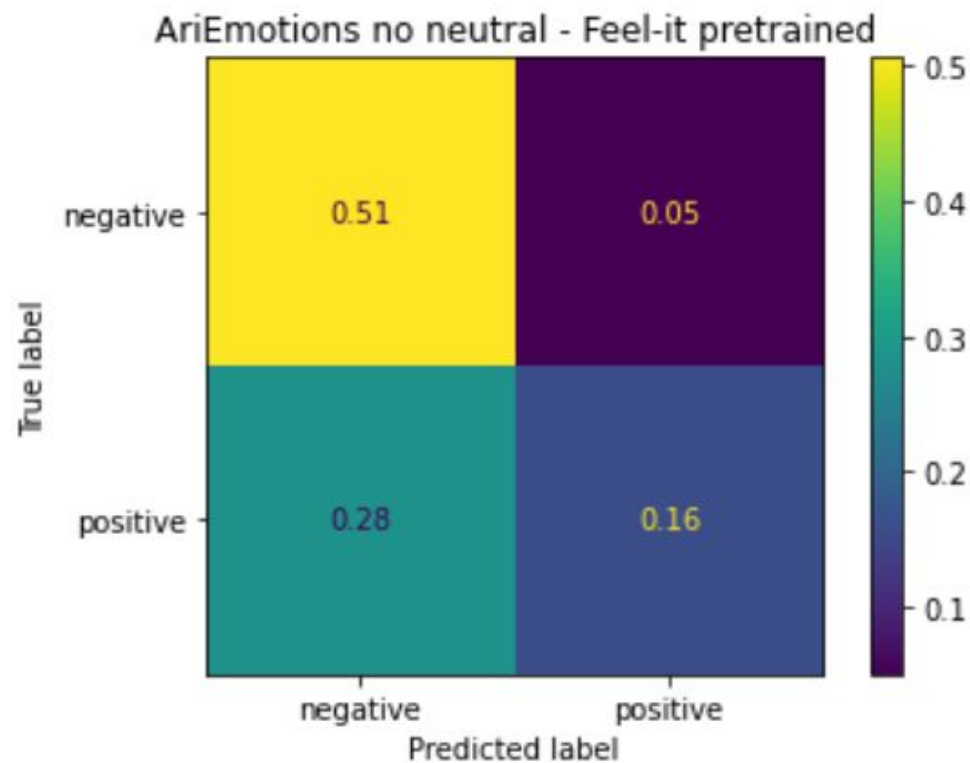
AriEmozione 1.0

- Feel-IT no neutrals

	precision	recall	f1-score	support
negative	0.64	0.91	0.75	133
positive	0.76	0.36	0.49	106
accuracy			0.67	239
macro avg	0.70	0.63	0.62	239
weighted avg	0.69	0.67	0.63	239

AriEmozione 1.0

- Feel-IT no neutrals



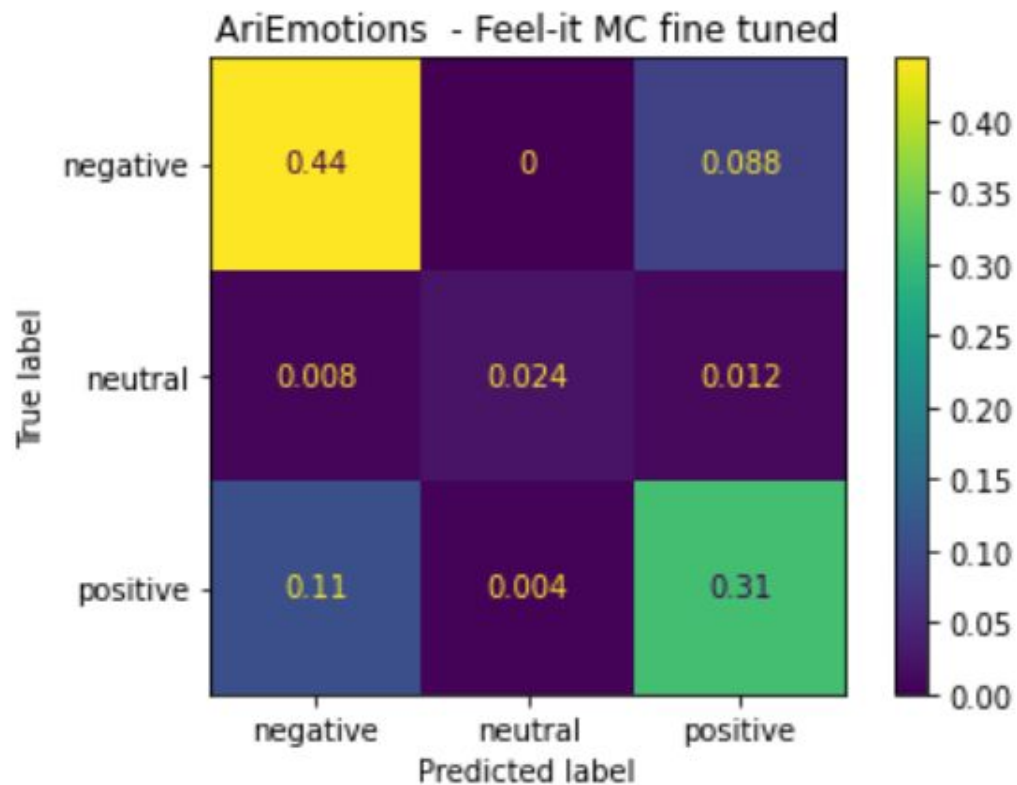
AriEmozione 1.0

- Feel-IT fine-tuned

	precision	recall	f1-score	support
negative	0.79	0.83	0.81	133
neutral	0.86	0.55	0.67	11
positive	0.76	0.74	0.75	106
accuracy			0.78	250
macro avg	0.80	0.71	0.74	250
weighted avg	0.78	0.78	0.78	250

AriEmozione 1.0

- Feel-IT fine-tuned



AriEmozione 1.0

- Dataset examples (predictions made by AIBERTo MC)
 - infelice e sventurato potrà farmi ingiusto fato ma infedele io non sarò (pred=negative, label=positive)
 - la candida mano (pred=neutral, label=positive)
 - no tanto merito tanto valore l'ombra de secoli coprir non può (pred=negative, label=positive)
 - più non si trovano fra mille amanti sol due bell'anime che sian costanti e tutti parlano di fedeltà (pred=neutral, label=negative)
 - decisa è la mia sorte tutto cangiò d'aspetto più non mi trovo in petto né speme né timor (pred=neutral, label=negative)
 - conoscerai chi sono ti pentirai del dono ma sarà tardi allor (pred=positive, label=negative)

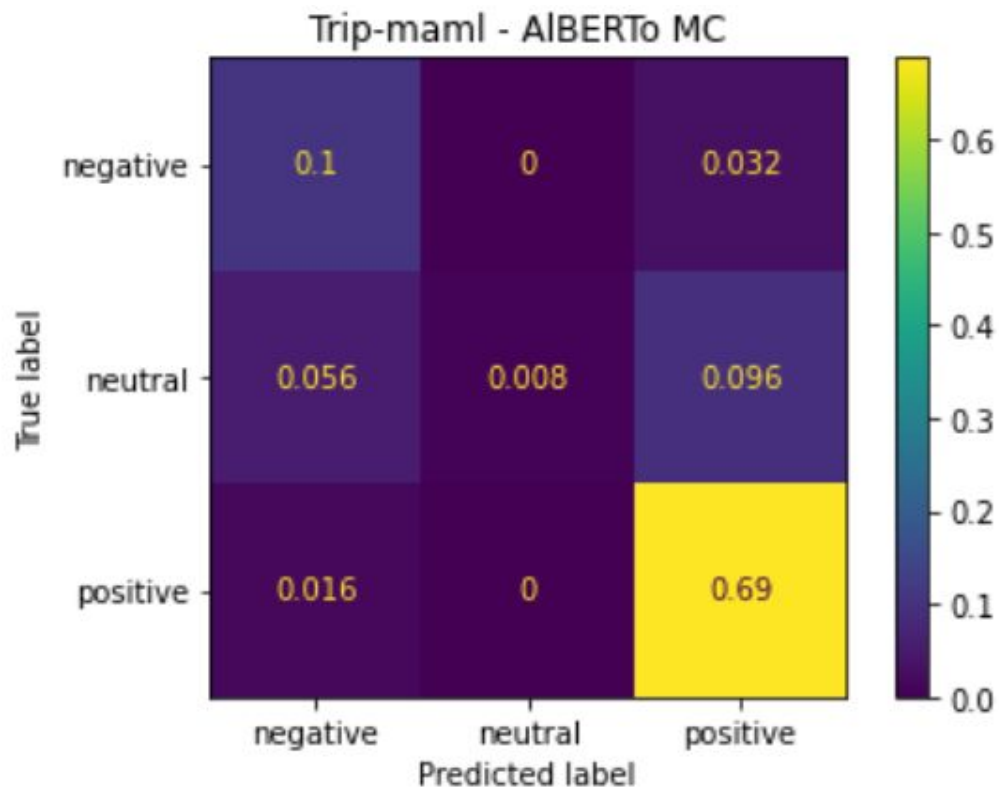
Trip-MAML

- AIBERTo MC

	precision	recall	f1-score	support
negative	0.59	0.76	0.67	17
neutral	1.00	0.05	0.10	20
positive	0.84	0.98	0.91	88
accuracy			0.80	125
macro avg	0.81	0.60	0.56	125
weighted avg	0.83	0.80	0.74	125

Trip-MAML

- AIBERTO MC



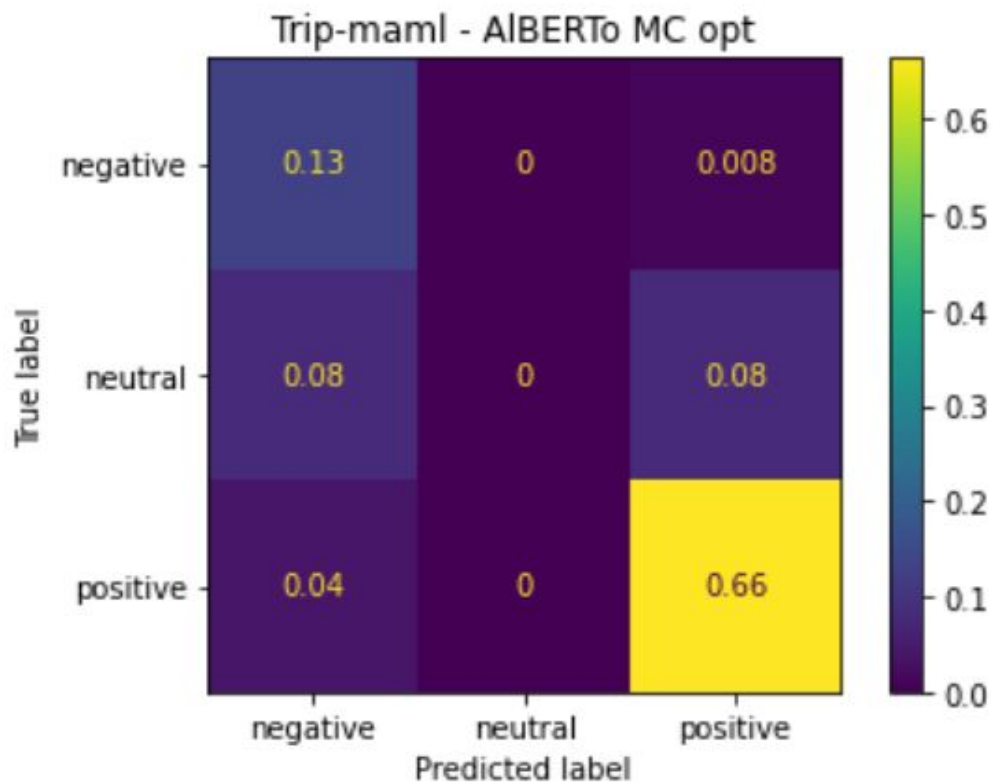
Trip-MAML

AIBERTO MC opt

	precision	recall	f1-score	support
negative	0.52	0.94	0.67	17
neutral	0.00	0.00	0.00	20
positive	0.88	0.94	0.91	88
accuracy			0.79	125
macro avg	0.47	0.63	0.53	125
weighted avg	0.69	0.79	0.73	125

Trip-MAML

- AIBERTO MC opt



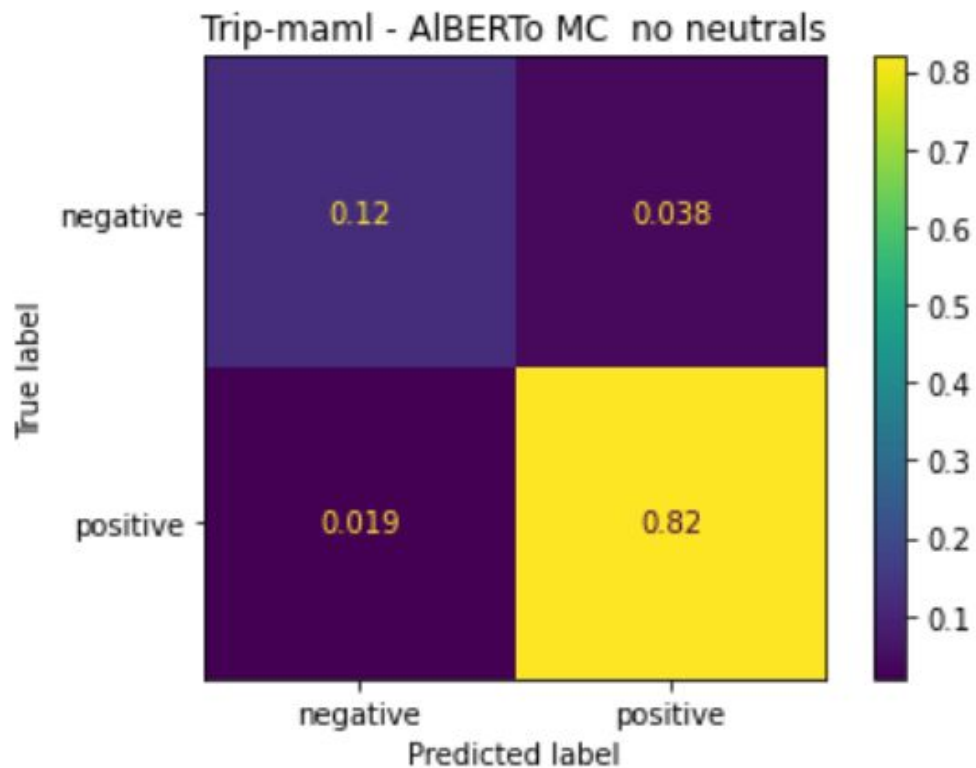
Trip-MAML

- AIBERTO MC no neutrals

	precision	recall	f1-score	support
negative	0.87	0.76	0.81	17
positive	0.96	0.98	0.97	88
accuracy			0.94	105
macro avg	0.91	0.87	0.89	105
weighted avg	0.94	0.94	0.94	105

Trip-MAML

- AIBERTO MC no neutrals



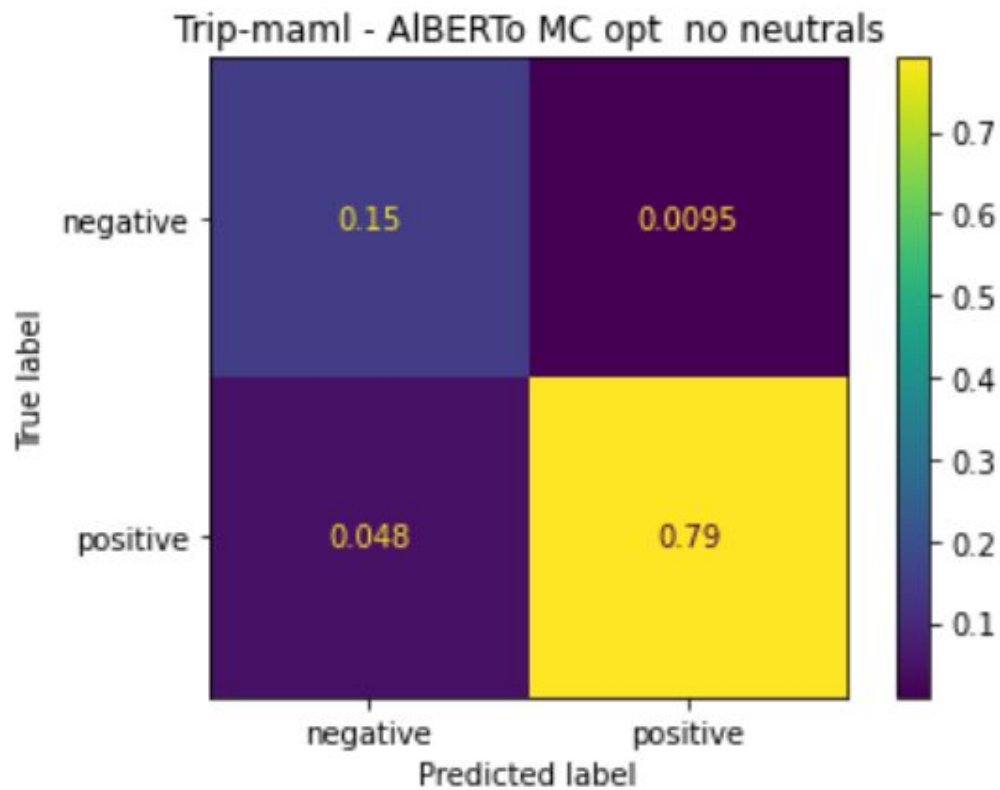
Trip-MAML

AIBERTO MC opt no neutrals

	precision	recall	f1-score	support
negative	0.76	0.94	0.84	17
positive	0.99	0.94	0.97	88
accuracy			0.94	105
macro avg	0.88	0.94	0.90	105
weighted avg	0.95	0.94	0.95	105

Trip-MAML

- AIBERTO MC opt no neutrals



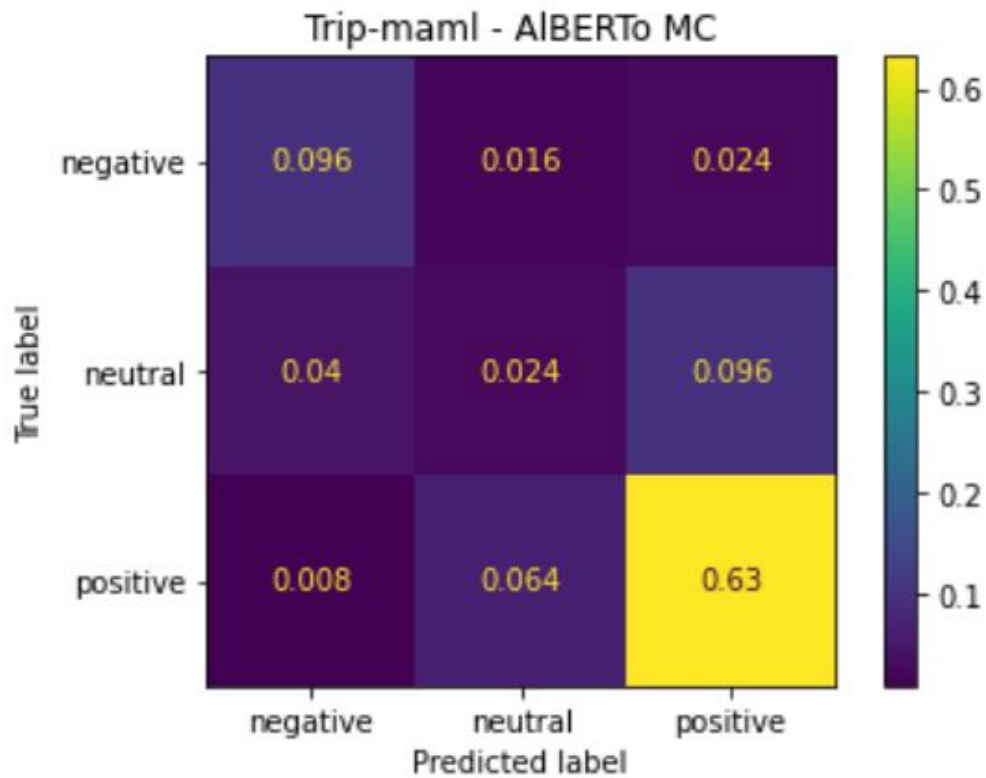
Trip-MAML

- AIBERTO MC fine-tuned

	precision	recall	f1-score	support
negative	0.67	0.71	0.69	17
neutral	0.23	0.15	0.18	20
positive	0.84	0.90	0.87	88
accuracy			0.75	125
macro avg	0.58	0.58	0.58	125
weighted avg	0.72	0.75	0.73	125

Trip-MAML

- ALBERTo MC fine-tuned



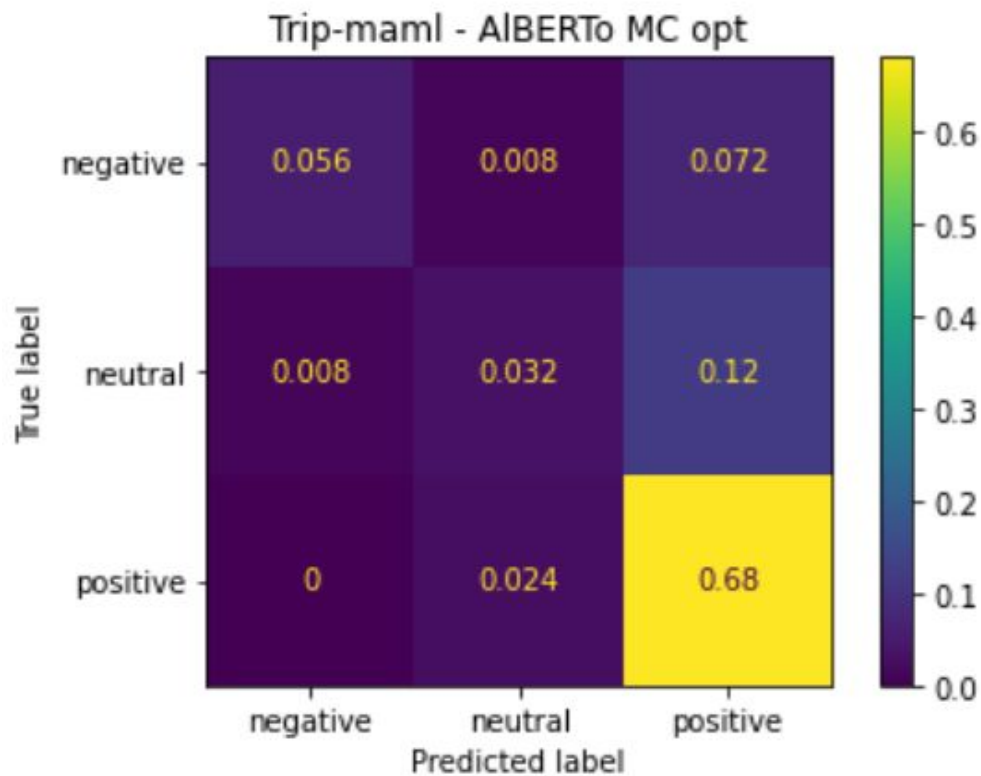
Trip-MAML

AIBERTo MC opt fine-tuned

	precision	recall	f1-score	support
negative	0.88	0.41	0.56	17
neutral	0.50	0.20	0.29	20
positive	0.78	0.97	0.86	88
accuracy			0.77	125
macro avg	0.72	0.53	0.57	125
weighted avg	0.75	0.77	0.73	125

Trip-MAML

- ALBERTo MC opt fine-tuned



Trip-MAML

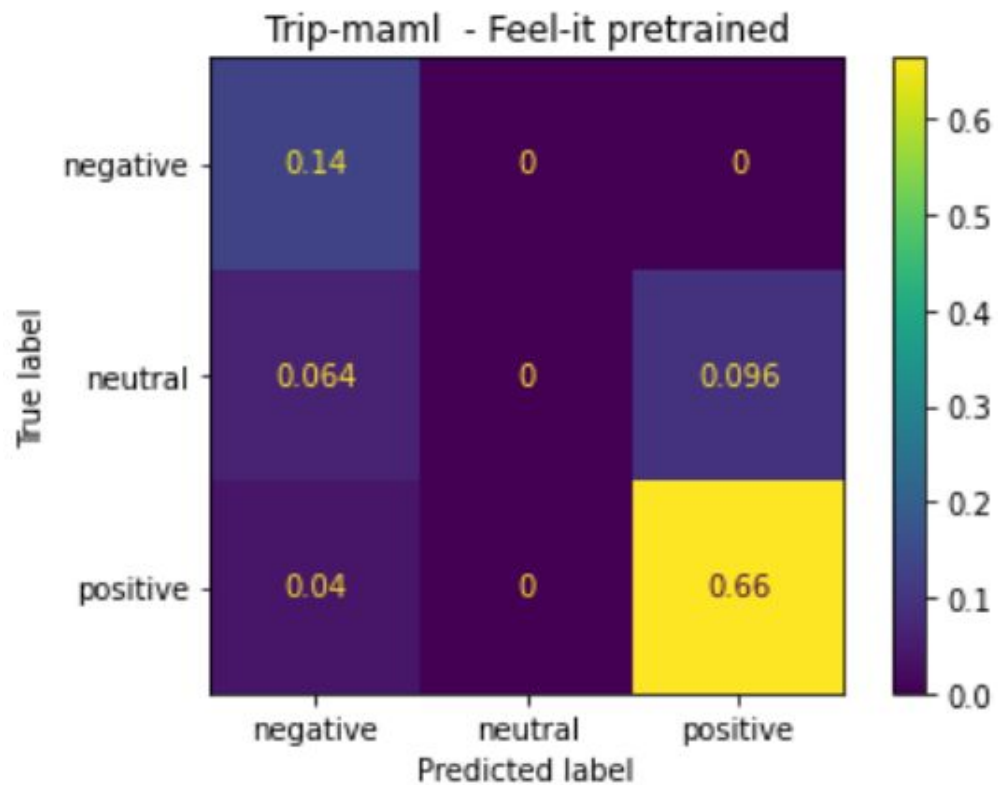
- Feel-IT

- 0 samples were assigned to the class neutral, of which 0 were correct, out of 20 neutrals

	precision	recall	f1-score	support
negative	0.57	1.00	0.72	17
neutral	0.00	0.00	0.00	20
positive	0.87	0.94	0.91	88
accuracy			0.80	125
macro avg	0.48	0.65	0.54	125
weighted avg	0.69	0.80	0.74	125

Trip-MAML

- Feel-IT



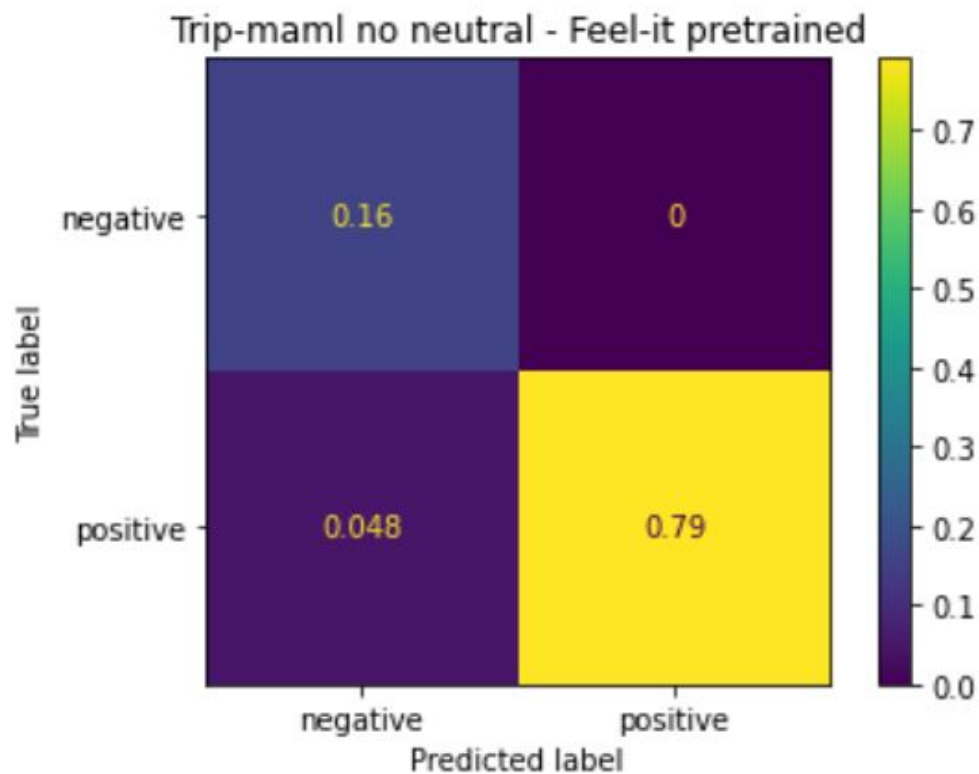
Trip-MAML

- Feel-IT no neutrals

	precision	recall	f1-score	support
negative	0.77	1.00	0.87	17
positive	1.00	0.94	0.97	88
accuracy			0.95	105
macro avg	0.89	0.97	0.92	105
weighted avg	0.96	0.95	0.95	105

Trip-MAML

- Feel-IT no neutrals



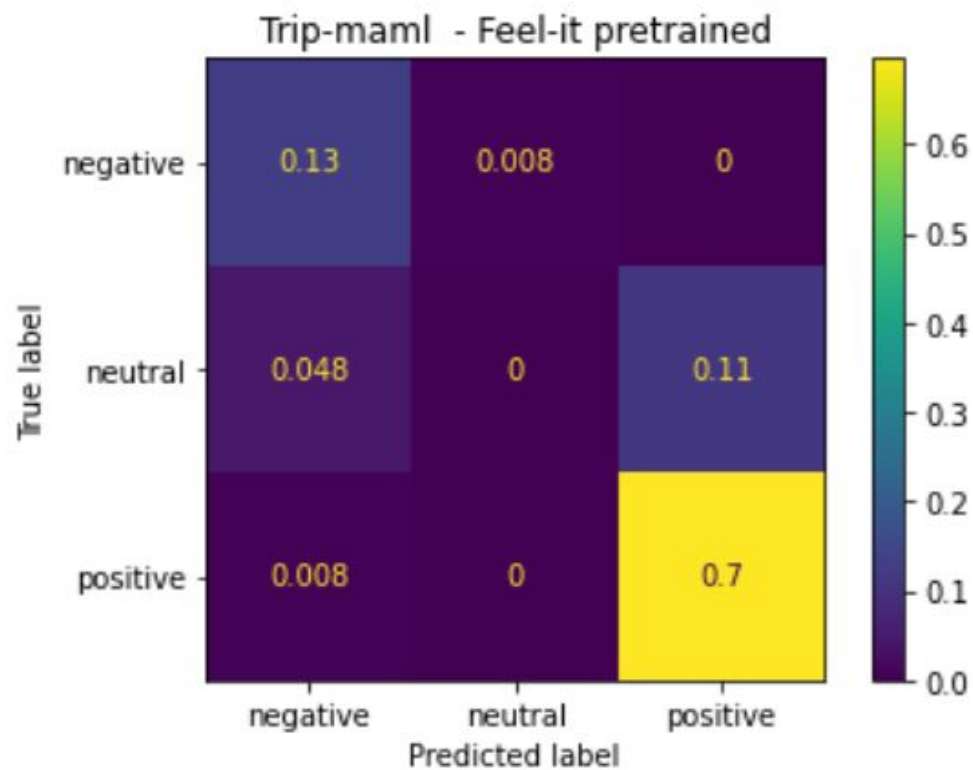
Trip-MAML

- Feel-IT fine-tuned

	precision	recall	f1-score	support
negative	0.70	0.94	0.80	17
neutral	0.00	0.00	0.00	20
positive	0.86	0.99	0.92	88
accuracy			0.82	125
macro avg	0.52	0.64	0.57	125
weighted avg	0.70	0.82	0.76	125

Trip-MAML

- Feel-IT fine-tuned



Trip-MAML

- Dataset examples (predictions made by AIBERTO MC)

- Posto isolato molto démodé moquette lisa ed arredi anni 70 mal tenuti . Personale quasi tutto di colore , improbabile e di scarsissima professionalità . . manca il ristorante e la colazione è di basso livello . . evitate gente !! (pred=negative, label=neutral)
- Prima tappa del nostro viaggio che ci porterà in Toscana . Ci siamo fermati a Milano e su consiglio di un amico abbiamo dormito 2 notti in questo piccolo Hotel . Atmosfera accogliente in stile europeo asiatico buona colazione camere in stile asiatico accoglienti e pulite bagno un po piccolo , parcheggio in strada camera con tv frigobar niente cassaforte pittosto silenzioso circa 20 minuti dal centro con mezzi pubblici zona tranquilla niente ristorante (pred=negative, label=neutral)
- Ci sono stata per lavoro e fortunatamente non ho pagato io , ma viste le tariffe e l ' offerta non lo sceglierei in futuro . La cosa che proprio non mi è piaciuta è stata l assenza di parcheggio , servizio ormai presente anche nei B & amp (pred=negative, label=neutral)
- Hotel carino , non molto pulito ma nella media accettabile , colazione troppo ridotta , con prodotti da supermercato tipo briochers e non fatti in casa come si dovrebbe , ma in particolare la zona è DA_EVITARE : a mio parere pericolosa e malfamata . Provare per credere ! (pred=positive, label=negative)
- Sono stato due notti in una camera di questa struttura . Il personale è gentile e disponibile e questo conta sempre . La posizione è comoda per visitare il centro di Firenze . La camera abbastanza pulita con solo qualche pecca in bagno . camera abbastanza ampia e vetri insonorizzati , tende pesanti per proteggere dalla luce . la terrazza è molto bella ma sta al quinto piano senza ascensore , rispetto alle camere che stanno al secondo . Una mattina mi son portato la colazione su ed è stato gradevole (pred=positive, label=neutral)