INF1771 – T3 INTELIGÊNCIA ARTIFICIAL

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MODELO 1 - WEKA

- Pré-processamento (Weka):
 - Unificação da part1 e part2 do dataset
 - TextDirectoryLoader para importar .txt's
 - StringToWordVector
 - Lista de 630 stop-words em inglês
 - TF-IDF
 - Snowball Stemmers Library
 - AttributeSelection 59 atributos
 - Remoção manual de atributos 52 atributos



Weka



OSED BEAUTIFUL KEASUN
POOR MONEY

- Classificação:
- IBk (k-nearest neighbor) cross validation:10 folds

• 0	Correctly	Classified Instances	38462	76.924 %
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- Incorrectly Classified Instances 11538 23.076 %
- Kappa statistic 0.5385
- Mean absolute error 0.3014
- Root mean squared error 0.4122
- Relative absolute error 60.2731 %
- Root relative squared error
 82.439 %
- Total Number of Instances 50000

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• J48 (C45) – cross validation:10 folds

 Correctly Classified Instances 	38500	77 %
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Incorrectly Classified Instances 11500
 23 %

• Kappa statistic 0.54

• Mean absolute error 0.3187

Root mean squared error 0.4059

Relative absolute error 63.7386 %

Root relative squared error 81.1795 %

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• LibSVM - cross validation:10 folds

• C	orrectly Cl	assified Instances	39458	78.916 %
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• Incorrectly Classified Instances 10542 21.084 %

• Kappa statistic 0.5783

• Mean absolute error 0.2108

Root mean squared error 0.4592

• Relative absolute error 42.168 %

Root relative squared error 91.8346 %

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• SMO - cross validation:10 folds

 Correctly Classified 	Instances	39480	78.96	%
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• Incorrectly Classified Instances 10520 21.04 %

• Kappa statistic 0.5792

Mean absolute error 0.2104

Root mean squared error 0.4587

• Relative absolute error 42.08 %

• Root relative squared error 91.7388 %

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Cla:	ssific	caç	ao:

• MultiLayerPerceptron (Rede Neural) - cross validation:10 folds

 Correctly Classified Instances 	38804	77.608 %
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• Incorrectly Classified Instances 11196 22.392 %

• Kappa statistic 0.5522

• Mean absolute error 0.2732

Root mean squared error 0.3996

Relative absolute error
 54.6316 %

Root relative squared error 79.9156 %

MODELO 2 – WEKA + JAVA

- Pré-processamento (Java):
 - Unificação da part1 e part2 do dataset
 - Importação dos dados Apache Commons IO
 - StrikeAMatch para corrigir erros de grafia



MODELO 2 • Classificação:

