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| **Data Extraction Form** | | | | | | | | | | | | | | | | | | | | | | | |
| **Title** | On the automatic classification of app reviews | | | | | | | | | | **Authors(s)** | | Walid Maalej, Zijad Kurtanovic, Hadeer Nabil,Christoph Stanik | | | | | | | | | | |
| **Year** | 2016 | | | | | | | | | | **Venue** | | * **Journal** | | * Conference | | | | | * Other \_\_\_\_\_\_\_\_\_\_ | | | |
| **Quality Assessment criteria** | | | | * **QC1** | | | | * **QC2** | | | | | * QC3 | | * QC4 | | | | | * **QC5** | | | * QC6 |
| **Inclusion Criteria** | | | | * IC1 | | | | * IC2 | | | | | * **IC3** | | | * **IC4** | | | | * **IC5** | | | |
| **Exclusion Criteria** | | | | * EC1 | | | * EC2 | | * EC3 | | | | * EC4 | * EC5 | | | | | * EC6 | | * EC7 | | |
| **Approach Used**   * **Supervised Machine Learning algorithms** * Unsupervised Machine Learning algorithms * Natural language processing * **Deep Learning algorithms (sentiment analysis techniques)** * Data mining based techniques * Statistical Method * other | | | | | | | | | | **Type of Solution** | | | | | | | | **Yes** | | **No** | | **Unclear** | |
| Novel Technique (Method, Tool, Technique) | | | | | | | | Check mark, Wingdings font, character code 252 decimal. | |  | |  | |
| Evaluation of existing techniques  (Evaluation framework, tool, platform) | | | | | | | |  | | Check mark, Wingdings font, character code 252 decimal. | |  | |
| Supporting techniques | | | | | | | |  | | Check mark, Wingdings font, character code 252 decimal. | |  | |
| **Review dataset** | | **Total number of apps** | | | | 1186 | | | | **Evaluation Metric Used** | | | | | | | | Standard metric precision and recall | | | | | |
| **Total number of crawled reviews** | | | | 1,303,182 | | | |
| **Year** | | | | 2016 | | | |
| **Research Type Facet**   * Validation Research * **Evaluation Research** * **Solution Proposal** * Philosophical Papers * Opinion Papers * Experience Papers | | | | | **Solution Type**   * **Single** * Hybrid/Integrated | | | | | | | **Contribution**   * Technique * Tool * Comparison * **Model** * Framework * Prototype * Taxonomy | | | | | **Evaluation Strategy**   * Case Study * **Controlled Experiment** * Survey * Questionnaire | | | | | | |
| **Features used**   * **Categorical** * Textual * Both. | | | | | | |
| **Factors Considered** | | | Classification of app reviews into four types Bug reports, feature requests, user experiences, and text ratings | | | | | | | | | | | | | | | | | | | | | |
| **Notes** | | |  | | | | | | | | | | | | | | | | | | | | | |
| **Limitations** | | | * No validation method to verify bug reports is defined * Limited to bug reports, feature only no method for bug classification and categorization | | | | | | | | | | | | | | | | | | | | | |
| **Description / Summary** | | | This paper introduces several probabilistic techniques to classify app reviews into four types: bug reports, feature requests,  user experiences, and text ratings. For this, they use review metadata such as the star rating and the tense, as well as, text classification, natural language processing, and sentiment analysis techniques. They conducted a series of experiments to compare the accuracy of the techniques and compared them with simple string matching. | | | | | | | | | | | | | | | | | | | | | |