Software Reusability Metrics Estimation From the Social Media by Using Evolutionary Algorithms: Refactoring Prospective

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ABSTRACT

Software expansion is rising with the help of the standard paradigm in the 21st century. The maximum contribution of software growth focuses mainly on object-oriented development methodologies. This paradigm helps the developer to develop code quickly and makes sure that the platform assists in producing a quality product. The software reusability metrics play a crucial role for software development. To overcome the scalability issues, researchers and developers both adopt a CK metrics suite to extract the software metrics to extract the features from the repositories. The main objective of this article is to extract the set of metrics from social media by using novel evolutionary techniques. Dissimilar features within this area are examined with a suitable research query that discovers the potential and extent.

KEYWORDS
Deep Learning, Machine Learning, Object Oriented Metrics (OOM), Software Aging

1. INTRODUCTION

In this present situation, social media data play a vital role which replicates the awareness of customers. The present era is called the digitization and social media era where data plays an important role. Every day huge numbers of data generated. Peoples are talking with each other and share their feelings and discuss among them through this media only. Over a decade, social networking and social media have been growing in leaps and bounds. The social media sites can be considered as one of the repository systems where the customers’ give their comment, suggestion, etc. We have a huge amount of data which attract the researcher to discuss it as well as it gives an opportunity to us to analyzes properly. This research paper provides an ample of an opportunity to go in depth of the social media data and predict the reusability. There are several kinds of questions may arise. These are mentioned below:

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1. Are the customers are using the same type of data?
2. Is the customer using different types of data?
3. Are they using any kind of stereotypes of data?

Not only social media data force to think reusability prediction but also it demands the customer’s attitude towards products, services or brands.

The important aspect is customers’ behavior, attitude, but it is not so difficult to recognize it. Nowadays, the ML (Machine Learning) algorithms play a crucial role to identify the customers’ behaviors. There are several evolutionary algorithms are available which suggest the reusability metrics prediction as well as reusability cost estimation. In such a scenario, it is quite obvious that debates may arise due to differences in opinion. But often these debates take a dirty side and may result in fights over the social media during which offensive language termed as toxic comments may be used from one side. These toxic comments may be threatening, obscene, insulting or identity-based hatred. So, these clearly pose the threat of abuse and harassment online. Consequently, some people stop giving their opinions or give up seeking different opinions which result in an unhealthy and unfair discussion. As a result, different platforms and communities find it very difficult to facilitate fair conversation and are often forced to either limit user comments or get dissolved by shutting down user comments completely. Before processing the social media data, the researcher must focus some of the key points like review sentiment analysis and aspect-based customer segmentation. Software engineering has become an integral part of modern scientific societies, industrial processes as well as an array of human general purposes. Typically, software systems represent a well-defined and optimistically developed a set of instructions designed to perform a certain specific task. Software engineering primarily deals with software design, development, and maintenance (Pfleeger & Atlee, 2010; Summerville, 2010). In practice, software systems operate for a long time to perform reliable computation and decision processes. However, in practice due to inherent software design, inappropriate application environment, and use pattern, there is the continuous accumulation of bug during run time that eventually causes Software Aging (SA). SA can be stated as analogous of the human aging behavior, where like human being software to exhibits memory leak, decrease in performance level, the increase of downtime cost, burden to a new generation. The concept of software aging was officially introduced in the twentieth century. In view of the fact that several researchers done much more experiment related to software aging. The objective was to conduct a systematic literature review in software aging is to understand in order to differentiate and recognize this significant phenomenon. The researcher discussed software aging and defect prediction where 89% of the maximum mentioned defect prediction studies depend on a default parameter setting. These parameter settings are really helpful for defect forecasting as well as avoiding the software aging system. The parameter setting must be cautiously chosen. Related to this parameter setting, several researchers have elevated about categorization methods when applied to aging prediction models. Software aging shows potential methods for promising maximum availability in bug finding and correction. ARB is obtained due to the long-running of the code in the server. The bugs may be the malfunction of the module, index out of bounds exception, software crises, etc.

2. LITERATURE SURVEY

Researchers have engaged in different procedure for aging recognition and transformation. This is a precautionary protection mechanism which helps to suspend or avoid the occurrence of malfunction attributable to the aging effects. A lot of thoughts have been planned to put into practice related to software rejuvenation. During the literature survey, the investigation divulges that 28 out of 30 the majority uses the classification a method (89%) in software aging necessitates at least one parameter setting. (Parnas, 1994) Discussed the reason behind the software aging. The proprietor of the manufactured goods is to gather transforming needs and the other one is the effect of the
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