

# Study of Semantic Retrieval by Data Similarity of Trademarks

Deepak Mali<sup>1</sup>, P. D. Lambate<sup>2</sup>

<sup>1</sup>ME Computer (Engineering), Jayawantrao Sawant College of Engineering, Hadapsar Pune-28, Savitribai Phule Pune University, Pune, India

<sup>2</sup>Associate Professor, Information Technology, Jayawantrao Sawant College of Engineering, Hadapsar Pune-28, Savitribai Phule Pune University, Pune, India

**Abstract:** A trademark is a sign that you can use to distinguish your business goods or services from those of other traders. Trademark can be defined expressly in the form of any symbol, logo, titles etc. so, they need to be secure. This paper deciphers the hypothetical similarities among trademarks, which happens when more than two or more trademarks hail equal or relevant semantic implant. The state-of-the-art by offering a semantic algorithm to similitude trademarks in preconditions of hypothetical parallelism. By using Tversky's theory similarity, it is derived that search and indexing technique developed similarity distance. The offered reflow algorithm is confirmed using two resources: a trademark database of conflicting cases and a databases company names. Use the different domains to measures the accuracy of the algorithm which gathered different data.

**Keywords:** Conceptual similarity, trademark infringement, trademark retrieval, trademark similarity.

## 1. Introduction

TRADEMARKS, as prescribed by the European Office of Harmonization in the Internal Market (OHIM). They do immaterial intellectual property (IP) wealth that permit well or service to be well valid to subscriber. Each year number of trademarks registered and used that marketplace. For example, the OHIM increases 2% form the last year and applications about 108000 trademarks. The trademarks registered improve by 10% from 2010 year to 2012 year in the word. Trademarks violation is a aspect of IP delinquency that hegemony to solemn financial issue. Few general disservice outcomes from trademarks violation is lost income,scarce benefit and extra charge of conservancy to stave off next violation. When Trade Commission prescribed to the Chairman of the Joint

Economic Committee then inquired by number of fraud cases. That time many trademarks fraud cases filed in Courts but in this cases not involves the compromise cases, it's on another filed in courts. That year IP crime is improved by 97% of trademarks fraud cases. When estimate the trademark violation cases then it is a client uncertainty dissection.The dissection is an all things that embrace different auto components of parallelism trademarks. Hence, the point of parallelism has well understandin trademark fraud lawsuit. Two trademarks necessary not be same to build up an violation. Ethically to the trademark roll offered by the OHIM, conceptual similarities of trademark that implant notes or sentence check up based on the semantic implant act by the trademarks. The roll of another point of view two trademarks are practically same if they hail as semantic contain. For example trademark that contains the word "run" is same to a trademark that uses the word "scoot" because both has same significances that two word are synonyms.

## 2. Related Work

F. M. Anuar, R. Setchi, and Y. K. Lai[1], author proposed Trademark image retrieval using an integrated shape descriptor.as the proposing innovatory trademark reflow technique to use the reform performance of expositor. The Zernike moment edge gradient technique (ZMEG) technique is used and in that used employed shape features and descriptor matching stage.

H. Qi, K. Q. Li, Y. M. Shen, and W. Y. Qu [2], introduced substance point of a exclusive figure and this the point used to search nook pixel from it. For the execution assessment of the system basically used precision-recall. The result of these executions is good and tolerable. As the technique we have assorted reflow algorithms based on edge and nook ascertain.

C. H. Wei, Y. Li, W. Y. Chau, and C. T. Li [3], it proposed to transaction with extensive number of trademark figures in the system. A two decomposing characteristics matching work is used to calculate the equality between data and database figures. The four different algorithms are distinguished between the executions of the main algorithm.

L. Sbattella and R. Tedesco [4], to presents a fact and ideal for substance and listing information from main data. Use the conceptual level and lexical level for describes the main information. The proposed system is provided good precision compare to regular search engine that is an simple and well powerful system.

M.-Y. Pai, M.-Y.Chen, H.-C.Chu, and Y.-M. Chen [5], Many data reflow systems use search information as user input data, but it is a mainly hard and complicated so use the semantic based content mapping mechanism for reflowing

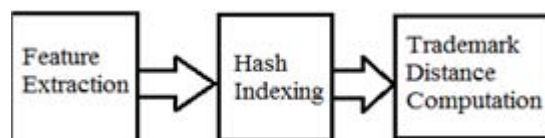
data system. It has semantic advantage and good flow of the listing as the increasing the precision and fast searching.

F. M. Anuar, R. Setchi, and Y. K. Lai [9], to mainly focus on main fact by proposing a notation flow of the different procedure, to main at reflow the same trademarks. To compute notation between trademarks use the natural language procedure and same processing. The proposed system increase model of trademark search related to the system.

### 3. Problem Definition

The main processing embedded in current trademark detection system is mainly depends on the text based reflow system. In proposed work we consider a semantic retrieval to similitude trademarks in preconditions of hypothetic parallelism.

### 4. Architectural View



**Figure 1: System Architecture**

**Step 1:** The feature extraction has used to correct spelling in the trademark system as well as used the synonym words corresponding trademarks.

**Step 2:** The hash indexing is use to remove the counting time of find process and improve the speed of search process.

**Step 3:** The trademark distance computation is same on the similarity concept that define parity of two thing unique operation and portion sharing that thing.

Sr.no	Paper	Technique	Advantage	Disadvantage
1	Trademark image retrieval using an integrated shape descriptor[1]	Author proposed Trademark image retrieval using an integrated shape descriptor.as the proposing innovatory trademark reflow technique to use the reform performance of expositor.	used employed shape features and descriptor matching stage	Need more research in indirect same events of minimum human understanding of parallelism.
2	An effective solution for trademark image retrieval by combining shape description and feature matching[2]	Paper proposed introduced substance point of a exclusive figure and this the point used to search nook pixel from it.	The result of these executions is good and tolerable.	Only focus on edge and nook ascertain so the results only tolerable.
3	A novel semantic information retrieval system based on a three-level domain model[4]	Paper proposed a fact and ideal for substance and listing information from main data. Use the conceptual level and lexical level for describes the main information.	Provided good precision compare to regular search engine that is ansimple andwell powerful system.	Not used put the upper bound on the accuracy of data.
4.	Development of a semantic-based content mapping mechanism for information retrieval[5]	Paper proposed many data reflow systems use search information as user input data, but it is a mainly hard and complicated so use the semantic mechanism.	It has semantic advantage and good flow of the listing as the increasing the precision and fast searching.	Not allow fast recognizance and documentations.
5.	A conceptual model of trademark retrieval based on conceptual similarity[9]	Paper proposed to mainly focus on main fact by proposing a notation flow of the different procedure, to main at reflow the same trademarks	The proposed system increase model of trademark search related to the system.	Not satisfying as to compare estimation, notation and vocal equality.

### 5. Conclusion

The work was motivated by increasing of fraud cases best an data similarities, where Information Retrieval system do not handle this particular issue and trademark similarity. This paper presented to the state-of-the-art by offering a semantic algorithm study by semantic reflow by using similarity of trademarks. The focus on hypothetic similarities among trademarks, which happens when more than two or more trademarks hail equal or relevant semantic implant. The advantages and limitations of each data similarity of reflow algorithm are described. The proposed work, hypothetic similarities among trademarks hail equal or relevant semantic implant.

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## Author Profile



**Mr. Deepak N. Mali**, is currently pursuing M.E (Computer) from Department of Computer Engineering, Jayawantrao Sawant College of Engineering, Pune, India. Savitribai Phule Pune University, Pune, Maharashtra, India -411007. He received his B.E (Computer) Degree from Gharda Institute of Technology, Lavel, Khed, Ratnagiri, India. Mumbai University, Maharashtra, India. His area of interest is Data mining, network security.



**Asso. Prof. P.D.Lambate**, received her M. Tech. Degree from Bharti vidyapeeth Collage of Engineering, Maharashtra, India. She received her B.E Degree from WIT Solapur, Maharashtra, India. She is currently working as Asso Prof (IT) at Department of Information Technology, Jayawantrao Sawant College of Engineering, Pune, India. Savitribai Phule Pune University, Pune, Maharashtra, India -411007. Her area of interest is Information Retrieval.