“Medify”

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Abstract-- Pharmaceutical drug has been widely prescribed by physicians in providing appropriate chemical composition to the patients for remedial action. Every drug name is being referenced by multiple brand names in the pharmaceutical industry for marketing the same drug with different brand names to elevate a product. This overwhelming competition across the globe for each brand name provoke the doctors, pharmacist, vendors and medical representatives to be familiar with brand names of the same drug as a ready reckoned. In this paper, drug alias retrieval using regular expression has shown significant improvement in Precision and a fair result for Recall, and F-Score.

Keywords- career development Drug availability, drug industry/legislation and jurisprudence, drugs, economic competition, essential medicines, generic*, generic medicines, global health,

I. INTRODUCTION

The World Health Organization (WHO) estimates that almost 30% of the world population lacks access to essential medicines and that the figure will rise to more than 50% in some countries of Africa and Asia. [1] The cost of the pharmaceuticals is the main factor that hampers access to medicines and the governments in poor countries seem to be doing very little to counter this problem.

The public sector availability of essential medicines was less than 50% in most of the countries of Africa and Asia. [2] This is appalling in the face of increases in healthcare expenditure in most of the developing nations, mostly financed through secured loans by international development banks and consortia.

The office is occupied with bringing world-class chances of advanced education and research to the nation so Indian understudies are not discovered lacking when confronting a universal stage. For this, the legislature has propelled joint achievement and marked Mous to enable the Indian understudy to profit by the world feeling.

Almost all businesses had gone for sophisticated information systems to integrate sales, inventory, billing and monitoring the nuke and corner of shopping malls, clinics and medical shops. People inquiry minds open changes progressively due to the tremendous usage of electronic gadgets and access to the internet irrespective of age.

When internet becomes the global market place for buying and selling, many hospitals buy biomedical instruments, medicines, surgical accessories online.

II. LITERATURE SURVEY

The complex factors that go into how a drug is priced can be difficult to understand and highly variable. Often, the terms “price,” “cost,” and “value” are used without explicit understanding of what is being referred to; small nuances in language can lead to confusion. For the purpose of this paper, “price” refers to the wholesale acquisition price or “list price” of a drug without applicable rebates, coupons, or discounts, and “cost” is the amount paid by a patient or health plan after all rebates, coupons, or discounts are applied. The concept of “value” in the biopharmaceutical field is highly variable and depends on the perceptions of clinicians and patients. Generally, the value of a drug is the benefit it provides relative to cost.

III. PROPOSED SYSTEM

Method: The outline of proposed method is given automatic Alias Extraction being abbreviated as A2E Bot. this A2E bot requires a seed URL to initiate the crawling task. Crawling were done for a period of time, takes a copy of each page that is visited and stored in a binary form to perform pattern matching, candidate alias extraction, and ranking. Prominent feature of proposed method is the use of regular expression to fetch aliases quickly. The tool needs internet for crawling alone, rest of the search process is being done offline and this is the advantage of this implementation.

A2E bot comprises of three major components:
1. Crawler Application
2. Generic Crawler
3. A2E Front End

Choosing the right URL as a seed for each pattern and each drug name, is one of the key aspects to bring efficiency in retrieval process. Only URL which are relevant to the pattern and input drug name must be considered for crawling scheme and scholarship and make it available for users to register on it.
IV. PATTERN MATCHING TECHNIQUE

The popular pattern matching standard for string parsing and replacement which are used widely in a range a platforms and programming constructs. It is a powerful way to match text with patterns, language independent, written both case and case ignored. Once the web pages are collected from a crawler it must be classified in to three different clusters similar to the previous alias extraction method like Sports, Science, and Politics. But, for simplicity this paper considers only Drug dataset for alias retrieval. Exactly forty seven drug name and various known alias details are stored as training dataset in the tool.

The pattern ‘(Drug Name) better known as *’ can be transformed in the form

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\b(drug name)\b.{0,30}?\b(better.{0,3}known.{0,3}as\b
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A. Features

In this paper, only drug domain dataset is used for measuring the retrieval efficiency. Multiple similar domain dataset belonging to such as pharmacy, pharmacology, biomedical, micro-biology may be chosen to cluster each ambiguous name using built-in domain specific keywords. In addition to that, multiple domain web pages can be clustered using methods such as Group Average Agglomerative Clustering, Hierarchical Agglomerative clustering which might be an extension of this work.

For a simple ranking, the most relevant output to the input query can be obtained using co-occurrence statistics, page counts, and cosine similarity measure. To bring accuracy in ranking, Extreme learning machine (ELM) can also be used.

Implementation of fully unsupervised mode of brand name extraction is the open opportunity. Also, ambiguous brand names such as alternate spell characters can be compared using phonetic sound wave forms to carry out classification decision.

B. Conceptual Model

Time and again the importance of generic prescribing has been emphasized, primarily to reduce the cost of drugs (Mukherjee, 2013). There are two concepts to be understood here, one is generic vs. patented drugs and the other is a drug's “brand name” vs. “non-proprietary name” or “generic name.” Although, our article primarily describes the Indian scenario, it can be extrapolated to other countries also.

Thus, a better way to prescribe would be to prescribe the cheapest brand of the drug and include the generic name of the drug in parenthesis, in case that particular brand is not available. For this, the physicians will have to have knowledge about the cost of various brands of a particular drug. It may sound time consuming but in today's internet age, such information is just a click away (MedGuide India, 2013). “

LIMITATIONS

This method considers keywords wherever the co-occurring pattern exist in documents followed by accessing the aliases. Since medical and pharmaceutical fields are quite dynamic in nature, most of the brand names were ruled out in today’s market or some brand names might not be included in chosen web pages.
In such cases, this method considers web as the updated medium, brand names which are available on the chosen pages only are taken for recall computation. For instance, drug Paracetamol has around 155 brand names since from the day molecular structure, and drug was formulated. Nevertheless, Google search engine finds hardly two or three brand names which leads to low recall for the same drug.

a. Design Phase

It is the first step in moving from problem domain to solution domain. The purpose of the design phase is to plan a solution of the problem specified by the requirements document. Starting with what is needed, design takes towards how to satisfy the needs.

Statistical Analysis

The data were entered into the Microsoft Excel 2013, and descriptive statistics were applied to evaluate the sociodemographic characteristics, educational qualifications and to elucidate knowledge, attitude, and perceptions of the participants about prescribing of generic and original drugs.

V. TECHNOLOGY USED

a. Browser

i. a person who looks casually through publications or websites or at goods for sale.

ii. a computer program with a graphical user interface for displaying HTML files, used to navigate the World Wide Web

b. vscode

Visual Studio Code is a source-code editor developed by Microsoft for Windows, Linux and macOS. It includes support for debugging, embedded Git control, syntax highlighting, intelligent code completion, snippets, and code refactoring.

c. JAVASCRIPT

In order to create dynamic and interactive web pages, we use JavaScript. JavaScript is the most popular scripting language and is supported by all web browsers. It is very light weight programming language and is directly embedded into the HTML code.

VI. WORKING

A generic medicine is the same as a brand-name medicine in dosage, safety, effectiveness, strength, stability, and quality, as well as in the way it is taken and the way it should be used.

Generic medicines use the same active ingredients as brand-name medicines and work the same way, so they have the same risks and benefits as the brand-name medicines.

Patients suffering from simultaneous acute medical problems, cognitive impairment, or psychiatric diseases were excluded from the study. Approval from the Institutional Ethics Committees was obtained before the initiation of the data collection.
VII. RESULTS

The policy of FPMS implemented by the Government of West Bengal, India appeared to be promising in terms of perceived effectiveness, safety, and adherence of generic drugs from FPMS compared to drugs purchased from open market retailers. Therefore, this study might act as an impetus for the policy-makers to initiate similar models across the country.

93% of generic and 87% branded drug users believed that their drugs were effective ($P = 0.238$) in controlling their ailments. No significant difference (9% generic, 10% branded drug users, $P = 1.000$) was observed in reported adverse effects between generic and branded drug users.

82% and 77% of patients were adherent generic and branded drugs, respectively ($P = 0.289$). As expected, a significantly lower cost of generic drugs was observed compared to its branded counterpart. National Achievement Survey for Class Generic-to-brand switchback was defined as a patient switching from the AG or generic product back to the branded drug. We assumed that the first dispensing date of the brand drug following AG or generic dispensing reflected the date of the patient’s switchback. Patients who stayed on the generic drug throughout the 30-month observation period or who discontinued treatment were defined as no switchback.

VIII. CONCLUSION

The global pharmaceutical market grew by 7% to US 602 billion in 2008. The 10 major markets continued to dominate and accounted for 81% of the total global pharmaceutical market. In North America, which accounts for 47% of global pharmaceutical sales, grew 5.2% to US $ 265 billion, annually. Latin America grew an exceptional 18.5% to US $ 24 billion per year. The emerging markets of China, Korea, Mexico, Russia and Turkey, all experienced double-digit growth, clearly outpacing global performance. Pharmaceutical sales in China grew 20.4% to US $ 15 billion in 2008. IMS estimates that China has been the world’s seventh largest pharmaceutical market. The Asia Pacific (excluding Japan) and Africa market grew 11% to US $ 46.4 billion. Japan, the world’s second largest market, which has historically posted slower growth rates, performed strongly in 2005, growing 6.8% to US $ 60.3 billion, its highest year-over-year growth since 1991. Europe experienced somewhat higher growth of 7.1% to US $ 169.5 billion.

REFERENCES