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Effective Content Based Data Retrieval Algorithm for Industrial Manpower Resource Organizer

S. Mahalakshmi^{1*}, A. Elakiya²

^{1,2}M.Sc Computer Science, Idhaya College for Women, Kumbakonam, Tamilnadu, India

Corresponding Author: mahalakshmi89@gmail.com

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Abstract—In each query session, the algorithm maintains weights on the data in the database which reflect the assumed relevance of the data. Relevance feedback is used to modify these weights. As a second ingredient, the algorithm uses a minimax principle to select data for presentation to the user: any response of the user will provide significant information about his query, such that relatively few feedback rounds are sufficient to find a satisfactory data. We have implemented this algorithm and have conducted experiments on both simulated data and real data which show promising results. The objective behind developing IMPRO (Industrial Manpower Resource Organizer) is to maintain the hierarchy of the employees within an organization. It provides the manger and administrative department an overall hierarchical view of the complete enterprise and helps them in managing employee's allocation between the manufacturing plants in large scale industry. Every Organization has many managers, who are responsible for all the activities in the organization. These managers manage different aspects of the organizational management issues, such as manufacturing, production, Marketing, etc; one such essential management issue is IMPRO. As years progressed, the approach of the management changed towards the human capital. Now Hierarchical Organization is part of every organization, and has its own identity and importance.

Keywords—Content Based, Data Retrieval, Manpower, IMPRO, Feature Selection.

I. INTRODUCTION

The objective and scope of my Project Industrial Manpower Resource Organizer is to record the details various activities of user. It wills simplifies the task and reduce the paper work. During implementation every user will be given appropriate training to suit their specific needs. Specific support will also be provided at key points within the academic calendar. Training will be provided on a timely basis, and you will be trained as the new is Industrial Manpower Resource Organizer rolled out to your area of responsibility. At the moment we are in the very early stages, so it is difficult to put a specific time on the training, but we will keep people informed as plans are developed. The system is very user friendly and it is anticipated that functions of the system will be easily accessed by administrators, academics, students and applicants. Hence the management system for the College management has been designed to remove all the deficiency from which the present system is suffering and to ensure.

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essential management issue is IMPRO As years progressed, the approach of the management changed towards the human capital.

The administrative user interface concentrates on the consiste nt information that ispractically, part of the organizational activities and which needs proper authentication for the data collection. The Interface helps the administration with all the transactional states like data insertion, data deletion, and data updating along with executive data search capabilities. The operational and generic user interface helps the users upon the system in transactions through the existing data and required services. The operational user interface also helps the ordinary users in managing their own information helps the ordinary users in managing their own information in a customized manner as per the assisted flexibilities. Now Hierarchical Organization is part of every organization, and has its own identity and importance. In this scenario, the bigger organizations need to put lot of effort in the management of human Resources, as they are underlying capital asset to the organization. In doing so, along with times, the Organization Information changed from its basic operations to more strategic approach. As years progressed, the approach of the management changed towards the human. Now Hierarchical Organization is part of every organization, and has its own identity and importance. In this

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Manpower can place you in the right company and in the right position - those that support your career goals, your lifestyle and your success. We have relationships with some of the nation's most admired companies - companies that are looking for your skills now. We can provide you with virtually limitless choices of how you want to work - and where. We offer industrial manpower supply for various technical specifications for professional services in the fields of Electrical Works Contract and Telecom Works Contract. Our experience in the industry helps us in choosing the best candidates for various jobs. These services for hiring of technical and non-technical staff have been widely used Multinational Companies, Public Sector and Non Public Sector Units. The various services provided by us include: Industrial Labor supplier, Industrial Security Supplier, Housekeeping Contracts.

Helps human resource management and managers to organize employees for allocating work and analyzing where resource is required and where resources are wasted. In order to maintain any single organization it should contain different managers where each manager will handle different tasks like recruiting employees, salary management, project management. Etc. these is common for any industry so industry main power reduce organizer project will look after these work done by manager using a simple application. In present every industry and software companies are using this application for effectively handling man power and reduce expenditure on project.

II. METHODOLOGY

For employees of IMPRO, advantages primarily concern access, time, and cost factorscompared to those incurred from attending as manual. Employees to make online registration view his profile and update his profile and look vacancies list and upload resume.

A. ADVANTAGES:

- The software Industrial Manpower Resource Organizer has a very user-friendly interface.
- ➤ The software improves the working methods by replacing the existing manual system with the computer-based system

- The main objective of Industrial Manpower Resource Organizer is to enhance and upgrade the existing system by increasing its efficiency and effectiveness.
- ➤ The Industrial Manpower Resource Organizer automates each and every activity of the manual system and increases its throughput. Thus the response time of the system is very less and it works very fast.
- ➤ The Industrial Manpower Resource Organizer provides the uses a quick response with very accurate information regarding the users etc.

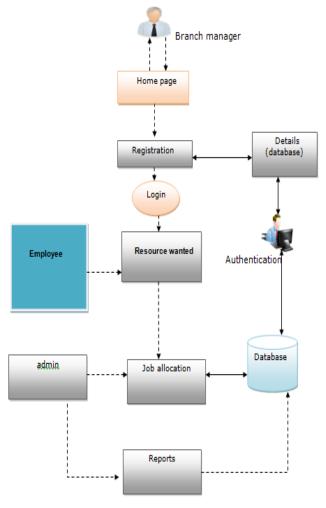


Figure1: Proposed Architecture

III. RESULTS

The objective of our experiments is to evaluate: (1) the efficiency of our search algorithm, (2) how well it copes with different sets of data, and (3) how well it copes with noise.

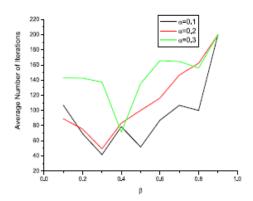


Figure 2: Experiment 1: With the 23- dimensional high-level feature vector from the VOC2007 dataset, Algorithm 1 can find the target data in about 50 iterations with an appropriate β when $\alpha = 0.1$ or $\alpha = 0.2$. When $\alpha = 0.3$, the algorithm can find the target in about 80 iterations.

Experiment 1: Algorithm1 with synthesized data (Figure 2), Experiment 2: Algorithm 1 with synthesized data and no noise (Figure 3),

Experiment 3: Algorithm 1 with VOC2007 (Figure 4), and Experiment 4: Algorithm 1 with VOC2007 and normalized feature vectors with the 2-norm (Figure 5). To reduce statistical fluctuations, each curve in the experiments is plotted using the average from three repeated experiments with the same set of parameters.

Experiments 1, 2 ,3 and 4 are conducted with just N=2 presented images in each iteration. Experiment 5 is conducted with N=20 presented images in each iteration. In Experiment 1, the performance of Algorithm 1 with synthesized data and varying α is demonstrated. When $\alpha=0.1$, the average number of iterations stay around 20 with a small β . When $\alpha=0.2$, the average number of iterations is a bit higher but it is still around 30. However, when $\alpha=0.3$, the average number of iterations goes up to somewhere around 80.

In Experiment 2, Algorithm 1 without noise from the user model performs the best obviously. The figure shows the average number of iterations required to find the target with different β . The number can be as low as 15.

In Experiment 3, with the 23-dimensional high-level feature vector from the VOC2007 dataset, Algorithm1 can find the target image in about 50 iterations with an appropriate β when $\alpha=0.1$ or $\alpha=0.2$. When $\alpha=0.3$, the algorithm can find the target in about 80 iterations.

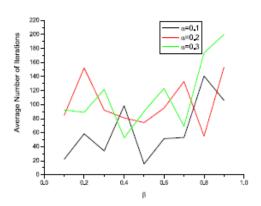


Figure 3: Experiment 4: With a normalized feature vector from the VOC2007 dataset, Algorithm 1 performs better and finds the target data in 20 iterations when $\alpha = 0.1$. It shows a similar performance for $\alpha = 0.2$ and $\alpha = 0.3$ as it is without normalization.

IV. CONCLUSION AND FUTURE SCOPE

The project has been appreciated by all the users in the organization. It is easy to use, since it uses the GUI provided in the user dialog. User friendly screens are provided. The usage of software increases the efficiency, decreases the effort. It has been efficiently employed as a Site management mechanism. It has been thoroughly tested and implemented. We believe that this graphical password method shown a more secure alternative to Pass Points. Industrial manpower resource organizer web application reduces the workload for branch manager and human resource manager. User friendly menu driven interface has been provided to the user to interact with the system. Users can traverse through the website provided the users have the access right set. The users can register themselves through a registration form and then can use the services of the website.

REFERENCES

- [1] Everingham, M., Van Gool, L., Williams, C.K.I., Winn, J., Zisserman, A.: The PASCAL Visual Object Classes Challenge2007 Results (2007), http://www.pascalnetwork. org/challenges/VOC/voc2007/workshop
- [2] Markus Koskela, JormaLaaksonen, and ErkkiOja. "Inter-Query Relevance Learning in PicSOM for Content-Based Image Retrieval". In SupplementaryProceedings of 13th International Conferenceon Artificial Neural Networks / 10th InternationalConference on Neural Information Processing(ICANN/ICONIP 2003). Istanbul, Turkey. June 2003.
- [3] F. Jing, M. Li, H. Zhang, and B. Zhang, "A unified framework for image retrieval using keyword and visual features", IEEE Transactions on Image Processing, 2005, pp.979-989.
- [4] X.S. Zhou and T.S. Huang, "Unifying Keywords and Visual Contents in Image Retrieval", IEEE MultiMedia, 2002, pp.23-33.

- [5] X. He, O. King, W. Ma, M. Li, and H. Zhang, "Learning a semantic space from user's relevance feedback for image retrieval", IEEE Trans. Circuits Syst. VideoTechn., 2003, pp.39-48.
- [6] J. Fournier and M. Cord, "Long-term similarity learning in content-based image retrieval", Proc. ICIP (1), 2002, pp.441-444.
- [7] M. Koskela and J. Laaksonen, "Using Long-Term Learning to Improve Efficiency of Content-Based Image Retrieval", Proc. PRIS, 2003, pp.72-79.
- [8] Jacob Linenthal and Xiaojun Qi, "An Effective Noise- Resilient Long-Term Semantic Learning Approach to Content-Based Image Retrieval," IEEE InternationalConference on Acoustics, Speech, and Signal Processing(ICASSP'08), March 30-April 4, Las Vegas, Nevada, USA, 2008.
- [9] Michael Wacht, Juan Shan, and Xiaojun Qi, "A Short-Term and Long-Term Learning Approach for Content- Based Image Retrieval," Proc. of IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP'06), pp. 389-392, Toulouse, France, May 14-19, 2006.
- [10] C. Zhang and T. Chen, "An active learning framework for contentbased information retrieval", IEEE Transactionson Multimedia, 2002, pp.260-268.
- [11] S. Tong and E.Y. Chang, "Support vector machine active learning for image retrieval", Proc. ACM Multimedia, 2001, pp.107-118.
- [12] P.-H. Gosselin, M. Cord, S. Philipp-Foliguet, "Active learning methods for Interactive Image Retrieval", IEEE Transactions on Image Processing, 2008.
- [13] E. Chang, S. Tong, K. Goh, and C. Chang, "Support Vector Machine Concept-Dependent Active Learning for Image Retrieval", IEEE Transactions on Multimedia, 2005.
- [14] Y. Chen, X.S. Zhou, and T.S. Huang, "One-class SVM for learning in image retrieval", Proc. ICIP (1), 2001, pp.34-37.
- [15] Y. Rui and T.S. Huang, "Optimizing Learning in Image Retrieval", Proc. CVPR, 2000, pp.1236-1236.
- [16] J. Rocchio. "Relevance Feedback in Information Retrieval", Salton: The SMART Retrieval System: Experimentsin Automatic Document Processing, Chapter 14, pages 313323, Prentice-Hall, 1971
- [17] Remco C. Veltkamp, MirelaTanase, "Content-based Image Retrieval Systems: a Survey". State-of-the-Artin Content-Based Image and Video Retrieval 1999: 97-124.
- [18] A.W.M. Smeulders, M.Worring, S. Santini, A. Gupta, and R. Jain, "Content-Based Image Retrieval at the End of the Early Years", IEEE Trans. Pattern Anal.Mach. Intell., 2000, pp.1349-1380.
- [19] Crucianu, M., Ferecatu, M., Boujemaa, N. (2004) "Relevance feedback for image retrieval: a short survey", 20 p., State of the Art in Audiovisual Content-Based Retrieval, Information Universal Access and Interaction, Including Data models and Languages, report of the DELOS2 European Network of Excellence (FP6).
- [20] M.S. Lew, N. Sebe, C. Djeraba, and R. Jain, "Content based multimedia information retrieval: State of the art and challenges", TOMCCAP, 2006, pp.1-19.