

Suez Amatyakul, Colonel 2009: Link Farm Based Pornographic Web Detection Algorithm. Master of Science (Computer Science), Major Field: Computer Science, Department of Computer Science. Thesis Advisor: Assistant Professor Sukumal Kitisin, Ph.D. 62 pages.

The purpose of this research is to find a better solution and more effective way to detect and identify pornographic websites. This research proposes a semi-automatic technique called Link Farm Based Pornographic Web Detection Algorithm (LEPD) algorithm as a mean for examining and identifying pornographic websites. The algorithm will assist experts to search for a set of pornographic websites based on an initial seed set. The LEPD will then examining the structures of the websites in the seed set to find any links that will lead to connections with other pornographic websites previously identified. LEPD works in three steps; first, experts identify a group of pornographic websites as a seed set; second, the algorithm automatically collects pornographic websites' information and structures; third, the algorithm examines and identifies whether the collected URLs are pornographic websites.

The result from this research founded that from the 8 websites initially identified by expertise. When we run LEPD 3 times, we were able to detect pornographic websites from 18,725 to 44,123 websites. The number of websites detected is depended on value of T which is in the range between 1 to 4. As the value of T increases the number of websites detected decreases. When we consider the capability of LEPD it founded that in the first and second run the accuracy rate of detection was higher than 90 percent in every mean of T. However, the highest number (18,725) of pornographic websites that LFPD was able to detect with accuracy rate of 90 percent or higher was from the third run where T equal to 4. Furthermore, we founded that there are other websites that are not pornographic websites which intentionally link back and forth with pornographic websites; for example, commercial and match-making services.

---

Student's signature

---

Thesis Advisor's signature