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Web browsers revisit the Web Pages using Context and Content Keywords

[1]Mr.A.Vinay Kumar,[2] Ms.N.Lavanya,
[1,2] Assistant Professor,Dept. of CSE,
Malla Reddy Engineering College (Autonomous), Secunderabad, Telangana State

Abstract:

Personal web re-visitation on browsers is a common yet uneasy task for users due to the large volume of web pages taken in daily life. Inspired by the human memory and its natural recall characteristics, we build a personal web re-visitation tool, Web-Prev, to facilitate users to revisit previous web pages through associated memory cues. To mimic users' episodic memory recall, we present a way to automatically generate an abundance of related contextual metadata (e.g., Date, Location, Activity) and organize them as context tree for each webpage in a life cycle. Meanwhile, web content (e.g., topic name, topic keywords etc.) is extracted and managed in a weighted term list, which corresponds to semantic memory. In this paper we discuss about some literature that, how important for revisit the web pages in web browsers and we discuss what methodologies is used in literature. In this survey various data mining concepts are considered: Gesture Navigation [1], Linear History Display[2], Episodic memory[3], Memento[4] and Youpivot[5].

Keywords:*WebPrev, Gesture Navigation, Linear History Display, Episodic memory, Memento and Youpivot.*

1. INTRODUCTION

The World Wide Web has become the most successful hypertext system ever, making Web browsers one of the most frequented user interfaces. Historically, hypertext is based on the vision of managing a constantly growing amount of information, not only providing more natural ways to access new information, but specifically introducing a concept to revisit information read before by following self-created trails [9]. The Web as a read-only medium lacks this revisitation concept: users can add neither links nor comments to Web documents. Hence, other browser mechanisms are needed to revisit Web pages. How people try to find information on the Web has been subject of several studies [10]. Search engines have become the most important means to find new information, yet hyperlinks are vital to find related or more detailed information. Such navigation behavior can be investigated in short-term studies and by analyzing search engine logs. However, only few studies have examined the revisitation behavior of Web users, and most of these focused on short-term revisitation. Knowledge about Web page revisitation is mainly based upon only three studies that range in age from seven to thirteen years. Specifically, long-term revisitation behavior is hard to analyze, requiring detailed long-term recording of user actions in their natural environment. Thus, research has mainly focused on the usability of

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existing tools, e.g. the use of bookmarks [11, 12] or the use of the back button [13].

2.RELATED WORK

Existing System

In the literature, a number of techniques and tools like bookmarks, history tools, search engines, etc systems have been developed to support personal web revisitation. In existing search engine, and fetched relevant previously viewed results from its cache. The newly available results were then merged with the previously viewed results to create a list that supported intuitive re-finding and contained new information.

For Ex:

History Tools History tools of web browsers maintain user's accessed URLs chronologically according to visit time (e.g., today, yesterday, last week, etc.), and accessed page titles and contents.

Search Engines. How search engines are used for re-finding previously found search results. It explored the differences between queries that had substantial/minimal changes between the previous query and the revisit query.

Disadvantages:

- No search for web revisitation.
- Depends on only time and date.

Proposed System:

Inspired by the psychological findings, this paper explores how to leverage our natural recall process of using episodic and semantic memory cues to facilitate personal web revisitation. We present a personal web revisitation technique, called *WebPagePrev*, that allows users to get back to their previously focused pages through access context and page content keywords. Underlying techniques for context and content memories' acquisition, storage, and utilization for web page recall are discussed.

Preparation for web revisitation. When a user accesses a web page, which is of potential to be revisited later by the user (i.e., page access time is over a threshold), the context acquisition and management module captures the current access context (i.e., time, location, activities inferred from the currently running computer programs) into a probabilistic context tree.

Advantages:

- New technology for personal web revisitation.
- Depend on both context and content keywords.

Gesture Navigation

A. Cockburna& S. Greenberg describe that The mouse-driven cursor is the main input device for web navigation—to visit a link the user points the cursor to the link and to revisit a page the user moves the cursor to the Back button.Task one compared the effectiveness of the two interfaces in depth-first navigation. The path followed four links on subsequent pages then backtracked with four successive Back commands, giving a path a→b→c→d→e←d←c←b←a using the notation

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introduced earlier. This task represents a directed search style of web-use: for instance, searching for a faculty member's web page starting from a university's home page.

Task two examined the effectiveness of the two interfaces in breadth-first navigation, also called 'hub-and-spoke' navigation, which involves visiting a series of links (or 'spokes'), one at a time, off a central 'hub' page. Beginning at a 'start' page, the subjects followed a link to a main 'hub' page, then navigated to three 'spoke' links off that page, pressing Back to return to the hub each time. A final Back command returned to the start page, giving a complete path of a→b→c←b→d←b→e←b←a.

A. Cockburna& S. Greenberg demonstrates how temporal lists could be used to integrate the diverse web revisitation tools in current browsers. It also demonstrates how the problems of page identification (prevalent in current browsers) can be eased through simple visualisation techniques.

Memento

C. E. Kulkarni, S. Raju, and R. Udupa define the context of a web page as other pages in the browsing session that immediately precede or follow the current page. Table 1 compares topic-phrases generated by Memento for a URL visited in two different contexts (target page is shown in bold; pages visited immediately after this page are omitted for clarity). In the first session, the user is possibly looking for information about an automobile recall. In the second session, the user arrives at the same target page, but navigated to it along a different path, and is possibly looking for pricing. In the two cases, Memento extracts different topic-phrases for the same target page, reflecting the difference in the page context.

Identifying page-context plays a key role in extracting topicphrases for a target page. Memento identifies the page. context by determining its session boundaries. The length of a session (i.e., the number of pages considered to be a page's context) varies considerably based on the user's information need. Prior work has used the time-interval between successive page loads or a page-window of fixed size to identify session boundaries [6]. Candidate phrases are then co-clustered to identify the subset of topic-phrases relevant to the page [7].

Table 1: Topic-phrases for identical URL in different sessions

Session	Topic-phrases
http://www.lemonauto.com/complaints/toyota/toyota_prius.htm; http://www.toyota.com/recall/; **http://www.toyota.com/prius-hybrid/**	**Toyota Prius, Hybrid Vehicles, Toyota Vehicle Recalls…**
http://www.edmunds.com/toyota/prius/review.html; http://www.carsdirect.com/toyota/prius **http://www.toyota.com/prius-hybrid/**	**Toyota Prius, Trim Level, Suggested Retail Price**

Youpivot

Given the strong evidence from researchers in the cognitive sciences, we envision computer systems (desktop, portable and mobile) that augment and leverage the natural recall methods of the human

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mind. While personal data collection (e.g., MyLifeBits) and storage is not a modern problem, the creation of efficient and timely retrieval techniques and interfaces is central to leveraging this near flawless memory stores of computers [8]. To this end, we have developed YouPivot, a novel system that directly addresses and demonstrates how computers can implement contextual search. At the heart of our system is the ability for a user to shift their point of view to that of a file, website, or some other activity in their own digital history. From that perspective, they can see everything else that was active during that period of time. Because access to websites, songs, files, other digital activity and physical location is temporal (not just a split second moment, but with start and end times), a user can now think of search in terms of the context of a file rather than just a meta-data title, or keyword.

J. Hailpern& N. Jitkoff illustrate the features and functionality of YouPivot through a scenario of Sarah, a graphic designer. Through her interactions with YouPivot, we will highlight the interface, interactions, and use cases therein. To illustrate the breadth of YouPivot's features, we present the following overly extensive scenario to cover multiple approaches to YouPivot search. In practice, users can apply any subset of the following search techniques at any time or in any order depending on their contextual cue. Providing users with flexibility in leveraging contextual cues is a key strength of YouPivot.

3. IMPLEMENTATION

WebPagePrev

WebPagePrev is a personal web revisitation technique, that allows users to get back to their previously focused pages through access context and page content keywords. Underlying techniques for context and content memories' acquisition, storage, and utilization for web page recall. Content keywords will search on URL's content data and Context will search time, location and activity tree data.

Admin

Admin is super user of the application. Admin can build the context tree structure of activity tree for contextual recall system. Admin can see the performance analysis.

User

User is an end user of our application. User will perform Revisitation by using context and content keywords. User can search web data in application's search engine, application will store the links what user visited. Visited url's user can revisit according WebPagePrev technique. User can provide feedback of relevant links.

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4. PROPOSED ALGORITHM

Algorithm: Web Page Revisitation

Input: A revisit query Q (W , c, d, t, f)
Output: W_m

Initialization:

i. *User Revisitation request Q*
ii. *W Web pages and W_m relavent result web pages*
iii. *Trees = getMatchContextTrees(W;c; t); where c context keywords*
iv. *Lists = getMatchTermLists(W;d; t); d content keywords*
v. *Let t current time and t_0 initial time*
vi. *W_c List of candidate matched page set based on c , d*
vii. *Let f Frequency*

foreach w ? W_c

calculate dRank of w;

for each d_i? d

k=calculate tf-idf score

*k= *k*

end for

dRank=k;

calculate cRank of w;

for each cTree

*k=calculate ? * ??[illegible]*

k=+k;

end for

5. EXPERIMENTAL RESULTS

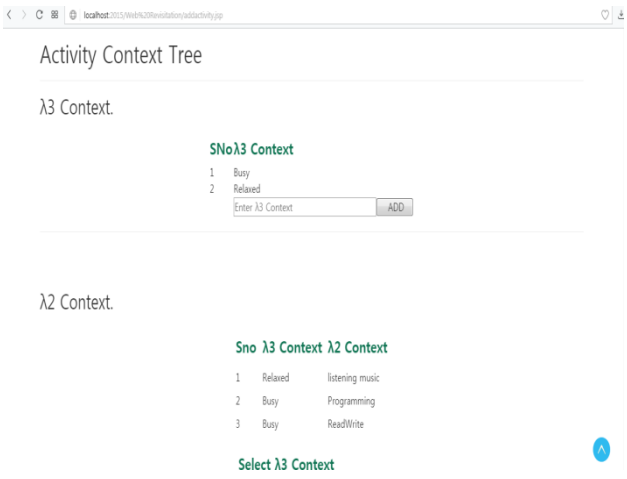

Fig:-1 Activity Context Tree Making Page

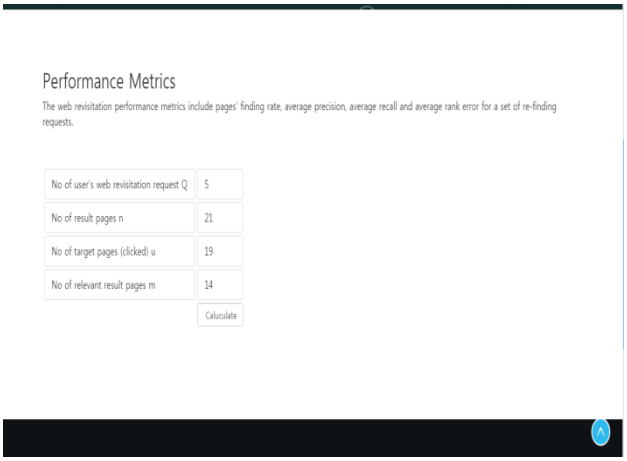

Fig:-2 Performance Metrics Page

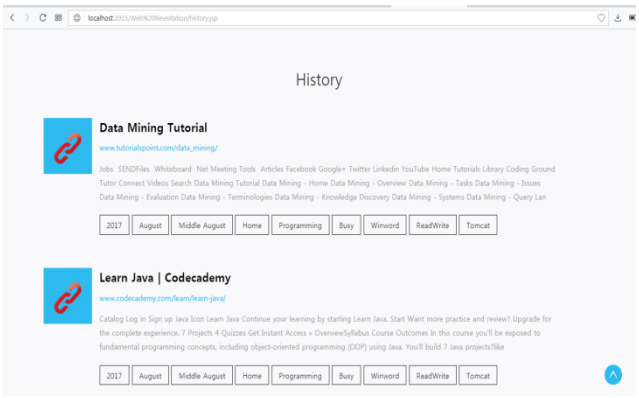

Fig:-3 Search Results

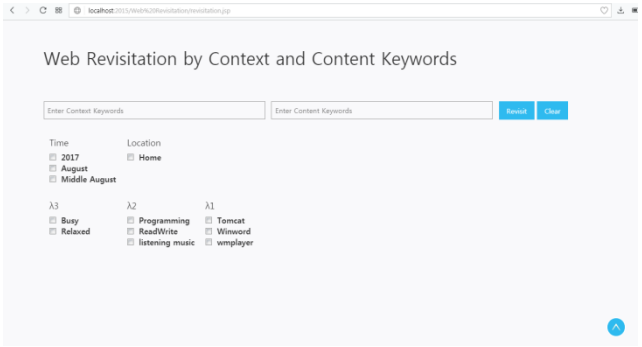

Fig:-4 Context & Content Keywords

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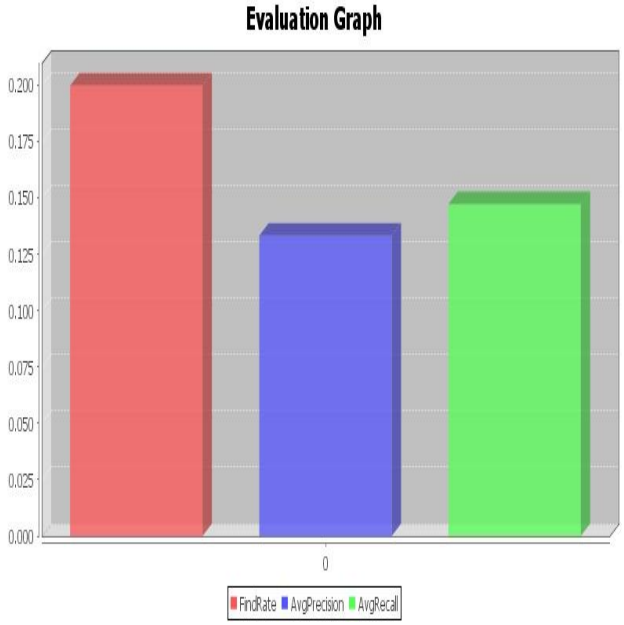

Fig:-5 Graph Showing Performance in discovery rate, Performance in average precision, Performance in and average recall

6. CONCLUSION

In this survey various Gesture Navigation, Linear History Display, Episodic memory, Memento and Youpivot are leverages human's natural recall process of using episodic and semantic memory cues to facilitate recall, and presents a personal web revisitation technique. Now we are extending these topics WebPrev, to facilitate users to revisit previous web pages through both memory cues episodic and semantic and proposed concept called WebPrev.

REFERENCES

[1] A. Cockburn, S. Greenberg, S. Jones, B. Mckenzie, and M. Moyle. Improving web page revisitation: analysis, design and evaluation. IT & Society, 1(3):159–183, 2003.

[2] L. Tauscher and S. Greenberg. How people revisit web pages: empirical findings and implications for the design of history systems. International Journal of Human Computer Studies, 47(1):97–137, 1997.

[3] L. C. Wiggs, J. Weisberg, and A. Martin. Neural correlates ofsemantic and episodic memory retrieval. Neuropsychologia, pages 103–118, 1999.

[4] C. E. Kulkarni, S. Raju, and R. Udupa. Memento: unifying content and context to aid webpage re-visitation. In UIST, pages 435–436, 2010.

[5] J. Hailpern, N. Jitkoff, A. Warr, K. Karahalios, R. Sesek, and N. Shkrob. Youpivot: improving recall with contextual search. In CHI, pages 1521–1530, 2011.

[6]. Mayer, M. Web History Tools and Revisitation Support: A Survey of Existing Approaches and Directions. In Foundations and Trends in Human-Computer Interaction, Mar 2009

[7] Dhillon, I.S. Co-clustering documents and words using bipartite spectral graph partitioning. In Proc. SIGKDD 2001

[8] Benjamin, A. S. Memory is more than just remembering: Strategic control of encoding, accessing memory, and making decisions. Psychology of Learning and Motivation, 48, 2007, 175-223.

[9] Bush, V. As We May Think. The Atlantic Monthly. July 1945; Reprinted in Interactions, (III)2, 1996, 35-46.

[10] Jansen, B.J., Pooch, U.W. A Review of Web Searching Studies and a Framework for Future Research." In Journal of the American Society of Information Science 52(3), 2000, 235-246.

[11] Abrams, D., Baecker, R., Chignell, M. Information archiving with bookmarks: personal webspace construction and organization. In Proc. CHI'98, ACM Press, (1998), 41-48

[12] Jones, W., S. Dumais, et al. Once Found, What Then?: A Study of "Keeping" Behaviors in Personal Use of Web Information. In ASIST 2002, 39, 1 (2002), 391-402

[13] Cockburn, A., McKenzie, B., Jason-Smith, M. Pushing Back: Evaluating a New Behaviour for the Back and Forward Buttons in Web Browsers. International Journal of Human-Computer Studies. 57(5), 2002, 397-414