Abstract: Missing web pages (pages that return the "404 Page Not Found" error) are part of the browsing experience. So too are pages whose owners failed to renew their domain and whose old URIs now have unexpected content. Users that encounter a missing page or unexpected page may try to use search engines to discover either the same page at a new location or a similar, "good enough" page to satisfy their information needs, but this can be laborious. To address this need, we are developing a semi-automated framework to assist users to first discover the topic of the missing page, and then locate the same or similar page at a new URI.

We have been investigating a number of techniques to discover the "aboutness" of an unknown web page. If the page is in the internet Archive’s Wayback Machine or in a search engine cache, the user may be satisfied with the old copy. If an old copy is insufficient, we can use either the page’s title or generate a lexical signature to serve as a query to a search engine to find the resource. A lexical signature is a 5-7 word "abstract" of a document that is suitable for using as a query to a search engine. The performance of titles and lexical signatures are comparable, with both achieving over 60 percent success. The combination of titles and lexical signatures from link neighborhoods as well as using tags from del.icio.us, but at this point neither method performs well.

Speaker Bio:
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