

# From Browsing to Interacting: DBMS Support for Responsive Websites

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## Abstract

Internet websites increasingly rely on database management systems. There are several reasons for this trend:

1. As sites grow larger, managing the content becomes impossible without the use of a DBMS to keep track of the nature, origin, authorship, and modification history of each article.
2. As sites become more interactive, tracking and logging user activity and user contributions creates valuable new data, which again is best managed using a DBMS. The emerging paradigm of *Customer-Centric e-Business* places a premium on engaging users, building a relationship with them across visits, and leveraging their expertise and feedback. Supporting this paradigm means that we not only have to track what users visit on a site, we also have to enable them to offer opinions and contribute to the content of the website in various ways; naturally, this requires us to use a DBMS.
3. In order to personalize a user's experience, a site must dynamically construct (or at least fine-tune) each page as it is delivered, taking into account information about the user's past activity and the nature of the content on the current page. In other words, personalization is made possible by utilizing the information (about content and user activity) that we already indicated is best managed using a DBMS.

In summary, as websites go beyond a passive collection of pages to be browsed and seek to present users with a personalized, interactive experience, the role of database management systems becomes central.

In this talk, I will present an overview of these issues, including a discussion of related techniques such as *cookies* and *web server logs* for tracking user activity.

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