



Creating a State-of-the-Art Website that Feels Personal

Thousands of people visit websites like Amazon.com each day, and each is welcomed into the site by a uniquely customized homepage. Why? The content is personalized so that visitors feel like the page is speaking directly to them. The Consortium for Resilient Gulf Communities (CRGC) is using state-of-the-art techniques to design a website that is personalized for people interested in learning more about how to build community resilience in the face of a major oil spill. The result should be a website that is more relevant, more engaging, and ultimately more useful for diverse end users.

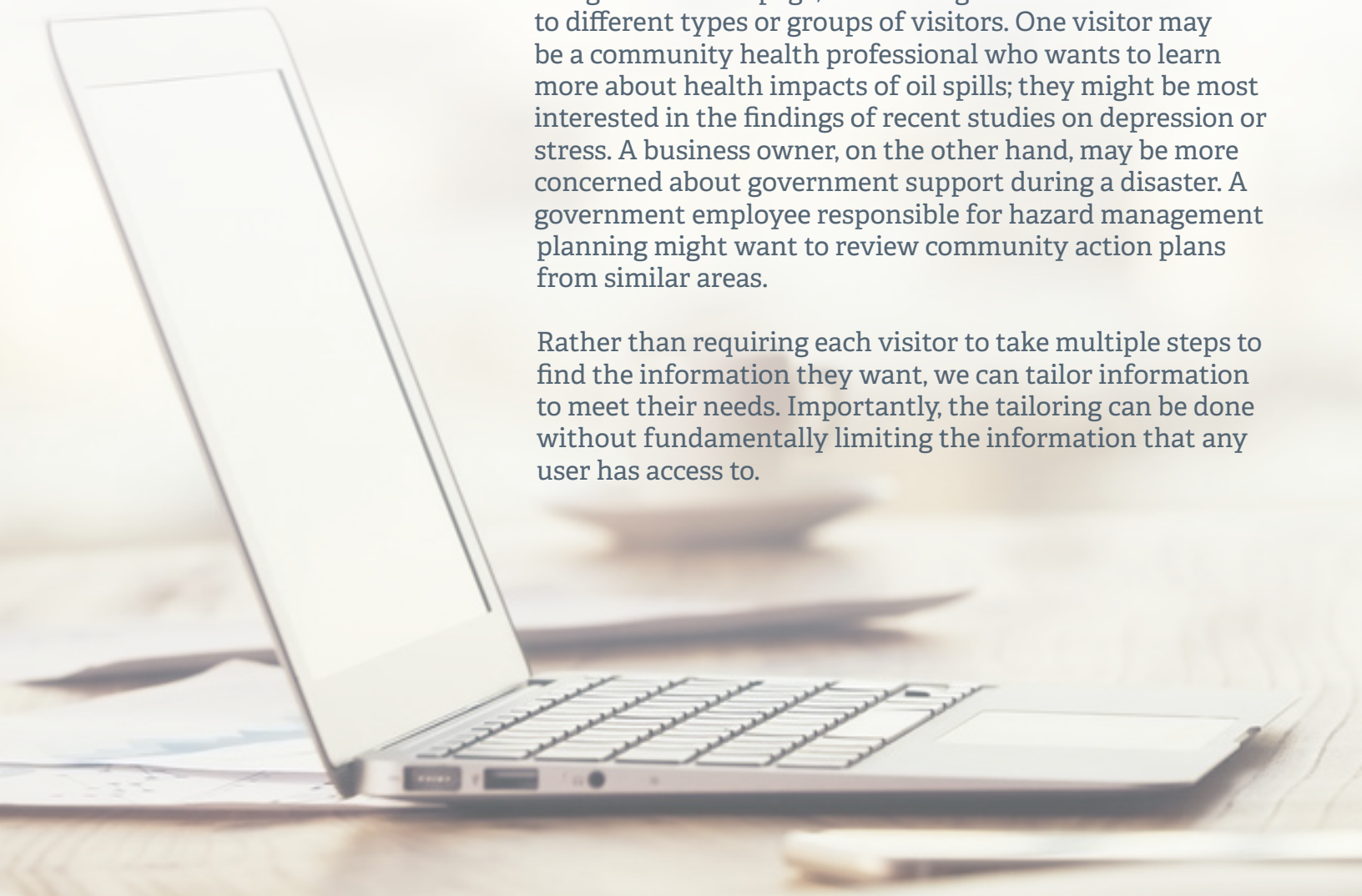


CONSORTIUM FOR
RESILIENT GULF
COMMUNITIES

What is web content personalization?

Instead of trying to appeal to a wide range of visitors with one generic home page, we can target different content to different types or groups of visitors. One visitor may be a community health professional who wants to learn more about health impacts of oil spills; they might be most interested in the findings of recent studies on depression or stress. A business owner, on the other hand, may be more concerned about government support during a disaster. A government employee responsible for hazard management planning might want to review community action plans from similar areas.

Rather than requiring each visitor to take multiple steps to find the information they want, we can tailor information to meet their needs. Importantly, the tailoring can be done without fundamentally limiting the information that any user has access to.



How does content personalization work?

We can map website content to individual visitors using data available to us about the visitor in two steps:

Step One: Characterizing

Collection Methods



In-depth Interviews

What We Identified



Decisionmakers



Keywords



Online Registration



Background Info



Special Interests

We will use information we have already gathered from in-depth interviews with a range of potential users from the Gulf region. These are people from a range of backgrounds involved in making decisions related to building community resilience before and after an oil spill. From the interviews we have identified types of decision makers (e.g., government workers, business owners, leaders from community-based organizations) interested in different human dimensions of oil spills (e.g., health, economic, social impacts). We have also identified keywords that capture the topics of interest to decision makers (e.g., community development plan, environmental jobs, emergency fund, community events). We can combine this knowledge from the interviews with more specific information provided by each visitor to our website via an online registration form that requests basic personal information about their background (e.g., seafood industry worker) and special interests (e.g., health impacts on workers exposed to oil).

Step Two: Recommending



Weighted
Keywords



User Profile

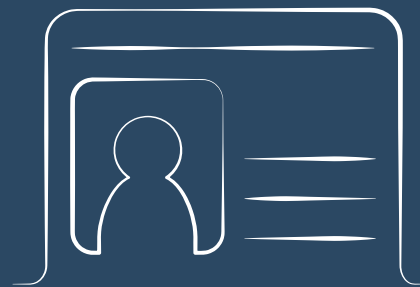


Recommender
System



Selected Visitor
Content

At this stage, we assign weights to a set of keywords, based on users' interests, to create user profiles. Then we use a recommender system to match user profiles with items to be recommended. The system relies on rules that affect the content presented to users when their profile satisfies the rule's conditions.



What are the benefits of content personalization?

- **Fast response:** Visitors can find the information and tools they need quickly.
- **Uniquely informative:** Visitors will be more highly engaged and more likely to come back to the website and recommend it to others.
- **Less distraction:** Visitors won't be frustrated with content that seems to have nothing to do with their interests.

For more information

Gain, Alex, Cody Licorish and K. Brent Venable, *Web Personalization: a state of the art review*. Department of Computer Science Working Paper, Tulane University, Louisiana.

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