

Document-Centered Discussion and Decision Making in the *Deme* Platform¹

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DEMO EXTENDED ABSTRACT

1. INTRODUCTION

Deme (pronounced “deem”, see Figure 1) [3] is a social content management platform that is being applied in a public deliberation experiment, in which U.S. residents are learning about and discussing health care policies [4].

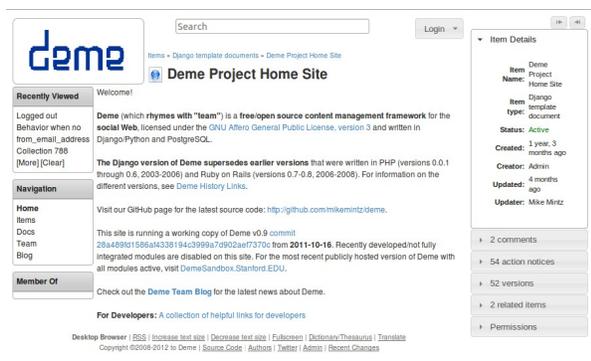


Figure 1. The Deme Project Home Page at <http://deme.stanford.edu>

This demo will showcase the parts of Deme especially designed for deliberation among people assumed to have conflicting goals and beliefs. In the space of communicative action, this situation contrasts with an assumption underlying many collaboration systems: that participants are trying to achieve a common goal, with limited conflicts in their beliefs, and that their primary problem is coordinating their individual actions to achieve their common goal. In public deliberation, actors with competing perceptions and interests must reach a collective decision. Deliberation

is challenging because participants often cannot see whether conflict arises from competing goals or divergent beliefs, and can even have an incentive to misrepresent their true feelings on one or both dimensions. Technology support for deliberation is a relatively new but growing area of design, research, and practice [2].

Deme addresses two recurring phenomena in deliberative discussions that take place in the format of threaded online text dialogue:

- 1. Biased recasting.** Participants with conflicting perceptions and goals often misunderstand and/or misrepresent the positions of others in a discussion. This problem is exacerbated by message-thread systems that encourage statements by others to be *recast*, through paraphrasing, summarizing, or interpreting. Recasting is often viewed by the originator of a statement as inaccurate and biased toward the point of view of the recaster.
- 2. Lack of resolution.** Discussion between people with different opinions often fails to settle these differences or even to identify areas of agreement. This can be a problem when collective action/agreement are in the interests of both sides. Threaded conversation can lead to a lack of

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resolution---it generally does not impose common goals or deadlines.

Biased recasting can be addressed through a long-recognized principle known as WYSIWIS (“What you see is what I see”) [5], in which comments about the words of another are produced and read by participants who are able to see and read the target text simultaneously with the comment about that text. WYSISIS can be achieved in F2F meetings via a shared display (e.g. a projected image) or a handout, which participants read while they speak and listen. But biased recasting can easily occur within the discussion even in F2F meetings, whenever the target of discussion is not covisible as comments about it are being made (e.g. references to a previous verbal comment). In a two-dimensional, text-only interface, participants do not have separate perceptual modalities to devote to a comment and its target. So text discussion poses both a perceptual challenge (all language must be processed and produced textually) and a cognitive one (references to previous comments or documents often rely on participants' memory of the targets rather than a direct, covisible presentation of the target as it is being discussed).

Resolution can be addressed in deliberative settings by requiring or facilitating a decision as well as a deadline for achieving it. In F2F meetings, there are various factors that encourage such outcomes but which are not present in asynchronous text discussion. F2F meetings typically have a stricter time limit, and the demands of being together and away from other obligations and opportunities motivate participants to end the meeting. F2F dialogue also provides a richer medium to achieve grounding (common understanding) [1] through nonverbal cues. And F2F decision making procedures such as voting are easier to trust than an online vote, which might be manipulated and/or unverifiable.

2. DEMO OUTLINE

The demo will focus on two features that have been built into the present version of Deme that address the phenomena noted above: document-centered discussion and polling.

2.1 Document-Centered Discussion

To address the problem of biased recasting, Deme takes advantage of the fact that text comments (unlike voiced comments) can easily be made into focal documents. Document-centered discussion encourages participants to refer directly to text passages, rather than to recast them. This leaves the problem of creating covisibility or WYSIWIS between the comment and the target text.

Deme's interface for document-centered, asynchronous discussion places threaded Comments in a box to the side of the document text being referred to, with pointing arrows and highlights to draw a reader's attention to the relationship between Comment and target Document. Providing this tool to commenters helps to forstall recasting behaviors because it makes it easier for a commenting participant to simply highlight text under discussion and place comments at located places in the document. See Figure 2. We will demonstrate in detail how this feature works, with special attention to refocalizing a comment to become a target document.

2. 2. Decision Making

To help participants achieve resolution, Deme implements a type of Item (Deme's unit of content) known as a Poll: a Collection of Propositions coupled with Response Formats, which provide alternative answers to a Question. This is a very general model that can accommodate surveys, voting, and various aggregation methods (Results). Deme attempts to give both creators of and participants in Polls as much control as needed to achieve resolution. This flexibility is one of the advantages of F2F meetings, and

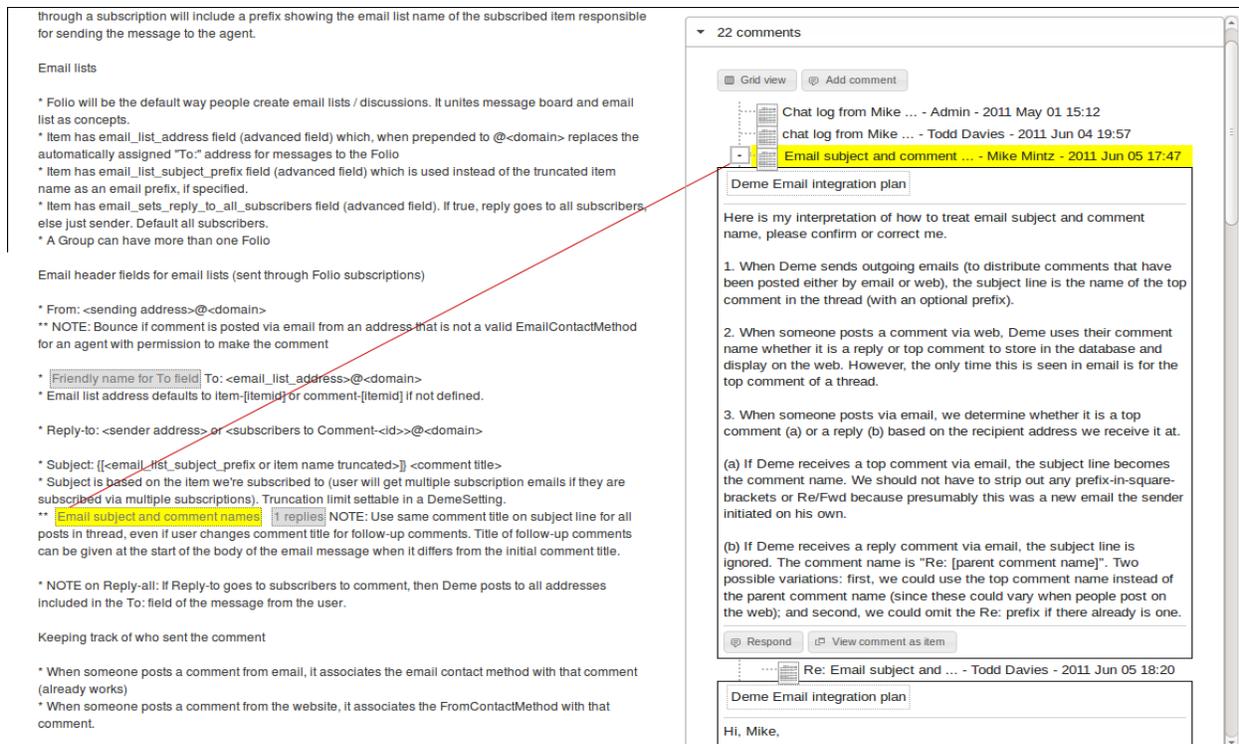


Figure 2. Located Threaded Commenting

a disadvantage of many online voting systems, which impose procedures that may be incompatible with a group's desired practice.

The demo will show how Polls operate in Deme from creation through participation to the calculation and display of results, with special attention to navigating through the complex options available to Poll creators.

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SPEAKER BIOGRAPHY

Todd Davies is the Associate Director of the Symbolic Systems Program at Stanford University, and a researcher in the area of online deliberation. He is the co-editor (with Seeta Peña Gangadharan), of *Online Deliberation: Design, Research, and Practice* (2009).