

Extended Abstract - discuss: Embedding dialog-based Discussions into Websites

Christian Meter, Tobias Krauthoff, and Martin Mauve

Department of Computer Science
University of Duesseldorf, Germany
{meter,krauthoff,mauve}@cs.uni-duesseldorf.de
<http://cn.hhu.de>

1 Introduction

Many websites and online news media provide their readers with the opportunity to comment and discuss their content. In fact, the ability to participate in such a discussion or to read what others think about an article is a major reason to prefer online content over offline media. While current solutions used to support reader feedback are quite suitable to provide simple feedback, they do a rather poor job at fostering meaningful discussions among the readers. This is especially true in those cases where this would be most needed: for articles that receive a lot of reader-feedback due to their popularity or controversial nature.

Commonly, comment sections are located below online articles. They provide a vertical-oriented discussion, where one comment follows the other, often combined with the possibility to directly reply to an individual comment. This is the same design used, for example, by Facebook or Twitter or, in fact, in most forum systems. It is well known, that this design has significant flaws when used for discussions and argumentation rather than simple feedback [1,2], for example redundant comments, lack of structure or simply missing scalability when large numbers of users try to express their opinions.

To solve this problem and allow for meaningful online argumentation regarding issues raised in an online news media article, we propose to integrate dialog-based online argumentation in the website hosting the article. In dialog-based online argumentation the user performs a time-shifted dialog with those users who previously participated in the discussion. The new user can then react to statements from those other users and possibly provide her own statements in response to the statements of other users. This dialog (see Fig. 1) is performed in natural language and the user does not need any specific skill other than being able to read and write. This concept has been implemented in the standalone argumentation system *D-BAS* [3].

As we can see in Fig. 1, a running discussion in D-BAS is about options to cut spending of a town. We focus on “We should shut down University Park” and the system presents us arguments from other users. Now, D-BAS asks us to react to another argument and shows this interface.



Fig. 1: A discussion in D-BAS about cutting spending of our town

2 Contribution

In this paper, we present *discuss*, which uses the argumentation-logic of D-BAS to embed structured discussions in arbitrary websites. *discuss* is a JavaScript-based extension, which can seamless integrate dialog-based discussions into websites, e.g. to enhance or replace existing comment sections whenever a discussion is intended to be held with or among the readers. Furthermore, we can integrate parts of the contents of a website into the discussion as a quotation to support own statements in the discussion. These *references* are highlighted in green color inside the article itself as it can be seen in Fig. 2 and indicate a statement in the discussion, where this text passage has been referenced with.

Currently, the city council discusses to close the University Park, because of its high running expenses of about \$100.000 per year. But apparently there is an anonymous investor ensuring to pay the running costs for at least the next five years 🗨️. Thanks to this anonymous person, the city does not loose a beautiful park, but this again fires up the discussion about possible savings for the future.

Fig. 2: Excerpt of an exemplary article to introduce new facts to the discussion

In this case, a reference was selected by a reader of this website who read the article and wanted to introduce new facts into the discussion about closing the University Park. Therefore, the reader used *discuss* to join the discussion and added a new statement with this reference (Fig. 3).

New users, who visit this website, can now see the green-colored reference and are able to directly jump into the discussion by clicking on the reference. This

leads them exactly to this statement, which was previously added and linked with the text passage.

Add a new argument

We should shut down University Park is not a good idea, because...

there is an investor who is going to bear the cost for the next years

“ But apparently there is an anonymous investor ensuring to pay the running costs fo r at least the next 1 ” ✕

SUBMIT

Fig. 3: Add a new argument with a reference from the article

These discussions are not limited to the scope of a single article. Multiple websites can link discuss to the same instance of their argumentation system, e.g. D-BAS, which allows a *global discussion*, since all statements are collected in this selected instance.

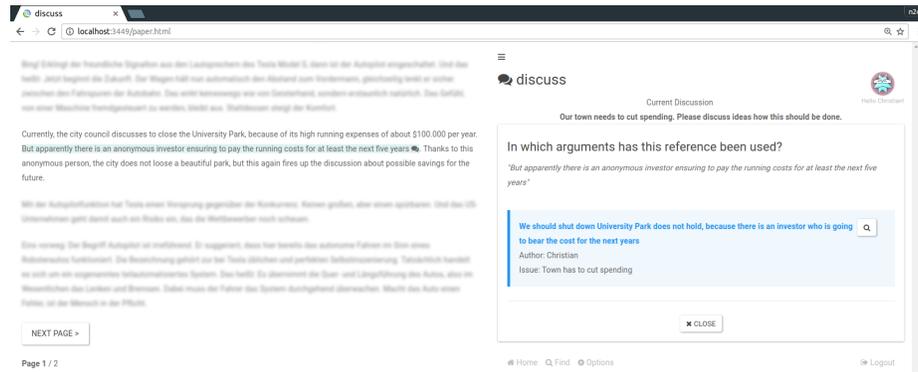


Fig. 4: Side-by-side integration of discuss into an online article with jump action

There are several options to integrate discuss into existing websites. We tested multiple implementations and decided to provide a *sidebar*, which provides all functions directly side-by-side with the article (see Fig. 4). This sidebar can be opened by clicking on a reference or by a separate tooltip which appears when the user selects some parts of the article.

In addition, we implemented a search engine to provide a fast option to jump to a specified location in the discussion based on a string-query with the database.

References

- [1] M. Klein, “Using Metrics to Enable Large-Scale Deliberation,” *A Work. ACM Gr. 2010 Conf.*, 2010.
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- [3] T. Krauthoff, M. Baurmann, G. Betz, and M. Mauve, “Dialog-Based Online Argumentation,” *Proceedings of the 2016 conference on Computational Models of Argument (COMMA 2016)*, 2016.