An experimental approach to explore discourse architectures

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Abstract. This work examines existing research on the design of discussion places and demonstrates how design can be used to support certain approaches of participation. We link these efforts to the concepts of discourse architectures and democratic innovations and furthermore, examine how we could experimentally approach the study on these.

Introduction

The design of the discussion system has been observed to effect how participants engage with the discussions. Sukumaran et al (2011) have examined how the site layout and appearance impact the comments people assume seeing on the site. They observe that people expect to see more serious comments on sites that look more professional and suggest that this is related to the experienced norms on the site. On the other hand, in computer-supported collaboration effort has been put into developing new systems, which engage participants in thoughtful discussion. The CONSIDER IT (Kriplean et al, 2012a) and REFLECT (Kriplean et al, 2012b) propose new processes supported with the design. Their experience on both of these systems are positive, participants are engaging more with these processes. Lastly, Stanfill (2014) examine how media companies use different interfaces to create norms of participation.

This research has been scattered to different domains, from classical human computer interaction and computer-supported collaboration to new media research. This phenomenon has also been acknowledged in political science, they refer to them as *discourse architectures*. Discourse architectures are set of technical affordances (or limitations) guiding participants towards certain behaviors (Freelon, 2013). I furthermore highlight how understanding these discourse architectures are critical part of *democratic innovations,* the institutional designs used to involve citizens in democratic decision making (Smith, 2009). These approaches aim to engage citizens in mini public (Himmelroos and Christensen, 2014), online petitions (Wright, 2012) and social media (Ellison and Hardey, 2013).

The democratic innovations aim to engage citizens, and creating environments where participants can take part easier and the system would support thoughtful commenting and dialogue. Using the notation of discourse architectures developers should examine how they can increase the accessibility on the site, and furthermore explore how thoughtfulness could be increased.

Designing thoughtfulness

There is a possibility to improve (online) democratic innovations based on evidence-based approaches: i.e. justify the certain design practices by exploring the options in (quasi) experimental settings. Quasi-experimental methods are used to explore and justify policy choices (Stoker, 2010; Druckman et al, 2006), but also in human computer interaction to study the differences between systems. The quasi-experimentation allows certain level of natural settings, which increases the external validity of findings (Oulasvirta, 2012). As highlighted, there is an emerging interest in online deliberation sys- tems (Kriplean et al, 2012a,b), however these work have not (yet) applied quasi- experimentation.

My current work explores discourse architectures especially educational domain. Even while surprising, this domain has major benefit of easy to organize cases for study. Furthermore, modern education paradigms highlight the need for considered dialogue and collaboration when making these decisions, therefore not that far away from the ideals of democratic decision-making.

Examples of potential changes in the discourse architecture level include

- threaded conversation interfaces
- message length and turn taking
- feedback structures, such as gamification

To evaluate these innovations, I'll adapt the evaluation framework for democratic innovations (Smith, 2009), but extend with elements on participants' experience (Baek et al, 2011). I'm therefore interested in the level of participants' engagement, the quality of the discussion (c.f. Steenbergen et al, 2003) and the experience of participants; and explore how the environment impacts the use.

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