Toward The Design Of A Rating System For A Civic Media Platform

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Abstract
In this paper we present a work-in-progress design of a rating system for a civic media platform called timu (http://www.timu.it). Civic Media are platforms that foster public engagement in civic life. In this paper we propose the preliminary result of a design experience for the design of a rating system with direct user involvement. Our design is mainly concerned with the identification of the proper set of questions composing the rating system.

Author Keywords
Rating system; rating pattern; civic media; user.

ACM Classification Keywords
H. 5. 2 Information interfaces and presentation: User interfaces: User-centered design.

General Terms
Design; Human Factors.

Introduction
Rating and recommender systems are a defining component of the social web [2]. These systems provide the user with the means to propose their recommendations with regard to specific issues (be it a product, a service or information). Aggregated scores of users' ratings help other people in making informed decisions about what and who to trust online, they

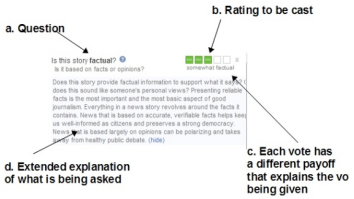


Figure 1. Elements composing a rating: design pattern.

support users in easily sorting out a wide variety of information pouring in from different sources. As with any other crucial component of web platforms, rating systems need careful design. In this paper we present an experience related to the design of a rating system for a civic media platform, with the involvement of users. Because rating systems ask the user to rate the target items (e.g. a movie, a seller, a hotel) by answering some questions, our design experience is largely concerned with the issue of identifying appropriate questions that will compose the system.

Civic media are platforms that leverage the many-to-many communications in order to increase the direct citizen engagement in civic life [3]. This also includes the ability for citizens to contribute innovative information that improves civic life. Notable examples of civic media are citizen journalism platforms, such as spot.us (http://spot.us/) or NewsTrust (http://www.newstrust.net/) in which citizens can directly participate in the creation of bottom-up news information. We believe that participants could successfully use rating systems as a way to assess the civic quality of contents created by other users and foster a larger participation of people to civic life.

In this paper we present the preliminary results of our design of a rating system for a civic media platform called timu (www.timu.it), whose goal is to foster citizens to contribute to civic life by telling positive stories about Italy and abroad. In timu an expert can launch an inquiry of local or national relevance and users can contribute with their contents to the inquiry goals. Because users can contribute content in different formats (video, audio, text, pictures) on several arguments, we believe that a rating system would help the user community in sorting out good quality content from average quality content and from low quality content. A first step of our design was the definition of the requirements of the rating system. The design team has identified these requirements:

- to provide users with the means to evaluate the quality of the content in timu;
- to crowdsource the evaluation of the content to the user community, rather than leave it to the experts;
- to ensure and promote quality of information directly with a bottom-up process from the user.

Design methodology

For our design we follow a user-centred approach with direct involvement of users. As methodology we have adopted a light version of the interaction design described in Cooper et al [1]. In order to better understand the usage of rating systems in web communities we conducted two qualitative in-depth case studies (over 3 months from September 2011). Our goal was to obtain a better idea of the role of rating systems in enhancing the creation of quality information, with a focus on the user experience and the design patterns of web rating systems. We collected online documents from the following two cases: NewsTrust, a citizen journalism online platform; and Wikipedia, the world largest free encyclopedia. From the case studies we have learned important aspects for the design of a rating system:

a. The questions being asked, which constitute the core aspect of a rating system;
b. The type of rating to be cast (how many stars?): from 1 to 5 as in Amazon or a different number;
c. The payoff whose goal is to provide a quick explanation of the question being asked;
d. An extended explanation of the question, which could be seen only by clicking on a question mark or by padding with the mouse on the question.

Design

In this paragraph we describe the process that lead to the initial design of the rating system for timu. Our

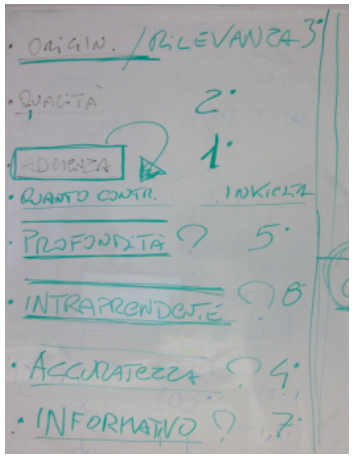
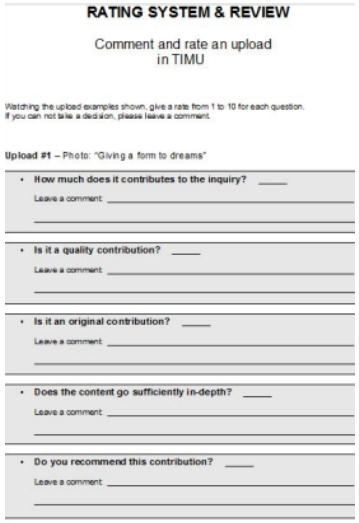


Figure 2. Perspective questions were discussed by the design team beforehand during brainstorming.



RATING SYSTEM & REVIEW

Comment and rate an upload in TIMU

Watching the upload examples shown, give a rate from 1 to 10 for each question. If you can not take a decision, please leave a comment.

Upload #1 – Photo: "Giving a form to dreams"

- **How much does it contributes to the inquiry?** ____
  Leave a comment: _____
- **Is it a quality contribution?** ____
  Leave a comment: _____
- **Is it an original contribution?** ____
  Leave a comment: _____
- **Does the content go sufficiently in-depth?** ____
  Leave a comment: _____
- **Do you recommend this contribution?** ____
  Leave a comment: _____

Figure 3. Paper based form with the 5 questions.

work can be divided in the following steps: Preparation; design experiment; re-iteration; re-design with production of an initial mock-up of the interface.

Preparation
A pre-design session was planned among the design team. During this stage it was decided to conduct the experiment in two different sessions, to create different views with two different groups at different times: different users can emphasize different aspects of the user experience. It was decided to prepare an experiment that in fact was meant to simulate the rating process. During the preparatory sessions a key task was the identification of a number of initial questions that could be applied to the platform content. In this task we took advantage of the user research conducted on the case studies. As part of our research we analysed each of the questions being asked by Wikipedia and NewsTrust. Wikipedia for instance asks the user to rate whether an article is trustworthy, well written, objective and complete. Both NewsTrust and Wikipedia rating questions were discussed by the team and listed on a whiteboard (Figure 2). These questions were then ordered according to what the design team considered their relevance. Further similar questions were merged together in one single question.

After this brainstorming phase the design team decided to select a limited but meaningful number of questions: 5. Each of these questions constitutes what, in the rating system design pattern represented in figure 1, is point a. "Question". The questions selected for the initial experiment with users are listed below. For each of the selected questions the design team prepared a text describing the question in a detailed way. This would address another element of the design pattern of figure 1, namely the point d. An example of the test accompanying the questions is presented in figure 4. The other two points (b and c) of the pattern in figure 1 were addressed by team after the sessions with the users. The design team identified these questions:

- Contribution: How much does the content being rated contribute to the inquiry?
- Quality: Is it [the content] a quality contribution?
- Originality: Is it an original contribution?
- In-depth: Does the content go sufficiently in-depth?
- Recommendation: Would you recommend this contribution?

For the experiment with the users, the design team prepared a paper based form (figure 3) with the questions. Our idea was to provide the form to the participants and ask them to rate some content selected by the design team. For each question we asked participants to cast a vote between 1 and 10. In addition, on the form each question was accompanied with some space in which the users were asked to provide specific comments.

Design Experiment
The two design sessions took place on 15 December 2011, with each lasting about 2 and ½ hours. Each session was attended by 4 users that were previously selected by the design team among the current timu user base. The session started with a presentation about the platform's overall goals and philosophy and the specific goals of the design team. After the introduction the team described the structure of the experiment to the users and introduced the questions being asked one by one. At this point participants were asked to rate 4 different pieces of content (a video, a picture, text and an audio file) that were previously selected by the design team. Each piece was presented separately. The design team deliberately selected both content of very good quality and content of clearly poor quality. The sessions generated a wealth of data including: the rating and the comments given on the paper forms by participants and the audio registration of the discussions (the audio tracks were later

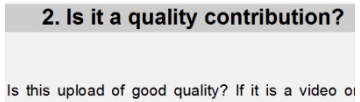


Figure 4. Slide with the question being asked and the long description.

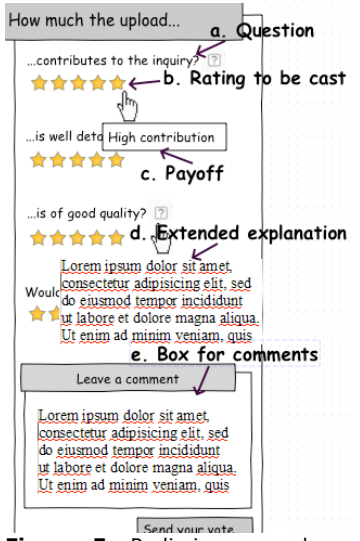


Figure 5. Preliminary mock-up for the timu rating system.

transcribed). All these data were later analyzed in order to reach a final design vision.

Results

Withdrawal of a question

During the final discussion there was an interesting discussion related to the possible negative effect that the question related to originality (question 3) would have on the motivation of the platform user. One participant stated that for him it was difficult to evaluate the originality of content as, in order to do so, one must know all the other contents on the platform:

> When you do an assessment it is not easy to know which [piece of content] was uploaded before and which was uploaded later. I also think that originality is not so much related to similar contents. It is true that originality gives you an overall view of the content (…) but at the same time if there are 5 very similar pictures of workers I would rate them the same. In themselves they should have the same weight.

Another participant said the following about the originality questions:

> If you have 5 pictures of the same workers in the same building then this aspect works well. But if you have 5 pictures of different workers in different buildings, working for different enterprises or in different countries then you have different forms of knowledge. (...) It is therefore difficult to judge the originality issue.

The question about originality was therefore considered particularly controversial for a number of reasons. The question was then withdrawn.

Change the questions

During the afternoon session, participants had an interesting discussion in relation to the "in-depth" question (question 4). Going "in-depth" was not considered sufficiently clear when posed in relation to the extended description provided:

> Does this upload offer much information and in a detailed way? Does the content being presented go in-depth or does it remain superficial? The more that the content offers a detailed description, the better the timu community will be informed.

One of the participants clearly stated that going in-depth was not exactly the same as providing details. So the description of the question was quite misleading. This question had to be therefore modified in order to be clearer for the user. The final question selected for the rating system is "is this content detailed?", which clearly asks the user to rate the detail level of the content. The final questions selected are:

- Contribution: Does the content contribute to the inquiry?
- Detail: Is this content well detailed?
- Quality: Is this content of good quality?
- Recommendation: Would you recommend this content?

Preliminary Mock-up

Two preliminary mock-ups of the rating system were prepared by the design team taking the result of the design process described before. We present one of the two solutions here (Figure 5) that were designed with the rating system vertically and parallel to each user contribution.

References

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