

Applying a fine-grained semantic model for peer-reviewing

We will present to you here a system to assist editors in their work as meta-reviewers which models individual review comments in a fine-grained and semantic manner.

We will ask you below about the importance of seven competency questions and about how useful you think our system is to answer them.

Filling in this questionnaire will take you about 7-10 minutes.

DISCLAIMER: No personal or sensitive information and no personal identity or identifiable data will be collected in this study. The data will be collected using Google Forms. Afterwards, this data will be stored locally, double-checked to eliminate any information that could potentially be used to de-anonymize the data and then stored and made available on online platforms like Github, FigShare or Zenodo.

*** Required**

Part 1. Importance of competency questions for editors

Please rate the following competency questions with regard to how important it is (or would be) to get answers for them in your work as a journal editor for tasks such as meta-reviewing and supporting editors in the decision making process.

1. Importance of Competency Question 1: "What is the number of positive comments and the number of negative comments per reviewer?" *

Mark only one oval.

	1	2	3	4	5	
Not important at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very important

5. Importance of Competency Question 5: "What are the critical points that were raised by the reviewers in the sense of negative comments with a high impact on the quality of the paper?" *

Mark only one oval.

	1	2	3	4	5	
Not important at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very important

6. Importance of Competency Question 6: "How many points were raised that need to be addressed by the authors, as an estimate for the amount of work needed for a revision?" *

Mark only one oval.

	1	2	3	4	5	
Not important at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very important

7. Importance of Competency Question 7: "How do the review comments cover the different sections and paragraphs of the paper?" *

Mark only one oval.

	1	2	3	4	5	
Not important at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very important

Part 2. Usefulness of our system

Below we present screenshots of our editor support system showing an overview of the review comments for an exemplary article. In our system, a peer review is modeled as a set of review comments that target specific parts of an article. These review comments can have different types: they can target the whole article, a section or a paragraph; they can be about syntax, style or content; they can raise a negative, neutral or positive point; they can declare an overall impact on the quality of the article (on a scale from 1 to 5); and they can be compulsory to be addressed, a suggestion or a point where no action is needed. Here you can see an example of a review comment about the shown paragraph in an article:

Paragraph 2 in exemplary article

Originally, this crowdsourcing pattern was introduced in Soylent [3], a human-enabled word processing interface that contacts microtask workers to edit and improve parts of a document. [...] All the rewrites generated are assessed by workers to select the most appropriate one without changing the meaning of the original text.

Review comment 1 by Reviewer 2

paragraph

content

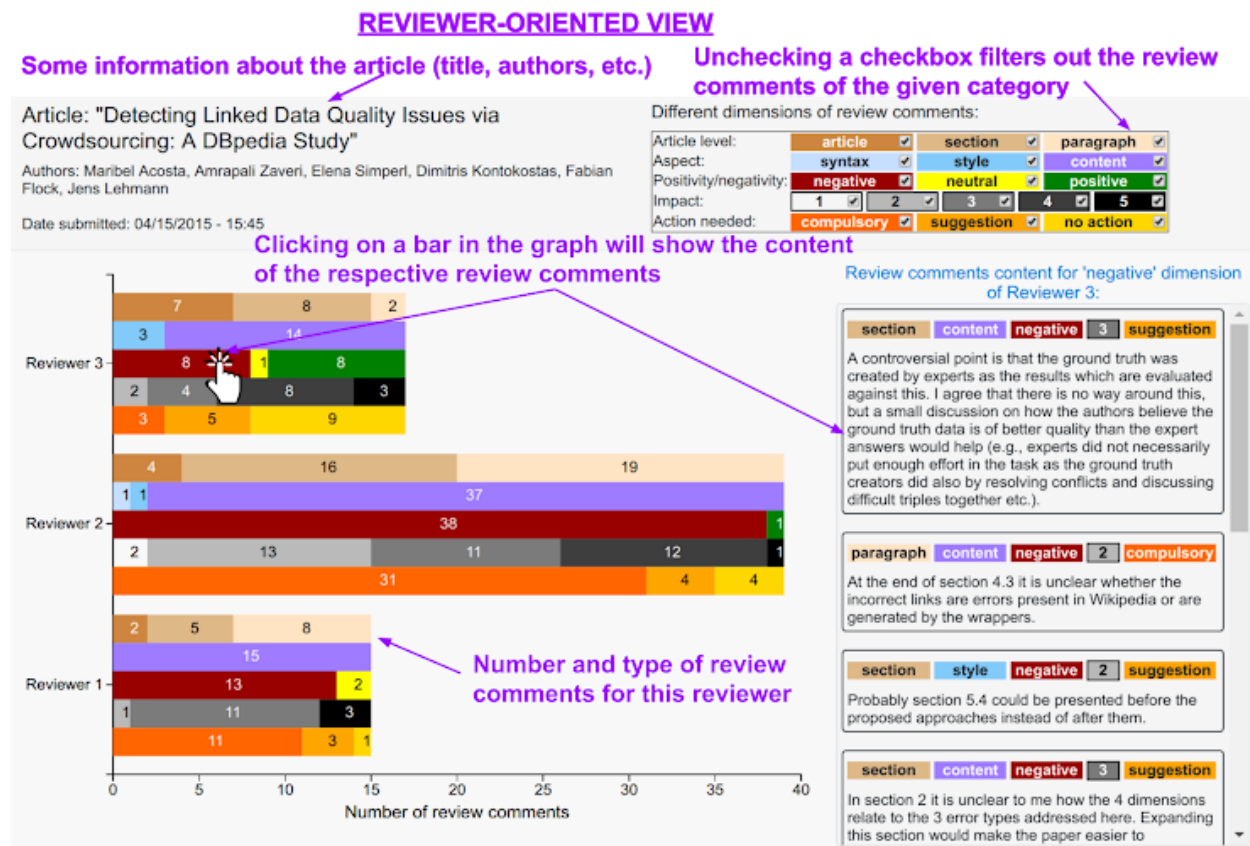
negative

impact 2

suggestion

You give background information on the Find-Fix-Verify pattern. This information (in which scenario it was used first, etc.) is not really necessary for the rest of the paper.

Our interface has two views for an article under review. One view is "reviewer-oriented" and the other view is "section-oriented". Below you can see screenshots for an exemplary article. This article has three reviewers and the interface below shows the number and types of their review comments. You can click on the bars to see the content of these review comments on the right-hand side. The "section-oriented" view is a table that summarizes per section the number of review comments for each section. Before you start answering the questions below, spend about two minutes exploring the interface and try to get a quick idea of the kind of review comments this paper received: <http://linkflows.nanopubs.lod.labs.vu.nl/> .



SECTION-ORIENTED VIEW

Article: "Detecting Linked Data Quality Issues via Crowdsourcing: A DBpedia Study"

Authors: Maribel Acosta, Amrapali Zaveri, Elena Simperl, Dimitris Kontokostas, Fabian Flock, Jens Lehmann

Date submitted: 04/15/2015 - 15:45

Clicking on a cell in the table will show the content of the respective review comment(s) below the table

Section	Title	Aspect			Positivity/Negativity			Impact					Action needed			
		syntax	style	content	negative	neutral	positive	1	2	3	4	5	compulsory	suggestion	no action	
1	Introduction				1								1			
2	Linked Data Quality Issues				3		3					3		2		
3	Crowdsourcing Preliminaries				2		3			1	1		2	1		
4	Our Approach: Crowdsourcing Linked Data Quality Assessment	1			7		8			4	3	1	8			
5	Evaluation		1		36		35		2	9	16	10	3	26	6	5
6	Final Discussions				1		1						1			
7	Related Work				5		5			1	1	2	1	3	2	
8	Conclusions and Future Work															

Review comments content for 'style' dimension of Section 3:

style

negative

1

compulsory

section 3.2 is clearly related to reference [3], so there is no need to include the citation several times

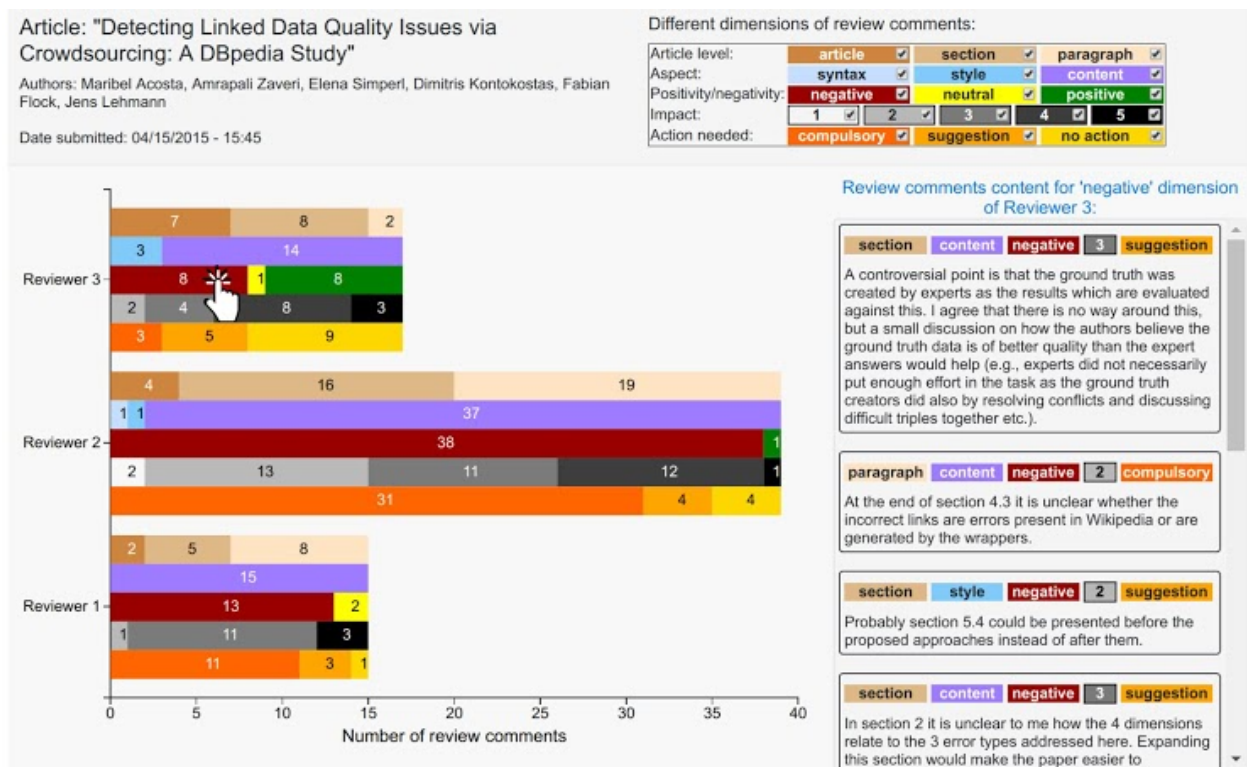
Task

Once you have spent two minutes with the interface as explained above, you can move to the tasks below.

Below different views of this interface are shown, based on different filters as shown on the top right.

Please rate how useful you think the shown views are to answer the given questions in your work as an editor.
(These are the same questions as on the last page.)

8. Please rate below how useful you think this interface is to answer Competency Question 1: "What is the number of positive comments and the number of negative comments per reviewer?" *



Mark only one oval.

1 2 3 4 5

Not useful at all ☐ ☐ ☐ ☐ ☐ Very useful

9. Please rate below how useful you think this interface is to answer Competency Question 2: "What is the number of positive comments and the number of negative comments per section of the article?" *

Article: "Detecting Linked Data Quality Issues via Crowdsourcing: A DBpedia Study"

Authors: Maribel Acosta, Amrapali Zaveri, Elena Simperl, Dimitris Kontokostas, Fabian Flock, Jens Lehmann

Date submitted: 04/15/2015 - 15:45

Section	Title	Aspect			Positivity/Negativity			Impact				Action needed		
		syntax	style	content	negative	neutral	positive	I1	I2	I3	I4	I5	compulsory	suggestion no action
1	Introduction			1	1			1					1	
2	Linked Data Quality Issues			3	3			3					1	2
3	Crowdsourcing Preliminaries			2	3			1	1	1			2	1
4	Our Approach: Crowdsourcing Linked Data Quality Assessment	1		7	8			4	3	1			8	
5	Evaluation			1	36	35	2	9	15	10	3		26	6
6	Final Discussions			1	1			1					1	
7	Related Work			5	5			1	1	2	1		3	2
8	Conclusions and Future Work													

Review comments content for 'style' dimension of Section 3:

style negative 1 compulsory

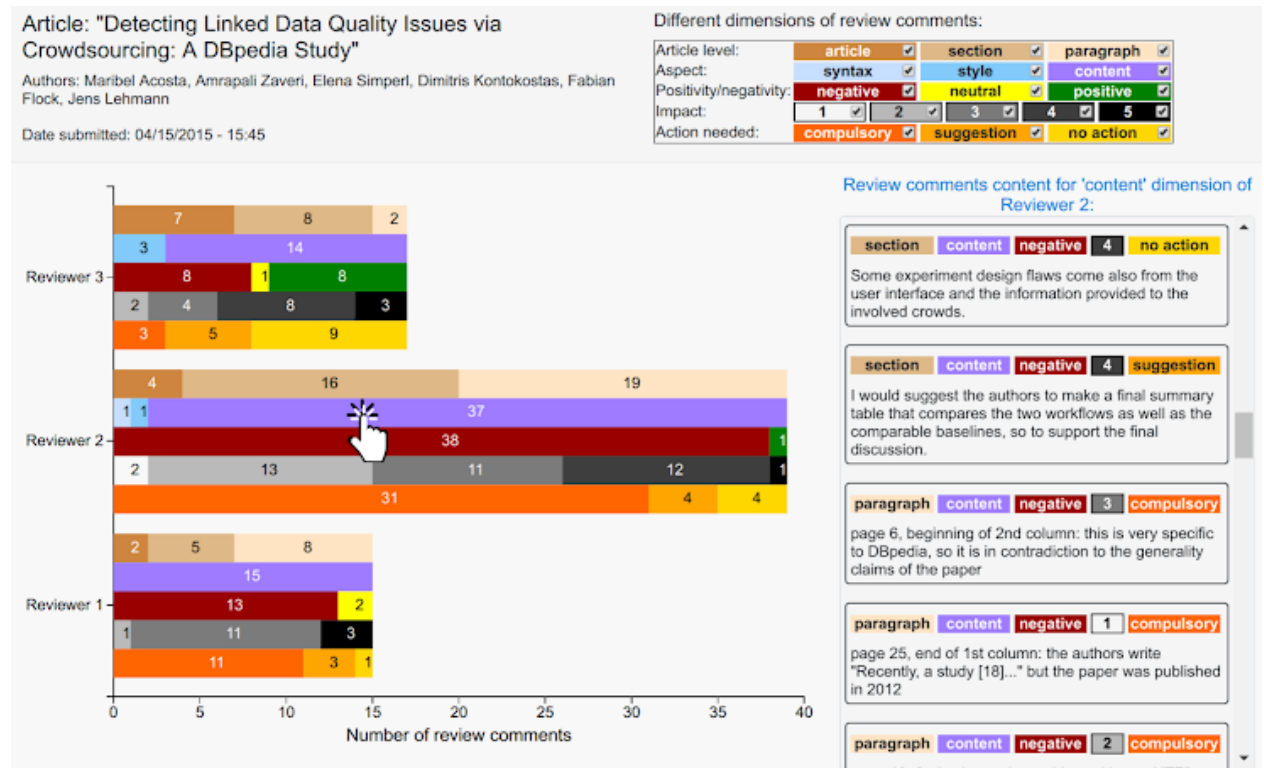
section 3.2 is clearly related to reference [3], so there is no need to include the citation several times

Mark only one oval.

1 2 3 4 5

Not useful at all ☐ ☐ ☐ ☐ ☐ Very useful

10. Please rate below how useful you think this interface is to answer Competency Question 3: "What is the distribution of the review comments with respect to whether they address the content or the presentation (syntax and style) of the article?" *

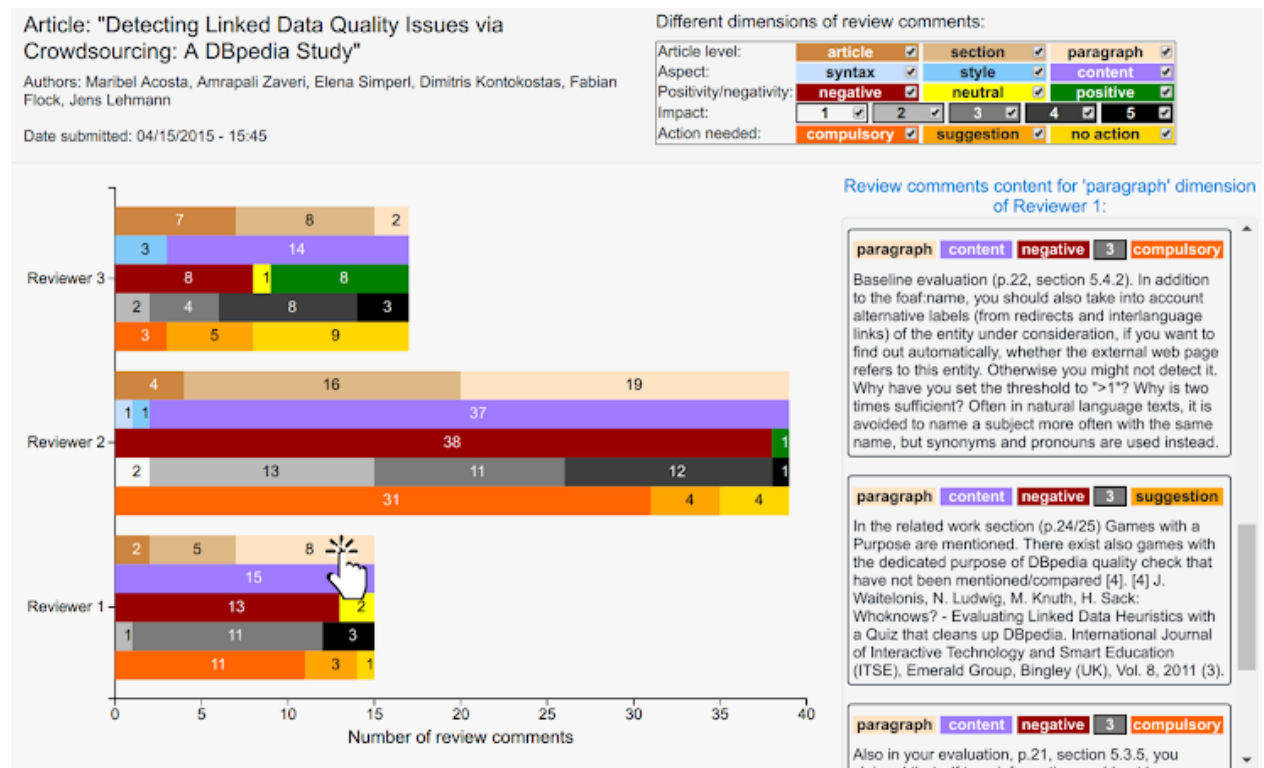


Mark only one oval.

1 2 3 4 5

Not useful at all ☐ ☐ ☐ ☐ ☐ Very useful

11. Please rate below how useful you think this interface is to answer Competency Question 4: "What is the nature of the review comments with respect to whether they refer to a specific paragraph or a larger structure such as a section or the whole article?" *

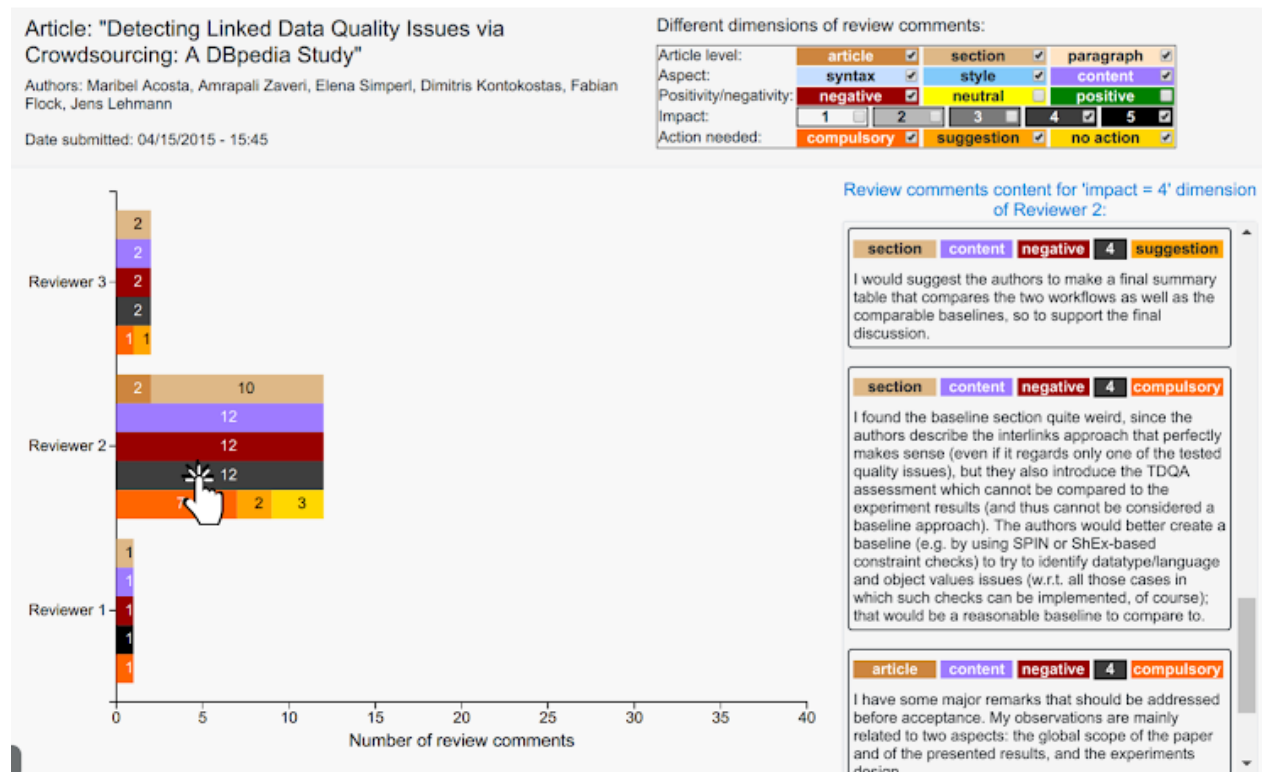


Mark only one oval.

1 2 3 4 5

Not useful at all ☐ ☐ ☐ ☐ ☐ Very useful

12. Please rate below how useful you think this interface is to answer Competency Question 5: "What are the critical points that were raised by the reviewers in the sense of negative comments with a high impact on the quality of the paper?" *

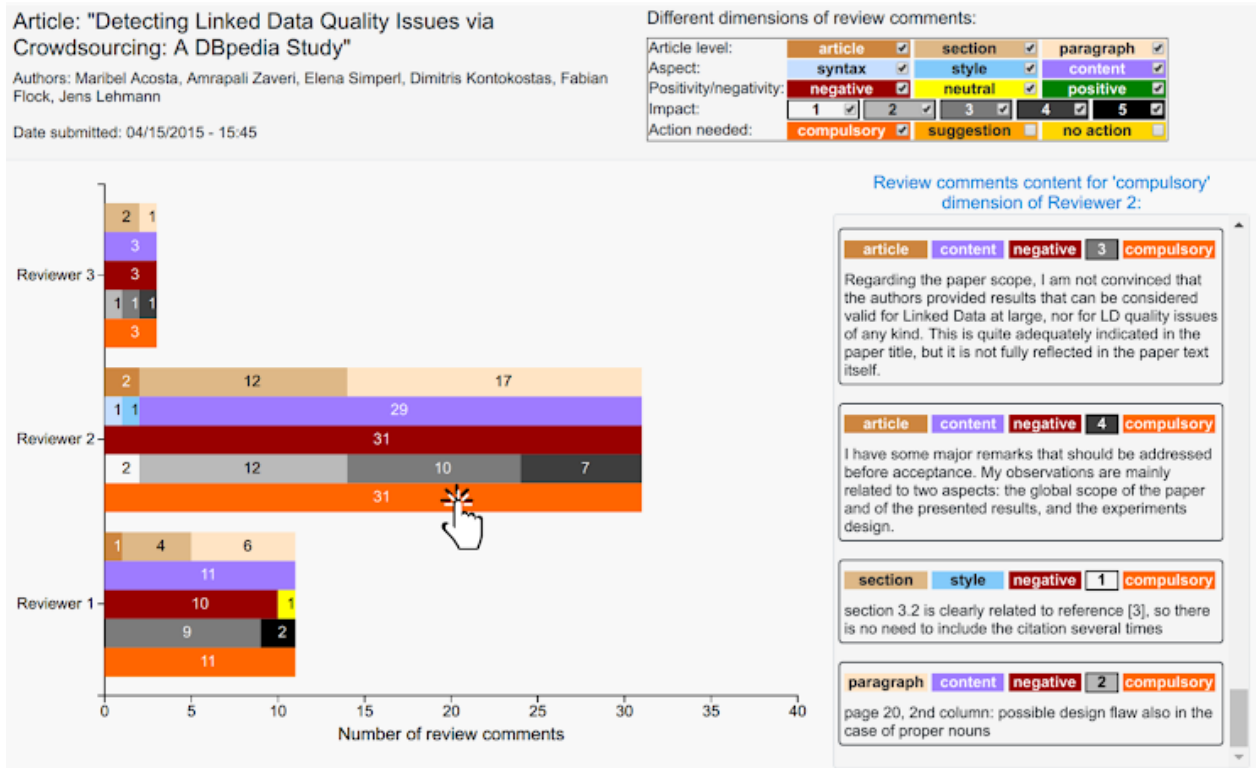


Mark only one oval.

1 2 3 4 5

Not useful at all ☐ ☐ ☐ ☐ ☐ Very useful

13. Please rate below how useful you think this interface is to answer Competency Question 6: "How many points were raised that need to be addressed by the authors, as an estimate for the amount of work needed for a revision?" *



Mark only one oval.

1 2 3 4 5

Not useful at all ☐ ☐ ☐ ☐ ☐ Very useful

14. Please rate below how useful you think this interface is to answer Competency Question 7: "How do the review comments cover the different sections and paragraphs of the paper?" *

Article: "Detecting Linked Data Quality Issues via Crowdsourcing: A DBpedia Study"

Authors: Maribel Acosta, Amrapali Zaveri, Elena Simperl, Dimitris Kontokostas, Fabian Flock, Jens Lehmann

Date submitted: 04/15/2015 - 15:45

Section	Title	Aspect			Positivity/Negativity			Impact			Action needed				
		syntax	style	content	negative	neutral	positive	I1	I2	I3	I4	I5	compulsory	suggestion	no action
1	Introduction			1	1				1				1		
2	Linked Data Quality Issues			3	3				3				1	2	
3	Crowdsourcing Preliminaries			2	3			1	1	1			2	1	
4	Our Approach: Crowdsourcing Linked Data Quality Assessment	1		7	8			4	3	1			8		
5	Evaluation		1	36	35		2	9	15	10	3		26	6	5
6	Final Discussions			1	1			1					1		
7	Related Work			5	5			1	1	2	1		3	2	
8	Conclusions and Future Work														

Review comments content for 'style' dimension of Section 3:

style negative 1 compulsory

section 3.2 is clearly related to reference [3], so there is no need to include the citation several times

Mark only one oval.

1 2 3 4 5

Not useful at all ☐ ☐ ☐ ☐ ☐ Very useful

Participant information

15. The journal(s) for which you are or were an editor:

16. If you have any comments, you can let us know here (optional).

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