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D2.3 Mock-ups and user stories

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The CATALYST project consortium is composed of:

SO	Sigma Orionis	France
I4P	Imagination for People	France
OU	The Open University	United Kingdom
UZH	University of Zurich	Switzerland
EN	Euclid Network	United Kingdom
CSCP	Collaborating Centre on Sustainable Consumption and Production	Germany
Purpose	Purpose Europe	United Kingdom
Wikitalia	Wikitalia	Italy

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1.0	Stéphanie Albiéro (Sigma Orionis)	February 28th, 2014	Final review and submission to the EC

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Executive summary

The present document is the deliverable 2.3 of the CATALYST project, funded by the European Commission's Directorate-General for Communications Networks, Content & Technology (DG CONNECT), under its 7th EU Framework Programme for Research and Technological Development (FP7).

It is structured around the two key user experiences of the CATALYST ecosystem of tools: the end-user and the harvesters (the moderators of the debate).

These two key user experiences have been co-developed by CATALYST's technical partners and community partners:

- The end-user (the participant in the debate) is taken through 6 main steps, 4 of which involve a multi-iteration process to provide the best and most comprehensive outcome to the debate;
- The user experience of the harvesters involves 2 key steps that are reiterated as the debate moves through different cycles.

Mock-ups and screenshots of tools that will help with the user experiences are outlined in the following pages for each of the key steps.

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Introduction

This document provides a progress update on the development of users interface by the members of CATALYST. It consists of screenshots and mock-ups co-designed by the technical partners in the consortium: the Open University, Imagination for People (I4P), the University of Zurich and Wikitalia.

The following infographic is a synthetic view of the overall user-story roadmap. It shows the key steps in the gradual structuring of an online debate. For simplicity purposes, this illustration does not distinguish between the user experiences of end-users and harvesters.

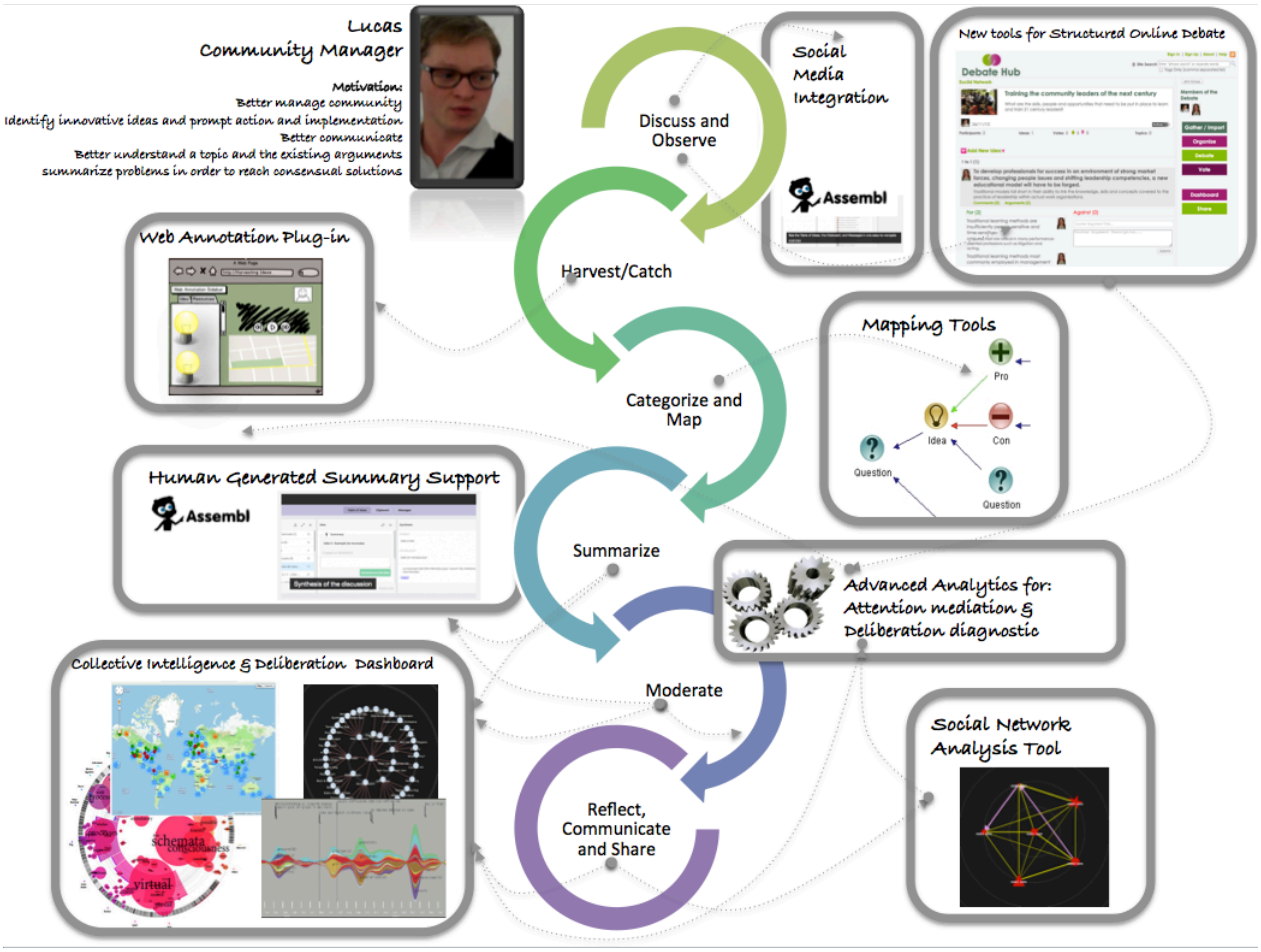

Figure 1 – user-story roadmap

In order to describe more specifically all key user interfaces, we developed the following dual view of the user experience. This dual view will be used as the framework for the rest of this document.

It shows the process as two parallel journeys: the journey of the end-user and the journey of the harvester. The journey of the end-user begins with an unstructured debate and then enters multiple iterations of steps 2 through 5 until an end deliverable is produced. The journey of the harvester likewise moves through multiple iterations until the debate process is done and the journey moves toward the final deliverable.

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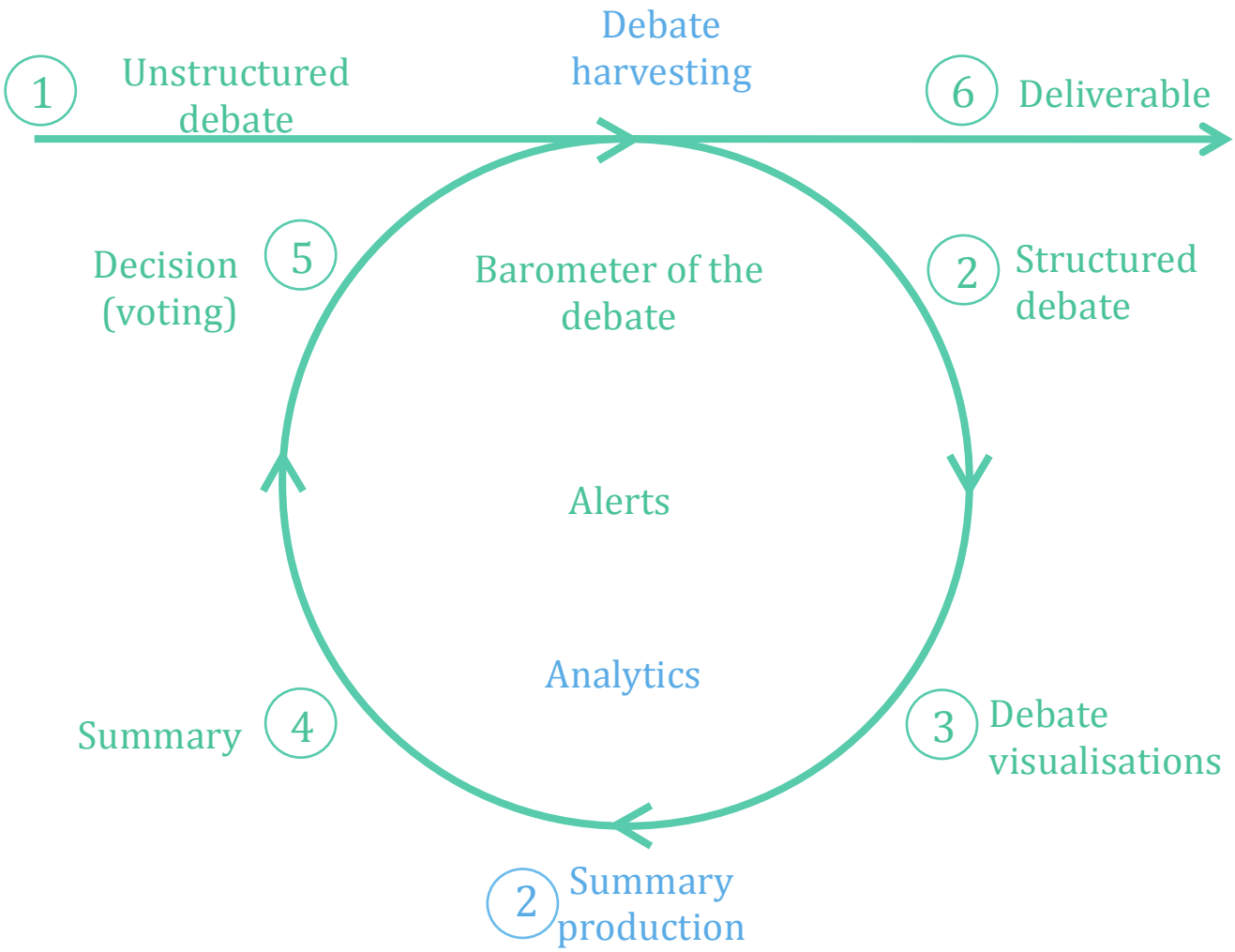

Figure 2 – Dual view of the user experience

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1. End-user interactions

The first step in the end-user journey consists in starting an unstructured debate.

1.1 Unstructured debate

When beginning a debate, the first steps usually evolve in an unstructured format. In this context, the CATALYST ecosystem of tools will allow users to use regular emails or Facebook posts in order to feed contents for the debate.

1.1.1 Engaging discussions on Facebook

Figure 3 – Example of discussion engaged on Facebook

User Story:
The end-user can post contributions directly from his/her Facebook account. These posts are treated as inputs and are integrated into the various CATALYST platforms.

Major value proposition:

- No user interface migration
- Notifications received on Facebook account (e.g. replies to the Facebook post, alerts when a new idea is created, etc.)

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1.1.2 Engaging discussions by email

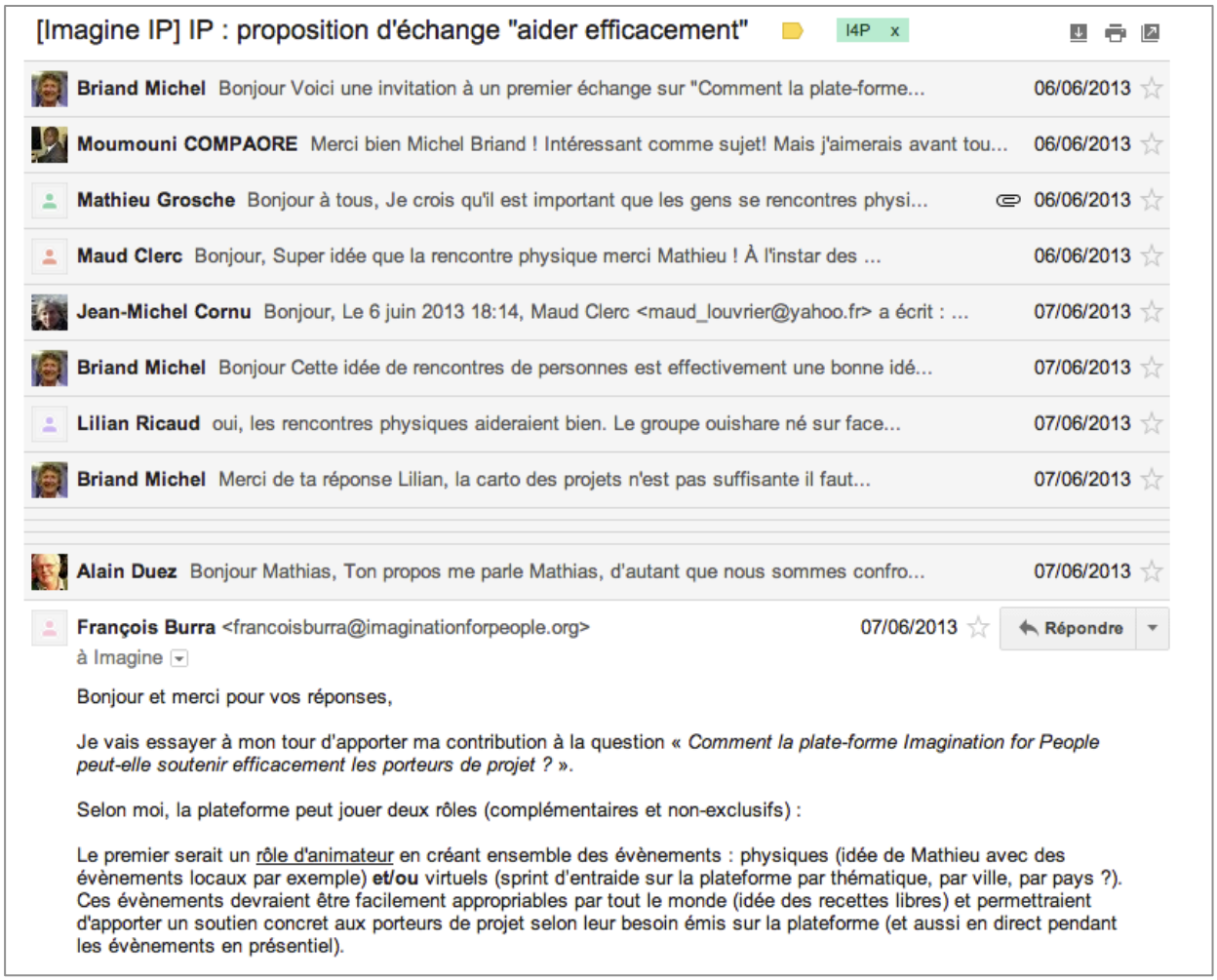

Figure 4 - Example of discussion engaged by email

User Story:

The end-user can send contributions by e-mail to the group participating in the debate. These e-mails are treated as inputs and are integrated into the various CATALYST platforms.

Major value proposition:

- End-users know how to use mailing lists
- Mailing lists are well suited for in-depth contributions

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1.1.3 Engaging discussions on Assembl

In Assembl (I4P's platform), the unstructured debate takes place in the message panel as is illustrated in the screenshot below:

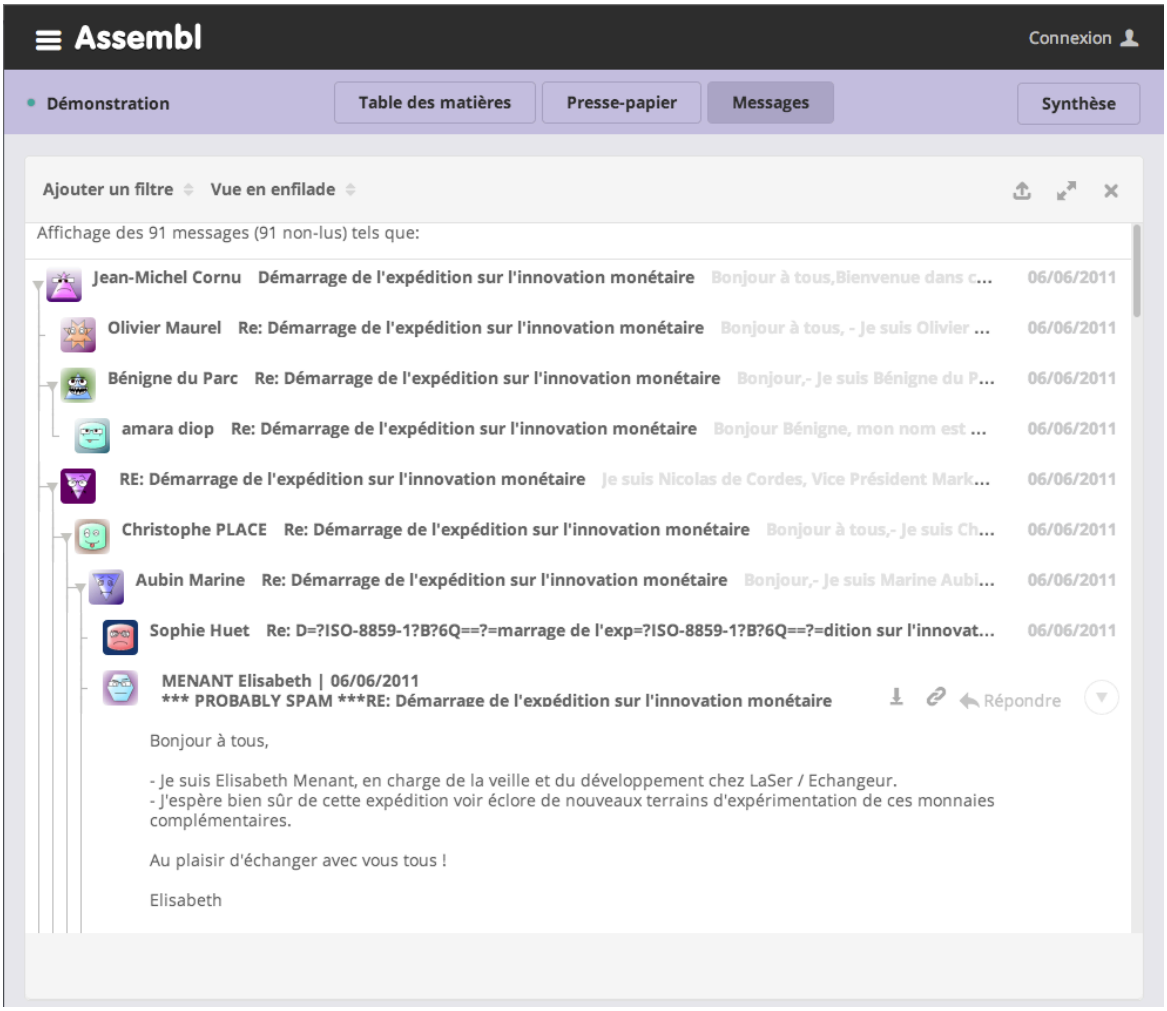

Figure 5 – Example of debate in Assembl's message panel

User Story:
The end-user can post contributions directly on a Web interface (Assembl Web site).

Major value proposition:

- The Assembl interface gives access to all the debating functionalities for the end-user, contrary to Facebook posts or e-mails which mirror only the "messages" section of the Assembl platform
- Multiple views are accessible: threaded, chronological, activity feeds
- End-users have access to the history of all contributions

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1.2 Structured debate

The second step in the end-user journey involves a gradual structuring of the debate through specific tools.

1.2.1 Moving from an unstructured debate to a structured debate

Assembl (I4P) will provide a structure to the debate through the table of ideas and the idea panel as illustrated in the screenshot below:

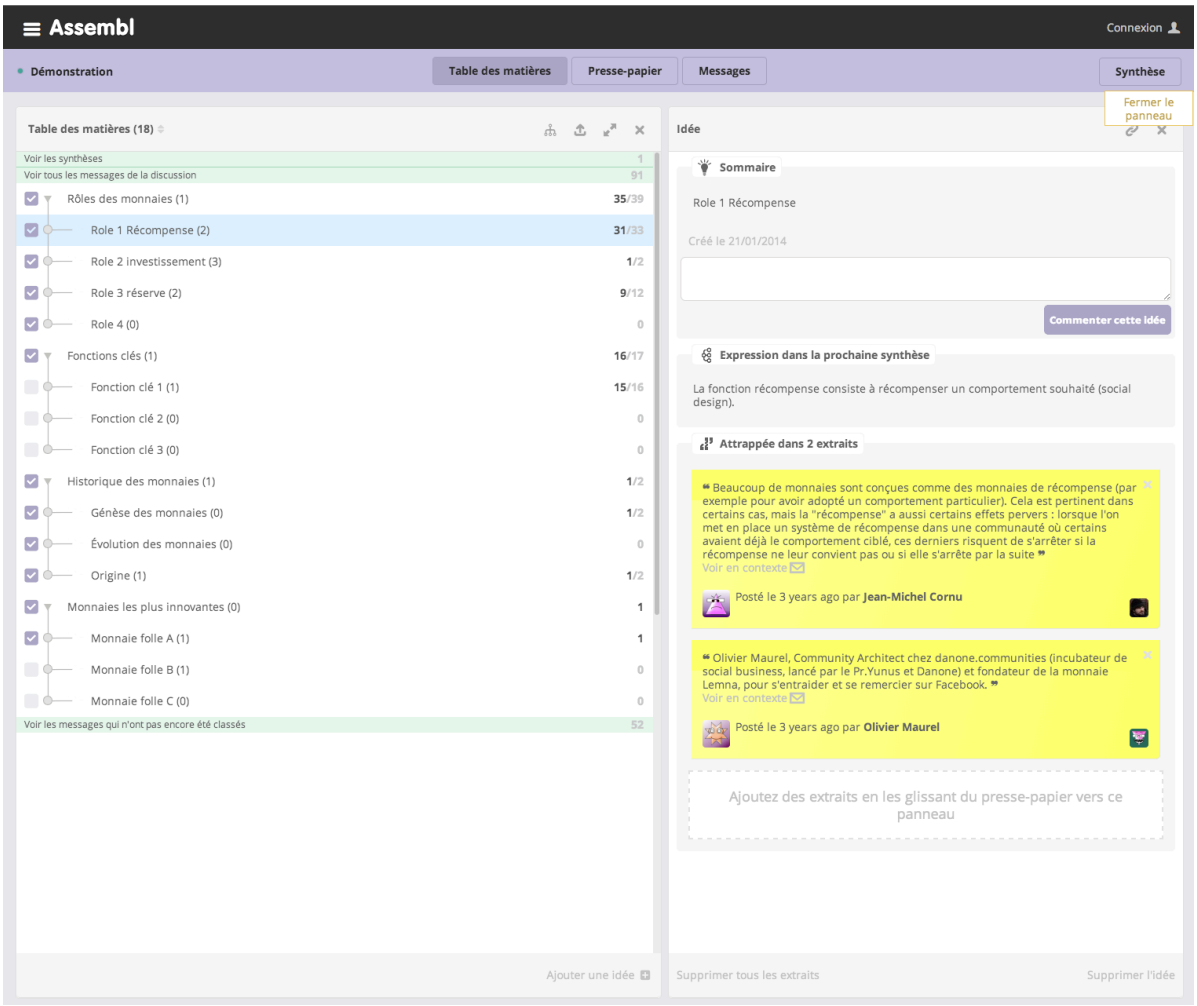

Figure 6 – Screenshot of Assembl's table of ideas and idea panel

User Story:
The end-user can visualise a structured representation of all ideas and sub-ideas discussed in the debate (left panel). It provides a complete overview of the debate.

Major value proposition:

- Each idea and sub-idea can be navigated by the end-user by clicking at the desired level in the tree structure (left panel)
- Each idea or sub-idea is described in the idea panel (right panel), integrating all the extracted segments from raw discussions (post-it in yellow) that prompted the creation of the idea

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1.2.2 Example of a structured debate

The Open University, through its platform called Debate Hub, will provide another way to structure the debate by implementing an idea page that defines the idea and allows participants to express pro- and con- arguments.

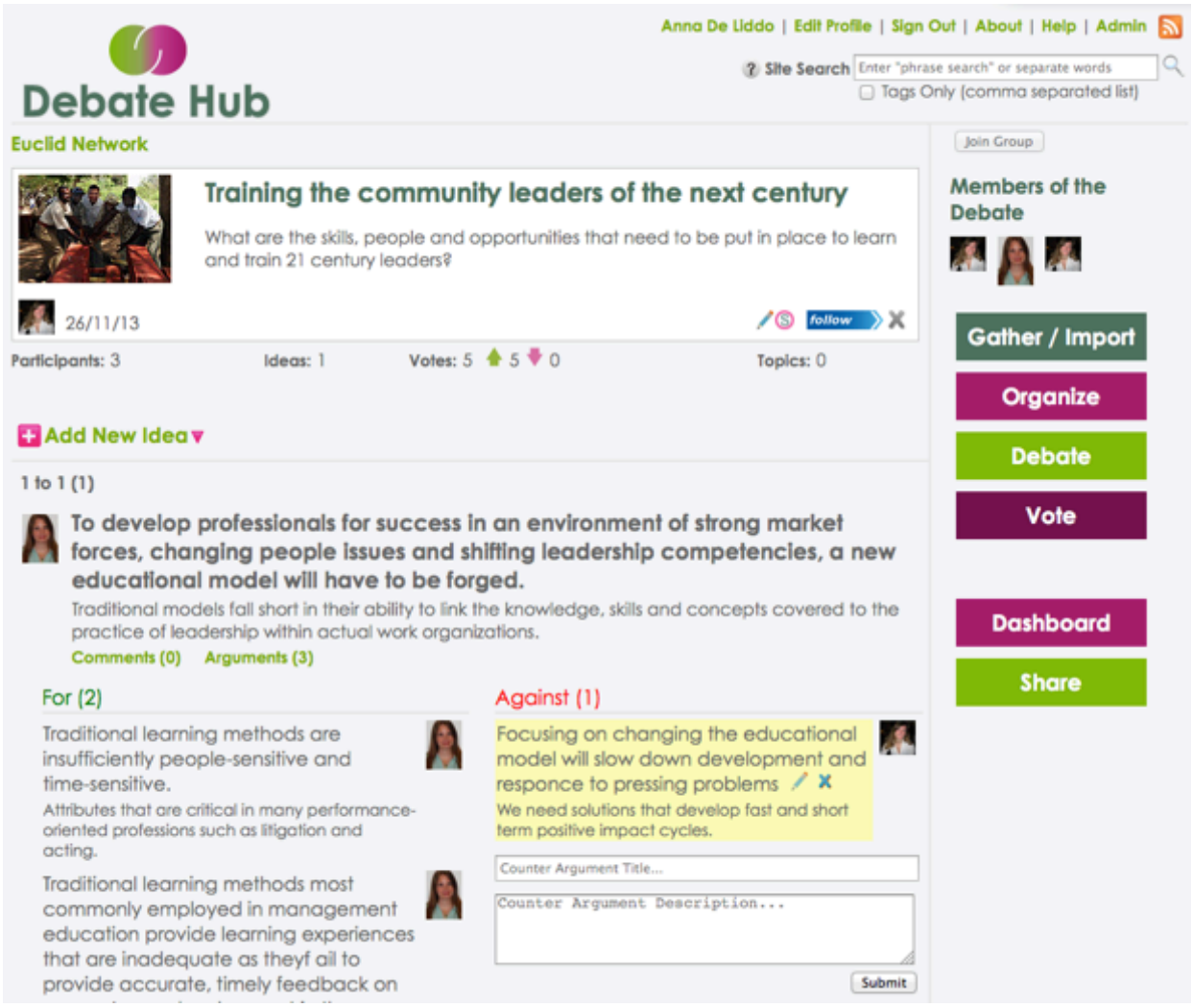

Figure 7 – Screenshot of Debate Hub's idea page

User Story:
The end-user can start an idea on a dedicated Web page and gather pro and con arguments

Major value proposition:

- The idea page summarises all arguments and counter-arguments
- It represents the baseline for subsequent voting

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1.3 Debate visualisations

The third step in the end-user experience is viewing visualisations to facilitate an overall comprehension of the debate from a holistic perspective. CATALYST will present different types of visualisations that are outlined below.

1.3.1 Contribution-centric visualization (OU)

The Open University is developing a contributor-centric visualisation option:

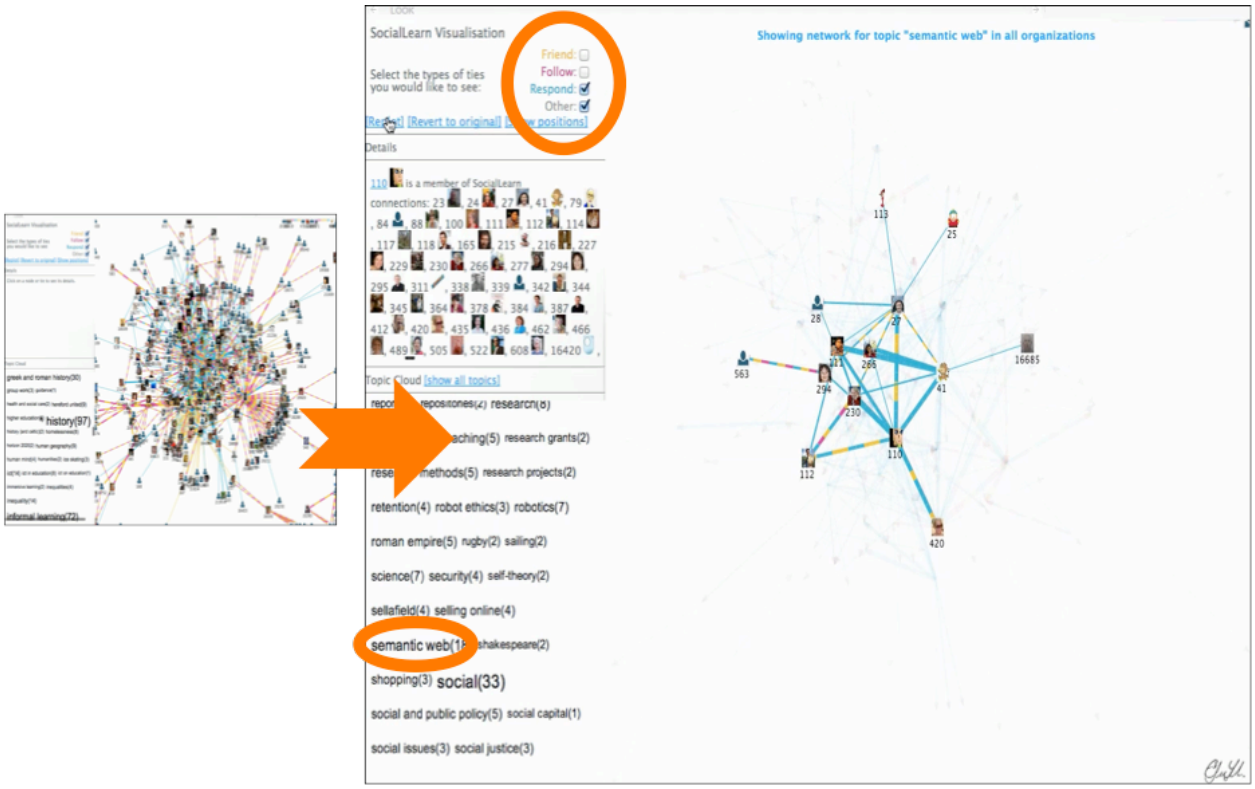

Figure 8 – The Open University contributor-centric visualisation option

User Story:
The end-user can see who are the supporters and critics of all ideas.

Major value proposition:

- Each idea can be contextualised through the social graph of the people discussing it
- The colour and width of the links between people may symbolize the type of relationships (supported by of challenged by) and also the intensity of exchanges (number of interactions between two people)

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1.3.2 Tree Map visualisation

I4P and the Open University are assessing the development of tree maps that will allow the user to zoom in and out on ideas without losing the holistic view of the debate.

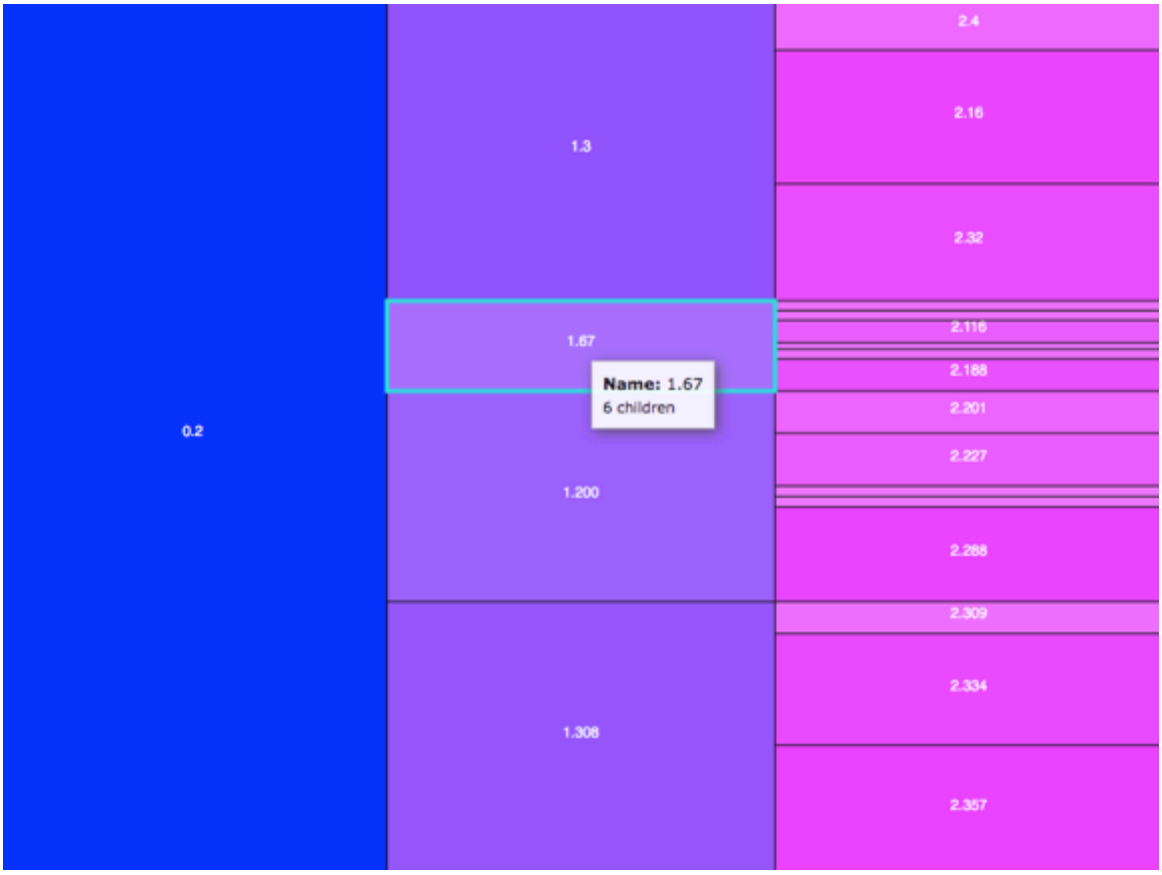

Figure 9 – Screenshot of the Tree maps developed by I4P and the Open University

User Story:
The end-user can see a comprehensive overview of activity in ideas and sub-ideas in the debate

Major value proposition:

- The end-user can visualise the level of the activity from the size of the boxes representing ideas
- By clicking on an idea, the end-user keeps a holistic vision of the other ideas in the background
- Underlying conversations (threads from the unstructured debate) may be attached to two or more ideas or sub-ideas

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1.3.3 Argument Map

The Open University is developing argument maps that will be used by most of the CATALYST platforms:

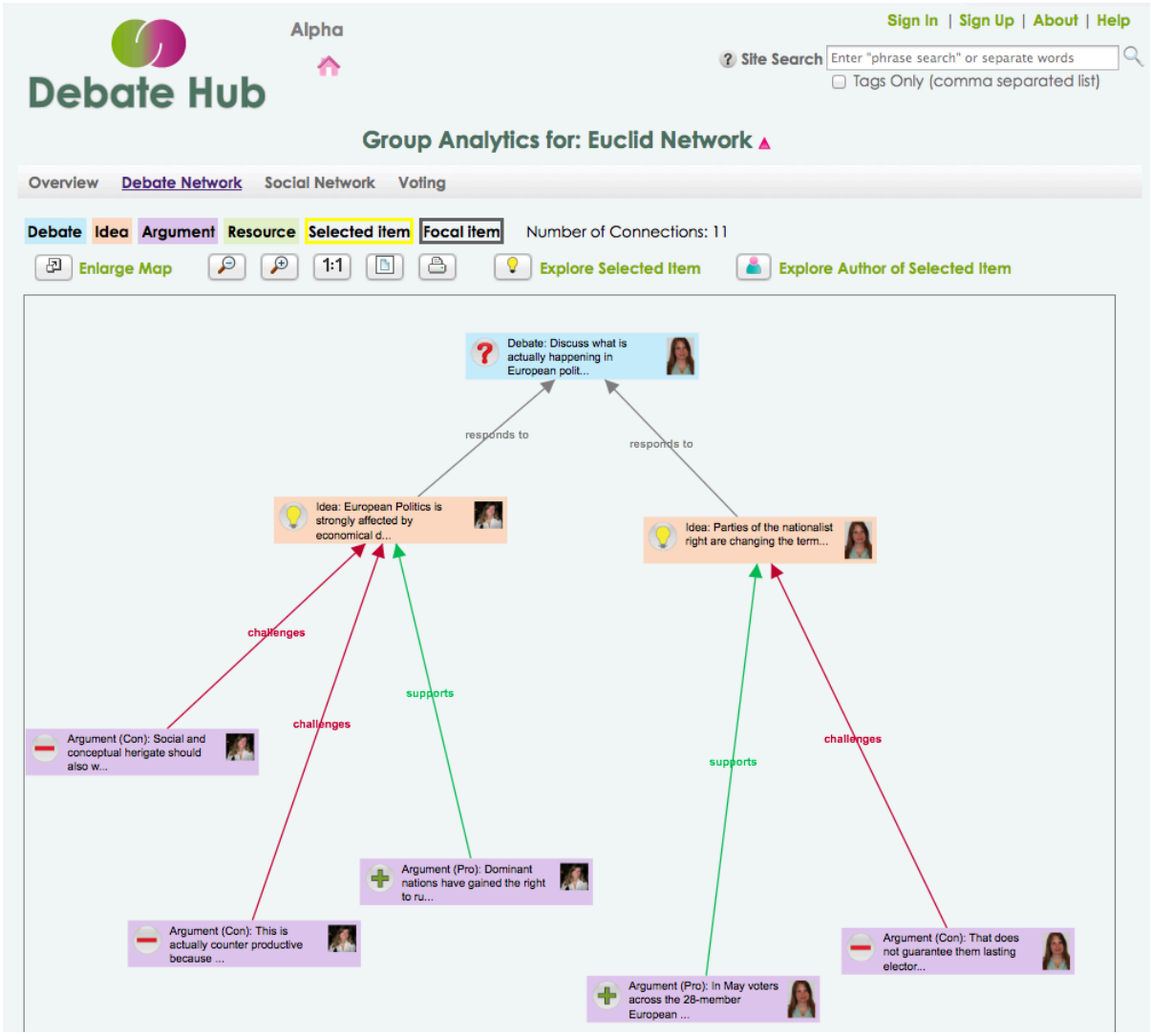

Figure 10 – Example of an argument map developed by the Open University

User Story:

The end-user can see the logical links between different elements of the debate (issues, ideas, arguments)

Major value proposition:

- Clear argument mapping shows how an idea is supported, explained, challenged, etc.
- Edges can be coloured in order to facilitate the participant's understanding of the map
- Structure is provided to the discussions

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1.3.4 Hypertree on Assembl

I4P is developing a hypertree through Assembl, to help users navigate the debate in an animated graphic such as in the screenshot below:

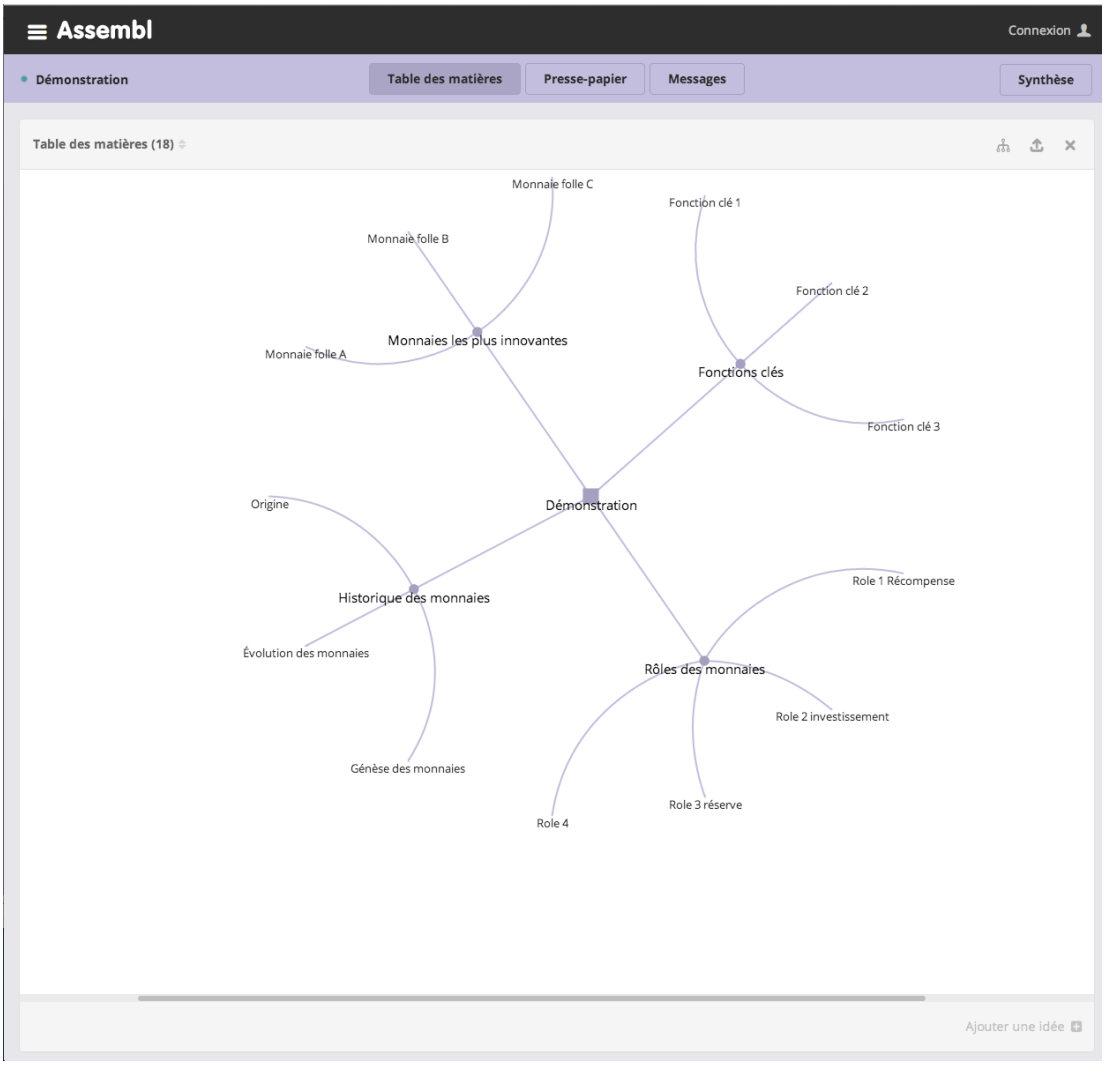

Figure 11 – Screenshot of a hypertree developed by I4P

User Story:

The end-user can navigate the debate through an interactive visual tree. Nodes and edges are animated.

Major value proposition:

- Discovery of the debate structure can be done through an interactive / animated map
- Such a structured representation is aligned with generation Y uses of animated 2D visualisations

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1.4 Summary

Step four in the end-user experience is viewing a summary of the debate. This takes place in the synthesis panel of Assembl and will be integrated into the other CATALYST platforms.

1.4.1 Periodical summary on Assembl

This screenshot represents the synthesis panel of Assembl (I4P), where the debate is summarised periodically (on a weekly basis for example) and made available to the participants through push notifications.

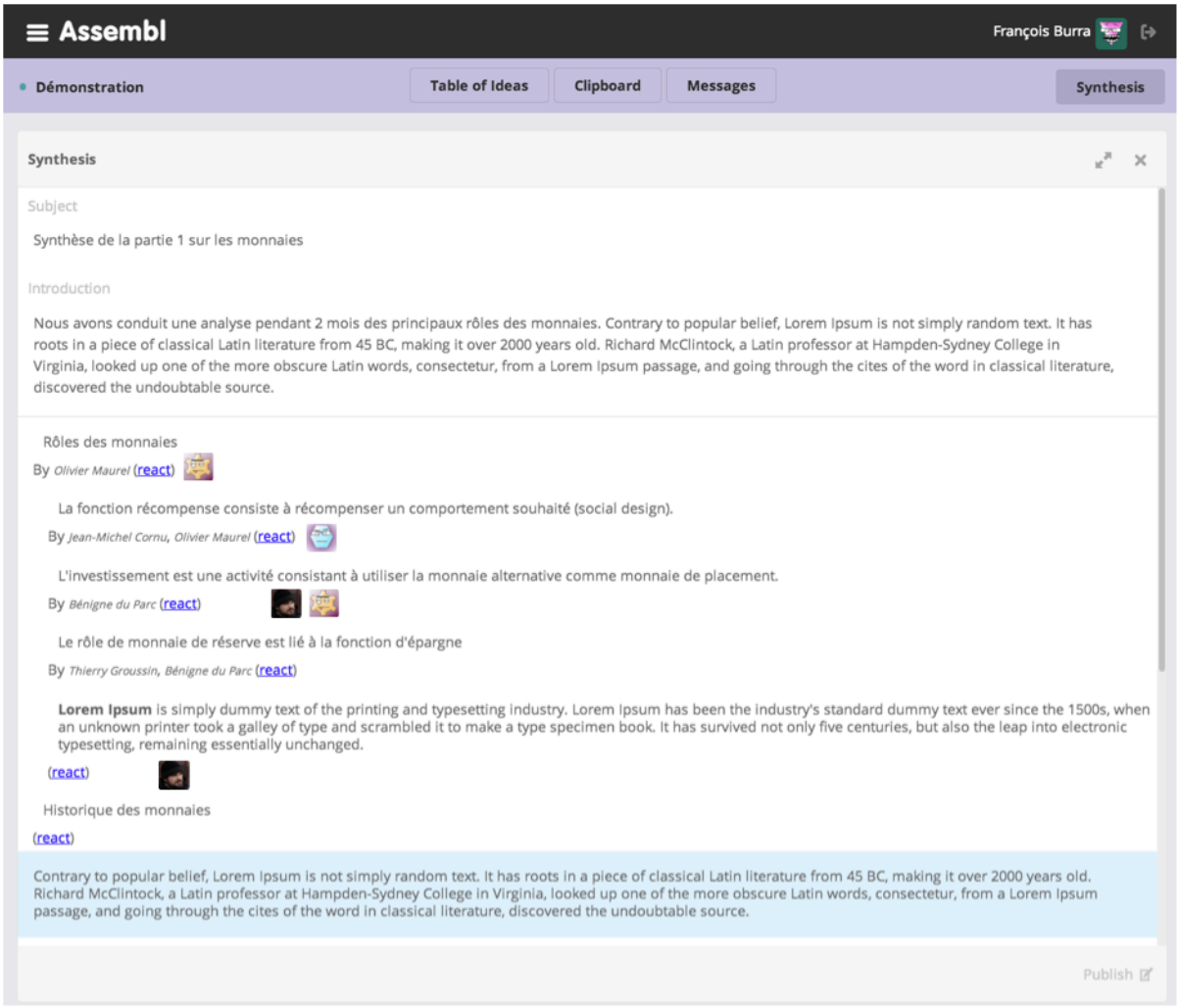

Figure 12 - Synthesis panel of Assembl

User Story:
The end-user can have access to a periodic (weekly) synthesis of the evolution of the debate

Major value proposition:

- A complete overview of the table of ideas since inception of the debate is systematically displayed
- A summary of what happened in the last iteration (week) of the debate is displayed
- Indications of where the debate could or should be heading during the next iteration of the debate are also provided

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1.5 Decision (voting)

Step five is the last step in the end-user loop before the iteration can start again with a new wave of debate. This step involves decision-making through voting mechanisms. This voting may not happen at the end of each iteration, but could happen after several loops have finished. The voting may be idea-based such as below or it can be summary-based, depending on context.

1.5.1 Enabling structured voting

Validation of the debate will be done through voting, a system that the Open University is developing.

Figure 13 – Screenshot of the voting system developed by the Open University

User Story:
The end-user can upvote or downvote an idea or an argument

Major value proposition:

- Voting implies to express supporting arguments in order to rationalise collective decision
- Additional features will allow to go beyond the "for and against" voting system, by using Likert scale or preferential ballot.

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1.6 Barometer of the debate

As the loop of step 2 to step 5 continues, end-users will be updated with a barometer of the debate. This barometer will include several statistics and will be based on the following mock-up:

1.6.1 Understanding the state of the debate

I4P and OU are developing specific interfaces summarising key statistics considered as useful for the engagement of the participants. This screenshot represent a mock-up from Assembl:

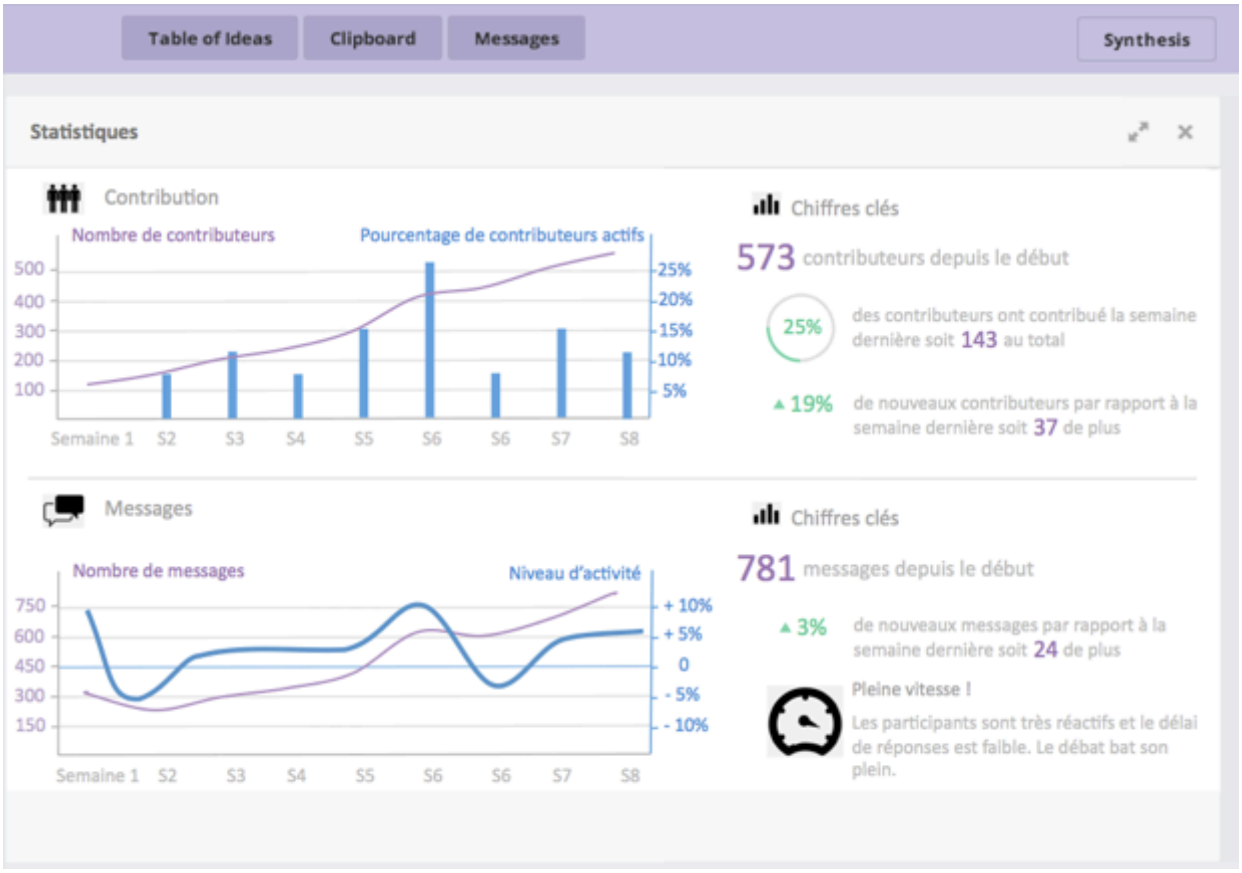

Figure 14 - Mock-up from Assembl

User Story:
The end-user is provided with a selection of key analytics summarising the state of the debate (activity, "climate" of the debate, etc.).

Major value proposition:

- Engaging analytics are provided in order to enhance users' experience and stimulate participation

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1.7 Alerts

End-users will be provided with alerts throughout the debate to provide individual engagement.

1.7.1 Developing personalised notifications

The University of Zurich is developing personalised notifications such as those in the mock-up below that will be integrated into the CATALYST software tools:

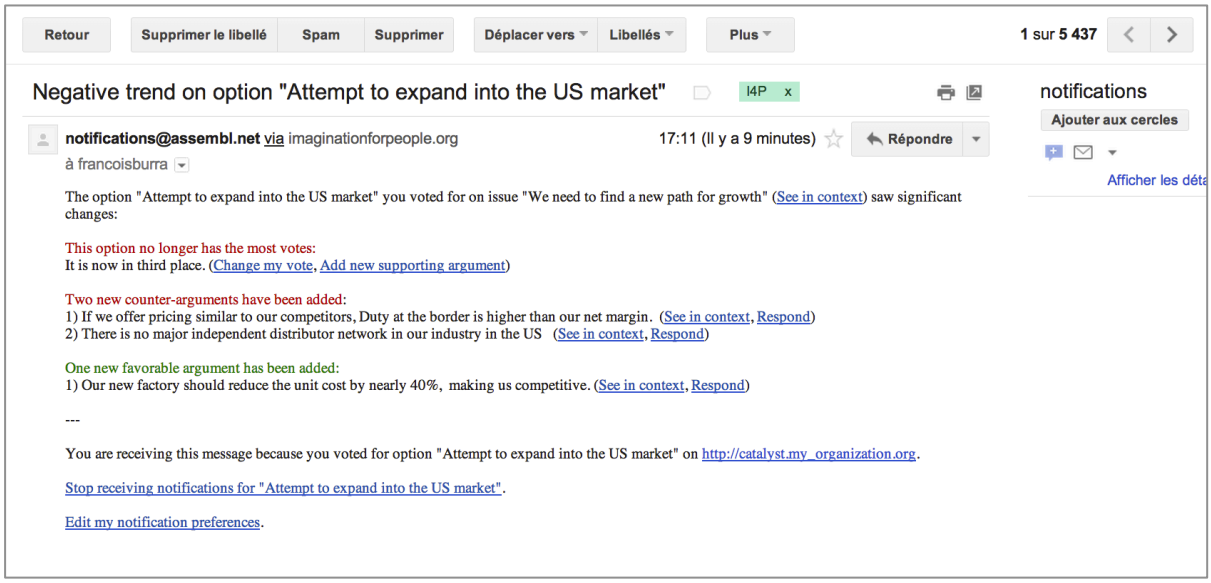

Figure 15 – Example of personalised notifications

User Story:
The end-user receives personal notifications focusing his/her attention on specific calls to action

Major value proposition:

- Personalised messages instead of mass e-mail campaigns
- Attention-mediation tool based on specific metrics measuring the personal patterns of debate participation

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2. Harvester interactions

The harvester user experience is somewhat different than the end-user experience. The harvester is indeed the moderator, orchestrator and community manager in charge of managing the debate. The harvester user experience comprises two key steps: debate harvesting and summary production.

2.1 Debate harvesting

Step one in the Harvester user experience involves selecting, extracting and exporting the key ideas from the debate.

2.1.1 Internal content harvesting

Debate harvesting is done internally (within the CATALYST platforms) on the basis of the messages contributed by the participants, such as in the screenshot below (Assembl from I4P):

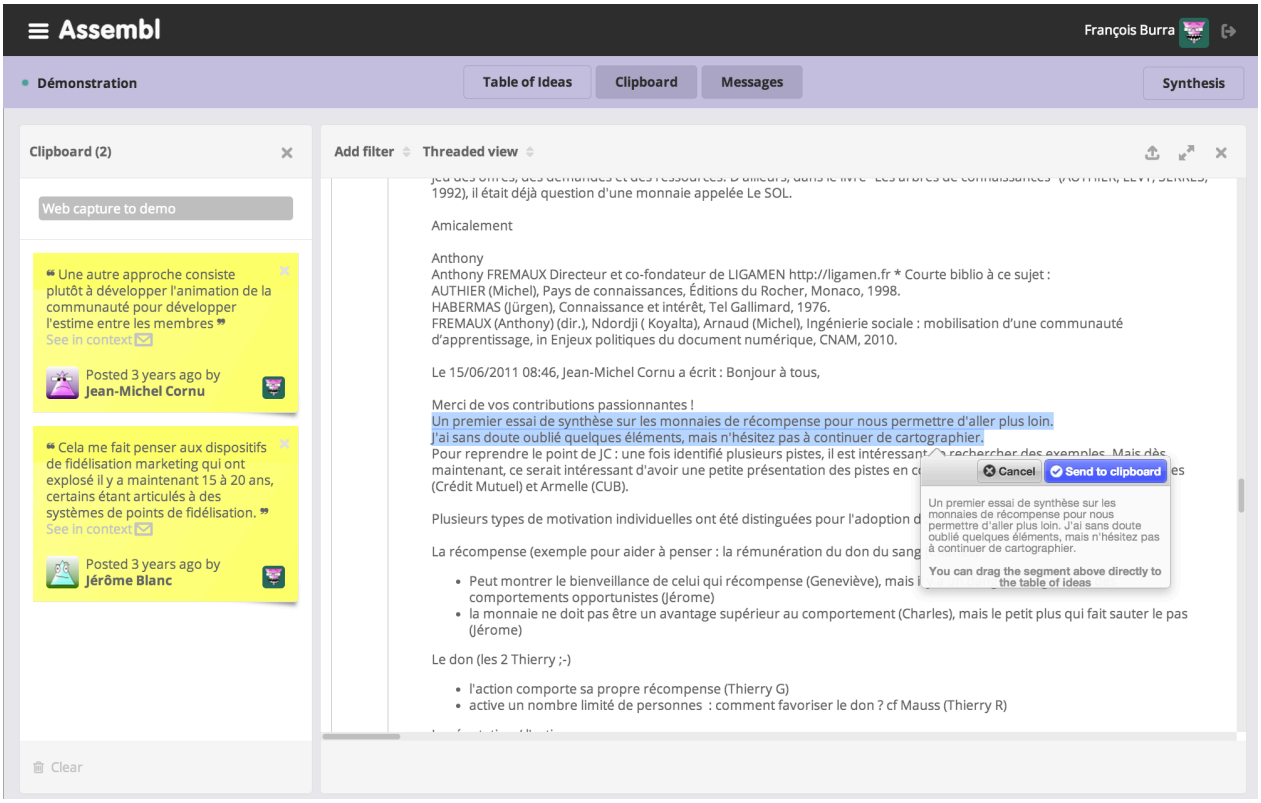

Figure 16 – Screenshot of Assembl content harvesting

User Story:
The harvester can select, extract and export key contents from raw messages exchanged between debate participants

Major value proposition:

- Rapid extraction of key segments from unstructured threads
- Ordering of extracted segments in a clipboard panel (left panel) in order to gradually build the table of ideas

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2.1.2 *External content harvesting*

Harvesting can also be done externally from other content taken from the web as in the following screenshot showing content harvesting from a Wikipedia article:

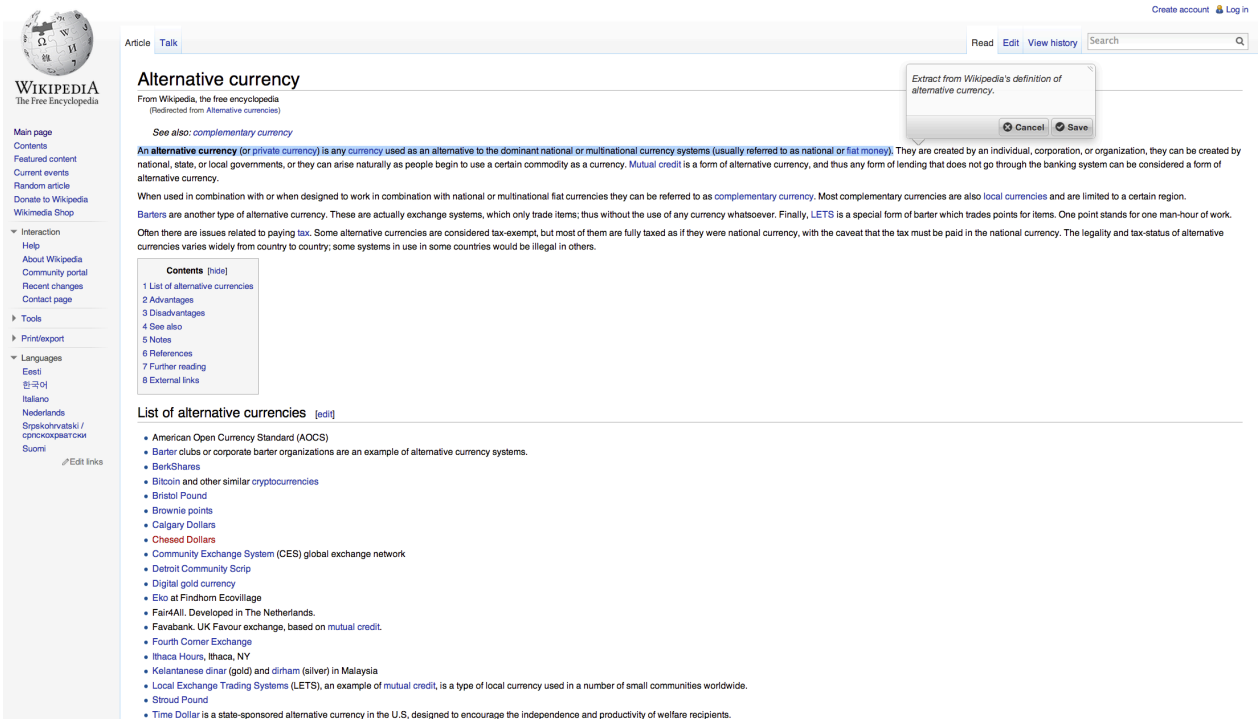

Figure 17 – Example of external content harvesting

User Story:
The harvester can select, extract and export key contents directly from the web.

Major value proposition:

- Corresponds to the harvesting of content outside of the debate
- To be used as a complementary tool to the internal harvesting (within the debate) for selecting supporting content from the Web

2.2 Summary production

Step two in the harvester journey is the production of the periodical summary.

2.2.1 *Rapid design of summaries*

The summary will be produced using clipped ideas that are organised into a table as is illustrated in the following illustration taken from Assembl (I4P). Ideas can be checked or unchecked depending on whether the harvester wishes to include them in the summary:

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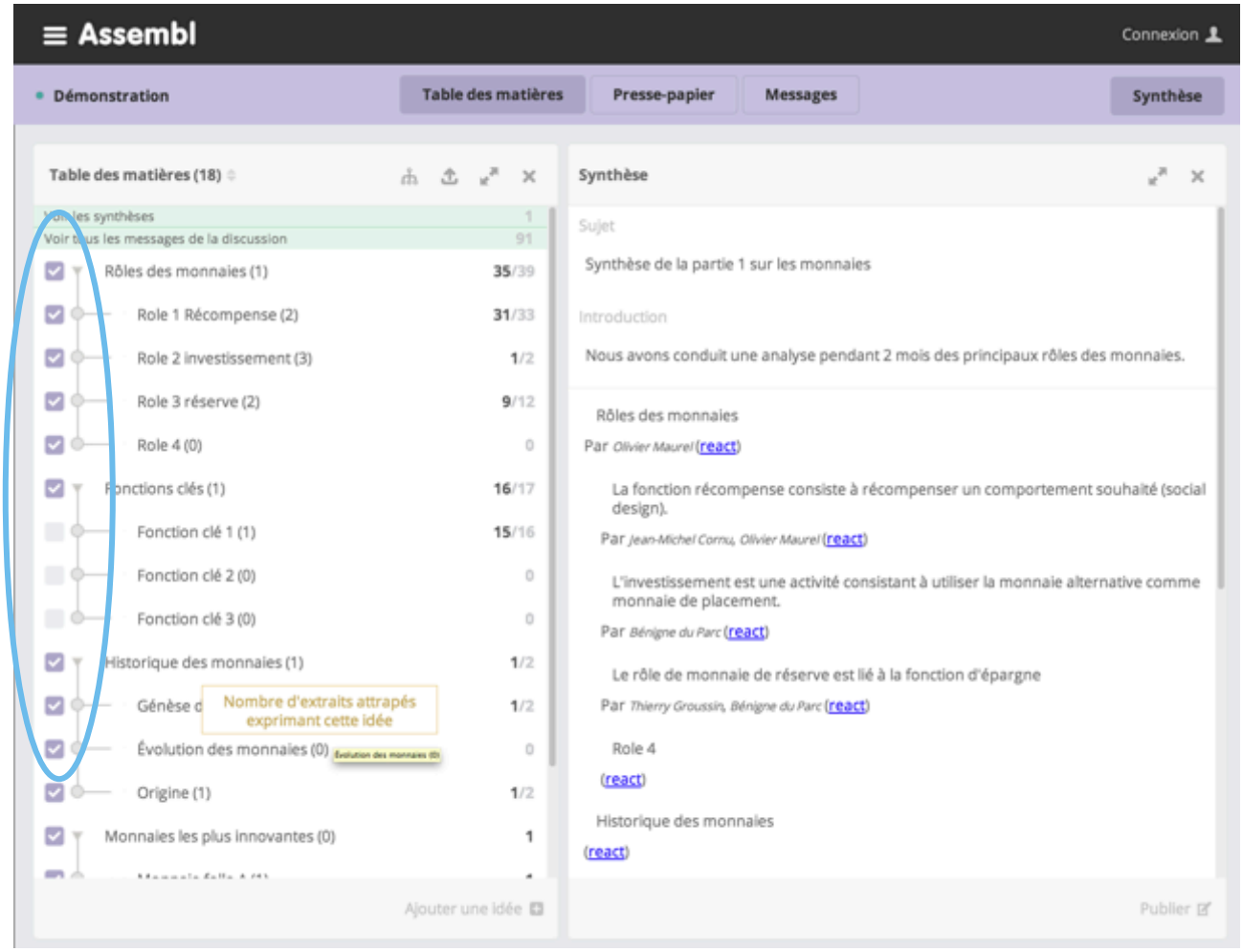

Figure 18 – Example of design of summary in Assembl

User Story:
The harvester can select key ideas for rapid design of weekly summaries

Major value proposition:

- Technology-enhanced summary production with pre-selected content (titling and key message are automatically added to a summary template)
- Enables to divide by 5 the time required to write a weekly summary of the debate by hand
- Helps volunteer harvester with limited time availability

2.3 Analytics

Throughout this process, harvesters will be provided with analytics to assist them in the monitoring / management of the debate.

2.3.1 Integrated Analytics Dashboard

The analytics will be provided by the University of Zurich. The Open University will develop a comprehensive dashboard monitoring the activities and views of participants as in the mock-up below:

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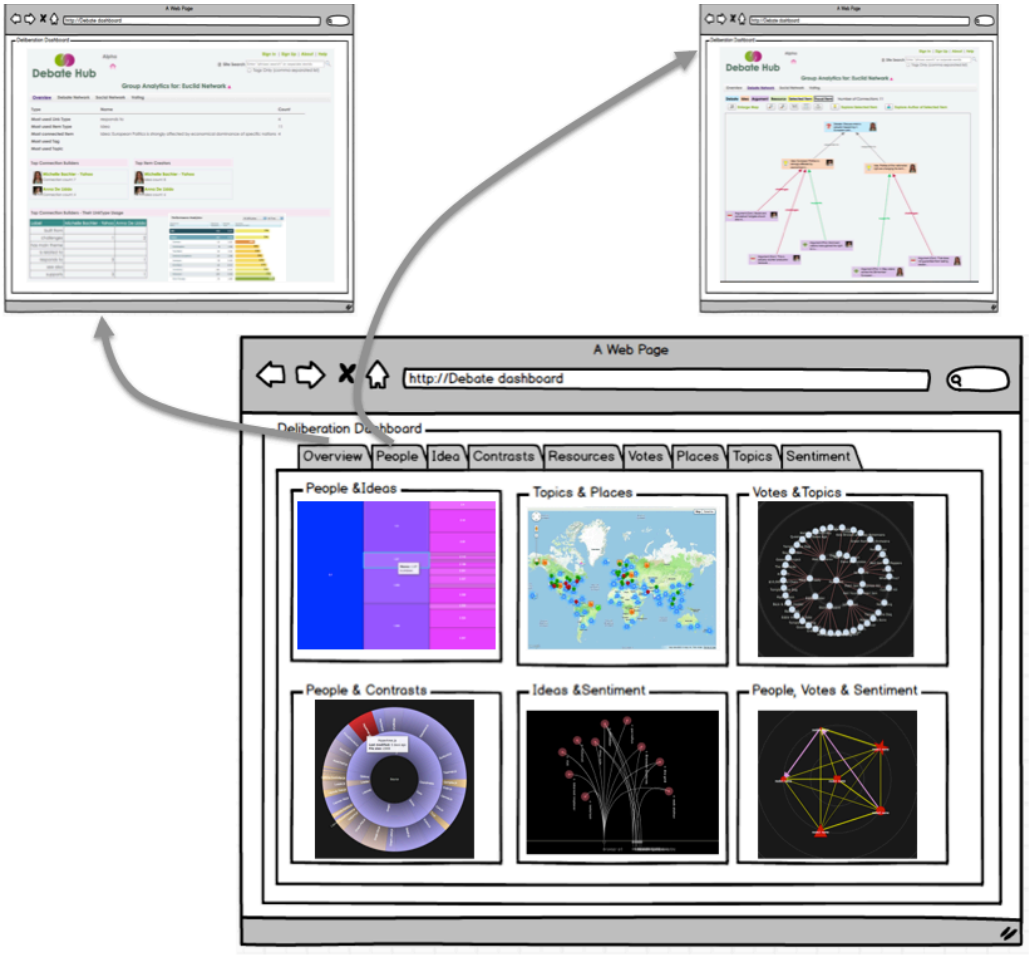

Figure 19 – Mock-up of dashboard monitoring the activities and views of participants

2.3.2 Social Network Analytics

When the size of the group of participants is very large, social network analytics become helpful in order to understand the dynamics of large-scale conversations. Specific social network analytics developed by Wikitalia will help monitor the impact of the harvester / moderator on the debate:

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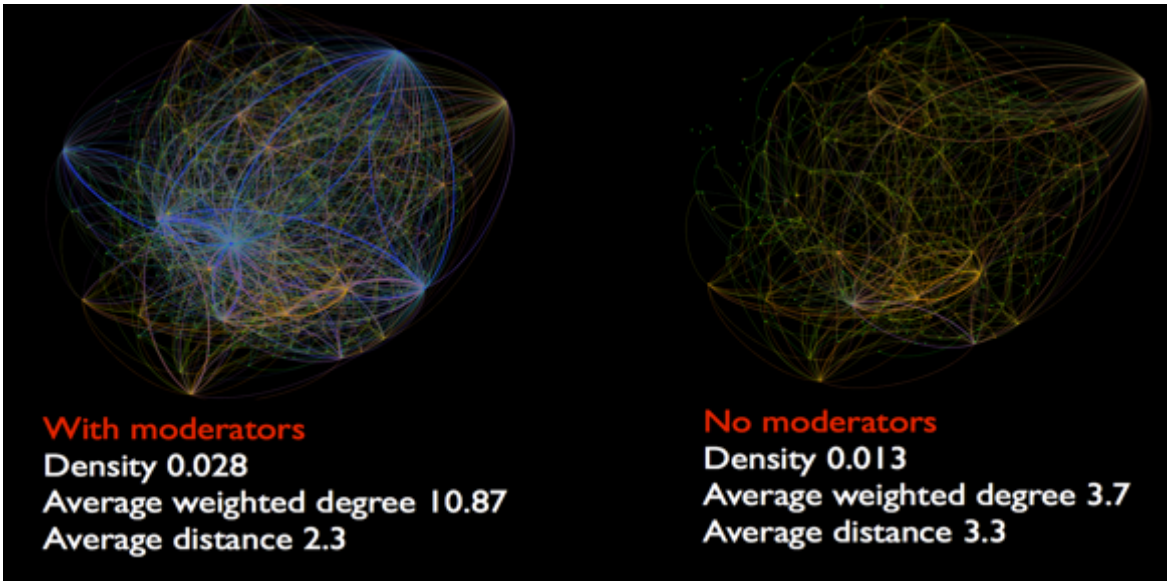

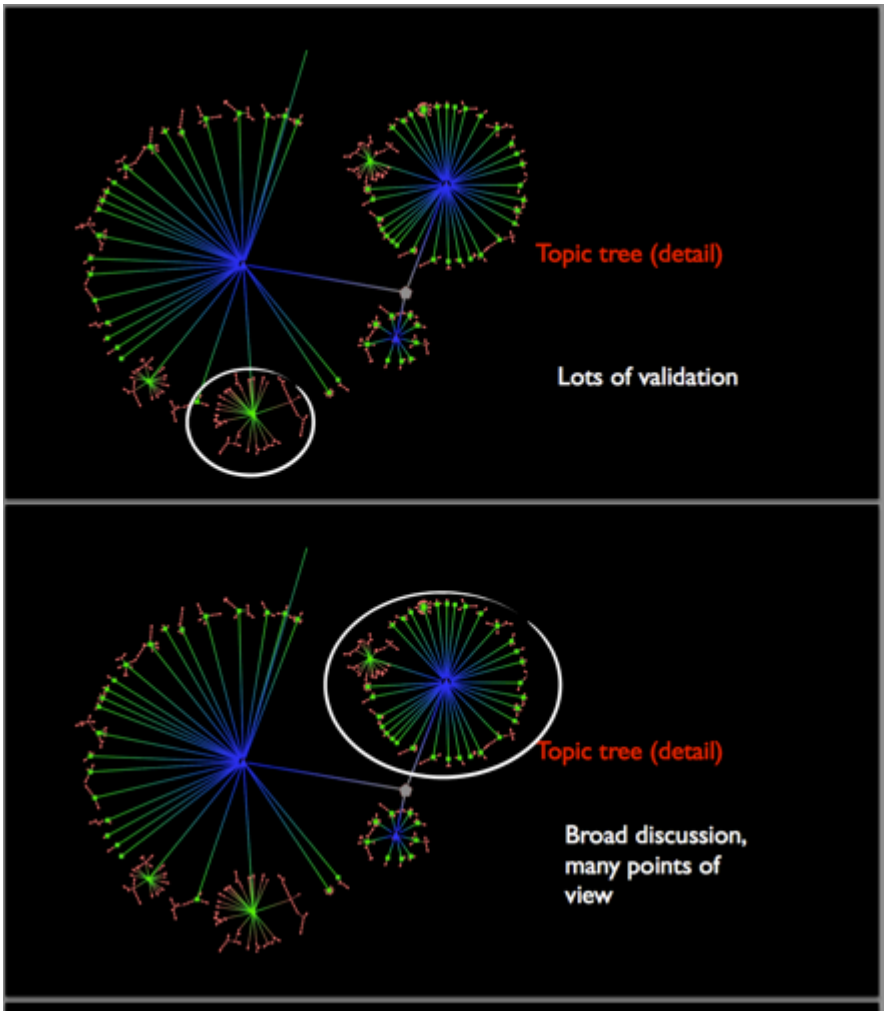

Figure 20 – Social network analytics developed by Wikitalia

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User Story:
The moderator can monitor the impact of the community managers' work on the debate.

Major value proposition:

- Helps curating and managing online conversations
- Helps assessing the quality and professionalism of the community managers
- Shows strongly significant influence of some variables capturing the shape of users' ego networks as well as the global network

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3. Final deliverable

The final step for end-users and harvesters involves creating a deliverable once the iterations of steps 2 through 5 (for end-users) and 1 to 2 (for harvesters) have been completed.

3.1 Cognitive Map

Cognitive maps such as the mock-up below will allow end-users to visualise the key findings from the overall debate.

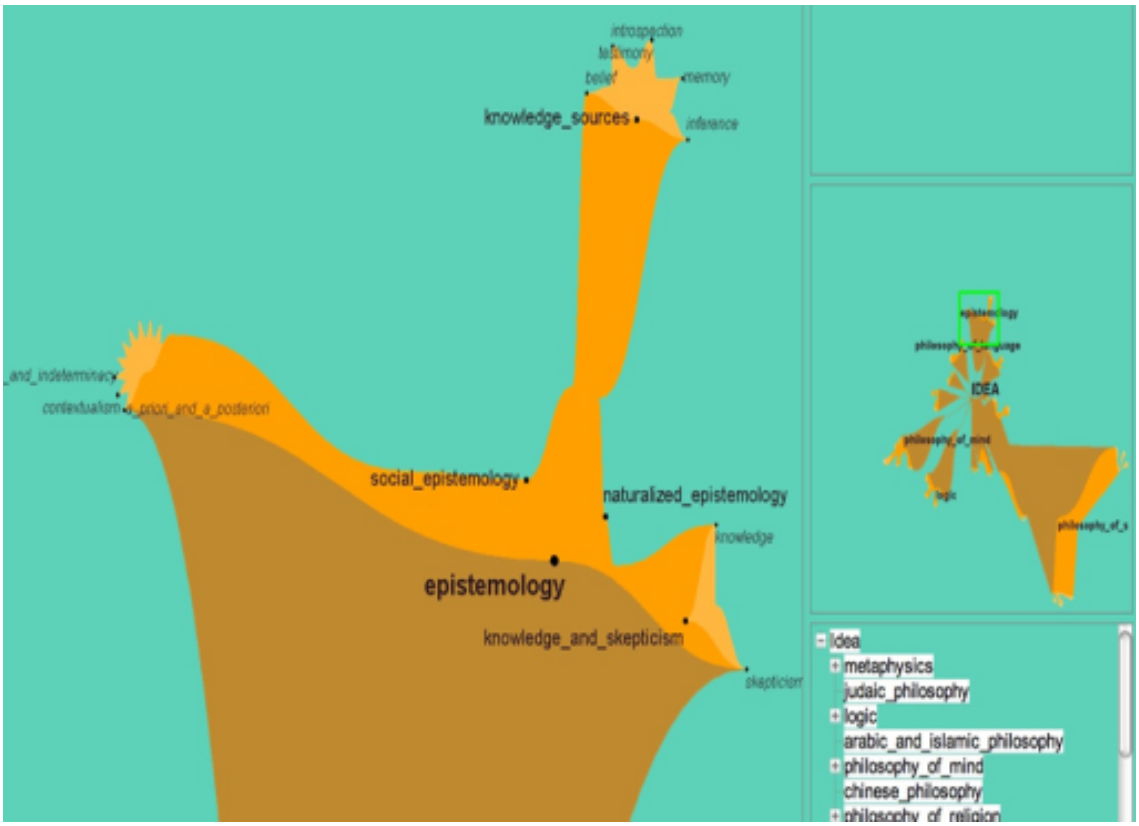

Figure 21 – Mock-up of a cognitive map

User Story:
The end-user can visualise the key findings from the entire debate through a cognitive map

Major value proposition:

- Cognitive maps facilitate memorisation of contents
- Cognitive maps favourably replace long text-based PDF reports that fail to attract end-user attention
- Adapted to generation Y's expectations in terms of information delivery

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Conclusions

In summary, this document provides an overview of the status of the mock-ups and user stories for CATALYST. The different modules under development are being designed to create a coherent overall experience for users. They are being designed with full inter-operability in mind for all CATALYST technical platforms.

The user experiences of the harvesters and the end-users have been split into two parallel cycles to better illustrate how the tools in development will facilitate collective intelligence. The 6 steps for end users and 2 key steps for harvesters provide structure to the discussion. Updated barometers of the discussion and alerts for end-users will help stimulate the discussion, as will the analytics that are being developed for Harvesters. The screenshots and mock-ups in the previous pages provide an illustration of the various interfaces of the CATALYST tools and how each of them will add value to the overall ecosystem.

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