



Detecting Speakers' Violation of Democratic Entitlements in Political Debates

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ECA Lisbon 2015, 9-12 June

edv-project.net

Context and Motivation

The Election Debate Visualisation project

- **Aim:** to empower democratic citizenship by making political media events more accessible and engaging, and by giving viewers tools to make sense of complex political argumentation and debate.
- **How:** Political Communication, Computational Linguistics, Collective Intelligence and Design brought together to provide enhanced, interactive online debate replays.

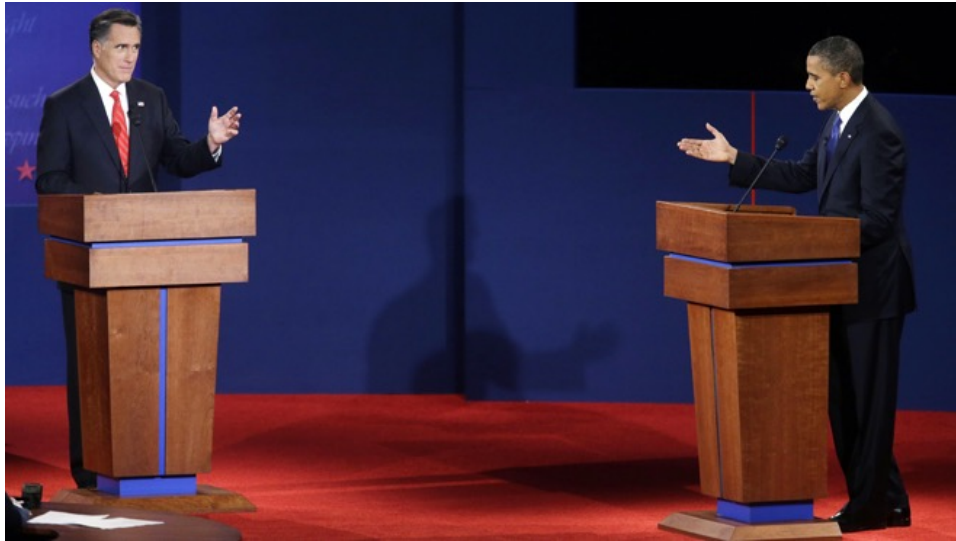
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Like YouTube, with fancy visualisations of complex analytics.

Context and Motivation



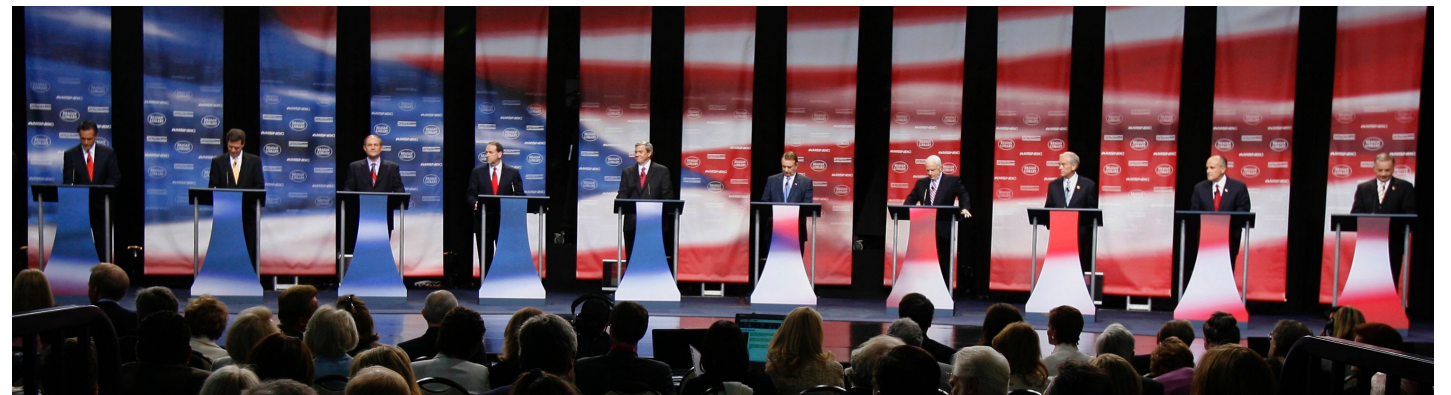
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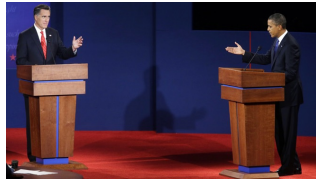
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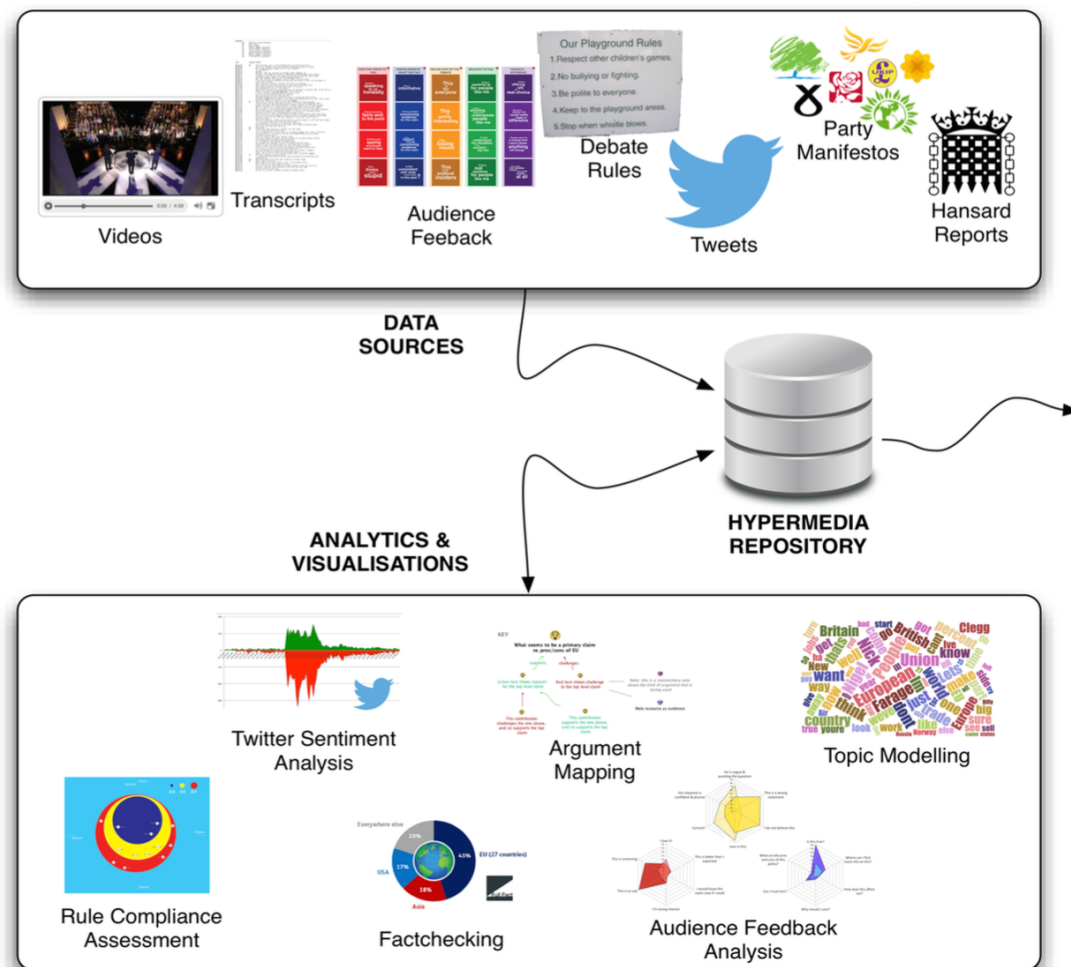
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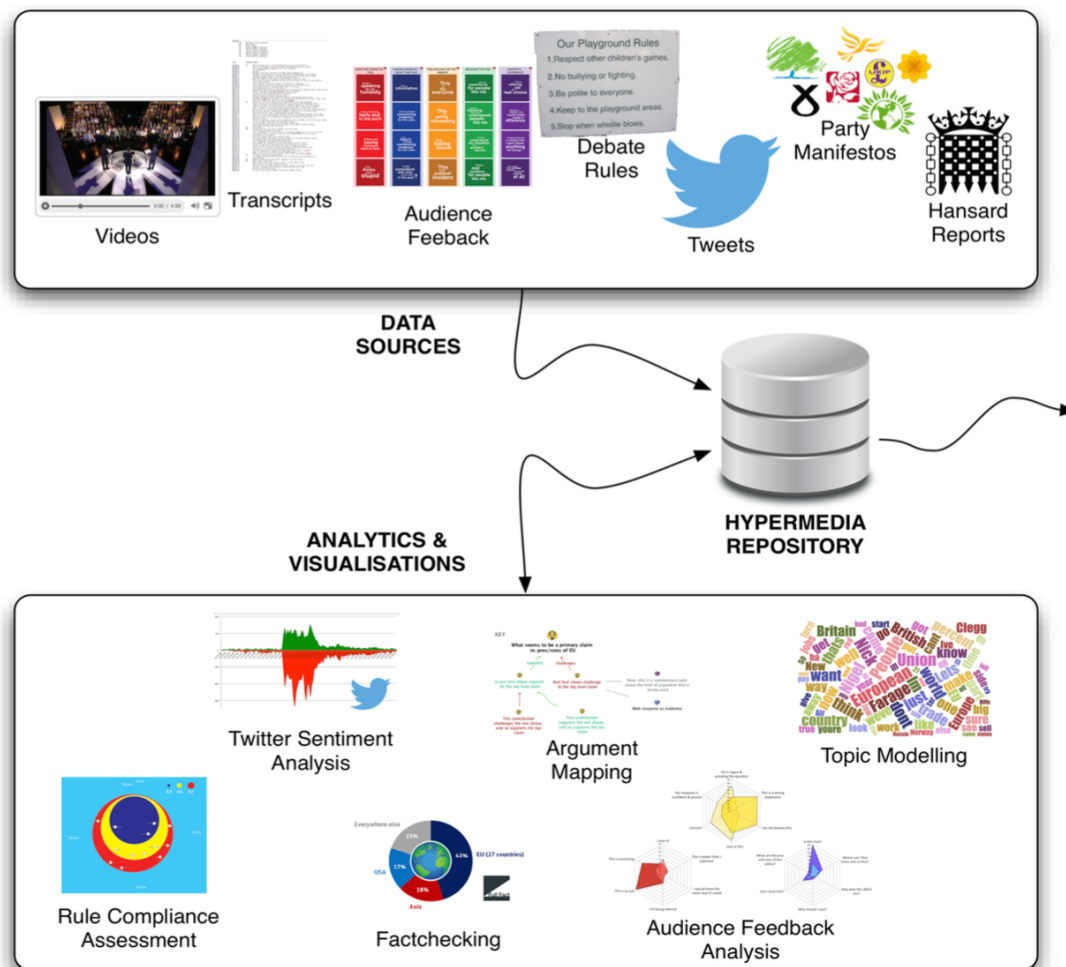
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Context and Motivation



Context and Motivation



THE ITV LEADERS' DEBATE
ITV | 2 April 2015

Widgets

- Transcript
- Audience Reflections
- Argument Tree
- Factchecking
- Fair Play
- Twitter

Audience Reflections Settings

This widget shows the reactions of viewers using Democratic Reflection during the debate. Click here to switch between all the responses or those in the last five seconds.

[Set All](#)

UNIVERSITY OF LEEDS

The Open University

EPSRC
Engineering and Physical Sciences
Research Council

Context and Motivation

The screenshot displays the EDV web application interface. At the top, a browser window shows the URL `185.58.193.185:3000/layout` and the domain `democraticreplay.org`. The main header features the 'DEMOCRATIC YAJER' logo and the title 'THE ITV LEADERS' DEBATE' with the date 'ITV | 2 April 2015'. A settings icon and the 'EDV' logo are also present.

The central video player shows a debate stage with several participants. A text overlay on the left reads: 'aren't some things that occasionally go wrong. This whole question of how we fund the health service with a population that's rapidly rising, with a population that is aging, is a huge question. We've had a big internal debate in our party about it. And we've decided the best way to do it is to run it efficiently, to run it as a public service, free at the point of access, but to recognise that there has been a 48% growth in middle management of the NHS since 1997. The Labour Party attempted to privatise large chunks of the health Service. That I also don't believe has worked. I'd put an extra £3 billion in from savings to our eu contributions, and I'd stop the tax on illness by ending hospital parking charges.' A green bubble on the right says 'She's speaking up for people like me'. A small circular radar chart is visible in the bottom right of the video frame. A 'Full Fact @FullFact' tweet is shown at the bottom left of the video: 'Whether or not "most of our laws come from elsewhere" depends on how you measure it https://t.co/O0sV9pxSOc'.

Below the video is a row of 18 colored buttons representing different sentiment categories, such as 'Data speaking honestly', 'She's speaking fairly and to the point', 'She's not saying what we want to hear', 'That's stupid', 'Informative', 'A very useful, compelling and clear', 'A very useful, compelling and clear', 'Is the consistent with what they've said in the past?', 'This for everyone', 'This is getting interesting', 'I'm losing interest', 'This is for political insiders', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me', 'When speaking up for people like me'.

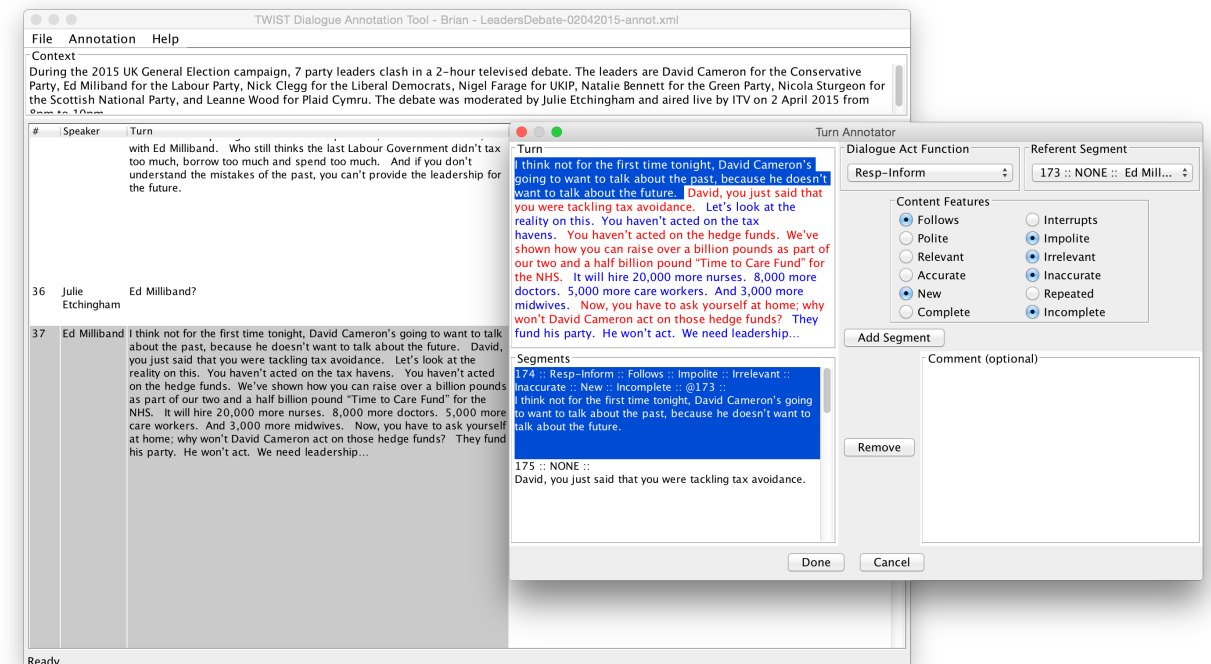
On the right side, there is a 'Widgets' section with icons for 'Transcript', 'Audience Reflections', 'Argument Tree', 'Factchecking', 'Fair Play', and 'Twitter'. Below this is a 'Widget Details' section for 'Audience Reflections Settings', which explains that the widget shows viewer reactions and provides a 'Set All' button.

The footer contains logos for the 'UNIVERSITY OF LEEDS', 'The Open University', and 'EPSRC Engineering and Physical Sciences Research Council'.

Context and Motivation

The screenshot shows a web browser window displaying the Democratic YAJPER website. The main content area features a video of Nicola Sturgeon. Overlaid on the video is a diagram illustrating the relationship between austerity and NHS funding. The diagram shows a flow from 'By ending austerity' (with a lightbulb icon) to 'How will you fund NHS as a public service accessible to all?' (with a question mark icon). A box in the middle states: 'End austerity: overall cuts are incompatible with further funding of the NHS'. Below the video, there is a row of 15 small, colorful buttons representing different viewer reactions, such as 'speaking honestly', 'fairly and to the point', 'stupid', 'informative', 'convincing', 'consistent', 'interesting', 'losing interest', 'political insiders', 'people like me', 'understands people like me', 'challenging my situation', 'real choice', 'difference', 'I don't think anything at all', and 'at all'. To the right of the video, there is a 'Widgets' section with icons for Transcript, Audience Reflections, Argument Tree, Factchecking, Fair Play, and Twitter. Below this is a 'Widget Details' section titled 'Audience Reflections Settings' with a description: 'This widget shows the reactions of viewers using Democratic Reflection during the debate. Click here to switch between all the responses or those in the last five seconds.' and a 'Set All' button. The website footer includes logos for the University of Leeds, The Open University, and EPSRC.

Dialogue Rule Compliance and Fair Play



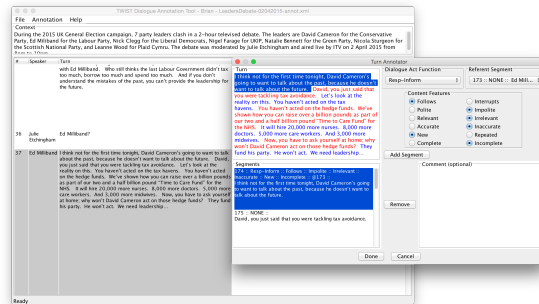
Rules of Engagement
(76 in 2010; 28 in 2015)

Manual Annotation of
Dialogue Act Functions and
Content Features

Dialogue Rule Compliance and Fair Play



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Rules of Engagement
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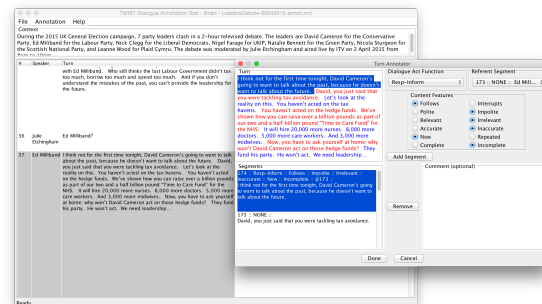
Manual Annotation of
Dialogue Act Functions and
Content Features

- Instances of violations of the rules
 - Static: performance of forbidden dialogue acts
 - Dynamic: failure to discharge discourse obligations
- Aggregated normalised scores per speaker

Dialogue Rule Compliance and Fair Play



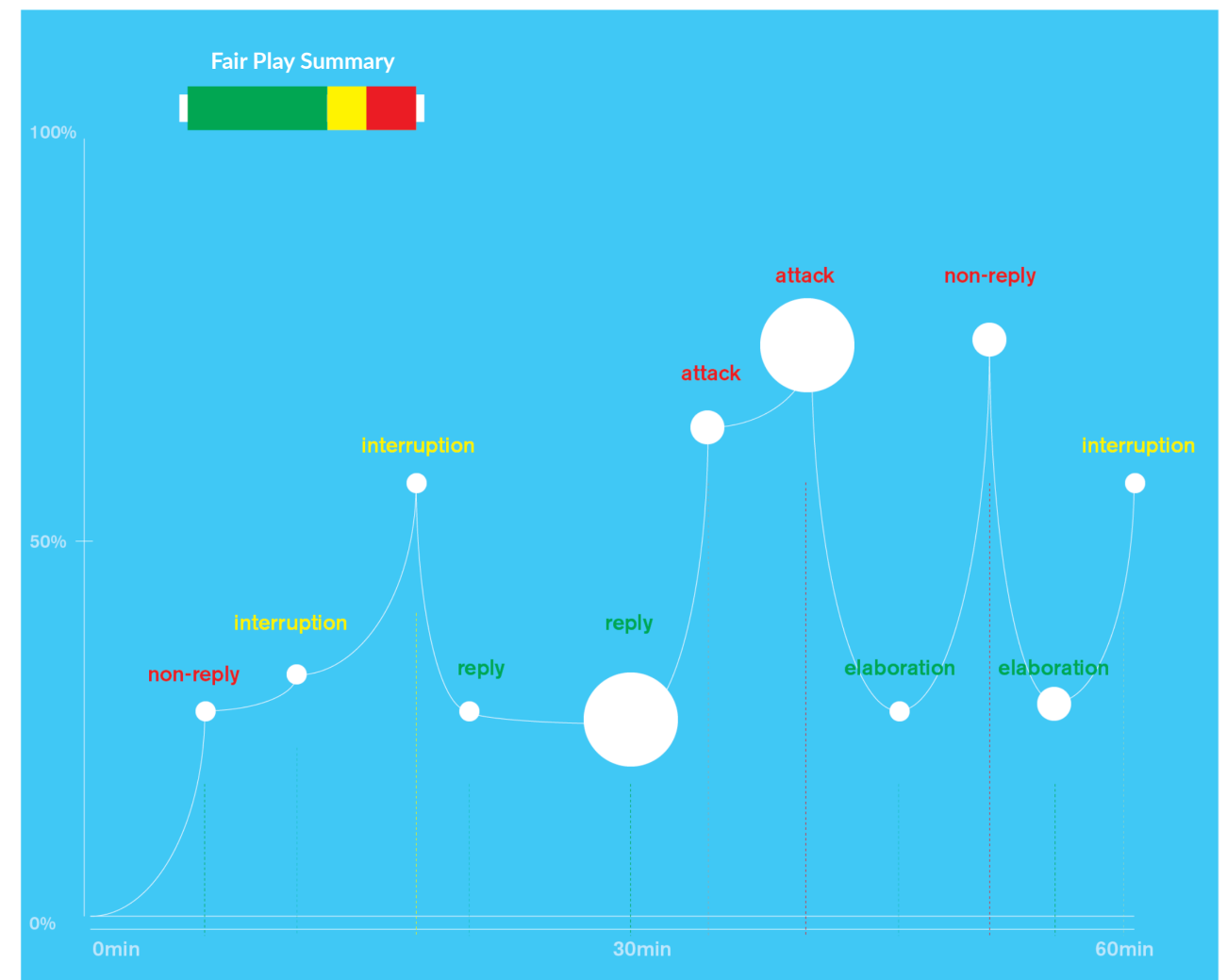
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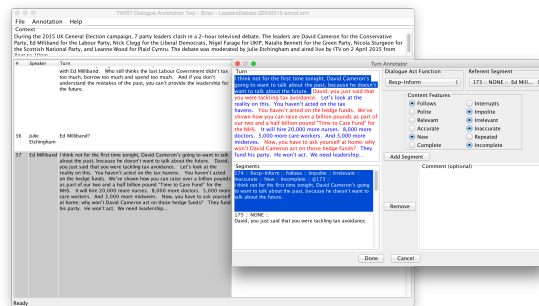
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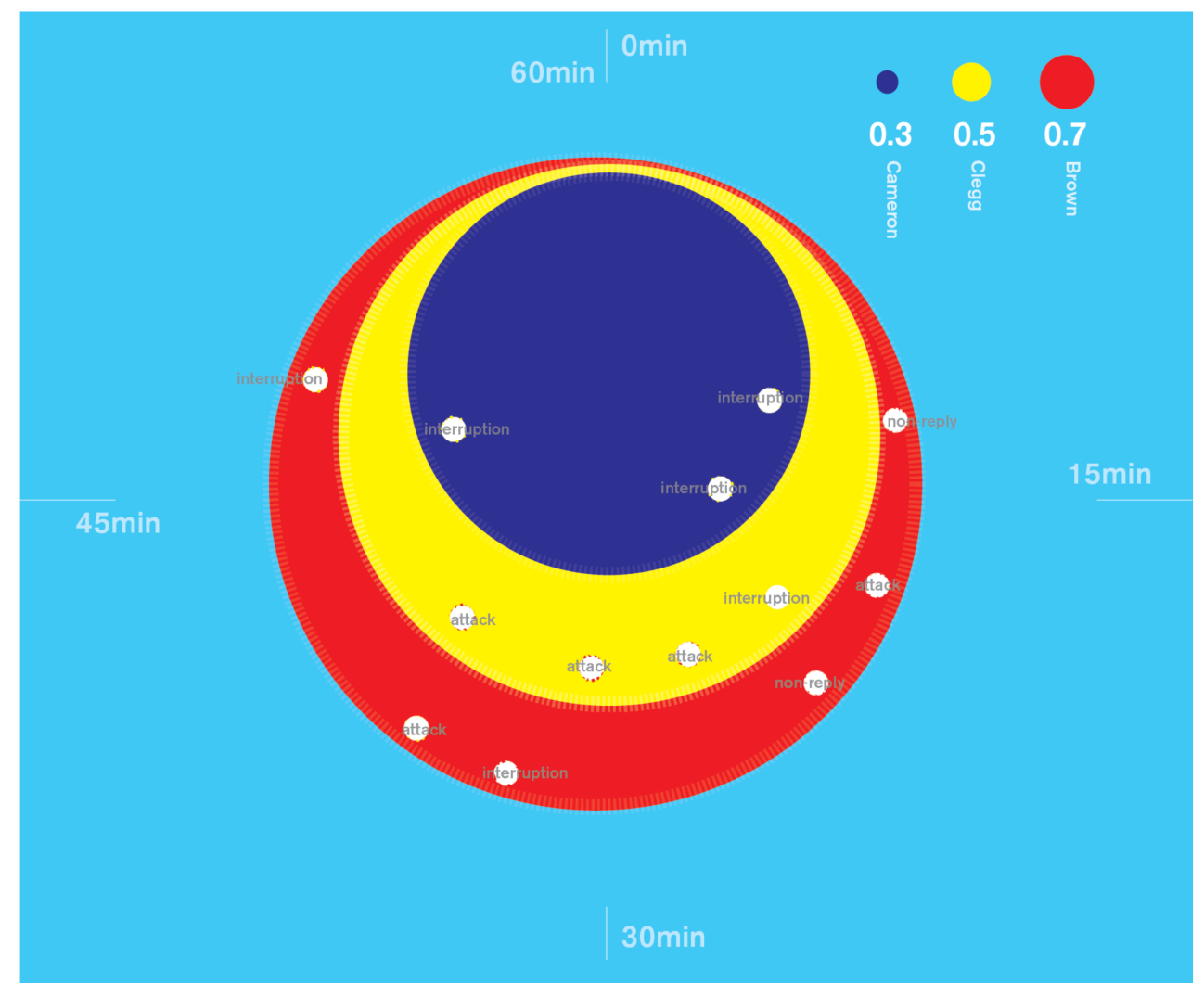
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Democratic Entitlements

Qualitative research: citizens' perceptions of election debates

12 focus groups conducted at Leeds:

- Disengaged Voters
- Committed Party Supporters
- Undecided Voters
- First-time Voters
- Active Users of the Internet
- (Performers)

Male/Female; 8~10 people per group



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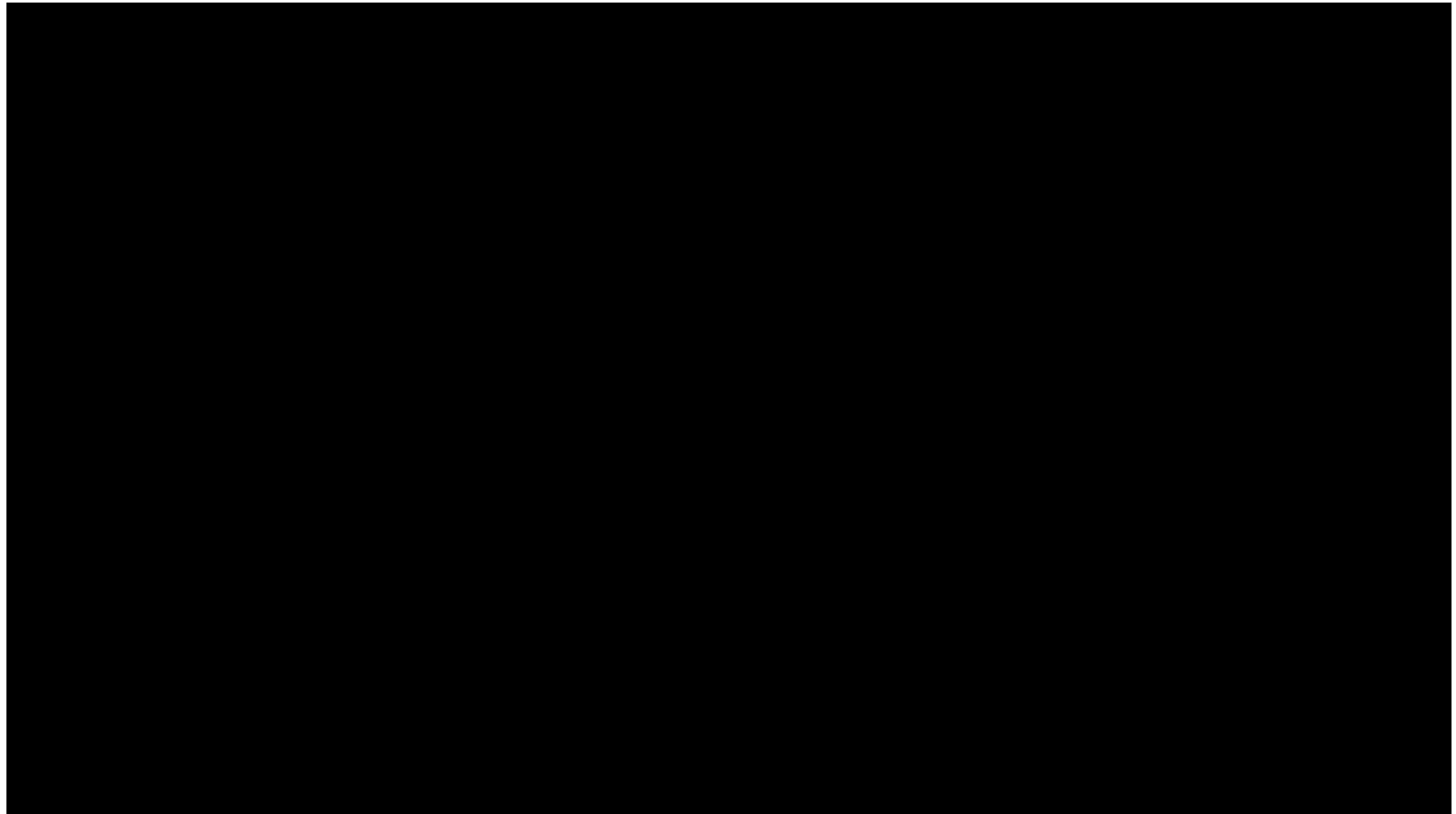
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Democratic entitlements

1. Be respected as a rational and independent decision-maker
2. Be able to evaluate political claims and make an informed decision
3. Feel part of the debate as a democratic cultural event
4. Be able to communicate with and be recognised by the leaders who want to represent me
5. Be able to make a difference to what happens in the political world

Democratic Entitlements



Democratic Entitlements



Democratic Entitlements



Democratic Entitlements and Fair Play

As before, only...

- Not with the rules of the broadcasters and political parties, but with the rules of the citizens.

Democratic Entitlements and Fair Play

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Examples:

- *Answer the question*
- *Do not mislead*
- *Do not insult the audience*

Democratic Entitlements and Fair Play

As before, only...

- Not with the rules of the broadcasters and political parties, but with the rules of the citizens.

Examples:

- *Answer the question*
- *Do not mislead*
- *Do not insult the audience*

- Crucially, on the same coding scheme.

Democratic Entitlements and Fair Play

Rules formalised to capture discourse obligations:

- Static obligations: role-based allowed and disallowed dialogue acts.

Example:

- *Speaker must not insult the audience*

Democratic Entitlements and Fair Play

Rules formalised to capture discourse obligations:

- Static obligations: role-based allowed and disallowed dialogue acts.

Example:

- *Speaker must not insult the audience*

- Dynamic obligations (introduction and discharge): dialogue acts to be performed as a consequence of actions of self or others.

Example:

- *When asked a valid question, addressee must provide a valid answer*
- *Providing the information requested for by an question, discharges the obligation to provide an valid answer.*

Democratic Entitlements and Fair Play

Coding scheme

Init-Inform					
Follows		Interrupts			
Polite		Impolite			
On-Topic		Off-Topic			
Accurate		Inaccurate			
New		Repeated			
Init-InfoRequest					
Follows		Interrupt			
Polite		Impolite			
On-Topic		Off-Topic			
Neutral		Loaded			
Reasonable		Unreasonable			
New		Repeated			
Resp-Inform					
Follows		Interrupts			
Polite		Impolite			
Relevant		Irrelevant			
Accurate		Inaccurate			
New		Repeated			
Complete		Incomplete			
			Resp-Accept		
			Follows		Interrupts
			Polite		Impolite
			Resp-Reject		
			Follows		Interrupts
			Polite		Impolite
			Init-Cue		
			Follows		Interrupts
			Polite		Impolite
			Init-Greeting		
			Follows		Interrupts
			Polite		Impolite
			Resp-Greeting		
			Follow		Interrupts
			Polite		Impolite

Evaluation through Instant Audience Feedback

A method for gauging audience responses
to political media events in real-time

- Controlled and nuanced
- Engaging, voluntary and non-intrusive
- Suitable for analytics and visualisations

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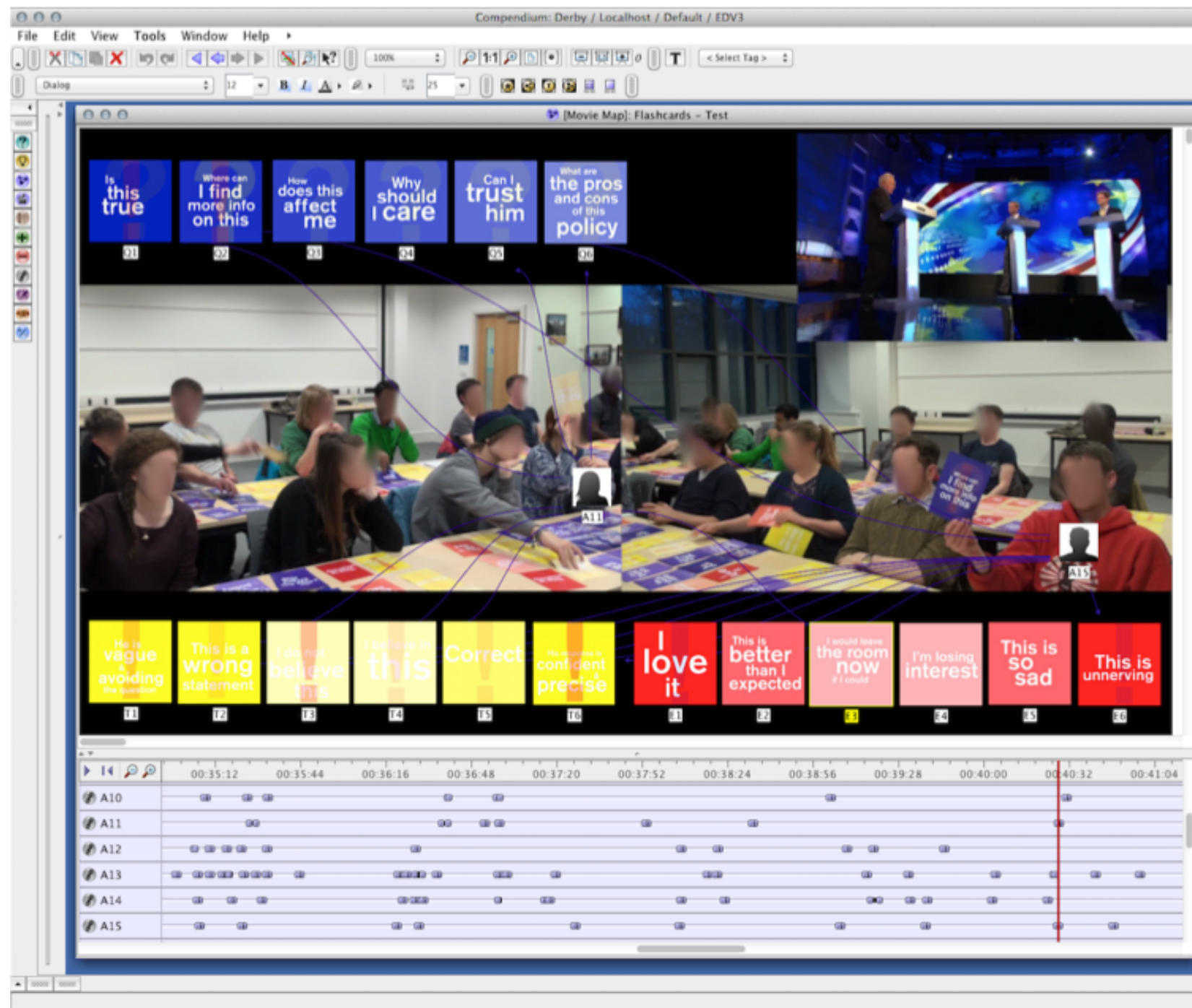
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Democratic Reflection
democraticreflection.org

THE ITV LEADERS' DEBATE
ITV | 2 April 2015

STOP

33 users currently logged on

Your Reflections

- 15:00:29: This isn't convincing evidence for this claim
- 15:00:28: This is getting interesting
- 15:00:27: This is for everyone
- 15:00:27: This is not convincing evidence for this claim
- 15:00:26: S/he's not speaking for people like me
- 15:00:26: S/he's not speaking for people like me
- 15:00:25: S/he's not speaking for people like me
- 15:00:25: This is not convincing evidence for this claim
- 15:00:24: This is getting interesting
- 15:00:24: S/he's not speaking for people like me
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HOW THEY SPEAK TO YOU	MAKING SENSE OF WHAT THEY SAY	FEELING PART OF THE DEBATE	RELEVANT TO YOU	MAKING A DIFFERENCE
S/he's speaking to us honestly	This is informative	This is for everyone	S/he's speaking up for people like me	S/he's offering us a real choice
S/he's answering fairly and to the point	S/he's provided convincing evidence for this claim	This is getting interesting	S/he's showing that s/he understands people like me	What s/he's saying now could really make a difference
S/he's just saying what people want to hear	S/he hasn't provided convincing evidence for this claim	I'm losing interest	If s/he understood my situation, s/he wouldn't say this	Despite what s/he is saying here I don't think anything will change
S/he thinks we're stupid	Is this consistent with what s/he's done in the past?	This is for political insiders	S/he's not speaking for people like me	This makes me wonder whether it's worth voting at all



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HOW THEY SPEAK TO YOU

- S/he's speaking to us honestly
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- S/he thinks we're stupid

MAKING SENSE OF WHAT THEY SAY

- This is informative
- S/he's provided convincing evidence for this claim
- S/he hasn't provided convincing evidence for this claim
- Is this consistent with what s/he's done in the past?

FEELING PART OF THE DEBATE

- This is for everyone
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RELEVANT TO YOU

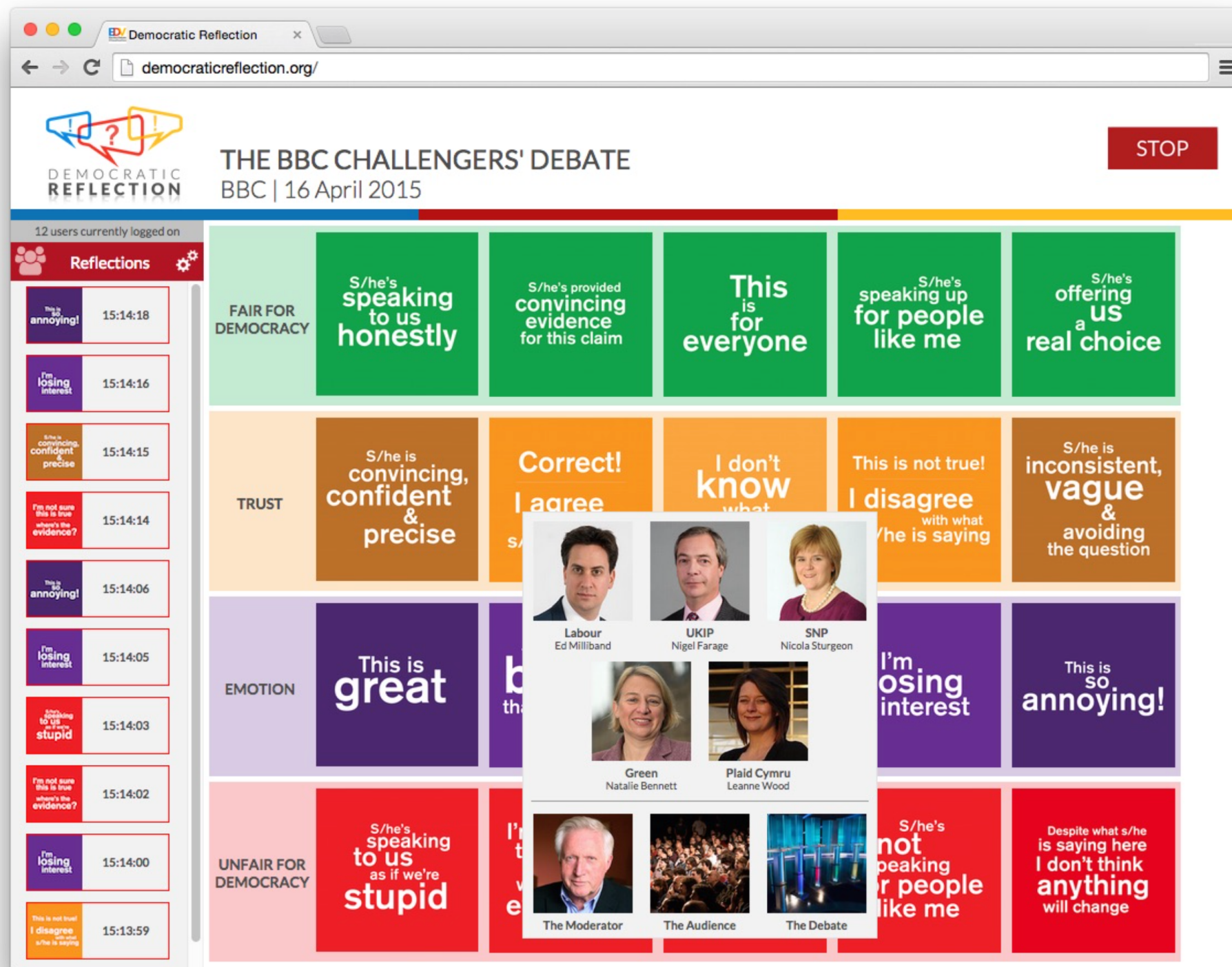
- S/he's speaking up for people like me
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- S/he's not speaking for people like me

MAKING A DIFFERENCE

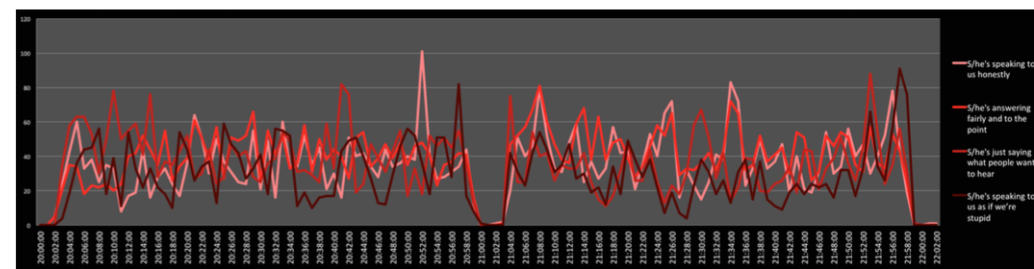
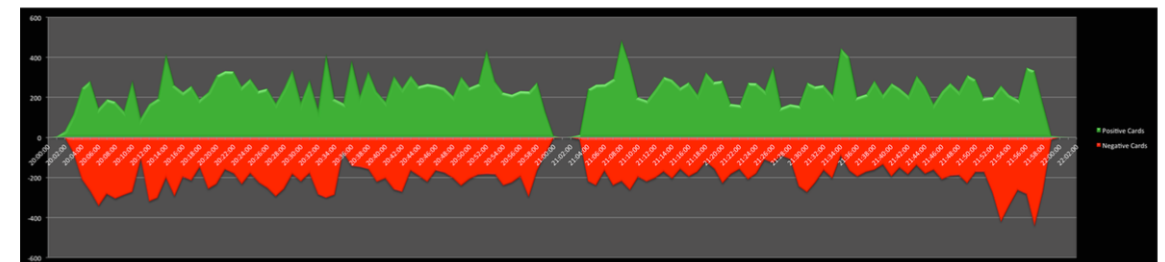
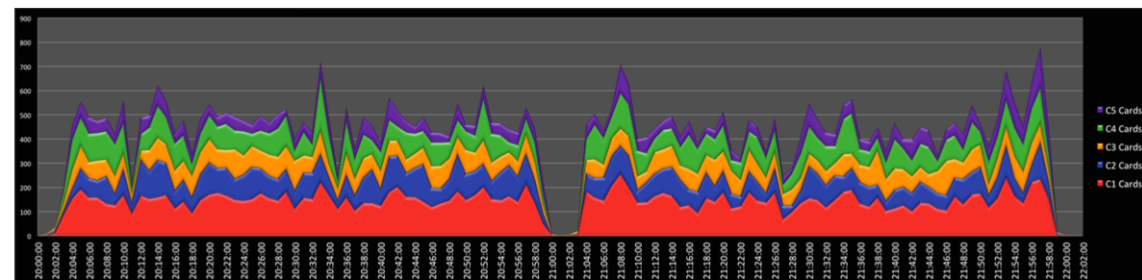
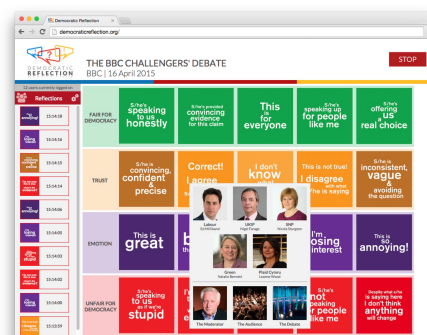
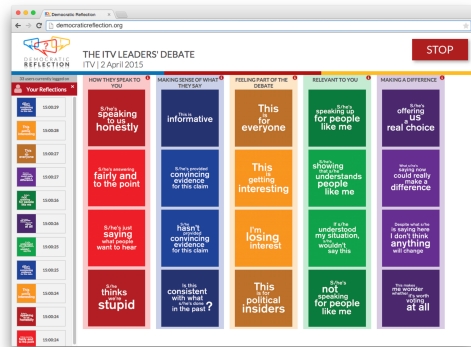
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Current and Future Work

- Annotation and visualisation of the April UK election debates

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- Evaluation

Reliability: inter-annotator agreement study

Validity: correlation with instant audience feedback

Current and Future Work

- Annotation and visualisation of the April UK election debates
- Evaluation
 - Reliability: inter-annotator agreement study
 - Validity: correlation with instant audience feedback
- Explore automation of annotations



Thank you!

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