## Touché @





**CLEF 2024** 

GRENOBLE

	Monday, September 9, Room 2 (IMAG Amphitheatre)
14:00-15:30	Touché Session 1 (Keynote and Task Overviews)
14:00-15:00 Keynote	More than Gender-Bias: Understanding the Sociological Imagination of Large Language Models Gilles Bastin
15:00-15:10	Overview of the Human Value Detection (ValueEval) Task [paper] Johannes Kiesel
15:10-15:20	Overview of the Ideology and Power Identification in Parliamentary Debates Task [paper] <i>Çağrı Çöltekin (online)</i>
15:20-15:30	Overview of the Image Retrieval/Generation for Arguments Task [paper] Maximilian Heinrich
15:30-16:30	Poster Session + Coffee break
16:30-18:00	Touché Session 2 (Participant Presentations and Invited Talk)
16:30-16:40	Hierocles of Alexandria at Touché: Multi-task & Multi-head Custom Architecture with Transformer-based Models for Human Value Detection [paper] Sotirios Legkas, Christina Christodoulou, Matthaios Zidianakis, Dimitrios Koutrintzes, Maria Dagioglou, Georgios Petasis
16:40-16:50	Eric Fromm at Touché: Prompts vs FineTuning for Human Value Detection [paper] Ranjan Mishra, Meike Morren
16:50-16:55	Philo of Alexandria at Touché: A Cascade Model Approach to Human Value Detection [paper] Víctor Yeste, Mariona Coll-Ardanuy, Paolo Rosso
16:55-17:05	Arthur Schopenhauer at Touché 2024: Multi-Lingual Text Classification Using Ensembles of Large Language Models [paper] Hamza Yunis (online)
17:00-17:15	SCaLAR NITK at Touché: Comparative Analysis of Machine Learning Models for Human Value Identification [paper] Praveen K, Darshan R K, Chinta Tejdeep Reddy, Anand Kumar M (online)
17:15-17:25 Invited Talk	ValueEval for Politics: Perspectives from the European Commission's JRC Mario Scharfbillig (online)
17:25-17:35	Trojan Horses at Touché: Logistic Regression for Classification of Political Debates [paper] Deepak Chandar S, Diya Seshan, Avaneesh Koushik, P Mirunalini (online)
17:35-17:45	HALE Lab NITK at Touché 2024: A Hybrid Approach for Identifying Political Ideology and Power in Multilingual Parliamentary Speeches [paper] Sevitha Simhadri, Mauli Mehulkumar Patel, Sowmya Kamath S (online)
17:45-17:55	Pixel Phantom at Touché: Ideology and Power Identification in Parliamentary Debates using Linear SVC [paper] Janani Hariharakrishnan, Jithu Morrison S, P Mirunalini (online)
17:55-18:00	Closing Johannes Kiesel



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#### **Touché: Argumentation Systems**

# 14:00-15:30Touché Session 1 (Keynote and Task Overviews)14:00-15:00More than Gender-Bias: Understanding the Sociological Imagination of Large Language Models<br/>*Keynote*15:00-15:10Overview of the Human Value Detection (ValueEval) Task [paper]<br/>*Johannes Kiesel*15:10-15:20Overview of the Ideology and Power Identification in Parliamentary Debates Task [paper]<br/>*Çağrı Çöltekin (online)*15:20-15:30Overview of the Image Retrieval/Generation for Arguments Task [paper]<br/>*Maximilian Heinrich*



#### Human Value Detection (ValueEval) Touché'24 Task 1



Johannes Kiesel



Milad Alshomary



Nailia Mirzakhmedova



Nicolas Handke



Bertrand De Longueville



Theresa Reitis-Münstermann



Mario Scharfbillig



Nicolas Stefanovitch



Henning Wachsmuth



Benno Stein

#### Introduction

Wealthy countries should provide a universal basic income

Such an income would make the lives of many people more secure

#### Introduction



Such income would improve working capabilities and conditions



Human Value Detection (ValueEval)







#### ValueEval'23 Demo

Openness to change We need to reduce our CO2 emissions to save Self-direction. the environment. Universalism: Self-transcender objectivity thought tolerance action Simulation nature Hedonism concern Benevolence. Self-enhancement Achievement dependability Submit dominance caring Power: resources interpersonal Humility personal societal ~ace rules Conformity: Tradition Security Conservation

valueeval23.web.webis.de

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Task Description

Values play a pivotal role in shaping perspectives on policies and events. This task aims to facilitate large-scale analyses of values expressed in argumentative texts.

Scenario: Analyzing large quantities of text for social science studies

Task: Given a text, for each sentence, detect
Subtask 1: which human values the sentence refers to (19-label task); and
Subtask 2: whether such reference (partially) attains or (partially) constrains the value

Background: Schwartz' taxonomy of personal human values has been replicated over decades in over 200 samples in 80 countries

#### ValueEval'24 Demo

Approach:	bert-baseline-en	hierocles-of	f-alex	andr	ia-en	lo	cal	cu	stor	m											
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		-																			

- 74 231 sentences in 2 648 texts in 9 languages:
   Bulgarian, German, Greek, English, French, Hebrew, Italian, Dutch, Turkish
- News articles and political manifestos (party agendas)
- Extensive annotation and curation by experts in collaboration with the Joint Research Centre of the European Commission (JRC; short talk from representative later!)
- Challenge: value distribution is highly skewed (Security: societal behind 8.6% of sentences, Humility behind 0.2% of sentences)
- Challenge: difference between annotations of different language teams





#### Results

- □ Teams largely ignored the attainment subtask
- Task much harder than last year
- □ Multilingual models perform best (top-2)
- □ Rarest value (*Humility*) detected best by zero-shot GPT-40

#	Approach	<b>F</b> <sub>1</sub> -score
1	Language-specific transformer on sequences (XLM-RoBERTa) Team Hierocles of Alexandria	0.39
2	Multi-lingual transformer ensemble (XLM-RoBERTa) Team Arthur Schopenhauer	0.35
3	Fine-tuned transformer (DeBERTa) Team Philo of Alexandria	0.28
4	Fine-tuned transformer (RoBERTa) Team SCaLAR NITK	0.28
6	GPT-4o zero-shot classification Team Erich Fromm	0.25
8	BERT Baseline	0.24
11	1-Baseline	0.06
12	Random baseline	0.06



#### Multilingual Ideology and Power Identification in Parliamentary Debates Touché'24 Task 2





Çağrı Çöltekin

Katja Meden



Nikola Ljubešić



Tomaž Erjavec



Morkevičius

Matyáš Kopp

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#### Multilingual Ideology and Power Identification in Parliamentary Debates Introduction

- Parliamentary debates result in decisions with high societal impact
- Political/parliamentary language is difficult to analyze
  - highly conventionalized
  - strategies like evasion, circumlocution or the use of metaphors are common
- □ This task is about identifying two fundamental aspects in political discourse
  - Political orientation: computational studies becoming popular, including recent shared tasks in IberLEF and EvalITA
  - *Power role*: central in discourse analysis, virtually no computational studies

#### Multilingual Ideology and Power Identification in Parliamentary Debates Task Description

- Scenario: Identify the political orientation and the power role of the speaker from their speeches in parliamentary debates.
  - Task: Given a transcribed speech delivered in a parliament *Subtask 1:* identify political orientation of the speaker (left–right) *Subtask 2:* identify power role of the speaker (coalition–opposition)
  - Data: A subset of the ParlaMint version 4.0
    - 29 national and regional parliaments (some available only for one of the tasks)
    - 30 languages (also automatic translation to English)
    - Date range varies by parliament, but includes at least from 2015 to 2022
    - Typically long texts (approx. 600 words on average)

#### Multilingual Ideology and Power Identification in Parliamentary Debates A closer look at the data



	Spee	ches	Wor	ds	
Task	Train	Test	Train	Test	
Orientation	148943	56257	90M	35M	
Power	209241	50000	135M	33M	

#### Multilingual Ideology and Power Identification in Parliamentary Debates Results: learderboard

#### Orientation

Team	$\mathbf{F}_1$ -score
Policy Parsing Panthers	0.79
gerber	0.63
HALE Lab	0.61
Pixel Phantoms	0.59
Ssnites	0.59
Trojan Horses	0.59
INSA Passau	0.59
JU_NLP_DID	0.57
Baseline	0.56

Powe	۶r
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Team	$\mathbf{F}_1$ -score
Policy Parsing Panthers	0.83
HALE Lab	0.70
Trojan Horses	0.69
gerber	0.68
Vayam Solve Kurmaha	0.68
Pixel Phantoms	0.66
Baseline	0.64
JU_NLP_DID	0.63
INSA Passau	0.62
Ssnites	0.60

#### Multilingual Ideology and Power Identification in Parliamentary Debates Results: observations

- Most teams participated in both tasks, on (almost) all parliaments
- □ Participations focusing on a single country/parliament were rare
- □ (Fine-tuning) pre-trained models often yielded the best results
- Many teams also used 'traditional' ML methods (SVMs, Logistic Regression, kNN, random forests), and deep learning methods without pre-training (CNNs)
- The use of both original transcript and English translations was common for most teams
- Interesting approaches include
  - Ensemble methods
  - Data augmentation (through back-translation, synonym replacement)
  - Adding auxiliary tasks during training (e.g., sentiment scores)
  - The use of domain-specific pre-trained models

#### Image Retrieval/Generation for Arguments [Joint Task with Touché] Touché'24 Task 3



Maximilian Heinrich



Martin Potthast



Johannes Kiesel



Benno Stein



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#### Image Retrieval/Generation for Arguments [Joint Task with Touché] Task Description

#### Scenario: Enhance impact of arguments

- Task: Given an argument, find images that help to convey the argument's premise.
  - Participants can retrieve images from our collection or generate them using a text-to-image model
  - Participants can submit an image description (rationale) to explain why the image helps to convey the premise
- Data: 106 arguments for 17 topics
  - 9145 crawled images, their webpage, position on that webpage, text extracted from that webpage, webarchive to allow to render the webpage, query used to crawl the image and rank in search engine result page, recognized text in image (OCR), detected objects in image, automated descriptions of image (LLaVA)
  - Access to a Stable Diffusion API

#### Image Retrieval/Generation for Arguments [Joint Task with Touché] Example Submission

- Topic: Should boxing be banned?
- Claim: Boxing poses both physical and psychological threats to participants, hence it should be banned.
- Premise: The idea of winning through intentional infliction of pain and harm to another person can nurture a violent and destructive mentality.

## Image Retrieval/Generation for Arguments [Joint Task with Touché] Example Submission

- Topic: Should boxing be banned?
- Claim: Boxing poses both physical and psychological threats to participants, hence it should be banned.
- Premise: The idea of winning through intentional infliction of pain and harm to another person can nurture a violent and destructive mentality.



## Image Retrieval/Generation for Arguments [Joint Task with Touché] Example Submission

- Topic: Should boxing be banned?
- Claim: Boxing poses both physical and psychological threats to participants, hence it should be banned.
- Premise: The idea of winning through intentional infliction of pain and harm to another person can nurture a violent and destructive mentality.



Rationale: The infliction of pain is a central component of boxing.

#### Image Retrieval/Generation for Arguments [Joint Task with Touché] Available Data

Tefirst-2-chars-of-image-url-hash>/	
Tefull 24 above imade uni hashy/	Directory come indo TD
inede webe	Directory Hame == Image ID
image.webp	M image in webp tormat
image-vision.json	M Contains an Annotateimageresponse from the Google Cloud Vision API. Included annotations, face detection, label annotations, localized on
ject annotations, text annotations, full t	ext annotation, safe search annotation, web detection. Documentation: https://web.archive.org/web/20230130192539/https://cloud.google.com/vision
/docs/reference/rest/v1/AnnotatelmageRespo	nse
image-url.txt	M URL of the image
image-text.txt	M The text recognized by Google Cloud Vision, extracted from image-vision.json
image-caption.txt	M Description of the image, automatically generated with LLaVa
image-phash.txt	M 64bit pHash of the (WebP) image as string: https://www.phash.org/
pages/	
P <full-24-chars-page-url-hash>/</full-24-chars-page-url-hash>	Directory name == page ID
page-url.txt	M URL of the web page (containing the image)
rankings.jsonl	M Each line contains a JSON object describing a query to Google that retrieved the image/page as follows:
	£
	"query":" <query text="">",</query>
	"rank": <image 1="" in="" list="" page="" rank="" result="" starting="" with=""/>
	}
snapshot/	
dom.html	M Snapshot of the HTML DOM
image-xpath.txt	M Each line contains the XPath of a node in the dom.html that references the image (img. picture, or meta in this order)
nodes.isonl	N Each line contains a JSON object describing a node of dom.html as follows:
100000040000	1
	"xPath": " <xpath dom="" html="" in="" node="" of="" the="">".</xpath>
	"visible": <rolean 33456469="" a="" as="" https:="" is="" ner="" node="" stackoverflow.com="" the="" visible="" whether=""></rolean>
	"alacese": ["contry of the class attributes" ]
	"nostition": [
	cleft harder of mode pixel position in screenshot weep starting left with 0
	the border of node pixel position in screenshot webp starting fer with 0x,
	which bender of adde pixel position in screening when starting top with 0x
	chight bolder of node pixel position in screenshot web starting for with 0,
	solution bolder of hode pixer position in screenshot.webp starting top with 62
	J /
	text : text content of the node ,
	"CSS": {
	" <css-attribute>": "<css-attribute value="">",</css-attribute></css-attribute>
	E and the second se
screenshot.png	S Screenshot of the page in PNG format
text.txt	M Text content of the dom.html (taken from the first node of the nodes.jsonl)
web-archive.warc.gz	A Web archive file containing all resources requested when taking the snapshot

 For each of 106 arguments (topic, premise, claim), each submitted image and rationale was judged by one expert (5061 judgments in total)

Judgment:

- 0: Image does not convey the premise1: Image partially conveys the premise
- 2: Image fully conveys the premise

80%		
12%		
8%		

- Observation: more than half of the images scored 0 are still on-topic
- Systems were evaluated using NDCG@5, NDCG@3, NDCG@1; respective rankings are nearly identical

Team	Approach	NDCG@5
HTW-DIL	Ada-Summary	0.428
HTW-DIL	Moondream-Text	0.363
HTW-DIL	Moondream-Image-Text-Default	0.293
Baseline	BM25	0.284
Baseline	SBERT	0.232
DS@GT	Generated-Image-CLIP	0.180
HTW-DIL	Moondream-Image-Text-3epochs	0.150
HTW-DIL	Moondream-Image	0.146
DS@GT	Base-CLIP	0.123
HTW-DIL	Moondream-Image-Text-2epochs	0.120

Baselines:

- BM25: Indexed LLaVA captions; Ranked using premise as query
- SBERT: Ranked according to embedding similarity between premise and LLaVA captions

Team	Approach	NDCG@5
HTW-DIL	Ada-Summary	0.428
HTW-DIL	Moondream-Text	0.363
HTW-DIL	Moondream-Image-Text-Default	0.293
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HTW-DIL	Moondream-Image	0.146
DS@GT	Base-CLIP	0.123
HTW-DIL	Moondream-Image-Text-2epochs	0.120

DS@GT:

- Base-CLIP: Ranked according to CLIP embedding similarity between arguments and images
- Generate-Image-CLIP: Re-ranked top-40 from Base-CLIP by CLIP average embedding similarity to generated images; images are generated using StableDiffusion from attacking/supporting claims themselves generated using TinyLlama

Team	Approach	NDCG@5
HTW-DIL	Ada-Summary	0.428
HTW-DIL	Moondream-Text	0.363
HTW-DIL	Moondream-Image-Text-Default	0.293
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HTW-DIL	Moondream-Image	0.146
DS@GT	Base-CLIP	0.123
HTW-DIL	Moondream-Image-Text-2epochs	0.120

HTW-DIL:

	Moondream: Ranked according to
	Moondream embedding similarity between
	arguments and embeddings generated
	from:
	(1) the image (Moondream-Image),
	(2) the Bart-summarized webpage and
	crawl query (Moondream-Text),
	(3) both (Moondream-Image-Text-Default),
	or
	(4) both and after fine-tuning for 2 or
	3 epochs to maximize similarity between
	the images in the dataset and arguments
	generated using GPT-4 from image and
	metadata

Team	Approach	NDCG@5
HTW-DIL	Ada-Summary	0.428
HTW-DIL	Moondream-Text	0.363
HTW-DIL	Moondream-Image-Text-Default	0.293
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DS@GT	Generated-Image-CLIP	0.180
HTW-DIL	Moondream-Image-Text-3epochs	0.150
HTW-DIL	Moondream-Image	0.146
DS@GT	Base-CLIP	0.123
HTW-DIL	Moondream-Image-Text-2epochs	0.120

HTW-DIL:

 Ada-Summary: Ranked according to ADA embedding similarity between arguments and textual data for each image (Bart-summarized webpage and crawl query)

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HTW-DIL	Ada-Summary	0.428
HTW-DIL	Moondream-Text	0.363
HTW-DIL	Moondream-Image-Text-Default	0.293
Baseline	BM25	0.284
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DS@GT	Generated-Image-CLIP	0.180
HTW-DIL	Moondream-Image-Text-3epochs	0.150
HTW-DIL	Moondream-Image	0.146
DS@GT	Base-CLIP	0.123
HTW-DIL	Moondream-Image-Text-2epochs	0.120

Observations:

- □ Top-2 approaches do not use the image itself (though images are from focused crawled via Google image search → image was indirectly used in crawling)
- No team submitted generated images, though image generation was used for re-ranking
- No team submitted rationales

#### Image Retrieval/Generation for Arguments [Joint Task with Touché] Lessons Learned

Improvements for 2025

- □ More focused image crawl for more relevant images in the collection
- Searching for arguments for a claim instead of topic + claim + premise to avoid confusing both participants and models
- Providing more baseline implementations to advertise all the different data we collected for each image (OCR, recognized objects, web page, automated captions)

#### **Touché: Argumentation Systems**

16:30-18:00	Touché Session 2 (Participant Presentations and Invited Talk)
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17:55-18:00	Closing Johannes Kiesel

#### Main Organizing Team

- □ Johannes Kiesel (Bauhaus-Universität Weimar)
- □ Martin Potthast (University of Kassel)
- Benno Stein (Bauhaus-Universität Weimar)

#### **Core Team for TIRA Support**

- □ Maik Fröbe (Friedrich-Schiller-Universität Jena)
- □ Tim Hagen (University of Kassel)



#### Task 1: Retrieval-Augmented Debating (RAD)

- Scenario: Assisting people in forming an opinion on controversial topics and training argumentation skills
  - Tasks: (1) Retrieve and respond with counterarguments and evidence in simulated debates; (2) Automate the evaluation of such systems
  - Data: Collection of over 300 000 claims and 100 judged baseline debates



- User: (simulated by organizers) states a claim and attacks the system's responses.
- System: (submitted by participants) counterattacks arguments of user or defends own arguments.



Task 2: Ideology and Power Identification in Parliamentary Debates

- Scenario: To better understand how political ideology and the position of the speaker affects parliamentary debates
  - Tasks: (1) Determine a speaker's political orientation and (2) whether their party is governing or in opposition (multi-lingual)
  - Data: Speech samples from multiple national/regional parliaments from the ParlaMint project, and their automatic translations to English
- □ This task is a re-run of the previous year's task
- □ Main differences:
  - Multi-class ideology classification
  - Identifying members of the government





Task 3: Image Retrieval/Generation for Arguments (ArgImages)

Scenario: Reinforce the impact of arguments with images.

Task: Given a claim, find (retrieve or generate) images that convey that claim



Data: Hand-picked claims (similar to topics in TREC), collection of 20,000 images (meta-information: OCR, recognized objects, LLM image descriptions, ...), text-to-image generation API

Example:

Image retrieved for claim: "Gambling can be a joyful activity"

Assessment: good



#### Task 4: Advertisement in Retrieval-Augmented Generation

- Scenario: Commercial RAG systems / LLMs may integrate advertisements in their generated answers and users may want to block them
  - Tasks: (1) Generate relevant responses to queries that advertise a specified brand or product; (2) Detect the advertisements of others
  - Data: The Webis Generated Native Ads 2024 dataset containing 11k generated responses and 6k inserted advertisements

#### Example:

Query	Original Response	Product with Qualities to Advertise	Response with Advertisement
spider man remastered	Are you looking for information about Marvel's Spider-Man Remastered? It is an action- packed game	PlayStation 5 - 4K graphics - innovative	Are you looking for information about Marvel's Spider- Man Remastered? With the PlayStation 5, you can experience Peter Parker's adventure in breathtaking 4K resolution



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#### **Touché: Argumentation Systems** Stay Up-to-Date: Register to our New Mailing List!





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