

Measuring Digital Democracy: The Digital Democracy Score (DDS)

<https://www.digital-democracy.net>

Paderborn University
Department of Media Studies
Media Systems and Media
Organisation Research Group



Workshop Schedule

3 Parts

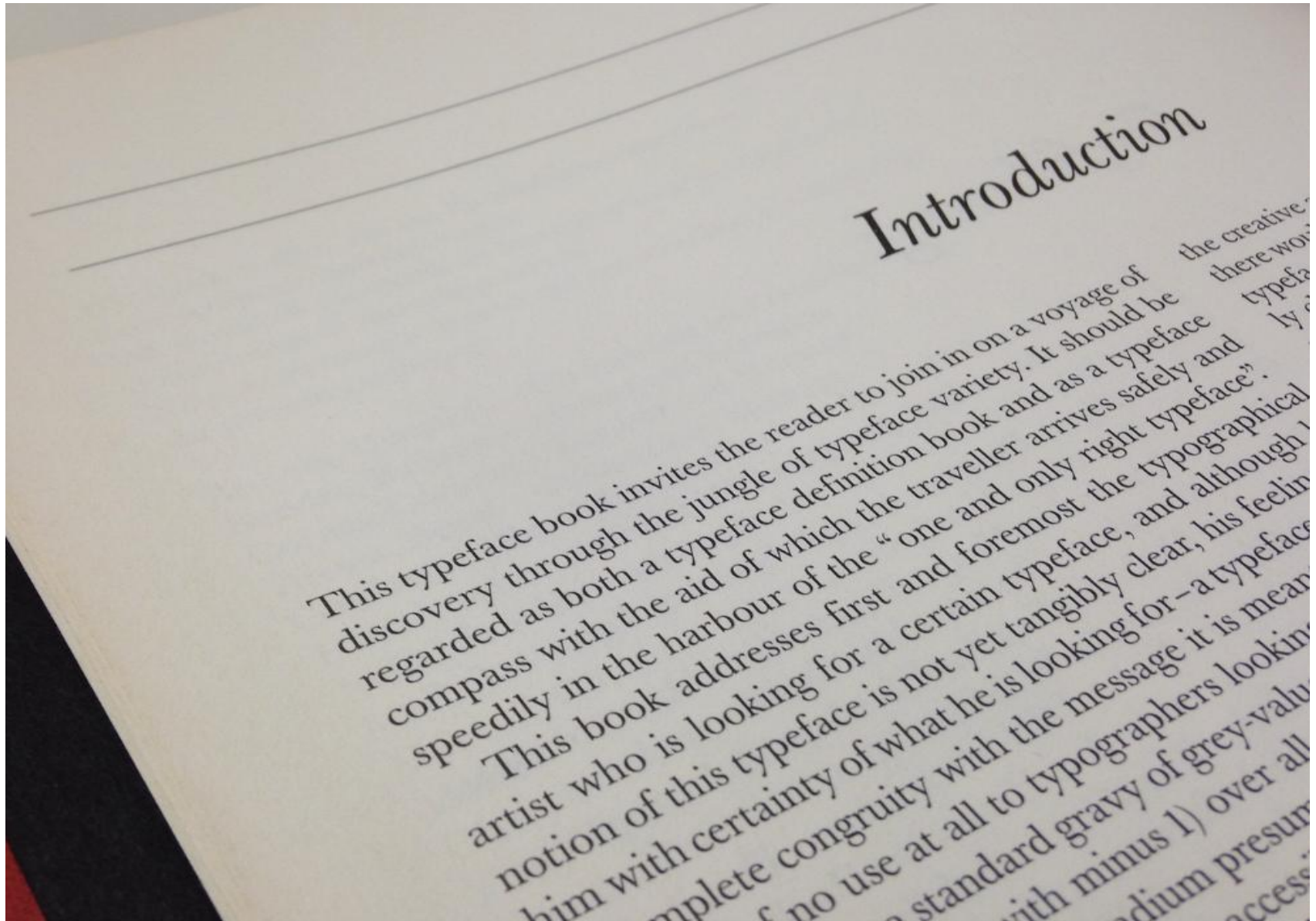
Part 1: Introduction to the Digital Democracy Score (DDS)'s Background and Methodology

1. Context
2. Measuring (Digital) Democracy
3. The Digital Democracy Score (DDS)

Part 2: Demonstration of the DDS

Part 3: Questions and Discussion

1. Context



1. Context

The INNOVADE Research Project

- 36 month long research project
- Duration: 1 January 2025 until 31 December 2027
- Funded by the EU's Horizon Europe programme, research funding cluster, Culture, Creativity and Inclusive Society)
- 11 project partners from Belgium, Germany, Greece, Italy, Spain
- INNOVADE's overall aim is to better understand and improve digital democracy in the EU
- The role of Paderborn University's Media Systems and Media Organisation Group in the project is to conduct theoretical and empirical social research about digital democracy.

1. Context

INNOVADE WP2: State of the Art: Building an Interdisciplinary Knowledge Base on Digital Democracy
Task 2.9: Development of the Digital Democracy Grading Toolkit (Lead: UPB, M9 – M12).

The research in this task will develop a **social science method for assessing digital democracy**. The method will be based on the outcomes of research tasks 2.1-2.8. First, the researchers will review the outcomes of work tasks 2.1-2.8, which will result in an identification of key dimensions of digital democracy and the key questions that need to be asked when we talk about digital democracy. Second, these key dimensions will be operationalised in the form of a **quantitative survey questionnaire and a methodology that calculates a digital democracy score based on the answers to the survey items**. The grading toolkit will be made **available online**.

1. Context

Deliverable D2.2 – Digital Democracy Grading Toolkit (KER 2)

Type: DEM — Demonstrator, pilot, prototype
Dissemination Level PU - Public

This output will be a toolkit to test governments' (local, regional or national) approaches to digital democracy. Based on a survey that will question the level of government activity in digital democracy and citizen's participation in digital democracy, the toolkit will output a score that assesses the quality of digital democracy.

2. Measuring (Digital) Democracy



2. Measuring (Digital) Democracy

Measuring Democracy

Freedom House's Freedom in the World (FIW),
Polity5 (P5),
V-Dem: Varieties of Democracy,
Economist Intelligence Unit Democracy Index (DI)

Measuring Digital Democracy:

UN E-Participation Index (EPI),
Freedom House's Freedom on the Net (FOTN),
V-Dem's Digital Society Project indicators (DSP),
DigiPart (Digital Participation)-Index (DPI)

	FIW	P5	V-Dem	DI
Scope	Nation-states	Nation-states	Nation-states	Nation-states
Method	Expert assessment of 208 countries (2025)	Expert assessment of 163 countries for the period from 1800 until 2018	Expert survey	Assessment of 202 countries (2024) for varying time periods ranging from 1789 at earliest until 2024
Respondents	136 analysts and 45 advisers (2025)	Country experts	More than 4,000 country experts (2025), usually at least 5 experts per country	Analysts, number unknown
Aspects of democracy	Electoral democracy, civil liberties: Model of representative and constitutional democracy	Type of political system with a focus on electoral democracy: Model of representative democracy	Varieties of models of democracy: representative democracy, direct democracy, constitutional democracy, participatory democracy, deliberative democracy	Electoral democracy, civil liberties: Models of representative and constitutional democracy

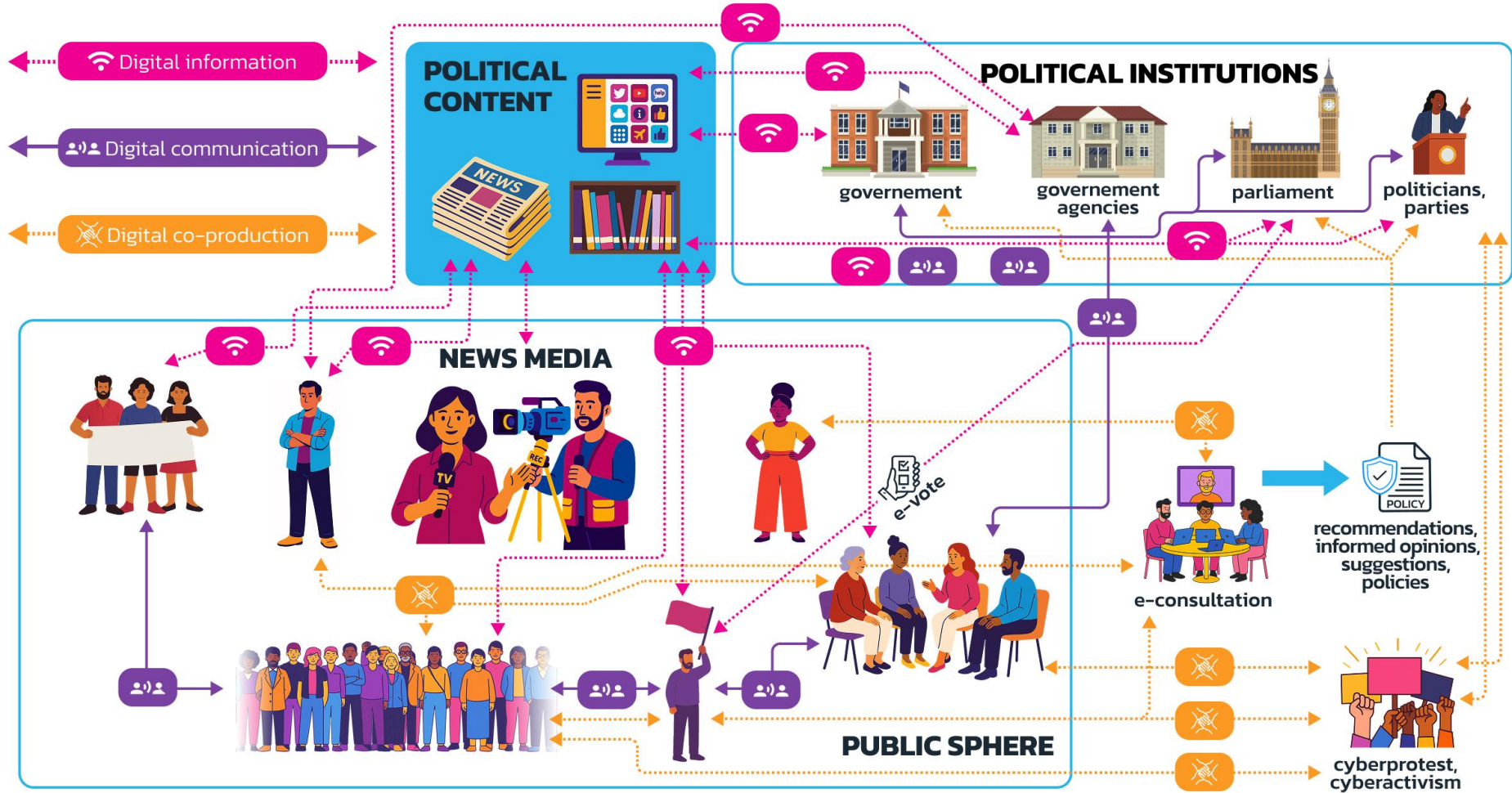
	EPI	FOTN	DSP	DPI
Scope	Nation-states	Nation-states	Nation-states	Federal states/cantons
Method	Classification of answers to a member state survey	Survey focused on 72 countries (2024)	Survey focused on 179 countries (2025)	Assessment of the level of participation in three domains of digital politics: opinion-formation, co-creation, and decision-making
Respondents	UN member states	At least one expert researcher or organisation per country	Usually at least 5 experts per country	Researcher-coded assessments
Aspects of democracy	Representative digital democracy	Constitutional digital democracy	Constitutional digital democracy, pluralist digital democracy	Representative digital democracy, deliberative digital democracy, participatory digital democracy

2. Measuring (Digital) Democracy

Characteristics of many methods for the measurement of (digital) democracy:

- Expert surveys
- "Methodological nationalism": strong focus on the nation-state as organisational level
- Non-scalability
- Restricted models of democracy:
strong focus on representative democracy, especially electoral democracy

3. The Digital Democracy Score (DDS)

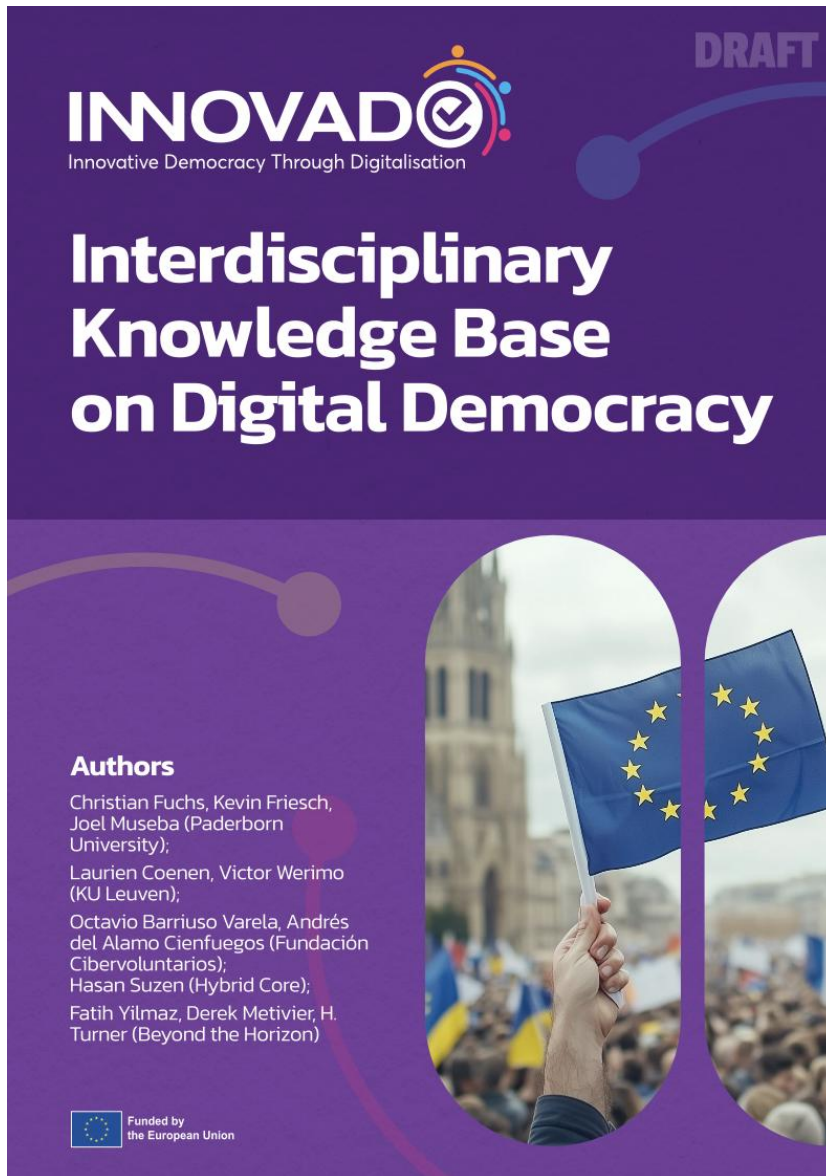


3. The Digital Democracy Score (DDS)

Features of the DDS

- **Project-focused** methodology beyond methodological nationalism
- **Scalable** methodology:
municipalities/local cities, the region, the nation-state, transnationalism
- **Varieties of digital democracy**
constitutional, deliberative, participatory, representative, direct and pluralist digital democracy
- Varieties of digital democracy **scores**
- **Unity of digital democracy's variety**

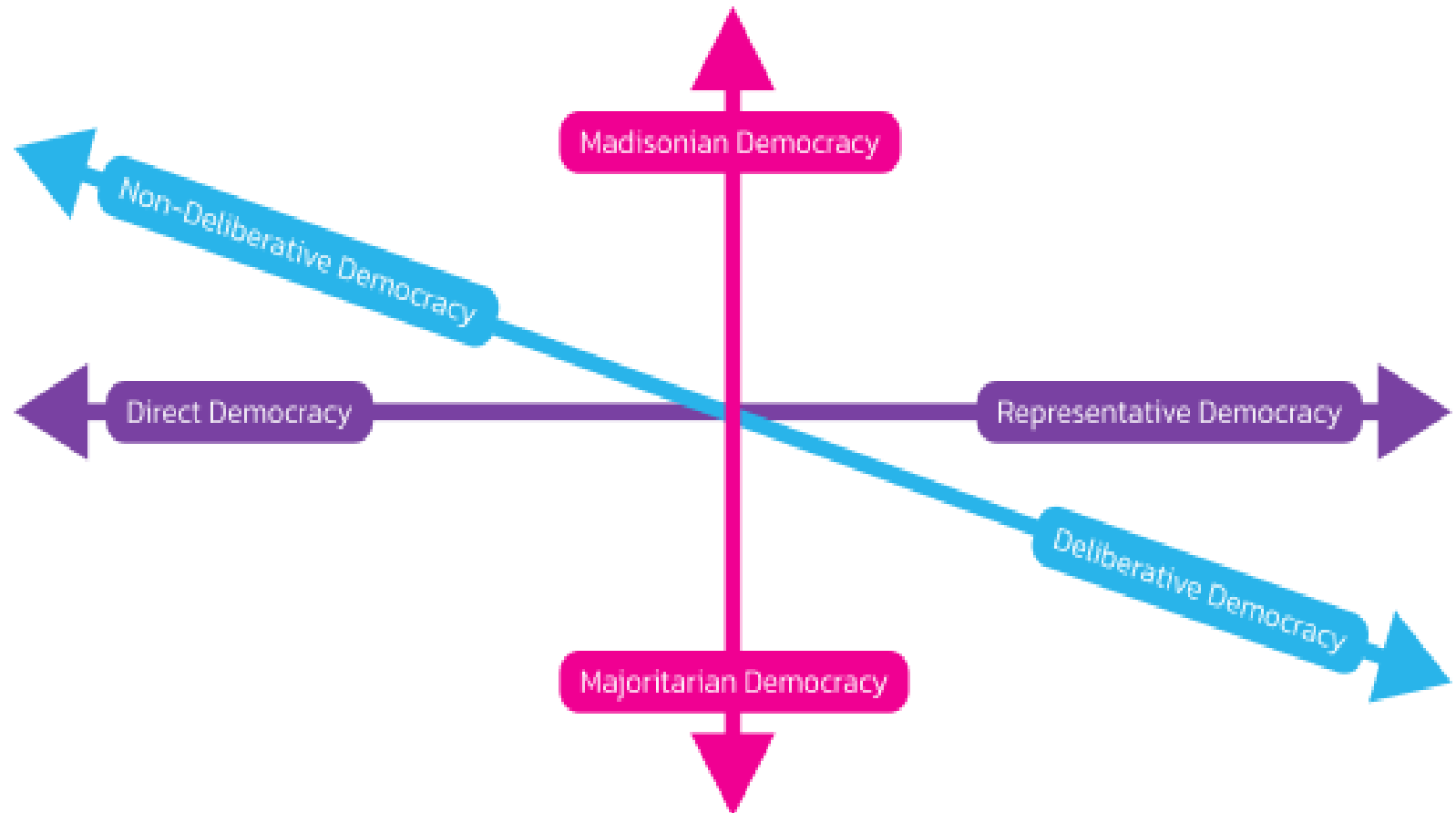
3. The Digital Democracy Score (DDS)



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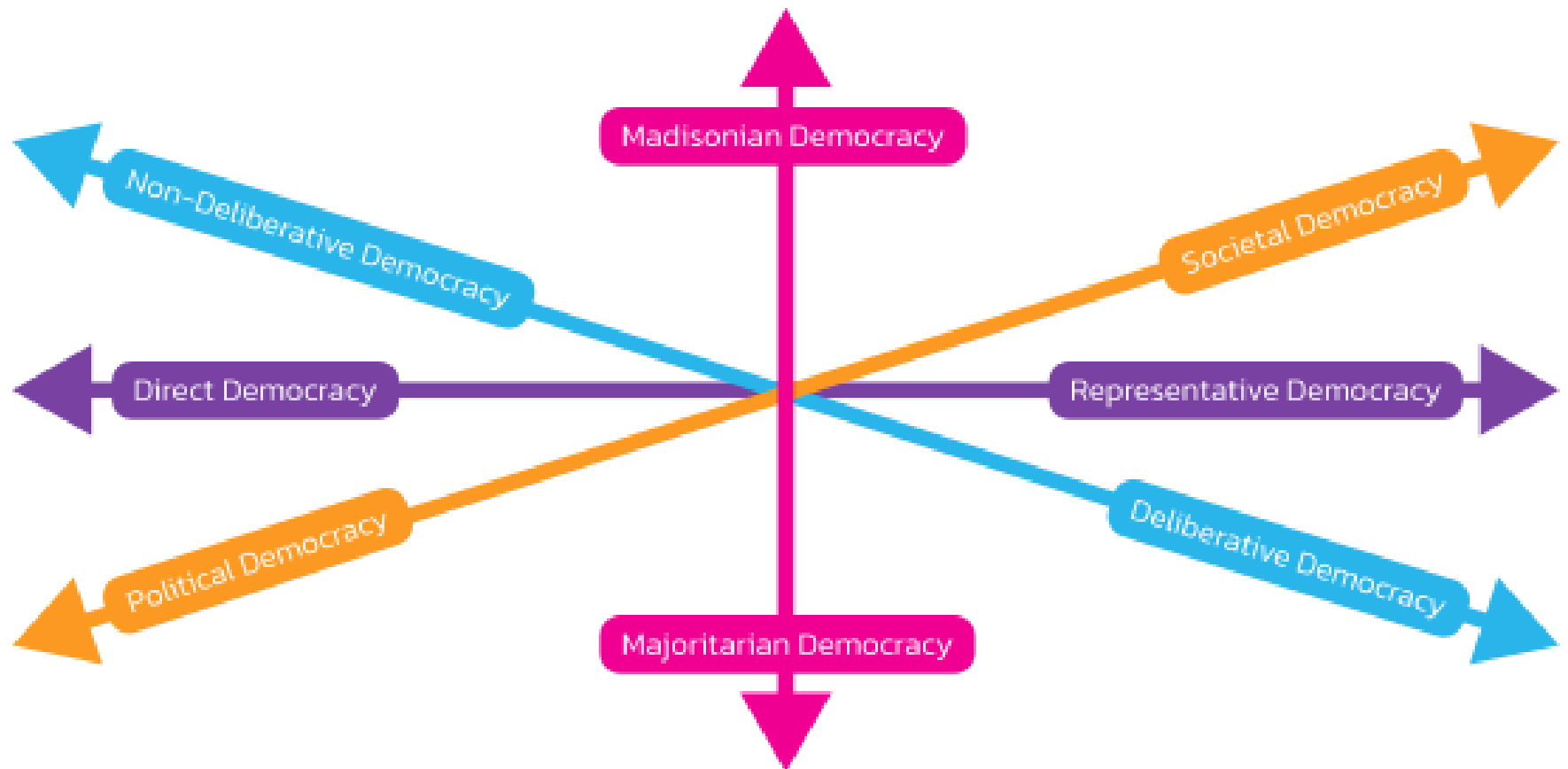
Fishkin, James S. 1991. *Democracy and Deliberation. New Directions for Democratic Reform*. New Haven, CT: Yale University Press.

Fishkin's typology does not take into account participatory democracy.



3. The Digital Democracy Score (DDS)

Typology of democracy and dimensions of democracy



Base of Democracy: Constitutional Democracy

3. The Digital Democracy Score (DDS)

Six models and dimensions of democracy

Constitutional Digital Democracy

Deliberative Digital Democracy

Participatory Digital Democracy

Representative Digital Democracy

Direct Digital Democracy

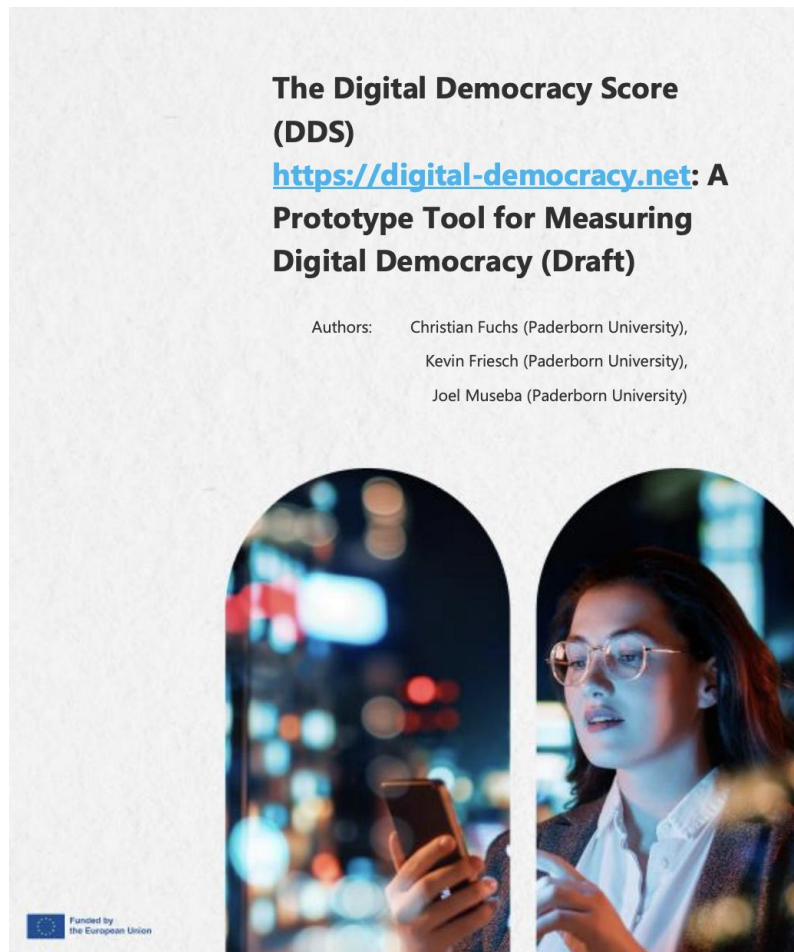
Pluralist Digital Democracy

3. The Digital Democracy Score (DDS)

DDS Methodology Paper:

details on the DDS' methodology, available via

<https://www.digital-democracy.net>



3. The Digital Democracy Score (DDS)

CODDI: **Constitutional** Digital Democracy Index

DEDDI: **Deliberative** Digital Democracy Index

PADDI: **Participatory** Digital Democracy Index

REDDI: **Representative** Digital Democracy Index

DIDDI: **Direct** Digital Democracy Index

PLUDDI: **Pluralist** Digital Democracy Index

=> **DDS: Digital Democracy Scores**

DDS Rating Scale: all indexes and scores: 0..100 points

> 90: very high level

81-90: good level

61-80: medium level

51-60: low level

< 50: very low level

3. The Digital Democracy Score (DDS)

Demonstration of the DDS prototype

Based on LimeSurvey: free/open source survey software



Domain:

<https://www.digital-democracy.net>

Data minimisation strategy:

no storage of personal data, including no storage of IP
access data

3. The Digital Democracy Score (DDS)

DIGITAL DEMOCRACY SCORE (DDS) RESULTS

0..100 points

> 90: very high level

81-90: good level

61-80: medium level

51-60: low level

< 50: very low level

Constitutional Digital Democracy Index (CODDI): 100

CODDI measures how well your digital democracy app/system respects democratic constitutional rights (basic and human rights)

Deliberative Digital Democracy Index (DEDDI): 100

DEDDI measures the quality of online debating your digital democracy app/system supports.

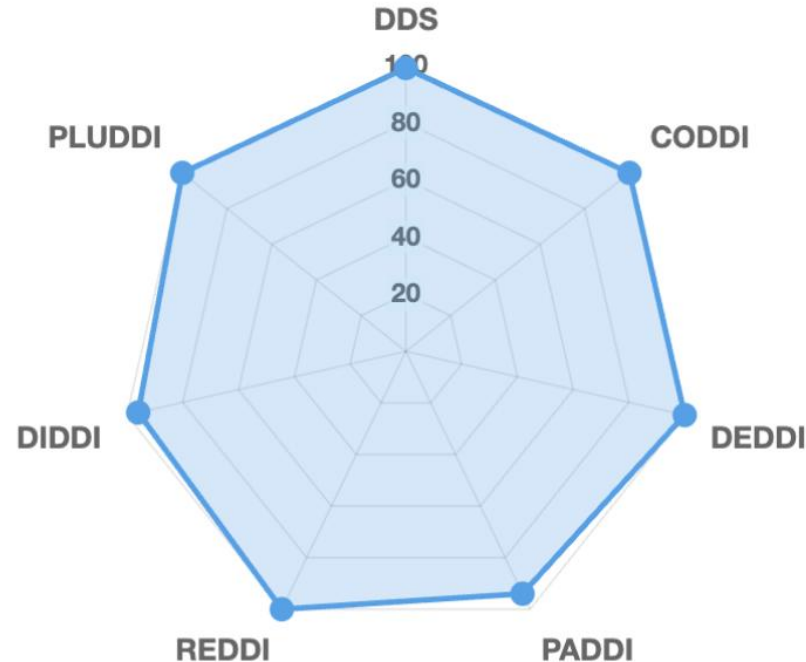
Participatory Digital Democracy Index (PADDI): 94

PADDI measures the quality of political participation your digital democracy app/system supports.

3. The Digital Democracy Score (DDS)

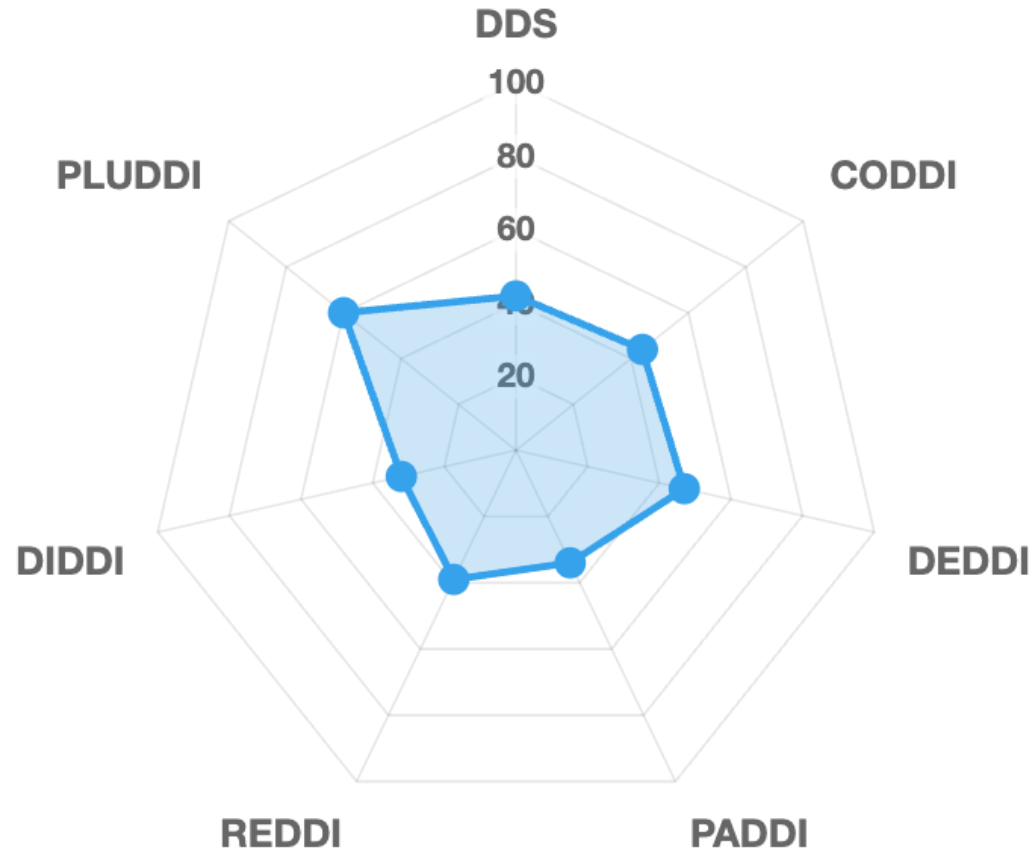
SPIDER CHART OF YOUR DIGITAL DEMOCRACY SCORES:

You can download the chart as an image file by right-clicking on the image and saving it.



Digital Democracy Score (DDS) = 99
Constitutional Digital Democracy (CODDI) = 100
Deliberative Digital Democracy (DEDDI) = 100
Participatory Digital Democracy (PADDI) = 94
Representative Digital Democracy (REDDI) = 100
Direct Digital Democracy (DIDDI) = 96
Pluralist Digital Democracy (PLUDDI) = 100

3. The Digital Democracy Score (DDS)



Digital Democracy Score (DDS) = 42
Constitutional Digital Democracy (CODDI) = 44
Deliberative Digital Democracy (DEDDI) = 47
Participatory Digital Democracy (PADDI) = 34
Representative Digital Democracy (REDDI) = 39
Direct Digital Democracy (DIDDI) = 32
Pluralist Digital Democracy (PLUDDI) = 60