

# What is Democracy from a Legal Perspective and what can Computers do for it – again, from a Legal Perspective?

Dagstuhl Seminar: Challenges and Opportunities of Democracy in the Digital Society

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September 4, 2022



# I. What is Democracy?



# I. What is Democracy?

1. 50% + 1?

**50% + 1**

# I. What is Democracy?

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1. 50% + 1?

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**101**

*English is not an official language of the Swiss Confederation. This translation is provided for information purposes only and has no legal force.*

## **Federal Constitution of the Swiss Confederation**

of 18 April 1999 (Status as of 13 February 2022)

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# I. What is Democracy?

## 1. 50% + 1?

### **Art. 142** Required majorities

- <sup>1</sup> Proposals that are submitted to the vote of the People are accepted if a majority of those who vote approve them.
- <sup>2</sup> Proposals that are submitted to the vote of the People and Cantons are accepted if a majority of those who vote and a majority of the Cantons approve them.
- <sup>3</sup> The result of a popular vote in a Canton determines the vote of the Canton.
- <sup>4</sup> The Cantons of Obwalden, Nidwalden, Basel-Stadt, Basel-Landschaft, Appenzell Ausserrhoden and Appenzell Innerrhoden each have half a cantonal vote.

# I. What is Democracy?

## 1. 50% + 1?



# I. What is Democracy?

## 2. Democracy and Rule of Law

### Art. 164      Legislation

<sup>1</sup> All significant provisions that establish binding legal rules must be enacted in the form of a federal act. These include in particular fundamental provisions on:

- a. the exercise of political rights;
- b. the restriction of constitutional rights;
- c. the rights and obligations of persons;
- d. those liable to pay tax as well as the subject matter and assessment of taxes and duties;
- e. the duties and services of the Confederation;
- f. the obligations of the Cantons in relation to the implementation and enforcement of federal law;
- g. the organisation and procedure of the federal authorities.

<sup>2</sup> Legislative powers may be delegated by federal act unless this is prohibited by the Federal Constitution.

# I. What is Democracy?

## 2. Democracy and Rule of Law

### **Art. 16** Freedom of expression and of information

- <sup>1</sup> Freedom of expression and of information is guaranteed.
- <sup>2</sup> Every person has the right freely to form, express, and impart their opinions.
- <sup>3</sup> Every person has the right freely to receive information to gather it from generally accessible sources and to disseminate it.

### **Art. 26** Guarantee of ownership

- <sup>1</sup> The right to own property is guaranteed.
- <sup>2</sup> The compulsory purchase of property and any restriction on ownership that is equivalent to compulsory purchase shall be compensated in full.

### **Art. 27** Economic freedom

- <sup>1</sup> Economic freedom is guaranteed.
- <sup>2</sup> Economic freedom includes in particular the freedom to choose an occupation as well as the freedom to pursue a private economic activity.

# I. What is Democracy?

## 2. Democracy and Rule of Law

### **Art. 29a<sup>4</sup>** Guarantee of access to the courts

In a legal dispute, every person has the right to have their case determined by a judicial authority. The Confederation and the Cantons may by law preclude the determination by the courts of certain exceptional categories of case.



# I. What is Democracy?

## 3. Democracy as a Process

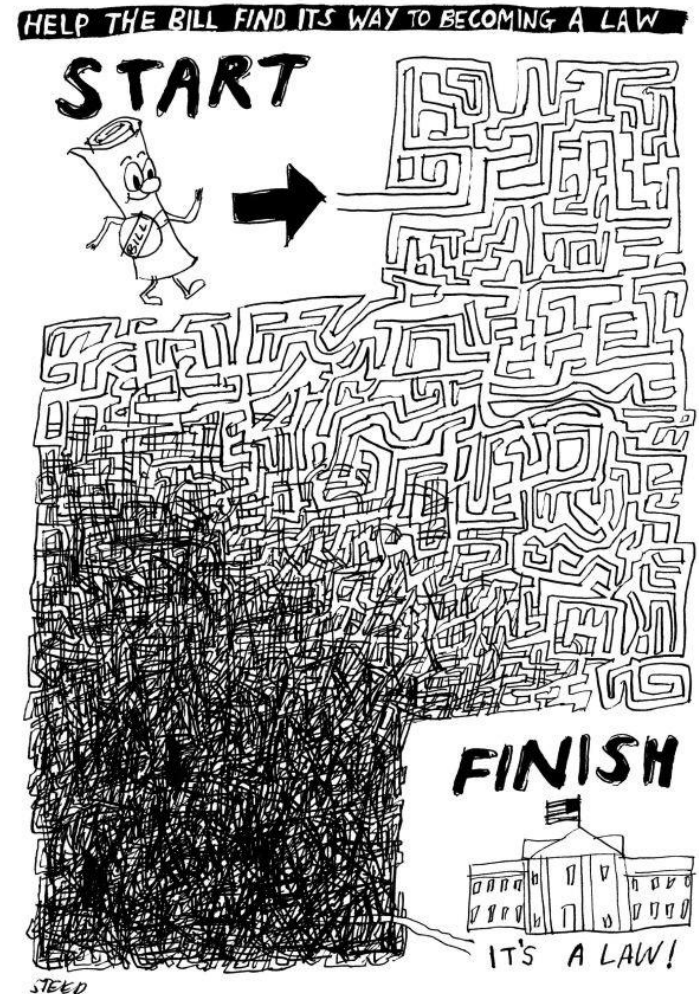


**"Laws are Like Sausages. Better Not to See Them Being Made."**

# I. What is Democracy?

## 3. Democracy as a Process

"Due Process of Lawmaking" (LINDE)?



# I. What is Democracy?

## 3. Democracy as a Process

**Art. 139<sup>90</sup>** Popular initiative requesting a partial revision of the Federal Constitution in specific terms

<sup>1</sup> Any 100,000 persons eligible to vote may within 18 months of the official publication of their initiative request a partial revision of the Federal Constitution.

<sup>2</sup> A popular initiative for the partial revision of the Federal Constitution may take the form of a general proposal or of a specific draft of the provisions proposed.

<sup>3</sup> If the initiative fails to comply with the requirements of consistency of form, and of subject matter, or if it infringes mandatory provisions of international law, the Federal Assembly shall declare it to be invalid in whole or in part.

# I. What is Democracy?

## 3. Democracy as a Process



# I. What is Democracy?

## 3. Democracy as a Process

### **Art. 147** Consultation procedure

The Cantons, the political parties and interested groups shall be invited to express their views when preparing important legislation or other projects of substantial impact as well as in relation to significant international treaties.

### **Art. 158** Public meetings

Meetings of the Councils are held in public. The law may provide for exceptions.

### **Art. 159** Quorum and required majority

<sup>1</sup> The Councils are quorate if a majority of their members is present.

# I. What is Democracy?

## 3. Democracy as a Process



# I. What is Democracy?

## 3. Democracy as a Process

The screenshot shows a web browser window displaying a news article from the Swiss Federal Administration (BJ). The browser's address bar shows the URL: <https://www.bj.admin.ch/bj/de/home/aktuell/mm.msg-id-90040.html>. The article title is "Neue Transparenzregeln bei der Politikfinanzierung gelten erstmals für die Nationalratswahlen 2023". The article text states: "Bern, 24.08.2022 - Der Bundesrat hat an seiner Sitzung vom 24. August 2022 die Verordnung über die Transparenz bei der Politikfinanzierung verabschiedet und zusammen mit dem geänderten Bundesgesetz über die politischen Rechte auf den 23. Oktober 2022 in Kraft gesetzt. Die neuen Regeln für mehr Transparenz bei der Politikfinanzierung gelten erstmals für die Nationalratswahlen 2023." Below this, it mentions: "Das Parlament hat am 18. Juni 2021 einen indirekten Gegenvorschlag zur Transparenz-Initiative verabschiedet. Diese wurde in der Folge zurückgezogen. Beim indirekten Gegenvorschlag handelt es sich um neue Vorschriften über die Offenlegung der Finanzierung von politischen Parteien sowie von Wahl- und Abstimmungskampagnen im Bundesgesetz über die". On the right side of the article, there is a "Medienmitteilungen abonnieren" (Subscribe to press releases) section with a text input field for "Ihre Mail-Adresse" and a "Senden" button. The browser's taskbar at the bottom shows various application icons and the system clock indicating 07:58 on 31.08.2022.

# II. What can Computers do for Democracy?

## 1. What is a Computer?



# II. What can Computers do for Democracy?

## 2. What are Computers good at? – Information



### BULLETIN Nr. 1

Juli / juillet 1983    erscheint 4 mal im Jahr / paraît 4 fois par année

#### Nordwestschweiz    neu

Mäser, F.	546
Schaffner, U.	481
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Berger, M.	444 475
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Hafner, R.	460
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Fritsche, A.	442
Mäser, P.	405 430
Reimer, E.	428
Gasser, St.	371 415
Uhlmann, F.	408 415
Landolt, Beat	414
Hornstein, B.	410
Nekora, S.	353 400

Partie 5.5 Uhlmann - Frey, D. Italienisch. 1.é4 é5 2.Sf3 Sc6 3.Lc4 Lc5  
4.c3 Sf6 5.d4 éd 6.cd Lb4+ 7.Ld2 Lxd2+ 8.Sxd2 d6?! (besser d5) 9.OO  
OO 10.h3 Té8 11.Db3 Té7 12.é5 dé 13.dé Sxé5 14.Sxé5 Txé5 15.Lxf7+ Kh8  
16.Sf3 Té7 17.Lc4 b6 18.Sg5 Df8 19.Tad1 c5? (19.- h6) 20.Sf7+ Txf7 21.  
Lxf7 Lb7 22.Lc4 Té8 23.Tfé1 S64 24.Df3 D67 25.Ld5 Lxd5 26.Txd5 h6 27.  
Dd3 Dh4 28.g3 Df6 1:0

# II. What can Computers do for Democracy?

## 2. What are Computers good at? – Bringing People Together

The screenshot displays a web browser window with the Lichess search results page. The address bar shows the URL: <https://lichess.org/@/Karteus/search?perf=2&players.a=karteus&sort.field=d&sort.order=desc>. The page lists three chess games:

- Game 1:** Played 15 hours ago between **FM sergeikim2003** (2530 +5) and **Karteus** (2478 -5). The result is a time violation by Black, with White winning. The opening is **A90 Dutch Defense: Classical Variation** (1. d4 e6 2. c4 f5 3. g3 Nf6 ... 40 moves). Computer analysis is available.
- Game 2:** Played 15 hours ago between **Karteus** (2474 +4) and **lariveee** (2302 -3). The result is checkmate by White. The opening is **B01 Scandinavian Defense** (1. e4 d5 2. e5 Nf6 3. exf6 gxf6 ... 33 moves).
- Game 3:** Played 15 hours ago between **FM cukierbd** (2520 +5) and **Karteus** (2479 -5). The result is that Black has given up, with White winning.

The Windows taskbar at the bottom shows the system tray with the date and time: 08:22, 31.08.2022.

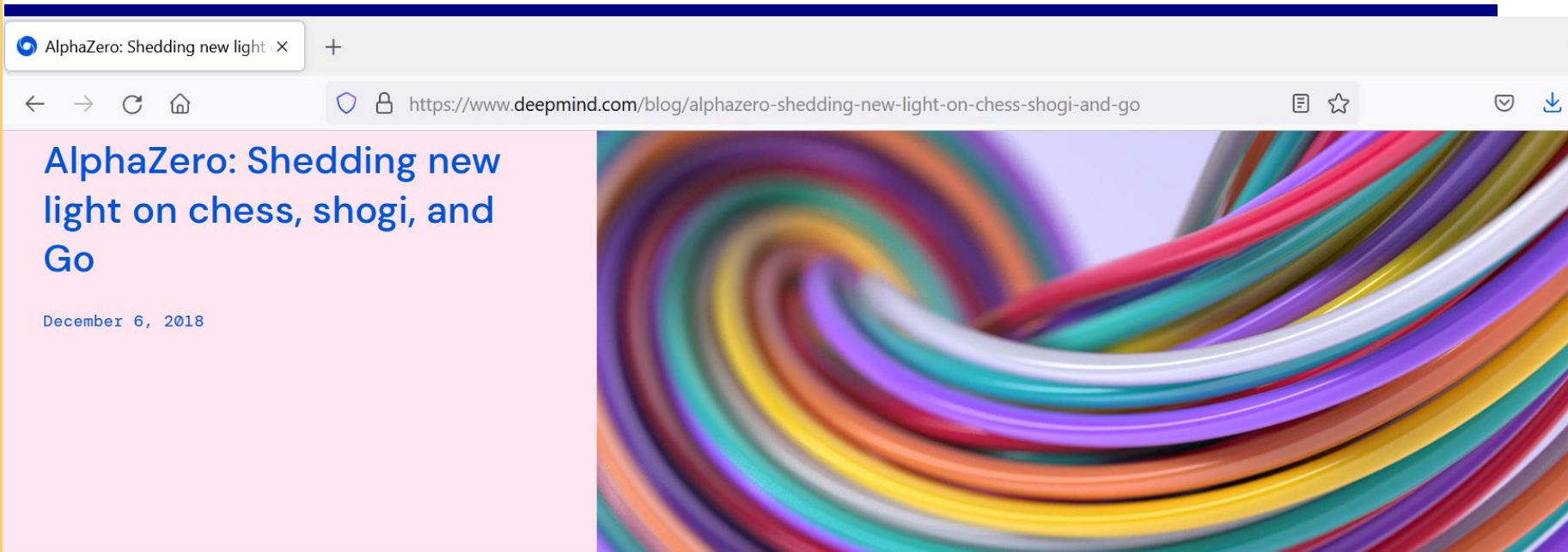
# II. What can Computers do for Democracy?

## 2. What are Computers good at? – Thinking?

The screenshot shows a web browser window displaying a chess game on Lichess.org. The game is between Karteus (white) and pesedado (black). The game is in progress, and the engine analysis shows a score of +1.8 for white. The engine is Stockfish 14+ NNUE, and the analysis depth is 29/29, 1464k nodes/s. The game board shows a complex position with a king on g5 and a queen on f5. The engine analysis shows a sequence of moves: 23. f5, 24. Qxe3, 25. f6, 26. Wd4, 27. Ke1, 28. Wxe5, 29. fxg7, 30. Wf8, 31. Qd2, 32. Qxg2, 33. Qd5, 34. Qf1, 35. g5, 36. f5, 37. Ke8, 38. Qf8, 39. We4, 40. Qc7, 41. Wg6+, 42. Qh8, 43. Kh2, 44. Kh7, 45. Ke7, 46. f7. The engine analysis shows a score of +1.8 for white, indicating a strong advantage. The interface also shows a chat window, a timer, and a notification that Lichess will restart in 7 minutes.

# II. What can Computers do for Democracy?

## 2. What are Computers good at? – Thinking?



In late 2017 we introduced [AlphaZero](#), a single system that taught itself from scratch how to master the games of chess, [shogi](#)(Japanese chess), and [Go](#), beating a world-champion program in each case. We were excited by the preliminary results and thrilled to see the response from members of the chess community, who saw in AlphaZero's games a ground-breaking, highly dynamic and "[unconventional](#)" style of play that differed from any chess playing engine



## II. What can Computers do for Democracy?

### 3. How to Use Computers? – E-Voting?



## II. What can Computers do for Democracy?

### 3. How to Use Computers? – E-Voting?



Rousseau, *Contrat social*:  
"Plébiscite de tous les jours"?

# II. What can Computers do for Democracy?

## 3. How to Use Computers? – Consultation

**172.061**

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### **Federal Act on the Consultation Procedure (Consultation Procedure Act, CPA)**

of 18 March 2005 (Status as of 26 November 2018)

# II. What can Computers do for Democracy?

## 3. How to Use Computers? – Consultation

### **Art. 2** Purpose of the consultation procedure

<sup>1</sup> The consultation procedure has the aim of allowing the cantons, political parties and interested groups to participate in the shaping of opinion and the decision-making process of the Confederation.

<sup>2</sup> It is intended to provide information on material accuracy, feasibility of implementation and public acceptance of a federal project.

### **Art. 6<sup>9</sup>** Procedure

<sup>1</sup> The authority responsible for initiating the consultation procedure makes the required preparations, carries the procedure out, compiles the results and evaluates the same. Where the Federal Council initiates a consultation procedure, the relevant department carries out the tasks required.

# II. What can Computers do for Democracy?

## 3. How to Use Computers? – Consultation



# II. What can Computers do for Democracy?

## 3. How to Use Computers? – Referenda and Initiatives



## II. What can Computers do for Democracy?

### 3. How to Use Computers? – Referenda and Initiatives

# Initiative-WiKi CH

**Formulate your political initiative in plain language. We will direct you to similar projects. If you are not satisfied, we will provide the necessary information on the subject (legal and factual), propose a draft text on the correct institutional level (communal, cantonal, federal) and invite like-minded people of our community to improve you initiative. Expect results in days. May the law be with you!**

