Mireille Hildebrandt

WRITTEN AND CODED 'SPEECH ACTS' NEVER THE TWAIN SHALL MEET?

Mireille Hildebrandt

Preliminaries

PUTTING MY THREE CARDS ON THE TABLE

1. Things that matter are not computable
2. They can nevertheless be made computable
3. They can be computed in different ways and the difference matters

What's new?

1. Preliminaries
2. On the shared *Welt*
3. On the shared *Welt* as in-formed by computing systems
4. The difference that makes a difference
5. Coded speech acts under the rule of law

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Welt

- Late Husserl's and Habermas' *Lebenswelt*
  - *Shared world*
  - *Merleau Ponty and Ricoeur 'problem of the other mind'*

- Wittgenstein's *Lebensformen, Sprachspiele, Regeln folgen and Familienähnlichkeit*
  - *Forms of life, language games, to follow a rule and family resemblance*

- *Austin, Searle and MacCormick's speech act theory*
  - *Further developed with regard to written speech legal acts*
  - *'Text-driven Jurisdiction in Cyberspace'* https://osf.io/jgs9n/

Welt:
the difference that makes a difference

- The shared *Welt* is largely sub-conscious even if learnt (tacit knowledge)
  - *It is the world we find ourselves in when developing our embodied mind*
  - *It is the ground we stand on, even though it is forever shifting and rebuilt*

- Computing systems are not grounded in a shared *Welt*
  - *This is the difference that makes a difference between human and computational cognition*
  - *They do not navigate our shared world but 'parasite' on it:*
    - Simulation, representation, traces, computational inferences
    - Note that any 'feedback' or 'experience' is either data or code, not RL
    - An algorithm cannot be trained on future data

Welt:
the difference that makes a difference

- Computing systems are, however, part of our shared *Welt*

- The adaptive, relational and ecological nature of human cognition implies that computing systems transform both our shared *Welt* and our selves

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Computing

- Computing implies quantification and formalisation
  - *Mathematics assumes and depends on both*
- Quantification IRL entails qualification
  - *To count as the same entity, variable …*
- Qualification is a speech act with performative effect
  - *Quantification depends on and performs qualification*
- Formalisation is a speech act with performative effect
  - *Translations decide on interpretation*
- Computing requires deciding on proxies, e.g. groundtruthing in ML
  - *The central notion in design, default settings and deployment is **relevance***
  - Relevance depends on purpose, actor(s) and environment
  - LoP: generic, operational, concrete (e.g. justice, fairness, equivalent error rate)

Computing

- Note that human judgement requires ranking and weighing
  - *which is an act of qualification: what is more important, more serious*
  - *and close to quantification: 'more' implies a measure*
  - *family resemblance implies that qualification is an act of attribution*
  - *that is rooted in the tacit dimensions of the shared world (life forms)*
  - *not a calculation of given target variable, objective function*

ICT-infrastructures IRL speech: orality

- The shared world is constituted
  - *By performative speech acts that create **institutional facts***
  - *Taking for granted similarly constituted facts as **brute facts***

  - *This is not a matter of voluntarism, nor of determinism*
  - *Our shared world is **underdetermined, relational and ecological***

  - *Natural language combines*
    - stabilisation of meaning with adaptiveness and
    - the potential of novelty
    - against the background of shared life forms, patterns of interaction
    - the latter basically ‘count as’ brute facts

ICT-infrastructures IRL speech: text

- The complexity of our shared world is mediated by the script and further developed
  - *with written speech acts that create more complex **institutional facts***
  - *due to the distantiation in time and space they afford*

  - *requiring what Habermas and Luhmann called Kontingenzbewältigung*
    - Legal written speech acts play a major role here
      - *Legislation, case law, treaties, fundamental principles, doctrine*
    - They enable coordination of legitimate expectations
      - *By attributing legal effect if specific legal conditions are fulfilled*

ICT-infrastructures IRL speech: computer code

- The complexity of our shared world becomes mediated
  - *By computationally-coded 'speech acts'*
  - *Whose 'performative effects' depend on meaning attributed to*
    - Proxies (which), optimisation (for what), performance metrics (which)
    - where most of the qualificatory design decisions (and their trade-offs) are hidden

- The power relationships that were institutionalised under the rule of law
  - *are naked, invisible, not regulated in the case of coded speech acts*

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The difference that makes a difference (Bateson)

If a computational system is deployed to e.g. predict legal judgments, that system

- is simulating human judgments (NLP on law as data), and/or
- translating legal norms (Rules as Code, smart regulation)

The system does not share our *Welt*

- Its cognition is not informed by the tacit background knowledge

that enables us to navigate our shared *Welt*

The difference that makes a difference (Bateson)

- The performative effects of computer coded speech acts depend on
  - *acts of development, provision and deployment*
  - *these acts attribute meaning to the design, functionality and use*

- But the ‘performative effects’ also depend on
  - *the ‘brute force’ of the code and its output:*
    - decisions and behaviour
  - *irrespective of meaning attributed*

The difference that makes a difference (Bateson)

- Making things computable can be done in different ways
- The difference matters: design decisions have trade-offs
- Proxies potentially re-order how we perceive and cognize our shared Welt
- Decisions on relevance, proxies, ground-truthing, formalisation shape our shared Welt
- And what actions it enables
- The political implications may be far reaching
- More so than what parliaments usually discuss
- This is why a human ‘in the loop’ will not do

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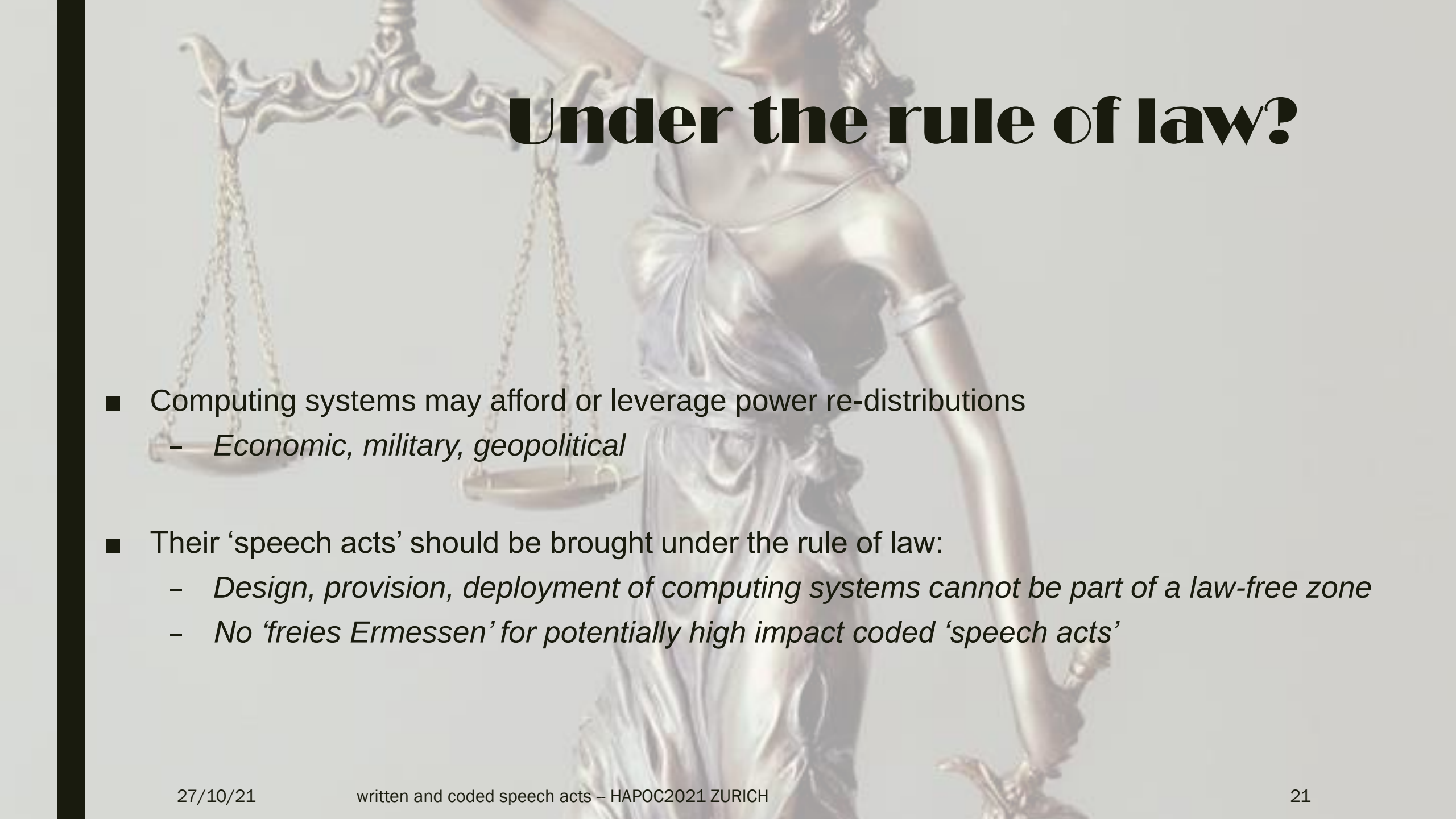


Under the rule of law?

- Computing systems may afford or leverage power re-distributions
  - *Economic, military, geopolitical*
- Their ‘speech acts’ should be brought under the rule of law:
  - *Design, provision, deployment of computing systems cannot be part of a law-free zone*
  - *No ‘freies Ermessen’ for potentially high impact coded ‘speech acts’*

Under the rule of law?

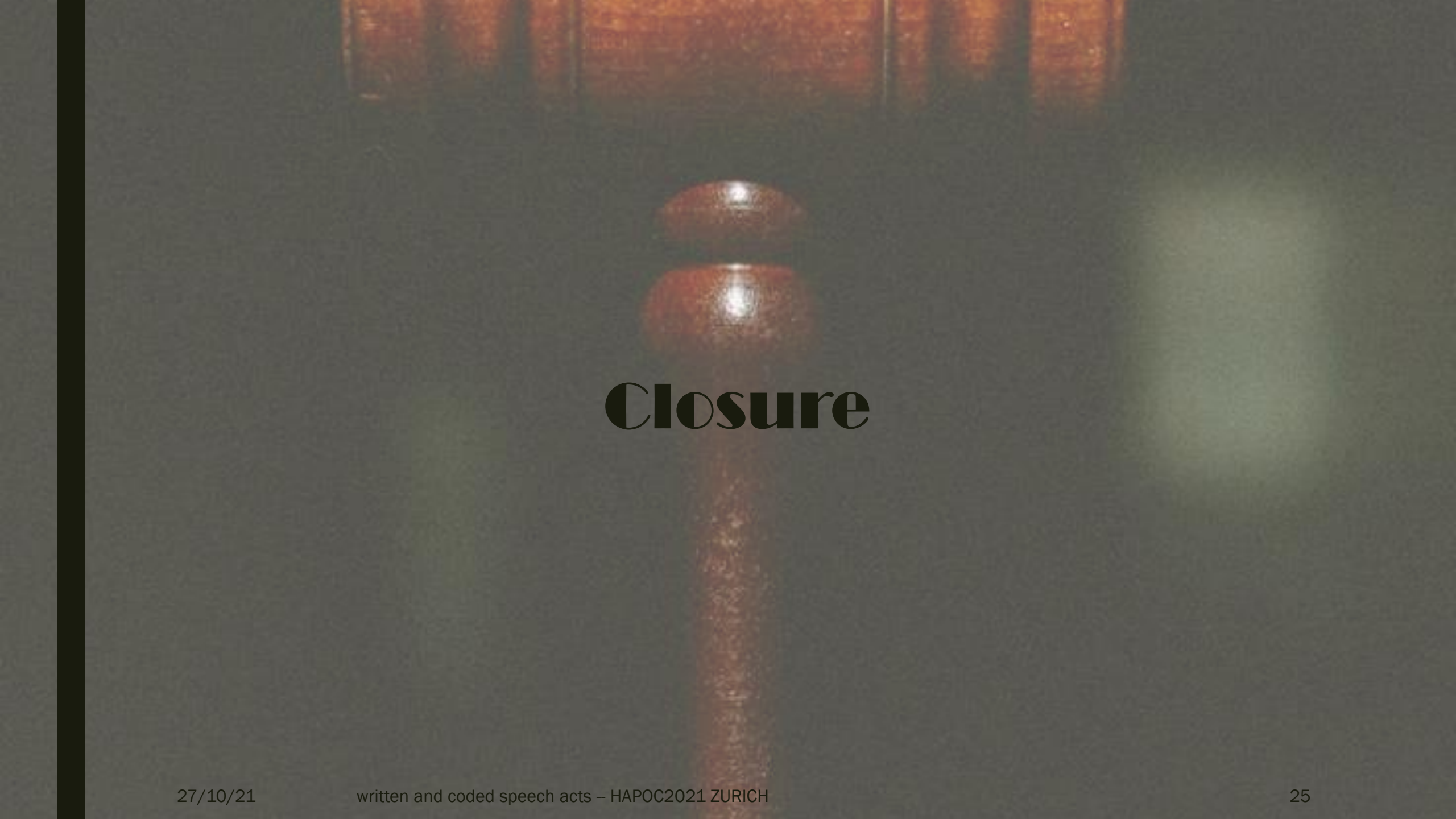
- Rule of law in a constitutional democracy is a normative undertaking:
  - *It aims to protect*
    - the incomputable nature of human agency
    - a shared world that affords privacy, diversity, inclusion
    - transparency, accountability and contestability of big players
    - by way of a series of institutional checks and balances
    - notably ’effective and practical’ fundamental rigths

Under the rule of law?

- Rule of law in a constitutional democracy is a normative undertaking:
  - *Governments having equal respect and concern for each individual citizen*
  - *The power that imposes legislation does not decide on its interpretation*
  - *Iudex non rex lex loquens*
  - *Written legal speech acts are ambiguous, multi-interpretable and thus contestable*

Under the rule of law?

- Rule of law in a constitutional democracy is a normative undertaking:
  - *Coded 'speech acts' must be contestable insofar as they impact fundamental rights*
  - *This is directly related to the fact that they 'make things that matter computable'*
    - In one way or another
  - *Contestability implies speech acts rooted in our shared world*
  - *This is where written and coded speech acts meet:*
  - *Discussing design choices and anticipated decisions and behaviour of the systems built*
  - *This is not about ethics but about who has the power to decide*



Closure