



Legality, Legitimacy, and Instrumental Possibility

in **Human** and **Computational Governance** for the **Public Sector**

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Regulating governance and risk management of AI in public services

Overarching question:

- *What is a legal, legitimate, trustworthy, fair and accountable approach to AI in public services?*

Desired outcome:

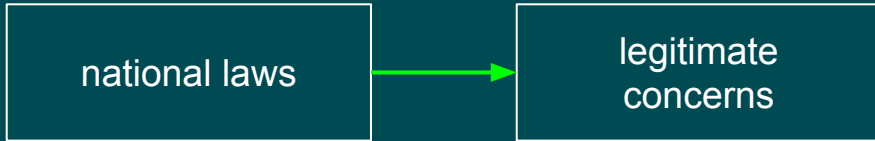
- identify crucial **architectural requirements**,
 - at normative level and
 - at computational level



Legality, Legitimacy, and Instrumental possibility all must be considered and addressed

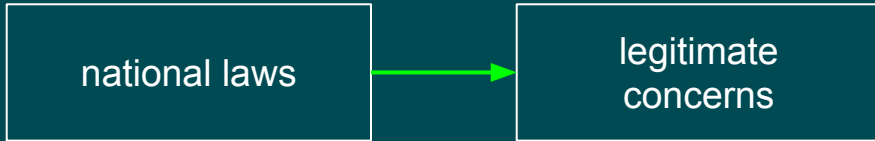
Interactions between legality, legitimacy, and instrumental possibility

*if it is (formally) legal
then it is legitimate*

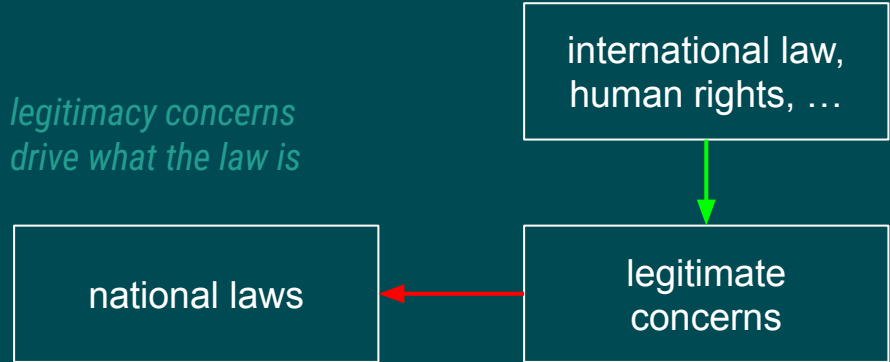


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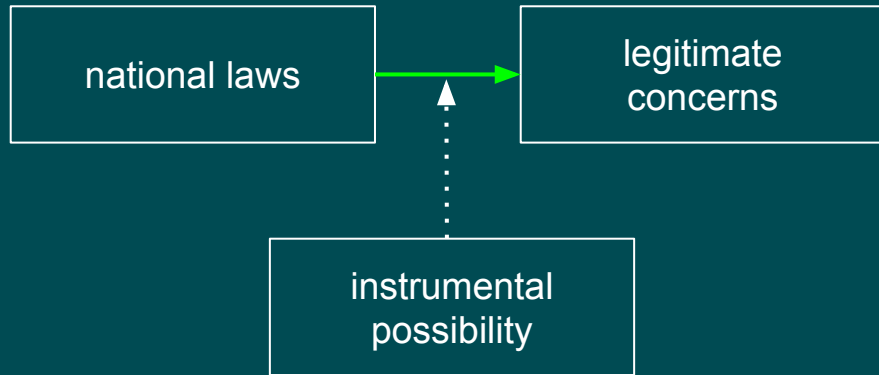


*legitimacy concerns
drive what the law is*

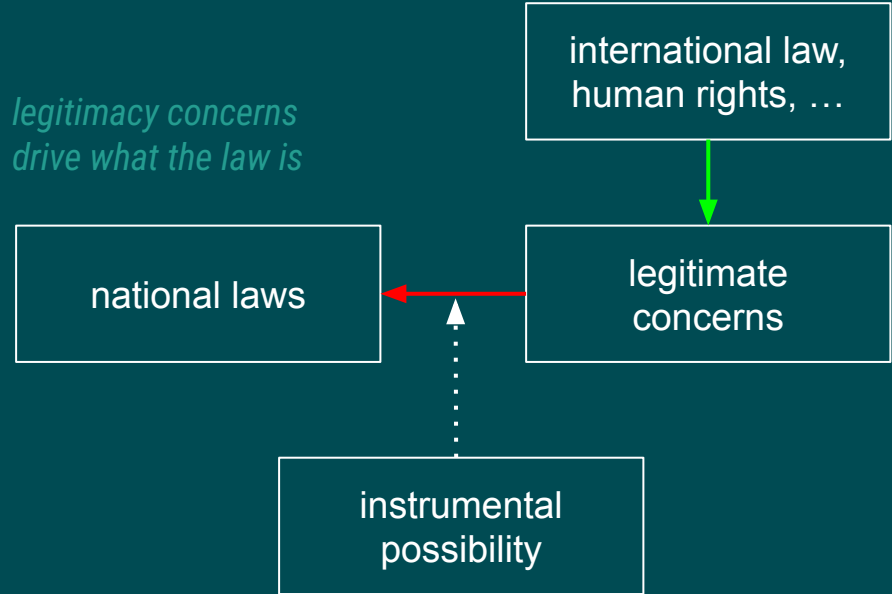


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Human and Computational Governance Layers

HUMAN

goal: minimal legality and legitimacy requirements for a meaningful governance structure

COMPUTATIONAL

goal: infrastructural components to regulate algorithms in alignment with human directives

motivation: to attain AI benefits and mitigate risk and harm, ensuring consistent and inclusive governance roles to relevant social participants

Human Governance, in practice...

HUMAN

goal: minimal legality and legitimacy requirements for a meaningful governance structure

- Absence of clear normative frameworks in public sector, especially for safeguarding human rights
- Discussions to increase legitimacy of AI use
→ need for *democracy (support) by design*

Human Governance, in practice...

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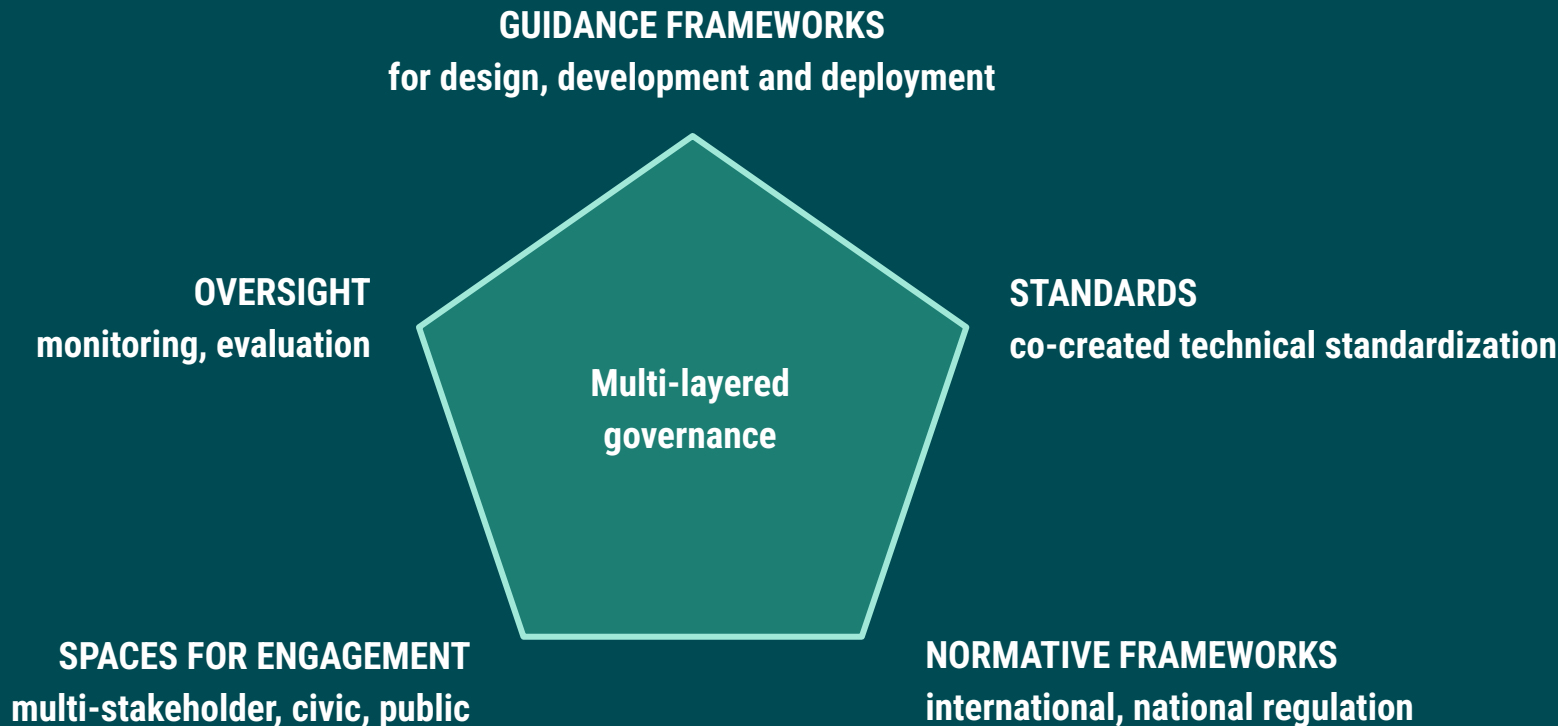
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We ask:

- *How to ensure that an AI system is effective for purpose & safeguard of human rights?*

Filling the gaps: right-based governance of AI



Legality and legitimacy benchmarks for AI governance

In the human rights framework and case law, a *three part test* is used for assessing infringements and balancing competing value interests.

We adapted it to a ***three part test for AI governance***

- Is the intended purpose of an AI allowed and legal?
- If yes, is this particular AI system effective in achieving its intended purpose?
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legality

internal
legitimacy

external
legitimacy

Legality and legitimacy benchmarks for AI governance: architectural dimensions

SCOPE

criteria and indicators
(eg. human-right framework)

PROCESS

assessment process
assessment policy process
assessment oversight process

PARTICIPANTS

diverse experts/experiences
well-resourced authority
channels for public concerns

Computational Governance, in practice...

COMPUTATIONAL

goal: infrastructural components
to regulate algorithms in
alignment with human directives

- Even if we set up an adequate governance structure on the human side of the process, we cannot guarantee that computational side will adapt accordingly.

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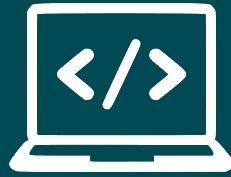
We ask:

- What is needed in terms for effectively enabling forms of *continuous governance*?

Systematic Misalignments in Policy-IT contexts



POLICY



DESIGN/CODE



USE/OPERATIONS

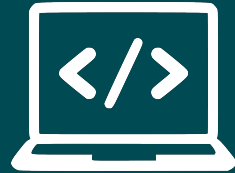
Typically:

- the design level is requested to encode in algorithms requirements set by the policy level
- the user level is constrained by the tools provided by the design level

Systematic Misalignments in Policy-IT contexts



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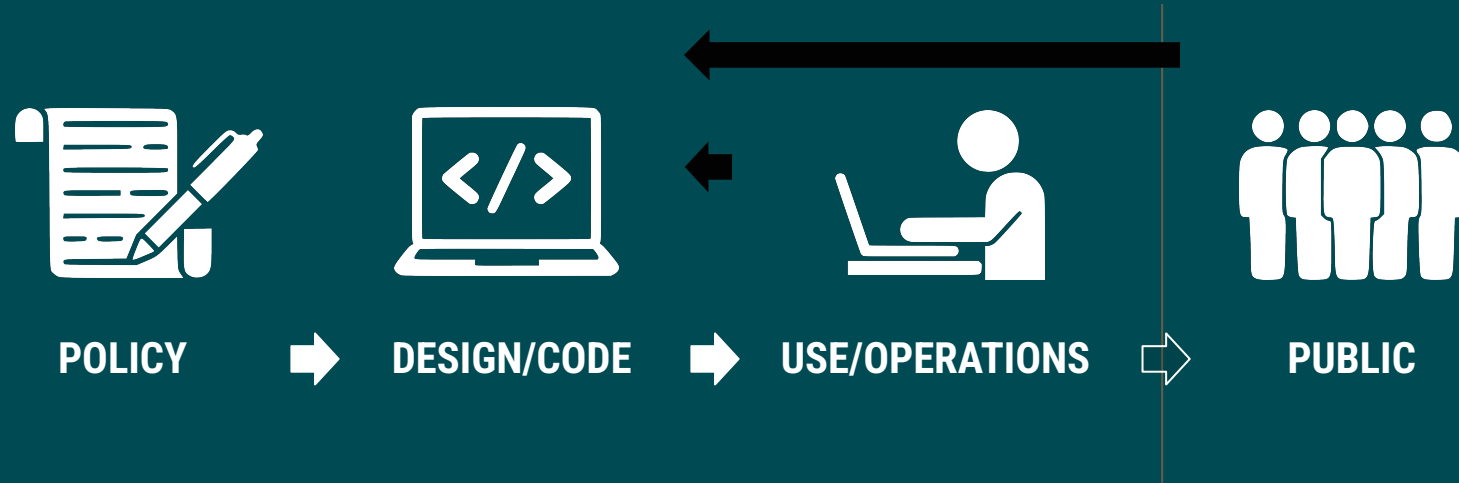


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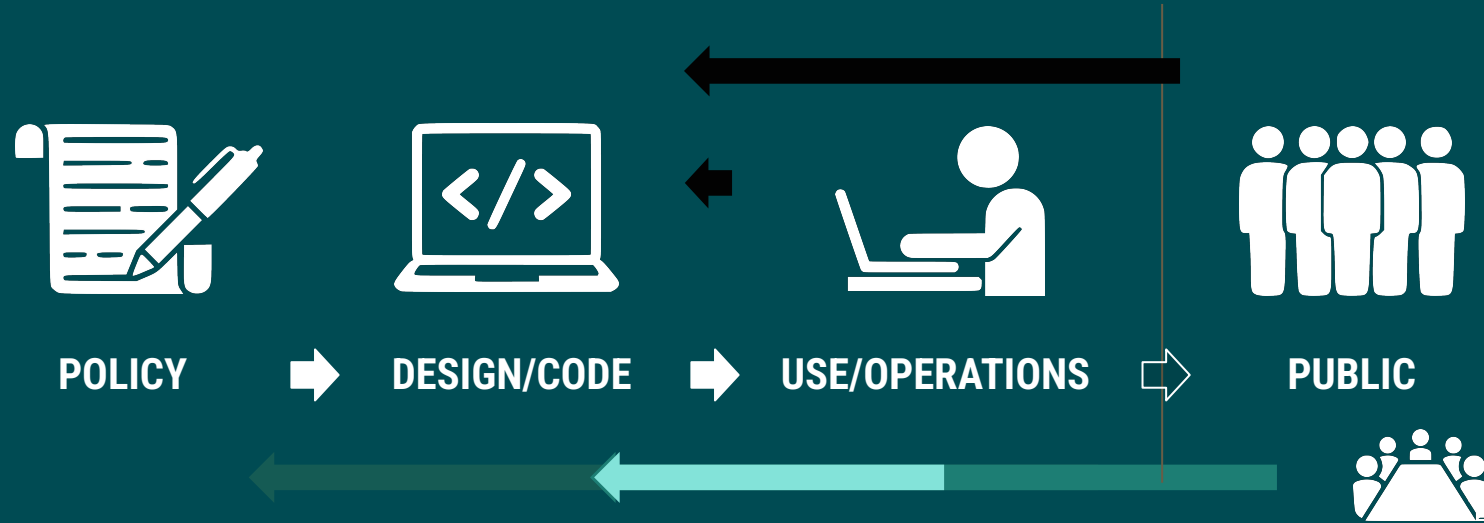
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- design/policy levels are not adequately aware of the problems observed at user/public levels
- user/public levels do not have the power to modify the functioning of the system

Systematic Misalignments in Policy-IT contexts



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- the design level is requested to encode in algorithms requirements set by the policy level
- the user level is constrained by the tools provided by the design level
- design/policy levels are not adequately aware of the problems observed at user/public levels
- user/public levels do not have the power to modify the functioning of the system
- use of panels improves the feedback loop, but update time easily very long

Need for Continuous Governance

Legality and legitimacy are not enough.

Instrumental possibility needs to be adequately effective.

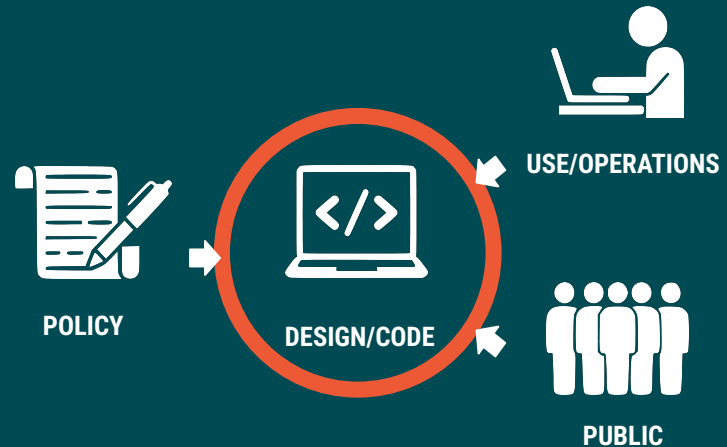
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Key technology: design and configuration of **INTERVENTION POINTS** within the system



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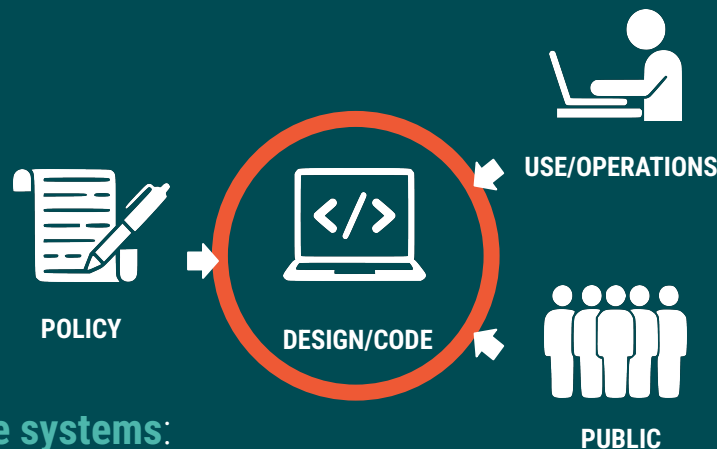
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Key technology: design and configuration of **INTERVENTION POINTS** within the system

Call for the **operationalization** dimension of **normative systems**:

- not generic programs,
- not deontic concepts (obligations, prohibitions, ..)
- but power constructs assigned to parties!



Conclusion

- Democratic principles needs to be operationalised within
 - a sound governance architecture
 - human rights framework



We identified core design elements (three parts test, scope, process and participants architectural dimensions) for AI systems in public use, weaving in both legality and legitimacy dimensions.

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We identified core design elements (three parts test, scope, process and participants architectural dimensions) for AI systems in public use, weaving in both legality and legitimacy dimensions.

- Still lacking adequate technologies supporting *continuous alignment* between human and computational realms.



We argued that instrumental possibility cannot be separated from the discussion on legality and legitimacy. To have a proper governance, we need functioning power constructs also in the computational realm.



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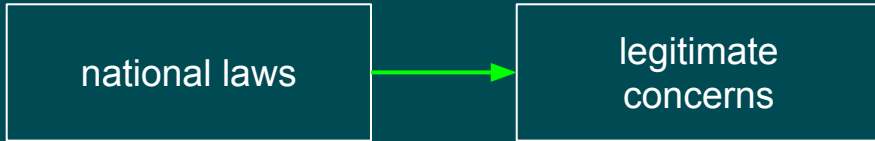
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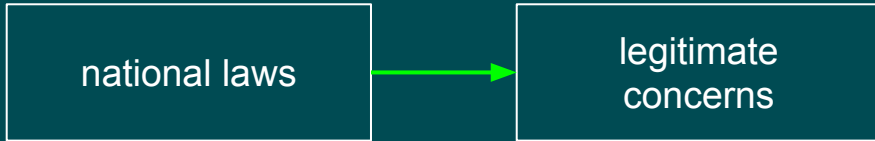
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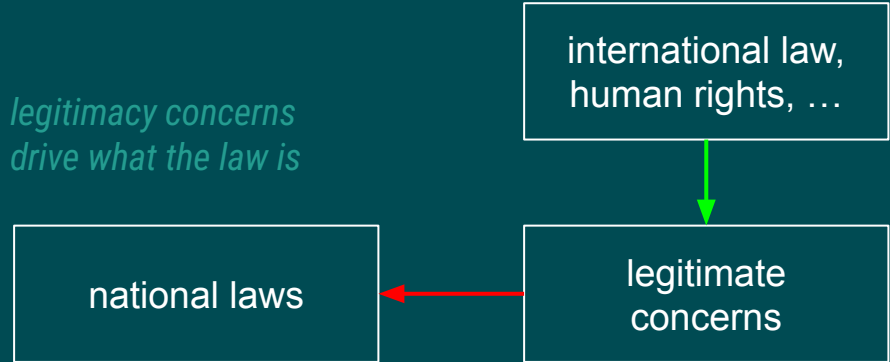


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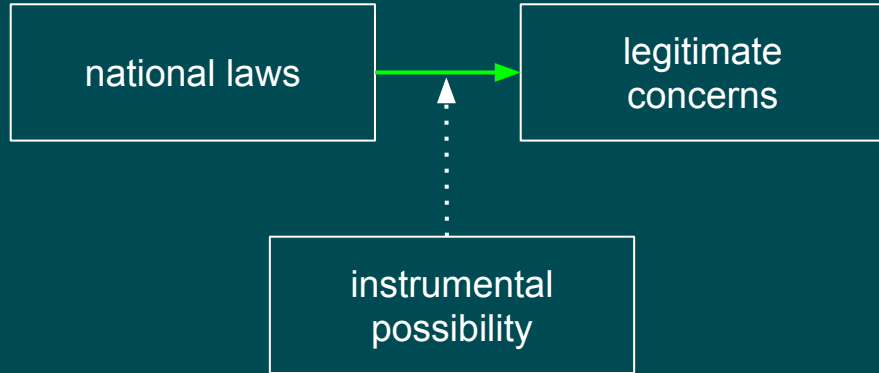


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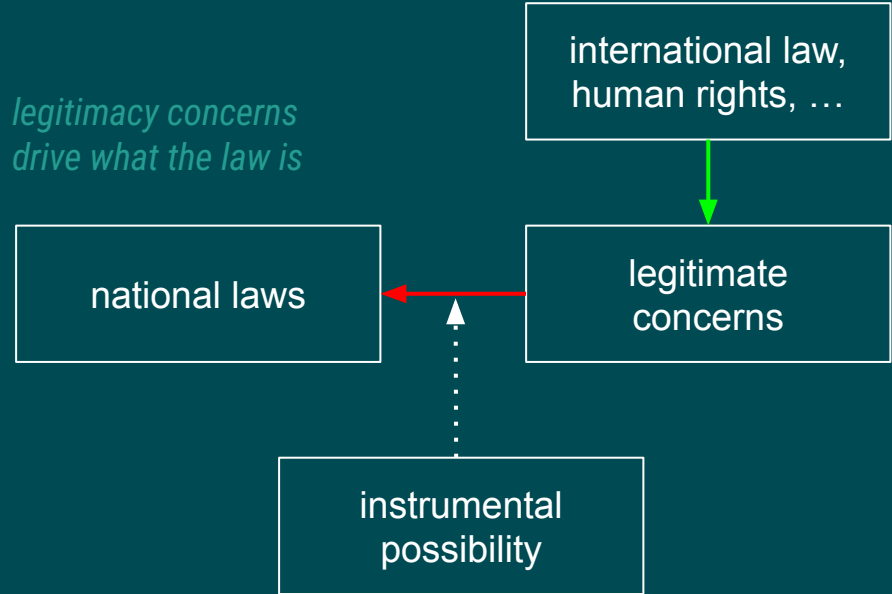


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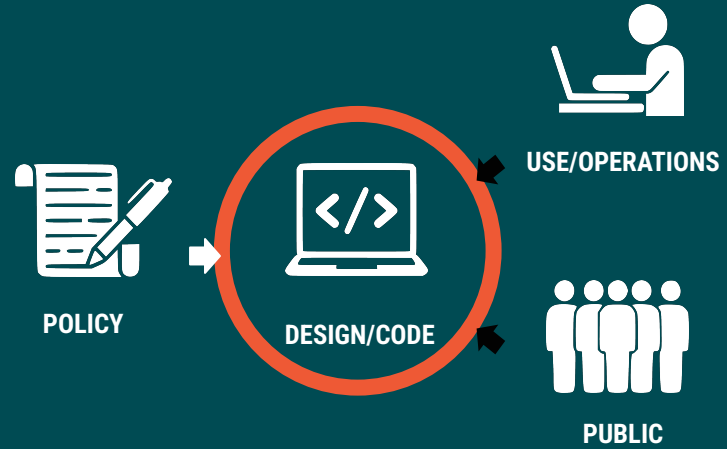
- Even if we set up an adequate governance structure on the human side of the process, we cannot guarantee that computational side will adapt accordingly.

Need for Continuous Governance

Users and even less public have usually no option to intervene on the functioning of the system.

Panel-based solutions create feedback loops into design/development, but....

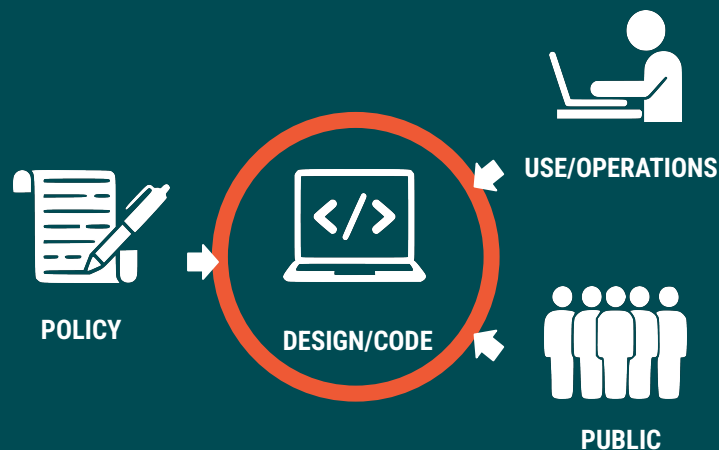
- update is not certain,
- time of update can be very long



Need for Continuous Governance

Computational governance structures need to match human governance structures.

Key technology: design and configuration of **INTERVENTION POINTS** within the system



Call for the **operationalization** dimension of **normative systems**:

- not generic programs,
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Conclusions



We identified core design elements (three parts test, scope, process and participants architectural dimensions) for AI systems in public use, weaving in both legality and legitimacy dimensions.



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Regulating governance and risk management of AI in public service

Unpack:

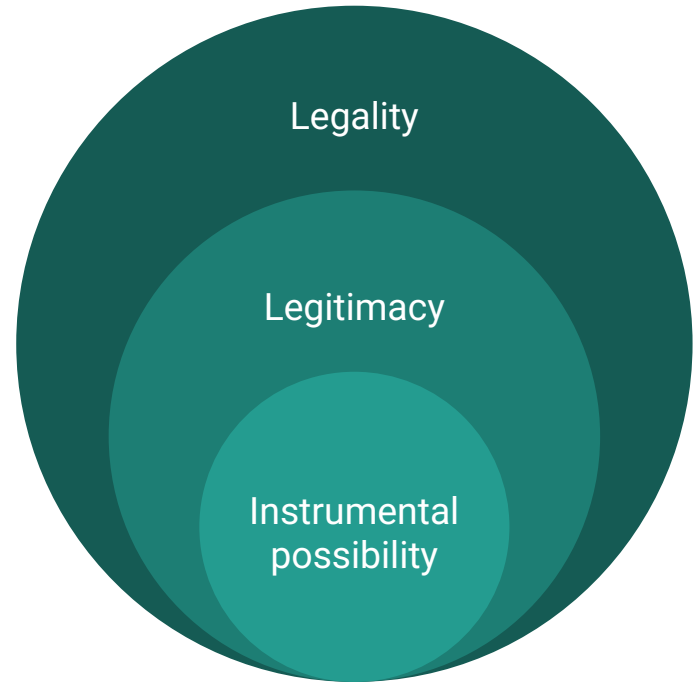
→ what is legal, legitimate, trustworthy, fair and accountable approach to AI in public service

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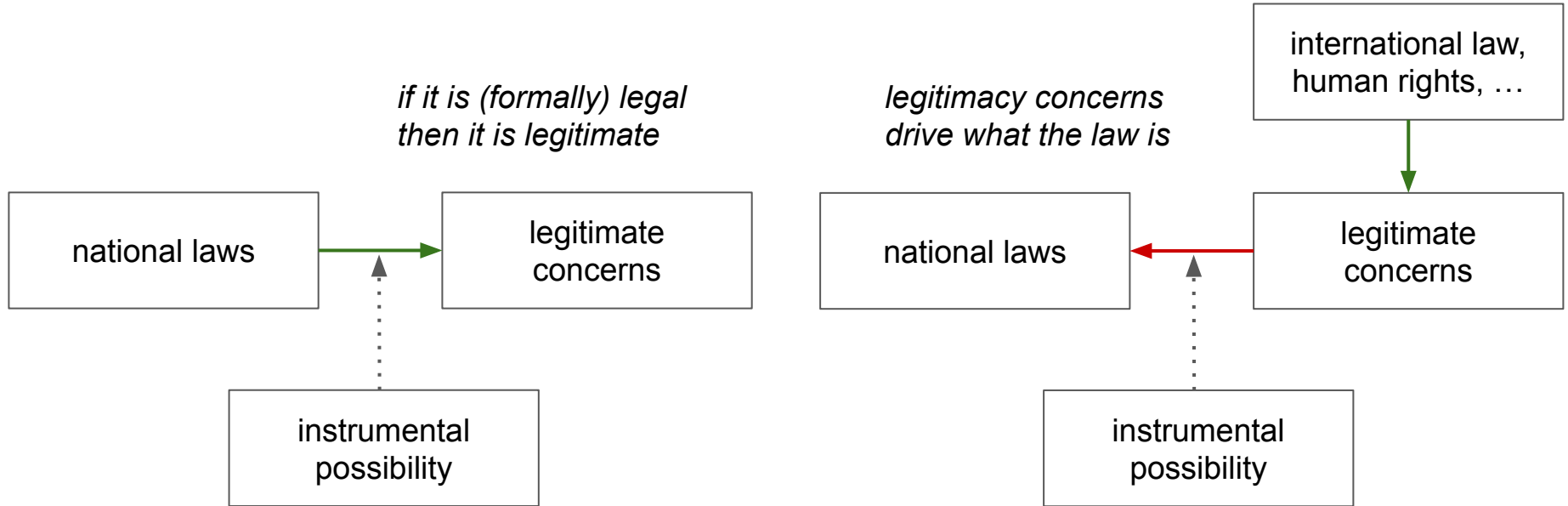
Ideal outcome:

→ identify crucial architectural requirements, at normative and computational level

→ Legality, Legitimacy, Technical or Instrumental possibility > all must be considered and addressed



Interactions between legality, legitimacy, and instrumental possibility



Human and computational governance layers

HUMAN

- minimal legality and legitimacy requirements for a meaningful governance structure

COMPUTATIONAL

- infrastructural components required to regulate algorithms in alignment with the directives provided by humans

Goal: to attain AI benefits and mitigate risk and harm, ensuring consistent and inclusive governance roles to relevant social participants

In practice...

Absence of clear normative frameworks in public sector, especially for safeguarding human rights

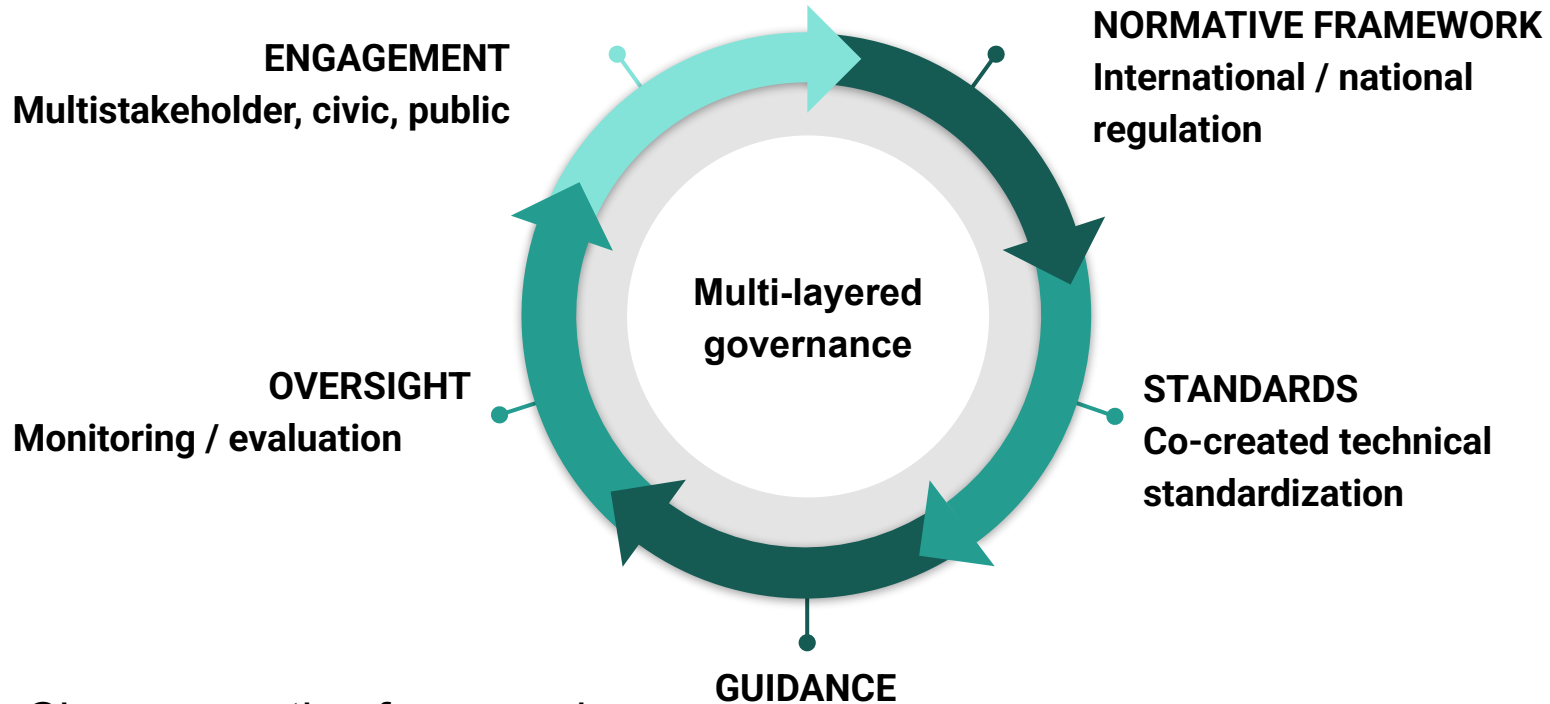
Discussions about need for increased legitimacy of AI use

> need for democracy by design

We ask:

- How to ensure AI system is effective for purpose + safeguard human rights?
- What is needed in terms of computational infrastructural components for effectively enabling continuous governance?

Filling the gap: right-based co-governance of AI



- Clear normative framework
- Contextualize it in social arrangement by engaging with both private / public

Legality and legitimacy benchmarks for AI governance

Adapted “three part test”:

1. Is the intended purpose of an AI allowed and legal? (*legality*)
2. If yes, is this particular AI system effective in achieving its intended purpose? (*internal legitimacy*)
3. If yes, is it proportionate and necessary, considering its human rights impact? (*external legitimacy*)

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Three fundamental dimensions at architectural level

Scope

criteria and
indicators that lead
assessment
> human rights
framework

Process

assessment
process

> assessment
policy process

> assessment
oversight process

Participants

> diverse
expertise and
experiences
> competent,
well-resourced
authority
> open channel
for public
concerns

Computational infrastructure for AI governance

Even if we set up an adequate governance structure on human side of the process, we cannot guarantee that computational side will adapt accordingly.

Intervention points....

The need for continuous governance....

Ideally....

Integration at computational level of policies and regulations derived from different sources (legality), and of directives and requirements set by adequately empowered stakeholders (legitimacy).

Conclusion

Democratic principles, operationalised through good governance and human rights framework >

> core design elements for AI systems in public use, weaving in both legality and legitimacy dimensions.

Still lacking > adequate technologies supporting continuous alignment between human and computational realms.

Marring instrumental possibility requires further attention from policy-makers and researchers and cannot be separated from discussion on legality and legitimacy.