



## **DIVERSITY BY DESIGN?**

## BALANCING THE PROTECTION AND INCLUSION OF USERS IN ONLINE SOCIAL PLATFORMS

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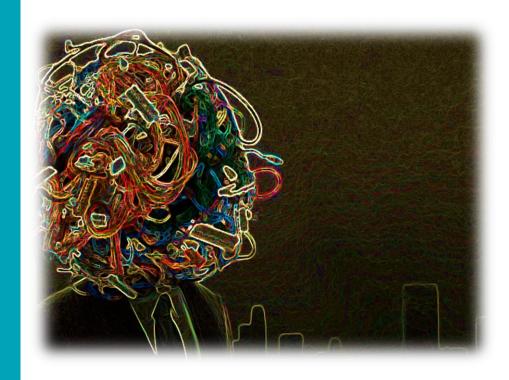
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How can we build interfaces and algorithms that support meaningful user interactions in online social platforms through considering the values and risks of diversity?



## **WeNet**

WeNet

Search the Unknown

Incentives

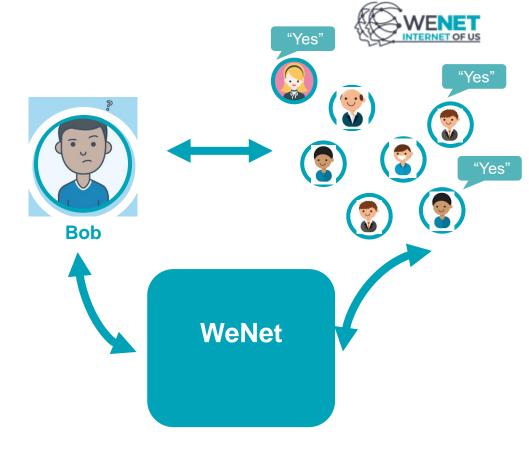
**Interaction Model** 

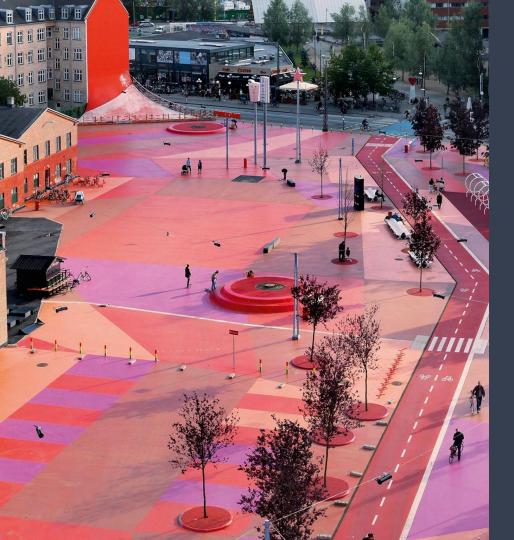
Situational Context

**Conversational Context** 

Diversity

**Ethics** 





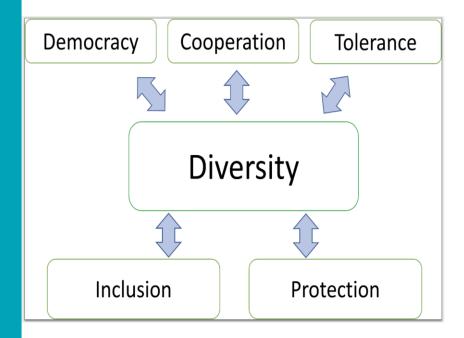


## DIVERSITY

## Diversity as a normative concept



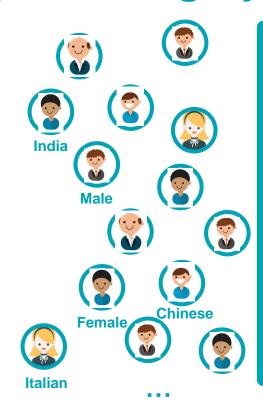
From an ethical perspective, diversity helps achieve other values such as inclusion, tolerance, equality, and democracy, and vice versa.



## Diversity as a descriptive category



As a descriptive category, diversity helps us define differences between users and ultimately classify elements of their personalities. Here, diversity refers to both demographic properties and different social practices that relate to different skills, competencies, interests, sensibilities, etc.



#### Diverse in:

#### **Visible properties:**

Gender Nationality

Age Role

...

#### **Deep properties:**

Personality
Culture
Competence

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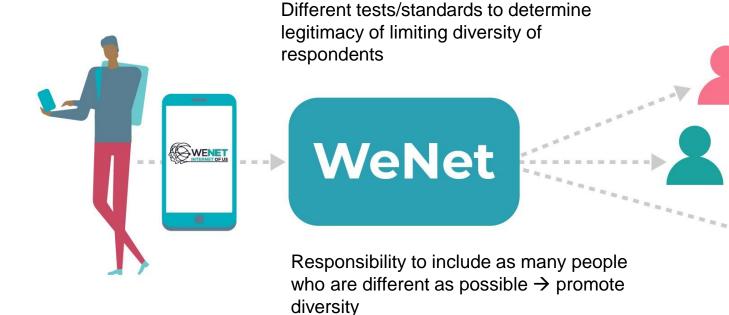




# THE PROTECTION—INCLUSION—TENSION

**Opening the Echo Chamber while Protecting Vulnerable Groups** 







## Methodology



#### **Value Sensitive Design**

- Departs from a widely-held understanding of technology as being objective and value-neutral.
- Proactively seeks to identify key norms to guide the inscription of values into technologies.
- Evaluates the potential range of tools that may be employed to realize this process, and it reflects on their future implications (Friedman, Hendry, 2019).

#### **Scenario Analysis**

- Applied to envision multiple possible futures and prepare and develop ways to deal with them.
- Value scenarios are narratives that tell stories about use and are intended to show the entanglement of human and technical aspects in specific contexts.
- They emphasize impacts on associated key values, indirect impacts, and similar systemic effects (Nathan, Klasnja, Friedman, 2007).

## 3 Steps



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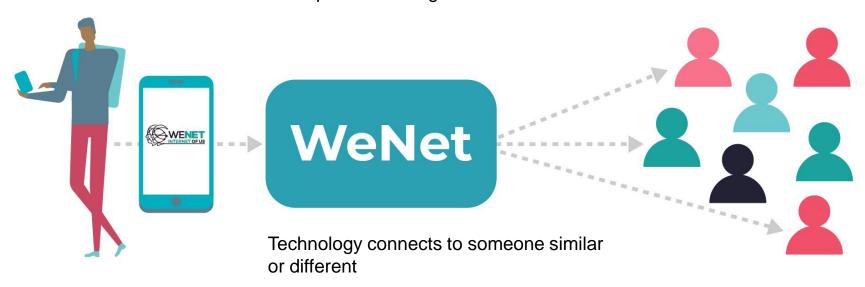
1. Assess the relevant values and the factors that contextualize them.

2. Empirically determine how to balance the relevant factors through a value-centered scenario analysis and identify the key ethical norms.

3. Technically implement the identified norms into an actionable policy by operationalizing the relevant factors in a formal representation.



#### Ask a question through the WeNet chatbot







Sensitive sphere, Public sphere, Self-Governance sphere

#### Khulan

- Student at an European university
- Exchange student from abroad
- Suffers from test anxiety



"Are you struggling with What would you like to ask? (Users send a mental health issues that request via the can make it difficult for you chatbot into a to study? And if so, how do community) you deal with them?" Who should receive Someone "similar to me" this request? Someone similar or different? (Users specify in the chatbot) Ethical analysis: Is i Limiting diversity is legitimate to limit the legitimate (protection scope of recipients by argument) asking for users who are similar to onese to answer the request? **Ethical reasoning** In this scenario, it is imperative for users to be able to limit diversity in order to create a safe space.

#### **Protection argument:**

Can be generalized by creating the following test or standard:

Does the request relate to a sensitive sphere such as religion, health, or is sensitive due to cultural or social circumstances?

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#### What appropriate interventions could follow?

Send an incentive, a nudge, etc.



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What would you like to ask? (Users send a request via the chatbot into a community)	"Are you struggling with mental health issues that can make it difficult for you to study? And if so, how do you deal with them?"
Who should receive this request? Someone similar or different? (Users specify in the chatbot)	Someone "similar to me"
Ethical analysis: Is it legitimate to limit the scope of recipients by asking for users who are similar to oneself to answer the request?	Limiting diversity is legitimate (protection argument)
Ethical reasoning	In this scenario, it is imperative for users to be able to limit diversity in order to create a safe space.

test#	a	b	С	d	e
question	Does the request speak to a certain demographic, or involve specific knowledge/skills that are tied to a social practice?	Does the request relate to a sensitive sphere such as religion or health or is sensitive due to a given cultural/social contexts and thus requires protection of the requester?	Is the request related to a relevant social sphere such as economy, politics, education making it a relevant resource that should be accessible to everybody?	Is the request related to the sphere of leisure, free time, voluntary activities?	Is the request violating a fundamental ethical principle?
ethical action	limit diversity	limit diversity	expand diversity	ideally expand diversity but also ok to limit diversity	neither limit nor expand diversity, make the user aware of this violation
argument type	efficiency argument	protection argument	inclusion argument	freedom of choice argument	principle of no harm argument
ethical reasoning	If there is no concern for the safety of the person (see test b) and no fundamental resource involved (see test c), and the request is not unethical per se (see test e), the system may allow the user to limit diversity for efficiency reasons based on similar demographics or similar social practices.	If the requester poses a question that deals with a sensitive issue or speaks from a vulnerable position (such as an oppressed social status), the system should allow the user to limit diversity in order to enable a safe space for the protection of the user. This is relevant to prevent the user from exposure to hate speech and offensive comments.	If the request involves a fundamental resource such as an economic opportunity or the opportunity to participate in political processes, the system should strongly incentivize the user to NOT limit diversity because a limiting of diversity would lead to the exclusion and discrimination of users in fundamental areas of life.	If the request involves an opportunity to participate in a leisure activity, the system should softly nudge the user to open this request to everyone in order to avoid exclusion.  However, limiting diversity is acceptable because there is no fundamental resource involved, and the user has the freedom to choose their companions in leisure time.	If a request violates laws or the fundamental rights of other users, the system must flag this request and communicate to the author that this request is unethical per se and cannot be send to the community as it is.
reference to scenario	scenario 3	scenarios 1 and 2	scenario 6	scenario 4	scenario 5

## **Ethical Challenges**



## TECHNICALLY IMPLEMENT THE IDENTIFIED NORMS INTO AN ACTIONABLE POLICY

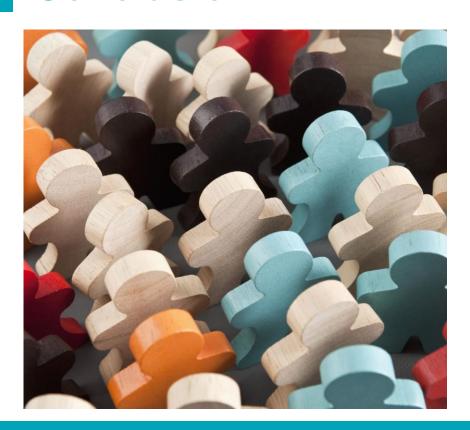
Operationalizing the Ethical Norms

Resolving Tensions between Norms

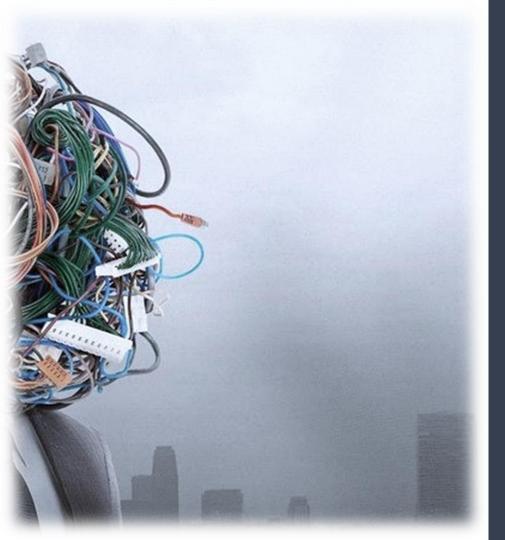
## Conclusion



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Diversity by Design – A contradiction in terms?





## **THANK YOU**

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