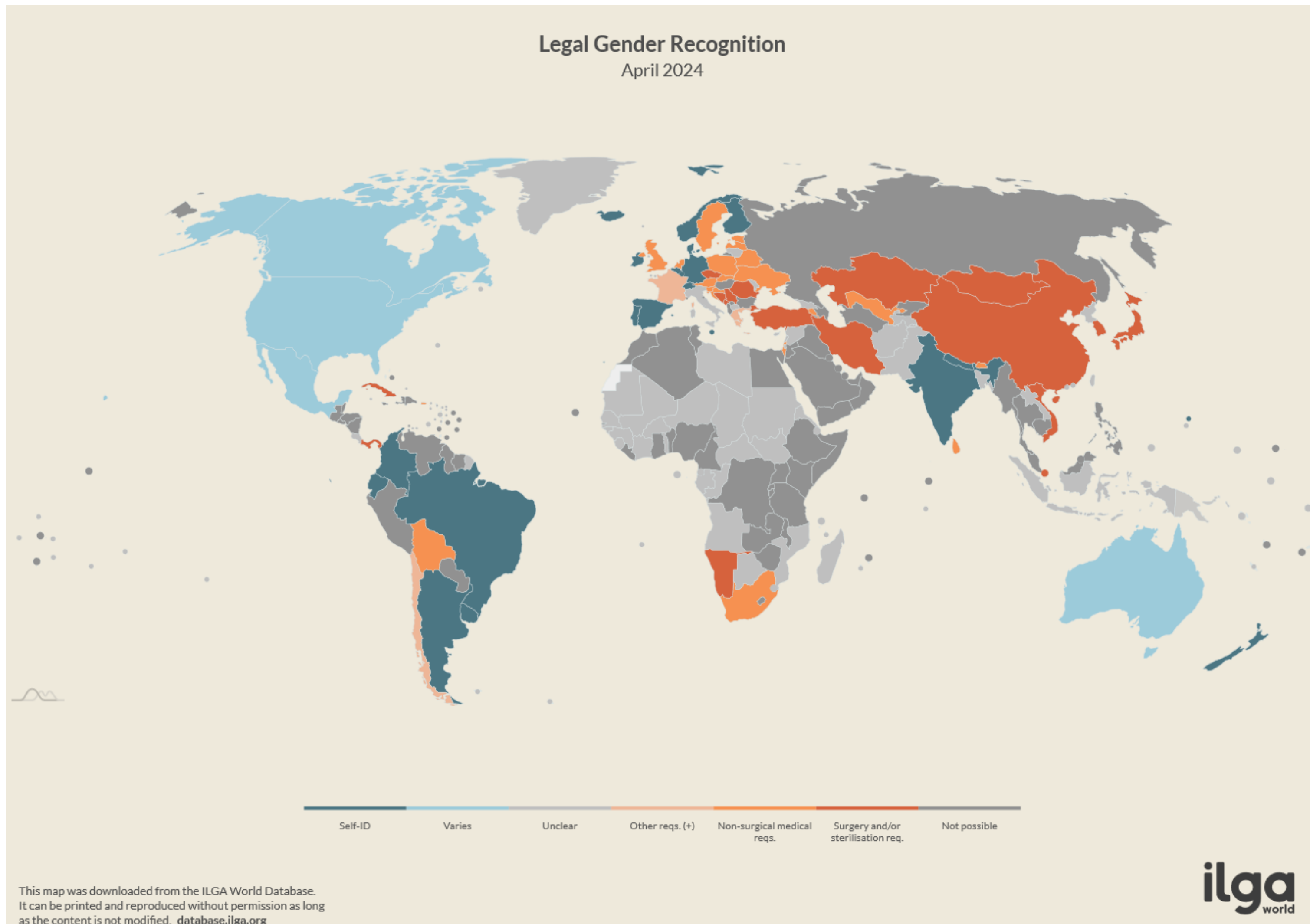


# Bias against LGBT+ in Software Design

Computer Science master research project by Marcel Stelte, 2024



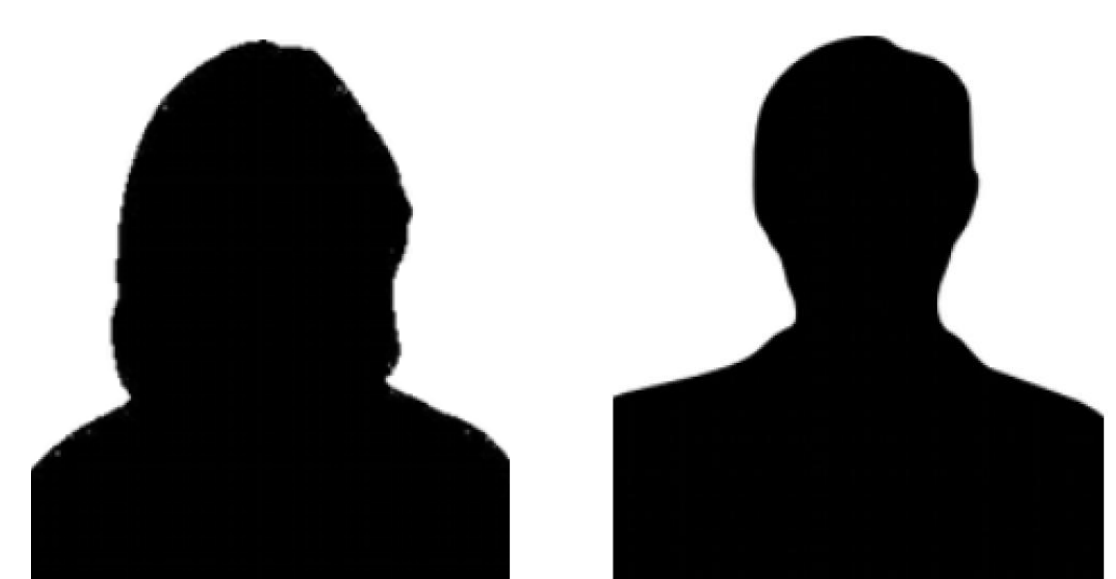
Bias exists everywhere, and varies between cultures and backgrounds. Yet, biases, when unnoticed, under-explored and institutionalized, can be detrimental for groups and people who are underrepresented in society.

In Software Engineering (SE), bias manifests itself in the software design process. It is therefore necessary to understand what issues the LGBT+ community faces and how those issues can be solved

## Overlooked aspects in traditional design

What requirements did we collect from user groups?

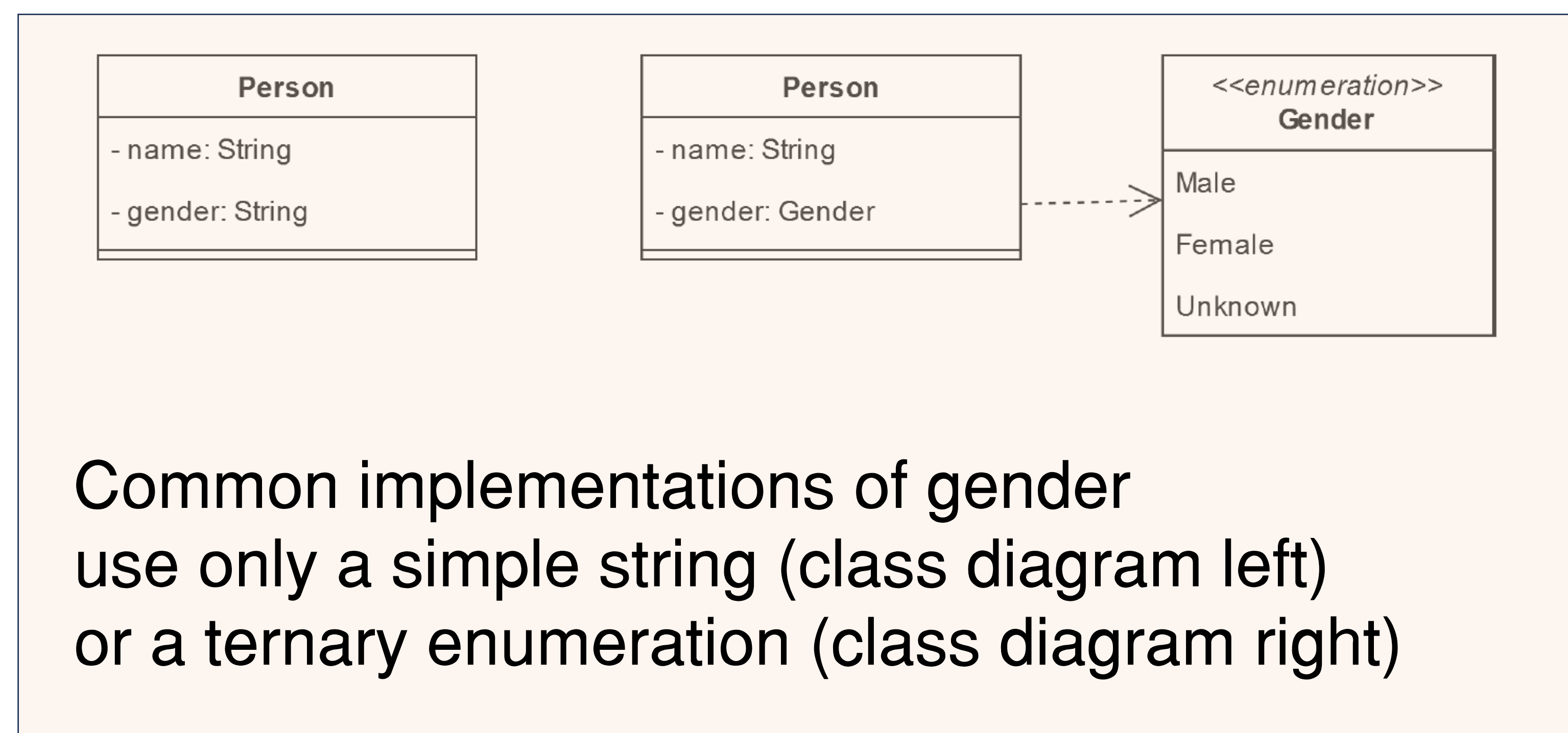
- Gender can be fluid. To support that, software needs to make it possible for users to change gender info at any time
- The same goes for pronouns and names
- Both gender and sexuality are relevant here, and the difference can be difficult (e.g., in medical contexts; or lack of process support by software)
- Gender is not singular. People can have zero or multiple genders, which also needs to be supported by software.



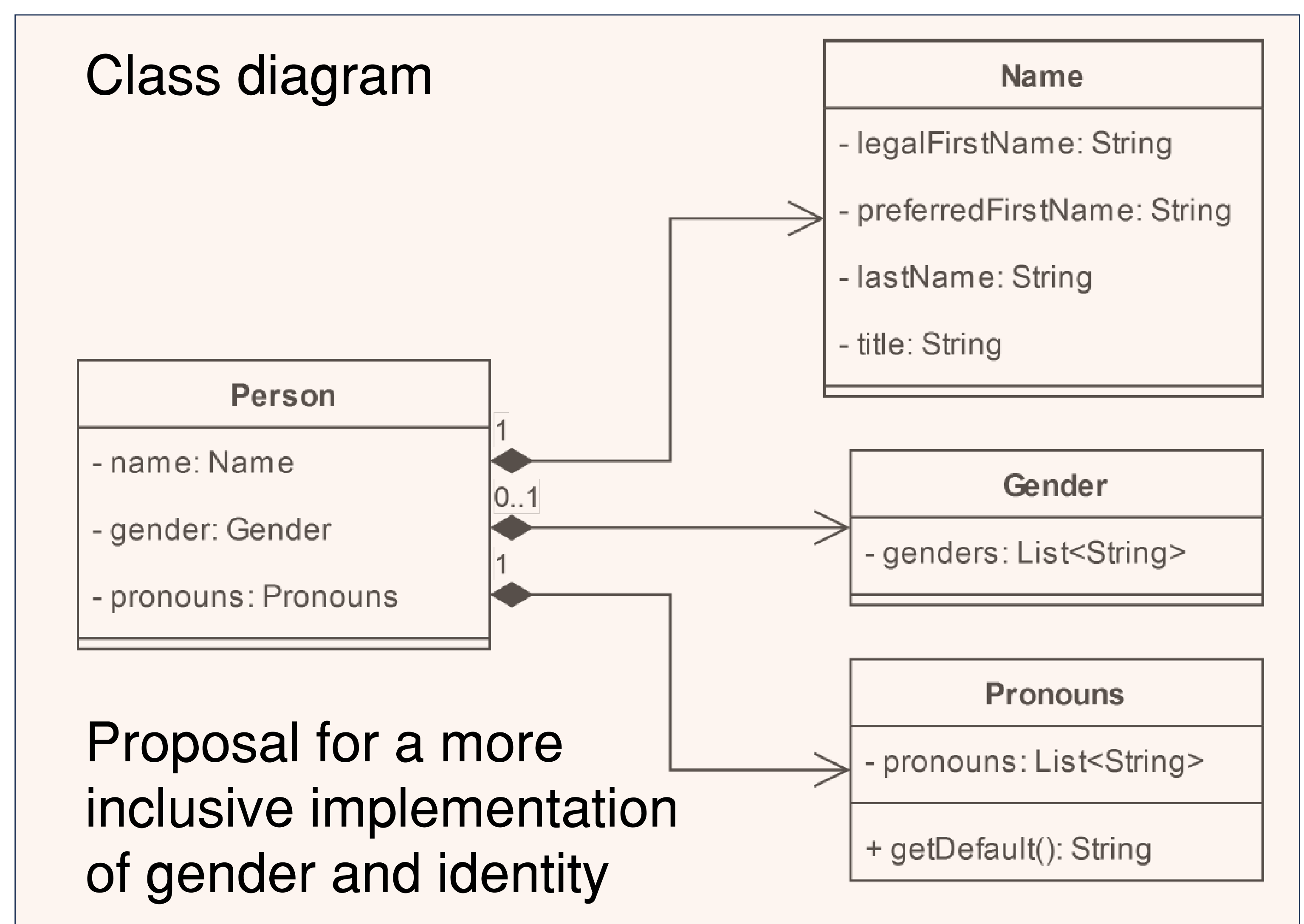
*Default silhouettes for profile pictures as implemented on various platforms*

Our research shows that representation of gender in software is too limited to express non-heteronormative identities

As the LGBT+ community faces persecution and adversity in many parts of the world, its members also require a higher level of control of their personal data to ensure their physical safety and mental well-being



Common implementations of gender use only a simple string (class diagram left) or a ternary enumeration (class diagram right)



Proposal for a more inclusive implementation of gender and identity