A Psychometric Scale to Measure Individuals' *Value of Other People's Privacy* (VOPP)

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Problem space

Modern technologies, e.g., mobile apps and wearable cameras, **collect data about people who are not the users**, threatening their privacy.

Research gap

A **fundamental knowledge gap** in how to raise awareness among the technology users, encourage privacy-respecting behaviors and the adoption of privacy-enhancing tools, is the absence of a mechanism to **quantify *if a person cares about other people's privacy* and by how much**.

Contribution

We created and validated a **psychometric scale** based on the Theory of Basic Human Values [1].

Scale creation and validation process

1. Initial item selection process: *inductive* and *deductive* methods

Literature review

Expert surveys

Brainstorming sessions

2. Finalizing scale items

User study for exploratory factor analysis (N=400)

Model selection

User study for confirmatory factor analysis (N=1,000)

3. Validating scale items

Convergent validity test using [2,3]

Assessing predictive power using criteria items

Divergent validity test using [2,4]

Results

The **final** (single-factor) **scale** consists of **13 items**, such as:

1. I respect other people's privacy without exception.
2. It is important for me to protect other people's privacy even when it is difficult to do so.

The scale demonstrated

- **High reliability** ($\alpha = 0.94$)
- **Convergent** ($r_\tau = .21, p < .001$) and **divergent validity** ($r_\tau = -.02, p > .05$)
- **Predictive power** (10 items had $r_\tau \geq .3, p < .001$).

References

1. SH Schwartz, 2012, *An overview of the Schwartz theory of basic values*
2. Gerbasi and Prentice, 2013, *The Self- and Other-Interest Inventory*.
3. Baruh and Cemalcılar, 2014, *It is more than personal: Development and validation of a multidimensional privacy orientation scale.*
4. Buchanan, Paine, and Joinson, 2007, *Development of measures of online privacy concern and protection for use on the Internet.*

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