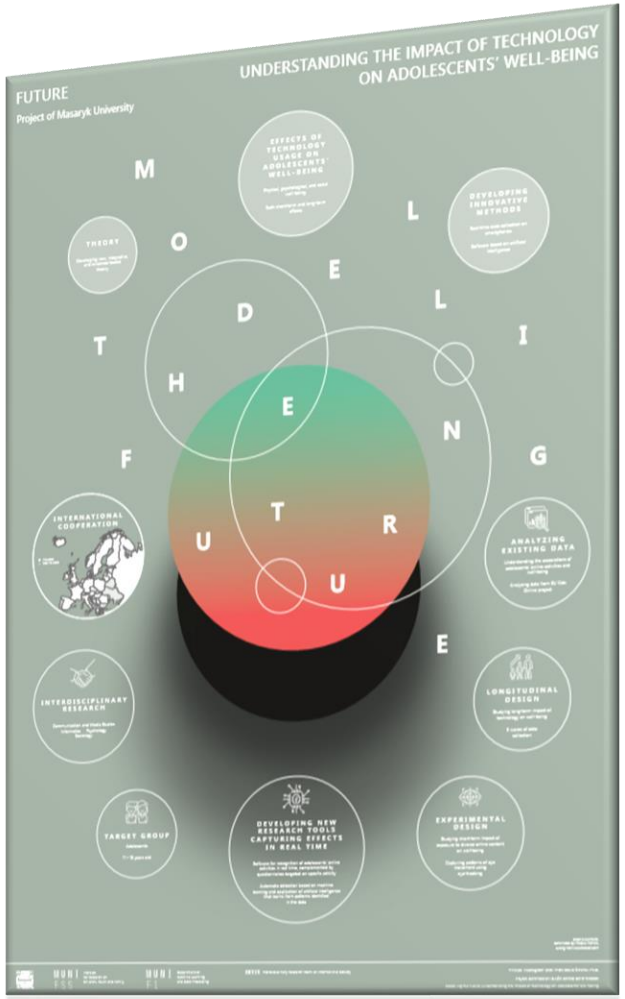
MUNI Interdisciplinary Research Team on Internet and Society

Modeling the future: Understanding the impact of technology on adolescent's well-being (FUTURE)

Smahel, D., Dedkova L. & Machackova, H. & IRTIS members



About project FUTURE

Project goals:
The project aims to develop a complex evidence-based theory depicting the the short- and long-term impacts of technology usage on the physical, psychological, and social well-being of adolescents aged 11 to 18.

RG1: To understand impacts of technology usage on adolescents' physical, psychological and social well-being
RG2: To propose a comprehensive, integrative theory of technology impacts on adolescents' well-being
RG3: To develop innovative methods. Tp develop a software based on machine learning which will automatically assess online behavior of adolescents

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About project FUTURE

- WP1: Understanding the associations of adolescents' online activities and well-being based on existing data
- WP2: Long-term impact of technology on well-being: The longitudinal study
- WP3: Short-term impact of technology on well-being: The experimental studies
- WP4: Interconnecting short-term and long-term impacts of technology on well-being: Developing new research tools
- WP5: Towards new theory of media effects on well-being

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Theoretical starting points: Differential Susceptibility to Media Effects Model (DSMM)

- Media effects depend on a set of differential susceptibility variables
- Media use is first associated with short-term response states, then long term media effects
- Differential susceptibility variables determine media use and moderate short-term response states
- Media effects are transactional

Valkenburg & Peter, 2013

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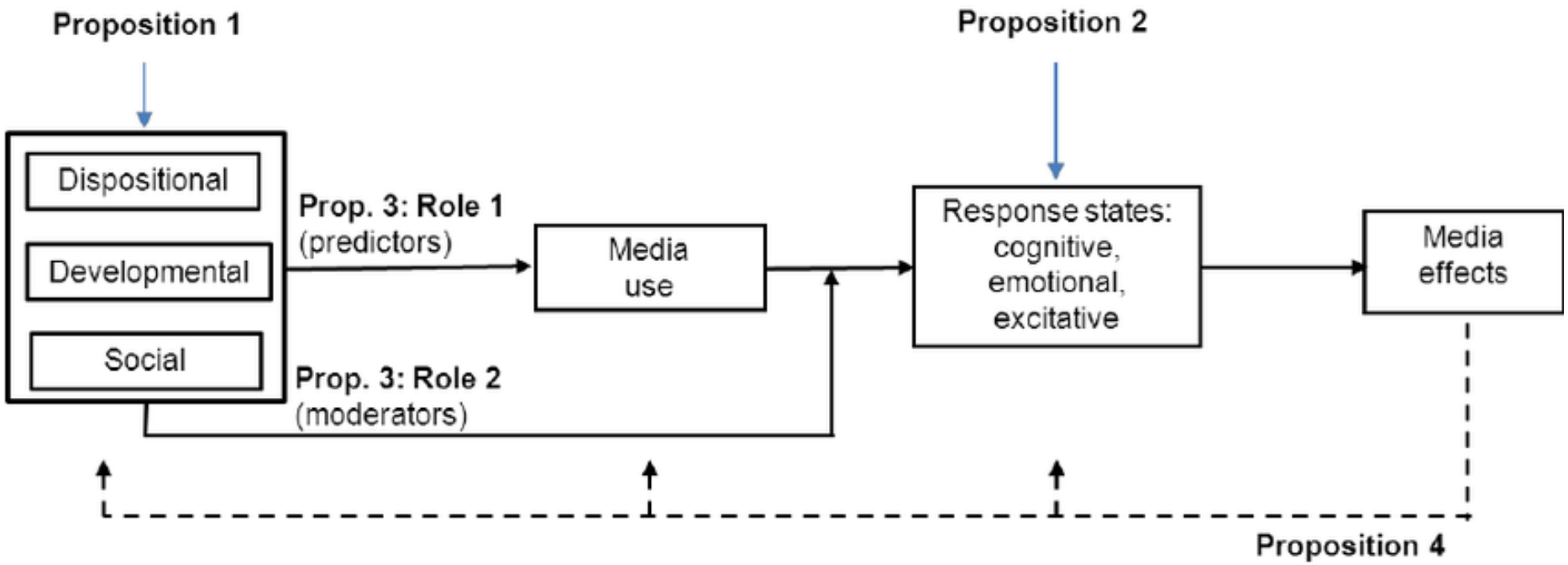
Differential Susceptibility to Media Effects Model



Proposition 1: Media effects depend on three types of susceptibility.
Proposition 2: Three media response states mediate the relationship between media use and effects.
Proposition 3: The differential susceptibility variables have two roles; they act as predictors and moderators.
Proposition 4: Media effects are transactional.

Valkenburg & Peter, 2013

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Problem Behavior Theory

PBT

- **Oriented toward risky and health-promoting behaviors**
- Risk factors:
  - model risks (e.g., activities observed in peers and parents, such as substance use),
  - opportunity risks (e.g., substance accessibility),
  - vulnerability risks (individual characteristics; e.g., sensation seeking).
- Protective factors:
  - model protectives (e.g., parents' health-promoting activities),
  - social support (e.g., proximity to peers),
  - control protectives (e.g., strictness of parental rules).

Jessor, 2014

Health Belief Model

HBM

- **Prevention of risky behaviors and promotion of desirable habits**
- Reflects on cognition, motivation and voluntary actions
  - Felt susceptibility to a threat
  - Perceived benefits and barriers for an action
  - Self-efficacy
- Motivational model for behavior change

Champion & Skinner, 2008

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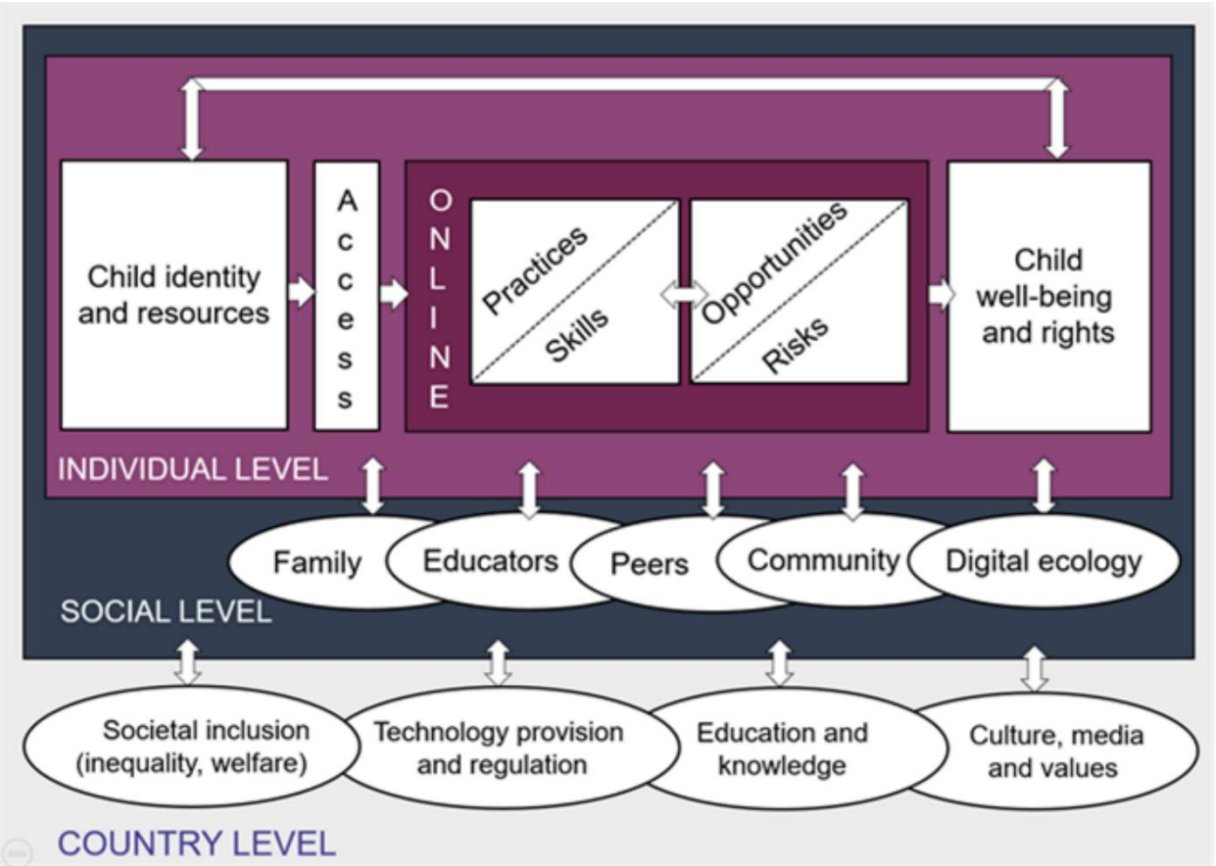
Ecological Systems Theory[1]

EST

- Human development impacted by contextual factors, in a nested model with five layers:
  - Microsystem
  - Mesosystem
  - Exosystem
  - Macrosystem
  - Chronosystem

- EUKO model[2] -------→



1 Bronfenbrenner, 1977
2 Livingstone et al. 2017

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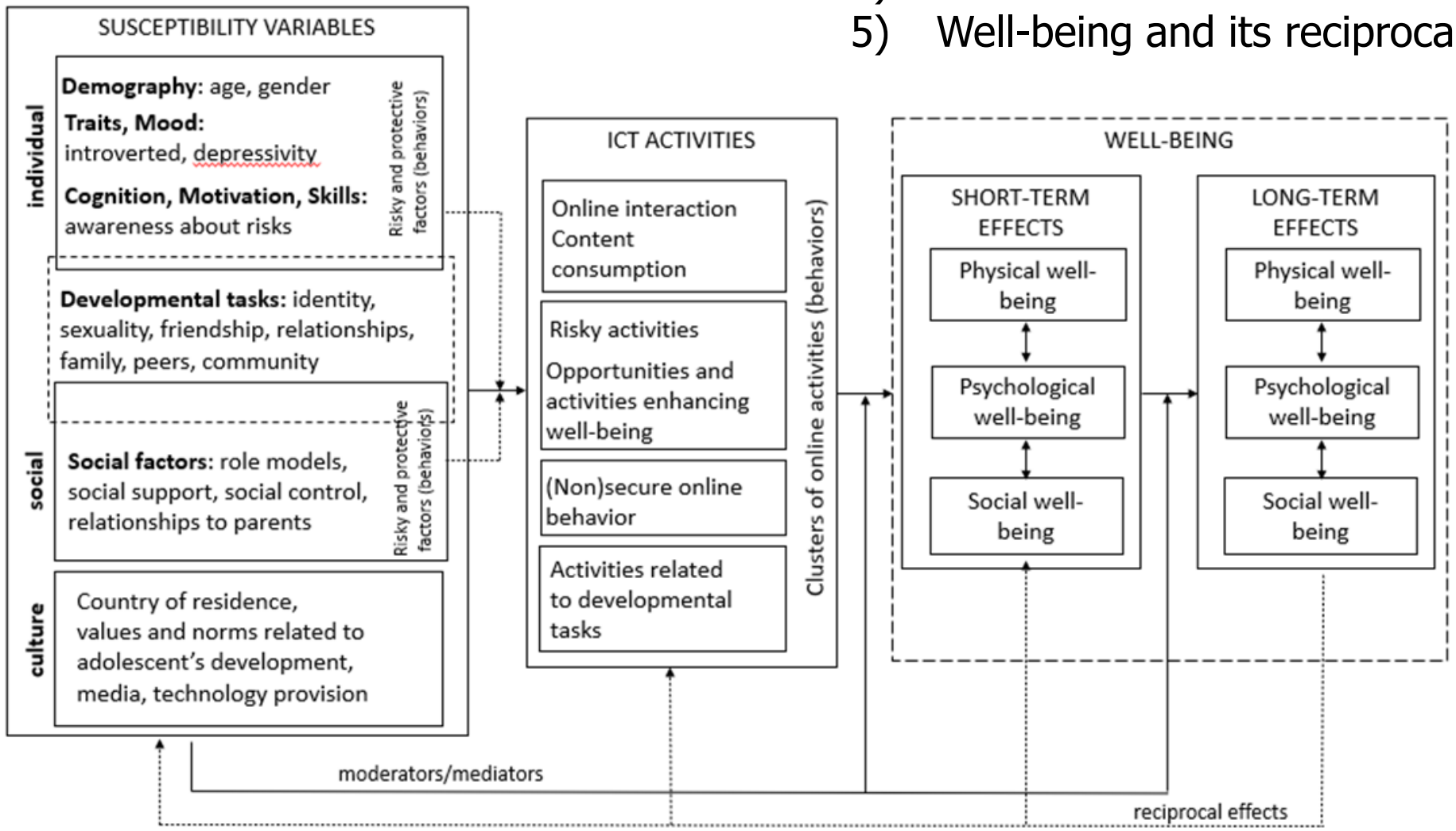
iMEW Model

1) Causality in the iMEW model
2) Beneficial and detrimental impact of ICTs
3) Clusters of online risky and protective activities
4) Role of moderators and mediators
5) Well-being and its reciprocal effects



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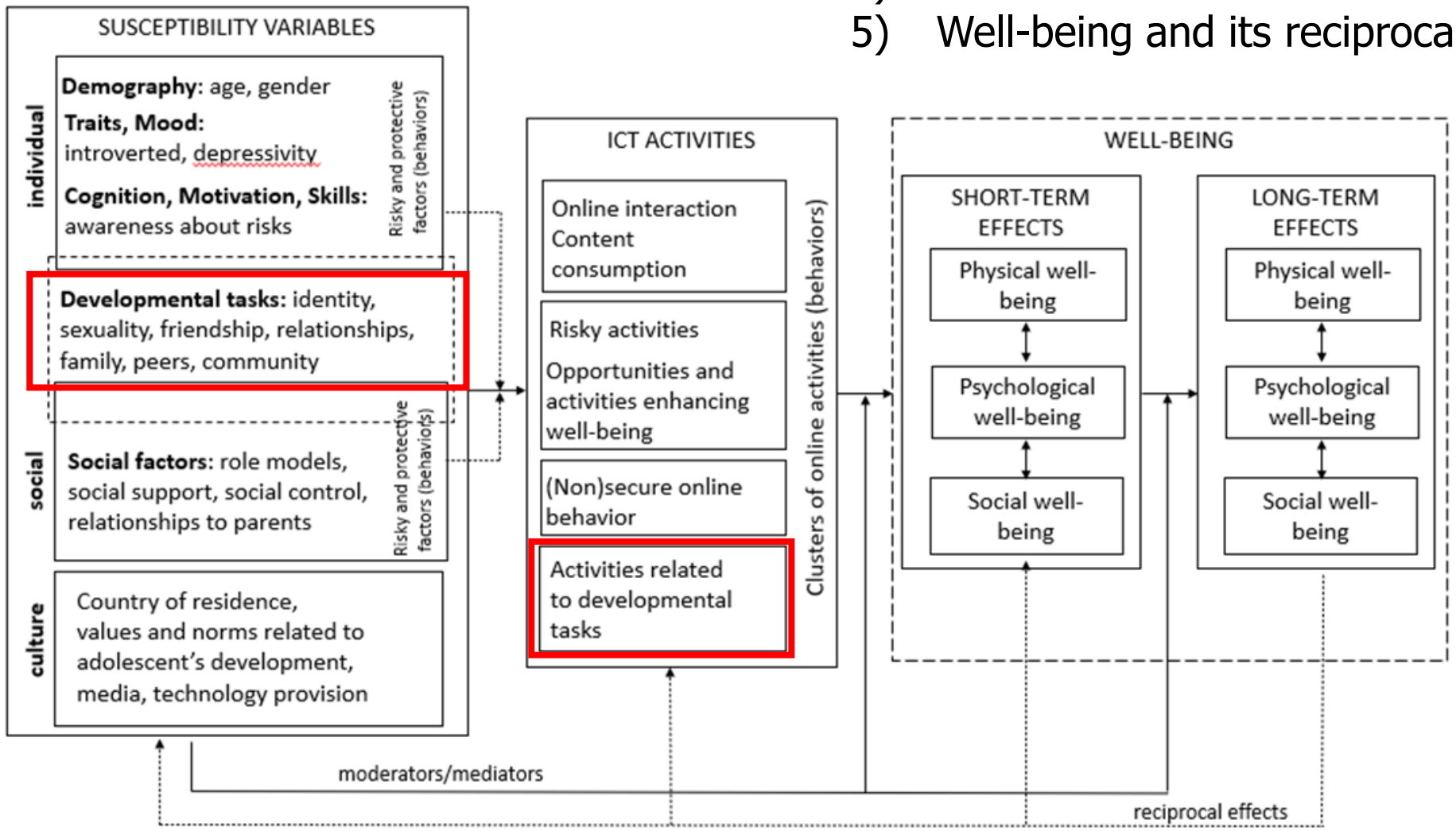

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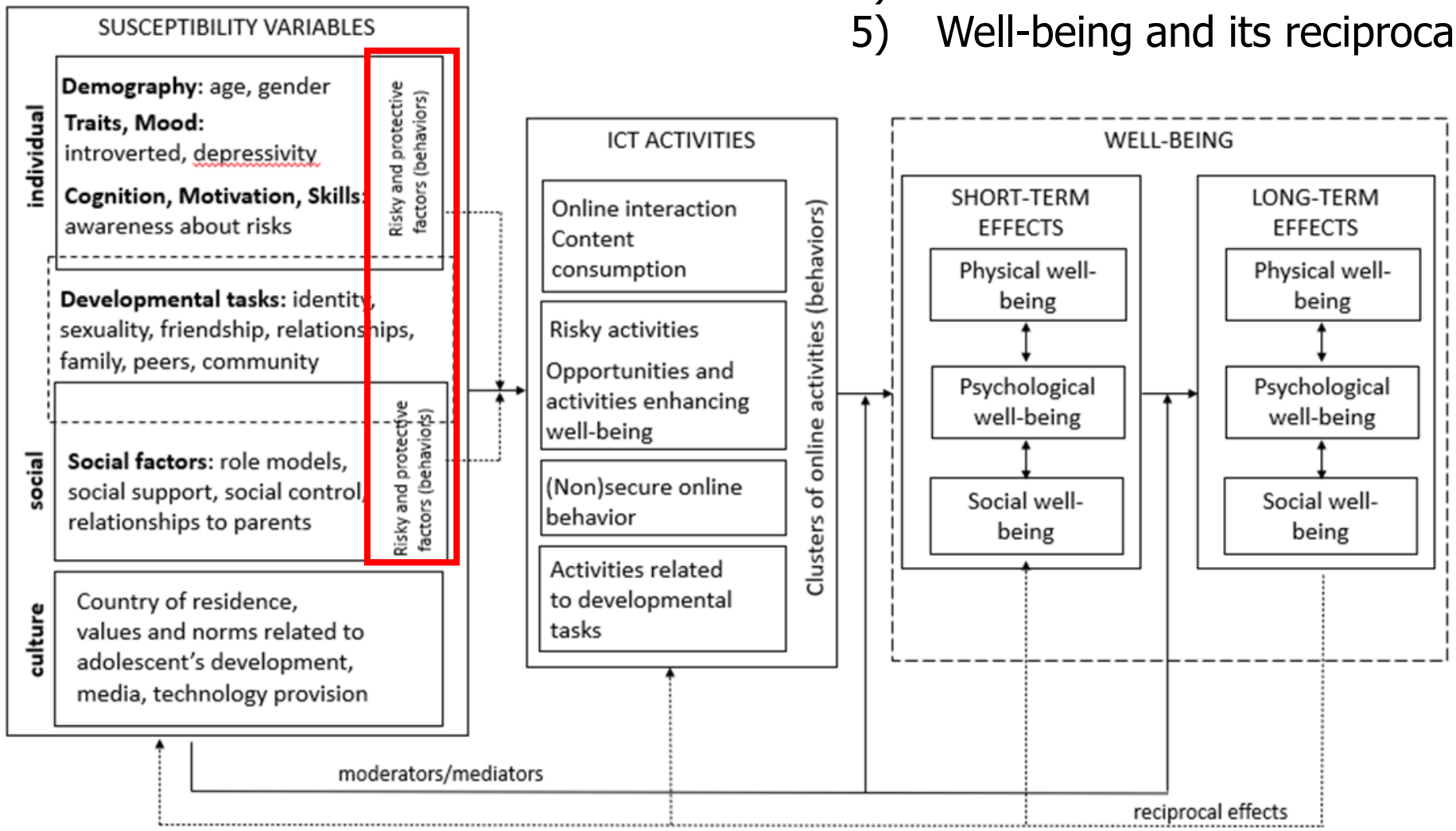

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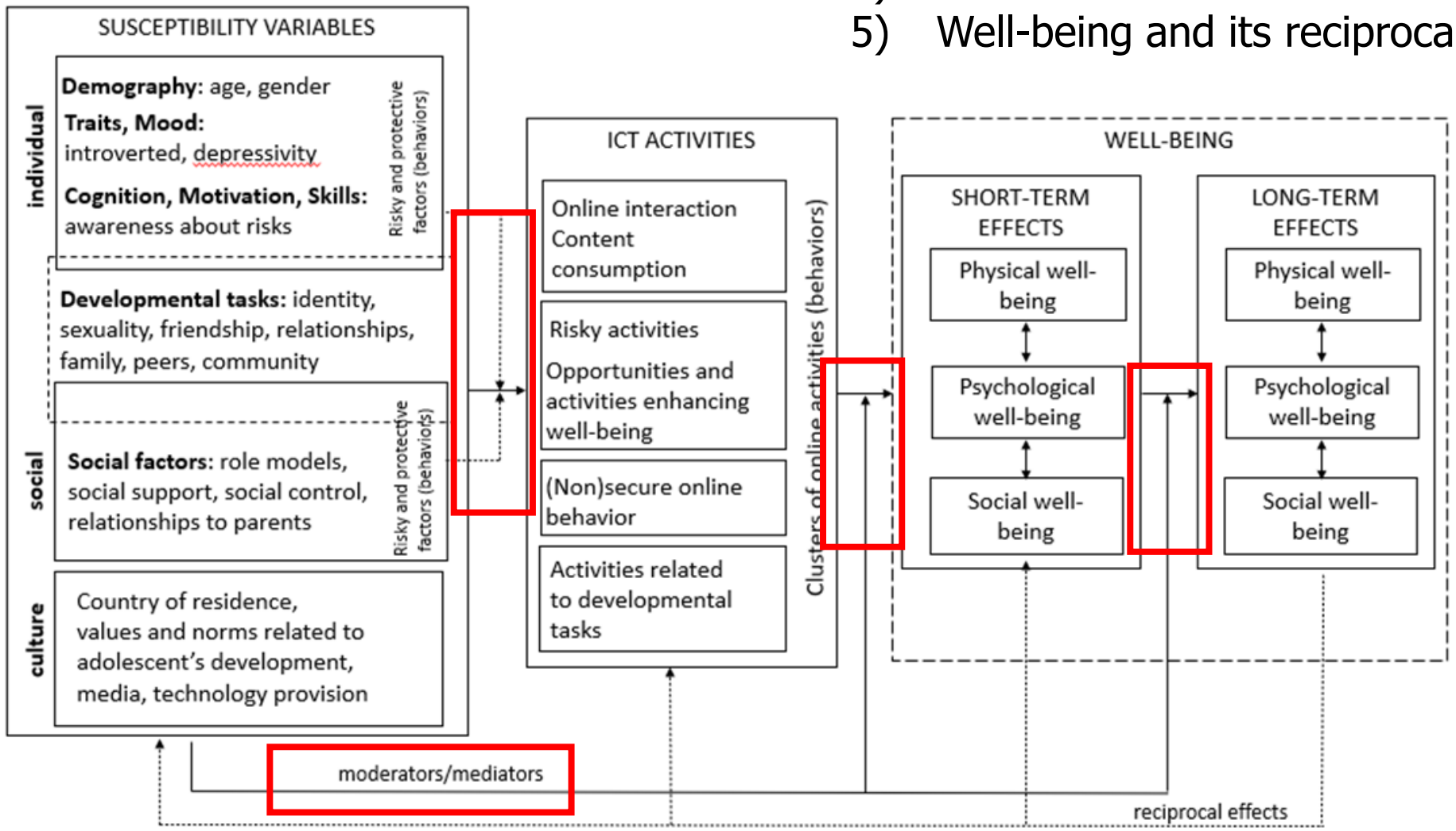

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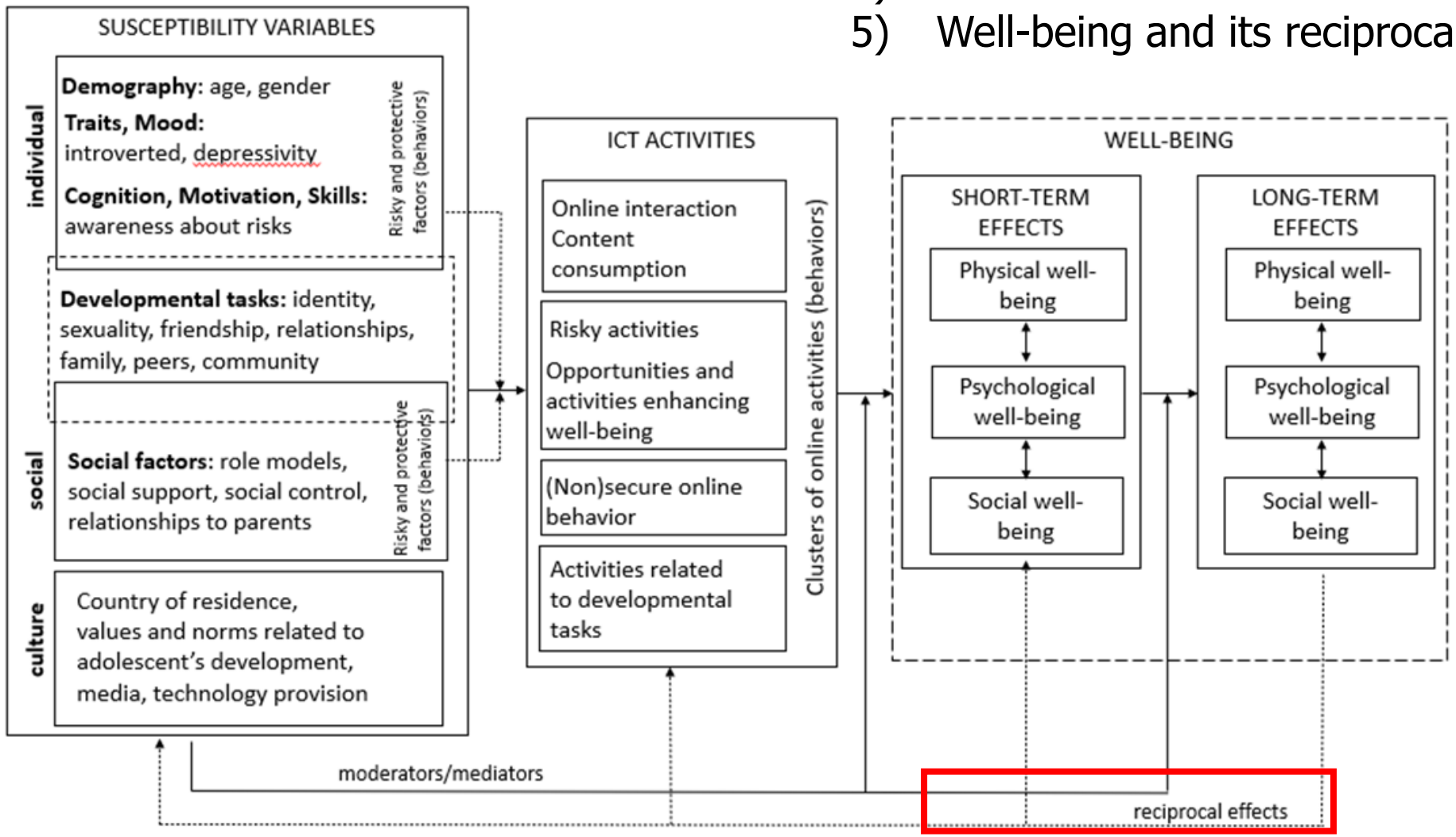

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Discussion

- **iMEW revises & enriches previous theories and models**
- DSMM:
  - More structure in dispositional variables
  - Developmental tasks integrated into susceptibility variables
  - More structure in media use and additional moderation effects
- PBT:
  - Risks and protective factors connected with developmental tasks and well-being
  - Proposed clusters of online risks & protectives
- HBM:
  - Integrated into a broader context

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Conclusion

- Integrative model helps to explain the effects of ICTs on adolescents' well-being

- Enriches developmental psychology from an interdisciplinary perspective

- Provides a useful framework for thinking about the complex interrelationships among the variables

➔ Think about next presentations in the perspective of iMEW

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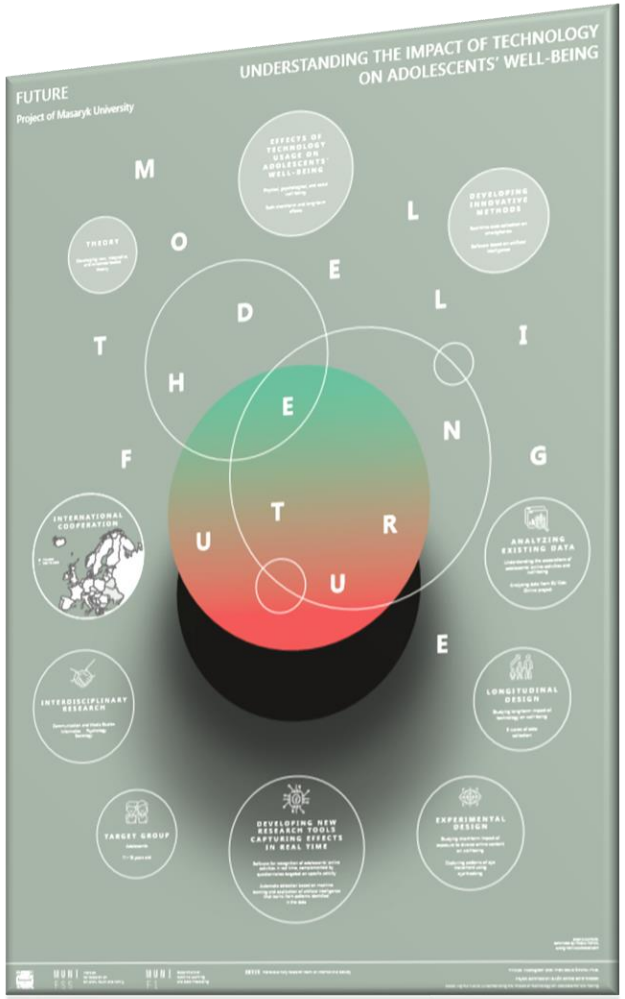

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Thank you for your attention