

DIGITALISATION IN DAILY LIFE

FROM ACCEPTANCE DRIVERS TO REBOUND

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WHY THINK ABOUT DIGITALISATION'S (INDIRECT) EFFECTS?

Diffuse, usage-dependent
long-term climate outcomes.



Our lives are increasingly digitised and automated.

RESEARCH OBJECTIVES

The dynamics of technology acceptance and use under multi-level influences

Interactions between
individual-level determinants
and societal-level factors

How cross-level interactions
shape continued use

Feedback from
continued use to acceptance
of adjacent technologies

s o c i e t a l l e v e l

technology
acceptance

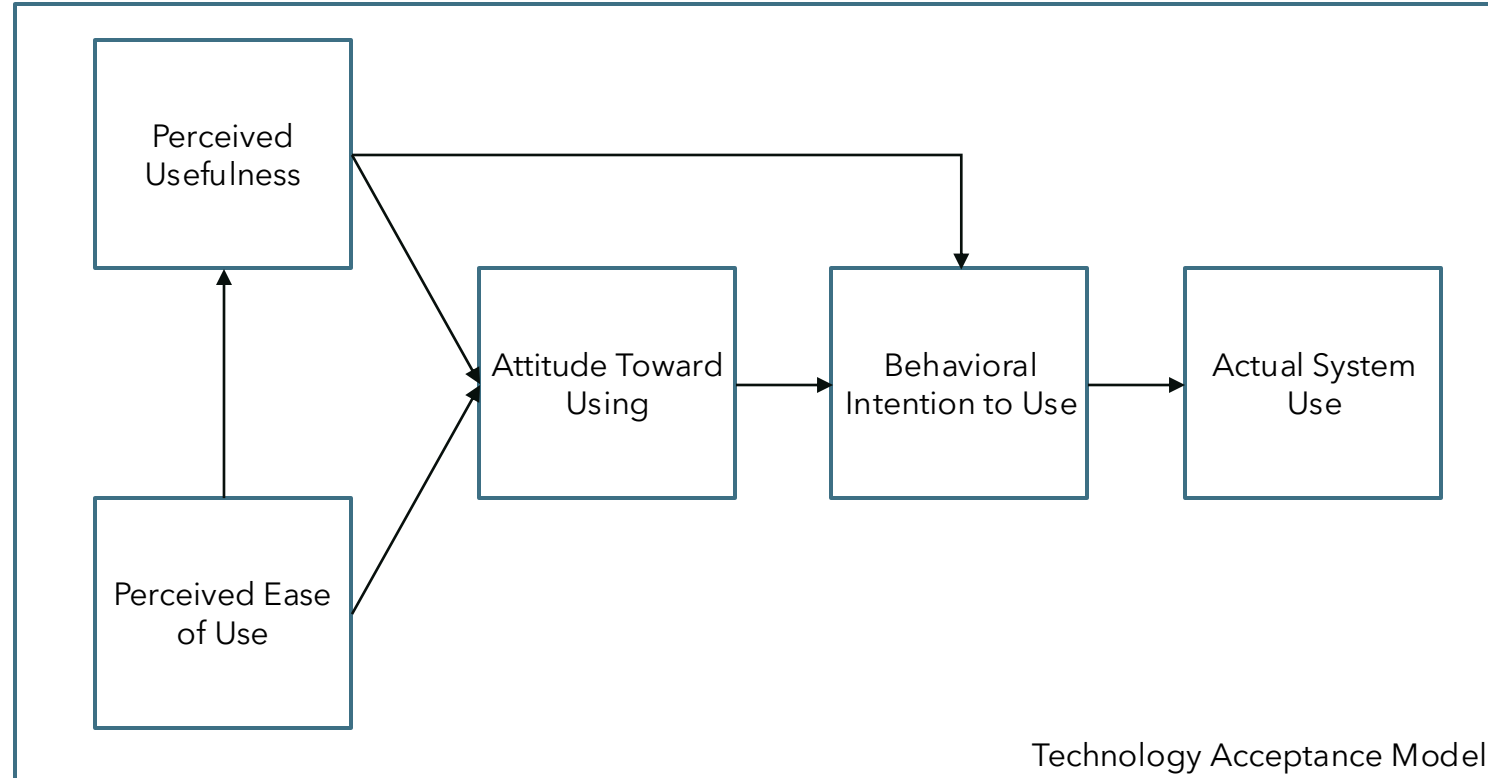


continued
use



i n d i v i d u a l l e v e l

TECHNOLOGY ACCEPTANCE MODEL



Davis, 1989

RESEARCH DESIGN

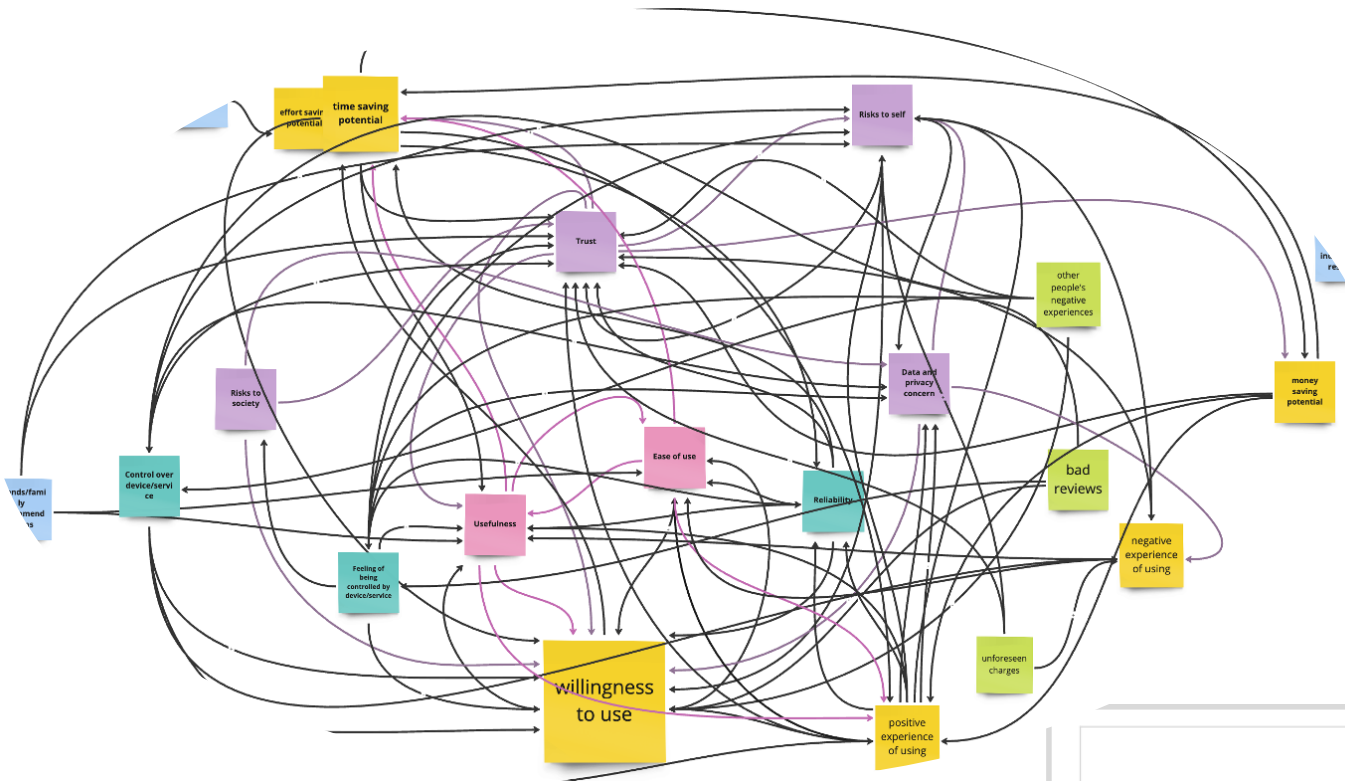
Participant recruitment

Living lab
recruitment
2022

Household
shortlist
mini mission
survey
2023

Game of
(digitalised
daily) Life
soft recruitment
and piloting
2023

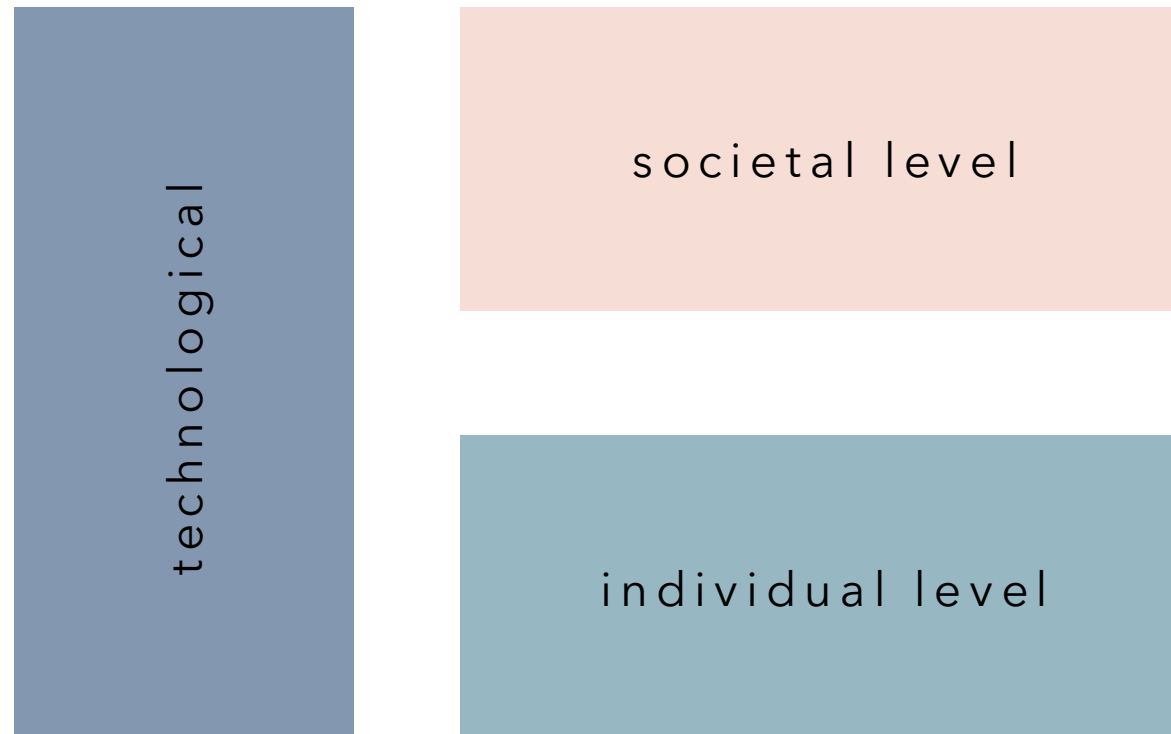
Participatory
systems
mapping
CLD
2023 - 24



	Trust	(Perceived) Risk	Privacy (Concern)	(Perceived) Usefulness	(Perceived) Ease of Use	Cost savings (monetary)	Cost savings (effort)	Cost savings (time)	Peer influence (friends/family recommendation)	Social expectation	Information (advertising)	Information (independent discovery and assessment)	Convenience	Reliability	Acceptance	Cost (money spent)	Quality	Availability of alternatives	
Trust	0	-8	-5	3	0	1	1	1	2	0	0	0	0	0	1	6	0	1	0
(Perceived) Risk	-5	0	2	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	0
Privacy (Concern)	-5	4	0	0	0	-1	0	0	0	0	0	0	0	0	-2	0	0	0	0
(Perceived) Usefulness	2	0	0	0	3	1	2	1	0	0	0	0	0	0	7	0	0	0	0
(Perceived) Ease of Use	3	0	0	5	0	2	3	3	0	0	0	0	0	0	6	0	0	0	0
Cost savings (monetary)	4	0	-1	5	1	0	1	1	0	0	0	0	0	0	5	0	0	0	0
Cost savings (effort)	1	1	0	5	2	1	0	2	0	0	0	0	0	1	1	3	0	0	0
Cost savings (time)	3	0	0	6	2	2	2	0	0	0	0	0	0	0	1	5	0	0	0
Peer influence (friends/family recommendation)	7	-2	0	3	1	0	0	0	0	0	0	0	2	0	0	3	0	0	0
Social expectation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Information (advertising)	-1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
Information (independent discovery and assessment)	2	-1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Convenience	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
Reliability	5	0	0	4	2	1	2	2	0	0	0	0	0	0	4	0	0	0	0
Acceptance	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Cost (money spent)	-2	-1	0	-1	0	0	0	0	0	0	0	0	0	0	-3	0	2	0	0
Quality	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

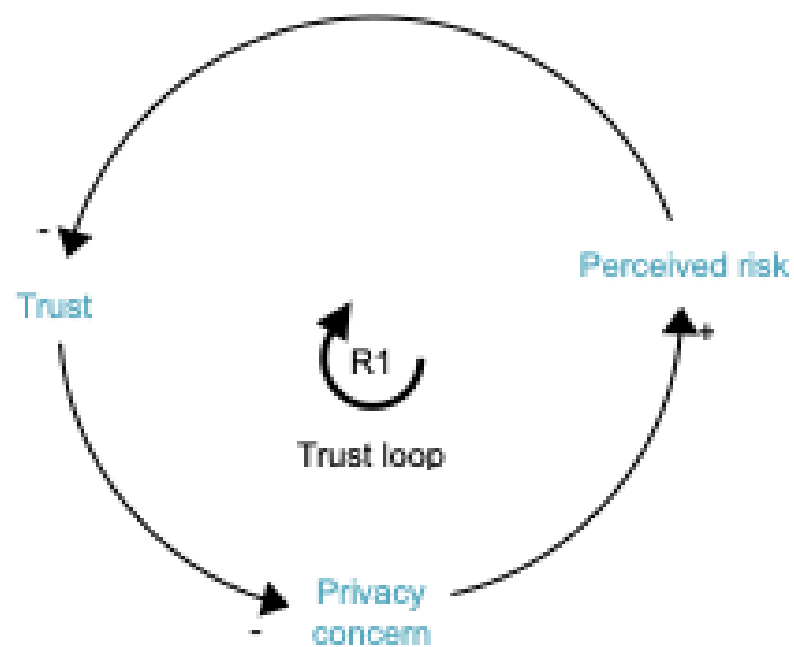
	Trust	(Perceived) Risk	Privacy (Concern)	(Perceived) Usefulness	(Perceived) Ease of Use	Cost savings (monetary)	Cost savings (effort)	Cost savings (time)	Peer influence (friends/family recommendation)	Social expectation	Information (advertising)	Information (independent discovery and assessment)	Convenience	Reliability	Acceptance	Cost (money spent)	Quality	Availability of alternatives	Compatibility with other devices	Integration with other services	Dependence on the digital	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease of	Perceived ease 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Determinants of acceptance



Based on Davis and Granic, 2024

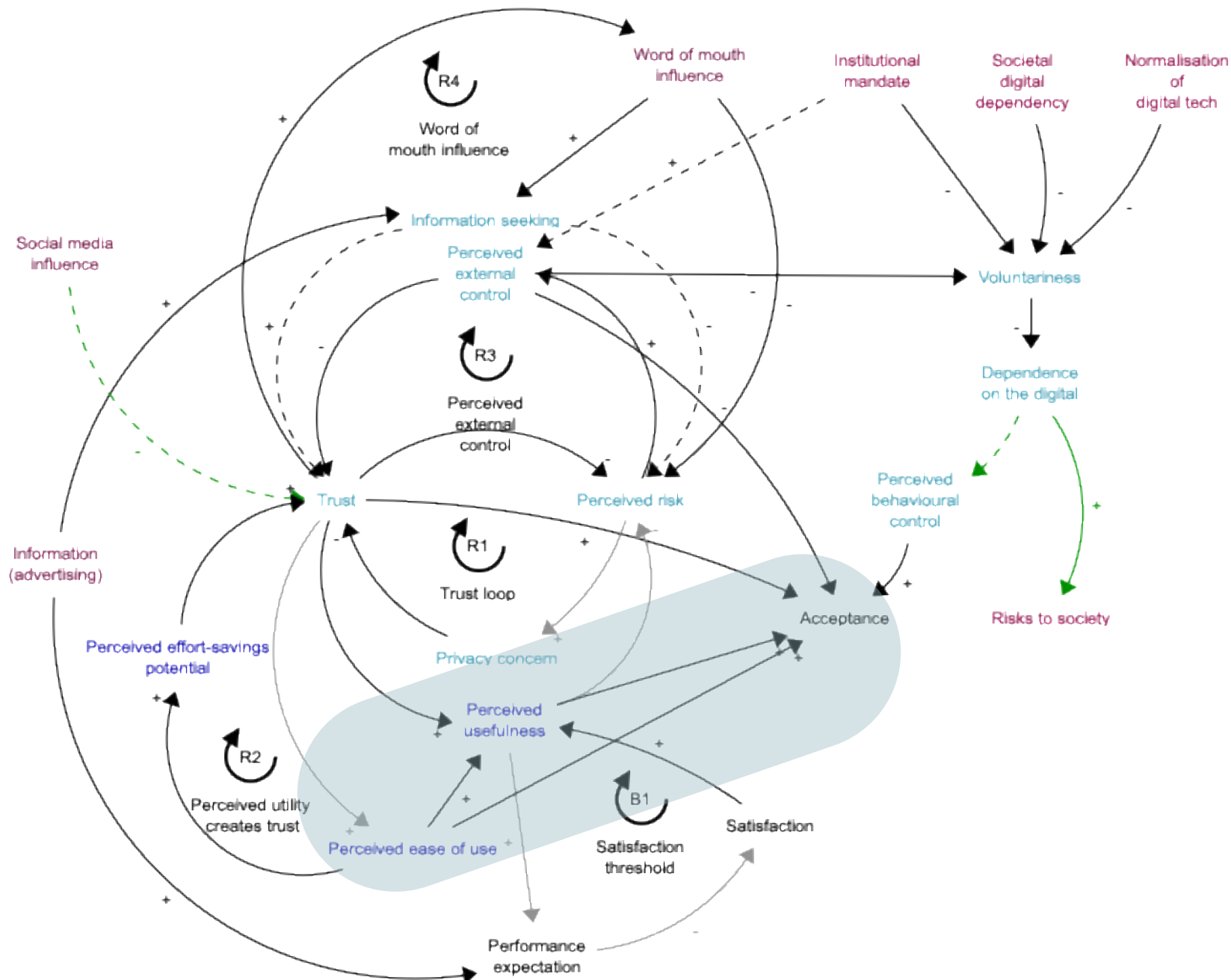
Interactions between
individual-level determinants
and societal-level factors



How cross-level interactions
shape continued use

Feedback from
continued use to acceptance
of adjacent technologies

Interactions between individual-level determinants and societal-level factors



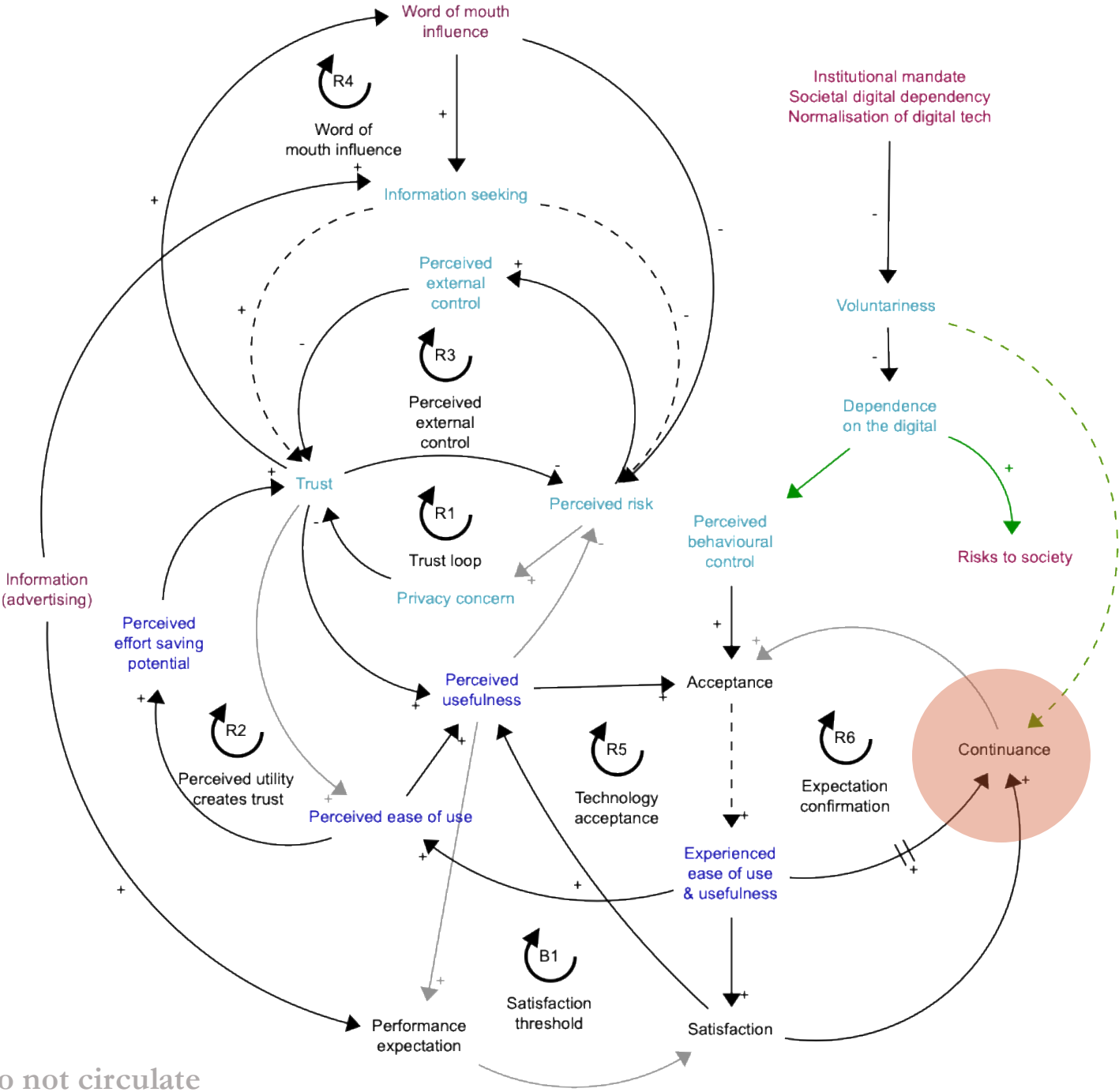
How cross-level interactions shape continued use

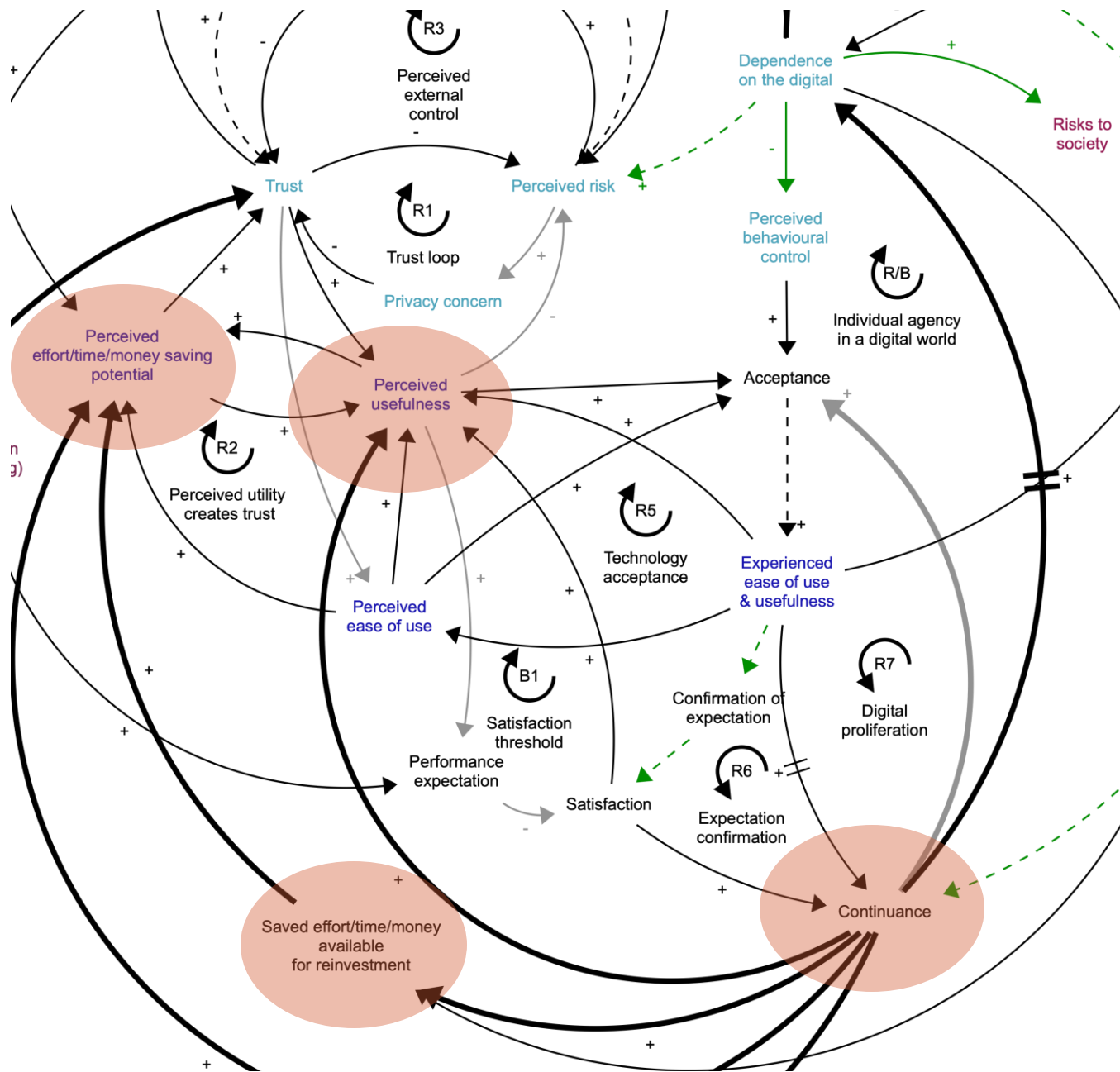
Feedback from continued use to acceptance of adjacent technologies

Interactions between individual-level determinants and societal-level factors

How cross-level interactions shape continued use

Feedback from continued use to acceptance of adjacent technologies





Interactions between individual-level determinants and societal-level factors

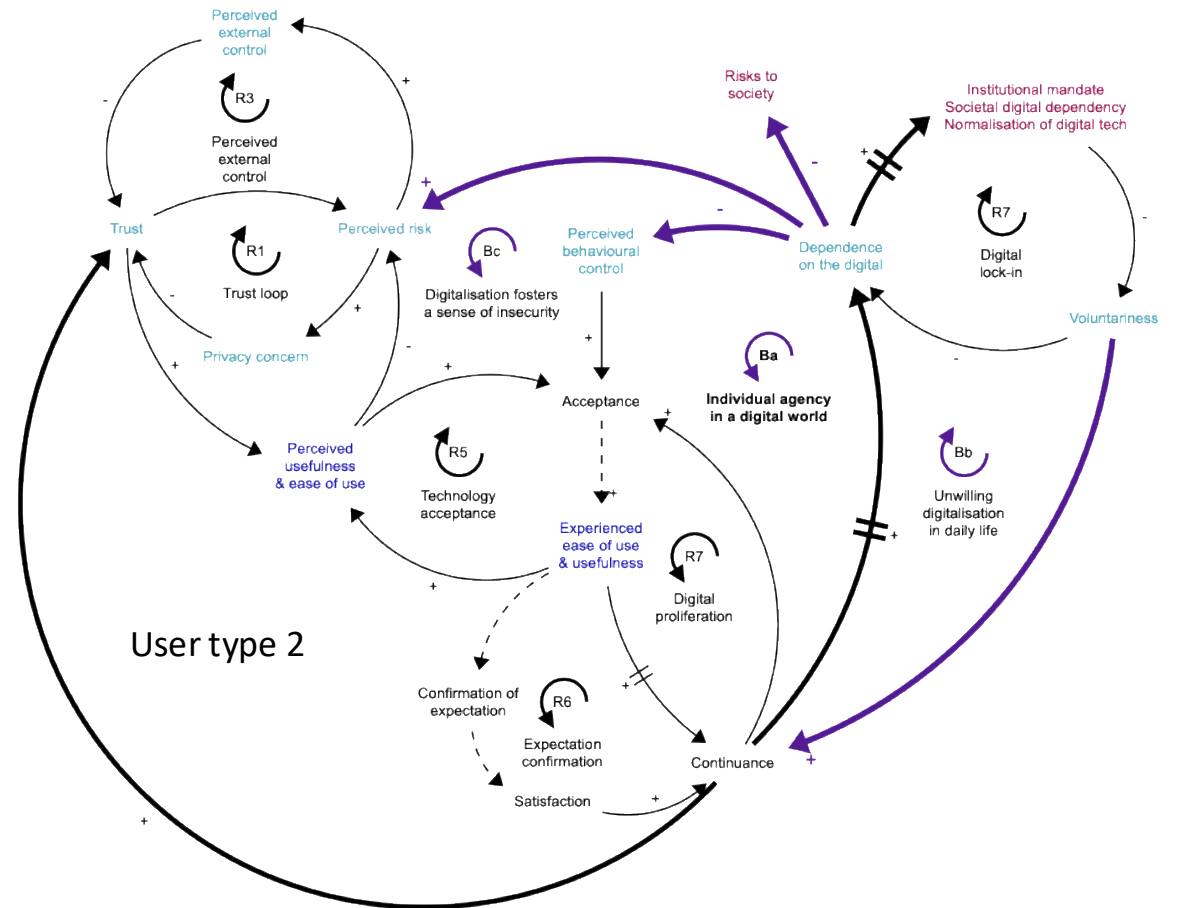
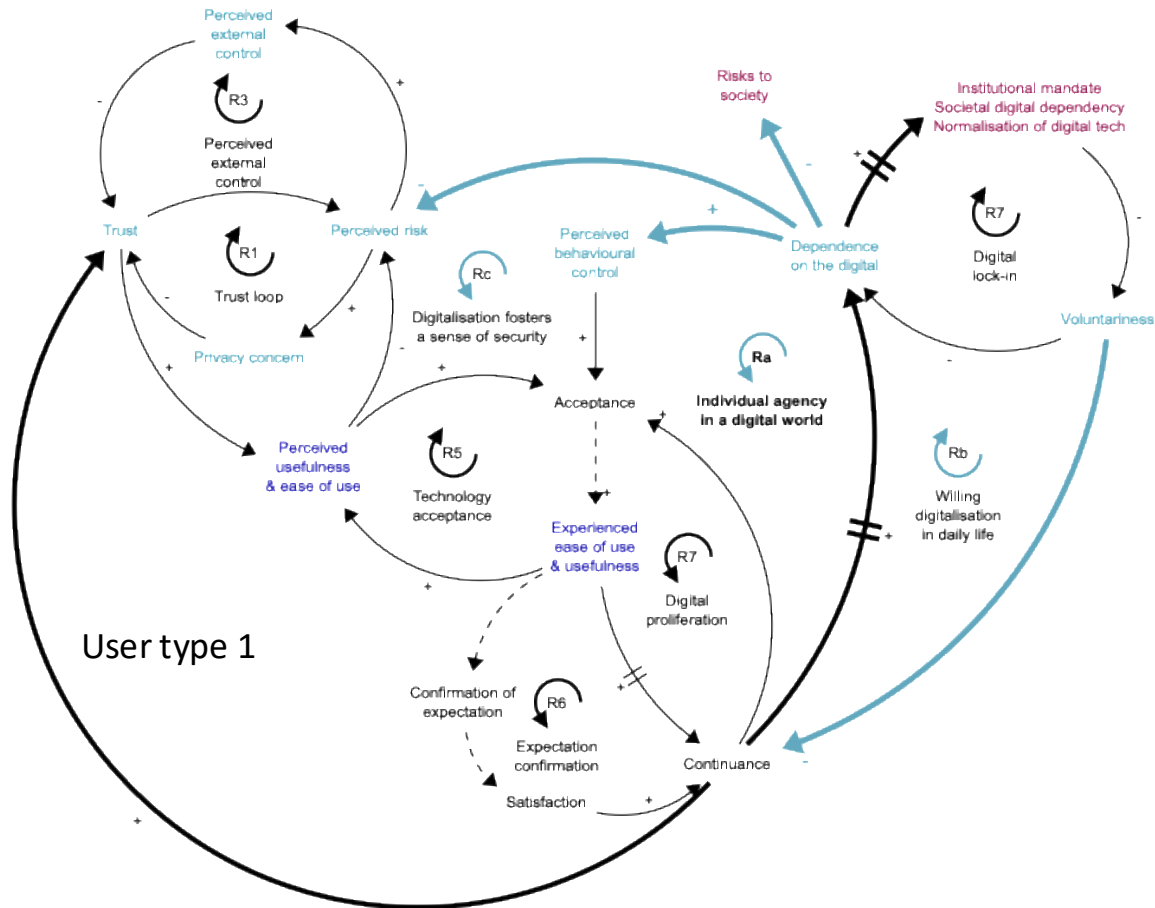
How cross-level interactions shape continued use

Feedback from continued use to acceptance of adjacent technologies

DISCUSSION

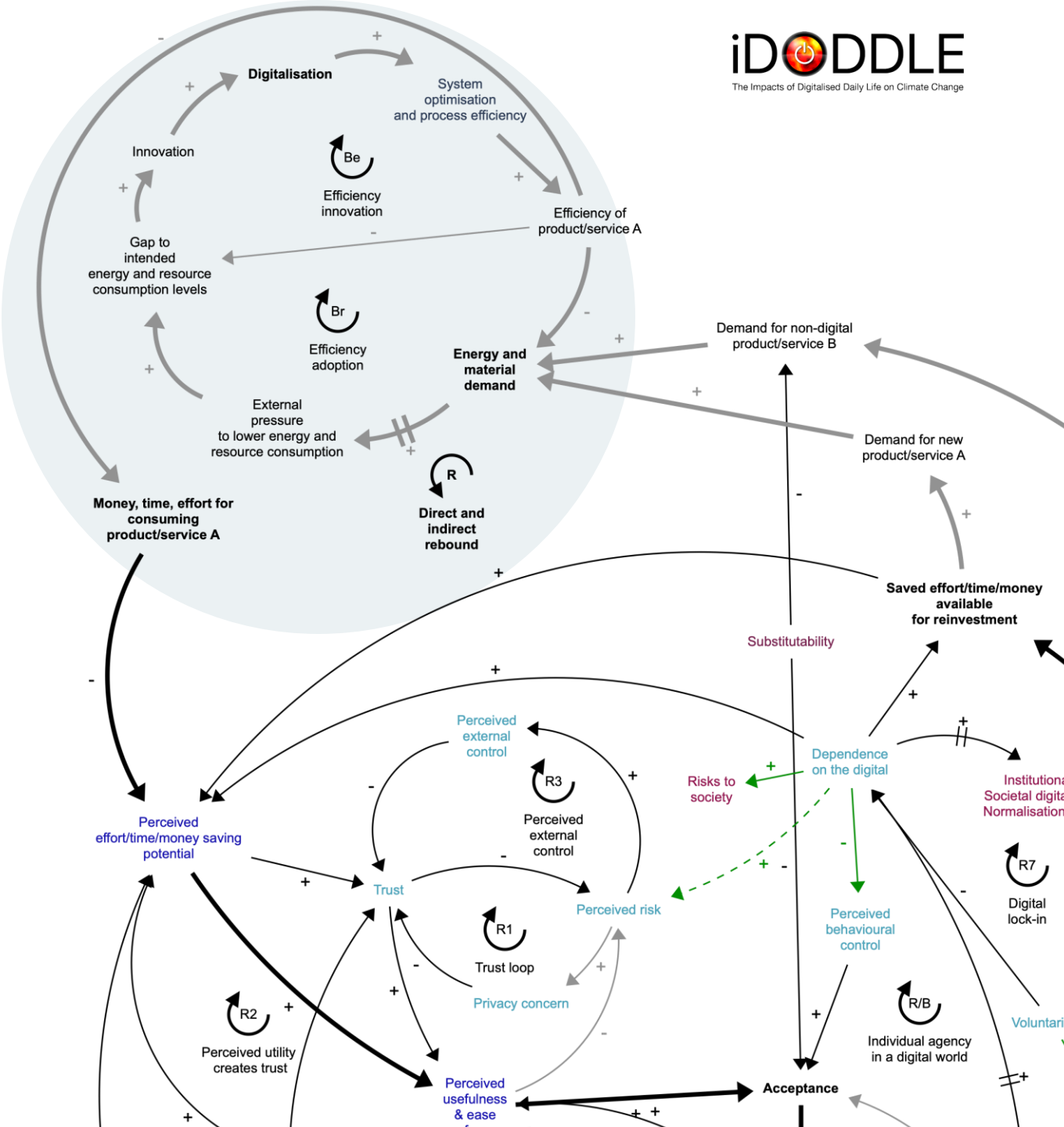
1. Does privacy concern necessarily hinder acceptance in practice?
2. Individual-level factors appear to be more salient drivers of continuance than societal-level factors
3. Heterogeneity in user types impacts the nature of feedbacks
4. Long-run rebound effects will depend on dominance of user types and feedback loops

3. Heterogeneity in user types impacts the nature of feedbacks



Dependence on the digital →	R1 (trust-risk perception-privacy concern)	Perceived behavioural control
Type 1 (enthusiastic)	Positive (same direction)	Positive (same direction)
Type 2 (reluctant)	Negative (inverse relationship)	Negative (inverse relationship)

4. Long-run rebound effects will depend on dominance of user types and feedback loops



THANKS FOR YOUR ATTENTION



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