

# The Issue of Interdependent Privacy: A 3R Framework

WU  
WIRTSCHAFTS  
UNIVERSITÄT  
WIEN VIENNA  
UNIVERSITY OF  
ECONOMICS  
AND BUSINESS

Bernadette Kamleitner & Vince Mitchell


FIRENZE – 7.6.2019

EFMD  
EQUIS  
ACCREDITED

AACSB  
ACCREDITED

ASSOCIATION  
AMBA  
ACCREDITED

## Privacy is interdependent



What's tomorrow's weather in Florence gonna be like?

Just give me the phone number and picture of your best friend and I'll tell you...

© Bernadette Kamleitner

EFMD  
EQUIS  
ACCREDITED

AACSB  
ACCREDITED

ASSOCIATION  
AMBA  
ACCREDITED

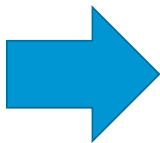
## OFFLINE NORMALITY



### RESPECT FOR OTHER'S POSSESSIONS

- including their secrets and personal data

...part of human's moral development



...fuels harmonious social interactions

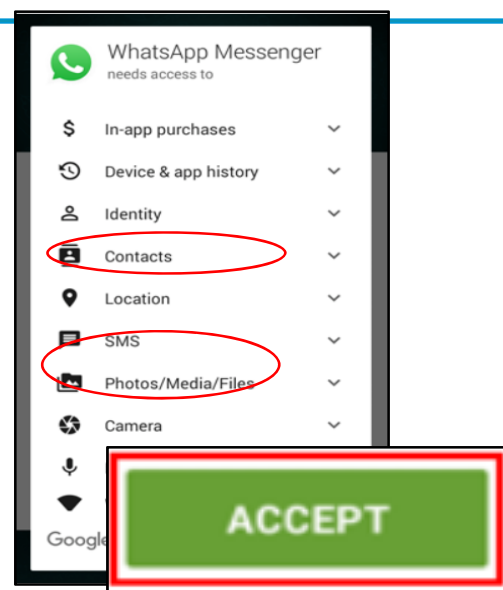
...legally enforced

Gibbs, Basinger, Fuller, & Fuller, 2013; Nancekivell, Van de Vondervoort, & Friedman, 2013; Petronio, 2015; Rudmin, 1991


© PROF. BERNADETTE KAMLEITNER



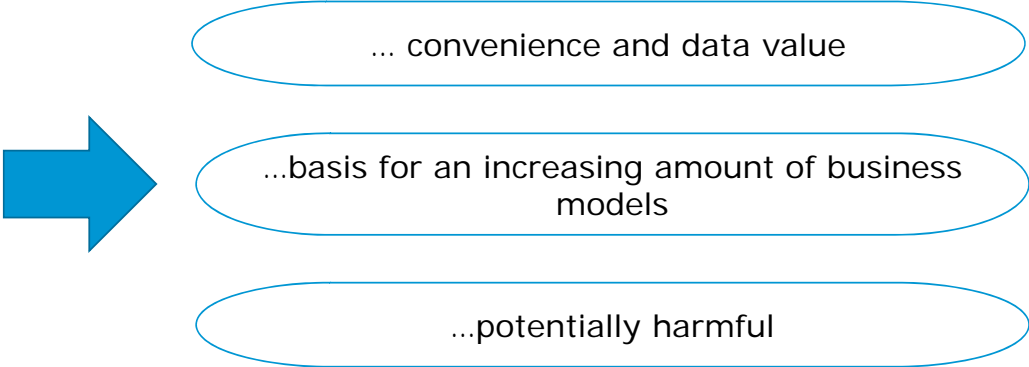
## ONLINE NORMALITY...



## Online Normality



### EVERYONE CAN SHARE WHAT THEY WANT




... convenience and data value

...basis for an increasing amount of business models


...potentially harmful

Morlok, 2016; Nunan & Di Domenico, 2013; Pu and Grossklags 2016; Sarigol, Garcia, & Schweitzer, 2014

© PROF. BERNADETTE KAMLEITNER



## How harmful is it?



Collaborations on **Cloud Services** > privacy losses which are "39% higher than what users themselves cause"

Harkous and Aberer 2017


**Location information** retrieved via a single friend can decrease the median location privacy "by up to 62 percent in a typical setting"

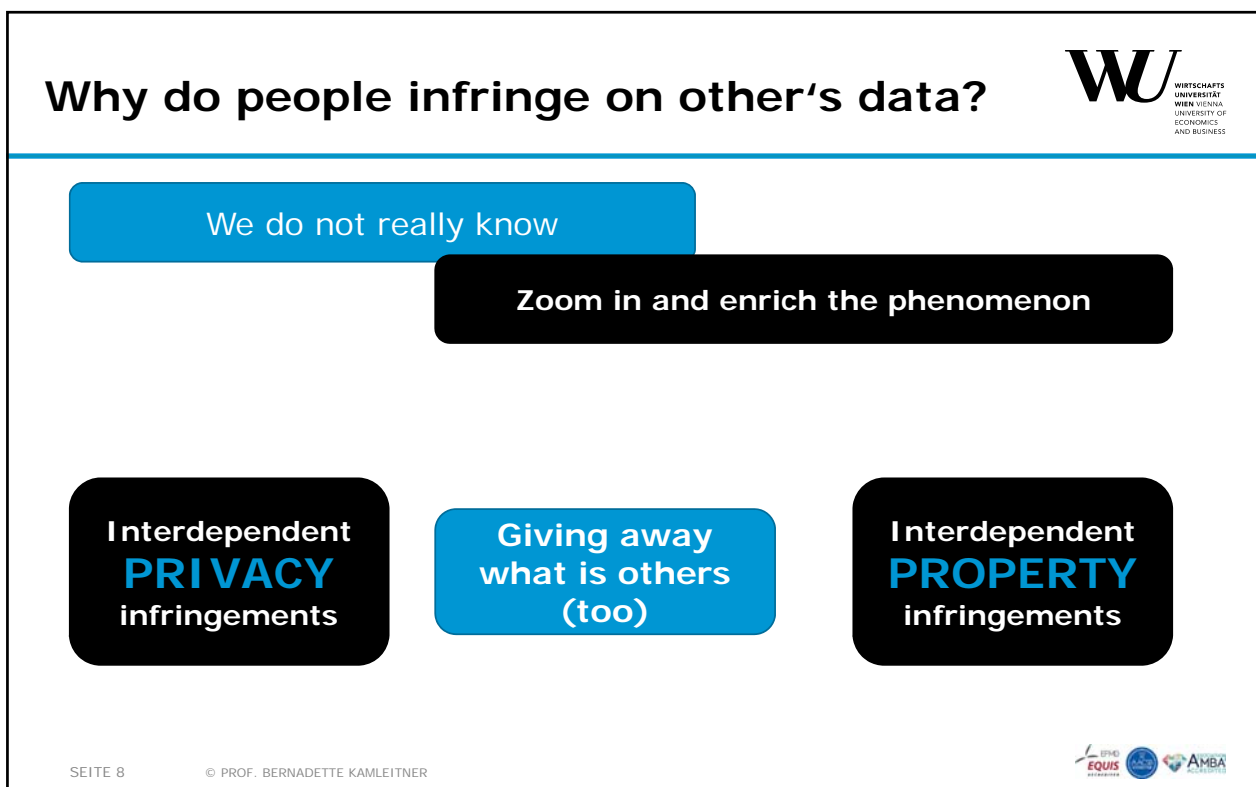
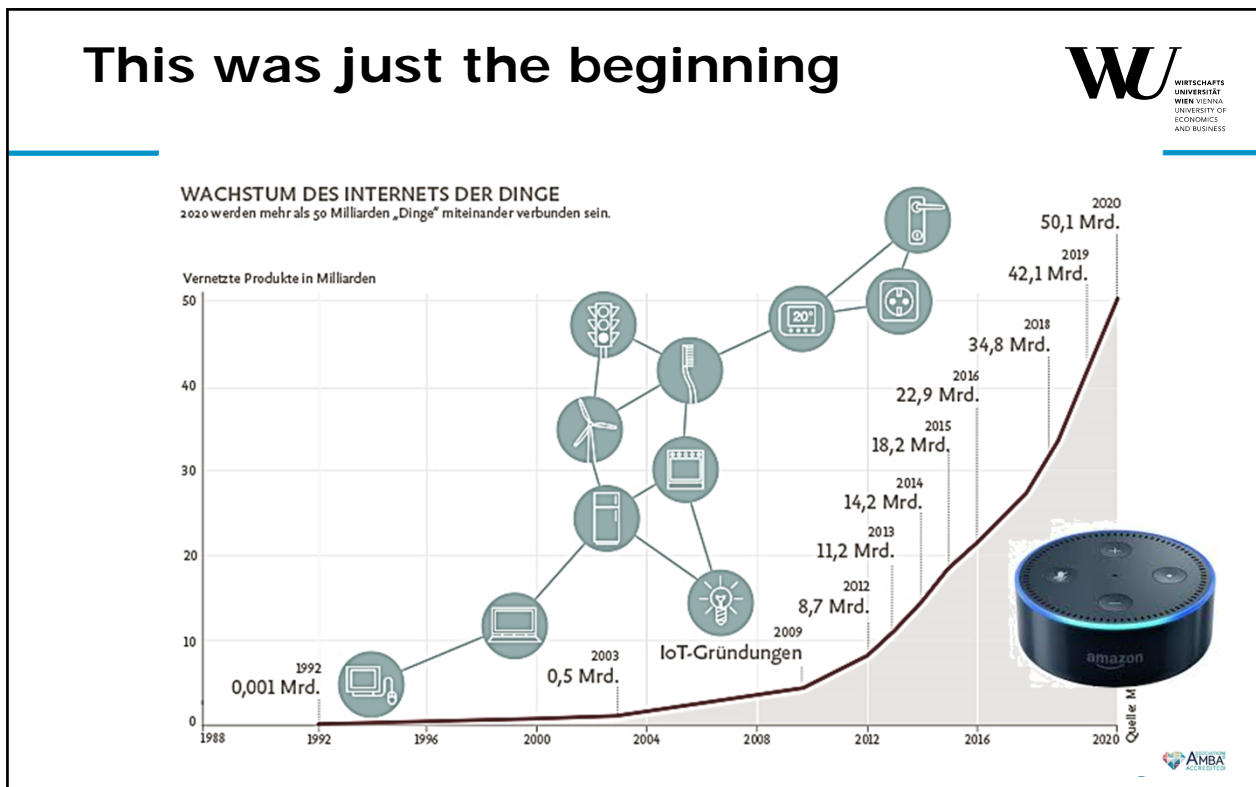
Olteanu et al. 2017

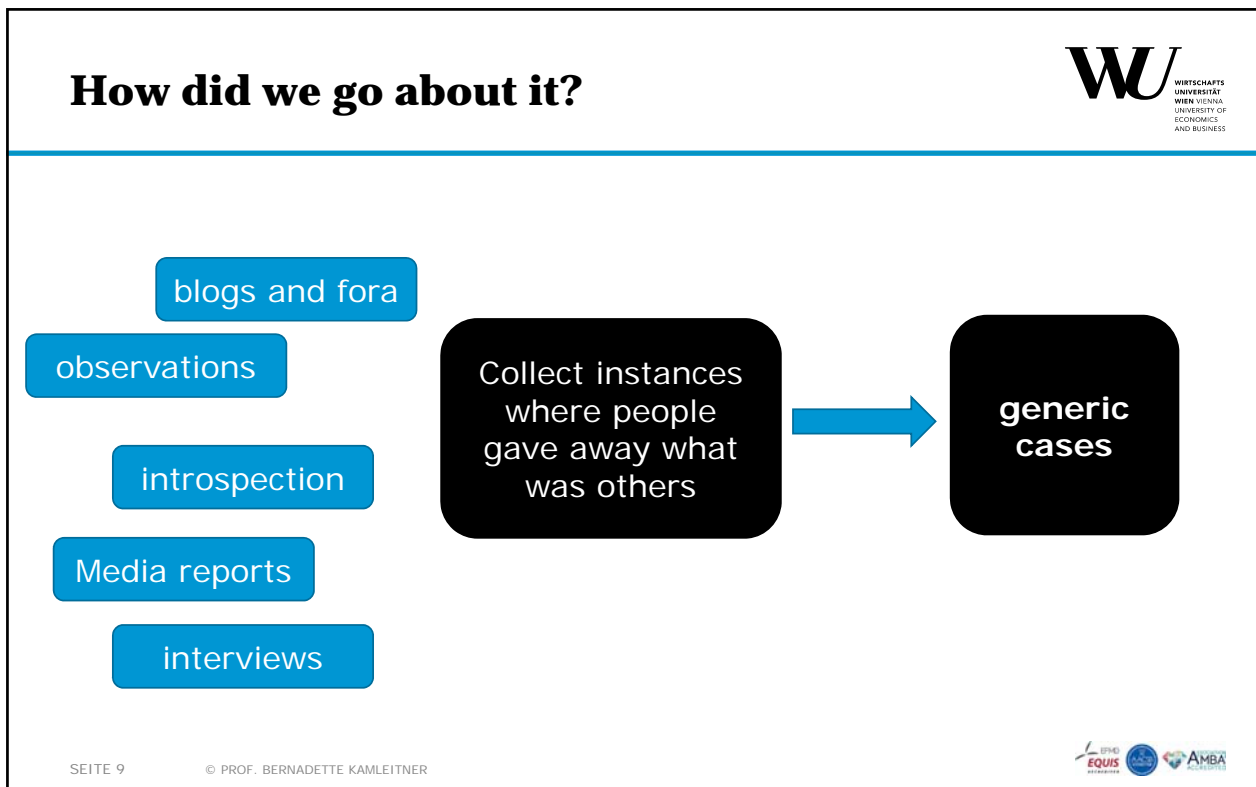
**Cambridge Analytica:**  
270.000 Downloaders  
87.000.000 Victims

**1:322**

© PROF. BERNADETTE KAMLEITNER







## Examples from the privacy domain

Sharer installs Amazon Echo and does not bother to switch it on and off. Others come to visit Sharer, they hold an intimate conversation while the device remains switched on and listens in.

Sharer proudly posts pictures of his child going to the potty for the first time.

Sharer goes shopping and is offered a discount by a shop, if he participates in a referral program. Sharer really wants this discount and provides Other's contacts.

Investigative journalist R tricks Sharer (=politician O's secretary) to reveal information about politician O by ostensibly asking Sharer for his own life story.

SEITE 10 © PROF. BERNADETTE KAMLEITNER

WU WIRTSCHAFTS UNIVERSITÄT WIEN VIENNA UNIVERSITY OF ECONOMICS AND BUSINESS

EQUIS AACSB AMBA

# What is needed for protecting what is others?

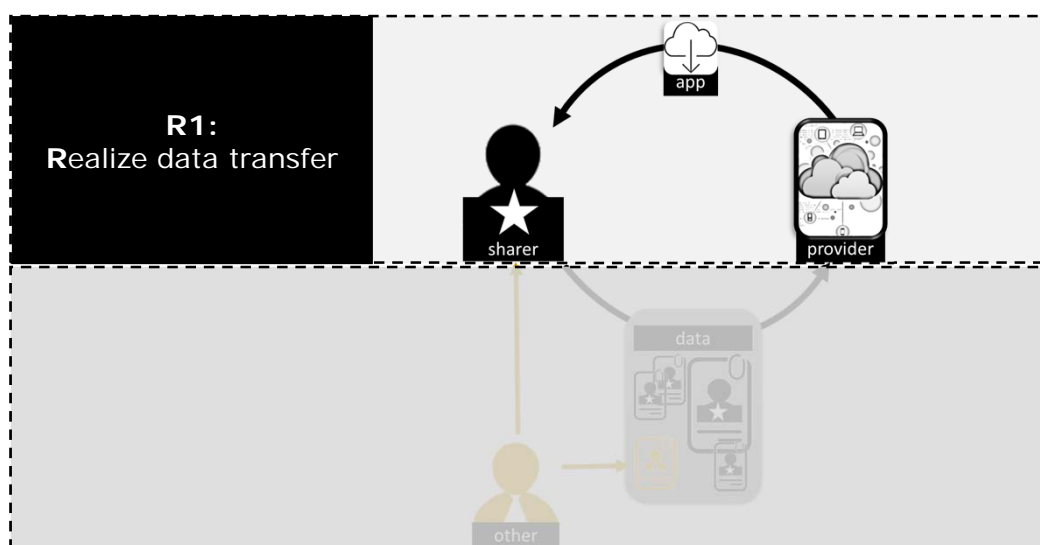


## The 3 R framework

© PROF. BERNADETTE KAMLEITNER



## 3 R's necessary to protect what is others



**WU**  
WIRTSCHAFTS  
UNIVERSITÄT  
WIEN VIENNA  
UNIVERSITY OF  
ECONOMICS  
AND BUSINESS



**WU**  
WIRTSCHAFTS  
UNIVERSITÄT  
WIEN VIENNA  
UNIVERSITY OF  
ECONOMICS  
AND BUSINESS



# WHICH STEP(S) MATTER MOST?

A multi-stage empirical exploration

## Simulated app download task

287 London business students

505 Europeans and Americans via Prolific


Kamleitner, Mitchell, Andrews, Kola (Sloan Management Review 2018)



WIRTSCHAFTS  
UNIVERSITÄT  
WIEN VIENNA  
UNIVERSITY OF  
ECONOMICS  
AND BUSINESS

SEITE 15 © PROF. BERNADETTE KAMLEITNER

## Results (Business Students)



WIRTSCHAFTS  
UNIVERSITÄT  
WIEN VIENNA  
UNIVERSITY OF  
ECONOMICS  
AND BUSINESS

Failure to realize =>  
96 % failed to provide fully informed consent

Failure to recognize =>  
42% saw all rights with themselves

Failure to respect =>  
70% kept app they knew it might infringe others' data

Realize + Recognize + Respect

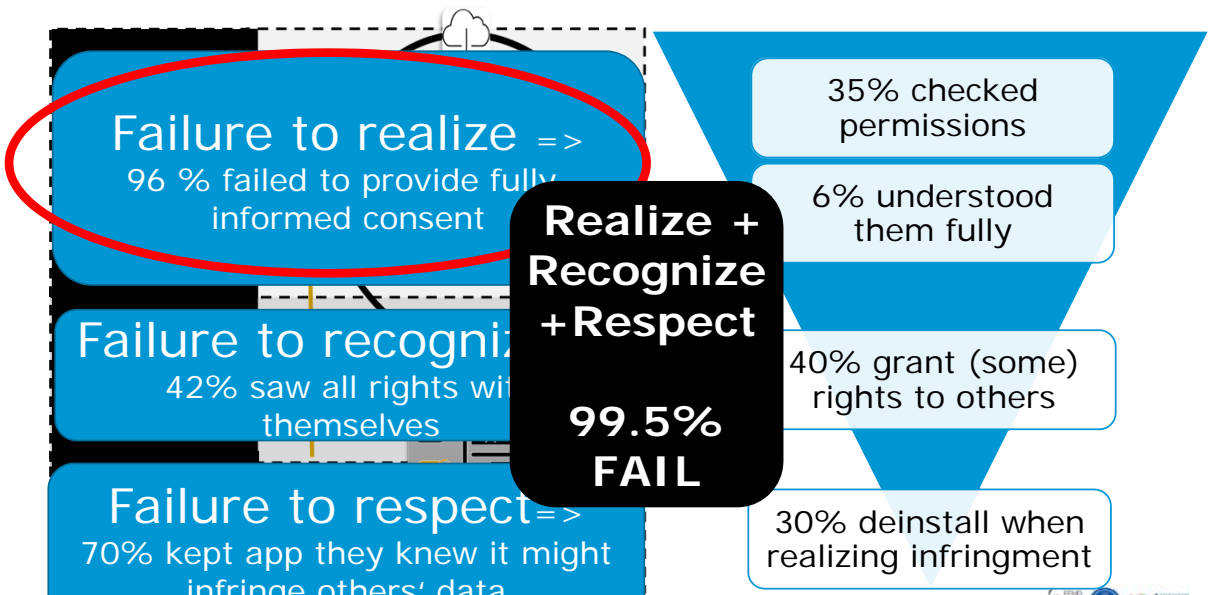
99.5% FAIL

35% checked permissions

6% understood them fully

40% grant (some) rights to others

30% deinstall when realizing infringement



© Bernadette Kamleitner

8



**WU**  
WIRTSCHAFTS  
UNIVERSITÄT  
WIEN VIENNA  
UNIVERSITY OF  
ECONOMICS  
AND BUSINESS



**WU**  
WIRTSCHAFTS  
UNIVERSITÄT  
WIEN VIENNA  
UNIVERSITY OF  
ECONOMICS  
AND BUSINESS

#	Intervention	Primary Stakeholders	Intervention Class			
			E1	E2	E3	E4
1	Indicate amount (e.g., 1001 pictures) or monetary value of data being transferred	Industry	•			
		Industry	•			
		Industry	•			
		Industry	•			
		Privacy organizations				
		Industry, Regulators, DPA	•	•		
		Industry	•	•		
		Industry	•	•		
		DPA				
		Industry	•	•		
		DPA	•	•		
		Industry	•	•		
		Industry	•	•		
9	Automated permission links sent to others when the system recognizes others	Industry	•	•		
10	Alert to data tracking (e.g., When inputting a new friend's data in a phone, consumer be asked to confirm that they have consented)	Industry	•	•		
11	Publicize law suits and harm resulting from data tracking	Industry	•	•		
12	Educate consumers via the power of information	Industry	•	•		
13	Information campaigns on interdependence of data	Industry	•	•		
14	Draw on the 3R Framework for blame	Industry	•	•		
15	Design or require products and tools that may be implied	Industry	•	•		
16	Promoting or requiring greater use of privacy	Industry	•	•		
17	Establishment and regulation of personal data managers	DPA, Regulators	•	•		

See Kamleitner & Mitchell, JPPM forthcoming



