Managing Innovations in Content Driven Media.

Limitations and Challenges for Research: the Case of Location-based Services

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Remember the CfP?

"What can academia and industry learn from each other?

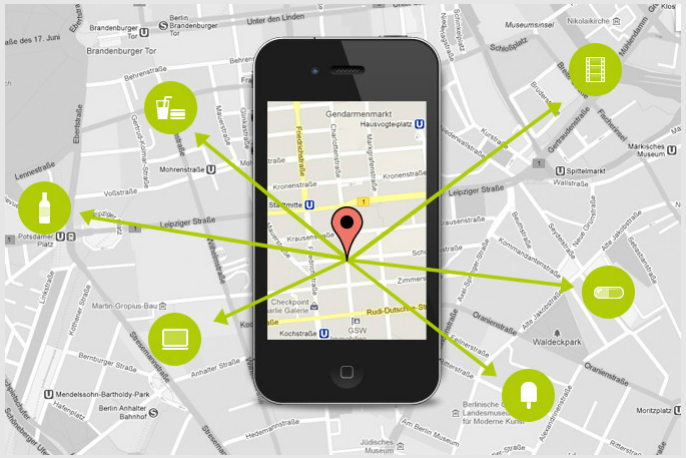
And what does this mean for

- media management education,
- the translation of scientific knowledge into practice, and
- the media management research agenda?" (IMMA 2022).

LBS in Content Production as a Blueprint

- As an example location-based services are quite suitable to explain challenges in shaping business models for commercial media facing digitalization (cf. Donders et al. 2018; Kostovska et al., 2021 with conceptualizing an ecosystem for media management research).

- The field is widely developed and all argumentative structure could be based on a sound foundation in international literature (e.g. Masters, 2014; Basiri et al., 2015; Heinemann & Gaiser 2014; Fang et al., 2016; Luo et al., 2014; Banerjee & Dholakia, 2008; Bruner & Kumar, 2007; Leek & Christodoulides, 2009; Butcher, 2011; Unni & Harmon, 2007; Skeldon, 2011; Gidofalvi et al., 2008; Xu, Oh & Teo, 2009; Mazaheri et al., 2010; Xu et al., 2011, Molitor et al., 2012).



LBS in Content Producation as a Blueprint

– media users are specifically looking for regionally and locally relevant information
– current research still describes LBSs' future as ‚uncertain'
– social scientific approaches and traditions turn out to be considerably underrepresented

- Interesting lack of implementation (as solution for news delivery) in newsroom management; very little research on locative news (e.g. Nyre et al., 2012; Schmitz Weiss, 2013 and 2014; Westlund, 2013; Øie, 2012; Ali et al., 2019;)

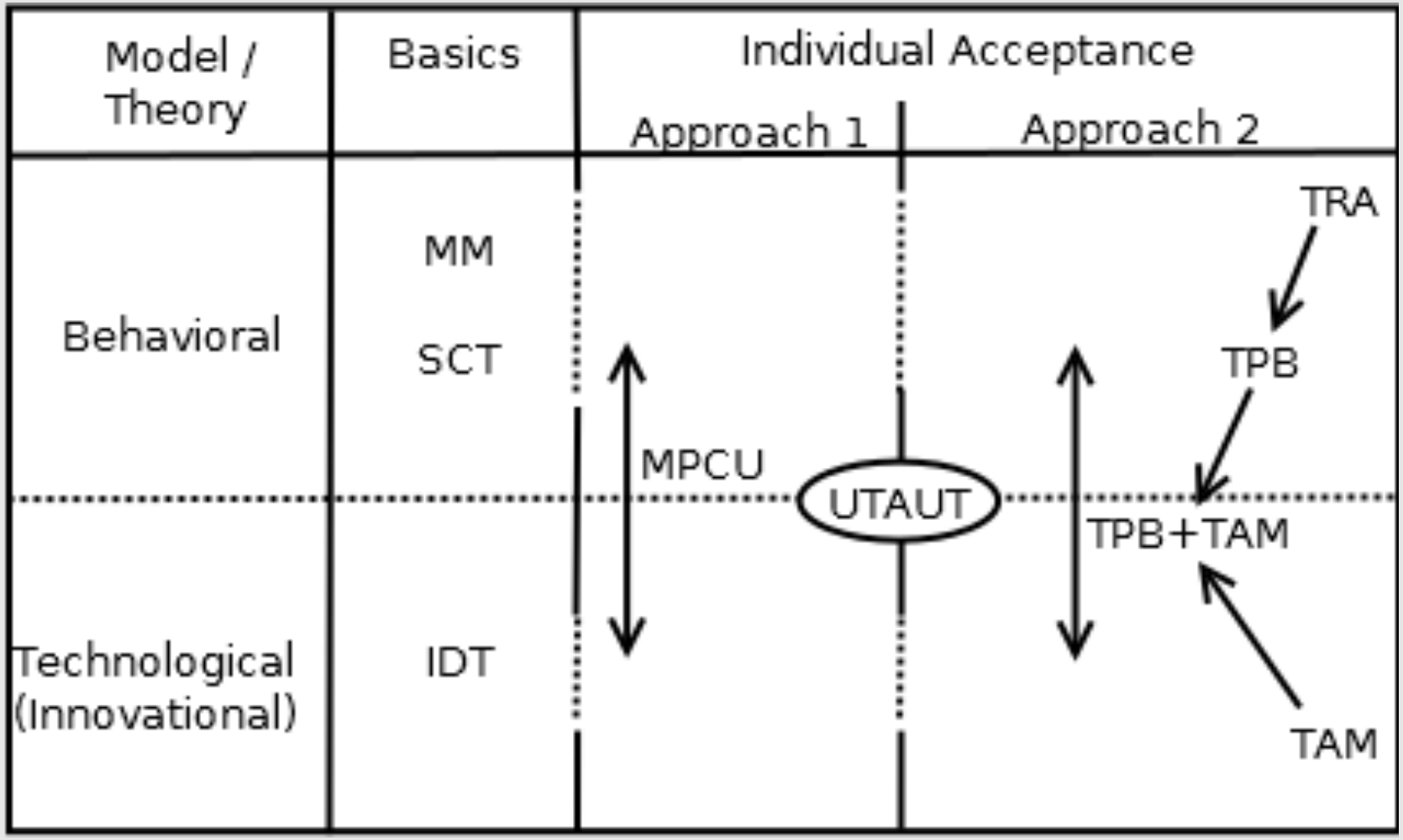
But there's another reason for using LBS here:

- We are able to rely on own data representing the full range of empirical approaches to practice-oriented media management. . .

We know much about the field

- content analytic coverage of current usage opportunities (Ehlers & Rau, 2017); ✔
- sophisticated user research using UTAUT (Venkatesh et al., 2003) with stratified sampling (Rau & Ehlers, 2018); ✔
- Three waves of focus group discussions (different foci) evaluated using reductionist content analysis (in Review: JoMBS); ✔
- Global market analysis using theoretical sampling (Uphaus, Siemens, Ehlers & Rau, 2021 - working paper) ✔
- International Delphi study (two iterations) with academia and practitioners (in Review, Intl. JMM); ✔
- Design sprint with startup Cluster to develop sound use scenarios (in preparation, Journal of Digital Journalism). ✔

Technology Acceptance



„Technology Acceptance Model" (TAM), „Theory of Reasoned Action" (TRA), „Motivational Model" (MM), „Theory of Planned Behavior" (TPB), „Combined TAM-TPB" (TAM+TPB), „Model of PC Utilization" (MPCU), „Innovation Diffusion Theory" (IDT), „Social Cognitive Theory" (SCT).

Used Model for quantitative Research

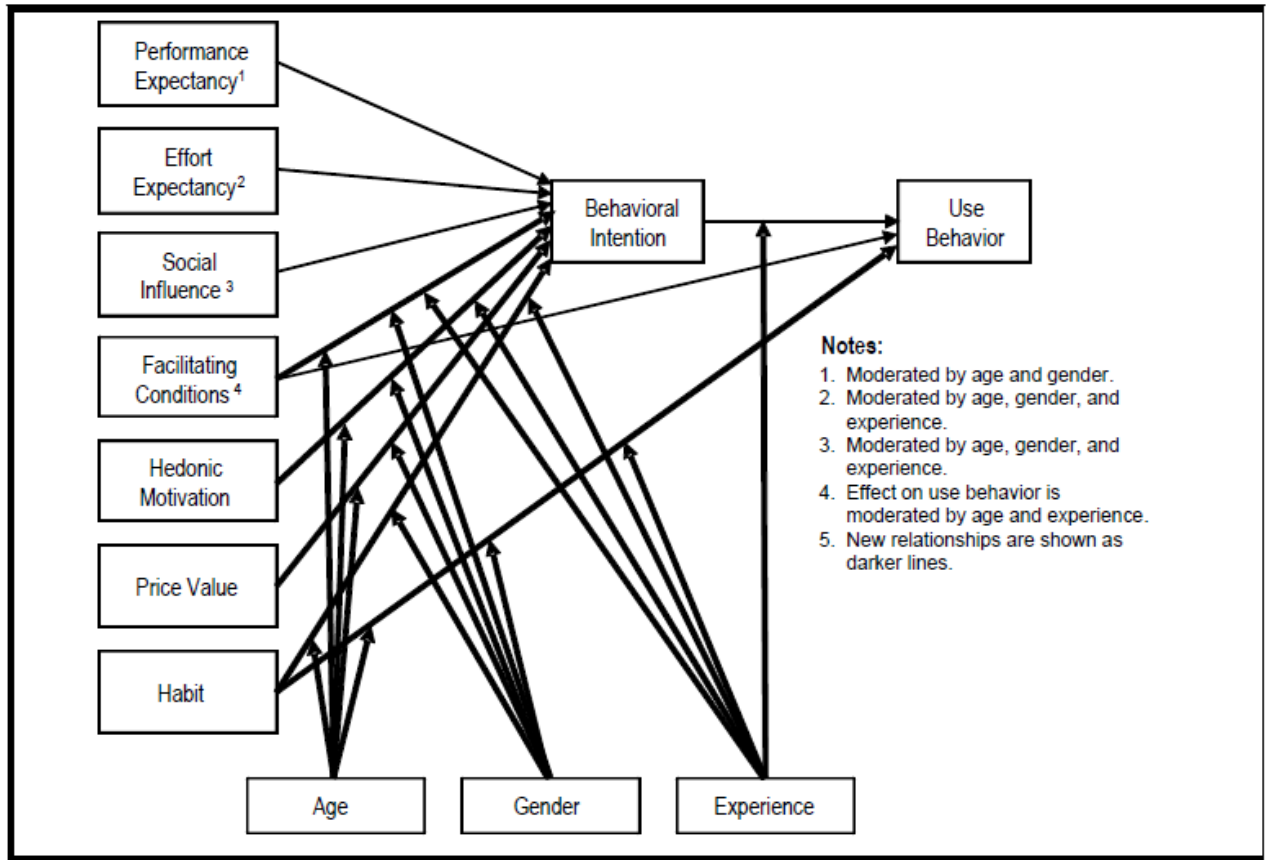
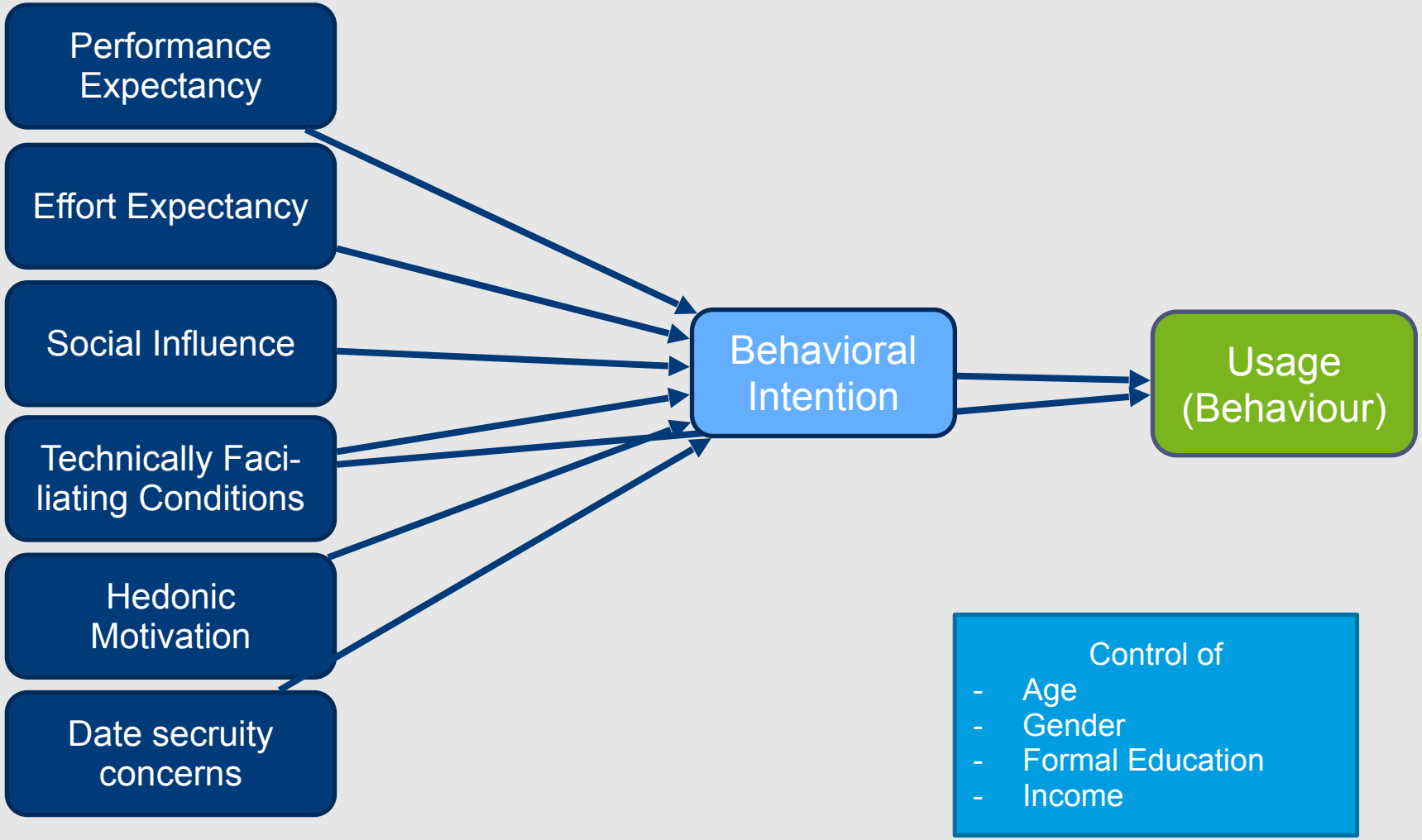


Figure 1. Research Model: UTAUT2

Source: Venkatesh et al. 2011, p. 160



Source: Ehlers & Rau, 2017

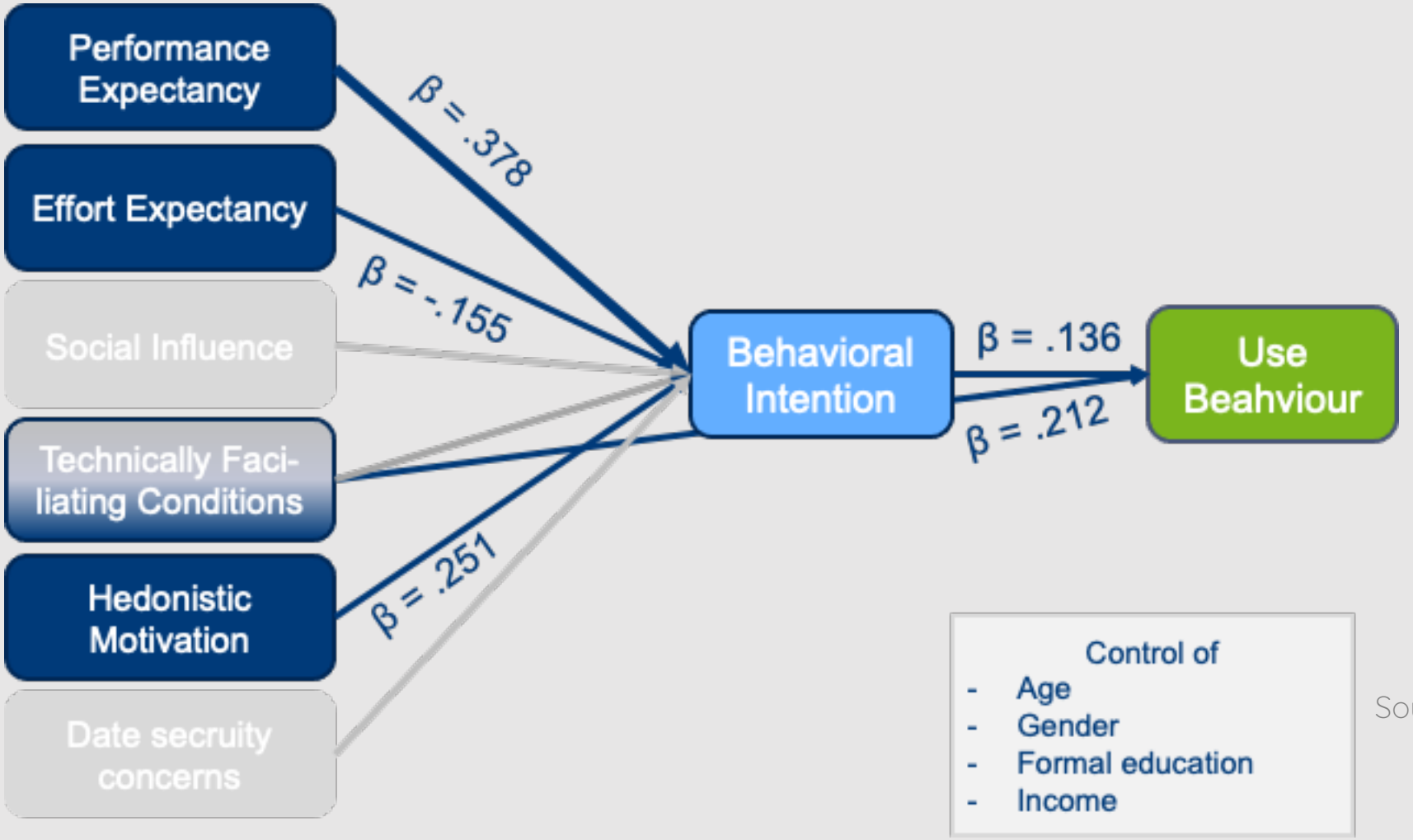
Results - UTAUT

Predictors	Intention to use LBS			
	Model 1		Model 2	
	b	β	b	β
Gender	**.409***	**.177***	.228	.099
Net Income	.113	.107	.074	.071
Age	-.008	-.082	.004	.043
Formal education	.052	.057	.009	.010
Performance Expectancy			**.537*****	**.376*****
Effort Expectancy			**-.251***	**-.155***
Social Influence			-.089	-.055
Technically Faciliating Conditions			.089	.048
Hedonic Motivation			**.374***	**.251***
Data Secrurity Concerns			.163	.096
	.029		.340	
Δ R^2			.327***	

Basis N = 253
*p ≤ .05; **p ≤ .01, ***p ≤ .001;
Modell 1: F(4, 166) = 2,281; p ≤ 0,1; Modell 2: F(10, 160) = 9,799; p = 0,00.

Source: Ehlers & Rau, 2017

Results - UTAUT



Control of
- Age
- Gender
- Formal education
- Income

Source: Ehlers & Rau, 2017

Challenge 1 - Audience Research

1.) As often concerning innovations:

- The **subject is poorly known by survey participants,**

- only a **few media products using localization technology** for news delivery,

- scholars have to keep their **research** either **on a general level,** or default to **hypothetical questions**

2.) One can research on **motives, intentions and actual behaviour** of **media innovation's use** fairly well, when it comes to use applied solutions (e.g. for localized media) one will face huge limitations.

Challenge 1 - Audience Research

3.) The Case: Since most of the participants never used media outlets incorporating some sort of localization technology, one can either ask for an interest in LBS relying to (news) media, describing a hypothetical platform with distinct functions. The other option is to measure the general interest in local news and events as well as the general usage of any kind of LBS and then combine those measures to estimate an interest in localized news media applications. Both options come along with **validity flaws** as well as **with problematic assumptions.**

So one can **hardly give advice to media managers about need and acceptance of localized media applications**.

Challenge 2 - Prototyping

Another challenge lies in processes of **prototyping** – far away of being sufficient to convince practical media management.

Though the funded research was connected to two **major media outlets,** better to say groups of media enterprises, though „Neue Osnabrücker Zeitung“ and „Braunschweiger Zeitungsverlag“ had been contracted partners...

...prototyping was only possible inside the **ecosystem of media startups**...

The Case: Cluster

Specialization: Start-up in local journalism (innovative platform solution)

Seat: Berlin

Founders: Benjamin Rech, Matthias Meyer, Hannah Greven

Target group: journalists and “news enthusiasts”

Design Sprint

User Testing:

- young ne ... ner education.
- young pe ... onment and therefore ... asebrink et al., 2021, p. 45).
- The guide ... our per user.
- During th ...

abbr.	sex	age	Educational background	Hometown
P1	female	28	B.A.	Chemnitz
P2	female	30	B.A.	Berlin
P3	male	25	M.A.	Berlin
P4	male	26	B.A.	Chemnitz
P5	male	23	Middle school graduation	Munster

Findings - User guidance & personalization

- users hav divid es (categories: politics, business, culture, sports)
  - some us to se further tighten the personalization (e.g. Good News, Ni and F and Traffic and Police)
- prototype frier reporting on t e user
- push messages: users can be immediate evant news fro

"The algorithm works really well, I only ever get interesting articles..." (P3)

"Push notifications are queried in a casual and cool way".(P4)

Challenge 3 - Slow Diffusion

The **content analysis of news apps of German legacy media** organizations showed, that the diffusion of innovative LBS approaches is eminently slow (Rau & Ehlers, 2018) – which is in line with the findings of Schmitz Weiss (2013).

This at the same time leads to the fact, that managers in the industry, have a limited understanding of the concept and the meaning of LBS (Uphaus et al., 2022, in Review).

Focus group discussions with managers showed, that they can barely be seen as experts in the field and most probably would not be able to give any new insights into the topic.

Challenge 4 - Unclear Structures in Industry

For digitally entangled technologies, the range of applications often are comparable broad.

As a media manager you have to look for particularly innovative applications not in your own but rather in other, unrelated industries.

The chosen example (LBS) exemplifies a **huge lack of (market's) transparency.** It has been challenging to extract best practices, which is indispensable for proper application development in applied settings.

Methodologically interesting: research answered to these challenges by using alternative data sources: **professional newsletters.** Those allowed to extract cases of LBS products, firms using LBS in some way or developers working on LBS solutions by applying a process of theoretical sampling (Uphaus et al. 2019; Uphaus et al. 2022, in Review).

Challenge 5 - Two-sided Environment

As empirically demonstrated years ago (Rau, 2000), an **economic bias of the editorial staff can still be assumed today.**

This also ensures that **management-related innovations arrive with a delay** in everyday journalistic life.

In addition, **conflicting strategies** between editorial staff and general as business management can still be identified in some markets relevant for the contribution presented here

In relation to the **two-sided markets** served, innovations are often only or at least firstly implemented in the advertising market. This applies in particular to the selected case (Uphaus et al., 2021; Uphaus et al., 2020).

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