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Personal Data and Personalisation in Media: Experts' Perceptions of Value, Benefits, and Risks

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ABSTRACT

Purpose: Media users daily exchange personal data for “free” personalised media. Is this a fair trade, or user “exploitation”? Do personalisation benefits outweigh privacy risks?

Design/methodology/approach – This study surveyed experts in three consecutive online rounds (e-Delphi). The authors explored personal data processing value for media, personalisation relevance, benefits and risks for users. The authors scrutinised the value-exchange between media and users and determined whether media communicate transparently, or use “dark patterns” to obtain more personal data.

Findings: Communication to users must be clear, correct and concise (prevent user deception). Experts disagree on “payment” with personal data for “free” personalised media. This study discerned obstacles and solutions to substantially balance the interests of media and users (fair value exchange). Personal data processing must be transparent, profitable to media and users. Media can agree “sector-wide” on personalisation transparency. Fair, secure and transparent information disclosure to media is possible through shared responsibility and effort.

Originality/value: This study’s innovative contribution is threefold: Firstly, focus on professional stakeholders’ opinion in the value network. Secondly, recommendations to clearly communicate personalised media value, benefits and risks to users. This allows media to create codes of conduct that increase user trust. Thirdly, expanding literature explaining how media realise personal data value, deal with stakeholder interests and position themselves in the data processing debate. This research improves understanding of personal data value, processing benefits and potential risks in a regional context and European regulatory framework.

Keywords: Media, Personal data, Personalisation, Value exchange, Transparency, e-Delphi

Paper type: Research paper

1. Introduction

Media users daily exchange personal data (age, gender and preferences) for “free” personalised media content or advertising tailored to user interests. Mass media targeted a homogeneous “user”, new media personalise services based on user profiling and behavioural data. Is this a fair trade, or user “exploitation”? Do personalisation benefits like improved service quality, user experience (UX) and relevance outweigh privacy risks like data breaches or identity theft? Media users’ answers to these questions may differ from media organisations’ statements. Can media representatives empathise with users, and vice versa? Previous research indicated users are unaware of personal data processing value for media (Malgieri and Custers, 2018). Information disclosure consequences remain unclear to media users (Robinson, 2017). Not sharing your data can decrease service quality, and block media content access (Van Zeeland *et al.*, 2019). Data disclosure can lead to behavioural manipulation like “micro-targeting”: political advertisements on social media to influence voting preferences (Issenberg, 2012; Ribeiro *et al.*, 2019). Hiding

content behind a “cookie wall” without offering alternatives violates European data protection regulations (EDPB, 2020), but remains common practice. Many questions are linked to personalisation, media do not communicate convincingly or transparent (Adjerid *et al.*, 2013; Van Zeeland *et al.*, 2019). Users are unaware they “pay” with data for personalised media (Kuneva, 2009). As plenty research describes the users’ perspective, we research media organisations’ perspective on personal data processing for personalisation.

A roundtable discussion on personal data protection in the Belgian media sector initiated our research (masked for blinded review). We explored personal data processing value for media in Flanders, Belgium [1]. In this study, we surveyed experts in three consecutive rounds, eliciting opinions and attitudes. We recruited media professionals, academics, representatives from regulators, advisory boards and knowledge centres. The research questions were:

RQ1. What is personal data processing value for media?

RQ2. How do experts regard “fairness” of user data disclosure for personalisation (value-exchange)?

RQ3. How can media clearly communicate about personalisation towards users?

We presented the first Delphi-round findings in [masked for blinded review]. The exploration phase indicated media professionals struggled to identify with users’ perspective, focusing mainly on benefits for media. Personalisation was linked to functional value (e.g. ease of use, time-savings). They identified improved service quality and experience as user benefits. The term “relevance” was used but its meaning remained vague. Media professionals collected more data than necessary to develop personalised media (e.g. age and gender data). The link between collected data and product was unclear.

This article reports the second and third Delphi-round findings. We studied perceived necessity of data processing for media and personalisation relevance for users. The objective was to reach consensus on recommendations for media to communicate personalised media value clearly and convincingly to users, and explain benefits and potential risks in an understandable way (personalisation transparency). We developed practical guidelines for media to create codes of conduct that increase users’ trust.

2. Personal data, personalised media and privacy

Our world and daily life increasingly digitalise; technology and data are significant in that development (DOMO, 2020a; Stalder, 2018; van Dijck, 2014). Ad clicks, social media likes/shares/reactions, online purchases/transactions, streaming, etc. generate data (DOMO, 2020a; van Dijck, 2014). The amount of (personal) data grows each year (Desjardins, 2019; DOMO, 2020b). The same applies in the media industry, personal data is currency for access to media services. In the next section, we discuss key concepts starting with data processing value for media. We focus on specific aspects and core issues of privacy and personalisation in media compared to other industries.

2.1 Personal data processing value for media organisations

To explore data processing value for media organisations, we grounded the conceptual framework on the following notions. Personal data is any personal identifiable information like age, gender, interests, browsing history and viewing/reading behaviour, individually provided by media users (“data subjects” e.g. TV viewers, newspaper readers, internet users) and observed and inferred/analysed by media organisations (General Data Protection Regulation [GDPR] art. 4.1; Lindstädt, 2010; Picone, 2017; WEF, 2014). We refer to data collection, storage, use and disclosure as “processing” (GDPR art. 4.2). In our case, commercial and public service media (broadcasters, publishers, telecommunication/

internet providers and social networking sites) are controllers/processors who determine processing purposes/means, and process personal data (GDPR art. 7–8; [Lindstädt, 2010](#)).

Personal data is named the “new oil”, “gold”, “currency”, “resource” and strategic business “asset” ([Brown, 2020](#); [Eggers et al., 2013](#); [Glikman and Glady, 2015](#); [Hildebrandt et al., 2013](#); [Kugler, 2018](#); [Kuneva, 2009](#); [Spiekermann et al., 2012](#); [WEF, 2013](#)). Why is personal data processing valuable for media?

Value is a defining attribute of data ([Gandomi and Haider, 2015](#); [Patgiri and Ahmed, 2016](#); [Winter, 2011](#)). Value is the monetary price, quantity, material, assessed worth, importance, beneficial qualities, usefulness of personal data or fair return for information exchanged ([Cambridge Dictionary, 2023](#); [Kenton, 2020](#); [Merriam-Webster, 2023](#); [Oxford Learner's Dictionaries, 2023](#)). “Data has intrinsic value. But it's of no use until that value is discovered” ([Oracle, 2023](#)). Organisations across industries try to extract user data value to leverage – “monetize” – it for commercial gain ([Clemons, 2009](#); [Kugler, 2018](#)). Previous studies estimated economic and monetary data value ([Carrascal et al., 2011](#); [Malgieri and Custers, 2018](#); [OECD, 2013](#); [van Lieshout, 2015](#); [WEF, 2013](#)). From a resource-based perspective, firms can generate business value (in digital markets) from big (user) data, meaning increased customer retention, revenue from consumers and revenue from advertisers ([Fast et al., 2022](#)).

Personal data are valuable for media organisations. [Invisibly \(2021\)](#) reported user data improves profiling (defining user interests and preferences), trend analysis, product and service development (personalisation), UX, advertising impact (“targeting” the right message at the right time) and recommendations. From organisations’ perspective, personalised recommendations can however increase privacy concerns, intrusiveness for users, poor data quality and biased recommendations may also compromise recommender system effectiveness ([Fast et al., 2022](#)).

[Fast et al. \(2022\)](#) derived six factors that facilitate organisations to establish “sustainable competitive advantages” (data-driven market power in the long-run), through which organisations can ensure that value creation and associated data sources cannot be imitated by competitors:

“(i) Exclusive access to data, (ii) exploitative access to data, (iii) economies of scale in data analytics, (iv) digital services ecosystems and economies of scope, (v) network effects and platform business models; (vi) data-induced switching costs” (p. 20).

Personal data also have a value to users. Economic value is how much personalisation is desired, measured by how much privacy users are willing to forgo getting it ([Graeber, 2001](#)). Personal data disclosure can be a “counter-performance” for free digital content or services ([Cervone, 2018](#); [Malgieri and Custers, 2018](#)). Users pay with personal data and advertising exposure ([Kuneva, 2009](#)). Users’ willingness-to-share personal data can be determined in euros per month, data pricing for media is expressed in euros per person ([Malgieri and Custers, 2018](#)). During an experiment by [Carrascal et al.](#) in 2011, users sold browsing behaviour for €7.50 (median price). An experiment by [Lin](#) in 2022 showed users’ mean valuation for sharing a demographic profile is \$10 (\$0.14–\$2.37 per demographic value). Users’ data disclosure is motivated by *intrinsic* preferences (“taste” for or right to privacy) and *instrumental* preferences, their anticipated economic loss from personal data disclosure ([Lin, 2022](#)). User valuation of personal data differs from industry pricing. “While the multibillion-dollar data broker industry profits [...], the average person’s data often retails for less than a dollar” ([Steel et al., 2013](#)). Malicious third parties can unveil identity of Facebook users with sensitive interests (health, political orientation, sexual preferences) at €0.015 per user ([Cabañas et al., 2018](#)). Personal data valuations of users often exceed organisations’ valuation of individual user data ([Lin, 2022](#)). Better understanding users’ selection of voluntarily shared data, knowledge of personal data valuation by users, is crucial for organisations to obtain valid insights from personal data processing ([Lin, 2022](#)).

Incorrect inferences about users' privacy preferences could lead to under- or over-targeting (Lin, 2022).

Measurement techniques exist for data valuation by organisations and users. Each approach has benefits and drawbacks and leads to different monetary value assessments (Glikman and Glady, 2015; Kugler, 2018; Malgieri and Custers, 2018; OECD, 2013). Personal data value therefore remains unclear (Günther *et al.*, 2017; Kugler, 2018); contingent on processors, processing purposes and context (Glikman and Glady, 2015).

In this study, we strived for a comprehensive but non-exhaustive personal data value operationalisation. Notwithstanding quantitative conceptualisations, we considered non-monetary and qualitative interpretations, for example, emotional ("subjective"), social or public value (Günther *et al.*, 2017; Kneese, 2019; Kugler, 2018; Leaver, 2013; Malgieri and Custers, 2018; WEF, 2013). We acknowledge potential/future data value unlocked by new applications (Anagnostou and Lambrou, 2017; Barker, 2013; Leaver, 2013; Mann, 2018; Savirimuthu, 2015).

2.2 Media and advertisers under pressure

Personalised digital services transform traditional media markets in multiple ways. International players like Facebook and Google own most user data, leading to platformisation (Raats *et al.*, 2016). Local media lack the economies of scale to compete and must collaborate to determine user data value (Picard, 2011).

Competition from Facebook and Google presses traditional business models of (local) media and advertisers. Competitive pressure affects media differently than advertisers, but both have revised how they operate. Advertisers have become accustomed to low-cost targeted advertising with clear insights into return-on-investment and discard traditional advertising (Beales, 2010). Media and advertisers feel compelled to offer similar services as Facebook and Google at comparable prices (AELP, 2021). The latter can charge low prices because of the scale these platforms have, but media operating on a small scale (in small markets like Belgium) lose revenue because they must price too low (CBS News, 2020; DMXdigital, 2020; Hart, 2021).

Facebook and Google gatekeep media content (Bro and Wallberg, 2014). Media organisations like publishers must follow the "attention economy" in which clickbait and (hyper-)personalised content generate higher visitor numbers and advertising revenue (Miklosik *et al.*, 2018). Presuming a company should be data-driven is "trendy" (van Dijck, 2014), regardless of whether this corresponds with company values, e.g. journalistic quality.

Media and advertisers increasingly consider contextual advertising that requires no behavioural tracking (Shepard, 2021). Google and Facebook dominance in the advertising market yet obstructs such innovation (AELP, 2021; CMA, 2020; Veljanovski, 2021). Media and advertisers depend on specific technologies ("lock-in") to work with Google services and consent management platforms (Jacobides *et al.*, 2020).

2.3 Trade-off between personalisation and privacy

Users worry about privacy but insufficiently protect personal data online; user attitudes differ from behaviour also known as privacy paradox (Barth and De Jong, 2017). Barth and De Jong (2017) determined previous studies on this alleged paradoxical behaviour maintain that risk-benefit analysis and minimal risk assessment drive users' information disclosure. Their research illustrates information disclosure is context-dependent, e.g. fast, on-the-go for mobile applications. Examining information disclosure through cost-benefit calculation, users weigh personalisation benefits and privacy cost (Aguirre *et al.*, 2015; Barth and De Jong, 2017). Trade-offs are the currency of decision-making, choosing

something (information disclosure) means losing something (privacy) or forgoing an opportunity, i.e. access to personalised media (Farnam Street, 2019). According to this perspective, users willingly disclose information if personalisation gains outweigh privacy risks (Barth and De Jong, 2017). The second theoretical perspective argues users are unaware of data processing value and consequences; information disclosure is irrational; and uninformed users cannot evaluate privacy risks (Acquisti *et al.*, 2013; Barth and De Jong, 2017; Mediawijis, 2020; Turow *et al.*, 2015; Vandendriessche *et al.*, 2021).

Turow *et al.* (2015) exposed how marketers ignore the knowledge-failure argument and continue to champion the cost-benefit approach to explain why exchange personal data for personalisation. Based on their findings, they argue marketers portray an informed audience that understands data disclosure benefits and risks to justify data processing towards policymakers. Users appear to be engaging in trade-offs, while many feel these situations are unfair, personal data is used in ways they find objectionable.

An alternative understanding of the privacy paradox challenges the trade-off argument; rather than disclosing information for personalisation benefits, users are resigned and think controlling data processing is futile (Draper and Turow, 2019; Turow *et al.*, 2015). Although most users cannot make informed cost-benefit choices, users informed of personal data (mis)use are more likely resigned (Turow *et al.*, 2015). A rational response to inescapable surveillance, however, users' inaction is misinterpreted as apathy (Draper and Turow, 2019). Users are told they must protect themselves online but experience they cannot influence this. According to Solove (2021), the privacy paradox therefore does not exist, it suggests people's actions reflect their expressed preferences, but there is no contradiction if you cannot control what happens or you are misled.

Users often mistrust media regarding data processing (Vandendriessche *et al.*, 2021). Personal data processing is diverse and opaque, media must improve transparency, control and trust for users (OECD, 2013; Turow *et al.*, 2015). If personalisation is a fair value exchange, quid pro quo, media are transparent about data processing; users might find it worthwhile to disclose information (Kugler, 2018; OECD, 2013; Vujanic and Goldstein, 2015).

Malgieri (2020) states data processing is "fair" (bona fide, correct and equitable) according to the European GDPR if data controller and data subject interests are substantially balanced. Media should consider user expectations and consequences, and prevent "exploitation" by mitigating "unfair imbalances that create situations of vulnerability" like manipulation and discrimination (Malgieri, 2020, p. 163).

Media must communicate clearly to users about data processing (GDPR, Recital 39; art. 12–14). Several media industry stakeholders yet struggle to apply transparency requirements in practice; communication about data processing is unclear and inefficient (Turow *et al.*, 2015; Van Buggenhout *et al.*, 2020; Van Zeeland *et al.*, 2019). Privacy policies are long and difficult to understand (Nati, 2018). Users typically want to access a service, accept terms and conditions (T&Cs) without reading them. Organisations hankering to collect personal data consciously aim for this effect (Hoback *et al.*, 2013). "Manipulated" users share more information than they want (Susser *et al.*, 2019). Design and user interface ("dark patterns") of cookie requests nudge users towards disadvantageous choices (Gray *et al.*, 2018). This is an issue because users must consent freely and understand what they agree to, consent is invalid if someone is misled under the GDPR and ePrivacy Directive. European judges and regulators increasingly act against user deception regarding information disclosure. A German court ruled dark patterns in a law firms' website were illegal (Hense, 2021). The Norwegian Data Protection Authority (DPA) fined dating app Grindr for unclear communication about third party' reuse of user data (Dahl and Judin, 2021). France fined Google and Amazon for installing tracking cookies without consent (Lomas, 2020). The European Parliament and regulators are vigorously discussing to ban

dark patterns in the Digital Services Act, Data Act and Digital Single Market Act (IMCO, 2022). Whether they succeed remains to be seen.

Media collect personal data like a gold rush (Brown, 2020). Organisations ignore risks, collect irrelevant data, user benefits seem unimportant (Bongard-Blanchy *et al.*, 2021). Personal data have been labelled “toxic” (Véliz, 2020). Data has a long life, can be misused and breaches are damaging.

Transparent communication is essential for fair personal data processing profitable to media and users. How do media organisations account for it, and explain personalisation benefits, potential risks to users? We researched how Flemish media justify personal data processing.

3. Methods

We applied a qualitative research strategy (inductive) and surveyed experts online in three consecutive rounds, “e-Delphi” (Cole *et al.*, 2013; Slocum, 2003). The first Delphi-round ($n = 20$) was in 2019, second round ($n = 20$) and third round ($n = 13$) in 2020. We report participant numbers and expert profiles in Table 1. The process was iterative, interactive, aimed at reaching consensus (problem-solving).

We recruited media professionals, academics, lawyers, media advisory boards, data protection regulators and representatives from knowledge centres in Belgium [2]. Experts participated voluntarily. As [*name of the research institute anonymised for blinded review*] leads media research in Flanders, we engaged experts from own networks, call-to-action via our research centre’s mailing list, newsletter and policy brief. We also identified and invited experts via LinkedIn. The inclusion/exclusion criteria were knowledge, experience, position in Flemish media (Van Audenhove and Donders, 2019).

We created online qualitative questionnaires in Qualtrics to elicit experts’ attitudes towards data processing value, benefits and risks. Respondents commented on anonymised answers of others. We piloted questionnaires with research colleagues (external to this study). To obtain a holistic view of respondents’ opinions, questionnaires included:

- open-/closed-ended questions;
- multiple choice;
- rating: five-point Likert scales;
- MoSCoW prioritization to reach a common understanding on the importance/significance of specific initiatives (Waters, 2009); and
- heat map to elicit feedback on a cookie request image.

We adapted questionnaires between Delphi-rounds following the procedure by Slocum (2003). First, experts contributed information they feel is important to the issue (exploration). Questions in this phase are: what is personalised media value, and why users should disclose personal data (benefits-risks), from media organisations’ perspective. Second, we outlined experts’ viewpoints and dis/agreements over the meaning of terms, i.e. “relevance”. Third, we analysed differences/discrepancies between experts’ viewpoints. A graphic methodological process overview is published in [*masked for blinded review*].

The researchers collaborated for data collection and analysis (triangulation). We applied grounded theory and independently performed open, axial and selective coding (Glaser and Strauss, 2017). We interpreted data on thematical and cross-theme levels (Van Audenhove, 2007). We identified common attributes, discrepancies and conflicting viewpoints. We examined insights and relations across/between themes. We coded consistently (codebook) ensuring intracoder reliability (Li, 2015). We discussed findings

(after coding), evaluating whether interpretations and conclusions matched (Li, 2015; Van den Hoonaard, 2008). This improved intercoder reliability.

4. Findings

4.1 Data improves knowledge about users

The experts defined personal data processing value for media (five clusters):

1. Improved profiling: personal data increase knowledge about user attributes, behaviour and preferences.
2. Improved product development: content tailored to user interests and expectations.
3. Customer relationship management (CRM): improved customer loyalty and satisfaction.
4. Increased profitability: revenues increase from data resale (third parties).
5. Improved marketing and advertising (efficiency/effectivity).

Data processing value is extensive for media organisations (economic gains) and can replace revenue from paid subscriptions. The experts acknowledged personalisation “cost” and “value” for users is unfairly balanced, from media organisations’ perspective. The DPA representative explained media may be inclined to exploit economic data value. Data collection is a cost users must accept for improved (personalised) service.

Why do media collect personal data? The experts reported sociodemographic data and viewing behaviour contribute to better distribution, programming and content format. For example, short films instead of long text, repeating content, avoiding advertisement repetition. Opinions differed whether more data means better personalisation. Data must be relevant to personalisation objectives; sometimes data is unimportant, more data no longer provides more understanding ("saturation"). According to the experts, achievable goals with (more) data are understanding and targeting media user groups. If unnecessary for personalisation, experts presume media collect data like age and gender to address users in the right way (marketing and advertising), audience segmentation, resale. This indicates skepticism about media organisations' motives.

Personalisation relevance for users depends on content type, according to the experts (Table 2). They refer to relevant media content, advertising and reporting that matches user interests. Some experts differentiated between relevance of media content and news. Up-to-date, objective information provision was more important for news than media content during COVID-19.

4.2 Value-exchange between media and users

Is exchanging information for customised content worthwhile for users, according to the experts? We distinguished two opposing groups among experts (no consensus). Opponents

Table 1	Panel					
	Experts					
	Media professional	Advertiser	Academic	Media advisory board	DPA	Knowledge centre
Delphi-round						
I (n = 20)	17	3				
II (n = 20)	10*		8	1	1	
* 8 experts participated in the previous Delphi-round						
III (n = 13)	7*		4*			2
* 11 experts participated in previous Delphi-round(s)						
Source:	Created by the authors					

Table 2 Personalisation relevance	
Media content	■ Valuable, important, useful. Meets user expectations and needs ■ Tailored to sociodemographic profile, media use, context
Advertising	■ Adapted to purchasing habits, lifestyle/-phase, living environment
News	■ Necessary and useful information at the right time (context) ■ Related to users' (living) environment ■ Valuable from a social perspective ■ Filter/manipulation: Users do not receive irrelevant messages. Or, to prevent information bubbles, considering media use monitoring and personalisation impact on democratic society
Source: Created by the authors	

think the assumption that information disclosure is worthwhile, is vague, misleading, “fluffy” marketing (no real USP) by media to obtain (more) data. “Customised content” is unspecified, while informed consent and real choice are important for users; the experts presume users do not understand which data they share with whom and why. Personalisation being “worth it” is not a legal basis for personal data processing. Media professionals (proponents) among the experts, on the contrary, described this proposition as clear, fair and truthful.

The experts addressed the trade-off for users: personal data exchanged for personalisation. First, weighing personalisation benefits against privacy risks (benefit-cost). Academics argued it is false to assume users find information disclosure beneficial. These experts doubted whether the return for users (personalised experience) is interesting and useful enough versus privacy costs. Second, media professionals characterised the trade-off as value exchange. What are its conditions? The experts asserted non-personalised media must remain available for people preferring a non-personalised experience.

The experts explained personalisation value for users, defined from academics and media professionals' viewpoints. For example, ease of use and content adapted to user attributes (gender), interests, preferences and context. An academic indicated risks for users and asked how much information is needed for personalisation, beyond generalities like gender. How can users know what information is used and what content they miss by personalisation?

Some experts doubt data would only be used within the media organisations collecting them. While data protection mitigates concerns (data breaches), most experts disagree that security solves all risks, this ignores what media do with data. Could transparency mitigate privacy risks? Several experts emphasised transparency is needed and informing users is important, but questionable if only benefits are highlighted. GDPR requires providing information about processing purposes, personal data types, etc. Disadvantages, impact and security aspects should also be mentioned. Some experts think users should choose which personal data is (not) shared.

Media professionals and academics cited personalisation benefits for users, mainly improved service quality, content and UX. Most experts however concluded data processing value for media varies from personalisation value for users. “The scales must tilt towards user-side” (media professional). Users are uninformed about data disclosure. Media professionals affirmed users are unaware about personal data value and pay insufficient attention to data disclosure. The experts recommended preventing an unfair value-exchange and balancing personalisation benefits for users and data processing value for media (Table 3).

4.3 Open communication or deception?

Is communication towards users open, sufficient or deception to obtain more personal data? The experts indicated misleading elements for users in a cookie request:

Table 3 Value-exchange between media and users

Data processing risks	Described by media professionals ■ Processing purpose(s): profiling, customer acquisition, data misuse, resale (third parties) ■ Breaches: data "falling" into wrong hands ■ UX: filter bubbles, ad overload ("irrelevant", "invasive", "pushy") ■ Processing purposes not communicated to users ■ Data literacy: insufficient knowledge about data processing	Missing ■ Pushing segmentation boundaries, i.e. name-based ethnicity inference ■ Indirect marketing to children ■ Discrimination ■ Data leaks: Hack, internal error ■ Takeover (guarantee to not use data) ■ Users lose control
Personalisation (user benefits)	Content ■ Information quality: reliable, trustworthy, creative ■ Recognisability: recent, media use and location-based ■ Broad content catalogue ■ Recommendations and ads tailored to preferences, behaviour, gender ■ Fair deal between "free" content and advertising ■ Presence across platforms	UX ■ User-interface: comfort, flexibility, usability, user-friendly ■ Time-efficiency: quick content access ■ Interactivity: follow topics, authors, increase media use frequency, depth ■ Effective advertising based on user interests (less overload) ■ Media brand is purposeful ("value for money")
Value-exchange	Personalised media: valuable for users? Yes ($n = 11$): ■ Free content (relevance) paid with personal data ■ Users discover content through personalisation (serendipity) ■ Consciously creating a user profile (volunteered data) ■ Sharing conditions: users retain ownership, data is deleted if users change provider, never resold (third parties) nor reused (product development) Personalisation: "Fair" return for data disclosure? Yes ($n = 8$): ■ Value for users depends on their data valuation: – Less information overload – Content relevance ■ Value for media depends on data processing (legitimate interest): – Better understanding of users/target groups – More meaningful relationship between media and users Unfair value exchange: Prevention? Solutions ■ Equilibrium/trade-off mechanism: legislation, privacy, transparency, monitoring ■ Stakeholder representation in decision-making ■ Fair trade-off: sharing more data means receiving more benefits	Sometimes ($n = 6$): ■ Depends on user preferences, service value, data minimisation, processing proportionality, legitimate interest ■ Data processing necessity versus impact on human rights ■ Personalisation valuation by users (low-high) No ($n = 9$): ■ Return for users does not outweigh their data valuation (unawareness). Media benefit from it, i.e. improved CRM ■ Media collect more personal data than necessary for personalisation. Data processing by media and personalisation benefits for users must be equitable ■ Legal restrictions (overfocus on advertising, impeding innovation): Media cannot create added value from personalisation Obstacles ■ Soundness: What values do media propose? ■ Data protection: Guarantee? ■ Data as "currency": Approach? Consequences? ■ Economic benefits for organisations (money). User gains cannot be monetarily expressed

Source: Created by the authors

- “Opt-out” (uncheck) is more manipulative than “opt-in” (check).
- A large green button with a thumb is manipulative (“default”).
- Explanation about data processing may not be under the “Save” button.

The experts think neutral design, clear language (correct and complete) and extensive explanations prevent user manipulation. Media must describe which information is collected, by whom, for what purposes and potential reuse by third parties. Users must genuinely choose and be made aware of alternatives. The experts' opinions varied on cookie request display. They agreed on uniformity for (not) accepting cookies e.g. buttons in the same colour. The experts were reluctant to recommend the default should be to refuse cookies.

An expert wondered why the accept button (all cookies) should be equal to “custom preferences” regarding UX; after all, most users accept cookies. Other experts perceived this statement as paradoxical, “self-fulfilling prophecy” (data and society knowledge centre), justifying dark patterns. Users overlook the refusal button, as manipulative design intends. The experts mentioned that users may suffer consent fatigue and privacy resignation. The cookie request overload online causes avoidance among users. The experts presume users do not read privacy policies, accept cookies for convenience because T&Cs are unclear, difficult to read and require time and effort from users. “Media should look for pleasant ways for users to disclose real preferences” (academic). Consequently, some experts suggested the refusal button could be more attractive and encourage users to discover what it entails.

The experts prioritised which information is (un)necessary for informed data disclosure, from media organisations' viewpoint (Table 4). Media must communicate openly about information type(s) shared, personalisation value, benefits and risks. Media could inform users about (economic) gains for media/third parties. “Informing users only (or mainly) about personalisation benefits is problematic” (academic). Some experts indicated the division into pros and cons is too binary and you cannot force media to mention personalisation disadvantages. An expert suggested to explain social or personal added value regarding advertising. Data disclosure can be more nuanced, i.e. distributed usage license with dynamic access. All things considered; the experts think media should neutrally explain everything happening to personal data. Governments and education can also (partly) fulfil this task.

Media and users should recognise and fulfil their responsibilities to improve data processing transparency and fairness, according to the experts. Users must improve their awareness about personalisation benefits and personal data processing. “Personalisation is a trade-off” (media professional). Freedom of choice must be guaranteed. User trust must be improved. The experts expect user empowerment is key to increase involvement and understanding. Some media organisations work on this. Others do not mind. “Let sleeping dogs (unaware users) lie”, says a data expert from a private media organisation. Transparency is important but urging users who purposefully ignore what happens to their data is unhelpful.

Table 4 Experts' prioritization of (un)necessary information for users

	N = 13			
	Must	Should	Could	Will not
Disclosure conditions: ownership/storage/retention, resale (third parties), processing purposes	6	6		
Personalisation criteria	6	5		
Personalisation benefits for users	4	7		
Economic gains for media			6	2
Users' transparency needs	1			

Source: Created by the authors

We derived requirements from the experts' statements for clear communication towards users about data processing for personalised advertisements and news (Table 5). Information must be short, understandable and unambiguous i.e. visualise data flows. The experts suppose that reading too much information (jargon, legal terms) discourages users.

4.4 Transparency about personalisation

How can media improve personalisation transparency towards users? The experts suggested Flemish media can agree sector-wide on specific elements (Table 6). Media can potentially agree on data minimisation: collect demonstrably necessary information. Media must also clarify personalised advertisements ("free" content paid with user data). Experts' opinions conflicted on payment with personal data (Table 7). Personalised media are not free, say most experts. Some experts problematised the term "free". "Information is collected, stored (databases), resold" (academic); users therefore pay with data. On the contrary, data experts at commercial media organisations argued personal data exchanged for free content is not an issue. Users pay with data in practice, media must not communicate this explicitly. "Users pay for ease of use, this involves processing data" (media professional). The experts contended this statement should not be accepted sector-wide, media can inform individuals about business models and financing (income), without calculating exact prices.

Table 5 Clear communication (requirements)

<i>Personalised media</i>	<i>Information depending on content type</i>	<i>Required for both</i>
Advertisements	■ Data resale (third parties) ■ Exploiting data as "currency" for profit	■ Personal data linked to processing purpose(s) ■ Processor(s) ■ Storage/retention
News	■ "Opt-out" ■ Personalisation criteria	■ User benefits, risks, disadvantages (e.g. filter bubbles) ■ Consequences of not sharing personal data

Source: Created by the authors

Table 6 Transparency about personalisation

<i>Recommendation</i>	<i>Evaluation (n = 13)</i>				<i>Objection(s)</i>
	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>		
Data minimisation	13				
Personalised advertisements: "free" content paid with data	11	2			
Clarify what users miss because of personalisation	10	3			
Non-personalised media without data processing must remain possible	12		1		Personalisation is sometimes essential for services
No data resale (third parties)	10	2	1		Media must state whether data is shared, obtain consent
Make users aware of trade-offs between information disclosure and personalisation	11	1	1		Personalisation is sometimes disadvantageous for users
Clarify what data leads to offer adjustments	11	1	1		If technically feasible, users do not expect it
Mention personalisation benefits and privacy risks for users	11		2		Listing all data processing risks for users is impossible. Media must mitigate risks
Simple user interface: Users indicate preferences	10	1	2		One user profile for every service is more convenient (effort, time)
Offer levels in privacy settings for personalisation	9	2	2		Unnecessary if media apply data minimisation. Data processing transparency and control is important

Source: Created by the authors

Table 7 “Payment” with personal data (second Delphi-round, $n = 20$)

Data disclosure is “payment”	Yes ($n = 10$) ■ Personal data exchanged for personalisation ■ Users pay with money or personal data and receive value ■ Media should inform users about economic value ■ “Price tag”: free content compensates for personalised advertisements	No ($n = 10$) Information disclosure is “payment” for advertising, but. . . ■ Not a real currency (legally incorrect) ■ Privacy: Human right ■ Ambiguous data value ■ Privacy cannot be weighed purely economic. “Privacy as a luxury right” harms/neglects the weaker in society
“Free” personalised media: Users disclose data (no monetary payment)	Yes ($n = 7$) “Swap”: data processing improves products/services; no resale (third parties)	No ($n = 12$) ■ “Barter”: Something needed in return ■ Information disclosure: access cost for personalised media ■ Disagreement on “free” – Nothing is free – Financially free, not normatively – Freely accessible ■ Disagreement on personal data as “currency” – Personal data is neither money nor has value. Information disclosure is no financial transaction ■ Human rights alienation: users (partially) forgo privacy

Notes: Experts disagreed on “payment” with personal data. We investigated whether media should position themselves in this discussion and communicate to users (third Delphi-round, $n = 13$). Insightful reactions are mentioned in the text (feedback not included in Table 7)

Source: Created by the authors

A non-personalised offer without data processing must remain available to users. EDPB guidelines notwithstanding, the experts did not describe how to practically implement such rules (EDPB, 2020). Media can strategically decide to personalise services and argue this is “necessary” to improve UX and customer satisfaction (see e.g. Twilio, 2021). If media can claim personalisation is essential for their services, this might incentivise them to collect even more data to support that argument. Before such argumentation holds, it must be clear which criteria determine whether personalisation is necessary. DPAs could guide/potentially require organisations to prove non-personalised alternatives are commercially non-viable. The “necessity”-argument is invalid if another commercial non-personalised service exists (like contextual advertising instead of advertising based on behavioural targeting).

The experts presume careful consideration of personalisation can prevent filter bubbles and behavioural manipulation. Media can inform users about what content they are missing/cannot access because of personalisation. The experts anticipate media will unlikely agree on this. The chances are slim of sector-wide agreements on offering levels in privacy settings for personalisation.

Moreover, the experts recommended user data should not be resold (or third parties should request separate consent). Sharing information with governments and partners must be subject to conditions. Users should be able to verify data security. Media can restrict data processing in takeovers. They may agree on sharing information with commercial players like advertisers. If agreements exclusively apply to Flemish media, players in this small media market risk increasing competitive disadvantages against technology giants. The experts suggested measures should apply to all personal data processors.

5. Discussion

Open and convincing communication about data processing is important. Cookie requests should extensively explain to users with whom data are shared. This recommendation recurred for personalisation of other media. “Free” personalised service (business model) should be clarified/illustrated; elaborated “transparency”. When a service is “free”, users should understand the product is personal data (Polykalas and Prezerakos, 2019). Academics have amply suggested this (Acquisti *et al.*, 2015), but it does not happen in practice because of market pressures described in Section 2.2. Our study reflects conflicting perspectives between the experts and media professionals from a more theoretical background. We provide experience-based guidelines for stakeholders to cope with cruxes of privacy and personalisation in the media industry.

Our recommendations can be impetus for developing sectoral agreements in other industries. How should such rules be implemented (governance)? The experts in this study incline towards self-regulation rather than technical regulation imposed by government(s), but they endorse a common approach in the media sector. On the one hand, this can be perceived as progress compared to the current situation in which media organisations translate GDPR requirements on their own. On the other hand, self-regulation limitations must be scrutinised (e.g. lack of uniformity, stringency, motivation to intervene, technical constraints), evaluating “collaborative” and “community-based” alternatives is useful, i.e. participatory monitoring (Pérez-Díaz *et al.*, 2020; Rutschman, 2022). Media industry initiatives to uniformise and enhance transparency are Personal Data Receipts (PDR) [3]. Interventions to increase trust, privacy and control for users (like T&Cs) can perversely affect users and evoke a misplaced sense of protection (Acquisti *et al.*, 2015). Regarding inherent trade-offs as to derived policy recommendations and extensive explanations (reading) would incur high transaction costs for users whom likely skip such information, rendering this approach ineffective. Most people overlook T&Cs and PDR. The question remains whether technical support tools can implement/facilitate media user empowerment effectively.

We conclude that describing personalisation benefits for users is difficult for media professionals. Experts defined “relevance” depending on content type: news, advertising and other media. Irrelevant personal data is collected for marketing, advertising, targeting and resale. Free apps collect more personal data than paid services and are therefore based on user data as currency (Polykalas and Prezerakos (2019). More user data leads to improved profiling, product/service development, CRM, profitability, marketing and advertising. This corresponds with findings by Cervone (2018), Eggers (2013), Günther *et al.* (2017) and Kugler (2018).

Personalisation benefits should be better explained to users. Should information disclosure disadvantages and risks also be clarified? Both fierce supporters and opponents of this issue participated in the study. We have not reached a consensus, yet we registered diverse arguments. In this context, we should disambiguate personalisation risks from disadvantages. A disadvantage is an immediate negative consequence, a risk may be a future disadvantage (Baldwin and Black, 2016). While price discrimination can cause immediate disadvantages (Chen *et al.*, 2021), gender- or ethnicity-based discrimination is a long-term personalisation risk. In any case, media must limit the risks. Current data protection regulation emphasises consent and data subject rights, suggesting that users should weigh personalisation benefits against privacy risks, but this is problematic (Draper and Trow, 2019). Users can weigh advantages against disadvantages but weighing benefits against risks is difficult (abstract): risks are a probability-estimation that a disadvantage occurs and damage-extent estimation if it occurs (Baldwin and Black, 2016). Risk assessment is a complex construction of probabilities. Although privacy uncertainty is not the only area where people decide in uncertain circumstances, individuals’ risk assessments are generally skewed by optimism, false sense of control, unclear cultural clues, confirmation bias and exposure (Shilton, 2020). “Uncertainty and context-

dependence imply that people cannot always be counted on to navigate complex trade-offs involving privacy in a self-interested fashion" (Acquisti *et al.*, 2015, p. 513). We suggest policy interventions may effectively protect data to users' advantage "with minimal requirement of informed and rational decision-making" (Acquisti *et al.*, 2015, pp. 513–514; Acquisti *et al.*, 2020).

6. Conclusions

This study explored personal data processing value for media in Flanders, Belgium. We questioned whether disclosing data for personalisation is a fair value exchange between media and users. We examined how media can improve personalisation transparency towards users. The research contributes to understanding personal data processing value, benefits and potential risks in a regional context and European regulatory framework; the insights are therefore useful for policymakers and practitioners.

The insights expand on literature explaining how media realise personal data, deal with stakeholder interests and position themselves in the data processing debate (Günther *et al.*, 2017).

Neutral design, unambiguous language and extensive explanation can prevent user deception ("dark patterns") to obtain personal data. Communication to users must be clear, correct and concise. Experts disagree on "payment" with personal data for "free" personalised media. Their argumentations relate to societal debates and discussions among policymakers regarding personal data as "counter-performance" (Drechsler, 2018). Our research expands the idea that personal data is an economic asset, including the fundamental rights nature to protect data.

We discerned obstacles and solutions to substantially balance interests of media organisations and users. We suggest an equitable relationship between media industry and users (fair value exchange). Personal data processing must be transparent, profitable to media and users. Perspectives on what is fair depend on the experts' positionality, fairness-estimates are based on "situated knowledges" (Haraway, 1988). We must accordingly consider user perspectives and establish a stakeholder dialogue bridging different fairness perspectives. The European Union regulations protect citizens' personal data, but users need better framing and guidance. The meaning of "fairness" in GDPR remains vague, data controllers adopt their own procedures to make data processing "fairly transparent" (Malgieri, 2020).

There is currently no uniform conceptualisation, description and view of transparency (allowing contextual interpretation), but reflecting on transparency (sub)dimensions is appropriate, i.e. data disclosure, usage, accountability and openness (Matheus and Janssen, 2015). We recognise two transparency dimensions in this study. Transparency that certain media content and advertisements are personalised (awareness). Transparency about personal data that facilitates personalisation (process understanding).

This prompts the fundamental question whether the media industry needs specific rules, or horizontal regulatory framework (GDPR) is sufficient. Notwithstanding there is urgency and momentum for media industry stakeholders to improve implementation of GDPR requirements in practice, the experts in this study suggested measures should apply to all personal data processors. They want to avoid rules that only apply to local media organisations, considering this may adversely strengthen big platforms' position in small media markets (Geradin *et al.*, 2021). GDPR suggests creating sector-specific agreements (codes of conduct) that support practical application of its principles (Art. 40). Flemish media can agree "sector-wide" on personalisation transparency. Firstly, respecting data minimisation. Secondly, improving clarity about personalised advertisements, processors, data types collected and purposes (to comply with GDPR). Thirdly, disclosure conditions for users and personalisation criteria. Furthermore, conditionality of sharing information with governments and partners, restricting data use in acquisitions. The latter recommendation

warrants scrutiny because media value is determined by data value (not) being unlocked/managed (Glikman and Glady, 2015; OECD, 2013). Fair, secure and transparent information disclosure to media is possible through shared responsibility and effort.

We identified new research directions based on abovementioned findings. Media should explore what users perceive as “transparent” communication about a given practice, i.e. personalisation. Media should continuously test personal data disclosure requests (presentation and wording) and balance concise and complete information. Comprehension and acceptability should be verified during testing. If media companies do not initiate such user research, DPAs could require it (based on EDPB, 2020) or collaborate with industry associations to create codes of conduct to this effect. Our analysis shows a basis for such code of conduct exists. Further research should examine viable, practicable frameworks for media to test user information needs, considering (importance of) media context. This requires empirical research into comprehensibility based on “contextual integrity”, including inclusivity (Nissenbaum, 2019), on the part of media organisations.

Notes

1. [masked for blinded review]
2. Only media professionals, academics and knowledge centre representatives participated in the third Delphi-round (see Table 1).
3. Standardised “proof” of consent (digital/human-readable) to improve transparency and control for users (Nati, 2018; www.projectcpn.eu/vision).

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Further reading

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