

Appendix

This appendix contains supplementary materials for the manuscript with the title “When Worlds Collide: Journalistic, market, and tech logics in the adoption of news recommender systems”.

A. Sample and Interview Participants

Table 1A: Sample of news outlets

Type of news outlet	Country	
	Switzerland	The Netherlands
Upmarket	NZZ, Tagesanzeiger	Volkskrant, NRC
Massmarket	Blick, 20 Minuten	AD
Digital native	— ¹	Nu.nl
Public Service Broadcaster	SRF	NOS
Publisher		DPG

Note. ¹ Two Swiss digital native outlets, albeit interviewed, were not considered in the analysis, as neither had experimented with or planned to experiment with NRS in the near future.

Table 2A: List of interviewed participants (IP)

Country	Outlet	Media Type	Functional role (grouped to ensure anonymity)	ID
Switzerland	1	Public broadcaster	Journalism & Management	IP1
			Management	IP2
			Management	IP3
			Tech	IP4
	2	Upmarket	Journalism & Management	IP5
			Journalism & Management (Tech Background)	IP6
			Management	IP7
	3	Upmarket	Tech	IP8
			Management	IP9
	4	Massmarket	Tech	IP10
			Management	IP11
	5	Massmarket	Journalism & Management	IP12
			Management (Tech Background)	IP13

		Management (Tech Background)	IP14	
		Management (Journalism Background)	IP15	
Netherlands	6	Public broadcaster	Journalism & Management	IP16
			Tech	IP17
			Tech	IP18
	7	Upmarket	Journalism & Management	IP19
			Journalism	IP20
			Journalism	IP21
	8	Upmarket	Journalism & Management	IP22
			Journalism	IP23
			Journalism	IP24
			Journalism	IP25
	9	Massmarket	Journalism & Management	IP26
			Journalism & Management	IP27
	10	Publisher	Management	IP28
			Tech	IP29
Tech			IP30	
11	Digital native	Journalism & Management	IP31	
		Journalism	IP32	

B. Interview Guide

Before the interview

- Review and sign informed consent form
- Clarify time availability
- Agree on the interview language (“high” German or English preferred due to the transcription software).
- Set up and start recording device plus Smartphone as backup (or start recording on Zoom)!

What we’re specifically interested in hearing about in this interview are algorithmic systems that make personalized reading recommendations on news websites based on metadata, past behavior, general popularity metrics and/or ratings of similar users.

Is that your understanding of news recommendation systems as well?

⇒ *Outputs may include personalized rankings of articles on the front page (i.e. their placement), articles’ visibility, “Recommended for You” sections in the sidebar, suggested articles placed under/next to other articles as well as personalized newsletters or notifications.*

For the main part of the interview, I [we] would like to talk to you more about your and your organization’s experiences with news recommender systems. Later on, I [we] would like to ask you some brief questions about other algorithmically curated platforms.

1. Thematic Cluster: Current and past usage of NRS, benefits and concerns

Current / past usage of NRS

News recommender systems are an important topic in research. What about in practice? What are your experiences with such systems, specifically within your current organization?

⇒ *If no experience within the current organization: What experience have you personally had with such systems in your professional environment?*

Can you describe to me your role at [your organization] and specifically in relation to the development of news recommendation systems?

If not already mentioned organically: Now I would like to focus more on the current situation in your media organization/editorial department. Are recommendation systems currently used in your organization, and if so, which ones?

⇒ In which areas of news or your website/apps do you currently use RS?

Note: If no NRS are currently in use: Preface question on past projects and apply the following question on it to past projects as appropriate.

Only if NRS are currently in use, otherwise apply to past or planned projects: Can you explain to me in a simplified way according to what criteria and how these algorithms filter information and make recommendations?

⇒ When creating these systems, what considerations ((or)) key performance indicators (KPIs) do you take into account?

If mentioned and/or enough time: Are there any differences between website, newsletter, and app content personalization?

Only if they offer information on ads: How are ad and content personalization different?

What about in the past? What attempts have been made/were made in the past regarding personalized news recommendations?

- ⇒ Can you give us some examples?
- ⇒ What happened to these experiments/projects?

If the projects were stopped: What led you to abandon/pause these projects?

Goals and reasons underlying actual implementation, perceived benefits and disadvantages

Note: If news organizations have never experimented with NRS, the following questions should be applied to the present or planned/future projects.

Thinking back to the time, when you were first considering experimenting with NRS, what made you decide to move in that direction back then?

If interviewees do not know what to do with this question, prompt...

- ⇒ What were the considerations that led you to implement such a system? Was it purely the availability of the technology or perhaps the rest of the industry was moving in that direction or something else entirely that made you think that implementing these NRS would be a good idea?
- ⇒ *Only if ads are mentioned:* How do ad and content personalization feed into each other?

What do/did you hope to achieve through the usage of such recommender systems?

Only if NRS are currently in use: To what extent are/were these perceived benefits realized? How so?

Back then, did you ((or)) your organization have any concerns relating to the implementation of RS?

- ⇒ What were some reactions to these problems amongst your colleagues?

Can you give us an example of how these concerns were addressed?

- ⇒ What about now? Do you think that some issues remain to be solved? How so?
- ⇒ In your opinion, how can these concerns be addressed?

If there are no past, present or future projects on NRS:

What has kept you from moving in this direction so far?

Do you ((or)) your organization have any concerns relating to the implementation of RS?

Do you see any reasons to go in the direction of NRS after all?

How / from where do you learn about potential new developments and innovations in the area of news recommender systems or personalization strategies with the news sector?

2. Thematic Cluster: Decision-making process, intra-organisational dynamics, resulting tensions and resolution

Now we would like to learn more about the working dynamics around the use of news recommender systems.

Thinking back of when NRS were first implemented, how was that decision made?

- ⇒ Who was involved in the discussions?
- ⇒ Who made the final decision?
- ⇒ Can you recall a specific incident surrounding the decision-making process?

On a strategic level, who usually makes decisions about what to implement when it comes to news recommender systems?

Thinking more of the actual implementation rather than the strategic decision-making, creating a news recommender system involves different actors. At your organization, who are ((were)) those?

- ⇒ What is the role of data scientists, tech specialists and developers?
- ⇒ What is the role of the newsroom, journalists and editors in the development of these systems?
- ⇒ What is the role of management, business ((or marketing)) in the development of these systems?
- ⇒ To what extent do you employ ((do you plan on employing)) third-party companies to program your news recommender systems?

Do ((did)) you regularly communicate with the actors who are responsible for the technological/strategic implementation?

- ⇒ What does a conversation with them typically involve?
- ⇒ *Can you think of a specific example for such a conversation?*

If journalists/editors mentioned as decision-makers: You mentioned journalistic involvement in NRS through [...]. Can you expand on their involvement?

If no NRS are in use: If NRS were to be introduced, who would ideally make decisions about their introduction as well as their specific design?

Tension & Resolution

It seems that there are many different people involved in this process. Can you think of an incident which led to misunderstandings within the team?

- ⇒ Between which actors are such misunderstandings most likely to occur and why?
- ⇒

How are such misunderstandings usually addressed (*also in the specific case mentioned by interviewee*)

- ⇒ Who is involved in these processes?

Do you think these misunderstandings are sufficiently resolved at this stage? Why (not)?

- ⇒ How can they be resolved in your opinion?

Note: Some answers to questions in Thematic Cluster 1, particularly regarding concerns & how they were tackled, might be taken up again here, if they point to tensions.

3. Thematic Cluster: “External” pressures (audiences, intermediaries)

Audience conceptions

You briefly mentioned the audience when speaking about (...). I would like to come back to this and discuss it in more detail.

Some argue that recommender systems can help news organizations grasp the needs of their readers more accurately than ever before. What do you think about this?

Do you think the employment of such systems affects how your readers perceive you?

⇒ How do you think recommender systems affect trust in the media?

Third-party RS

We've already talked a lot about the recommender systems on your website. Now I would like to briefly discuss other platforms that use algorithmic personalization.

Many news aggregators such as Google News and Apple News currently use recommender systems. Does your organization strive to get articles recommended on those websites?

⇒ How do you aim to achieve this?

⇒ Do considerations about the recommender algorithms play a role in these endeavors?

Social media platforms such as Facebook also use algorithms to determine an item's visibility on users' newsfeed. Do you try to monitor, i.e., understand, how these platforms filter information?

⇒ Do considerations about the algorithms' workings guide your editorial decisions about which articles to post on these platforms?

4. Thematic Cluster: Future use of NRS and implications for journalism & society

Implications for journalism and future of NRS

Lastly, I would like to talk more broadly about the impact of news recommender systems on journalism.

Looking at the times before your news organization experimented with RS, do you think an ordinary day for you and your colleagues has changed?

Looking to the future, what other changes do you expect?

⇒ Thinking of traditional journalistic work and routines, do you expect them to change with the application of RS?

⇒ Will algorithmic technologies change what is expected and required of journalists?

⇒ *If the answer alludes to big changes:* Do you believe journalists are open to/ready for these changes?

If mentioned organically, question should be moved forward: How do you envision the use of NRS in your organization in the near future?

- ⇒ In which sections / areas of the website would such an approach mainly be considered? Why?
- ⇒ What role would you (ideally) play in these efforts?

Implications of NRS for society & fulfilment of democratic norms

As we are nearing the end of the interview, I would like to talk a bit more about the broader societal implications of news recommender systems.

What are, in your opinion, threats and opportunities of an increased use of news recommender systems in the future?

- ⇒ *If not mentioned before:* How can these threats be addressed/resolved?

What impact do you think these NRSs will have on society at large, perhaps even considering potential democratic functions of media?

- ⇒ How do you think NRS will affect how informed your audience is in the long run?

Closing Questions:

Is there anything else you'd like to add that we haven't addressed?

Can you recommend other people in your organizations for additional interviews?

C. Overview of RQs, Corresponding Themes, Categories and Representative Data

Table 1C: Research Question 1, Corresponding Themes, Categories, and Representative Data¹

RQ 1: Logic interplay in decision-making	Representative Data
<p><i>A. Increased importance of technological actors and logics</i></p>	
<p><i>A1. Ongoing and iterative process</i></p>	
<p>1. (A1) Cautious approach</p>	<p>1. “We do one little step after the other. And I don't know where the journey will take us, but we'll focus on the first mini step and when we've done that, we'll move on.” (IP12)</p>
<p>2. (A1) AGILE project management</p>	<p>2. “Normally they have requirements, those would be broken down to tickets. These tickets go into the different backlogs of the different teams, the product owner has that. Then there are certain sprints. That means we work in an agile environment, that means two-week sprints.” (IP14)</p>
<p>3. (A1) Preparatory steps necessary</p>	<p>3. “And then we actually had to wait for many, many things. So, if you're not able to actually capture the behavior of the user base and also in a way that respects our promises about security and privacy, then you can't start with projects like this.” (IP6)</p>
<p>4. (A1) A/B testing</p>	<p>4. “We ran A/B tests for like personalized versions and no personalized versions, and we actually saw a big difference.” (IP29)</p>
<p>5. Journalists need data skills</p>	<p>5. “Of course, this requires constant learning. An understanding by journalists of these technological possibilities.” (IP13)</p>
<p>6. Initiator of NRS project had tech background/ know-how</p>	<p>6. “The whole personalisation project, or let's say recommendation systems, was launched when a new CTO started there.” (IP14)</p>
<p>7. Overall changes to news work due to digitalization</p>	<p>7. “I think by now that there's no way in turning around again. So the organization is really focused on digital and this and it has finally become a sort of natural element of working for the newspaper.” (IP24)</p>
<p>8. Changes in news work due to audience analytics</p>	<p>8. “So, I would say it is changing to a certain extent, but the process is not so much driven by the algorithms themselves, but by the data that can be collected through them.” (IP15)</p>

¹ Research Questions are marked as “RQ”, Themes are designated an uppercase letter, while Categories are assigned a number. Representative data corresponds to the same number categories.

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| 9. Higher metrics orientation | 9. “For me, it's very useful when I know that a certain subject is very popular.. And it doesn't have to say: "I'm only going to write about it." But yeah, for parts, it can lead to a decision to write more about it.” (IP23) |
| 10. Exaggerated belief in technology | 10. “And that was a bit sobering, I think, because people had very high expectations of [NRS]” (IP5) |
| 11. Technological complexity of NRS | 11. “Basically, regarding the benchmark we are talking about now, the algorithmically driven recommender, I can only say: expensive, complex, complicated.” (IP1) |
| 12. New job profiles in journalism due to digitalization | 12. “We used to have a digital team of, let's say, four or five, and we're now with 25.” (IP19) |
| 13. General development toward data-oriented and data-informed organization | 13. “[...] to complete the fundamental change in culture towards a more data-driven culture.” (IP4) |
| 14. Belief that journalism will improve through technology | 14. “I think there's really big opportunity there to benefit from technology and also machine learning applications.” (IP17) |
| 15. Overestimation of technological feasibility | 15. “Complexity [of NRS] is also partly underestimated.” (IP7) |
| 16. Editorial placement decisions become less important | 16. “Today the editors monitor all the stories they publish, and this monitoring is strongly oriented towards: "In which position or in which order is my story placed? And in extreme cases it can happen that we get three completely different front pages. With different content. And the control will be different afterwards.” (IP12) |

B. Despite collaborative elements, limited journalistic involvement

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| 17. Interests of all stakeholders are considered (round table metaphor) | 17. “There is a steering group where people from different departments, including the news department, come together and discuss developments and possibilities for new challenges.” (IP16) |
| 18. All divisions on equal footing | 18. “The idea comes up, then you discuss it with all the stakeholders, i.e., the editorial team, IT, the management.” (IP15) |
| 19. Various actors involved from IT, management and journalism | 19. “The content is affected, the product development is affected, the technical development teams are affected, and the audience is affected and, are all important stakeholders. We try to incorporate that accordingly. And in this respect, the strategy results from this synergistic relationship, doesn't it? It's not determined by one stakeholder or another, but really within this four-forces model, ideally.” (IP3) |
| 20. No top-down decision-making | 20. “It was not top-down.” (IP11) |

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| 21. Origin of features and ideas re: NRS: both top-down and bottom-up | 21. "Either we pitch new ideas to our stakeholders, stakeholders have certain requirements, ideas that they carry to us and then we just look." (IP14) |
| 22. Everyday journalists not involved in decision-making and strategy | 22. "So I think there is a lot of communication and a lot of, eh, cooperation as well. Yeah. Uh, but with journalists less, I think." (IP29) |
| 23. Strong involvement of individual representatives from editorial staff | 23. "We work very closely with the editorial team and now with a representative from the editor-in-chief staff, who is in charge of a lot of these topics. And as soon as there are topics that need to be approved by the entire editorial team, so to speak, he brings them in." (IP9) |
| 24. Editorial Staff must be on board/ in agreement | 24. "And exactly, but as I said, very important of course that the newsroom is on board and that they also like it." (IP15) |
| 25. Final decision by editor-in-chief | 25. "And the editor in chief is the boss. So yeah, he decides." (IP23) |
| 26. Editorial staff consulted but not main decision-maker | 26. "I mean, people can have ideas and I know our editors are very accessible, but that's not how it works." (IP20) |
| 27. Not much collaboration between IT, management and editorial | 27. "Yeah, there is collaboration, but it's not very, not very close." (IP26) |
| 28. Some discussion possible, but final decision by management | 28. "But always in consultation or transparency with management, who have to see the roadmap and... Where are we going? What do we prioritise for the product, for further development?" (IP9) |
| 29. Some discussion possible, but final decision by publishing company | 29. "I don't think they have much of a say, actually. So yeah, I think like, for example, [representatives from the publishing company] can make a decision: "We work on this." (IP29) |
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C. <i>The mediator role of ambidextrous actors</i> | |
| 32. Someone who speaks "all" relevant languages | 30. "This means that there are actually permanent misunderstandings if there is not someone there like me, who does this mediation." (IP14) |
| 33. POs and PMs make strategic decisions | 31. "That would be, for example, [person] always here, so actually the CPO in principle, that would be the last instance, um, yes exactly, and then just below that the respective product managers." (IP8) |
| 34. POs and PMs responsible for strategic roadmap and vision | 32. "That is, he's responsible for the roadmap and says over the year, "Okay, how do I need to allocate my product development accordingly and what can I deliver over the year?" (IP14) |
| 35. Exchange with editorial staff | 33. "... our Head of Data, who is also very close to the journalists, who then also evaluated a lot of this and answered all the questions." (IP15) |

36. Interface between tech and business

37. Close collaboration between PMs and tech

34. “And there, the product managers in digital platform development can be seen as a kind of link between the business side and the technology side.” (IP3)

35. “So, in this case, together with the product manager, eh, every quarter we think, you know, what could be a data product to either increase engagement or, eh, lower churn or, I don't know, for different user groups, if you want.” (IP10)

Table 2B: Research Question 2, Corresponding Themes, Categories, and Representative Data

RQ 2: Tensions between journalistic, market, and tech logics	Representative Data
A. Divergence in priorities and expectations	
1. Management perceived as conservative about digital innovation and NRS	1. "I'm not sure if that was really the consideration, higher up. But for me, as an engineer, it feels a bit stupid, if you would still stick to the old. People who don't want to get used to new technology... I am not sure if that really, you know, how long you'll survive." (IP29)
2. Management perceived too focused on financial aspects	2. "From our point of view, it looks like you are a bunch of commercial people who are just seeing our articles as a whole pile of cookies and you can do whatever you like with repackaging it." (IP27)
3. Journalists perceived skeptical of NRS	3. "And from the um journalistic corner, especially in the information area logically, it was then rather a bit 'Yes, yes, but then maybe not and in general watch out and so on.' So the classic reaction." (IP1)
4. IT perceived too optimistic about technological feasibility	4. "But I'm afraid that our tech guys are too optimistic about us being able, technically, to do this. Because why doesn't YouTube do it? Because it's very complicated." (IP27)
5. Editorial independence vs. business imperatives	5. "It has happened before, of course, where someone new comes in [from marketing] and they go to a journalist and ask them to write about a certain topic, because they think it's important. And it's always a big thing when that happens, because we always think, you don't tell us what to do because we're independent." (IP32)
6. No tensions between tech, management and editorial due to pursuit of same goal	6. "No, because we have the same goal. And that goal is again keeping people longer on the website again for subscriptions. So the goal is mostly aligned." (IP19)
B. Lack of common language and communication	
7. Unaware of demands of other departments	7. "What you might think of as a computer scientist, as a really nice algorithm that actually gave very good results, was not one-to-one what the editors wanted after all." (IP4)
8. Missing a joint language	8. "Of course, we do speak different languages because of departments." (IP19)
9. Limited exchange between tech, management and editorial	9. "But in general, there is some communication between all of the departments. But that's on my level, not per se with the individual journalists."

- Individual journalists don't talk to individual IT guys or girls.” (IP31)
10. Low technological understanding among managerial actors
 10. “Business says, ‘That’s great. Case closed, we’re done.’ Yes. And I say, ‘No, this is just the beginning.’ At the end of the day, we’ve really done the base of the foundation here first. Technologically speaking.” (IP14)
- C. Journalistic Hesitation**
11. Journalistic resistance to change
 11. “If some things affect your morals or the way you are used to and you have done it for such a long time, I can understand that at a certain point you don’t have the energy to adapt.” (IP25)
 12. Generational gap (younger vs. older journalists)
 12. “I know a little bit about how they work or I at least know that they are being used. I think a lot of editors or journalists within my newspaper do not. And a lot of journalists within my newspaper, who are older, don’t even make a headline when they write an article.” (IP25)
 13. Journalists have a strong club feeling
 13. “There will always be a certain part of journalism which is way too conservative or way too morally attached to a newspaper for it to make the algorithms or other kind of data too important.” (IP25)
 14. Unsure about added value of some data tools
 14. “Well, don’t do it because it’s nonsense and I’m not interested in numbers.” Which is a very traditional way of journalism.” (IP23)
 15. Journalistic fears about being replaced
 15. “But then they say: “Yeah, but if everybody is going to do that. We will die. Or we will only be the supervisor of small parts.” We say: “Well, well, well we’re not that far yet.” But we have to build up and see what’s happening in the market.” (IP27)
 16. Journalistic fears about excessive orientation to user demand
 16. “So, people are very critical of this and editors are.... Also the journalists are also critical, like: “OK, well, we will only give people what they want.”” (IP27)
 17. Low algorithmic understanding among journalistic actors
 17. “So yeah, they have an opportunity to be able to know what’s going on, but I think many don’t exactly understand. Yeah, as soon as it becomes a little bit technical, many people kind of bail out.” (IP29)
 18. User demand vs. journalistic missions
 18. “Yeah, it’s something really difficult, and of course, for me that’s the same. Because there is a big overlap in what people want to read about and stuff you want to write about. But there’s also a section which doesn’t overlap.” (IP25)
 19. Journalists not against NRS per se/ hopeful about NRS
 19. “And this solution to this problem of weighting and also constantly dealing with what is specifically interesting for our readership, I think there is some hope there, on the part of the journalists.” (IP7)

Table 3B: Research Question 3, Corresponding Themes, Categories, and Representative Data

RQ 3: Negotiation of Tensions	Representative Data
A. Communication and Collaboration	
1. Communication across divisions	1. “We also have product meetings and different kind of set ups where multidisciplinary people come together and talk about it. So once in the two weeks, we have like some editors of different kinds of brands on the platform, and then the heads of project, the POs and me, and advertisement and we all talk about these kinds of projects.” (IP28)
2. Interdisciplinary exchange	2. “But lately we've got, you know, we've got to a common kind of set of values in way of working, and it's very productive and interdisciplinary.” (IP10)
3. Clear communication of added value	3. “And the main thing it did is take away fear. And so if you just say, OK, look, we're going to apply algorithms to your platform, then the first thing they'll think is like, No, stay away! But then if you dive in and say, OK, this is what these algorithms do, and the intention is not for instance, to replace journalists or to become Facebook and to filter bubble then and explain how exactly you're going to do it.” (IP30)
4. Raising awareness of pursuit of same goal	4. “We are in this together and not only because we think it's good for society or for journalism where you are independent guys. No, it's also because of business reasons.” (IP27)
5. Educational work for editorial staff	5. “But I did have sessions, workshops with some chiefs where I just go through the basics of such an algorithm. I tell them that we have like content understanding like what NLP, natural language processing looks like and what user understanding, like making profiles of users, looks like and how you can then combine these things to arrive at a relevancy ranking.” (IP30)
6. Visits to newsroom by tech actors	6. “The journalists uhm, actually I will be talking to them this afternoon, about this topic. And then I will just tell them like I'm telling you: at first, why are we doing this?” (IP17)
7. Compromise	7. “In the end, the compromise actually led to the personalisation being accepted, also by all journalists, because it was seen that "yes, well, we can continue to weigh, we can continue to set the topics that we want." (IP15)
B. Ensuring (or assuring) journalistic control	

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| 8. Editorial decisions take priority | 8. “When 'the recommended for you/ what you've missed' block will be done, [...] we'll never have that on the top of our app because it could mean that you only read those five articles which could all be about trivial subjects and you would miss the big news that something happened in Ukraine, right? We feel the obligation to tell you something about topics like what's happening in Ukraine at the moment. And so that's always the top of our app.” (IP31) |
| 9. Human oversight over NRS | 9. “The combination of recommender and editor, i.e., that someone checks against and takes half of these suggestions, but mixes them with their own selection, that was actually the conclusion.” (IP5) |
| 10. Integration of editorially determined criteria into NRS | 10. “Then the editorial, that is the curation. We take data from the home page, among other things. How highly something is weighted? Editorial.” (IP10) |
| 11. Journalists get a say in design of NRS | 11. “So one thing is whether, well, for which users it would be a good match. But also, you want to know what a journalist would think the importance of this article is like, would they put this on the front page? [...] And so we have discussions with journalists about that.” (IP30) |
| 12. No use of NRS on frontpage | 12. “Keep in control and make the more journalistic based choices, than only on popularity or something.” (IP26) |
|
C. <i>Ambidextrous actors who speak all relevant “languages”</i> | |
| 13. Ambassadors from the newsroom | 13. “We always do this in such a way that we assign someone from the newsroom team of journalists to this project. He simply attends the meetings and is like the ambassador for this topic, representing it in the newsroom and presenting it to the people.” (IP15) |
| 14. People at the interface of tech, business and editorial | 14. “I think I'm now more of a bridge because I delve into I.T. products and marketing and representatives of the company. But I still understand how editorial stuff works.” (IP27) |

D. *Responsible NRS*

15. Transparency about NRS
- A. Internal communication and documentation of NRS
 - B. External communication in blogposts etc.
 - C. Labelling of NRS sections
16. Implementation of diversity-maximizing algorithms
17. User Agency/Control Mechanisms
- D. Opt-Out Options
 - E. Customizability
- 15.
- A. "... to explain technical aspects from our side, so to speak. I also made a small white paper that explained how the algorithm works." (IP4)
 - B. "I wrote an article together with the editor about the algorithm. So, ehm, from the container where these personalized recommendations are put, there is a link and you can always read basically, like high level how the algorithm works." (IP10)
 - C. "But it is designed in such a way that you really see that this still belongs to the article and only then comes this automated area." (IP9)
16. "And we have built in an anti-bubble filter, which means that we also selectively play out topics in the segments that are not in the segment." (IP15)
- 17.
- D. "What can make a difference is that one person can say, I would like personalisation, and the other person can say, no, for me please the complete spectrum and I don't want to have a pre-selection." (IP13)
 - E. "But as long as the journalists are in control and the readers in the end really have to be in control because they're paying people, they pay for products." (IP22)