

de Volkskrant as a Digital Service

ACCELERATING THE DIGITAL TRANSFORMATION OF DE VOLKSKRANT THROUGH HUMAN-CENTRED DESIGN.

DIEDE BESSELING



DELFT UNIVERSITY OF TECHNOLOGY

MSc. DESIGN FOR INTERACTION
MSc. COMMUNICATION DESIGN FOR INNOVATION

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Master Thesis

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In Design for Interaction

Faculty of Industrial Design engineering

MASTER OF SCIENCE

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Supervisors

DESIGN FOR INTERACTION

Dr. Ir. Jasper van Kuijk

COMMUNICATION DESIGN FOR INNOVATION

Dr. Maarten van der Sanden

Dr. Éva Kalmar

DPG MEDIA

Marten Blankesteyn

Executive Summary

This thesis has been written to conclude the Master's programs Design for Interaction and Communication Design for innovation. The focus of this thesis is on the digital transformation within the *de Volkskrant* organisation and was commissioned by *DPG Media*, *de Volkskrant's* parent company. Since the digital transformation started, the *de Volkskrant* has been struggling to keep up with technological developments. Partly because they rely on *DPG Media* to facilitate the infrastructure of their digital products, but within the *de Volkskrant* organisation, there is a lack of vision on what *de Volkskrant* should be as a digital medium. Therefore, this thesis explores the possibilities and challenges *de Volkskrant* currently faces and how the context, readers and organisation all play a role in that. The research questions that were answered are:

What should a quality digital news service look like for de Volkskrant?

The Design for Interaction Research questions and design goal is:

How should the user/reader experience of a quality news service (de Volkskrant) be optimised for digital reading? (DfI Research question)

and from the perspective of Communication Design for Innovation, the research question is:

How can a design concept be used to get Volkskrant journalists to think about the future of their work related to digitalisation? (CDI research question)

To answer these research questions, I used the following research methods; *Human-Centred Design (UCD)* and *Design-Based Research (DBR)*. To answer the research methods and design that fits both the reader and the organisation's need, several methods have been used; A literature review has been done to explore the context,

Interviews with stakeholders were held to understand the organisational structures and culture. User research was done to get insight into the needs and wishes of *de Volkskrant* readers. From this research, it was concluded that the service that should be designed for *de Volkskrant* should be a mobile application. In a design brief, Chapter 7, the problem statement, design criteria and requirements and a vision are presented. The interaction vision is:

The interaction in the design should *guide the user* through the articles and archives of *de Volkskrant*. It should *support them in learning new things and exploring new perspectives*. After reading digital news, users should feel in control, empowered, and accomplished.

The result of this thesis is a proposal for a mobile app design as well as advice for the *de Volkskrant* organisation on how to accelerate the transition to a digital-first mindset and utilise the design process along the way to incite change within the company. In Chapter 11, the final design and advice are presented. To summarise, *de Volkskrant* should implement features into the mobile implication such as *Dossiers*, which bundle articles and *Overview*, which provide a visual overview of articles, to not only create a better reading experience but to increase collaboration within departments as well.

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Preface

I have always been fascinated with human behaviour, and although Industrial Design might not be the first thing you think about when you think about human behaviour, I think the two are closely connected. In my opinion, design is not something that you can force upon a user. To create a good design, you have to take into account the actual people that will be affected by it. Clearly, this means taking the user into, which is what my Master's Design for Interaction mostly focuses on. During my Bachelor's, I always felt like I was missing some depth in how I approached design challenges. When I found the master Communication Design for Innovation, I was excited about the different approach from what I was used to and how I got to work together with people with many different backgrounds. Combining the two masters, I learned about the business aspects as well as the human aspects of design and more. The master CDI is about communication within organisations. For me, this really opened my eyes to the impact a design can make, not only on users but on organisations as well. In this thesis, I combine these two perspectives and show how human-centred design can not only benefit the users, in this case, readers but the organisation as well. With this thesis, I complete my master degree's; Design for Interaction and Communication Design for Innovation. At the same time, this thesis is the prelude to the end as a student at the Delft University of Technology. My years as a student are a time of my life I can fondly look back on. I learned many things about design and communication but also about myself. Finishing this thesis was not an easy feat for me, of course. Doing my thesis research during a global pandemic made it hard. But the hardest part for me was the fact that I had to work from home, by myself, on a big research project, covering subject matter I did not yet feel comfortable in. The fact that you are now reading this means I succeeded, which makes me feel immensely proud of myself. I hope this thesis provides you with insights into how design can benefit both users and organisations.

With pride, I can now present you with my thesis. I hope you enjoy reading it!

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There are several people I would like to thank, people who helped me during my research. First of all I would like to thank my TU Delft mentors, Jasper van Kuijk, Maarten vander Sanden and Éva Kalmar. They guided me throughout the project and gave me feedback whenever I needed it. They have been enthusiastic about my thesis, and I always felt like they were confident I would get there in the end.

Furthermore, I would like to thank my company mentors, Marten Blanckesteijn and Emma Haagen. They gave me the opportunity to do my thesis in one of the biggest media companies of the Benelux and helped me to find my way through the organisation. I also would like to thank Gert-Jan van Teeffelen, who gave me the opportunity to take a look behind the scenes of *de Volkskrant* and has been nothing but enthusiastic about my research. I sincerely hope that my thesis can help them in any way and give them new insights to work with in the future.

Finally, I would like to thank my lovely friends and family who believed in me when I did not and helped me to overcome those doubts. They have been the best support I could have wished for, and I am forever grateful to them. A special shoutout to my best IDE friends, Martine and Evita, who listened to me talk about my thesis for one and a half years. I hope I did not bore you ;).

I also want to thank Bart. Without you, I do not think I would have been able to finalise my thesis with a sense of pride and accomplishment. You always make me feel better when I am down, and your trust in my skills and knowledge made me more confident.

To all the other people that helped me in any way during the time I spent completing my master degree's, but whom I forgot to mention, thank you!

I am proud to present my thesis to them and whoever might read it. Enjoy!

“A new medium is never an addition to an old one, nor does it leave the old one in peace.”

- M. MCLUHAN, UNDERSTANDING MEDIA

1 Introduction

Imagine a future in which print newspapers do no longer exist. What is left? How do quality news brands, such as *de Volkskrant*, still fulfil their role in society? Is their place in society still the same? Do they even still exist?

Thinking of a future where all information is gathered through a screen is more logical and inevitable than many print lovers might admit. How much of the text you read is still printed on paper? And how much of it do you read through a screen? You probably never thought of it, but how often did you give in to the more readily available digital news services, even when there is a printed one at your doorstep every day? I know I do. Every day, I get a printed newspaper in the mailbox, as do all *DPG Media* employees and interns. I, however, almost always throw it directly into the paper bin. It is undoubtedly a waste, but what if this is the first sign that print no longer has the future? What if I am not the only one who is starting to prefer digital news to printed one? What will happen to the quality newspapers? In this research, I explore the value of newspapers to people and society, how people read the news and what being subscribed to *de Volkskrant* means to them. I think the digital-first future is inevitable and thus did research to answer the question:

What should a quality digital news service look like for de Volkskrant?

This graduation report was written as a double-degree Master's thesis for the Master's Design for Interaction (Dfi) and Communication Design for Innovation (CDI), was commissioned by *DPG Media* and executed within *de Volkskrant*. *De Volkskrant* is one of the most prominent quality newspapers in The Netherlands, and *DPG Media* is one of the biggest media companies in the Benelux. This thesis has a user-centred focus and looks to answer the questions:

How should the user/reader experience of a quality news service (de Volkskrant) be optimised for digital reading? (Dfi Research question)

and from an organisational perspective

How can a design concept be used to get Volkskrant journalists to think about the future of their work related to digitalisation? (CDI research question)

This chapter further introduces the research topic; *de Volkskrant* as a digital service. It also explains the research context, goal, scope, and approach. In Chapter 2, I elaborate on the methods and tools that were used to answer the research questions; in short, I used a combination of User-Centered Design and Design-Based Research. Next to the method, I also used a Theoretical Framework, shown in Chapter 3, as a lens to look at the research context. This enables

me to combine theoretical and practical insights and reflect on those insights to understand what they could mean according to theory. The theories in the framework are; Communities of Practice, Social Learning, Mental Models, Technology Acceptance and Future State Visioning. In Chapter 4, I explore the context of the digital transformation of news media further, as well as why it is important that quality news media remain to exist. Chapter 5 narrows down the scope a bit and looks specifically at the organisations this thesis is about, *DPG Media* and *de Volkskrant*. In this chapter, I explain the organisational structure(s) and how the two organisations interact with each other. Furthermore, I also look into the culture within *de Volkskrant* and factors that might influence employees' attitudes and opinions towards the digital products of *de Volkskrant* and the digital transformation of the organisation in general. Chapter 6 discusses the user perspective of the digital transformation of newspapers and explains user needs and wishes and why readers choose *de Volkskrant*. In Chapter 7, all information comes together in a design brief. The design brief presents a Problem Statement as well as an interaction vision for *de Volkskrant's* digital products and some criteria and requirements the design should meet. In Chapter 8, I present the ideas and solutions to the problem statement, and to conclude this chapter, a concept design for a mobile application is presented. The evaluation of this application by users and stakeholders is shown in Chapter 9. The insights gathered during the evaluation(s) were used to iterate on the concept of

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which the redesign shown in Chapter 11 is based. Furthermore, the design is also used as a probe in Chapter 10. Here, I used the concept to investigate in what way a concept can be used to talk about the future of *de Volkskrant* and how this can help *de Volkskrant* and its employees to create a clear future vision. To conclude, I reflect back on the whole process and answer the Research Questions in Chapter 12.

1.1 The digital transformation of news media

When the internet came to life, no one could have predicted the consequences in 2022. We now live in the technological future they could only dream of back then. Almost everything that we use in daily life is dependent on the existence of the internet, and this dependence on digital technology is only growing. This principle also applies to news media; between the start of the internet and now, the media landscape underwent some drastic changes.

In this context, there are three crucial concepts; *Digitization, digitalisation and digital transformation*; Digitization is the conversion from analogue to digital media, digitalisation is the use of digital technologies and data to impact the way we work and live, and digital transformation is how customers and companies interact and create (digital) revenue streams (Bloomberg, 2018). All are important in this research since all apply in the context of news media. From print to applications, from working out of an office to working from home and using data to analyse product performance, from having one product (print) to sell to having multiple subscription models.

With mainstream use of the internet, news became a lot faster. Journalists do no longer have to wait for a paper to be printed to publish their articles. Suddenly, there were ways in which you could easily interact with the other side of the world and share news quickly with a big audience. The media landscape changed, and suddenly traditional media had to share the market with new competitors who

were able to bring the news as it was happening. Traditional media such as newspapers were now slow compared to online news organisations and had to find ways in which they could compete with news brands such as *NU.nl*.

Furthermore, traditional television-focused media also launched websites targeted at bringing news to their audience. Brands such as *RTL* and *NOS* are now among the most popular news websites within The Netherlands. Where before they were not directly competing with newspapers, they now are. *RTL* and *NOS* already had a tradition of a 24/7 newsroom, which gives them a considerable advantage in the digital transition. They did not need to change their rhythm but only the medium they used. In summary, the landscape has become more crowded and thus also more complex. Competition no longer comes from other newspapers but from all news-focused brands worldwide.

However, since this change was fast, there was not much time to rethink what news + digital technology can and should be. An example of when digital technology was combined with a previously analogue experience was when digital technology was combined with social interaction, resulting in social media where the focus is mostly on sharing personal experiences. Before digital technology, there were no similar concepts; the combination led to a whole new product. However, analogue products are always used as a starting point for the digital counterpart in digital news media. This project looks with a fresh perspective at the challenges and

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opportunities of what this promising combination, news + digital technology, could bring.

Furthermore, it seeks to design a news service that utilises the strengths of the *de Volkskrant* brand and the technology available to the fullest with a focus on the user experience. Lastly, it looks for opportunities for the *de Volkskrant* organisation to become more adaptive, future-oriented, and open to innovating and keeping up with future developments and further digital transformation. Chapter 4 will go further into the effects of digitalisation on journalism and news media.

1.2 The importance of quality newspapers

Journalism has a fundamental role in maintaining a robust democracy, so quality news is essential. According to Asp (2007), news media fulfils two functions: *“To inform the citizenry and to scrutinize those who govern”*. Below, I will explain why quality journalism is vital to society and what quality news means. Both topics will elaborate on the relevance of this research.

1.2.1 The fourth estate: Democratic importance of quality journalism

A healthy democracy is based on two fundamental ideas; *the sovereignty of the people and a free exchange of ideas*. For a democracy to function correctly, both need to be satisfied. This is where news media comes in: in a democracy, the media *“contributes to free and autonomous opinion formation in society.”* (Asp, 2007). Quality news media function as gatekeepers of democracy, keeping governments and big companies in check and accountable. Often called the lighthouse of democracy, the media alerts citizens of important and relevant events, allowing them to form opinions and scrutinize those in power. There are generally three tasks the media have within a democracy; *to supply different opinions, provide information on issues, and expose misbehaviour* (Asp, 2007).

Next to providing information, the media can put important issues on the agenda or decide how a particular topic is framed. As described by Te Kulve (Te Kulve, 2006), media coverage can function as a

catalyst and mediator of controversies and be a medium that *supports the development of broader dialogues on certain topics*.

Often, issues put on the agenda by the media will also be put on the agenda by politics (Nisbet et al., 2003). Therefore, media does not only have a controlling power but also partly determines what issues will be discussed in politics. Therefore, newsreaders cannot be seen as solely passive; they actively take up issues covered by media (Te Kulve, 2006). Related to this is Swidler’s concept of *repertoires*; *“Culture influences action not by providing the ultimate values toward which action is oriented, but by shaping a repertoire or “tool kit” of habits, skills, and styles from which people construct “strategies of action.”*(Swidler, 1986). Te Kulve (2006) connects this to newspaper coverage by saying that newspaper coverage can be seen as an expression of *Newspaper repertoire*, which can be used to engage in public dialogue on emerging science and technology. Therefore, news coverage is essential because it is widely available to the public. It is, therefore, a way in which the public becomes aware of new developments. The media can provide the public with the tools to understand and assess such developments (Scheufele & Lewenstein, 2005).

The media fulfil an essential role in independently informing the public about important issues (gatekeeping role), which can be important events or topics that the media thinks should be brought to the public’s attention (agenda-setting role). Quality journalism helps the public form opinions and make

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decisions independently, and these decisions influence society and politics, which ensures an independent democracy.

1.2.2 What does quality news mean?

Now that we know why quality news is essential and thus should remain, we can ask the question; but what does quality news mean? Logically this greatly depends on whom you ask. There are roughly two perspectives; the first is the scientific or professional perspective, which focuses on production conditions such as the news's transparency, accountability, independence, and public service (Meijer, 2013), which is important for the democratic role but mainly about how journalism is practised. With quality in the professional sense, we refer to news media's role and how they can safeguard this role.

However, since this thesis focuses not on journalism practices but user experience, I also look at quality from a second perspective, that of the user of news media and how they perceive quality news. According to Meijer (Costera Meijer, 2020), quality in news media and the field of journalism, in general, is not only about the professional quality of news but also about the users' experience of quality. As Meijer(2021) noted, "Meeting the qualities of trustworthiness, ease of use, accessibility, quality visuals and appropriate writing style, may still be insufficient to trigger a valuable news experience." Meijer suggests that quality is not only in the content of the news but also related to the personal value of news to the reader (Meijer, 2013). This is in line with what Beckett and Deuze (2016) argue, that emotion

is becoming a more important dynamic in how news is produced and consumed. Partly because people develop an increasingly intimate relation to technology; we always have the device on us through which we consume news, and through that device, we are always in contact with our social network (Beckett & Deuze, 2016). This causes us to become more devoted to our devices and more attached to our mediated activities, such as reading the news (Costera Meijer & Groot Kormelink, 2015). Meijer noted three key experiences in valuable journalism; getting recognition, learning something new and increasing mutual understanding (Costera Meijer, 2021), see Figure 1. From these experiences, she argues that personal pleasure and civic interest are intertwined in valuable journalism. It needs to combine feelings of enjoyment with enlightenment. Figure 1 gives a more detailed insight into what these key experiences

encompass. *Getting recognition* is about being able to identify with what is written and whether you feel represented in the news. You feel that the issues that concern you are not appropriately addressed, or if you feel like you are not represented, you might feel overlooked and thus less inclined to read articles from that specific source. *Increasing Mutual Understanding* means that news is most valuable when it considers multiple perspectives and, for example, raises social and ethical implications. *Learning something new* tells us something about the reader's goal and what they want to get out of it. What is the point of reading the news if it does not give you the feeling that you now know something you did not know before? Learning something new does not only consider learning new facts but also is about getting a new perspective, a better overview, seeing the complexity, being surprised, and feeling inspired. Explaining these key reading experiences,



Figure 1 key experiences in valuable journalism ((Costera Meijer, 2021))

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it becomes clear that these factors are about what news can do and mean personally. People want to learn, be understood and be inspired and surprised. These experiences are not exclusive to the content of an article but also depend on the way news is presented to them. For example, in print, a coherent story between articles can be told because they are presented on the same page. In digital news, an article is shown as a separate entity, the context in which the article was published is lost. An article told from a specific perspective would, for example, be printed next to an article that shows the opposite perspective. In digital news, only the first perspective is presented to the reader. Knowing that news experience is as important as content, quality-wise, we can look for opportunities to improve on that experience from a user perspective. In Chapter 6, I also investigated this by doing user research, which gave insight into the needs and wishes of the *de Volkskrant* readers when it comes to experiencing content and what that means for *de Volkskrant*. We have already established that it is crucial for a society that quality news media remain to exist. A new and different approach is needed since print media and digital media are not the same. There is a steady decline in print subscriptions and an increase in free digital news. *De Volkskrant* needs to find ways to remain relevant. Although there is no doom scenario in the near future, it might arise in a future that *de Volkskrant* cannot imagine yet.

1.3 Digital-first mindset

Through the years, a lot has changed in journalism due to the development of new technologies. This impacted not only the users' or readers' experience but also the journalists' and newsrooms' experience. Due to these changes, newsrooms, the organisation and how journalism is practised need to adjust. They need to go from a sender-receiver dynamic, where the media decides for the public what is important and offering that through static print media, to a focus on how to service the audience and guide them through news items (Costera Meijer, 2020) in a digital context where readers have more freedom on what articles they choose.

It was not just readers that made a shift in how they consume news; news organisations also have to change to keep up with technological developments. This calls for an innovative approach and a future-oriented mindset, which means news organisations must move to a 'digital-first' mindset. Research by Gutsche and Hess (2020) focuses on where news is produced and consumed and where journalism is practised. With the digitalisation of news, these places shifted from physical to digital spaces (Gutsche, & Hess, 2020), a transition that accelerated because of the COVID-19 epidemic. This means that a lot of communication is no longer taking place face-to-face but in digital spaces such as *Slack*. Additionally, news became faster; newspapers no longer participate in a daily rhythm but need to shift to a continuous one. They need to focus on how to serve their users/readers in the best way they can, which might mean changing

dynamics within the organisation. Thus, in a digital transformation, not only user needs change by changing the medium, it impacts the organisation as well. Researching what the transformation means for the organisation is just as important. Therefore, this research does not only focus on the user experience of news but also on the organisation that makes the news, in this case, *de Volkskrant*—asking how they can be supported in becoming more adaptive during these transformative developments. All topics are tightly connected and will thus be researched in parallel. The next part of this chapter makes these goals more concrete and explains the research approach.

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1.4 Research Goal and Scope

This research was done within the context of DPG Media and especially *de Volkskrant*, one of the biggest quality newspapers in The Netherlands. The initial design brief of this research was to improve the reading experience of the digital newspaper, which was expanded to the broader context of looking for opportunities for digital news media. The design brief eventually became:

Dfl: *How should the user/reader experience of a quality news service (de Volkskrant) be optimised for digital reading?*

Three key experiences need to be considered: *the overall user experience*, the interactions within the product and how news is presented, and *the reading experience*, how a user is guided through these articles and how the article itself is presented to them. The following are sub-design-related research questions:

What new opportunities does digital consumption of quality news offer for user/reader experience?

Which challenges does digital news consumption pose for a quality newspaper, and how can those be dealt with? (e.g., How can the synergy between fast news and in-depth analysis be utilised better?)

Which characteristics of news consumption in print are valued by readers, and how should those be used to improve the digital reading experience?

(e.g., how can a digital news service provide a good overview just like the newspaper?)

Since this is a two-faceted research project, I take into account both the user experience as well as the news organisation itself to design a solution for *de Volkskrant*. I will also look into how the design (process) can help the organisation in its digital transformation. Thus, the Communication Design for Innovation research question is the following:

CDI: *How can a design concept be used to get de Volkskrant journalists to think about the future of their work related to digitalisation?*

Sub-question to this research questions are:

What is the current mental model of actors at de Volkskrant related to digitalisation?

What role do boundary objects play in the organisation, and what objects are there?

What are the organisational difficulties that de Volkskrant faces in the digital transformation?

What difficulties do de Volkskrant employees struggle with when it comes to being adaptive and future-oriented?

What characteristics should the design have to help the organisation to move forward?

The theoretical foundations of these research questions will be further discussed in Chapter 3. These questions were constructed using insights from Chapter 3, 4 and 5 and are answered in the final chapter, Chapter 11.

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1.5 Project context

As noted, this thesis was commissioned by *DPG Media*, one of the biggest media companies of the Benelux. The *de Volkskrant* organisation was taken as a case study to scope the research context. The initial brief was pragmatic and approached from a usability perspective. The focus was on improving the digital reading experience. After a discussion with the company and *TU Delft* supervisors about the assignment and considering the double degree approach, it was decided that the project should have a more holistic approach to the challenges and opportunities there are and look at digital news as a service and not just a product.

As touched upon previously, this thesis is a combined master thesis for the master's Communication Design for Innovation at the faculty Education and Communication and the master's Design for Interaction of the faculty of Industrial Design Engineering. This means that there are two perspectives within this research: that of the users and that of the organisation. Different lenses were used, but insights gathered through these lenses were eventually combined into one product/service concept and company recommendations.

1.6 Approach

Due to the combination of two Master's, I implemented and combined two different approaches and perspectives; to investigate what a quality digital news service should be, a **user-centred approach** was chosen. Parallel to the user-centred design process, a **design-based research method** (Fowler & Leonard, 2021) was used to answer the research questions for the CDI part of my thesis. Design-based research follows the design process and uses stakeholder interactions as moments for data collection. Thus, these two approaches can be easily combined. Therefore, I chose to do a fully integrated double degree thesis. Two main interactions took place. Semi-structured interviews were held at the beginning of the project, of which the results were the basis for the analysis phase. The second interaction moment was near the end of the project, where the results from the analysis were combined into a probe: the design concept. This probe was then evaluated with the stakeholders through semi-structured interviews based on the theoretical framework. The results of this evaluation give insight into the mental models of *de Volkskrant* employees and their acceptance towards a digital-only future. It shows how a design concept can be used in an organisation to discuss future steps. This can help an organisation create a vision for the future and involve employees in that process. The central scenario during this project is to design for a future where print no longer exists. At the end of each chapter, insights gathered for the design and for the organisational research questions will be shown.

Finally, the research questions are answered, and the criteria/characteristics are included in the final design. A more detailed description of the methodology is shown in Chapter 2.

2 Method

This chapter elaborates on the chosen research methods for this two-faceted research project. For the design process, a holistic user-centred design focus is chosen. This ensures that users' current and future needs are considered for the design concepts and that the concept fits in the organisation's context and supports the social function of *de Volkskrant*. The method for the organisational and theoretical perspective is design-based research (DBR). This method uses the design process as a basis for research. Thus, this research will result in theoretical insights and offer practical solutions. A more detailed description of the specifics of the methods will be elaborated on in the chapters where the method is used.

2.1 User-centred design (UCD)

User-Centred Design (UCD) focuses on the user experience first, meaning that user needs and behaviours are taken as a starting point for the design. It involves users in the design processes and builds upon insights gathered throughout the process. It is an iterative approach, see Figure 2, meaning that context understanding and ideas are continuously improved (Interaction Design Foundation, n.d.). *DPG Media* currently uses customer insights to improve its current products. However, they do not start from scratch and always build upon what is already there. In this thesis, I propose to start fresh and look at newspapers and digital technology from a user-centred perspective to design a product or service that fits their needs perfectly.

The primary structure of the design process follows the double diamond (Design Council, 2015), a

common approach for design processes, which will be visualised in Section 2.3. The double diamond describes the phases of the design process; there are cycles of converging and diverging thoughts and research. In Section 2.3, an overview of the tools and methods used is given as well.

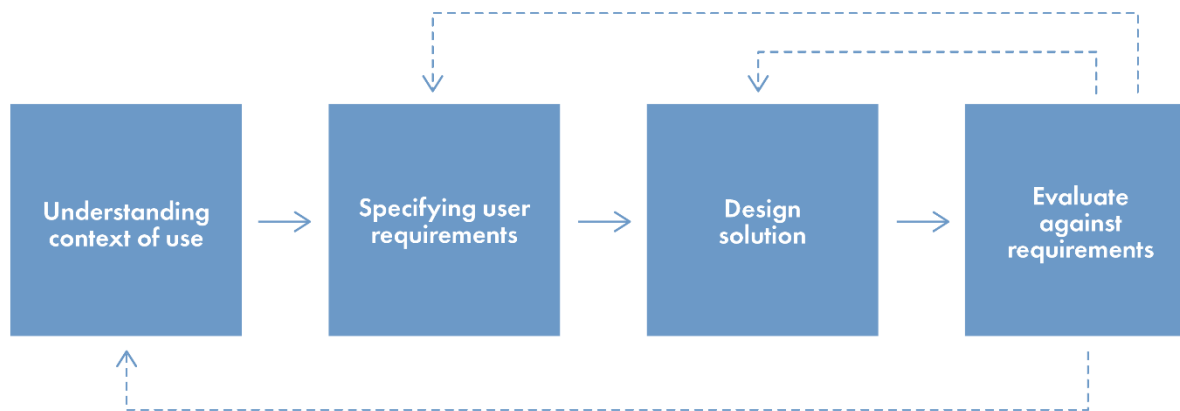


Figure 2 User-centred Design approach

2 Method

2.2 Design-based research (DBR)

Parallel to and intertwined with the UCD approach, Design-based research (DBR) was used to gather insights about the organisation. DBR is a research methodology that combines theory and practice into context-based changes to learning or innovation systems. It uses and develops new theories, artefacts and practices (Barab, 2004). In the case of this research, the focus is mainly on innovation practices within the *de Volkskrant* organisation. DBR is a mixed-methods approach and uses design methods to study and better understand the real-world context (Barab, 2004) (Figure 4). It is a theory-inducing approach, meaning that the goal is to gain a better understanding of theory and develop that theory, but practice focussed, which means that real-world phenomena and their complexity are taken into account. DBR is different from other research approaches since it aims to study the context and systemically change it. Barab and Squire (2004) describe DBR as *“DBR allows the researcher to move beyond simply understanding the world as is, but also involves working to change it in useful ways with the broader goal of examining how these systematic changes influence learning and practice.”*(Barab & Squire, 2004). Although DBR is most commonly used in educational research, DBR was chosen for this context since a design process is executed parallel to the organisational research perspective. Thus, the design methods, related insights and results are the perfect foundation to implement a DBR approach. The CDI master program also uses the DBR approach, see Figure 3

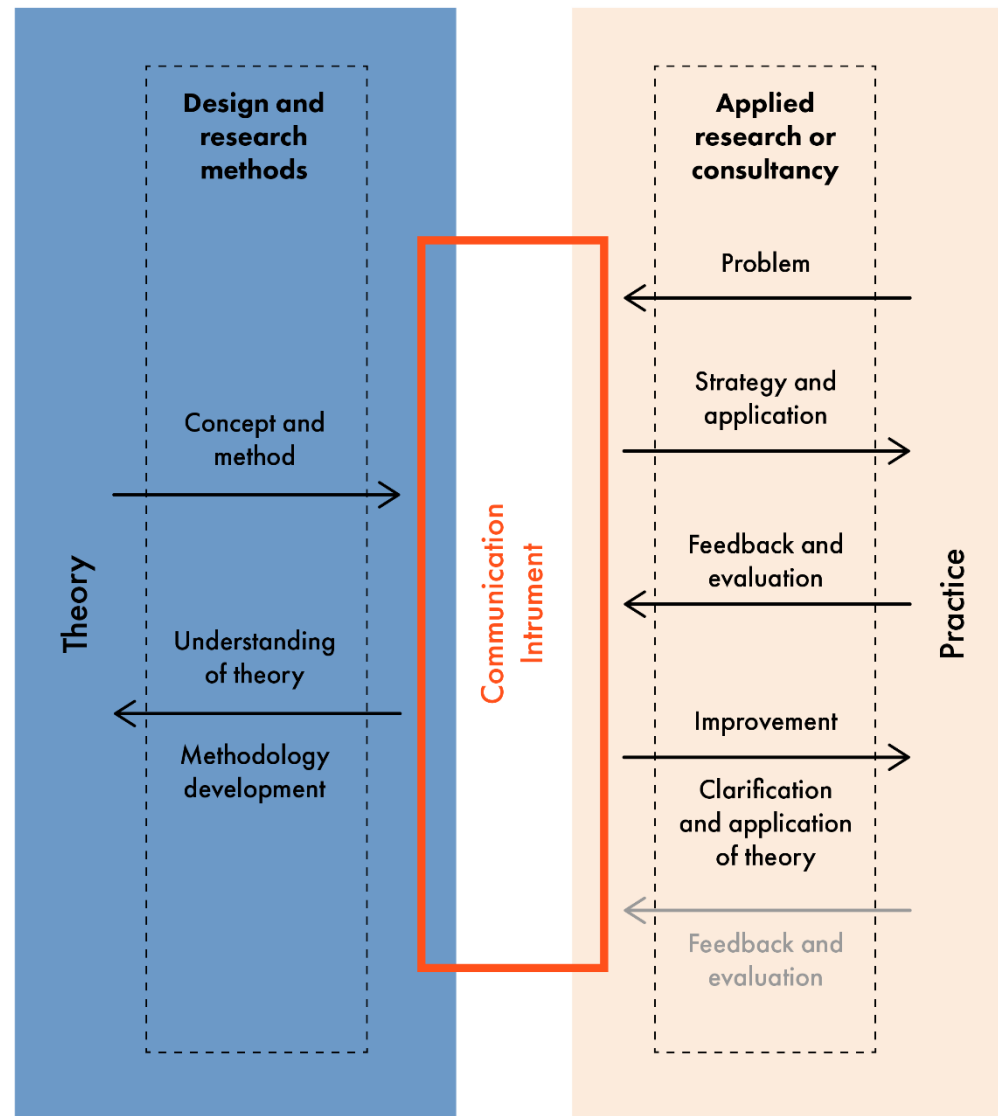


Figure 3 Design Based Research approach

2 Method

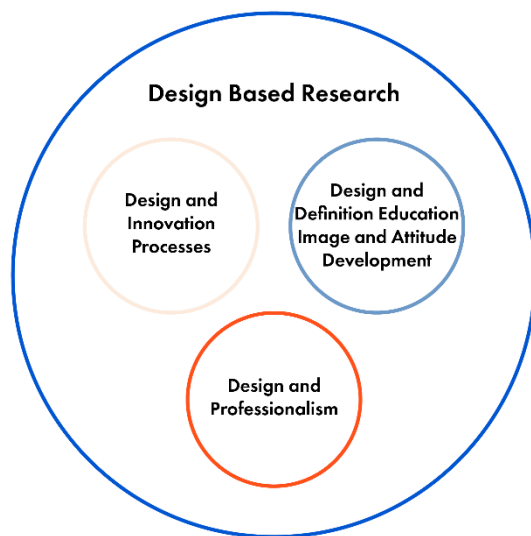


Figure 4 Design Based Research in CDI

and Figure 4. Thus, the final output of this project is not only a new news service for *de Volkskrant* readers, but also includes a reflection on the organisations adaptivity to new technological transformations. The aim is to develop a concept in which reader and organisational insights are combined into a service that is future-proof in the sense that it pushes the organisation to become more adaptive and user-centred.

2.2.1 CDI loops

As the Master's Communication Design for Innovations curriculum is partly based on the concepts of CDI loops, I will shortly elaborate on this

practice since it is closely related to the DBR approach I proposed earlier. CDI loops are the going back and forth between theory, practice, experience, and intuition. This is the basis of an IDE design process (although IDE is less focused on theory). This approach uses methods to make sense of the complex context in which *de Volkskrant* must innovate and get to the essence of the problem(s) at stake. This CDI approach uses the following tools:

Causal loop diagram

A causal loop diagram is a tool through which you can map an organisation from a systems approach. It helps to visualise connections and interactions within a complex networked organisation. This tool can help identify the most important nodes in a specific process; in this case, we look at the innovation processes and the digital transformation of *de Volkskrant*.

Critical node

From the causal loop diagram, a critical node is selected. As the wording reveals, a critical node is a factor in the causal loop diagram, which is essential in the critical challenges within the *de Volkskrant* organisation.

Essence

By finding the critical node, I now know which part of the network is crucial in tackling the innovation and transformation challenges *de Volkskrant* struggles with. Finding the essence reveals what feeling/emotion/element is missing within the

organisation to start them moving in the right direction. The essence is taken as a starting point for developing the employee perspective of the concepts.

I will be using these tools to guide my process and visualise the *DPG Media-de Volkskrant/-Development/journalism* system in which my project occurs. The organisational structure is complex, and *de Volkskrant* is very dependent on *DPG Media's* infrastructure. By visualising the co-dependencies, it is easier to single out the spots in which learning could potentially take place and hopefully find the essence that the probe, or new digital app, should express.

2 Method

2.3 Combining two methodologies

Since this thesis is a fully integrated project, the two methodologies were not done separately, but instead, they were combined into one approach. In this section, each of the phases of the research and the methods and tools used are explained. Figure 5

gives an overview of all the research activities, as well as in which chapter you can find the results of these activities.

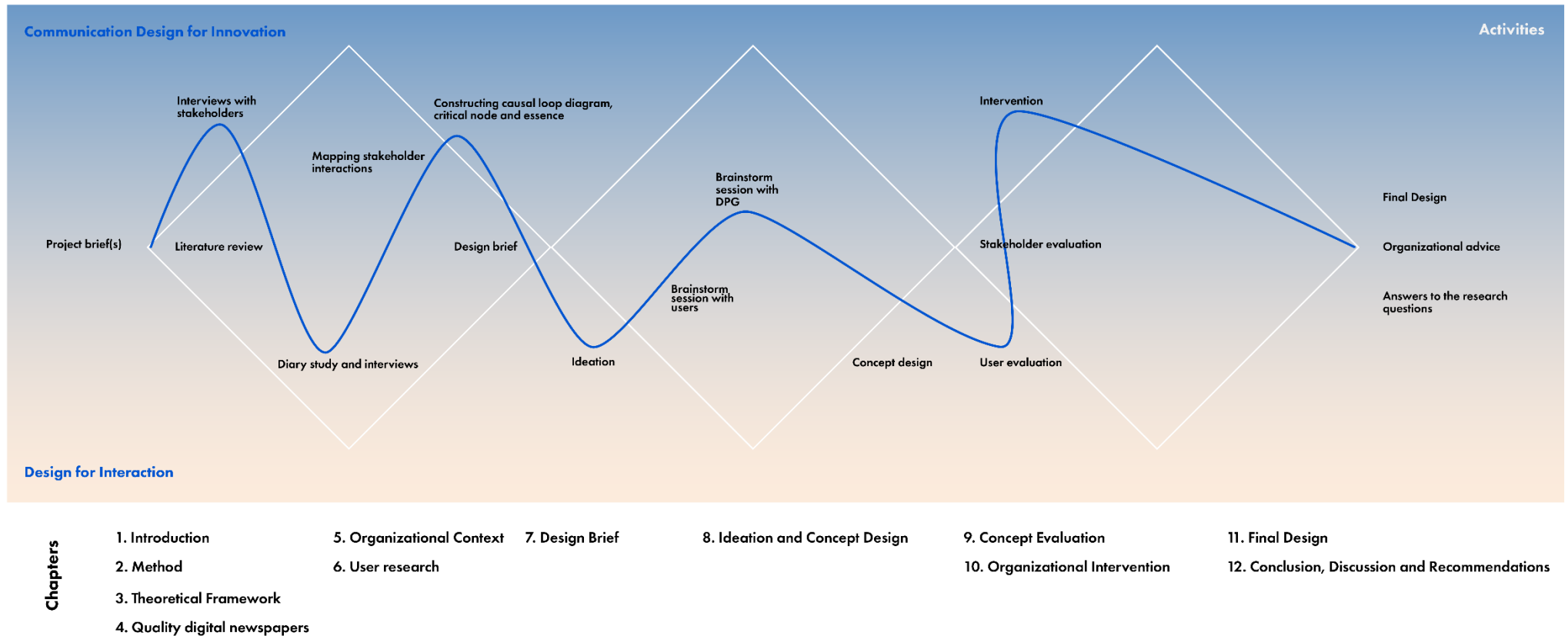


Figure 5 Combining two methodologies, tools and methods used in the research

2 Method

2.3.1 Phase 1: Understanding the context

In the first diamond, the context is explored, and insights about the customer needs are gathered.

Literature review – the importance of digital news

Through a literature review, the context was explored. Topics included in this review are the value of quality journalism to society, current trends and developments and getting to know the organisations and their structure. With these results, a better understanding of the context was developed. The results of this research can be found in Chapter 1, 4 and 5.

The literature review was also done to construct a theoretical framework, which is then used as a lens to look through and reflect on throughout the thesis.

Interviews with internal stakeholders

To get insight into the organisation's dynamics and mental models of employees, 13 semi-structured interviews with *DPG Media* and *de Volkskrant* employees were held. In these interviews, the attitudes towards *de Volkskrant's* digital products and the digital transformation were discussed as well as day-to-day practices and what it is like to work at *de Volkskrant*. Results of this research can be read in Chapter 5.

Stakeholder interactions

The insights gathered through these interviews were used to map out the interactions between the two organisations and individual stakeholders so that the

most critical interactions and boundaries could be determined. These interactions and boundaries are potential learning environments for *de Volkskrant* employees and could help the organisation become more future-oriented and thus more future proof, thus, it is important to gain insight into the important boundaries, interactions and objects.

Diary study and interviews

User insights are gathered through diary assignments and interviews. Seven participants were asked to complete one assignment every day for a week's time span. These assignments focused on users' motivation to read news and why they chose *de Volkskrant* as their/a preferred source. A detailed description of the method followed for this study can be found in Appendix A-User research plan, as well as the interview protocol that was used during the interviews. Parts were based upon the context mapping approach (Sanders & Stappers, 2018). From these diary assignments and interviews, quotes and insights were written down on post-its and sorted into **clusters**. As a result, a **customer journey map** of the current *de Volkskrant* experience was also developed. The result of this phase is a **design brief**, and a narrowed-down **scope** for the project since the initial brief was still broad.

The results from Phase 1 are:

- Theoretical framework
- Insight into user needs and wishes
 - Customer journey map
- Insight into the organisational structure and culture and stakeholder interactions.

2.3.2 Phase 2: Problem statement and Specifying user requirements

From the literature research and user research, a problem statement was created. Another result from the previous steps is a vision on the direction the design should take and an interaction vision on what needs the product should support. Furthermore, criteria and requirements were drawn up.

The results from Phase two are:

- A Design brief with:
 - Problem statement
 - Design criteria and requirements
 - Interaction vision
 - Strategic vision

2.3.3 Phase 3: Ideation and concept design

Ideation

Concepts were developed through two brainstorming sessions—one with *de Volkskrant* readers and a second one with *de Volkskrant* employees. Ideas gathered during the brainstorming sessions were clustered into several potential idea directions. Then, these idea directions were combined into a concept. Furthermore, I also came up with ideas inspired by the previous research methods' results.

Prototyping

Finally, a prototype was developed in *Figma* from the concept design. This prototype will be used in the next phase to evaluate the concept. The result of this

2 Method

phase is a prototyped concept for a mobile application.

The result from phase three is:

- A mobile application concept
- A prototype of the concept

2.3.4 Phase 4: Concept evaluation and intervention

The concept that was designed and prototyped in the previous phase was evaluated by users and stakeholders and used as a probe for an organisational intervention.

User evaluation

With the use of the prototype, the concept's potential was evaluated. This was done through an online interview using a *Figma* prototype and *Zoom*. Participants were asked to share their screens so that I could see both their faces and their use of the concept. Participants were asked first to explore the prototype, then all the features they had missed during the exploration were shown to them, and finally, all features and the underlying argumentation were explained to them. The evaluation wrapped up by having the participants fill out an *AttrakDiff* questionnaire, which measures participants' hedonic and pragmatic feelings of a given product or concept (Hassenzahl, 2003, 2009).

Stakeholder evaluation

A stakeholder evaluation was also done through a digital interview using a *Figma* prototype and *Zoom*.

However, I presented the concept with the stakeholders and then asked for feedback on each of the features. This is because copying the user evaluation method would take too much time.

Stakeholder Intervention

Finally, the prototype was used as a probe during the stakeholder intervention. This intervention was done to gain insight into the employees' attitude towards digitalisation and to get them to think about the future. The theoretical background of this approach will be further explained in Chapter 10, stakeholder intervention.

The results from phase four are:

- reflections on the concept
- Feedback on the concept

2.3.5 Phase 5: Iteration on the design and answering the research questions

Using the evaluations and intervention results, an iteration on the concept was done. As a result, a final design was developed. Recommendations for future implementation and discussion of results are also discussed. Moreover, finally, the research questions drawn up at the beginning of the research were answered.

The results from Phase 5 are:

- An iteration on the design, the final design
- Advice to the organisation regarding digitalisation of their products

- Answered Research Questions

2 Method

2.4 Conclusion

In this chapter, the research methods used throughout the project were explained. A two faceted approach was used where the perspective of users and *de Volkskrant* employees is taken into account during this project. The user-centred design process is used as a probe within the organisation to research the attitudes of the *de Volkskrant* employees towards digitalisation and the current decision-making processes within the organisation. This process will produce one concept/vision towards the future of *de Volkskrant* as a quality news service. The following chapter will explain the theoretical foundation on which the CDI approach and research questions are based.

3 Theoretical Framework

De Volkskrant, as well as *DPG Media*, is not only a big and complex organisation but also a complex social network with numerous interactions between employees and departments. It builds upon the social interactions and mental models people have within this organisation. These networks and models represent the organisation's culture and are thus important to take as a starting point in analysis to sketch a complete picture of the context. Mental models represent people's attitudes towards digital innovation, which is at the core of my research. During my research, I used several concepts and theories to analyse the *de Volkskrant* organisation and context.

Networks, communities, and mental models define the interactions and communications within a network, in this case, the *de Volkskrant* organisation. Attitudes towards, in this case, digitalisation largely determine what interactions take place and between which nodes these take place. Summarized, the digital transition of *de Volkskrant* is not only technological but also about people. Understanding the attitudes of *de Volkskrant* employees and readers towards the future and digitalisation is crucial for designing a digital service and understanding the processes within *de Volkskrant*.

The four theories I will be using in this research are described below, namely Communities of Practice (CoP), Social Learning Systems, Mental models,

described in Section 3.1. The Technology Acceptance Model (TAM) is described in Section 3.2, and Future State Visioning in Section 3.3. These concepts and theories are then operationalised in Section 3.4.

3.1 Communication and Innovation theories

In this thesis, I approach the *de Volkskrant* organisation and, as a result, *DPG Media* as well as communities of practice within a landscape of practice (Wenger-trayner & Hutchinson, 2014). This means that the boundaries of communities are defined by their shared history and mental models (Rook, 2013). Viewing these organisations through this lens enables me to define groups and interactions between these groups. In that way, the most important interactions and boundaries can be defined to explore places for innovation and learning.

The innovator's dilemma

There are two choices a company has when a new technology is surfacing. They can either stay within their core business or branch out and jump on the innovation. There are risks in both decisions; if the innovation fails, they risk losing money, but if the innovation is a success, they are instantly behind their competitor (Thrasylvoulou, n.d.). This struggle is called *the innovator's dilemma* and plays a pivotal role in *de Volkskrant's* struggle to innovate and transform.

De Volkskrant has a decision to make: are they following other successful brands, or are they willing to be riskier and lead the innovations of the field, e.g., by experimenting with new ways with servicing news consumers? During the digital transformation, they were behind, following bigger brands in what they were doing. And, by doing so are now still

3 Theoretical Framework

catching up. Thus, do they decide to start innovating and taking risks or keep doing what they are doing at the risk of losing their business? That is the core of this research, finding ways to push *de Volkskrant* to innovate, or at least become more future-oriented and find new ways of bringing the news to the readers. To decide it is important to understand the organisation and its employees, and that is why it is interesting to research *de Volkskrant* through the lens of CoP, Social Learning Systems and Mental Models.

3.1.1 Communities of practice

A community of practice (CoP) can be seen as a social learning system. Engaging with such social systems involves the dual process of *meaning-making*;

1. *Participation*, e.g. engaging in activities in social life and
2. *Reification*, making these experiences into objects.

Meaningful learning requires both to be in interplay. "Artifacts without participation do not carry their own meaning; and participation without artefacts is fleeting, unanchored, and uncoordinated." (Wenger, 2010). These two activities create a history of learning, which defines a regime of competence: a set of criteria and expectations by which a community recognises membership. Within the *de Volkskrant* organisation, the print newspaper can be seen as such an object. During the day, members of the *de Volkskrant* community engage in activities to create the paper for tomorrow. The result

of these efforts and experiences is a printed newspaper and, over a more extended amount of time, the image of *de Volkskrant* as a quality newspaper. From creating this newspaper, individuals learn what works and what does not. However, such a clear object is lacking in digital news, and thus the reification process is less defined. Furthermore, a community of practice is a dynamic and informal structure of a group of individuals with a history of learning. "Through active and dynamic negotiation of meaning, practice is something that is produced over time by those who engage in it." (Wenger, 2010). And this is another factor that is different in digital news. The long history present in print is not there yet for digital, as well as the fact that the CoP for print is not necessarily the same CoP of *de Volkskrant's* digital products.

Boundary objects

Communities of practice are part of broader social systems, which can be within an organisation and involve institutions, projects, or movements. For *de Volkskrant*, the most apparent connections are to *DPG Media* and the public. Defining a community by a shared history of learning means that the community also has boundaries, defined by those who share that history and those who do not. These boundaries are interesting places since the communities have no shared history. This makes it more likely that there will be miscommunications at the boundaries and makes boundaries fascinating places for innovation since the meeting of perspectives can bring rich new insights and ideas. Communication at the boundaries of practices is

often done through objects. According to Forminykh et al. (2016), boundary objects are: "*artefacts, processes, concepts and other entities that provide bridges across boundaries and act as shared references that are meaningful for learners and collaborators with different backgrounds*" (Forminykh et al., 2016).

Boundaries within communities of practice are often fluid, are often unspoken and can arise through different phenomena; different ways of engaging with others, histories, repertoires, ways of communication and capabilities (Wenger, 2000). Boundary objects can provide bridges and facilitate the translation of meanings across individual knowledge systems, groups or communities that have to or want to work together, especially in situations where communities exist out of individuals with partial knowledge and control over the interpretation of the object (Arias & Fischer, 2000; Fischer, 2001). Therefore, boundary objects can facilitate these different individuals or communities to collaborate by providing a shared reference. These boundary objects perform a brokering role by translating, coordinating and aligning perspectives within Communities of Practice (Fischer, 2001). Within the newspaper context, there are multiple boundary objects to be identified. The most visible object within this thesis is the newspaper itself. It primarily bridges the boundary between journalist and reader but is also an object that communicates the identity of the *de Volkskrant* organisation to society.

3 Theoretical Framework

3.1.2 Social learning – Identity and Identification

Identity and identification are important concepts in social learning. Identity is about the human dimension in the notion of practice and communities of practice. It is not only about techniques, skills, and knowledge. As Wenger states, “*When learning is becoming, when knowledge and knower are not separated, then the practice is also about enabling such becoming*” (Wenger, 2010). As such, the opportunities and the connections that people have and make are just as important as the knowledge or skills that can be transferred. Therefore, the drivers of a community and the relationships within and with other communities are also important. Learning is not just acquiring skills and knowledge; it is becoming a certain person within a community. Bringing new knowledge or perspective is a realignment process between socially defined competence and personal experience. Wenger (1998) hypothesises that learning is most effective through multiple modes of identification, *Engagement, Imagination, and alignment*. Engagement is the most straightforward mode; it involves participating in activities and processes within communities. Imagination is about “*drawing upon previous experiences to engage in mental simulation to create a picture of the world and your place in it*”, and Alignment can be seen as a two-way process of coordinating perspectives, interpretations, actions, and contexts so that action has the effects we expect.

Since this research aims to use a conceptual design as a probe, the focus is on the identification stage of

social learning. The probe could enable employees to imagine the future, help them with aligning their view on the future, and it could engage them to talk about it with their colleagues. Through the intervention, which could be seen as a kind of concept car, *de Volkskrant* employees can reflect on the current state by helping them envision a future state.

3.1.3 Mental models

The shared history that builds a community of practice can also be seen as a shared mental model people have of their organisation, their work, and why they do it. However, a person’s identity is not solely based on the identity they derived from one community they belong to. The way we think about the world is also dependent on other experiences and being a member of multiple communities. These experiences and memberships shape our identity and mental model, how we construct and think of the world around us. A mental model can be defined as “*A concentrated, personally constructed, internal conception, of external phenomena (historical, existing or projected), or experience, that affects how a person acts.*” (Rook, 2013). A mental model represents someone’s mind and how they think the world works and their intuitive perception, shaping their behaviour. For example, whether a journalist thinks their media outlet is predominantly print or digital. Understanding how the *de Volkskrant* employees think about their brand, future and their work can help understand the difficulties that there currently are for the digital transformation. But also

in exploring people’s attitudes towards a new concept or direction. Identity is shaped by learning, meaning that a mental model or identity is not static but is fluid. Thus, focusing on learning within an organisation can help individuals and eventually the whole organisation to grow. In this thesis, talking about personal identity, individual experiences and ideas, and future vision also reflects upon the organisation’s current and envisioned future state as a whole.

3 Theoretical Framework

3.2 Technology acceptance

The digital transformation forced many organisations to innovate to meet market demands. In news media, this is still happening. Organisations are still looking for the best ways to transform/translate their product from analogue to digital. The TAM model explains how new technology is accepted by individuals. In this research, this is happening on both sides of the boundary, within the organisation and in the context of user products. The technology acceptance model (TAM) describes the acceptance of new technology. The two central concepts are perceived usefulness and perceived ease of use. From a user perspective, the transformation to digital news products is already mostly accepted within the organisation. However, this is still more of an issue. The TAM model will analyse the attitude of *de Volkskrant* employees and *de Volkskrant* readers towards the digitalisation of news(papers). In Chapter 5, I will further research the attitude of the *de Volkskrant* employees towards the digital transformation. Do they see its usefulness, how does it currently fit in the journalistic context, and how do they see the ease of use? These factors might be important to change their mindset to a digital-first approach.

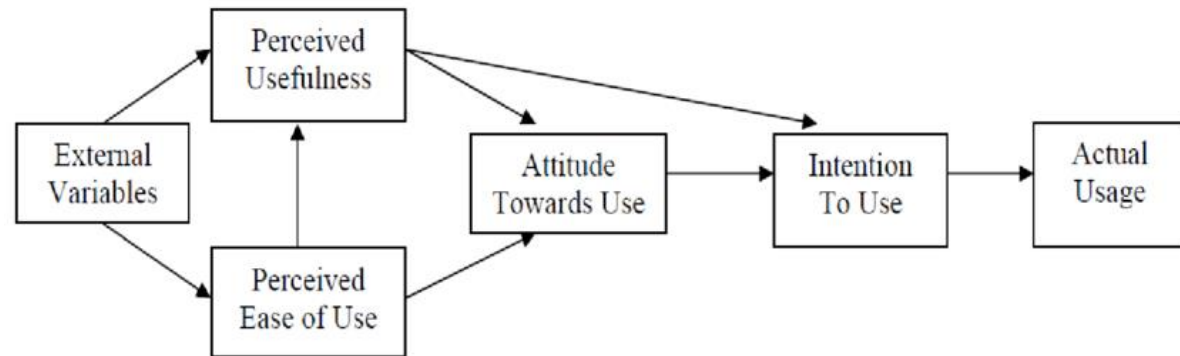


Figure 6 Technology Acceptance Model (TAM) (Davis, 1986)

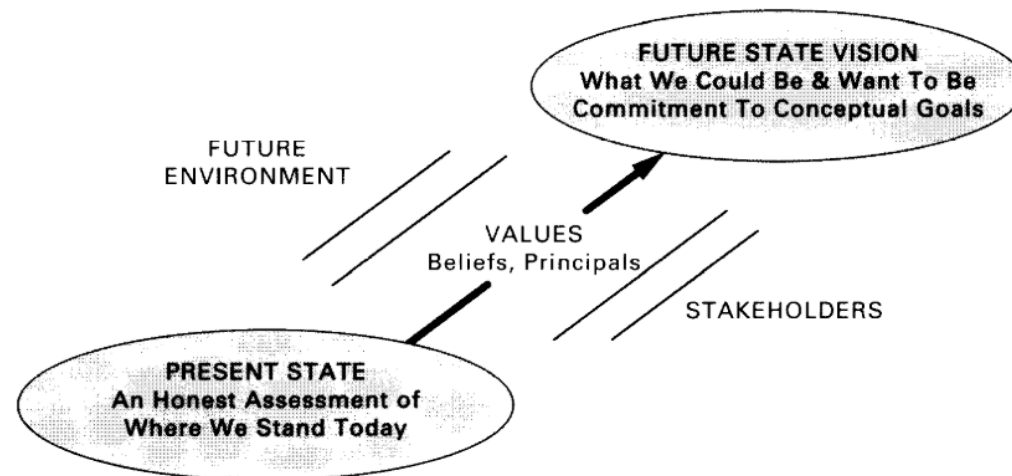
3 Theoretical Framework

3.3 Future state visioning

Visioning is a common practice in many creative and corporate organisations. Envisioning a future scenario can be the basis for a new design or direction and goals for the company. It gives a clear picture of what is desirable and clarifies the identity of the company itself. Especially if a significant change for the organisation is needed, conceptualizing this change into something more tangible can be significantly aided by *future state visioning* (Stewart, 1993). Having a vision for the future of a business or organisation is helpful for leadership and convergence since a vision of the future is a vision or theory of change. Without change, the vision would have no conceptual meaning. Therefore, change is a requirement of vision (van der Helm, 2009). As Van Der Helm states: "Vision-based change is both ideational and transformational.". Using a concept to translate vision into a tangible future state might help ideational and transformational change within the organisation. The ideational change seeks to influence thinking, then behaviour and eventually reality. Transformational change is the other side of the coin. A vision is expected to replace old structures with new ones or find answers to contextual changes (van der Helm, 2009). Using concepts from social learning, you could say that alignment on the future state of *de Volkskrant* is a critical process to enable a joint effort to achieve that future and to set goals to get to that future in order to change as an organisation.

To envision a future state, you have to be able to create a mental simulation about a future that does not currently exist. In other words, you have to be able to imagine that future. Intervening in the organisation by proposing a new concept for the *de Volkskrant* app can enable a moment of reflection. Envisioning a future state is an opportunity to reflect on the current state and direction. The proposed concept can be seen as a future scenario of the *de Volkskrant*, which tries to identify with user needs and

brand identity. Talking about this specific future gives direction to the conversation and enables employees to think about the future of their company and what this specific future would mean for them, their job and their community. It enables the concept can be seen as a probe or push towards future thinking. Having a tangible example might make it easier for employees and eventually the organisation to think and discuss the future of their organisation.



- **Future State Vision** — what we(our organizations) would like to be in the future
- **The Present State** — what exists, what we (our organization) are like in the present
- **The Future Environment** — in which we must achieve our future state vision
- **Values** — the beliefs and principles which provide a foundation for our vision
- **Stakeholders** — those involved in or affected by the actions of the organization

Figure 7 the future state visioning process (Stewart, 1993)

3 Theoretical Framework

3.4 Operationalization table

To use the concepts and theories described above during the research, they were operationalised. This operationalisation enables me to use the theoretical concepts during my research. In Table 1 Operationalization Table, I show how I interpreted the concepts and theories and which indicators I will use for measurement. Of course, this is not a quantitative study. Therefore, the measurement is not precise but rather the kinds of questions I will ask myself during my research. I will reflect on these theories, concepts and variables throughout the research. By doing so, I will bridge the gap between theory and practice.

3 Theoretical Framework

Table 1 Operationalization Table

Theory	Concept	Variable	Definition of variable	Indicator	Measurement
Social learning	Identification	Engagement	“engaging in activities, doing things, working alone or together, talking, using and producing artefacts. (Wenger, 2010)”	Ability to engage with activities related to the future direction of <i>de Volkskrant</i>	Are <i>de Volkskrant</i> journalists willing to engage in activities related to envisioning and directing the future of <i>de Volkskrant</i> ? To what degree do they see innovating and future thinking about the <i>de Volkskrant</i> brand and product as -part of their job?
		Imagination	Drawing upon previous experiences to engage in mental simulation to create a picture of the world and your place in it (Wenger, 2010).	Ability to discuss future event and create an image in your mind about the impact such events or changes will have.	Are <i>de Volkskrant</i> journalists able to discuss a future version of <i>de Volkskrant</i> ? Does the probe encourage their imagination? At what moment during the interview does it help them most?
		Alignment	a two-way process of coordinating perspectives, interpretations, actions, and contexts so that action has the effects we expect (Wenger, 2010).	Degree of agreement of future scenarios and implication changes will have on the organisation.	Do all interviewees foresee similar problems and directions for <i>de Volkskrant</i> ? How aligned are their views? Do they agree with the direction of the concept or do they see completely different futures?
	Identity	The combination of experiences and history that creates a person’s (or group) identity		What shared history creates the <i>de Volkskrant</i> identity? What moments were important in defining the direction <i>de Volkskrant</i> should take?	
	Boundary Object		An object that can cross between boundaries and, therefore, can be a connection between communities of practice.	-	Does the object enable communication between teams and/or organisations? If yes, it can be seen as a boundary object.
future (state) visioning	Future Visioning	Ideational	to influence thinking, then behaviour and eventually reality.		Does the probe stimulate interviewees to build a future vision? Does it bring them new ideas? Does it make them think (differently) about the future of <i>de Volkskrant</i> ?
		Transformational	to replace old structures with new ones or to find answers to contextual changes.		Does the probe answer, or help in answering, current changes of context; digitalisation of media.
Technology Acceptance		Perceived usefulness	How useful people think a tech product is.		Do they think the app is useful? What aspects are useful for them?
		Perceived ease of use	How easy people think a tech product is to use.		What issues do they foresee in the backend if the concept were to be implemented?

3 Theoretical Framework

3.5 Take-aways

For each chapter, I will summarise the take-aways which can be used during the design phase as well as take-aways that could help the organisation. From this chapter, the following theoretical insights can be used;

For the design

For the design to be successful, readers need to see the app's value, as described by the TAM model. If the product *de Volkskrant* offers is not helpful for them, or if it is too complicated to use, they will probably not use it. Therefore, it is necessary to understand the users' needs and wishes and design a product that fits their lives. Readers are not truly a part of the *de Volkskrant* CoP. However, it is important to understand how they perceive *de Volkskrant*, meaning the mental model they create of *de Volkskrant*. The new design needs to fit both needs and wishes and the *de Volkskrant* identity.

For de Volkskrant-organisation

De Volkskrant is currently struggling with the Innovators dilemma. Using the lenses of CoP, Social Learning, and Mental Models gives us insight into what decision to make and to see if *de Volkskrant* is ready to start taking risks. Future State Visioning might help them understand and visualise the future, which might give them insights into *de Volkskrant's* problems and opportunities and enable them to create a shared vision. In this thesis, the concept developed can thus be used as a probe that facilitates this.

3.6 Conclusion

To analyse the organisation, several theories are used: Communities of Practice (CoP), Social Learning, Mental models, the Technology Acceptance Model (TAM) and Future State Visioning. They are used to analyze the organisation but are also useful to better understand the Readers' attitudes towards digital news. The next chapter will explore the project context of this thesis. Later, I will zoom in on the *de Volkskrant* organisation and the *de Volkskrant* readers in Chapter 5 and 6, respectively.

4 Quality digital newspapers – context analysis

As was explained in the introduction, news underwent a digital transformation, causing many changes within news media in the past years. In this chapter, I analyse the current state of quality digital newspapers. I will explain the differences between digital and print reading experiences and why you cannot simply copy-paste a print newspaper in a digital format. Next, the most important trends within quality digital news are elaborated. In the next chapter, this information will be used in the design and in formulating the research questions during the user research and intervention research.

4.1 Digital versus print news

The use of digital media does not only change the way we communicate and live but also changes the way our brains work. Below, I discuss relevant research related to digital news and how print and digital are different in user/reader experience and as a business model. Because of these differences between print and digital, designing a digital reading experience requires a completely different approach than the one used for print.

4.1.1 Attention span and information processing

How we process digital information differs from how we process information when reading from print. Studies have found that browsing and scanning behaviour increased and that this kind of behaviour decreases attention when reading online (Liu, 2005; Loh & Kanai, 2016). More specifically, internet use encourages multitasking, which increases distractibility and decreases *executive control*, meaning that it is harder to pay attention to reading and analysing an article (Moisala et al., 2016). Interactive elements such as hypertext make it harder for our brains to process information since readers must make decisions related to clicking or not clicking on hyperlinks. This takes away from the cognitive resources available to process, understand and remember an article (Carr, 2010). Thus, reading digitally is more challenging because there are more distractions, making it harder to focus. Therefore, it is important that a digital reading experience has as few distractions as possible. At

least, one should be aware of the distractions certain (design) decisions can create. Often, more information is seen as better, for example, how hyperlinks are included. There are several ways to do so, by including footnotes or, as *De Correspondent* does, by inserting links in the text. The latter is probably more distracting than having all the links linked below since that does not take away from the readers flow. Furthermore, although not within the scope of this research, presenting advertisements is a challenge in itself that could potentially be beneficial to redesign, since it became clear early on that this is the most distracting element both journalists and readers struggle with.

Sense-making

Connected to the concept of information processing is that of sense-making, the process by which people give meaning. Typically, this entails three components: **identification, retrospection, and enactment**. Identification is finding the information, in the case of newspapers, an article. Retrospection is the process of reflection on the information presented in the article, and enactment is giving that information a place: *“to organise and construct one’s narratives and perspectives”* (Dervin, 1998; Weick et al., 2005). From this, we can learn that it is not enough to simply present the news as is. To enable the reader to give meaning to an article, they need to reflect on it, connect the dots, and understand how the information in an article relates to other articles, perspectives, and information. Sensemaking might also be an interesting perspective to use in designing digital news systems.

4 Quality digital newspapers – context analysis

Thus, not only focusing on how people want to access information and what kinds of information but also why. What are they seeking? Why do they read the newspaper? This theory argues that approaching the thesis from a holistic perspective instead of just solving the most obvious problems at hand might create a better outcome.

4.1.2 Print affordances

Because of the long tradition of print media, print newspapers are a product of 100 years of innovation; there might be some lessons to be learned. In Chapter 5 and 6, I will look further into the strengths of print and why readers sometimes prefer it. From literature, we can also already gain some insight into the strengths of print. For example, printed newspapers offer affordances that are central to what users experience as the traditional newspaper reading experience. Zhou et al. (Zhou et al., 2021) researched these print affordances, and the way in which consumers of news identify, understand, contextualize, interpret and make sense of these affordances. Relating print affordances to new digital newspaper design, the paper states that *“the design of the print newspaper developed gradually over generations, largely before the advent of current human-centred theories of perception and design. As such, the modern product is as much an emergent property of the internal structures and processes of news organisations than one designed specifically with the needs of reader cognition considered. The newspaper may well be a valuable tool for readers to understand the news,*

but if so, at least some of that process is unplanned and invisible to publishers.” The affordances through which users identify a newspaper might thus be interesting to take into consideration when designing a digital newspaper from scratch. These affordances create the product which users identify as a newspaper. The print newspaper affordances identified are *physical affordances; wayfinding, materialism and retrievability. Perceived affordances; importance, aesthetics, completeness, and Relational affordances; genre, trustability, browsability and serendipity.* However, it is important to consider that these affordances cannot be applied without acknowledging the vast differences between print and digital media. Therefore, user research was done to identify how and which affordances and characteristics of print should be applied in a digital newspaper design.

4.1.3 Digital affordances

Of course, digital media has also specific affordances which enable the user, and the news providers, to enrich the news, offer new ways of storytelling and utilise the news opportunities of digital media to their advantage. Some initial digital affordances are elaborated on during the user research phase, and related insights will be used as input during the design phase.

Information Availability

The digitalisation of information enables consumers to know less. Information is always available and searchable through your mobile phone. Thus knowing facts and numbers from the top of your

head might become less important (da Silveira, 2021). An excellent example of how technology allows us to know less is *Google Maps*. You no longer must understand the general layout of a city or country to find your way to a destination. *Google Maps* allows you not to be bothered with wayfinding since it does it for you. In news media, this translates into having the entire archive of articles available to you through a search feature implemented in digital products. Thus, you could say that Information Availability is an important affordance of digital media. The flipside of this is an abundance of information that the user needs to process and organise. This can make it harder to make sense of all these articles and to see the bigger picture. In that sense, digital newspapers are selling articles rather than newspapers. Articles are often without context when it is found by a consumer. Thus, the availability of articles means that the context in which these articles were published, such as adjacent articles and thus timeframe and societal situation, is lost. This is a challenge that digital news still needs to tackle. Similarly, with the availability of such vast archives, you risk that the reader gets news overload when the information is not offered in an organised manner. News overload is similar to information overload and is defined as a state that occurs when one is presented with too much information through multiple sources and without sufficient time to process the information. Consequently, news fatigue might occur, which is associated with news avoidance (Bawden & Robinson, 2020; Tunney et al., 2021). Thus, how information is presented and

4 Quality digital newspapers – context analysis

making sure that the reader has ways to process information is important.

Personalisation of news

The affordance *Personalization* is twofold. There is personalization in the sense that digital content can be personalised to the user's interest, and there is the importance of social media, which journalists can use to connect to their audience and create a personal brand for themselves. Both make news more personal; the people involved in the interactions around news get a bigger role in the design and workflows needed in digital news platforms.

Personalisation of content is often done using artificial intelligence or algorithms to offer users content that fits their interests. By doing so, the user gets more content he wants to read and thus making it more efficient to find the information you want. However, personalization for many users is still a trade-off between the advantages and disadvantages, or as Li and Unger put it: *"Personalization applications reduce information overload and provide value-added services. However, their adoption is hindered by customers' concerns about information privacy"* (Li & Unger, 2012). Therefore, how personalisation is implemented is important as it should not make users feel that their privacy is invaded.

Furthermore, you see that, for example, social media use among journalists is increasing. They can use these social media platforms to make a name for themselves by doing so. In other words; *"Due to the rise of network-based platforms, not only news*

organisations but also individual journalists have the opportunity to become credible news providers and popular household names."(Molyneux & Holton, 2015; Picard, 2014). Readers know the names of journalists and do not only follow them through the articles that they write in the newspaper but also by following them on social media. This makes personal branding more important for journalists (Brems et al., 2017), which is something news organisations might want to use to their advantage; using journalists with a large online presence to draw in readers

Flexibility and continuity

Digital media have no limits in that there is no need for a word limit or a print deadline. There is unlimited space, and a continuous rhythm. And since it is not printed, the content put online can be changed or supplemented whenever needed. However, the screen-space of, for example, a mobile phone is limited. Thus, digital media gives rise to new opportunities, as well as challenges, that were not there before. A balance between the flexibility of digital platforms and controlling/organising content should be found.

4.2 Important trends in digital news

The most relevant technological and social trends in quality digital news are discussed below. The relevance is based on its influence on the context, the organisation, and the users.

4.2.1 Socio-economic trends

Social trends are about the context of use and the users. Below I explain three factors that I think are important to be aware of in the context of digital news.

Willingness to pay for digital news

The willingness to pay for digital content is slowly increasing. In The Netherlands, in 2021, 17% of consumers paid for online news, 3% more than in 2020, and 11% more than in 2019 (Newman et al., 2019, 2020). However, what factors exactly determine the willingness to pay and what kind of paywall is most effective remains unclear (O'Brien et al., 2020). Another effect seen in digital news subscriptions is a 'winner takes most'-effect. This means that a few brands get the most subscribers, causing less diversity in the availability of brands (Newman et al., 2020). Therefore, it is important to stay relevant to your readers so that they stay willing to pay for content.

Personal Interaction and influence of journalists

Through social media, journalists can directly connect to their readers. Many journalists are on Twitter, post their articles there and connect with readers. In the Netherlands, the news brand De

4 Quality digital newspapers – context analysis

Correspondent also includes a more personal approach on their platform; you can follow them and subscribe to their newsletters (De Correspondent, 2022). The newsletter approach is also increasingly popular. It gives freelance journalists the ability to build their brand and thus a connection with their public. Social media does not only increase the reach journalists have but also gives them the ability to make a name for themselves and gather a following (Brems et al., 2017).

A shift towards digital news use

News consumption is moving from traditional media such as tv and print towards digital and social media. 77% of people get their news mainly from online sources (Newman et al., 2020). This does not necessarily mean they never watch the news on tv or read a print newspaper. But it does show that the audience for digital news media is only growing.

4.2.2 Technological trends

The digitalisation of news impacts the news media. Think of the widespread availability of free news and the impact of social media. In The Netherlands in 2019, 12 percent read news media exclusively on print, 43 percent noted to read both on paper and digitally, and 24 percent stated that they exclusively read news online. Especially younger people (ages 18-34). Furthermore, 42,5 % of the Dutch have daily interactions with news from online sources. Print newspapers have a daily reach of 39,2 percent (Lauf et al., 2019). On a global scale, digital news experienced an 18,4% growth in 2017, while these

companies still get 90% of their revenue from traditional print media. (O'Brien et al., 2020)

News analytics

With the use of digital technologies also comes the opportunity to gather information about the performance of your article or platform. Through the use of web analytic tools such as *Google Analytics*, journalists are able to learn more about their audience. News analytics give journalists insights into how they, or rather their articles, perform. According to research from Slot (2020), this changes the relationship that journalists have with their audience. She calls it "the public dilemma". Through analytics and data, journalists know increasingly more about your public; what topics and headers get the most clicks. However, it is also known that sensational topics get more clicks than some socially and journalistically relevant topics. This causes a dilemma; they want to fulfil their role but also need to attract readers (Slot, 2020). However, this kind of data has its limits. It does not show *why* people click, or if they read it or only scroll through the article quickly. It can give a warped view of reality.

According to Tandoc (2014), web analytics influenced the traditional gatekeeping processes and caused an entirely new gatekeeping practice online, which he called *de-selection*; "*De-selection refers to deciding which among articles that have made it through the gates will be taken out of the homepage to be replaced by a new story. This process is largely determined by audience metrics*" (Tandoc, 2014). Through his research, it becomes

clear that how the homepage of a news brand looks is partially dependent on the audience metrics of articles. If an article performs well, it will stay longer at the top of the page.

More touchpoints

According to *Reuters's* digital news report, over a quarter of news consumption starts on a website or an app, followed by social media. Generation Z, people born at the end of the 90's up until the mid 2010's, is even twice as likely to access news through social media. They have a weaker direct connection with news brands (Newman et al., 2020). This means that next to your own platforms, social media posts are also touchpoints through which you can interact. Therefore, these platforms should also be seen as products, or rather touchpoints, of the brand, which are important in attracting readers and upping subscriptions. By giving people the ability to share news articles, the reach of news brands gets even bigger.

Devices used for news

In The Netherlands, the smartphone is the most used device for digital news consumption, and this trend is only growing. However, for people older than 55, laptops are as popular as smartphones for checking the news. (Newman et al., 2020).

4 Quality digital newspapers – context analysis

4.3 Take-aways

Several take-aways which will be useful during the design phase as well as for advising the organisation can be taken from this chapter. They are separately listed below.

For the design

- Print affordances could be useful to take into consideration for the design. For example, the way in which print uses and implements:
 - Wayfinding
 - Materialism
 - retrievability.
 - Importance
 - Aesthetics
 - Completeness
 - Genre
 - Trustability
 - Browsability
 - serendipity
- However, there are also digital affordances that provide opportunities for the design:
 - Information availability
 - Personalisation
 - Flexibility
 - Continuity
- Mobile is the most used device for digital news consumption and thus offers a lot of opportunity for innovation.

For the organisation

- Willingness to pay is slowly increasing
- Personal interaction between readers and journalists is increasing through social media, increasing the individual influence a journalist can have.
- There is a trend towards digital news use. Most people get their news from online sources.
- News analytics provide an opportunity to track article and product performance
 - It is important, however, to not only take this metric into consideration since it does not show why people click, but it can also give a wrapped view of reality.
- Mobile is the most used device for digital news consumption
- There are more touchpoints to connect with readers; digital products, print products and social media

4.4 Conclusion

This chapter gives insight into the contextual factors that might play an important role for the future and thus can give direction for the new design. The most important insights are how digital news is harder to organise and how important it is to give the reader enough guidance through the information. Furthermore, the context research shows that digital news platforms will only become more important, especially mobile apps, since this is the most important device and used by almost everyone. The next chapter will dive into the context of the organisation and research which problems and opportunities are there.

5 Organisational context

In this chapter, I elaborate on the organisational structure of *de Volkskrant* and *DPG Media*, analysed the process of digitalisation of *de Volkskrant*, researched trends within the organisation and did research about the *de Volkskrant* culture. To map out all strengths and opportunities of *de Volkskrant*, a SWOT analysis was done. Information about the organisation was gathered by doing interviews with employees of *DPG Media* and *de Volkskrant*, observations at the *de Volkskrant* office, conversations with my company mentor, literature research and looking at the data analysis dashboard of *DPG Media*. Information presented in this chapter was then used to formulate more detailed research questions, to gain insight into the issues *DPG Media* and *de Volkskrant* are facing to finally develop an intervention to find a solution to these problems.

5.1 Method

To explore the context of *de Volkskrant* and *DPG Media*, nine semi-structured interviews were conducted with several *DPG Media* and *de Volkskrant* employees. The interviews were done using a topics guide to get insight into the organisational structure and employees' opinions, ideas, and attitudes towards digitalisation. Questions were asked about the participants' job and their tasks and responsibilities, the organisational structure and collaboration between teams, their general vision on digital development and their idea of who *de Volkskrant* readers are and what they want. Notes were taken during these interviews, from which a summary of each interview was constructed. These summaries were then coded to find reoccurring themes. The most relevant themes for the research are further explored in Section 5.7. Other methods were used as well to explore the context; I shadowed the site manager to gain insight into the decision-making processes surrounding the content on the digital platforms and joined the daily staff meeting of the chief editors. During these two observation days, I again made notes and summarised and coded them, which resulted in additional themes. Parallel to these two research methods, more continuous conversations with the creative director of *DPG Media* and lead user experience research were held (shown in grey in the interviewee table). They shared research that was done previously done into *de Volkskrant* by *DPG Media* and answered any questions I might have. Furthermore, I explored the research that was

already done on the topic of digitalisation within *DPG Media* and *de Volkskrant*. The most interesting insights gathered from research into the *DPG Media* and *de Volkskrant* organisation and culture are explained in this chapter. These insights are used to formulate the CDI research questions and the design brief.

5 Organisational context

5.1.1 Interviewees

The interviewees were selected through snowball sampling. This means I asked everyone I interviewed if they knew someone else who might be interesting to talk to and then interviewed those people. An overview of the people I interviewed can be seen in Table 2. When I started to see reoccurring themes, I stopped interviewing, assuming I reached the point of saturation and got enough information to be able to analyze the organisations and their internal and design challenges. Shown in grey are the people at *DPG Media* I had more contact with and several conversations with.

5.1.2 Results

As discussed previously, the interviews were summarised, and the most relevant themes that arose from those interviews were found through coding these interviews. An interpretation of these results is discussed in the rest of this chapter. Important to note is that these interviews, conversations and observations and other research methods were explorative, thus, no strict and rigorous method was used to gather and analyse the data. Insights emerged from conversations, observations and notes. The conclusions discussed in this chapter arose from my interpretation of all information and conversations combined.

Table 2 Interview participants context exploration

Participant	Organisation	Department	Job title
1	<i>DPG Media</i>	Selectives	Product owner
1	<i>de Volkskrant</i>	Science editorial department	Tech journalist, previous chef digital
3	<i>de Volkskrant</i>	online	Site manager
4	<i>DPG Media</i>	Selectives	Head of product
5	<i>de Volkskrant</i>	Editorial board	Editor-in-Chief
6	<i>de Volkskrant</i>	Science editorial department	Tech journalist, previous chef digital
7	<i>de Volkskrant</i>	Digital Newsroom Innovation	Editor digital newsroom innovation
8	<i>de Volkskrant</i>	Science editorial department	Chief
9	<i>de Volkskrant</i>	Editorial board	Editor-in-Chief
10	DPG	Selectives	User Experience Researcher
11	DPG	Digital Innovation/development	Creative Director

5.2 Organisational Structure

To understand the challenges *De Volkskrant* faces, it is important to consider they are part of *DPG Media*, one of the biggest media companies in the Benelux. The interactions between these two organisations are important in developing new products since *de Volkskrant* relies on the infrastructure *DPG Media* supplies. Below is a short summary of *DPG Media*'s and *de Volkskrant*'s history and brand identity and the most important interactions between the two organisations and stakeholders within the context of product development and innovation.

5.2.1 DPG Media

DPG Media is the parent company of *de Volkskrant*, and all infrastructure that *de Volkskrant* depends on is facilitated by *DPG Media*. *DPG Media*, previously

named *De Persgroep*, is one of the two big publishing houses in The Netherlands. *DPG Media* is active in Belgium, The Netherlands and Denmark, see Figure 8. Its biggest competitor is *Mediahuis*, which is also active in Belgium and The Netherlands. Both *DPG Media* and *Mediahuis* are active in television, radio, newspapers, magazines, and online services. In 2009, *de Volkskrant* became part of *DPG Media* when *PCM* was bought by *DPG Media* and *De Persgroep* was renamed to *DPG Media*. ("DPG Media - over Ons," 2021). The aim of *DPG Media* is to inform, inspire and entertain people. They believe that well-informed consumers and strong communications contribute to a better world; they want to offer influential and trustworthy media (Blankesteyn, 2021).

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DPG Media's motto is:

Real People, Real media, Real results.

("DPG Media - over Ons," 2021)

DPG Media owns many different brands, as shown below in Figure 8. These brands include websites, radio stations, newspapers, magazines, and apps. This thesis will focus primarily on *de Volkskrant*, part of the *Selectives* product portfolio. Under the *Selectives* umbrella are the premium quality brands of which most articles are behind a paywall. These brands are; *Trouw*, *Libelle*, *Margriet*, *De morgen*, *Humo*, *Het Parool* and *de Volkskrant*. The primary focus for the *Selectives* brands is on subscription sales; advertisements are a secondary source of income. All selective brands use the same platform/backend code for their digital products. The only difference between the products is the branding, appearance and content that the brands themselves decide on. This means that *de Volkskrant* is dependent on the same digital structure as the other *Selectives* brands. This has advantages and disadvantages; the new functionalities that one brand gets will be available for all other brands. However, this also means that if a brand has a request for specific functionality, it can take a long time to develop, design and implement such functionality since resources are limited, and the different brands want different features. Therefore, the queue to get what you want can be quite long.

5.2.2 de Volkskrant

De Volkskrant is one of the most popular quality newspapers in The Netherlands. Their goal is to broaden and deepen their readers' understanding of the world and inform them of important developments. They value multiple perspectives on a topic and see themselves as curators of news. Their goal is not only to bring the news but also to give meaning to the news. This year, *de Volkskrant*

celebrated its 100th birthday, founded as a weekly newspaper in 1919. After its start as a weekly newspaper, it grew into a daily one with a large weekend edition and magazine. In December 2009, *de Volkskrant* became part of DPG Media.

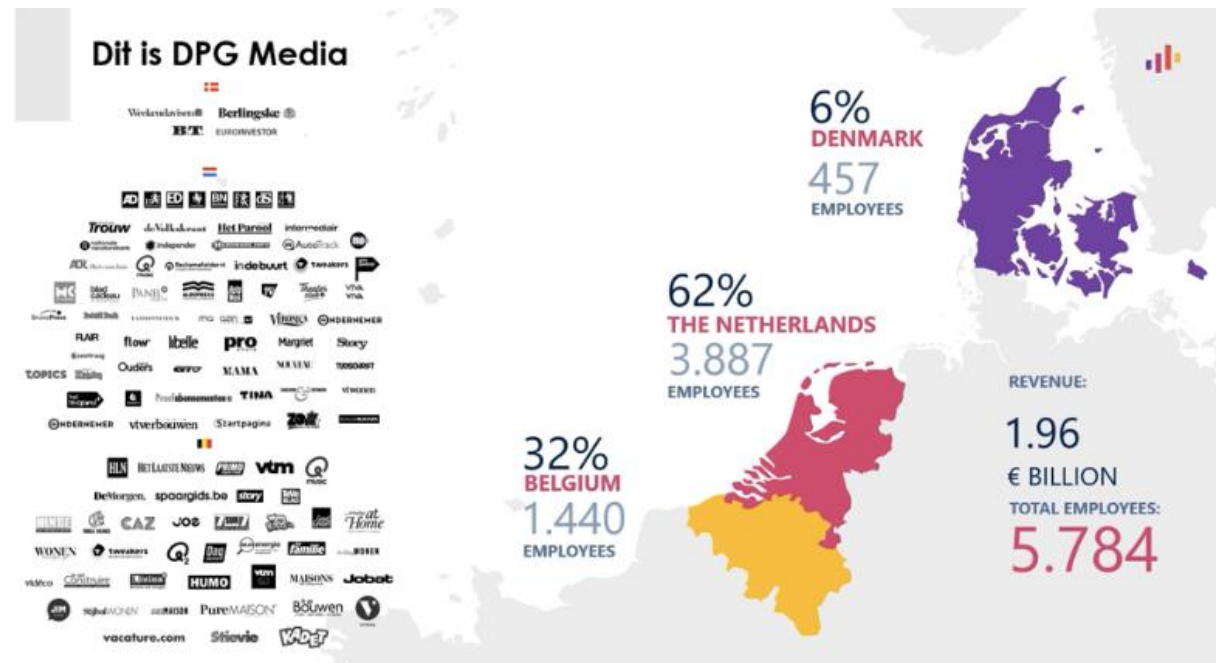


Figure 8 Countries in which DPG media is active and an overview of brands (DPG Media, 2021)

5.3 De Volkskrant's products

In this section, the current products of *de Volkskrant* are analysed. This analysis is based on two reports from a course at IDE called UXAD: Usability and User eXperience Assessment in Design. (Broersma et al., 2021b, 2021a; Peeters et al., 2021a, 2021b). UXAD is a course in the Master's Design for Interaction. For this course, two groups of students analysed *de Volkskrant's* digital products from a usability perspective. There are four digital products; the website, the application, the PDF-reader application and the *Editie*-application. Of these four products, I will discuss three below. The PDF application was made to facilitate reading PDFs on mobile and tablet. The fact that there are two applications is confusing to many, and it is not clear which application is which, only if you take a good look. The PDF application is not designed by DPG Media and is currently being phased out because a PDF function has also been included in the *de Volkskrant* mobile application. I will, therefore, not analyse this product. Furthermore, I will also evaluate the print design of *de Volkskrant* and shortly note the strengths and issues it has compared to the digital products. Of course, this analysis is very concise since a thorough analysis of the products has already been done by the IDE Master's students, as stated before. Therefore, I would recommend reading those reports if you want to know more about the current products.

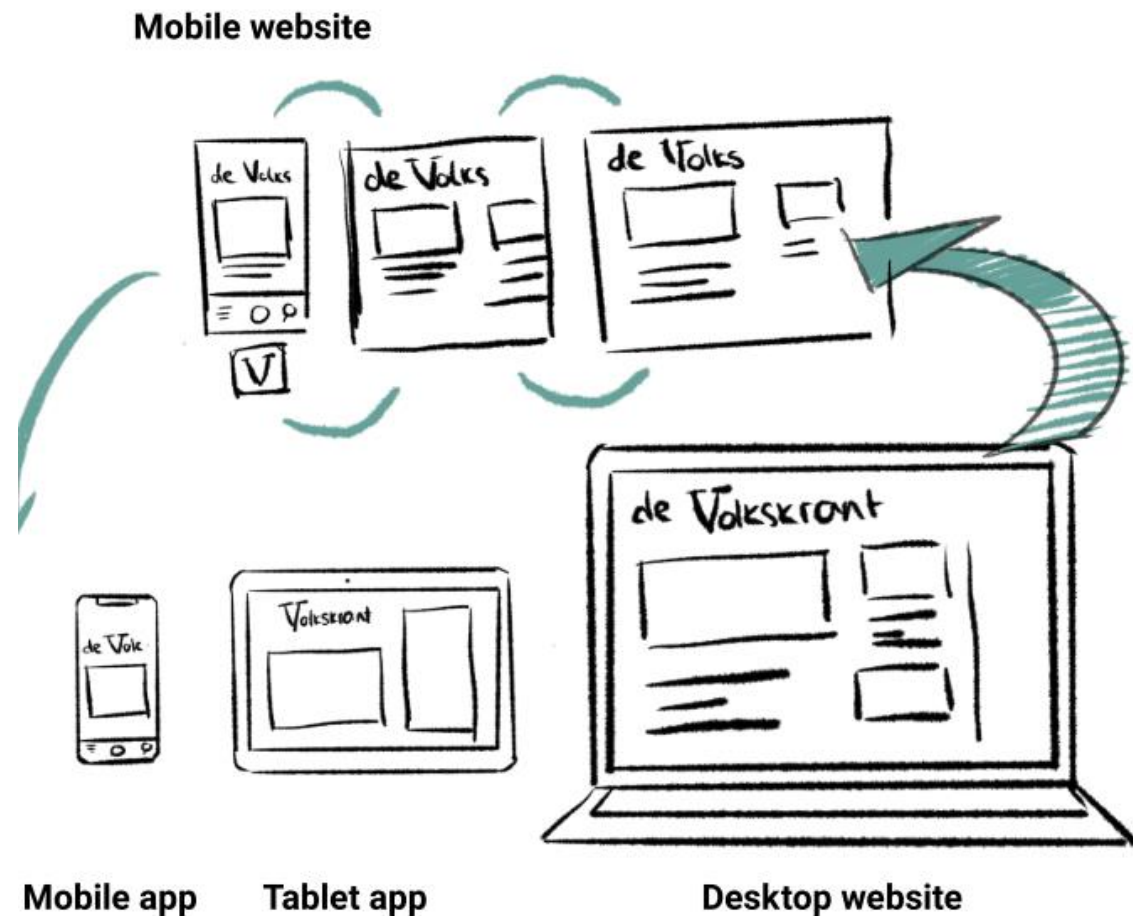


Figure 9 Overview of devices and digital platforms of *de Volkskrant* (Peeters et al., 2021a)

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The website

As can be seen in Figure 9, the website is available on all devices through the browser. In Figure 10, the desktop website is shown with annotations to the website's strengths and issues. When the website is viewed on a desktop or tablet, it shows the most content of all products. This is primarily due to the screen size of those devices. When the website is opened on mobile, it has a very similar layout to the mobile application and thus shows less information. The home page is available for both subscribers and non-subscribers to view. However, only subscribers can read the articles.

Strengths

Large number of articles can be shown which gives the reader a good impression of the current state of affairs

The design of the website is on brand

Issues

A large amount of space is filled with ads. The darker grey boxes are places where there is always an add shown and the light grey columns are where there is sometimes adds shown.

Unclear how to navigate through the website, the website lacks structure and guidance

Users can feel lost when using the website

The search function does not work properly, which makes it hard to find specific articles.

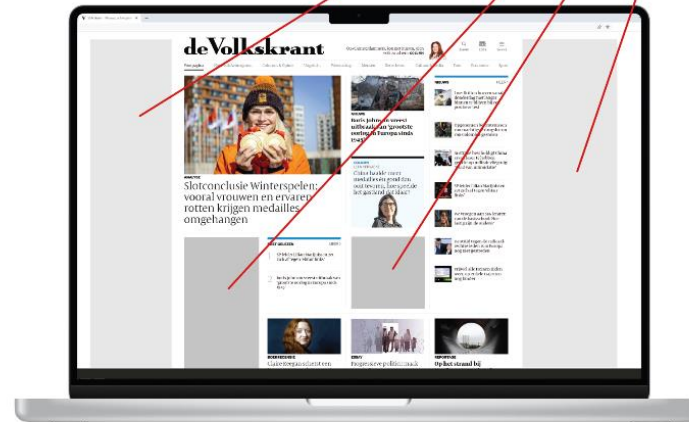


Figure 10 The desktop website of de Volkskrant

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The mobile application

In Figure 11, the mobile app is shown with annotations of what the strengths and issues currently are. The mobile app that is available on all smartphones is identical in layout to the website on mobile. There are five orientation buttons at the bottom screen, which refer to the Homepage, Editie, best read, search, and service.

Strengths

Design app is fitting to the VK brand

Easy to use and to view curated articles

Being able to see most read articles



Issues

There are two versions of the app (PDF and live), when trying to download the app it is unclear which is which

Only two articles are shown at once therefore it is hard to get an overview of the current state of affairs.

Content structure does not feel logical, and it can be hard to find specific articles or podcasts

No option to easily go back to an article you read earlier

Search engine does not work as expected

Figure 11 the mobile application of the de Volkskrant

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The tablet *Editie*-application

The *Editie*-application is the outlier in the products since it is a static product. In Figure 12, the strengths and issues of the tablet app are shown. Similarly to the print newspaper, the *Editie*-application has a new digital newspaper available six times a week. It is only available on a tablet.

Strengths

Digital version of print, services readers who value the daily rhythm of print but who want to read digitally.

Makes use of the possibilities of digital by using more video and larger photo's

Issues

Primarily designed for tablet, a device which only a small group of readers uses



Figure 12 The *Editie*-application for tablet of *de Volkskrant*

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The print newspaper

The print newspaper is designed as a physical product. However, a PDF can be downloaded through all digital products of *de Volkskrant*. Therefore, the print layout can also be viewed on mobile, desktop and tablet. In Figure 13, an example of the print layout can be seen with strengths and issues it might have compared to the digital products. Interesting about the print layout is that it can be slightly different every day. The only limit there is, is the page size. Compared to how digital products are designed now, that means a lot more freedom from a design perspective since every day is a new puzzle to be solved. In contrast, digital products rely on the same layout but different articles every day.

Strengths

Overview of all articles

Big pictures and illustrations

Clear hierarchy

Adds are less distracting than in the digital products

More control over how articles are presented

Issues

Physical product, therefore harder to read in the move

Not up to date, brings the news from the day before

Print subscriptions are declining; print is becoming less popular, especially the daily editions.



Frontpage



Spread

Figure 13 An example of the print layout of *de Volkskrant* and its strengths and issues related to the digital products

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5.3.1 The synergy between and within products

The products are connected through their content. Content that is shown on the website is also shown in the application. Furthermore, *de Volkskrant* has an extensive archive that they can utilise to create synergy between articles and products to keep users engaged longer.

Synergy between articles

For the most part, articles stand on their own and are not part of a whole as they are in traditional print media. At the end of an article, readers can click through or are directed to additional articles. There might be some opportunities in using fast news to get users engaged and link them through to longer analytical articles. Fast news can pull people in through push notifications or in moments when people are bored. It should urge them to click through to other articles.

Synergy between products

Unfortunately, there is almost no synergy between the products. The systems do not work together and mostly stand on their own. Of course, the *Editie*-application stands apart from the application's design since it is focused on a daily rhythm and is more connected to print than the other digital products. It follows the same print rhythm and shows most of the articles in the print paper of that day. However, there is no easy way to find a specific article in the *Editie*-application when you see it in print or the other way around. This is the same for the website and regular application, especially since

these products are dynamic and constantly changing. It can be tough to find an article on another platform since the layout can be changed one second after you find the article. So, wanting to read an article on your laptop that you find on your phone is easiest when you send yourself the link to the article.

5.4 DPG Media – de Volkskrant interactions

DPG Media provides *de Volkskrant* with the tools to design their website and application and create news stories. However, they are still in the building the basics phase, meaning that *de Volkskrant* is also only able to use what is provided to them by *DPG Media*. They have a small team of in-house developers, but these mainly focus on the specials *de Volkskrant* puts out occasionally. Most of the digital strategy when it comes to innovations comes from the *DPG Media* level because they have the most tools and people to work on innovations. A lot of the overall digital strategy also stems from *DPG Media*. This does not mean that *de Volkskrant* does not think about a digital strategy. However, deciding on a strategy has two sides: thinking about what is best in the long term and convincing other employees to work towards digital innovation needed for the digital transition. This brings me to arguably one of the most critical challenges of the digital transition, the mindset of the *de Volkskrant* employees has to change to create a shared long term digital vision.

5 Organisational context

5.4.1 Important stakeholders and stakeholder interactions

In the context of this research, only stakeholders who directly influence or are influenced by the digital products of *de Volkskrant* are considered. Of course, many more stakeholders are in some way touched by *de Volkskrant's* products, but the scope of this project is limited to the *de Volkskrant* organisation and *DPG Media's* teams that are directly in contact with *de Volkskrant*, or, for example, co-decide on the *de Volkskrant* products and strategies. Simply put, the *de Volkskrant* newspaper, the readers and the *DPG Media* teams who design or do research for the design are considered. This means, for example, that marketing was excluded from the scope of this research.

Within the *de Volkskrant* organisation, the following stakeholders are important to take into account: developers, designers, product owners, the chiefs of the departments, the journalists, the UX-researchers and the readers, visualised in Figure 14.

Of course, more interactions take place between stakeholders. The most important communication lines are shown in Figure 15, but that does not mean that a journalist may never talk to the creative director.

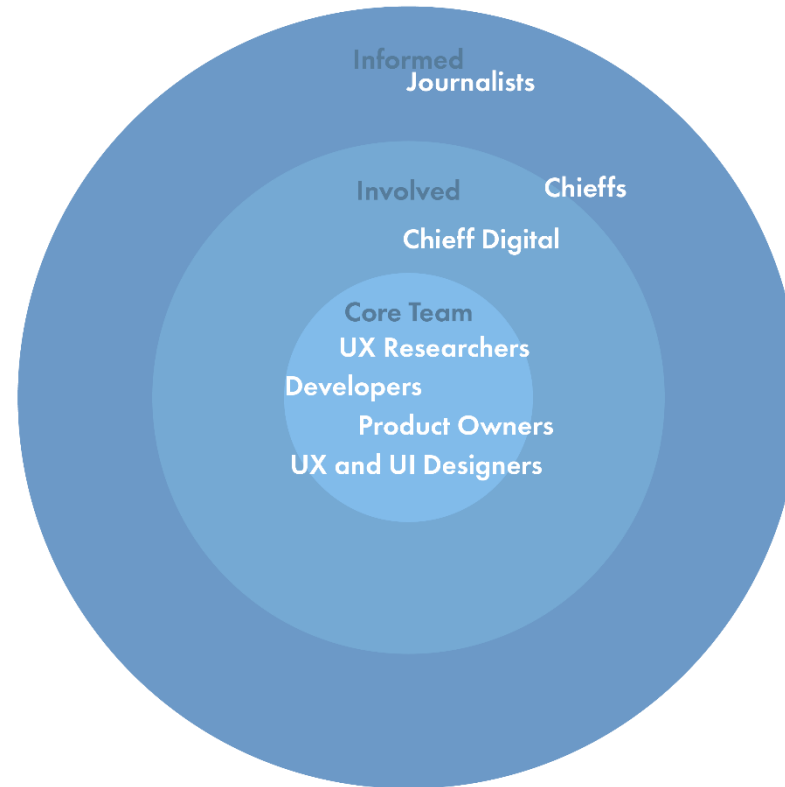


Figure 14 Visualisation of the involvement of the different stakeholder groups when it comes to digital innovation and transformation practices.

5 Organisational context

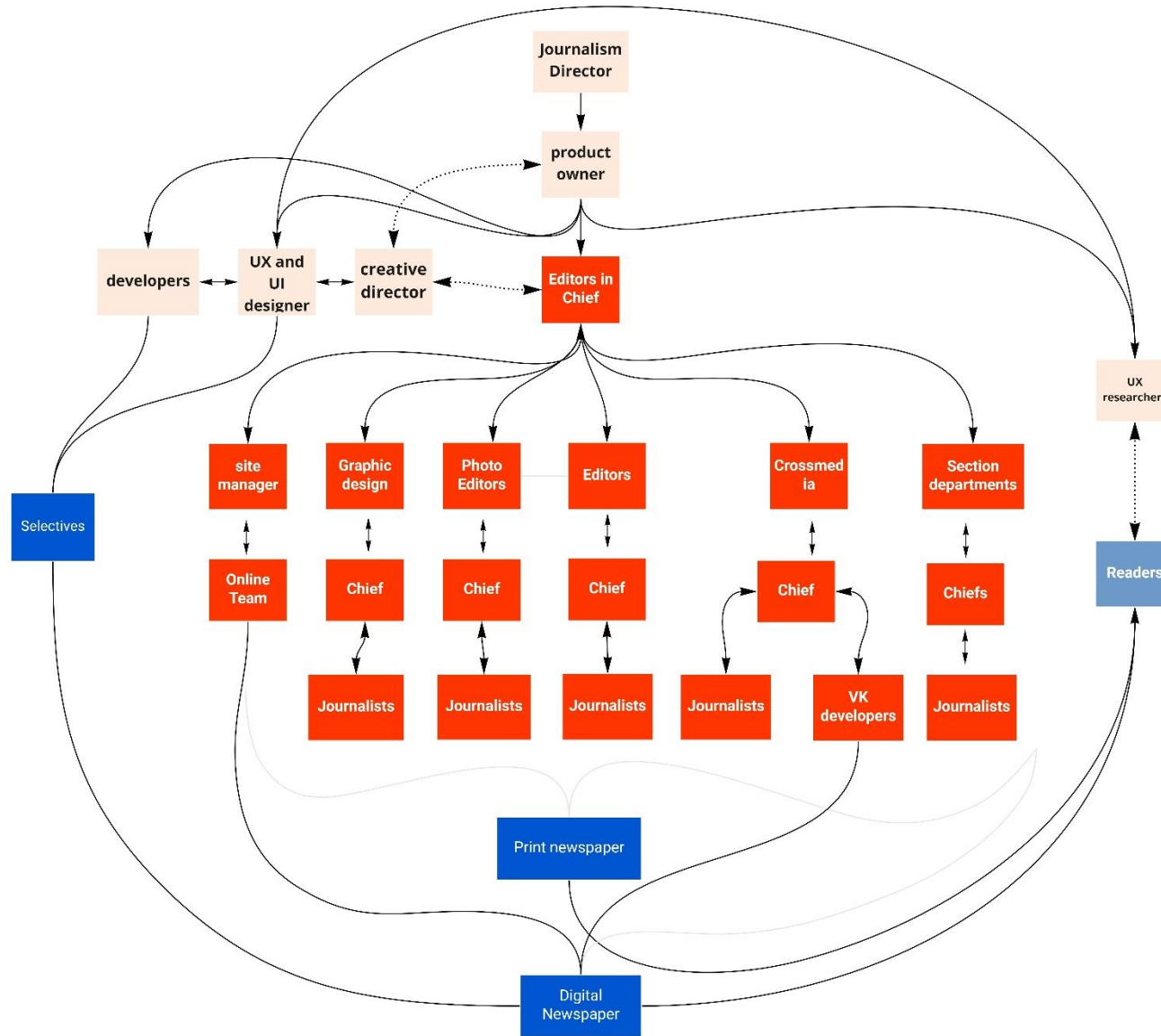


Figure 15 Stakeholder map of digital innovation within the DPG Media and the de Volkskrant context

5.5 Timeline of digitalisation within de Volkskrant

In *de Volkskrant's* 100 years of existence, it evolved from a weekly newspaper to now a daily print and digital news medium. Since the focus of this research is on the digitalisation of *de Volkskrant*, a timeline of steps taken in this process was made in honour of *de Volkskrant's* 100th birthday (Morskate, 2021). In Figure 16, I visualised the timeline from the article to summarize all the changes that happened over the 28 years. This gives a good overview of decisions made and how the newspaper evolved. In the next paragraph, I further elaborate on Figure 16.

The *de Volkskrant* website was launched in 1996 but is then still seen as a hobby project and not a serious digital product.

Between 2000 and 2003, the internet bubble bursts: where initially the sentiment was enthusiasm about the potential, some doubt strikes. In 2004–2009, they launched *Operation Tango*: Introducing the newsroom. It's a digital reorganisation plan which puts web editors in the middle of the editorial floor. Editors no longer separate the online activities from the newspaper. A video-focused website was introduced, *deVolkskrant.tv*. There are courses to teach journalists multimedia skills such as video and radio making. However, a few years later, the ambitious multimedia plans failed. In 2005, the *de Volkskrant* blog was brought to life, which was an open forum where everyone who wanted could start a blog. In the spirit of the then-popular philosophy of the internet's early years, every opinion should be heard. The blogs were not only written by journalists,

but most contributions were also from readers themselves.

In 2011, however, they pulled the plug on the blog since the number of hate comments and trolls grew just like the rest of the internet.

In 2009, reading news online became more normalised. However, the increasing popularity also had a negative side effect; free news websites also became more popular and became, therefore, competition. *De Persgroep* (*de Volkskrant's* publisher) decides to change tactics; the web editors are plucked from their *de Volkskrant* offices and moved to Rotterdam, to a joint newsroom of all *De Persgroep's* newspapers. This only lasted a year, and in 2011, the *de Volkskrant* web editors were back in the *de Volkskrant* office.

In 2012, the online newsroom was speeding up and starting liveblogs, which enabled them to update readers continuously. The web editors work separately from the editors working for print. The quality of *de Volkskrant's* online presence became better, but there were still some doubts about the future of online since it brought in almost no revenue. Paywalls did not yet exist, and only a bit of money was made through advertisements.

In 2014, a paywall was introduced; fast news was still free, but quality content was only for subscribers. From that time on, all articles were put online and not just merely a selection.

In 2017, writing web editors were abolished, and every editor was now expected to write for print and online. At the same time, a new editorial system was introduced where online was the focus. Next to that,

the cross-media team was introduced. This team was tasked to explore and utilise the richness and possibilities of digital media and exists of graphic designers, developers, video and audio creators and writers whose focus is primarily on online. Furthermore, *de Volkskrant* could see how articles performed through tracking clicks and scrolls.

Now, in 2022, online is only becoming more important. The latest development being that centrally in the *de Volkskrant* office, a duo of a chef news and a site manager are present. Together, they manage which stories are being put online and when. Data is becoming more important to track performance, and there are always editors present to report on news stories as they happen.

The timeline shows that *de Volkskrant* has been digitally represented for quite a while, and over time the process of digitalisation has been sped up. In the last few years, online products have been taken more seriously. Several attempts to reorganise the organisation for more online efficiency were made. *De Volkskrant* keeps improving its online presence, and the organisation is slowly evolving towards a digital-first mindset. They are still looking for ways to organise the organisation more efficiently. However, a large part of the organisation is still working in a traditional print rhythm.

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"The website is seen as more of a hobby project than a serious product."

"The ideal was actually that 'web editing' would disappear completely and all editors would work for both paper and the website. But that was still a bridge too far."

- Geert-Jan Bogaerts

"A year and a half later, little of that hype is left. The question 'does the paper newspaper still have a future?' has been replaced by the question 'does news on the internet have a future?'"

- Dirk Jacob Nieuwboer

First insta-story
VK is on Instagram

VK is on Facebook

VK is on Twitter

First paywall is introduced

Edities is introduced

First podcast: Het Volkskrantgeluid

First VK app

VK.tv

VK blog

Website

1996

2000

2004

2005

2007

2009

2010

2011

2012

2013

2015

2017

2018

2021

The first night editor, the website is now being updated 24/7.

Writing web-editors are discontinued, all articles are now also intended for digital.

Every minute a deadline, the newsroom is slowly changing its rhythm

Start of the crossmedia team



"Online subscribers wanted added value and in-depth information, even with the fast news."
- Kustaw Bessems

"The web has now surpassed the paper newspaper as our largest platform in terms of number of daily readers."
-Geert-Jan van Teeffelen

Figure 16 Timeline of the digitalization of de Volkskrant

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5.6 Trends within the de Volkskrant analytics

DPG Media tracks de Volkskrant's performance through data. This section discusses some fascinating insights from DPG Media's research into de Volkskrant. The data used below is derived from the data analytics dashboard Looker, and internal reports.

A digital subscription is growing in popularity

De Volkskrant offers five different subscriptions; *Compleet*, *Print Only*, *Hybrid*, *Digitaal* and *Digitaal-Basis*. In Table 3, an overview of what each of the subscriptions offers their customers is shown.

In Figure 17 and Figure 18, the trends in subscriptions and products are shown

As can be seen, *Print Only* is an outlier, consisting of about 1% of readers. Furthermore, we see a steady decline in readers who have a full subscription and a rise in hybrid subscriptions. From the graph, you could suggest that *Compleet*-subscribers are moving to *Hybrid* as their preferred subscription model. Furthermore, we see an increase in *Digitaal* and *Digitaal-basis* subscriptions. Interpreting these numbers, it probably means that the number of readers that read their daily news through one of de Volkskrant's digital products is very likely. Thus, these products are becoming increasingly important for de Volkskrant readers.

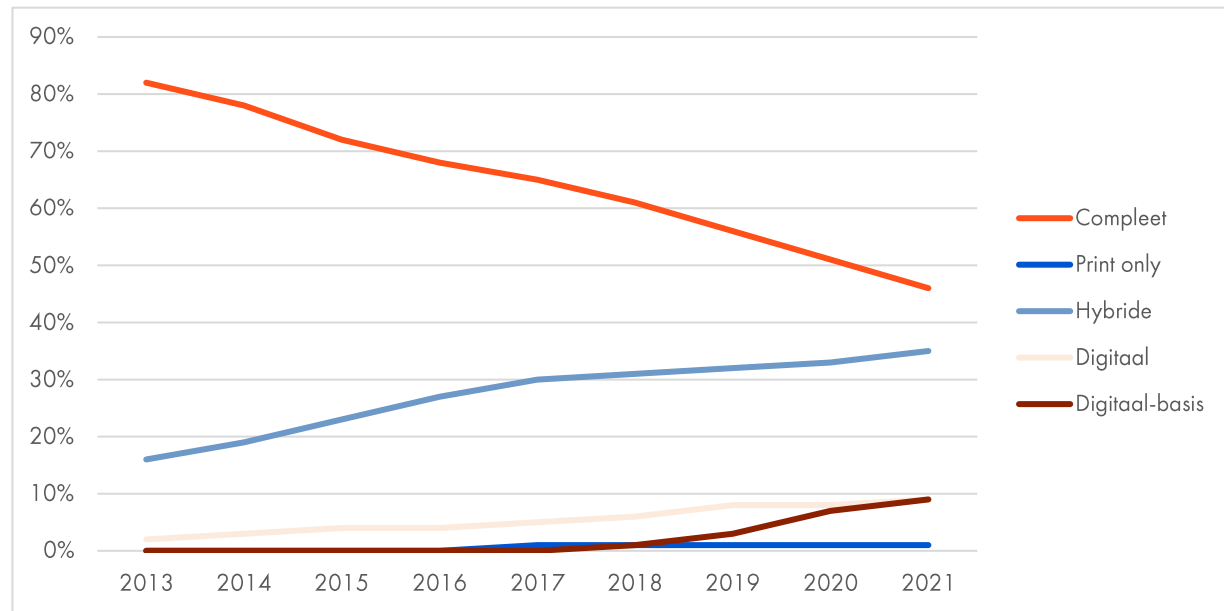


Figure 17 Trends in subscriptions, from DPG-media

Product available →	Print paper	Weekend print + Magazine	Access to the Editie	Access to the PDF newspaper	Unlimited access to articles online
Subscription type ↓					
Print Only	Yes	Yes	No	No	No
Compleet	Yes	Yes	Yes	Yes	Yes
Hybride (Weekend)	No	Yes	Yes	Yes	Yes
Digitaal	No	No	Yes	Yes	Yes
Digitaal Basis	No	No	No	No	Yes

Table 3 overview of subscription types and what is included with those subscriptions

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Mobile is the most popular device

Furthermore, we can see that when looking at *de Volkskrant's* digital products and devices, mobile is the most popular device, which means that the products offered on mobile are essential to consider.

The web has the most extensive reach

Lastly, we see that the website has the most extensive reach. This might suggest that readers are not able or willing to download the application. The data suggests that most people use mobile to read the news, but not everyone uses the app to do so; a large group of subscribers use their web browsers to visit the *de Volkskrant* website. It is important to note that the mobile website and app are very similar. This might suggest that readers do not see the added value of downloading the application compared to going to the *de Volkskrant* website in their mobile browser. However, Mobile application use doubled in 2020 compared to 2016 (de Volkskrant, 2020). So, it is not as if there is no interest at all. In the next chapter, I will go into more depth about users' needs and wishes and why they might choose not to download the application.

These three statistics show that digital seems to be the future and that it will be most likely that in a few years, most news, if it is not already so, will be read on mobile. Therefore, it is important to focus on the mobile application and create a unique and optimised user experience.

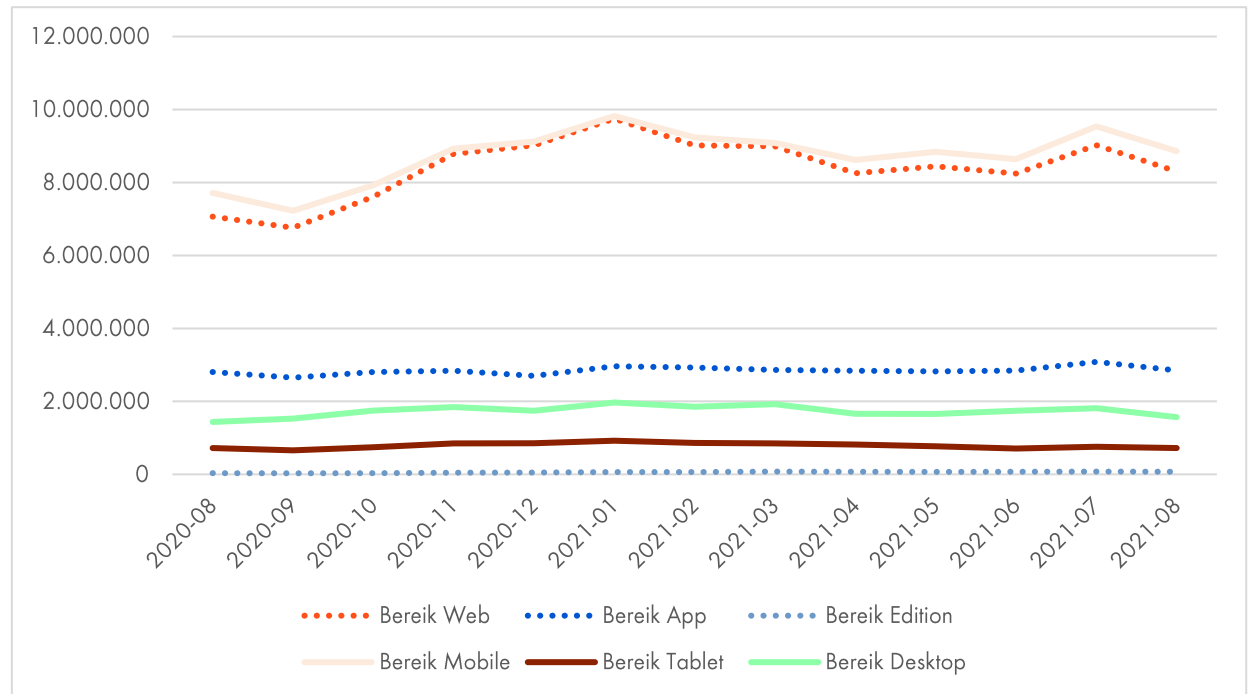


Figure 18 Trends in product reach from DPG Media

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5.7 de Volkskrant's culture

The culture at de Volkskrant is important in exploring de Volkskrant's identity and employees' attitudes and opinions towards print and digital. Knowing what de Volkskrant means to the people working there gives insight into the de Volkskrant identity and might thus also give insight into how the digital products influence employee's perception of de Volkskrant. As stated before, the insights presented below were gathered through interviews with de Volkskrant employees. This information is helpful to understand the mental models of employees and communication patterns within the organisation. These insights will be used to create a causal loop diagram, critical node, and essence, which will define the characteristics the organisational intervention should have to influence the decision-making processes and communication patterns within the organisation.

5.7.1 Rhythm

Most of the de Volkskrant organisation still works in a daily rhythm, focused on the deadline for the print edition early next morning. There are several shifts throughout the day. Most editors start around eight or nine in the morning and go home when articles are finished. The people who design the print paper and finalise and check articles start at three in the afternoon and go home when the print is finished and printed. Interestingly, the web department is on a completely different rhythm from the rest of the organisation. They work in a continuous rhythm, and there is 24/7 someone available to update and

coordinate the digital platforms. Digital and Print work together but are in a different rhythm. This can be difficult for the online department since the bulk of articles is finished between 16:00–18:00. However, they need articles throughout the whole day. Therefore, some articles are not posted online immediately but scheduled for the next day. To have a more continuous flow of articles instead of a dump of articles between 16:00 and 18:00. These two rhythms sometimes conflict with each other, as the Site Manager explains: *"In the evening, print has precedence over digital since the printing deadline needs to be made. Digital news is a bit more diffuse; it spreads over the day, there is not one single deadline we have to make sure through the day that we keep up-to-date and keep putting new things online."* In Figure 19 Daily rhythm of print and digital within de Volkskrant Figure 20, a simplified overview of a day at de Volkskrant is shown.

The rhythm in the editorial office and the development teams of DPG Media is, again, very different and not in sync. Editors and journalists work in sprints of one day, with a stringent printing deadline at midnight. In contrast, development works in sprints of two weeks where missed deadlines are not the end. Therefore, the de Volkskrant perspective is primarily short term and fast solutions, whereas the DPG Media level is more about long-term strategy and goals.

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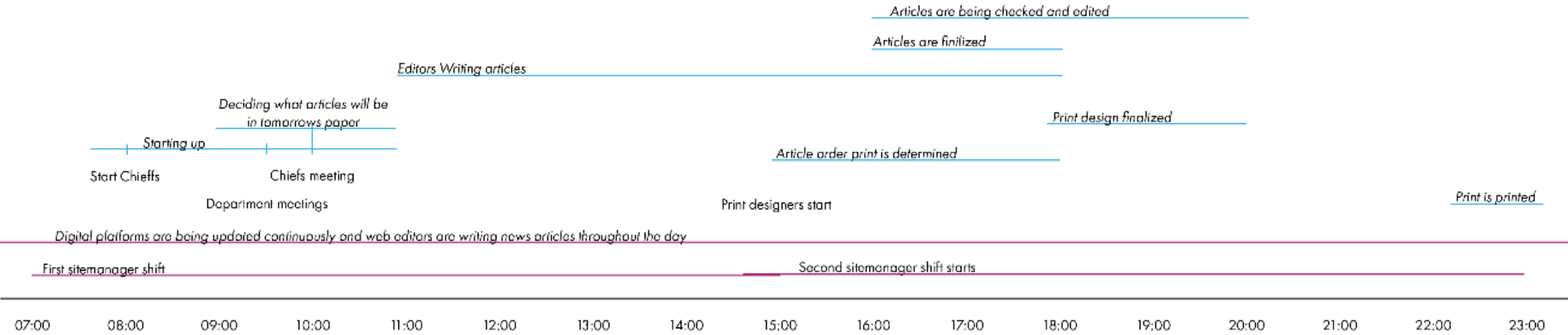


Figure 19 Daily rhythm of print and digital within de Volkskrant
 Figure 20 Daily rhythm of print and digital within de Volkskrant

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5.7.2 Future vision

During the interviews, the answers from the *DPG Media* and the *de Volkskrant* employees to the questions about the future vision or direction *de Volkskrant* should take remained vague. It was said that this vision changes every few years, in sync with the new chief digital. Meaning that it was not clear what the exact future goal of *de Volkskrant* is and what they are working towards. Especially when it comes to the reading experience and interactions, there was no clear, coherent idea. Of course, everyone had their own opinions and ideas, but when asked if there was a shared goal, nobody was really sure. This is interesting since *de Volkskrant* is working towards a future where digital products will become more important. This means that the product they identify with most now, the print newspaper, will slowly disappear or at least become less central to the reading experience of readers. That what readers will mostly associate *de Volkskrant* with will be their digital products. A coherent vision of what *de Volkskrant* should be digitally is sometimes lacking. They know their role, who they are and which stories they want to tell; their identity is reliant on the content they make and articles they write. In the past few years, the vision has been switching from focusing on long reads only to the other end of the spectrum and prioritising fast news. Interviewees stated that they feel that since it changes every once in a while, there is no clear goal to work towards, no coherent long-term vision. A clear future vision is sometimes lacking. Creating a

vision and having goals could help align employees' perspectives and get them towards a digital future. Furthermore, most product development is reactive, meaning that innovation and change are based on user feedback they receive through user moments, *App Store* reviews, customer service and feedback forms. Again, these are primarily short-term and problem-solving goals, depending on the situation and feedback. *DPG Media* does have a vision for the *Selectives* brands; *Conveying the value of quality journalism for which readers are willing to pay and take out a (digital) subscription*. This is mostly a business-focused goal that does not say anything about the substantive implementation of the digital product design.

5.7.3 Dependent on DPG Media

For innovation in their digital products, such as the application and the website, *de Volkskrant* is dependent on the infrastructure and resources provided by *DPG Media*. Product updates are done by *DPG Media's* development and design team. These developers are not committed to one specific brand but instead work on the *Selectives* platform, the basis for all *Selectives* brands. Therefore, a request for a specific feature or change can sometimes take months. Development of the digital product is not done in-house but by the developers working for *DPG Media*, who also design the apps for other news brands. The development and innovation cycle can take quite a while, making it difficult for *de Volkskrant* to iterate or develop outside the *DPG Media's* rhythm. *DPG Media's* goal

is to eventually offer each brand a toolbox of which they can pick and choose which specific features they want to implement. Of course, *de Volkskrant* is involved in the design of their application and can request features and changes. However, the design of a new application is mainly done by *DPG Media* in dialogue with the chief editor.

5.7.4 Experimentation and reactive development

Within the *de Volkskrant* organisation, there is some room for experimentation, but only within limits. *De Volkskrant* has, as previously discussed, a limited number of resources in-house. Experimentation within the application is primarily up to *DPG Media* when it is not about the application's content but its layout. However, *de Volkskrant* does have an inhouse multimedia team. This creates more space for *de Volkskrant* to experiment with new ways of storytelling and more visual article designs. However, these are still only for specials. Not much is done to try and use these possibilities in more daily articles. Specials are sometimes made with a digital-first mindset, which is also very apparent from the layout of such articles. They are designed together with the in-house development team. These articles run on a server separate from the *DPG Media* infrastructure.

5.7.5 Hierarchical, but much freedom

Every morning, the chief editors decide what will be in tomorrow's newspaper. Journalists of a department can pitch their ideas to their chief, and

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this chief then pitches these ideas to the other chiefs. Since *de Volkskrant* has quite a large editorial office, there is much freedom in choosing what to write about. Moreover, since *de Volkskrant's* primary focus is not on actualities but on adding value, most topics can be suitable. As one *de Volkskrant* interviewee explains: *"A lot of that added value I think is in giving more background information or a unique perspective to a recent development. There is a lot of competition from, for example, NU.nl and NOS, two brands that previously online focussed on telling the most recent news and bringing it as fast as possible to their readers. However, NOS is now also doing more background and in-depth stories, which makes them more dangerous competitors for us since that is also our focus. We have to keep asking what the added value of de Volkskrant is for our readers, how do we stay relevant?"*. The high level and more strategic decisions, mostly related to the content, are decided on on the chief's level. However, everyone can pitch their stories, and as long as they fit within the strategic scope, there is a lot of freedom to choose the topics your write about. However, when it comes to creating a strategy on a product level, it isn't exactly clear who should motivate and instil change within the organisation. One *de Volkskrant* interviewee is now in charge of digital innovation; his task is to motivate employees to consider digital whenever they write an article. However, he cannot do this alone, and a bigger systemic change should be made to simplify the transition to digital.

5.7.6 Motivated and convinced of de Volkskrant's added value

From all interviews, it became apparent that all *de Volkskrant* employees are highly motivated and passionate about the work they are doing. They highly value the *de Volkskrant* brand and are proud to be working for such a high-quality newspaper. However, whenever their work is discussed, they talk primarily about print. This might indicate that they still associate the *de Volkskrant* brand mostly with print. Of course, this is somewhat logical since *de Volkskrant* has a long and successful tradition of print newspapers. Even now, the Saturday newspaper is still very popular. The goal for many journalists is still to get published in the Saturday print newspaper. However, as the interviewee in charge of digital innovation stated: the number of readers is often many times higher digitally than print. So, for journalists, there is a lot of added value in digital. Therefore, the challenge is to convince them of that added value and somehow make them identify the *de Volkskrant* brand as much with the digital products as they now attach it to print.

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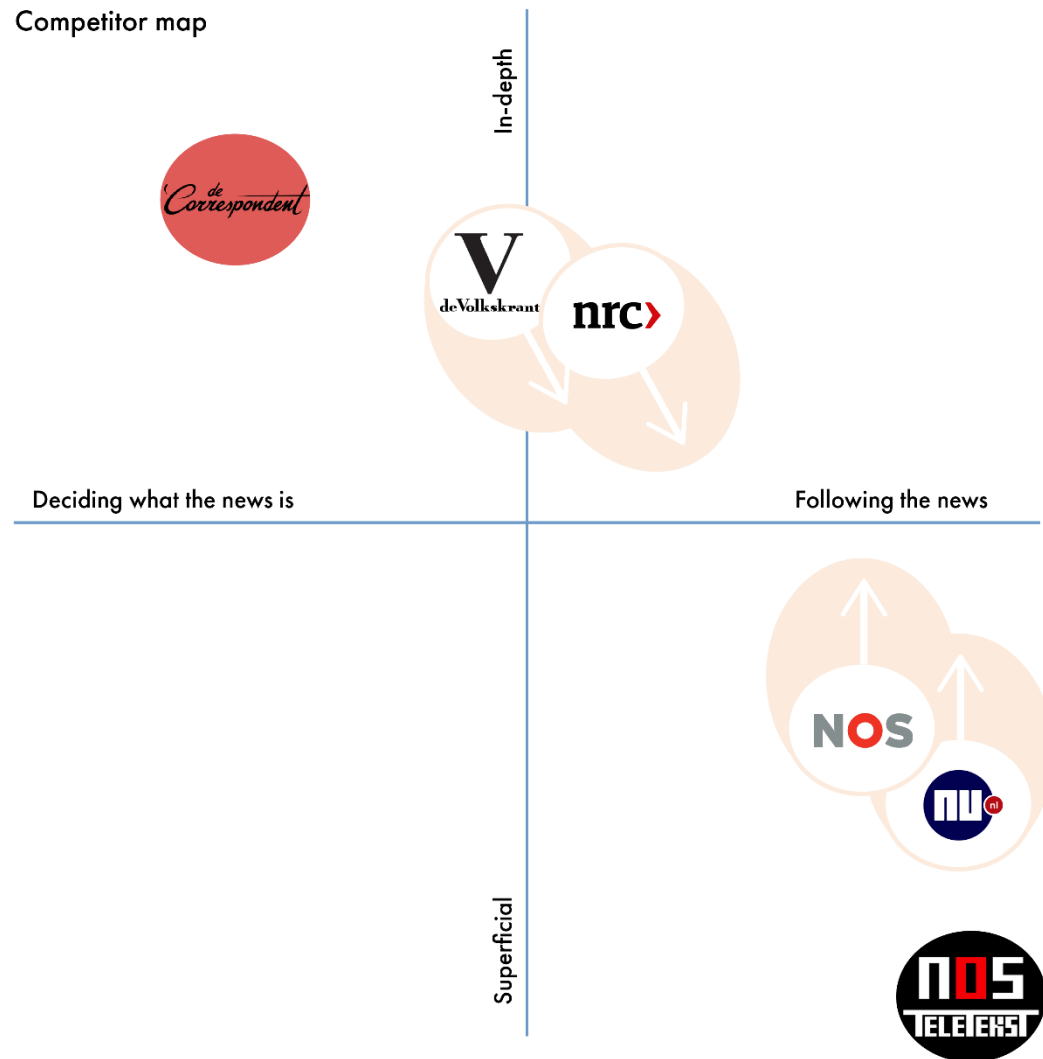


Figure 21 a competitor map of *de Volkskrant* and a selection of its competitors

5.8 Competitors

De Volkskrant has competitors that are very similar. *NRC*, for example, covers similar topics and has a similar subscription base. In the competitor map in Figure 21, several significant competitors are shown. Of course, these are not all the news brands that exist in The Netherlands. I selected the brands which I think are interesting to compare to *de Volkskrant* because they either have a similar focus or are moving towards *de Volkskrant*'s territory.

NRC is a very similar brand, although often seen as a bit more in the middle when looking at the political spectrum. *De Volkskrant* is seen more as a left-leaning newspaper. Being the closest and often compared to *de Volkskrant*, *NRC* has traditionally always been seen as the *de Volkskrant*'s most direct competitor. However, brands such as *NU.nl* and *NOS*, which originally focused on news updates primarily, are moving towards *de Volkskrant*'s territory. They are broadening the scope of their product and exploring ways to give more meaning to the news by creating in-depth and analytical articles and explainer videos. This means that they are moving toward the interpretation of news but also keeping their position as a fast news source. Which then results in *de Volkskrant* and *NRC* gaining new competitors. It also shows that *NU.nl* and especially *NOS* are more adaptive to the digital user needs, which is not surprising since *NU.nl* is a digital-only brand and *NOS* because they are receiving funding from the government and thus have more resources for innovation. Furthermore,

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NOS is originally a TV-focused brand and, therefore, has a strong video department.

De Correspondent has a similar focus in that they do not only consider the “hot topics” when deciding what stories to tell. *De Correspondent* focused on bringing news you were not aware yet of being important. They do not move with the traditional news cycle and depend more on their interaction with their readers when deciding what issues to write about. Therefore, they are a minor threat since their approach is different. What is unique about *de Correspondent* is that they have a close relationship with their readers. The journalists writing for the correspondent are expected to interact with their readers. Which makes the correspondent the most personal news brand out of all of them. What really makes them unique is that they have a strong vision for their brand. They know what they want and what they think good journalism is and built their whole brand around this notion. *De Volkskrant* could learn from that in the sense that they are still looking for who they are and what their place is in the digital news media landscape.

It is interesting to see that the digital news media landscape is not stationary but that brands are figuring out their place and making decisions to get ahead of their competitors and to grow their subscription base. What, therefore, happens in the landscape is not that brands are shifting their focus but instead are expanding the scope of their products. Thus, *NRC* and *de Volkskrant* are doing more quick updates, and *NOS* and *NU.nl* are exploring the areas in which *NRC* and *de Volkskrant*

are traditionally best in: giving meaning and explaining the news. Brands are growing towards each other but distinguish themselves by the tone and colour of their articles.

If *de Volkskrant* were to have a strong future vision, it could also be easier to create a strategy and focus. Now they are trying to simply keep up and follow. Whereas a brand such as the *Correspondent* made the decision to stay away from news updates and built on their strength of telling the stories no one else is yet telling. *NU.nl* and *NOS* decided to broaden the range of news they bring and gain territory in that way. Thus, the question to the *de Volkskrant* is, who are they as a brand and what makes them unique?

5.9 Causal loop diagram

From the context and organisational analysis, a causal loop diagram was constructed to visualise important nodes and themes in the network of *DPG Media* and *de Volkskrant*, see Figure 22. These nodes can be both insights gathered during interactions and research about the organisation and the context as well as models from theory and other factors. The goal of this diagram is to distil the most important node, the critical node. This critical node is where the focus of the intervention should be to trigger a change within the organisation.

The diagram is built from the factors that were shown to be important in the previous chapters and factors that emerged during the construction of the causal loop diagram. A legend is included to show where the factors came from.

In the diagram, I show that centrally in the innovation is the digital-first mindset. If all employees were to focus on digital-first, innovation would happen more automatically. However, this is not yet the case. From the interviews, we know that there is still a lack of feeling responsible for change within the organisation. Thus, little effort is put in, and the people that do put in the effort can feel frustrated since they have to convince others of the importance of digital. I will further elaborate on this by explaining the critical node.

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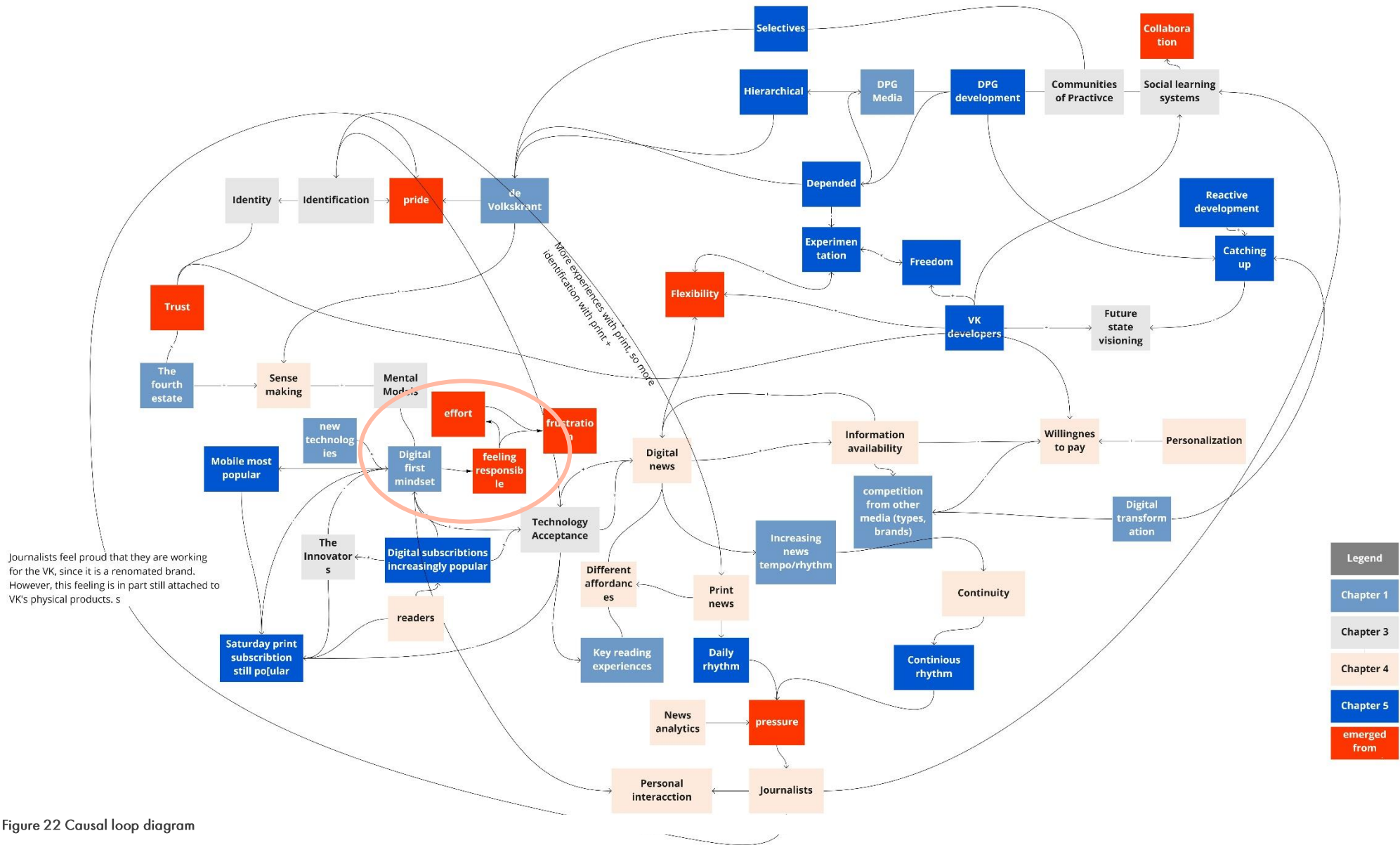


Figure 22 Causal loop diagram

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5.9.1 Critical node

De Volkskrant is stuck in a daily rhythm that does not fit a **digital mindset**. Every day is the same, and, therefore, there is no clear date on which to make a change and no real incentive to change what they are doing. Everything works fine as it is. Thus, they are stuck in the status quo, waiting for something to happen so that something changes. To incentivise change, all employees should be convinced of the importance of digital. The critical node is that the need to speed the innovation process is not there. There is no digital-first mindset or digital mindset in general. This is due to multiple factors at both *DPG Media* and *de Volkskrant* and the interactions between both organisations. Most importantly, there is no vision clear future vision, and there are almost no opportunities for *de Volkskrant* employees to think about the future of *de Volkskrant*. And furthermore, as stated before, not many feel responsible for the development of the digital products within the *de Volkskrant* organisation.

This is due to multiple factors at both *DPG Media* and *de Volkskrant* and the interactions between both organisations, such as the fact that most development is done by *DPG Media* under the *Selectives* umbrella. Thus, the products designed for *de Volkskrant* are not unique to *de Volkskrant*. Furthermore, there is no clear future vision, and there are almost no opportunities for *de Volkskrant* employees to think about the future of *de Volkskrant*. This lack of vision creates a mindset where digital is not top of mind, but instead a process or goal vague in the future, playing a role but not being central in

the day-to-day work of most employees. Another wording for the critical node could be that employees stick to what they know, to what they are used to, to what is safe. Not many risks are taken, partly due to the pressure of day-to-day work and partly because the risks they do take are within the articles they write and not in the way these are presented to the reader. Their job is writing, and the rest is accessory. The real issue is not that they fear taking risks; it is that they don't get the chance to because opportunities to do so are not so much available. However, when the lower levels start thinking about writing for digital-first, this could influence the higher levels of management and vice versa. Coming back at that, the most critical node in the diagram is the mindset of people working at *de Volkskrant*. And maybe even the mindset of readers because if they demand a digital product, they force *de Volkskrant's* and *DPG Media's* hand.

To reiterate, the digital-first mindset, or lack thereof, is, therefore, the critical node. Influenced by the current trends in reader subscriptions, competitors, and other developments and the different rhythms. The question is how to influence the mindset of *de Volkskrant* employees and how to convince them to consider a digital-first approach and what that would look like. Future state visioning is something that could help, as well as more collaboration between the more digital-minded and print-focussed *de Volkskrant* employees. Important to note here is that if employees were to feel more responsible for changing the mindset and thus for changing the organisation, this would influence them personally.

Feeling responsible for the process would require them to also put in more effort, which can cause them to feel frustrated if the process is too slow or if they would feel like their voice is not heard. Which in turn might discourage them to put in the effort. To prevent a negative reinforcing loop to start it is important to look at what is essential in the process of becoming digital-first for the employees personally, as well as for the organisation as a whole. In the next section, this will be discussed further.

5.9.2 Essence

As explained before, changing the system will require a change in mindset, approach, and organisational structure. There is not one solution, place or idea that will cause this systematic change, making this a complex problem to tackle. Within the scope of this project, I will try to ease the digital transformation of *de Volkskrant* by implementing factors in the design that will nudge towards more digital-minded employees. What lacks most is involvement or a feeling of responsibility for this transformation. Since it is a pretty hierarchical organisation, most perceive this responsibility to be at the top. However, *de Volkskrant* also has its own development team, has more digital experiments and often creates digital specials, which really show what *de Volkskrant* can do digitally. This means that they have knowledge and skills in-house as well. What happens now is that everyone stays in their lane. Being able to explore possibilities and work together with people from outside your own team might increase learning and increase the feeling of

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ownership and pride over the digital product. Also, having an overview of what *de Volkskrant* has done and what they can be proud of as an organisation might increase their feeling and identification with the digital product. So therefore, the essences need to have something to do with exploring possibilities and having an overview of what is already done. Thus, essential in the design is that it facilitates employees to **explore** within the *de Volkskrant* organisation and to have an **overview** of what is happening within the organisation. Therefore, the organisation has to become more adaptive and flexible in how, for example, days are structured, and work is done. The essence of this interaction is the feeling of being **enlightened** with the knowledge that digital can give you opportunities you never knew where there before by exploring what is possible and having an overview of what is already done. Feeling enlightened is a positive feeling and incites the excitement of discovering something new, which hopefully will cause employees to be more willing to put in the effort.

In the ideation phase, Chapter 8, this essence will be used to think about what features and characteristics the design should have to also help the organisation in moving towards a digital-first mindset. In Chapter 9, the concept design will be used as a probe to test out if a concept design can be the boundary object between the readers' needs and wishes and those of the organisation.

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5.10 SWOT analysis

A SWOT analysis has been conducted to create an overview of where *de Volkskrant* is currently at, see Figure 23. Data from this and previous context analysis chapters have been used to identify Strengths, Weaknesses, Opportunities and Threats for the *de Volkskrant* brand. These insights helped to define the design brief and additional research areas. The factors shown in the figure are ranked by importance for the specific design and research context of this thesis. The SWOT analysis can be seen as a summary of the internal (organisational) and external (trend) research, which enables us to see the factors that are most important and find direction for a strategic vision for the digital future of *de Volkskrant*. These factors were selected from the previous and this chapter.

5.10.1 Conclusion SWOT and strategic vision

From the SWOT analysis, we see that there are a lot of strengths and opportunities *de Volkskrant* can use to their advantage. However, there are also some weaknesses and threats that they should be aware of. If they do not innovate and start taking more risks with their digital products, they will likely lose subscribers. *De Volkskrant* should utilise identifying features in their digital products. They should lean more into their role as a quality news source, which helps users understand complex problems and guide them through the overwhelming amount of available news. They could utilise their huge archives better and not only showcase recently

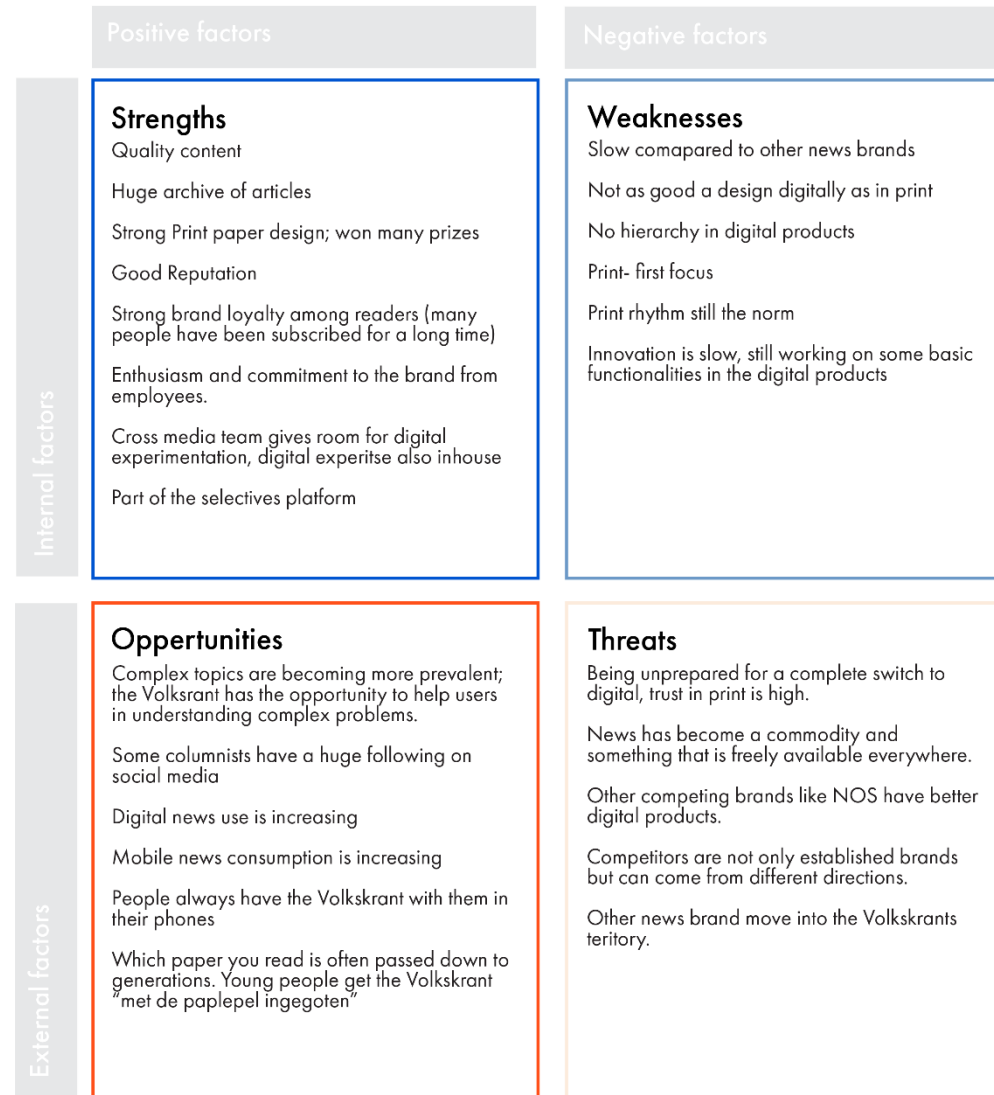


Figure 23 SWOT analysis

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written articles but whenever an article becomes relevant again, show that as well. To stay relevant, it is also important to have fast news, meaning that it is not an either this or that discussion but a challenge to find a way to both combine both and bring fast news updates as well as in-depth analysis to their users. Therefore, it is more important to have unique selling points, making it worth it for readers to pay for your service.

5.11 Take-aways

Below, the most important take-aways from the chapter are highlighted;

For the design

- Focus on both fast news and long-reads
- *De Volkskrant* is unique due to its columns and journalists
- Strong investigative journalism
- Digital product rhythm is continuous.

For the organisation

- There is a lack of a clear future vision
- *De Volkskrant* has a strong brand identity
- *De Volkskrant* is unique in providing the reader with additional insights into news
- Employees of *de Volkskrant* are proud to be working there
- The organisation still works in a print rhythm
- A digital-first mindset is needed to speed up innovation, change and learning

5.12 Conclusion

To summarise this chapter, there is much opportunity for *de Volkskrant* in digital. Challenges are to convince the whole organisation of the advantages of digital and to organise the organisation in a more digital central way to work more efficiently. Furthermore, the interactions between *DPG Media* and *de Volkskrant* complicate the innovation process since the *Selectives* platform services multiple brands, increasing waiting time for wishes a specific brand might have. In the next chapter, I will research user needs and wishes. All insights from the analysis are then used to write a design brief and define additional research questions for the intervention in chapter 10.

6 User Research

This thesis aims to develop a new service for *de Volkskrant* from a user-centred perspective. To this end, user research was done. The focus of this chapter is to retrieve the needs and wishes of the *de Volkskrant* readers and to gain insight into how the readers of *de Volkskrant* think about the future of digital news.

6.1 User research

The user research focused on the overall experience people have when reading the news and, more specifically, when reading *de Volkskrant*.

6.1.1 Goal and research questions

The user research aims to gain insight into readers' needs and wishes when it comes to reading *de Volkskrant* digitally, especially when reading on their smartphone. Research questions were:

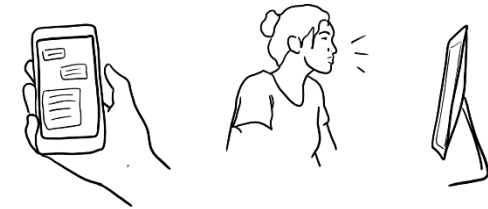
How do de Volkskrant readers currently read the news?

- What are the readers' needs and wishes when it comes to news consumption?
- Which habits and behaviours are attached to reading news?
- What are the moments they want to receive news, and in what modality?
- Why do they read *de Volkskrant*, and what do they value most in the brand?

How do they think their needs, wishes and behaviours will change in the future? And why?

6.1.2 Method

The research was done through a diary study in which participants had to complete assignments every day for six days. Afterwards, a semi-structured interview was done with the participants to reflect on the assignments and ask follow-up questions based on their answers. The goal was to get insight into the



user wants and needs when it comes to digital news and what users expect from *de Volkskrant* as a brand. So, how they currently consume news, what the reasons are they have a subscription to *de Volkskrant* and how they imagine and want the future of *de Volkskrant* to look like. The diaries were used to prime participants on the subject and to provide insight into their everyday use. Interviews were transcribed, and interesting quotes were selected. These quotes were then clustered into groups. In Appendix B – User research Cluster groups, these clusters are shown. These clusters are then combined and described in Section 6.1.4 and used to construct the user journey in Section 6.1.5. The insights from this and previous chapters were the basis for creating the design brief shown in Chapter 7 and thus the starting point for the ideation phase.

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6.1.3 Participants

Participants were recruited through a call on my personal *LinkedIn* and *de Volkskrant's* website. Participants were selected to be as diverse as possible regarding their age, gender and subscription. An inclusion criterion was that the participants needed to use the digital products of *de Volkskrant*, as this is my main research area. An overview of participants can be seen in Table 4.

Table 4 User research participants

Participant	m/f	age	Subscription	Devices used	Other brands
1	f	21	Dagelijkse krant + digitaal	Papier en mobiel	<i>NU.nl, Twitter</i>
2	m	24	Dagelijkse krant + digitaal	Mobiel en desktop	<i>NU.nl, NOS</i>
3	m	35	Weekend krant + digitaal	Mobiel, desktop, tablet	<i>NU.nl, NOS</i>
4	f	40	Digitaal	Mobiel en tablet	<i>NU.nl, RTL</i>
5	f	56	Weekend krant + digitaal	mobiel	<i>Twitter</i>
6	m	61	Weekend krant + digitaal	Mobiel en papier	<i>Teletekst, NOS, NRC, NU.nl, Twitter</i>
7	f	61	Digital	Mobiel	-

6.1.4 Findings

The result from the assignments and interviews are seven news diaries and seven interviews, which led to insight into when users read, why users read, why users read *de Volkskrant* and what kind of role news fulfils in users' lives. The results were analysed by coding the interviews in-vivo, which means the interviews were first transcribed, after which interesting quotes were selected and assigned to code groups. These quotes were then interpreted and clustered. By following these steps, the following focus areas could be identified.

Feeling connected to other people and the world is an integral part of reading the news

Three participants noted that feeling connected to others and the world around them is an important reason to read *de Volkskrant*. Participant 7 stated: "You just need it to keep up-to-date, or just a nice article and we'll send each other a link. And yes, you get a response of "oh I just read that too" and that's just nice! And then you have another hook to continue talking." Reading the newspaper/new is not only an activity to gather knowledge, facts and insights, it is also a social activity. The end goal is not necessarily to learn but to get informed to hold a conversation with friends and colleagues. Furthermore, not all activities are individual activities. One participant stated that they have a ritual of always making the quiz together with their family. Another had a similar tradition but with the "wat zou u doen?" section. Especially the Saturday paper gives people a feeling of being together; "The magazine and Saturday newspaper lie here on the table for a bit and swing around, and if we have some time for a moment, we read something, often together."

Users have fixed reading habits

Participants noted that they have habits when it comes to reading the news. One always read the paper during breakfast. Others, like Participant 5, only read at the weekends: "So I actually only read on weekends. But then I read the magazine, and then I have a preference for Eva Hoeke's column and that one column in which such a dilemma is offered, I always read it together with my daughter." Meaning that, next to having a habit of when they read, readers often gravitate to their favourite sections or columns and always read those. Thus, it should be easy for

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readers to find their favourite sections and journalists to be supported in their wants.

Being up-to-date is a must in digital products

Different from print media, participants expect any digital news product also to offer up-to-date information as it is happening. For the design, this means that there should be a feature included that offers the users up-to-date information. For the organisation, this also has consequences since this is a big difference compared to what users expect in traditional newspapers. *De Volkskrant* will need (more) people with the skills to track and write news updates fast to keep the digital products up-to-date at all times. The need to be up-to-date was suggested through different needs participants talked about. For example, Participant 1 stated: "I actually find the push notifications especially useful. So if after I've read the newspaper something happens that is super important, you'll be immediately aware of it." And Participant 2 said: "I like that it is not in a standard newspaper format so that you can easily see what is new." Both these statements refer to features unique to digital. Firstly, the ability to push the news to the user, keeping them updated even when they are not reading the application, and secondly, making it easy for users to see what is new news and other news.

More is not always better. However, peoples' actions do not always correspond with what they say.

The number of articles that are offered digitally can be overwhelming. Participant 2 stated that he wished that digital would keep the identifying feature of print

in that it would still be limited in pace and articles. "Maybe my brain would like it if it is that fast, but it would also be soothing if it is not so fast. I would be more likely to click on the *NOS* or the *NU.nl* app because there is more news, but that does not mean I like that better." However, they also stated that this might be more of an idealistic view on their needs and is not that realistic since he also wants to stay up-to-date. I think this suggests that it is important to keep the quality articles and the identity for which *de Volkskrant* is known but add a feature that allows users to also get their news updates.

Once people transition to digital, they do not plan to go back to print.

Most participants stated that, now that they have a digital subscription, they probably will not go back to getting a print subscription. There were multiple motivations for this decision; Firstly, the environment, having a print newspaper delivered to you six days a week is not an environmentally conscious choice and unnecessary if there is a good alternative. Secondly, they stated that after they started to use digital products, they appreciated the convenience of a digital newspaper. Participant 4 summarised these motivations as follows; "During the week, I do not have time, and now I can read *de Volkskrant* whenever possible. And it is also beneficial that I do not waste paper because it can also be done digitally. I do not miss the paper newspaper at all."

There is still enough room for improvement in the digital products

The added value is mainly in the contents of the app and thus subsequently the journalists that *de Volkskrant* employs and not necessarily in the

medium through which these articles are provided. However, the way in which they are presented is important for the user experience of *de Volkskrant*. Digital is still inferior in the **reading experience**, especially in providing an **overview** and assigning **hierarchy** to articles. Furthermore, the advertisements spread throughout the digital products are deemed distracting and annoying.

News on demand.

Participants expect that their needs are met in a digital product. They want the news available whenever it suits them, preferably in a medium that suits that moment. For example, whenever they are waiting, they want short, to-the-point articles but at the weekends they read more to relax and as entertainment. This means they have time for longer articles, maybe with less news value but more deepening longreads and interviews. Therefore, both the entertainment factor and news as a necessity should be offered in one product; fast and slow news should be available at all times to suit the users' needs in specific moments. Participants stated that they are not used to waiting anymore. They expect something to be available when they need it, especially information. Participant 4 gave a good example of what that looks like in real life: "The generation coming now is much more used to on-demand. When I look at my own children, they no longer sit in front of "Seabert" on Wednesday afternoons; they don't have the patience for that. News when you want it, will probably only become more important. The new generation is even more used to having content available when they expect it."

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Timing is an essential factor in user needs.

Related to news on demand is the factor of timing. Participants stated that their needs depend on the moments of the day and how much time they have at a specific moment. Ideally, an app would support these different modes of reading; fast and slow. For example, participant 1 says they only really take the time to read in the morning: *"The newspaper is really a morning thing for me. I read in the morning and finish it, or at least I have read all the interesting things from it, and then I put it away again."* However, this specific experience they describe is attached to the physical newspaper product since you can finish that one. Digitally that is much harder, although the *Editie*-application provides a similar experience. Reading the news digitally might also just be something readers have to get used to, especially when reading to relax. Participant 3 states that they were already used to getting their news updates digitally but are also starting to read long articles digitally. The moment on the day determines how much time they have and thus which articles they read. *"I have started to consume my news much more digitally. I already did that, but that was mainly the news items. The real articles, the long articles I usually read in the morning. That is when I make some more time for it."*

For users, *de Volkskrant* is a curator of what is important

Most users trust *de Volkskrant* to determine what news is important and what they should know. The app is a valuable product for many; it is easy and always accessible. *"The app is easy; you just get the news, and I can just scroll across the front page."* (Participant 4) However, some participants prefer that the news is not too

curated and offered more chronologically. It is important to note that they are not sure how and if the news is currently curated on digital products. Thus, this could suggest that participants simply do not want to see a limited perspective by having *de Volkskrant* determine what they see first. The word curated might have a negative annotation in their mind, and the practical implementation is satisfactory. I thought this was interesting since reading a specific news brand will always have colour and will always decide what is newsworthy and what is not. Therefore, the *Curatedness* of news is inherently attached to reading only one brand. However, you could argue that a balance between curated articles and the most recent ones is important and that *de Volkskrant* should be transparent on how they decide what to show you and about what they choose to write.

De Volkskrant should move along with digital and technological developments

Participants do not expect *de Volkskrant* to lead innovation. However, they do expect that *de Volkskrant* keeps up-to-date with innovation and technology. For example, the acceleration of pace in digital news; they expect that *de Volkskrant* then thus has fast news. They should match their competitors in the degree of digitalisation and innovation. However, they also do not mind if *de Volkskrant* experiments with new ideas, innovations, and technology if reading remains accessible and easy. However, generally speaking, participants expect *de Volkskrant* to follow trends. According to participant 3, *"De Volkskrant should just follow, you should never*

have the illusion, and neither should de Volkskrant that they can determine how people consume news, they can only follow. Because who determines how we consume? The big tech companies, which determine the speed at which we consume what."

De Volkskrant's identity from a user perspective: Analytical, surprising, and fun.

A strength of *de Volkskrant* is that they often have surprising investigative articles or even podcasts, as well as surprising and new perspectives on a given situation. Furthermore, the articles they write are not solely analytical but sometimes also light and fun, but still helpful in daily life. Participants really appreciate the diversity of articles offered and the balance between seriousness and light-hearted fun/entertainment. They value that the articles *de Volkskrant* writes offers them new insights. Participant 7 states: *"Every now and then you read something and think, I hadn't looked at it that way before. More varied, stimulating, it broadens your horizon a bit, and I think that is just important. Not what you necessarily think, but also to think about how you could look at it."* What is valued is not only the news but especially the kind of articles participants cannot find in other news brands.

Serendipity is something users feel that digital is still lacking but is an important factor in reading *de Volkskrant*

There are many strengths to digital news. However, a critical characteristic that the participants liked about print is the factor of surprise. Participant 6 explains; *"...to be surprised, serendipity so to speak, just to run into something. Yes, I find that more difficult to fill in online. You tend to follow the same paths every time, you click on de Volkskrant's homepage again*

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and then I go through those same highlights again. While in the print newspaper, you are confronted with new things.” This factor of surprise or serendipity is not only fun and refreshing but can also enrich the reading experience. If you are confronted with something you normally wouldn’t click on, your horizon gets broadened automatically.

Readers create a personal news mix

Since digital news is so easily accessible, participants state that they create their own news mix, where every brand has a specific role in their daily news consumption. Participant 6 explains: “There must be a mix with lighter things. And actually, I’m creating that mix now by not solely reading *de Volkskrant*, which is, of course, much easier than so many years ago. Back then, you had one newspaper, and that would be it. Now, you can create a mix of news for yourself with relatively low threshold and low costs.” Participant 3 agrees with that statement and states that they also use several news brands on their phone: “*De Volkskrant* is really top-notch, but it’s only *de Volkskrant*. I have three, four, five news apps on my phone. *De Volkskrant* and *NOS* I read daily, *NU.nl* I read twice a week and then the *NY Times* and *The Guardian* and things like that I read online every now and then.” What becomes clear is that almost no participant reads solely one brand. They all use other news apps as well, and they are happy with that. It is not realistic to think that your brand will be the only brand they (should) read. However, you have to be aware of what specific role your brands fulfil in readers’ news consumption.

Why people read news and why people read *de Volkskrant*

Participants stated that they read *de Volkskrant* because they find it a trustworthy and reliable news source. It gives them the news from multiple perspectives, making them feel that *de Volkskrant* gives them the knowledge to shape their own opinion. In that sense, *de Volkskrant* has an important function in the day to day lives of readers. They use it to make decisions in their lives, and it helps them connect to the world and the people and problems in it. One participant stated that they use *de Volkskrant* to connect to family and friends and that they often use articles as a conversation starter. The participant does not live in The Netherlands currently and, therefore, feels like they would lose connection to The Netherlands if not for the Dutch news, which they primarily consume through the *de Volkskrant* website on mobile.

6.1.5 User journey and customer journey map

There are generally two modes participants talked about. They either read the news in the in-between moments when they are, for example, waiting or are bored. Or they read to relax, which is often at the weekend or when they have more time than during the work week.

The two reading modes differ quite a lot in needs and wishes and will require different functionalities from the *de Volkskrant* products. Interestingly, readers switch between these two modes depending on the moment of the week and day. Similar results were found by the before mentioned Design for Interaction Master's students from the Usability and Experience Assessment in Design course, distinguished three reader profiles; Quick-update readers, Routined extensive readers and targeted readers (Broersma et al., 2021b, 2021a; Peeters et al., 2021a, 2021b).

In Figure 24, the user journey of a typical reading session is visualised. The two different reading modes are shown: relaxed reading or reading for entertainment in red and a quick update in light pink. I chose to visualise a reading session instead of a full day of news use because this shows users' specific needs when interacting with the application. The results shown in this visualisation are an interpretation of the results from the interviews and assignments. For example, the emotion of a quick update overall is lower since reading for a quick update or out of boredom was described by participants less positively than the experience of

reading to relax or for entertainment. Furthermore, searching for articles could be annoying since it is not always clear how the homepage is organised. Clicking and going back to the homepage to find something interesting was less enjoyable than being provided with an overview and choosing from there, as users do when reading print. Participants stated that they could sometimes get overwhelmed with the number of articles and the lack of overview, thus, choosing an article is a point in the journey that could use some improvement. This is less so for a quick update since people do not have much time to think about choosing and, therefore, just click one on the articles at the top of the page or read something that they received a push notification for. If a reader decides they want to read a second or third article, the whole cycle starts again since most people just go back to the front page and go from there. Again, this provides opportunities for improvement. A possible solution is providing them with relevant articles within the article itself. This is already implemented to some extent, but participants noted that the recommended articles were not always clear on why they were relevant and, therefore, they do not click on them often. Furthermore, since not much reflection after reading takes place, it makes articles easy to forget and hard to place in any context. Relating that to theory: it is hard to give meaning to articles you have read online, compared to print.

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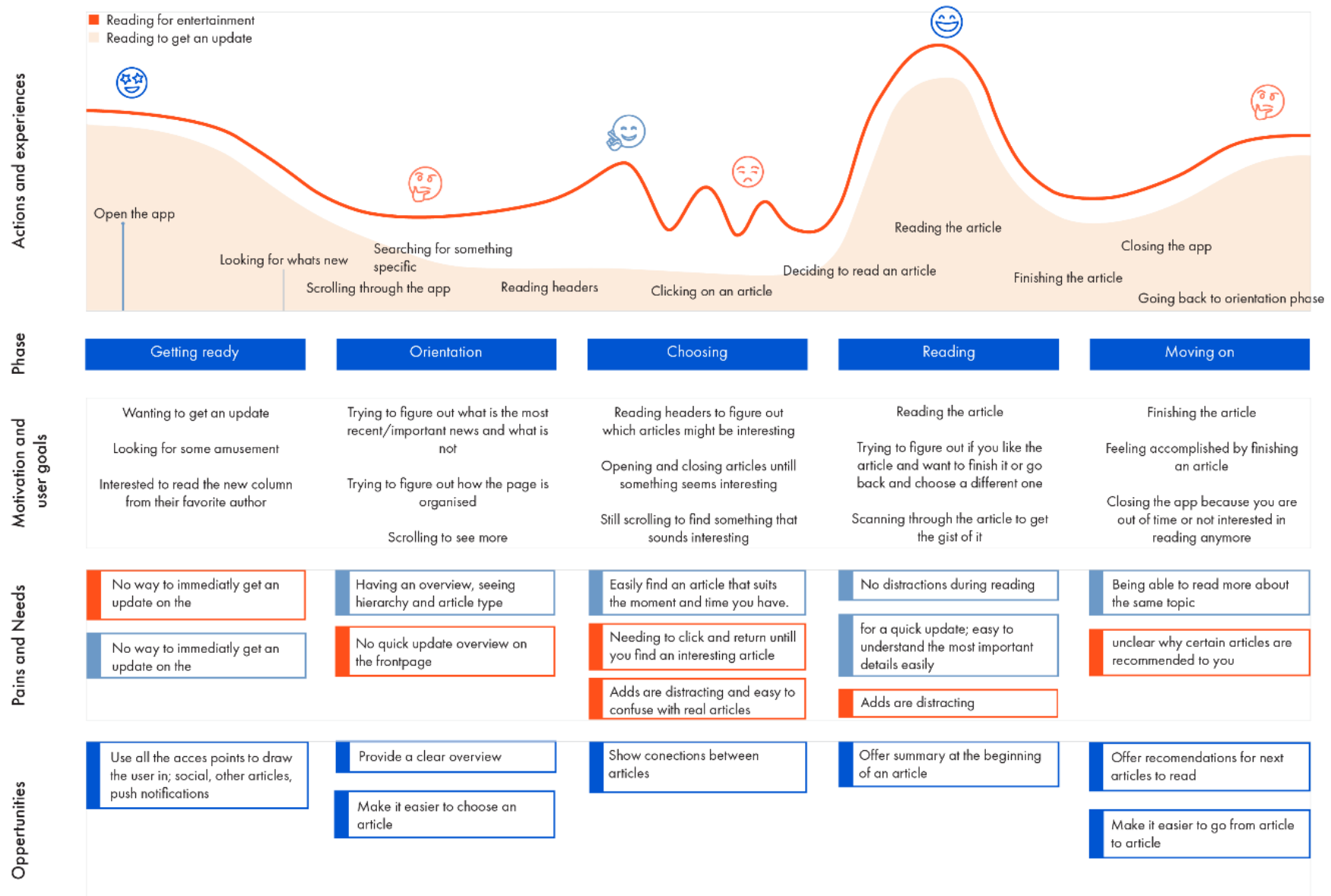


Figure 24 User journey of a typical reading session

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It was also interesting to notice that the decision-making strategy was very different for digital products than for print, visualised in Figure 25. Participants noted that when reading digital, they just scrolled until they saw an article with an interesting title, clicked on it and read it if it appeared interesting. In print, most participants stated that they first scanned the whole page and flipped through the whole paper, only to decide what article to read after they saw what was generally in the print newspaper. Therefore, participants felt they had a better overview of articles when reading print.

Reading print



Start flipping → scan page → read article and/or flip to next → Finish the paper



Reading digitally



Homepage app → Scroll through app → Click on/read article → Go back to homepage

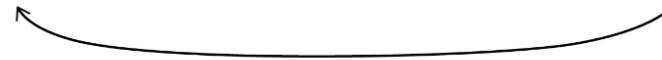


Figure 25 Decision-making strategies for reading print and reading digitally

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6.2 Limitations and discussion

There are some limitations to the user research. For example, a sample of seven participants might not represent the consensus of all *de Volkskrant* readers. Furthermore, recruitment was done online, through my network on *LinkedIn*, as well as through a call on the *de Volkskrant* website. Therefore, the group selected to participate in the research might already be more digitally focussed than if sample selection was done through a call in the print newspaper. The call on the *de Volkskrant* website was also somewhat hidden on the website. This might suggest that these participants read more thoroughly than people who just look at the front page. However, since there were some comments that all participants stated, as well as some different behavioural patterns, I trust that the sample selects at least a diverse part of the *de Volkskrant* readers.

6.3 Take-aways

From the user research, some insights can be used for the design, and some might be interesting for the organisation. They are listed below.

For the design

- Feeling connected to other people and the world is an important part of reading the news
- Users have fixed reading habits
- Being up-to-date is a must in digital products
- More is not always better. However, peoples' actions do not always correspond with what they say.
- Once people transition to digital, they do not plan to go back to print.
- Readers are used to having the news on demand.
- For users, *de Volkskrant* is a curator of what is important
- Timing is an important factor in user needs
- *de Volkskrant* should move along with digital and technological developments
- The *de Volkskrant* identity from a user perspective is analytical and surprising
- Serendipity is something users feel that digital is still lacking but is an important factor in reading *de Volkskrant*
- Users create a personal news mix through various media
- Different needs for the two reading modes; quick and relaxed reading.

For the organisation

- Once people transition to digital, they do not plan to go back to print.
- Timing is an important factor in user needs
- *de Volkskrant* should move along with digital and technological developments

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6.4 Conclusion

This chapter gave insight into the user needs and current news habits. The insights from user research tell us that the digital reading experience is not optimised for reading quality content and now primarily supports quick updates. The exception is the *Editie*-application, which is the opposite. To supplement this missing experience, users create their perfect news mix by reading other news brands in which every brand fulfils its specific role. However, since participants stated that they value *de Volkskrant* mostly for their long and high-quality content, it is important that reading digitally should be as easy as reading print. This will be quite challenging to achieve since digital products have limited screen sizes and thus offer less overview of the content available. In the next chapter, I will elaborate on these problems, goals and challenges by constructing a design brief. This brief will be used to design a new service for *de Volkskrant*.

7 Design brief

From all the insights gathered during the analyses mentioned earlier, a design brief is constructed. This brief summarises the most important insights and decisions made during the analyses. The design brief will function as a starting point for ideation and will be used to evaluate if the final design meets all the requirements.

7.1 Problem description

De Volkskrant is currently lagging in innovation in its digital products. This is not necessarily only their fault; because they rely on *DPG Media's* infrastructure and development/design teams, they don't have much control over the developed digital products. However, it is *de Volkskrant's* responsibility to know what they want for their digital products since their readers depend on them to stay true to their identity. If they have a unique selling point and do not offer digital products that enthuse their readers, they risk losing them. Therefore, *de Volkskrant* must develop a digital product that can match their prize-winning print newspaper.

From the user research, context analysis and theoretical insights, it becomes clear that the challenge is quite complex. A quality digital news service should support the need for quick updates and reading longer analytical articles. When looking at what makes *de Volkskrant* unique, it is important that mainly the latter is supported since these articles characterize *de Volkskrant*. Quick updates are already facilitated in all products and better serviced by other brands such as *NU.nl*. Also, *de Volkskrant's* role as a quality newspaper is mainly supported by their opinion pieces and investigative articles. These often show a topic in a surprising way or from a fresh perspective. *De Volkskrant* should focus in their digital products on their core business as well; by helping the reader make sense of what is happening in the world. The current digital products now support these kinds of interactions and are best suited for news snacking.

Another focus is that the service should surprise and support people in reading their favourite sections. The focus for the design phase will be on mobile since this is the most used device—it is used by almost all readers—as well as the most challenging device to design for since the screen is small. As can be seen, there are some contradictions in the needs of users. They want quick news, but they also want to read long articles, they want to read their favourites, but they also want to be surprised. *De Volkskrant* needs to support their readers in their reading experience. Offering the content is not enough; presenting this content to their readers is just as important.

7 Design brief

7.2 Design direction

The analysis showed the problem areas and gave insight into the opportunities that can be used in the design of a new service. Below, the digital (interaction) vision and design goals are explained on which the design should be based.

7.2.1 Digital vision

The digital vision will function as a guide during the design. The following factors are important to take into consideration during the design phase.

De Volkskrant should play to their strengths.

De Volkskrant should focus on what makes them unique. Instead of forcing themselves to compete with *NU.nl* and *NOS* in becoming a fast news brand, they should play to their strengths. They are known for their quality content, seasoned journalists, and aesthetics.

Trusted curator of news

People trust *de Volkskrant* to be a curator of news and guide them in the jungle of news that exists in an increasingly overcrowded news world. They should take on the role of curator and guide their readers in their reading. Meaning that they should take their readers by the hand in making sense of what is happening and all the articles they write.

Mobile-first

Furthermore, *de Volkskrant* should focus on mobile, being the device that readers most use. Everyone has a smartphone, and this will not change for a while.

7.2.2 Primary digital interactions

Based on the literature review and user research from Chapter 5 and 6, I identified four main interactions that should be supported in *de Volkskrant's* digital products:

1. *Support readers in their habits and thus make it easy for them to find and read their favourite sections or journalists.*
2. *Support readers in learning something new (deepen and broaden their knowledge) and also surprise them every once in a while.*
3. *Show them how articles are connected, and by doing so, give them the whole picture of a story. (sense-making and putting the news in context)*
4. *Support them in using de Volkskrant in their social life, give them a sense of belonging and a way to connect to others.*

More practically, the application should also offer a quality reading experience since readers also noted that they read *de Volkskrant* for their interviews and investigative articles, which are often long reads. That means not too many distractions within articles, offering personalisation of articles in the shape of text size and background colour. But also, how do you guide a reader through an article? And preferably finding new solutions to showing ads and removing them from the articles themselves.

Furthermore, inserting hyperlinks and other interactive elements that ask the reader to make a decision, thus disturbing their reading flow, should be conscious decisions. The reading experience should be as relaxing digitally as it is on paper so that readers enjoy reading through mobile with a cup of coffee on Sunday morning like they are doing now with print. However, it remains a digital news service and thus should also support fast news. What could really give *de Volkskrant* an advantage is to find ways in which fast news can support *de Volkskrant* in telling the stories they really want to tell by finding a way to use fast news as a gateway to slow news/long reads.

Interaction vision

The interaction in the design should **guide the user** through the articles and archives of *de Volkskrant*. It should **support them in learning new things and exploring new perspectives**. After reading digital news, users should feel in control, empowered, and accomplished.

7.2.3 Design goal

As stated at the beginning of this thesis, the goal is to design a news service for *de Volkskrant*. I choose to focus on mobile to limit the scope of the design but also because this is the most popular device, its popularity will only be growing and is the most challenging since the screen size is so small on mobile. Translating user needs to a mobile app is most challenging because of the limited screen size. An ideal outcome would be an app that supports the

7 Design brief

four interactions that are stated above. Summarised, the design should encompass the interaction vision.

7.2.4 Design Criteria

Additionally, some design criteria can be determined from the research thus far. The design should:

- Make it easy for readers to find their favourite sections
- Support both fast and slow news reading
- Support learning something new
- Provide context for an article, making articles more connected and coherent to each other.
- Provide an overview between and within an article
- be able to show the multiple perspectives that are there on a certain topic. It should help people in understanding
- Be able to highlight a topic from multiple perspectives
- support people in understanding events; broadening and deepening their knowledge
- be entertaining and surprising
- keep users engaged and guide them from article to article
- guide the user through the articles and give them a clear overview

7.2.5 Design Requirements

Furthermore, there are also some requirements for the design. These are the things that must be in the

design for it to suffice. In contrast, the criteria are elements that preferably should be in the design but are not critical. There are a few requirements for what the concept should look like and what features it should have; The design must be a **mobile application** since my research shows it has the most potential. Furthermore, the app must fit *de Volkskrant's identity and style*.

In the next chapter, this design brief will be used as a starting point for designing a new mobile application for *de Volkskrant*.

8 Ideation and concept design

In this chapter, the ideation phase of the double diamond is described. Ideation was done through two brainstorming sessions: one with students and one with *DPG Media* employees. Both sessions made for interesting directions and ideas, the most interesting ones are described below. These ideas are then combined into a concept design for the *de Volkskrant* application. In this chapter, only the ideas that were used for the concept design are elaborated on.

8.1 Ideation

The design brief and the results from the previous chapters were used as a starting point for ideation to possible solutions. The goal is to design a mobile app that fits the digital vision, criteria and requirements from the design brief in Chapter 7.

8.1.1 Method

Ideation was primarily done through brainstorming—several How To's were used. How To is a method in which you ask the question "how to...?". The brainstorming session then consists of finding different solutions for that question.

The first brainstorming session was done with two students and me. This session was mainly about how the user needs from the previous chapters could be met. The prompts that were used are:

- *How can you facilitate relaxed digital reading?*
- *How can you create an overview of articles in a mobile application?*
- *How can you facilitate serendipity?*
- *How can you make it easy to find favourite articles, journalists, and topics?*

The second session was done with one employee of *DPG Media* and a student who is also doing a graduation project at *DPG Media*. This brainstorm session was mainly focused on the interactions that

could be used to give readers an overview and help them see connections, and make articles seem less stand alone. Furthermore, we all brainstormed on six ideas in five minutes. Afterwards, we discussed our ideas and decided on which ideas to continue brainstorming. We then passed along those ideas to explore them further, thus building on each other's creativity. In the second brainstorming session, the prompts were:

- *How can you clarify the relationship between articles?*
- *How can you support the social component of a newspaper in an app?*
- *How can you facilitate serendipity in a digital application?*

I also brainstormed by myself, trying to find solutions to user needs and figuring out what kind of interactions could fit with my interaction vision. Brainstorming was done mainly by asking How To questions as well. I also used the input from the two brainstorming sessions as inspiration and combined several ideas into the ideas I elaborate on in the following paragraphs. Finally, I tried to combine all ideas into one concept design where the requirements and criteria stated in the design brief were met and that the fit with the interaction and digital vision is considered. The results from the brainstorming sessions that were used for the design are explained in Section 8.2.

8 Ideation and concept design

8.2 Ideas

From the brainstorming sessions, the following ideas were deemed to have potential and will be described; Dossiers, Following topics, sections and people, Challenges, Finding connections, and Personalisation.

8.2.1 Dossiers/files

They are solving the problem of overview and connection between articles. Using a file system could provide the reader with context. Having such a system will make it easier to get an overview of all important developments within a topic. It can also give an article more context and make it easier to understand in which context an article was written. Additionally, users could be able to build and share their own files, giving them more control in how they organise articles.

8.2.2 Following topics, sections and people

Giving readers the ability to follow topics, sections or journalists can make it easier to find articles that they want to read. It is important to note that this should not be the app's primary focus but only a small section.

8.2.3 Challenges

Setting out challenges is a fun way to guide users through the jungle of articles that exist. Below some examples are given.

The deep dive

The deep dive is designed to help readers become more knowledgeable about a certain topic. It takes them by the hand in a guided journey into a specific topic. The articles start out generic but become more complicated and expert along the way. For example: Joining the Chief Science in diving into the world of *AI*, going on a deep dive together where you learn about a certain topic together with *de Volkskrant*.

The escape

Finding hidden connections in articles to guide readers through a story that is built of different articles. A fun and casual way to show readers that an article is not a standalone product but that the connections are as important.

Preparing for the future

Helping readers to start exploring a topic before they actually need the information. Using the example of elections, this could be done by starting a challenge a few weeks before the actual elections in which the readers is taught about all the parties and their different ideas.

8.2.4 Finding connections

One of the challenges for digital is that articles are separated from their context. In the digital products of *de Volkskrant*, all articles seem to be individual stories. However, in print, these articles are often intentionally placed next to other articles. Being creative with various overviews of the article's context could help users to see the bigger picture.

There are several ways in which you could do this. Two examples;

Network overview

A network overview shows how articles are connected and why. This makes it easier to see the context of an article at a glance.

Timeline overview

A timeline overview gives the user a chronological overview of articles within a particular topic. This makes it easier to understand how a certain situation came to be.

8.2.5 Personalisation

By having some aspects of personalisation, you can support the reader by making it easy for them to find the articles they want to read anyway. Being, for example, able to follow a journalist or a comic makes the user always know where to find their favourite articles.

8.2.6 Must-haves

Of course, there are also some easy and obvious solutions for the application. These were brought up by participants in user research and by *de Volkskrant* and *DPG Media* employees. The *DPG Media* design and development team already knows some of these. They are listed below.

- Dark mode
- Changing text size and background colour for a better reading experience

8 Ideation and concept design

- Save for later and article history to make it easier to find articles you have previously seen or read
- A functioning search feature

8.3 Bringing the ideas together - The Concept

The idea behind the application is that it guides you through the news and the available articles. The curating role of *de Volkskrant* plays an important role in this. This is reflected in the Dossiers in which relevant articles on one subject are bundled. In the overviews, you get the opportunity to see a timeline of important events, and you can see how an article compares to other articles. This way, you get a better overview of the total picture, and articles are less isolated. The challenges are also a way to challenge readers to get a complete picture of a situation or to dive into a specific topic. Furthermore, sharing articles and building and sharing Dossiers ensures that *de Volkskrant* also supports social interaction. In Figure 26, an overview of the design can be seen. In the following pages, the specifics of the application will be explained further.

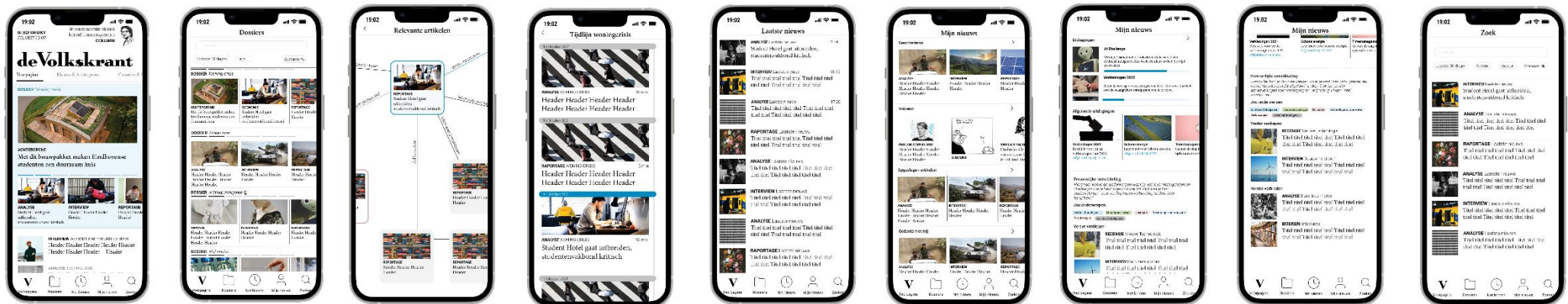


Figure 26 Overview of the concept app

8 Ideation and concept design

8.3.1 Homepage

In this concept, you see one extensive article with relevant articles below on the front page. These can be older or recently written, but they are all about the same topic. This way, you can immediately place an important event in a broader context. The rest of the front page is pretty much the same as you are used to, only it is now presented as a list. This way, you can see more articles and have a better overview of the news of the moment. Also, these are not necessarily the last articles, but here are the articles that *de Volkskrant* editors consider to be the most important.

A large Dossier on the frontpage provides the reader with context. I also allows the reader to get a quick overview about a certain topic since a gallery view of relevant articles is shown below the main article

A list view makes it possible to show more articles on one page

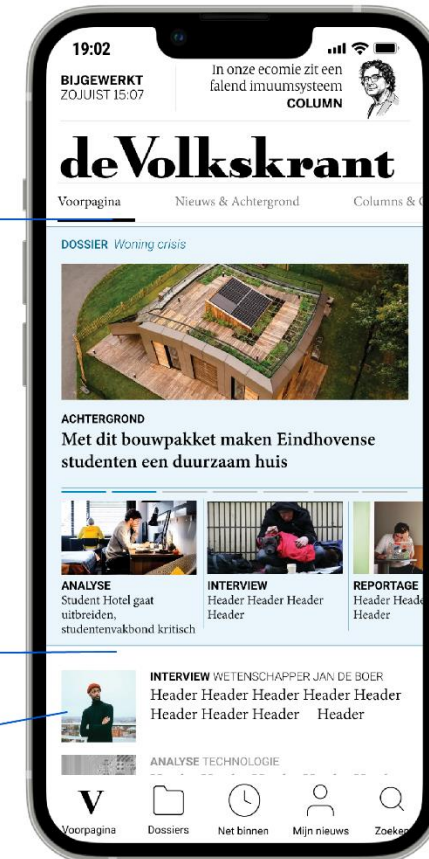


Figure 27 The homepage

8 Ideation and concept design

8.3.2 Just in

The Just In page is a page where users can easily see the news that has just come in. Therefore, making it easier to get a quick update.

By using a list view as many as possible article can be shown at once. Therefore the Laatste Nieuws page can provide readers with an impression of the current state of affairs.

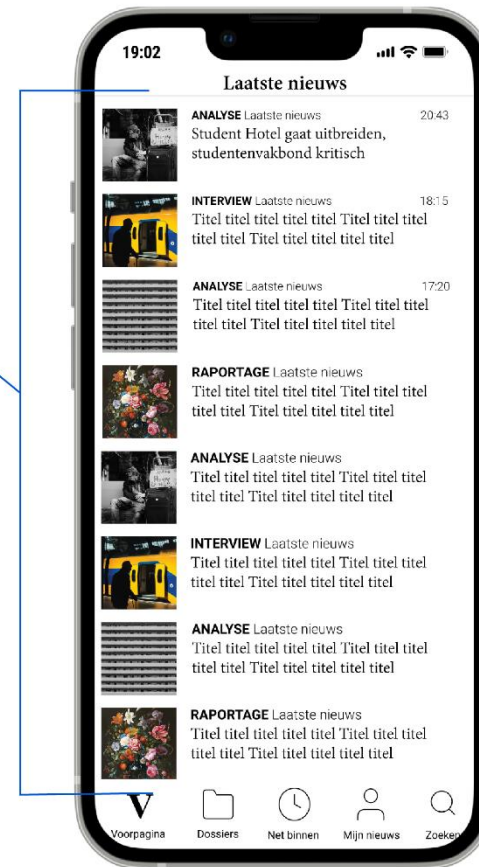


Figure 28 The just in page

8 Ideation and concept design

8.3.3 Dossiers

On the Dossiers page, articles are collected by subject. This makes it easy to read more about one topic. This way, you can easily dive into a subject. Dossiers are also recommended at the bottom of articles so that after reading an individual article, you will see a selection of relevant articles, and it is also clear why they are relevant.

The search function makes it easy to find the Dossier about a specific topic. A filter function was added to make it easy to sort and select the type and topic you are looking for.

The Dossiers are shown in a way that makes it easy to see many articles as well as multiple Dossiers. This hopefully provides the reader with a sense of overview

A menu button makes it easy and quick to switch between pages

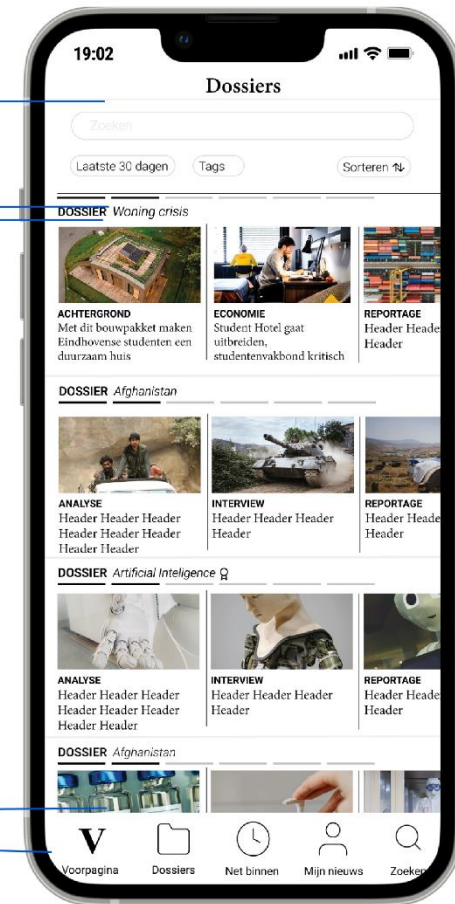


Figure 29 the dossier page

8 Ideation and concept design

8.3.4 Challenges

By means of challenges, you can deepen your knowledge of a subject in a very measured way. This can also be linked to future events like elections. For example, a challenge guides you through the abundance of articles and gives you a daily goal.

On top are the challenges you are currently participating in. Readers can also see how far they are with a certain challenge.

Seeing what challenges you have finished might create a feeling of accomplishment for readers.

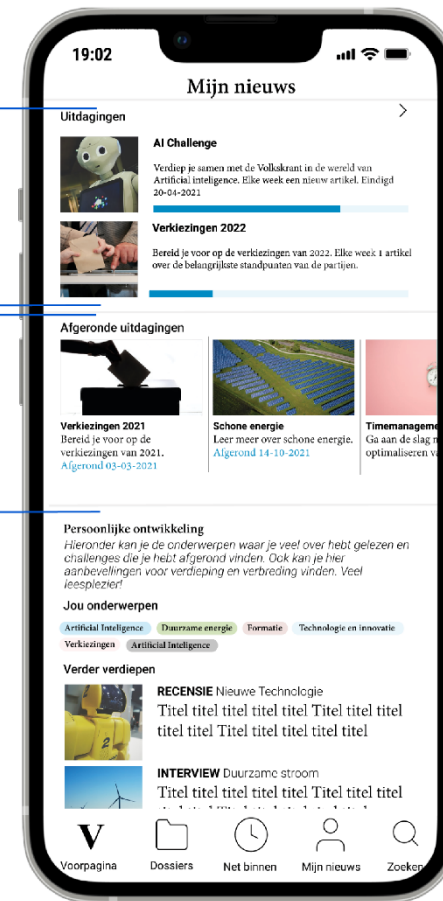


Figure 30 the challenges page

8 Ideation and concept design

8.3.5 Overviews

By zooming out, you can get a good overview of the context in which the article is located and how it relates to other articles. Here you can choose different views that can show different types of connections between articles. The concept is shown in Figure 31 and Figure 32.

The lines with topics shows the reader on why certain articles are relevant. It also shows them in which directions they can explore the overview

In the middle the starting article is shown to make it clear where the reader came from and in what overview he is.

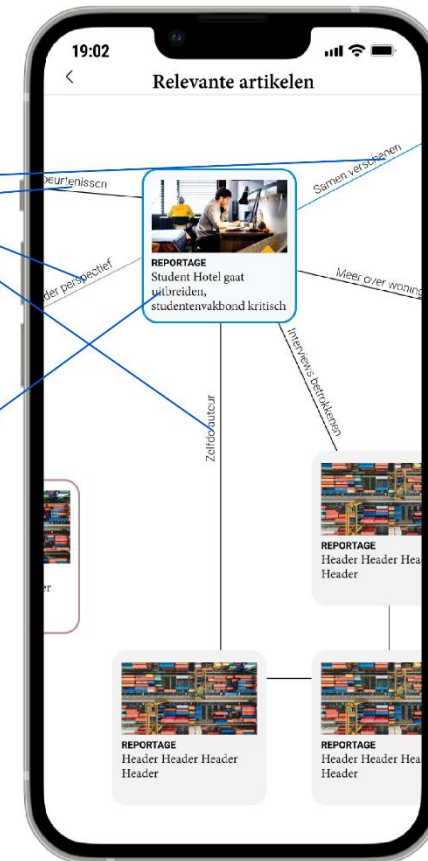


Figure 31 the spiderweb overview

8 Ideation and concept design

Showing the date, headers and picture of an article provides the reader with an overview of how a certain topic developed.

The highlighted article show the reader where they came from in the timeline. This helps to put the article they have just read into perspective

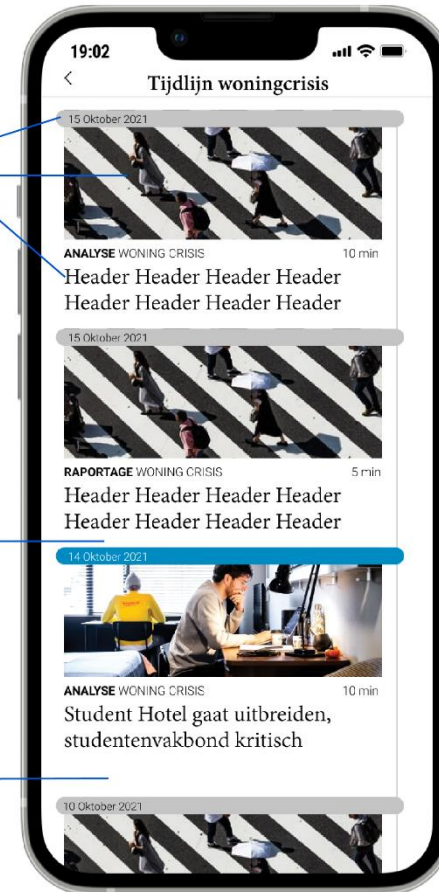


Figure 32 the timeline overview

8 Ideation and concept design

8.3.6 My News

The for you page lists all the topics and authors you follow and their latest articles. You can also find the challenges here and see which ones you have already achieved / how far you are. The concept is shown in Figure 33 and Figure 34.

Geschiedenis enables readers to see what articles they have read. Finding back articles after you have read them is therefore much easier

Enabling readers to follow specific authors and/or topics makes it easy to find your favourites and enables you to always see when they wrote a new article

Saving articles makes it easy to find articles you were unable to finish and finish late but als to save articles you really like to maybe look back at at a later time.

Seeing what articles have been shared with you and by whom give a social aspect to the app. It also makes it easy to find articles that have been send to you by friends.

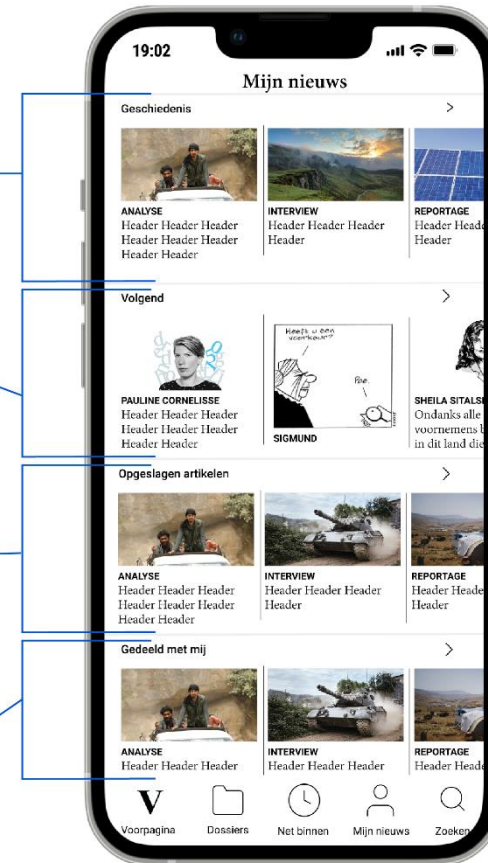


Figure 33 the my news page

8 Ideation and concept design

This short explanation of the feature explains the reader how this feature works and what it can do for them

Jou Onderwerpen shows the reader what topics they read about most often. It provides them with an insight on their own reading habits and can thus help them to reflect on their own behaviours.

Verder verdiepen shows the reader more articles about their favourite topics. Thus providing them with a list of articles they probably will like and making choosing an article easier

Kennis Verbreden shows the reader articles with topics they do not often read but of which the de Volkskrant thinks are important to know about. This enables readers to explore new knowledge without having to put in too much effort. It also enables them to step outside their own news/filter bubble, which is something the de Volkskrant readers find important

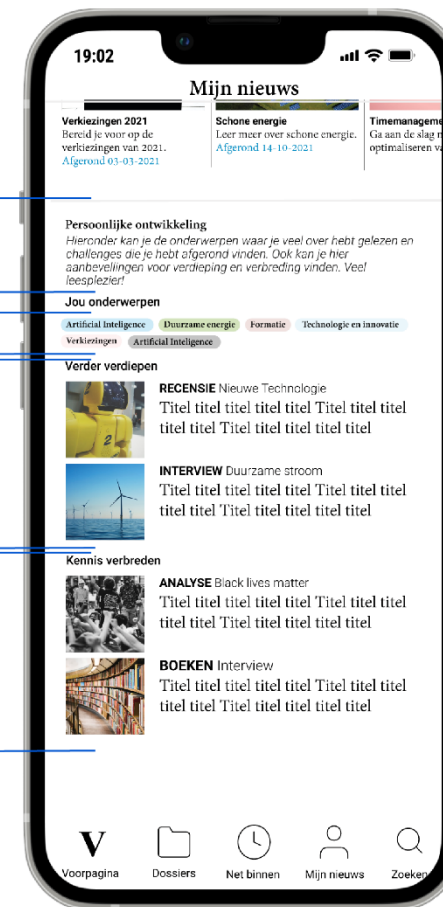


Figure 34 the personalised section of the my news page

8 Ideation and concept design

8.4 Conclusion

In this chapter, a concept for a mobile app was developed. During the ideation phase, insights gathered in the previous chapters was used as brainstorming prompts. In the next chapter, the design is evaluated by readers and stakeholders. This was done to find if the designed concept has potential and if it is a good direction to explore further.

9 Concept Evaluation

To evaluate the interaction concept, user and stakeholder evaluations were performed. Firstly, to get insight into the potential of the design from a user perspective, a user evaluation was carried out, see Section 9.1. Additionally, a stakeholder evaluation was performed as well to gain insight into the implications the design might have on the *DPG Media* and *de Volkskrant* organisations. These two evaluations result in feedback on the design and insight into the potential organisational and feasibility issues.

9.1 User evaluation

The user evaluation was carried out to assess the potential of the interaction concepts and find how and if the interaction vision/design brief connects to the concept. The evaluation result will be recommendations for further development and refinement, which will be used to create a final design, shown in Chapter 11.

Questions to be answered:

To what extent does the concept fit the users' needs and expectations?

- Which needs does it meet?
 - How does it meet those needs?
- Which needs does it not meet?
 - Why does it not meet those needs?
What is the cause?

Which elements of the concept are considered positives/strengths?

- Why?

Which elements of the concepts should be improved?

- Why?

To what extent does the concept fit the brand of de Volkskrant?

- Which elements fit?
 - Why do these elements fit the *de Volkskrant* brand?
- Which elements do not fit?
 - Why do these elements not fit the *de Volkskrant* brand?

To what extent does the concept add value compared to other news apps the participant is already familiar with?

9.1.1 Method

I answered the questions above by doing early concept evaluations with six participants. The evaluation was done through Zoom using an online prototype in *Figma*. The general setup was that there are three steps participants go through:

1. *explore*
2. *show*
3. *explain.*

In the first phase, participants are free to explore the app in their own way. Then they are shown all the parts of the app and asked questions about it. Then the underlying ideas of the app parts are explained, and the participant is asked questions about the connection between the idea and the concept. The interview guide can be found in Appendix C – Interview guide concept evaluation. The prototype

9 Concept Evaluation

that was used during the evaluation can be found [HERE](#).

Finally, participants were asked to fill out an *AttrakDiff* questionnaire, which evaluates the hedonic as well as usability aspects of the app. To assess the attractiveness of the design, it uses the format of semantic differentials. The questionnaire consists of 28 seven-step items whose poles are opposite adjectives. To simplify that a bit, it uses word pairs that are each other's opposites, for example, Confusing-Clear and Unusual-Ordinary. Each word pair is ordered on a scale of intensity. This then creates a scale value for Pragmatic Quality (PQ), Hedonic Quality, which is divided into Identity (HQ-I) and Stimulation (HQ-S) and Attractiveness (ATT). It then uses the outcomes for each of these factors to determine if the design is desired by users. (Hassenzahl, 2003, 2009; User Interface Design GmbH, n.d.). The *AttrakDiff* results of the design are shown and explained in Section 9.1.5.

9.1.2 Data collection and analysis

All interviews were recorded with audio, video of the participant and video of the participant's interactions with the prototype. To analyse this data, all interviews were listened back to, and the most interesting and important quotes were written down. These quotes were then interpreted and clustered. These clustered insights were then used to write recommendations for further development, and some were implemented in the final design.

9.1.3 Sample

Six participants were selected to participate in the user evaluation (see Table 5). Similarly to the user research, all participants are currently subscribed to *de Volkskrant* and use their digital products. This is important since one research question is whether the concept fits with *de Volkskrant's* brand identity. Therefore, participants needed to be already familiar with the brand. The aim of sample selection was to find a group of participants with a diversity in age and sex. Furthermore, only people who already

have experience with digital news products were selected. Since the goal of the evaluation is not from a usability perspective but seeks to evaluate the potential of the concepts.

Table 5 Participant table of the user evaluation

Participant	Age	Occupation	Years subscribed	Gender	Subscription type
P1 (pilot)	24	Master student and working as engineer	1 year	Male	Compleet
P2	26	Master student and working as IT consultant	2 years	Male	Digital
P3	19	Bachelor student	Through parents, since forever	Female	Weekend
P4	26	Strategy consultant	No Subscription, reads an article every once in a while	Female	-
P5	54	Organisational strategy and legal consultant and trainer	25 years	Female	Compleet
P6	60	Retired and Public Relations Consultant	20 jaar	man	Weekend

9 Concept Evaluation

9.1.4 Findings

Important to note is that if a participant did not talk about a certain feature, strength, or issue does not mean that he does not share the opinion. The evaluation of the concept was mostly targeted to evaluate the general concept and not all the details. The general attitude towards the design was positive, with some small remarks. Most interesting were the comments about the importance of the homepage. I underestimated this and will, therefore, take it as one of the main points of improvement for the final design.

The homepage

The homepage was the page that got the most critical feedback. As it turned out, for many participants, the front page of the application is the most important page. Many noted that the large Dossier on the front page gave less of an impression of the current state of affairs and that I need to find a balance between giving an overview of a topic and an overview of the moment.

Strengths

Knowing that the news you are seeing is up-to-date
.....

The homepage is the most important page in the app.
.....

Seeing an article in perspective and connected to other news
.....

"I think it is nice because you immediately are able to see relevant and connected articles that might be interesting as well"

Seeing more articles at once
.....

Issues

Why is this article shown above? In general, why is a certain article relevant to read?
.....

The banner takes up too much space
.....

Unclear if news is most important (curated by the Volkskrant) or recent
.....

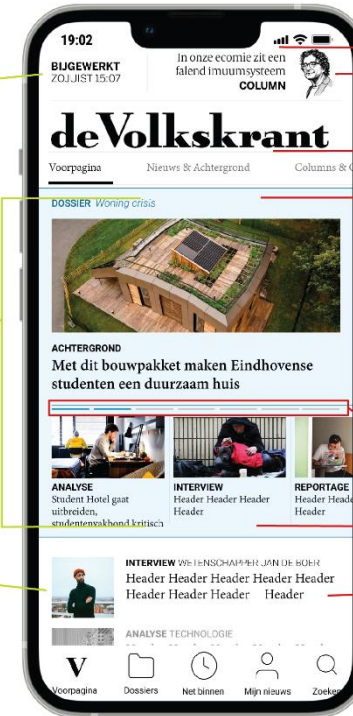
The "dossier" takes up too much space
.....

"I just want to see what is happening right now, what I missed and what is most important"

Progress bar is too small to notice, participants did not connect the bar to the amount of articles in the dossier
.....

Being overwhelmed by all the articles
.....

Most recent news is missing on the homepage
.....



- Number of participants who talked about a certain strength or issue.
- Participant talked about it.
- Participant did not talk about it.

Figure 35 Strengths and Issues of the homepage from the user evaluation

9 Concept Evaluation

Dossiers

The Dossiers were received positively by the participants. However, some noted that they were unsure of how often they would use the feature, which is why some thought that the feature was shown too prominently in the app. They would prefer if the features were hidden away a bit and occasionally brought to their attention. Places they would value dossiers were at the end of an article or as a bundle for an ongoing topic such as the war in Ukraine or the Covid-19 epidemic. In Figure 36, a more detailed overview of the Strengths and Issues of the feature can be seen.

Strengths

Nice to see an overview of important articles within a topic
.....

Being able to search for specific dossiers
.....

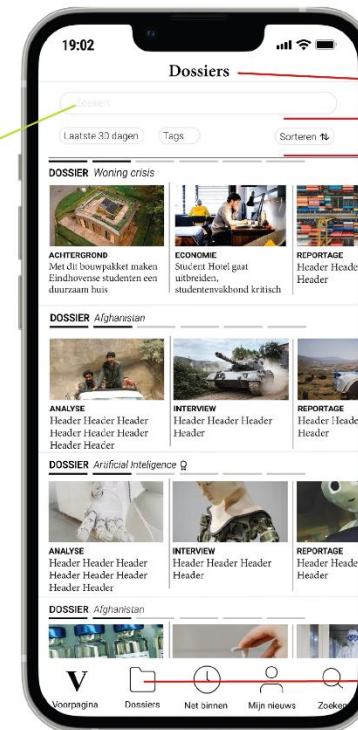
Seeing an article in perspective and in connection to other relevant articles
.....

Being able to make use of the Volkskrant archive fits a digital product perfectly.
.....

Being able to do a deep dive into a certain topic
.....

Adds value to the app.
.....

"Dossiers make the app more special and stand out from other news apps."



Issues

The name Dossiers sounds like "homework"
.....

Participants do not understand the filter functionalities, especially tags.
.....

Unclear how the Dossiers are organised.
.....

Unclear if these are all articles written about a topic or if these are the most important articles.
.....

An overview or summary page for each dossier explaining which articles are included and why could be nice to understand the dossier better.
.....

Dossiers do not fit the readers reading habits.
.....

"I do not think I read the news often enough to really read everything in the dossiers."

In general, dossiers get too much focus in the app. Can be hidden away a bit since some participants do not see themselves use this feature very often.
.....

Figure 36 Strengths and Issues of Dossiers from the user evaluation

9 Concept Evaluation

Just in

There was little that participants did not like about the design of the Just In page. However, it did become clear that they would prefer that this information is on the front page as well. They want to see what is happening in the world the moment they open the app. In Figure 37, feedback on the design is shown.

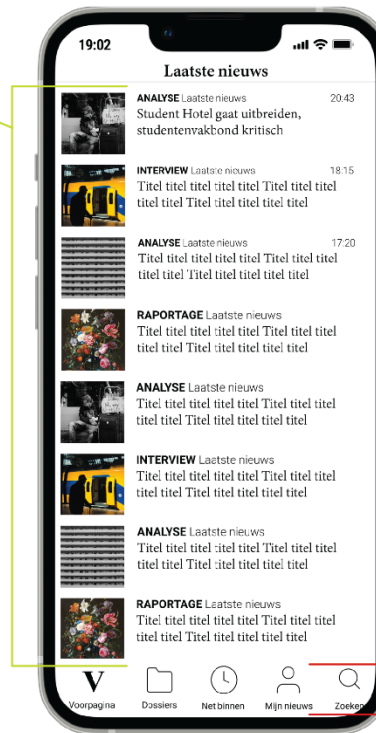
Strengths

Seeing the news that is just in all at once
.....

Supporting the need for a quick update
.....

"With the Volkskrant you often get served a three course meal but sometimes you just want a cookie. Sometime I do not go to the Volkskrant because I know I won't find that cookie there"

Issues



"In the end, of course, it is also a news service. So you just have to have those new articles somewhere on the front page."

hidden away too much, participants noted that the most recent news is what they also want to see on the frontpage
.....

Figure 37 Strengths and Issues of the Just In page from the user evaluation

9 Concept Evaluation

My news

The my news page is completely new in the *de Volkskrant* products. Participants were positively surprised by this feature. They noted that they really like that it enables you to save and find back articles you read before since it often happens that you read something and later want to share that article but cannot find it anymore. The name "Geschiedenis (History)" was confusing to readers since some initially thought that meant their favourite topic was History, and that was why it was on top of the page.

The social functionalities such as being able to create Dossiers together or share articles and Dossiers within the app was thought to be an interesting feature for many, they were not sure how this would work out practically, and they also were not sure how often they would use that feature.

Additional feedback I received on the design can be seen in Figure 38.

Strengths

Seeing what articles you have read makes it easier to find articles back.

Being able to follow journalists, columnist and topics

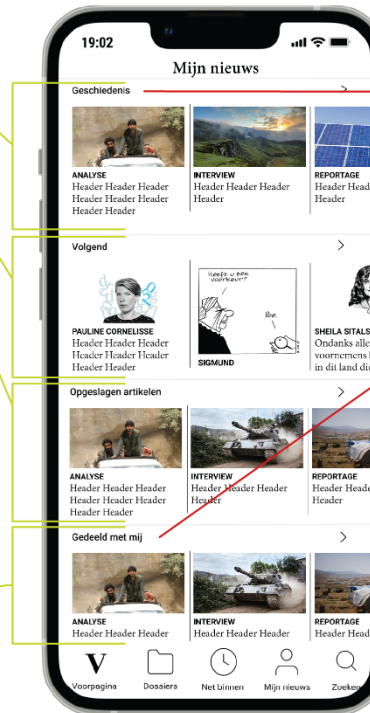
Being able to save articles you really like.

By following you can prevent that readers rely on other platforms (twitter, print) to find certain regular section and thus make it easier.

Features for which you need to take action (click save, read an article, follow a topic or journalist) fit well under the Mijn Nieuws header.

Being able to make and share Dossiers

"I just want to see what is happening right now, what I missed and what is most important"



Issues

The wording of Geschiedenis can be confusing. Some thought Geschiedenis was a topic and not your article history.

Organising articles in dossiers was a bit too much for some participants, others liked to have the option to organise the articles they saved to be able to share multiple articles at once with friends.

Unclear how "gedeeld met mij" would work and if this functionality would only work with people who also have a subscription.

"Shared with me... are those the people who also have the VK and share things with me within the app? Or is this also when someone forwards articles to me via whatsapp?"

Hidden away too much.

Following needs a page with all the topics and journalists you are following.

Sometimes it is unclear if a feature work by taking action or if the app does it automatically.

Figure 38 Strengths and Issues of the My News page from the user evaluation

9 Concept Evaluation

Challenges

Within the My News page, the Challenges are also presented. Participants noted that since the challenges were so hard to find, they doubted if they would use them. They liked the idea but noted that the feature should have an easier to find place for them to use it. Additionally, they say they would then prefer to get a notification whenever a new Challenge article is released.

Especially the Election use case was very enthusiastically received by participants since they recognised themselves in the fact that they always start too late with looking into what they want to vote. So for specific topics, the Challenges could definitely work. In Figure 39, other feedback on the design is shown.

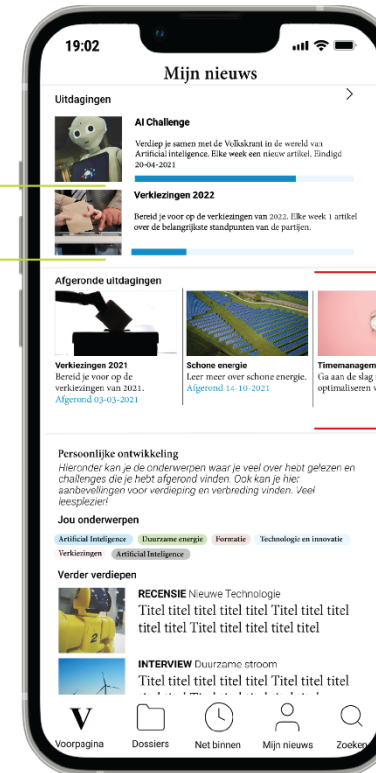
Strengths

Fun and helpfull, depending on the topic and usecase.
.....

Articles written especially for a challenge could enable the reader to learn something new
.....

The election usecase was a favourite.
.....

"That it probably helps you, in the case of the elections, to make a decision earlier. And that you actually learn new things. I would therefore expect the articles to be of high quality and that it highlights multiple perspectives."



Issues

At first glance it is unclear what challenges are exactly
.....

Finished challenges are not relevant enough to show on this page, can be hidden away more
.....

Challenges need to have a more prominent place to convince readers to participate
.....

"I would expect to get a notification when a new challenge article comes out, maybe on the frontpage."

Too much effort
.....

Very similar to dossiers, hard to see the differences
.....

Figure 39 Strengths and Issues of the Challenges page from the user evaluation

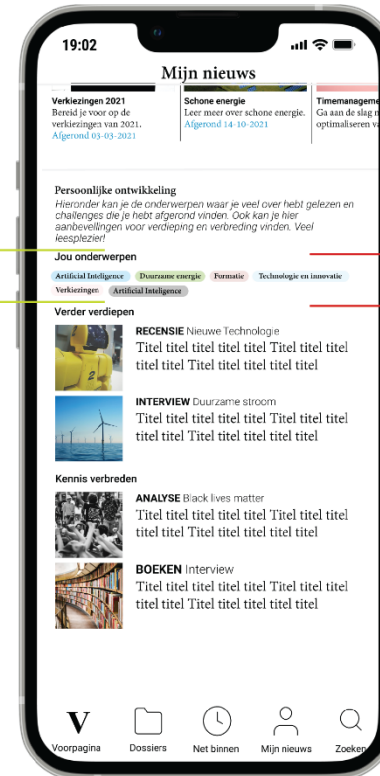
9 Concept Evaluation

Personal Development

The Personal Development page was hard to understand for the participants. They almost all needed an explanation to understand what this feature actually does. Some really liked the idea, and others were turned off by the fact that this means the *de Volkskrant* will track their reading habits. They felt like their privacy would be invaded, and they did not feel comfortable with the idea that *de Volkskrant* knows what they like and do not like. Of course, tracking users is not something new but using this in a feature makes it very apparent that this happens and, therefore, participants felt like they were not completely in control. A solution for that might be that readers themselves have to select their favourite topics, make it easy to turn this feature off and/or make it easy to remove topics the app thinks you like. Giving them control over this feature makes it a little less scary. Other feedback in the design of the Personal Development page can be seen in Figure 40.

Strengths

- Being conformed and encouraged to get out of your bubble
- Deepening your knowledge on your favorite topics
- Getting insight into your reading habits
- Getting recommendations you will probably like since they are based of your reading habits.



Issues

- Lack of control over the data that is gathered on your reading behaviour
- Participants want to have the ability to add or remove tags from Jou Onderwerpen.
- "You should also be able to throw out topics again, if I'm briefly interested in a topic I don't want it to stay there forever."*
- The most read topic tags are unclear. Participants thought these were tags they selected themselves or that when they would click on it would get a recommendation about that specific topic.
- Hidden away too much and therefore something participant stated they would probably forget to use.

Figure 40 Strengths and Issues of the Personal Development page from the user evaluation

9 Concept Evaluation

Overviews

Networked overview

The overviews were also enthusiastically received by participants. They liked that it made the connections between articles more visible and provided them with some context to make it easier to get an overview of a topic. In Figure 41, other feedback on the design is shown.

Timeline Overview

The timeline was also received positively. Although there were some things that could be improved from a visual/graphic design perspective. The functionality of the features was really liked. The timeline was liked because it enables users to see what other articles have already been written about a certain topic and thus get an idea of how a topic has developed over time. In Figure 42, additional feedback on the design is shown.

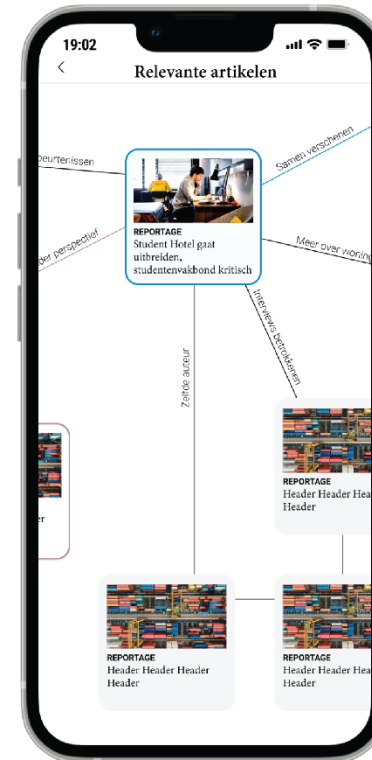
Strengths

Having an overview of articles
.....

Having an overview is good to get a sense of the context an article is written for.
.....

Very enthusiastic reaction by all participants
.....

"I would definitely use this, it gives an extra dimension to consuming news. You are not mindlessly reading article after article but you are mentally busy with seeing connections between articles and in that way also gain knowledge in a different way than only the latest news. You are mentally making a picture of the entire housing crisis, who knows, there may also be advantages to the housing crisis or something."



Issues

Graphic design could use some work to make it more easily readable on mobile.
.....

Fits best with Dossiers. Can be a bit too overwhelming to include the feature for all articles.
.....

Hard to find the feature.
.....

Could use some explanation for the first use.
.....

It is important to keep the amount of articles manageable. Meaning that the overview should be a curated selection of most important articles
.....

Figure 41 Strengths and Issues of the Overview Network page from the user evaluation

9 Concept Evaluation

Strengths

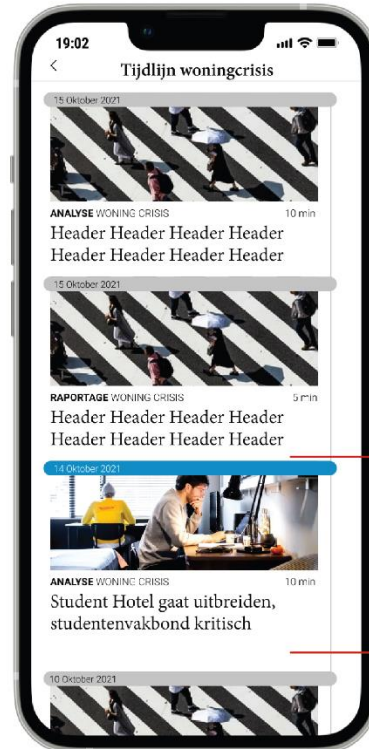
Places the article in perspective, relative to other events in the timeline.
.....

Makes it easier to understand how something came to be and see the bigger picture.
.....

Reading the headers is enough to get a feeling for the whole topic, it provides an overview.
.....

"For the overview in your head, to see what's going on. But the headers are enough I probably will not read all the articles."

Adds value to the app.
.....



Issues

Participants did not understand the difference between dossiers and the overviews.
.....

It is unclear that the highlighted article means that you came from there.
.....

Figure 42 Strengths and Issues of the Overview Timeline page from the user evaluation

9 Concept Evaluation

Search

The search function is a basic feature in most news apps. Participants liked the idea that the function already showed some articles, even before you started searching. Some noted that it might be interesting if a random search query would have been filled in for you, so that you are shown articles you would not have found otherwise. Furthermore, the search function is a staple in any news related apps, participants stated that they want to be able to search for topics and authors easily. The filters use in the design could be a bit more clear, some were confused about them but its also possible that this was mostly confusing because it is not a fully functioning product yet. See Figure 43 for all remarks.

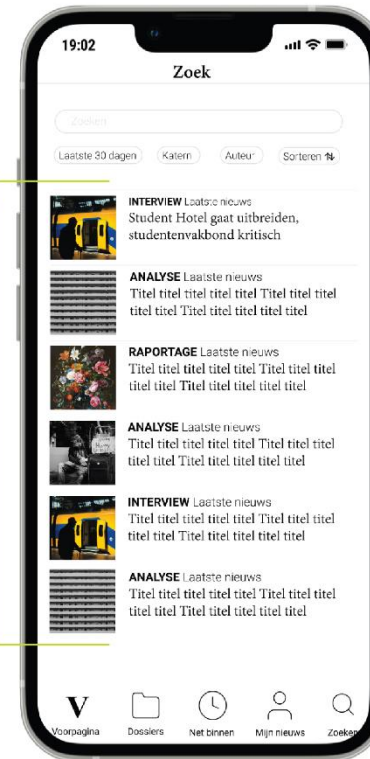
General remarks

Some feedback from participants was not about any specific feature within the app but more about the general appearance or interactions in the app. For example, participants noted that the app was quite busy and overwhelming, therefore, a redesign should aim to make the app calmer and more well-organised. Furthermore, they also noted that The homepages is very important, more important than initially anticipated in the design. Therefore, this should definitely be improved in the redesign. Participants want news snacks as well as relaxed reading, realistically, the snacking is done most through the app. The weekend print newspaper remains popular especially with the argument that they read to relax, and that print is a more suitable medium for that.

Strengths

Nice to get articles recommended before putting in a search.
.....

Having a well functioning search feature makes people feel less overwhelmed and more in control.
.....



Issues

Not being able to search for articles as well as dossiers.
.....

Figure 43 Strengths and Issues of the Search page from the user evaluation

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9.1.5 Attrakdiff results

The result from the *AttrakDiff* questionnaire was very positive. In Figure 44 and Figure 45, the results are shown. In Figure 44, the outcome of average values can be seen. In this figure you can see the four qualities; Pragmatic Quality (PQ), Hedonic Quality – Identity (HD-I), Hedonic Quality-Stimulation (HQ-S) and the Attractiveness (ATT). All of these qualities together can determine if the design is desirable. (Hassenzahl, 2003, 2009) The results I got from evaluating the design suggests that the design fits with the users expectations and desires, meaning it is evaluated positively by the participants. In Figure 45, these results are then combined to show the total outcome of the *AttrakDiff* analysis. Since the confidence rectangle is small there is consensus is big, they agree with each other. The boundaries are within the desired field meaning the design can be classified as desirable. There is, therefore, little room for optimisation according to the *AttrakDiff* results. This might mean that the design has potential and is a the right thing has been designed which might suggest that the concept might be at the MAYA sweet spot; Most Advanced Yet Acceptable. This means that the design is not too far from what participants are used to yet innovative and new enough to be interesting.

The only quality that is a bit lower is HD-S, this is partly because participants place the design in between cautious and bold. As such, there is room to be a bit more bold and experimental in the redesign. However, this is not necessarily needed for the design to be more desirable.

Appendix D – AttrakDiff shows all the word groups and corresponding outcomes.

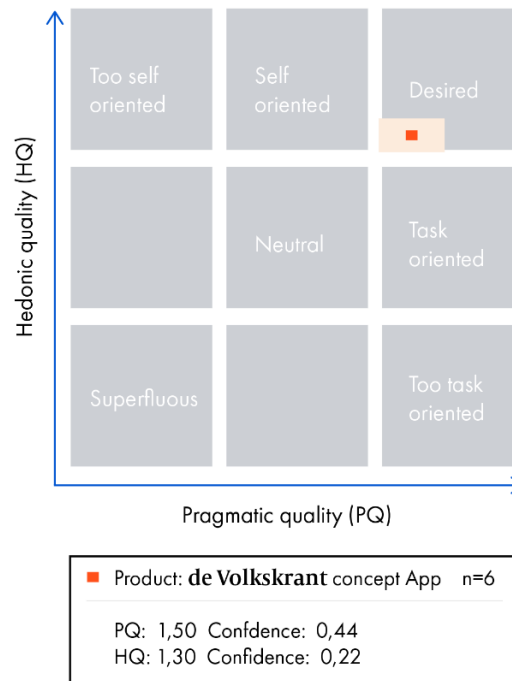


Figure 45 AttrakDiff results; Portfolio Presentation of the App Design

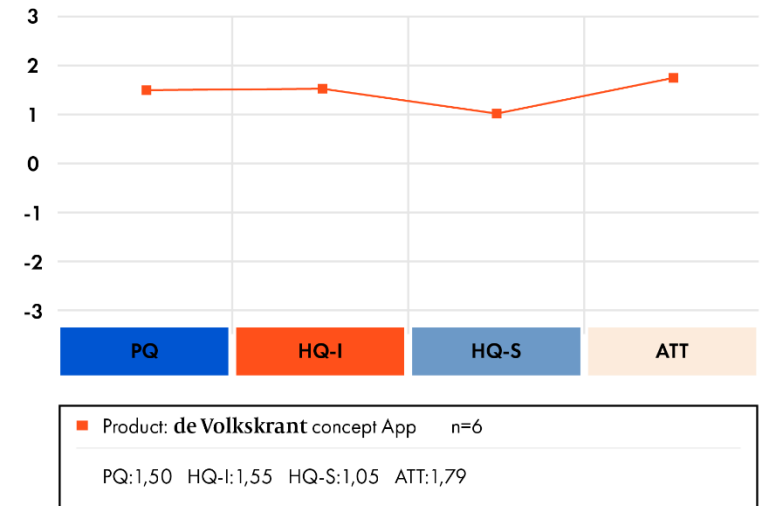


Figure 44 AttrakDiff outcome of average values

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9.2 Conclusion user research

From the evaluation, we can now answer the research questions from Section 9.1.

To what extent does the concept fit the users' needs and expectations?

Although the concept was received positively, there was one big issue with the current design. Participants expect an update feature on the front page. The design was primarily focused on supporting longer reading sessions and deepening and broadening knowledge. However, not all participants want this. Most want to know what they missed and why the articles that *de Volkskrant* recommends are important. Thus, an iteration on the design should mainly focus on the interactions between the fast news update and diving in to deepen and broaden your understanding of an issue.

Which elements of the concept are considered positives/strengths?

This question is already answered mostly in section 9.1.4. A few important takeaways are:

- Participants were enthusiastic about the overview pages. They stated that these pages enrich the news, placing articles in context and providing them with a visual overview of the connections between articles.
- There is also another reading style that is important for readers and is not focused on the news at all. Many participants stated that they subscribe to *de Volkskrant* for the columnists that

write for *de Volkskrant*. Being able to follow your favourite writers perfectly supports that need.

Which elements of the concepts should be improved?

The element of the design that needs the most improvement is the app's homepage. During the design phase, I underestimated the importance of the front page. This page is central in the readers' use and, for many, the only page they open. Therefore, the most important articles should be shown on the front page. During the evaluation, it became clear that participants expect both a news update and curated news on the front page. Furthermore, some participants noted that the app was quite busy and overwhelming. Therefore, a redesign should make the app calmer and more well-organised.

To what extent does the concept fit the brand of de Volkskrant?

All participants thought the concept and the features fit the *de Volkskrant* brand very well. Only the Challenges was a maybe for some. Participants stated that the element fit because it supports the interactions they expect from *de Volkskrant* to help them understand the news better.

To what extent does the concept add value compared to other news apps the participant is already familiar with?

As also found in the user research chapter, readers create their own news mix in which each brand fulfils a different function. However, because participants expect *de Volkskrant* to be slow, they gravitate to

other brands such as *NU.nl* and *NOS* or *Teletext*. This would suggest that improving the speed at which *de Volkskrant* brings news could convince people to use *de Volkskrant* mainly. For now, people still state that they will probably use other news brands next to *de Volkskrant*. However, the Overviews provided a unique user experience that participants could imagine would give *de Volkskrant* an advantage. In the next chapter, the concept design was evaluated with stakeholders to understand the organisational implications of the design.

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9.3 Stakeholder evaluation

To evaluate the implication of the proposed design on the organisation, a stakeholder evaluation was also conducted. This evaluation focussed on the opinion on feasibility and the potential of the concept of two internal stakeholder from *DPG Media* and *de Volkskrant*.

9.3.1 Method

The stakeholder evaluation is a simplified version of the user evaluation. The goal is to find out if there are any limitations in the organisation that should be considered for the design. Furthermore, the stakeholder evaluation is done from two perspectives, that of a designer and that of a CDI researcher, meaning that I wanted to gain insight in both the qualities of my design as well as in the expected organisational limitations, issues and recommendations that implementing the design would trigger.

9.3.2 Approach

The stakeholder evaluation was carried out by doing One-on-one interviews through Zoom. The design was presented through screen sharing, and the participants interacted with the prototype on their computers (they were sent a link for web access). The interview was semi-structured, and if an interesting topic arose, time was taken to explore that direction. The interviews focussed on answering the following questions:

- *What are the strengths and issues of the concept from the perspective of DPG Media and de Volkskrant?*
 - In what elements of the design do the stakeholders see the most potential?
 - Which of the features are feasible?
 - Which of the features are not feasible, and why not?
 - What are the issues to take into consideration?
- *What is needed on an organisational level to realise the design?*

9.3.3 Sample

To evaluate the design with stakeholders, I also interviewed the creative director of *DPG Media* and the editor-in-chief of *de Volkskrant*. I wanted to get insight from both a *DPG Media* and *de Volkskrant* level. Therefore, I asked one person from each organisation.

Table 6 Stakeholder evaluation participants

Participant	Job description	Organisation	Department
1	Higher management	<i>DPG Media</i>	Digital Innovation
2	Higher management	<i>De Volkskrant</i>	Volkskrant Digital

9.3.4 Insights

From the two evaluation interviews, some insights could be gathered. These are introduced and explained below.

Overall

Both participants were enthusiastic about the design. Especially the “voor jou” and “dossier” features were positively received. Since they enable readers to get a feel for the context in which an article was published and see what other articles were published around the same topic, it creates a more coherent product in which articles are more connected, like a print newspaper. The most considerable doubt was around the social aspects of the design since this requires quite a lot to change in the app's infrastructure to enable users to find each other. Both stakeholders think the design is feasible and can add value since it offers users several ways of getting insight into the context and coherence of articles. There were not any specific issues either of them worried about. As for implications, some changes will need to be made. Especially the

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overviews require extra work from the *de Volkskrant* employees since each dossier should be constructed and connections between articles will have to be added by hand. Furthermore, an app in general is more work to maintain since user expect the digital products to be “alive” meaning that it gets updated throughout the day to show the most relevant articles. Below the feedback on each of the app's main features is elaborated on.

Frontpage

The frontpage is very similar to how it is designed now. During the interview, it became clear that the designers of *DPG Media* are also working on a solution to include a news update on the front page. Both, therefore, suggested that for the redesign, they would be interested in how I would tackle that challenge. Neither of them foresaw significant problems with the design and were enthusiastic.

Dossiers

Both stakeholders liked bundling articles and making it easy for readers to find those bundles. They did note that the wording of this kind of functions is however important since readers quickly associate terms like “dossiers” with work whereas it should be seen as something fun and exciting. Furthermore, the dossiers also allow *de Volkskrant* to show the richness of their brand. Every day a huge amount of articles is produced. From small news articles to investigative longreads and digital specials. The dossiers allow for articles to be showcased multiple times and for longer whereas now they often

disappear quickly and sometimes get lost before people read them.

Overviews

The overviews were something that surprised both stakeholders. They liked the idea but were also worried about the practical implications, for example, who would construct those overviews or how can that be automated, and would this mean extra work for their employees? Especially the map overview means that someone has to decide which articles to link but also to come up with argumentation on why those are linked since both the article, as well as the relevance, are shown in the overview. A timeline overview is, in that sense, easier to construct since you only need to curate the articles you want to show in the timeline and put them in chronological order.

Challenges

Both stakeholders were intrigued by the idea of gameifying the app a little bit by implementing challenges. They were both excited about this idea and never considered this direction before. Although they worried a bit that such a feature would not fit with the *de Volkskrant* readers, they thought the idea was really surprising and interesting to take into consideration in the future. *“If it works for fitness apps, why wouldn't it work for newspapers?”* Especially the use case of the elections they were enthusiastic about since it is not only a feature in the app but also a new way to take the reader by the hand. Similarly to the dossiers there were worries

that readers would see it as “work”, therefore, the way in which the feature is presented is important.

For you

Both really liked the My News pages. They have already seen the need for such a function in readers and see my design as a solution to those wishes. We had an interesting conversation about the personalisation of news and being able to share articles within the *de Volkskrant* products. The first they were mostly concerned with how readers would perceive it and the second they did not immediately see how that should work out practically. Therefore, both features could be refined a little to adjust to those worries. Overall they like the concept, especially that it enables readers to save articles and go back to what they already read. Since reading from a screen also means that you get disturbed and distracted more often compared to reading print. They both saw that it could possibly make the reading experience easier since it made it easier to find specific articles. On the backend however this will also require some extra work, especially if the app allows readers to follow topics. This means that each article will have to be tagged as being part of specific topics, which will require extra work from employees. However, they did not see this as a huge concern since similar systems might have to be implemented to make the search function work better.

9.4 Conclusion stakeholder evaluation

Overall, the stakeholders were very positive and enthusiastic about the design. Especially the Dossier feature was received positively since it is a solution to bundling articles and giving readers a better overview of what is available about a specific topic. Of course, for all features, there are some organisational implications. Luckily, neither of the interviewees worried about the feasibility. However, it should be discussed with employees who will pick up the extra work and how that will fit into the daily rhythm of *de Volkskrant*. Looking at the design from a practical perspective, all features are feasible, although probably not soon since the developers are still working on implementing some basic functionalities.

- **What are the strengths and issues of the concept from the perspective of DPG Media and de Volkskrant?**
 - In what elements of the design do the stakeholders see the most potential?
 - Which of the features are feasible?
 - Which of the features are not feasible, and why not?
 - What are the issues to take into consideration?
 -
- **What is needed on an organisational level to realise the design?**

9.5 Limitations and discussion

The concept was evaluated using a prototype, and this meant that not all functionalities were working as intended. Therefore, the participants only evaluated the concept's potential and not the detailing. If the concept were to be worked out further, this would also mean that additional evaluations into the specific interactions of the features will have to be done, especially for the unique features such as the overview map. Participants liked the general idea, but since the prototype was not working as envisioned, it is hard to say if they will like it in practice. Also, in the evaluation, I tested people's attitudes towards specific features and their intended use, not actual use. It would be interesting to see how many people will use the features and how they use them. However, this is more suitable for a later phase of development.

Important to note is that the stakeholder evaluation was done with only two participants, both from higher management. To ensure that all different perspectives on the design are included, employees who will have to work with the design must be consulted and considered. In Chapter 10, I also talked to employees and how they see their organisation will have to change when their core product changes. Should the design be developed, it is important that Developers, as well as web and app designers, also take a look at the design to ensure feasibility. However, since the goal of this evaluation was mainly to evaluate the potential of the features, this was deemed unnecessary in this phase.

Take-aways for the redesign

Of course, a detailed overview of all the feedback is already given in the Findings sections of both evaluations. Still, some general takeaways can also be determined which should definitely be taken into consideration for the redesign. Naturally, I will try to resolve all the feedback I got during the evaluation but the focus will be on the following issues:

- A quick update on the front page is a must
- The network overview needs some refinement. Although the feature was generally liked by readers, it can still use some improvements from a user experience perspective
- It makes sense to combine de Dossiers and the overviews into one feature. Having an overview for each article is confusing and overwhelming but having an overview for a bundle makes sense.
- The big header on the frontpage needs to go, readers know they are in *de Volkskrant* application and rather have more articles shown than a big header.
- A Dossier on the frontpage is a bit much in the way it was done in the initial design, the feature needs to be more subtle
- The overall design can be a bit simpler and show less articles at once to make it easier to understand what you are looking at, less overwhelming and easier to read.
- Challenges can be featured more in the redesign to convince readers to actually use the feature

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- The My News page should be reorganised so that features you use often are easier to find
- Personalisation needs a better place in the app, now it is hidden away and readers might not find and use it
- Readers need to be in control of the data gathered by *de Volkskrant*, especially for the personalised features

9.6 Conclusion

The feedback received from the user and stakeholder evaluations had similarities. Some comments kept resurfacing—especially those about wanting to have a quick update feature on the front page. Therefore, I believe that a saturation point is achieved when speaking of the potential of this design. Overall, the feedback was positive, and there were few worries about the design from an organisational or feasibility perspective. Therefore, I am confident that this design has the potential to add value to *de Volkskrant* digital products. In Chapter 11, feedback from both user and stakeholder analysis is used to iterate and finalise the design. In the next chapter, the prototype is used as a probe to explore the future vision of *de Volkskrant* employees on the *de Volkskrant* organisation.

10 Organisational Intervention

Next to designing a new service for *de Volkskrant*, this research also aims to gain insight into the organisation and employees' attitudes towards the future. Furthermore, it aims to develop an intervention that can push the organisation a bit in the right direction, which is to start thinking about the future and the implications this future might have on the employee's work.

10.1 Method

To answer the research questions stated above, I will be doing interviews. In these interviews, the new app concept for *de Volkskrant* will be used as a probe, a future state of *de Volkskrant*. To discuss the future and the implications this specific future will make. Interviews were done online through Zoom calls. First, some introductory and base-line questions were asked. After getting to know the participants a bit better, the concepts were introduced. By using these concepts as examples of a future, *de Volkskrant's* future from the employee's perspective was discussed. Questions were built from the theoretical framework and the operationalisation table. Several topics were discussed. In Appendix E – Intervention Protocol and Questionnaire, the full interview protocol and the questionnaire can be viewed. The theoretical framework presented in Chapter 3 was used to construct the interview protocol and questionnaire. The interviews and questionnaire can be seen as a probe for the organisation, as an intervention. The research aims to explore the value of concepts and designs in future visioning and the future context of *de Volkskrant*.

Research questions:

How do de Volkskrant journalists think the app concept will influence their work and the organisation?

- What changes will have to be made to realise the future the concept envisions?
 - Related to professional development and skills
 - How do they think such skills or knowledge should/can be acquired?
- How will the changes made to the *de Volkskrant* application impact the organisation and the work of *de Volkskrant* journalists?

How does changing the boundary object, de Volkskrant paper, impact the journalists' attitude towards transformational change and a digital-first organisation?

- How Does the concept help them to envision the future state, a completely digital future, of the *de Volkskrant* organisation?

What changes should be made within the organisation, according to de Volkskrant employees, to realise a digital-first future?

what characteristics should the design have to help the organisation to move forward?

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10.2 Sample

Out of the eight journalists invited to participate in the research, six got back to me, of which four said they had time. Unfortunately, one cancelled last minute. Therefore, there were only three participants for the interviews, see Table 7. I aimed to have a more diverse group of people, but most interviewees had some affinity with digital and online news.

Table 7 Intervention Participants

Participant	Job description	Years working at Volkskrant
1	Data-journalist	2
2	Web editor	4
3	Higher management de Volkskrant digital	1

10.3 Insights

The interviews were clustered and coded to get insight into specific themes that play a role in the future-proofing of the organisation and what influence and impact the app's design has on the organisation. Below these themes are explained.

If de Volkskrant does not have print anymore, neither will other newspapers

The participants expect that if *de Volkskrant* cannot get profits from print anymore, neither will other brands. One participant stated: "If that [no print in five years] is the case, that will also be the case for other newspapers, especially the smaller ones. Then the whole media landscape will be digital." This means they expect that *de Volkskrant* will be one of the last to fully transition to a digital only focus. This also means that if they expect that digital competition will only grow. There is an opposition in that expectation since smaller brands will move fully digital earlier, and thus focus fully on their digital products. This also means that if *de Volkskrant* will not invest, they will be behind smaller brands when it comes to innovation and implementation of unique features and selling points. Thus, it might be important for *de Volkskrant* employees to realise that although print is still going strong now, that does not mean that they have the luxury of disregarding their digital products or seeing them as secondary. They still have the time to build a strong digital brand with unique selling points before the market gets even more crowded and other brands surpass them, stealing away readers who are increasingly looking for an optimal digital reading experience.

Not much will or needs to change

Participants see *de Volkskrant*'s strengths mainly in the kind of articles that they write. They do not see this changing when becoming an online-only brand. Neither do they think that focussing entirely on digital will change their products that much. They think it will be mostly an app and maybe the *Editie*-app. "If *de Volkskrant* were to become fully and only digital, it will be mainly the app, perhaps also the *Editie*-app. However, it will not be very different from what we do now. A continuous stream of news but with more backgrounds, deepening articles, on-location reports, which are what should distinguish *de Volkskrant* from other brands"

It is easier to talk about the future when talking about something concrete, and future visioning could thus help in designing the future organisation.

Interestingly, the conversation about the future of *de Volkskrant* and the future needs of employees, and the skills and knowledge they will need became more in-depth and specific after introducing and showing the concept design of the *de Volkskrant* app. Having an object to reflect on and think about makes the future more tangible. It is easier to talk about the future when talking about something concrete. Future visioning could thus help in designing the future organisation.

The identifying object is still print

Now, the identifying object is mostly the print newspaper, even for the more digitally focussed employees. The iconic newspaper has a stronger association with the *de Volkskrant* identity than their digital products. To convince people to become

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more digital minded, it could help if they would identify as much with the digital products as they do with the print products. Involving them in the design of the digital products and the way they will have to work with these products might help them feel ownership over the digital products.

Having this conversation about the future of *de Volkskrant* with the use of a concept made it clear how much the core boundary object influences the work of employees and the organisation as a whole. For example, now, a large part of the visual design skills and knowledge is exclusively used for print, all of which will become redundant when transitioning to digital-only. What will happen with this knowledge, and how could it also be used for digital, and consecutively, how can we already use that knowledge and skill in the current design of the app?

Redesigning the organisation to be more digital minded

However, to enable a digital mindset, the organisation does need to change. Although some changes were made in favour of digital, like hiring online editors, the organisation's focus is still on print. The interviewees all see the strengths and possibilities digital media can bring. To become successful, employees need to be able to identify with the product and feel aligned with the organisation. What became clear from the interviews is a split between the more digitally focussed and more print-focused departments. They are happy to work together but remain to have a different focus, making it harder to feel in tune with

both parts of the organisation. There is a bit of a they-and-us mentality, meaning print-focused departments are seen as slower. It is important to note that none of the interviewees suggested this was a negative thing, but just as it is.

Themes support collaboration

Within *de Volkskrant*, there are several departments who all have their specific focus, traditionally these relate to the different sections in the newspaper such as Sports, Science, Books etc. All these departments can be seen as little islands within a bigger organisation. Relating this to the theory, I argue that the *de Volkskrant* as whole is one Community of practice but rather a landsschape of practices and communities. Of course, there is also the *DPG Media* parent company which in turn adds another layer. Working together around specific themes might cause more interaction between the departments. There are two features in the app which participants noted could help them to collaborate more; Dossiers and Challenges. Talking about these specific features we discussed all previous instances the participants worked together with people from outside their departments. The specific feature, therefore, helped to think and discuss collaboration within the *de Volkskrant* organisation. Dossiers can facilitate more interactions between teams. Instead of working as a department, working on a theme might create more shared experiences and learning opportunities for *de Volkskrant*.

Topic-based features force different departments to work together in creating a coherent storyline. I discussed what this could mean for digital products

with the participants and one suggested that it might encourage letting go of the traditional sections and approaching the organisation of articles from a user perspective by bundling them in themes that are more specific than those traditional sections.

Overviews do not only provide readers with context but journalists as well.

Building dossiers and creating overviews could enable *de Volkskrant* employees to utilise the *de Volkskrant* archive better since it makes it easier to find what was written about topics earlier.

No need to rush

The mental model of print is still very much in place, trust in *de Volkskrant* is very high, and many do not see print disappear very soon. A striking insight is the fact that none of the interviewees thought that *de Volkskrant* was in any danger, even not their print products. *De Volkskrant* is very convinced of their brand and is sure that the time without print will not come soon. This strong trust in their own brand is admirable and a possible pitfall. It is a good sign that employees are all proud to work for *de Volkskrant* since they identify with *de Volkskrant's* goals and values. However, this strong trust and the fact that a large part of the *de Volkskrant* identity is based on print also makes it hard to move away from the status quo.

Editors in chief are expected to lead the digital transition.

Employees expect that their supervisors will lead them in the digital transition. They do not see it as

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their job to advance. However, they do note that this is also very personal. Some people are very interested in and excited about digital and will put effort in digital storytelling in the office. However, some do not care and just write.

Journalists are following what their supervisors suggest in the context of digitalisation

Journalists do not see it as part of their job to think about the digital transformation, the digital vision or the digital strategy of *de Volkskrant*. They expect their supervisors to think about that. They are willing to learn but only if it directly benefits their work or is recommended by their supervisors. However, all participants were interested in the digital direction and exploring the digital possibilities. They state that they would be interested in being involved in designing a news app or strategy, as long as it would not conflict with their other work. They would appreciate giving their opinion or being asked what they need.

Limited interest in research about the organisation

The *de Volkskrant* organisation is not focused on evolving towards a more digital mindset, but instead focuses on their daily tasks. Learning and developing their product is not top of mind for most. Thinking about strategy and what the future of the *de Volkskrant* should look like is mainly assigned to people higher up. Another factor that is important to take into account is the lack of time some employees have to think about such things. During my research I often encountered people who did not have time to participate. This is also why this chapter is based on

only three interviews. To carry out research successfully you either have to know people inside or have someone from higher up be an advocate for the research. An important note make about this is that everyone I did get an interview with were interested to talk to me and think about the future of *de Volkskrant*. This implies that it is not necessarily a lack of interest but also a lack of time to think about things that do not directly contribute to the content of the newspaper and their work. Thus, most employees are focussed on daily results and, therefore, think little about the organisation. They assume that the things that are needed in the organisation will come naturally in the future, or at least do not see it as their responsibility to think about.

10.4 Limitations/discussion

Unfortunately, it was hard to find participants for the research. I performed three interviews with two journalists of *de Volkskrant* and the editor in chief. Nonetheless, the initial aim was to do six interviews. When this appeared not to be realistic, I tried to gather more data by supplementing it with a questionnaire. Unfortunately, the *de Volkskrant* organisation did not agree to send this questionnaire out since they already had some internal questionnaires they wanted to send and were worried that employees would get annoyed if they would receive multiple emails shortly after one another. Therefore, the results of the intervention research are three interviews and the interactions around setting up the research.

The fact that it was hard to find participants and get the organisation to collaborate in carrying out the research might suggest that they do not see the urgency of the digital transformation. To be able to change the product, the whole system needs to change. A reoccurring factor in why it is so difficult to change the product is that the organisation is not yet designed to support that change. Everything is still focused on producing a print newspaper once a day, from the rhythm to the way the organisation is organised.

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10.5 Take-aways

From this intervention, I retrieved some interesting insight on how a concept can support the organisation to change. Some of these insights can be used for the redesign and some can help the organisation, such factors are elaborated on below and will come back in Chapter 11. The iterate on the design and in the advice to the organisation.

For the redesign

From the intervention we can also use some of the insights to create a design that not only supports readers but also helps the *de Volkskrant* organisation into becoming more digitally minded. There are two features that really stand out and have the possibility of helping the organisation to change;

- Dossiers: Working around a specific theme; Themes supports collaboration since employees have to work with people from other departments to show all the different perspectives for that topic.
- Overviews provide employees with an overview of what is already written and thus can help them to see what already has been done and be inspired by that.

For the organisation

Similarly some insights will be harder to implement in a design but can be helpful for the organisation to be aware off;

- Journalists are following what their supervisors suggest in the context of digitalisation

- The use of a prototype could help in discussing future needs of not only readers but also of the organisation and employees.
- Employees rely on their supervisors to take the lead in the digital transformation. The initiative needs to be from higher up.

10.6 Conclusion

To conclude this chapters the Research Questions from the beginning of this chapter will be answered;

How do de Volkskrant journalists think the de Volkskrant app concept will influence their work and the organisation as a whole?

Since the concept was not that experimental, employees did not see the app influencing their day-to-day work schedule too much. However, two features probably will. The overviews require journalists to connect articles in a way. How this is done could mean more work for them to do. As well as building dossiers and challenges, the question is mostly who should do this?

What changes will have to be made to realise the future the concept envisions?

Employees will probably have to collaborate more and more often because they need to be on the same page when designing challenges and dossiers. The participants in the intervention were very open to collaborating more as well as giving input into a new app design. Furthermore, *de Volkskrant* itself need to have a good overview of their archive to create the overviews. However, this also works in their benefit since this overview also provides them with a usable archive, making it easier to recall relevant articles after a while, thus utilising their archive better.

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How will the changes made to the de Volkskrant app impact the organisation and the work of de Volkskrant journalists?

As discussed before, there is not one small change that needs to be made. If digital would be first, the whole organisation needs to be redesigned. However, some small elements provide a little push into that direction, especially working together on themes that cross boundaries between departments could help make the scattered organisation more whole.

How does changing the boundary object, the newspaper into a digital-first version, impact the journalists' attitude towards transformational change and a digital-first organisation?

Using the app as a visualisation/boundary object to communicate what the future vision can look like makes it easier to discuss that vision. However, it is not enough to enable them to envision a future where print no longer exists. More is needed to do that. However, it could be a good starting point to co-create the organisation structure to fit a digital-first future better because it enables them to question the status quo.

The *de Volkskrant* print newspaper is designed very intentionally. People are thinking about the perfect layout for every day. This intentional design is lacking in the digital products, partly because they are developed and designed mainly by *DPG Media* and because there are simply no visual designers involved in the everyday layout of digital. Only using an example of what the future might look like do

these questions arise. They make the future specific and thus the consequent issues that might arise specific.

What changes should be made within the organisation, according to de Volkskrant employees, to realise a digital-first future?

What was interesting during the intervention was that none of the participants had a very clear vision on what specific changes will need to be made to realise a digital-first future. The statements that they made were pretty general. They were able to formulate what they are struggling with now but had a hard time to visualise what future issues there might be. However using the prototype talking about this was a bit easier. They mostly saw that the organisational structure is still very much print focused and very divided into separate departments, all with a specific focus. In the future, there should be fewer boundaries between departments, seeing the organisation as a whole rather than separate islands who all have a specific focus area. The traditional "sections" might be replaced by working around themes and gathering a team with the right expertise to explore that theme. The responsibility of these changes mostly falls onto the chiefs and higher management since it is seen as their responsibility. Thus, changing the focus from print to digital is the most important step in the whole process and it's a step *de Volkskrant* still has to take. Especially regarding the rhythm the organisation works in, although they have someone available 24/7 to write about something should something

happen, the majority of employees work in a rhythm where they have to finish something at the end of the day

Furthermore, it should be easier to see what other departments are doing so that they know what skills and knowledge others have, so this can be utilised better. Working together is only possible if people are able to find each other. The physical presence in the office helps if your departments are neighbours but exploring other possibilities to create a clear overview of everything that is happening at *de Volkskrant* might also help

What characteristics should the design have to help the organisation to move forward?

Two characteristics that stand out are *Working around themes* and *having an overview of what has been written*. Both can help employees learning what skills and knowledge is available at their organisation and who the specific people are that can teach them something or with whom they can collaborate. Going back to the Causal Loop Diagram that was constructed; an overview can help employees by showing them who the people at *de Volkskrant* are and what they are able to, which in turn makes them feel pride. Furthermore, working in themes and not departments might incite a feeling of responsibility for things outside the immediate scope of your work since you get into contact with more different people and thus more ideas. Collaborating with people from outside your own department might also help in coming up with new creative ideas and perhaps even digital news innovations.

11 Final Design – the digital future of quality news

The user and stakeholder evaluation findings and the organisational intervention provided new input for the design. In this chapter, these findings are used to iterate on the design. Most prominent in the redesign is that the previous design was relatively safe and did not depart much from what the mobile app provides now. The redesign aims to improve the reading experience and offer a fix to the wishes for a quick-update on the homepage. Similarly, stakeholders mentioned the issue of synergy between fast news and long reads, the latter of which *de Volkskrant* is known for. It became clear, once more, that an app entirely focussed on long reads is not viable. Readers want fast news, and they want to be drawn in, which is positive from a business perspective as well. Therefore, the redesign tried to tackle that challenge as well. Below, the final design is shown and explained.

1.1 Final Design – the digital future of quality news

1.1.1 The final design

Most of the features and what they try to do has already been explained in Chapter 8. Therefore, I will not go in too much depth about the reasoning behind these features and will only explain them

shortly what changes have been made to them compared to the initial design. These changes are based on the feedback from the user and stakeholder evaluations in Chapter 9. In Figure 46,

an overview of the final design is shown. On the next pages the features are shown separately.

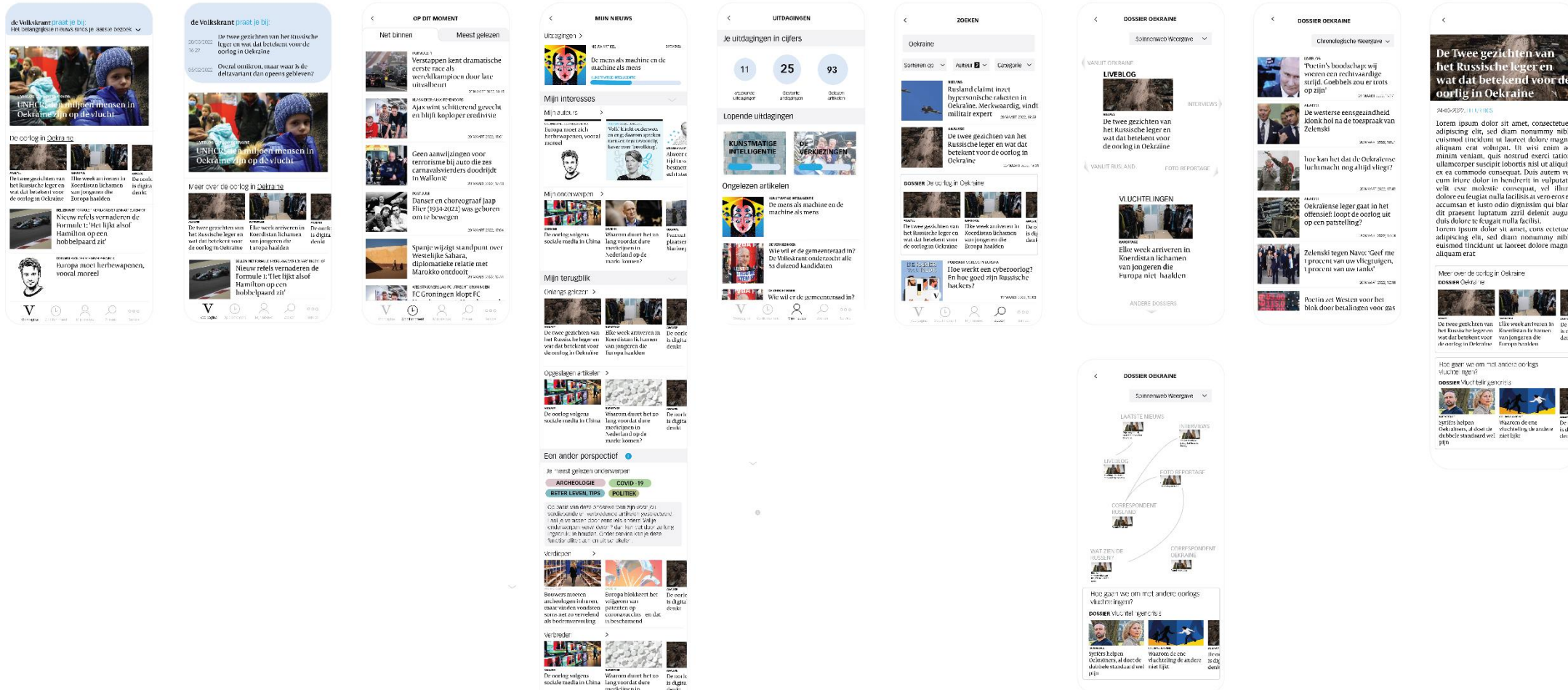


Figure 46 an overview of the final design

11 Final Design – the digital future of quality news

Homepage

On the homepage a new feature is introduced. As explained in Figure 47. Within the figure an explanation of the feature and the iteration on the design are given.

de Volkskrant updates you features helps readers to stay up to date. The feature is personalised in the way that it shows the most important, not necessarily the most recent, news a reader missed. A reader that checks the app only every three days thus gets shown the most important news of the past three days. However, if the reader checks the news every 5 minutes, they are shown the most recent news. In that way the information that is in this section is always relevant.

de Volkskrant **praat je bij:**
Het belangrijkste nieuws sinds je laatste bezoek ▾



De oorlog in Oekraïne



de Volkskrant **praat je bij:**

20/03/2022 16:29 De twee gezichten van het Russische leger en wat dat betekent voor de oorlog in Oekraïne

05/02/2022 Overall omikron, maar waar is de deltavariant dan opeens gebleven?



Meer over de oorlog in Oekraïne



The Dossier on the frontpage is more subtle and smaller than on the first concept. This makes it less distracting and it takes up less space.

Figure 47 The homepage of the final design

11 Final Design – the digital future of quality news

Just In

The just in page now also features the best read articles. It is easy to switch between just in and most read. The name is now “at this moment” indicating that this is place where the reader can find all articles that are relevant at this moment. See Figure 48 for more information and a visualisation of the feature.

On this moment is a page where readers can see what is currently happening. Both the ‘just in’ as well as the ‘most read’ section can be found here. Readers now have one page where they can check all current developments



A date and time give an overview of when an article is published.

Figure 48 Final design, Just In Page

My News, Challenges and Personalisation

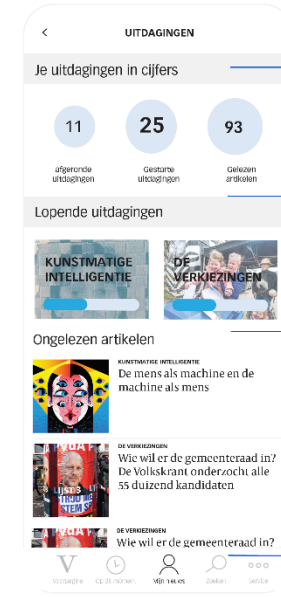
The my news page features the challenges, the readers interests, a look back section and a personalisation section. In Figure 49, the features are explained more in-depth.

The newest article of a challenge is immediatly shown at the top of the page, thus making it easier to click this article and continue the challenge.

Following is now sectioned under My interests, these interests can be managed in the Service tab.

Under the my look back section, your article history can be found as well as articles that you have saved. Both of these sections are collapsible, giving the reader the opportunity to make the page more compact.

There is now extra information to the personalised section. It is also given a different name to make it sound less intimidating. Topics in this section can be added or deleted in the Service tab.



Under the Challenge feature an overview of all your challenges can be found as well as some numbers about your challenges. This gives the user additional feedback on their accomplishments

Unread challenge articles are now easy to find. There are less clicks the reader has to go through to find them and the most recent one is shown on the top of the My News page.

Figure 49 Final Design, My News page

11 Final Design – the digital future of quality news

Overviews

The Overviews got a redesign and are now more toned down. In Figure 50. The specifics of the feature are explained. The spiderweb overview now also supports zooming in and out and always tells the reader where they are in the overview and where they can go.

The design of the spiderweb overview is less cluttered and more interactive. The floating arrows will always show the location of the connected articles. The overview features is now also connected to the Dossiers since it makes it more clear on when this feature can be used.

Zooming out will enable user to see the full overview of all the articles within a Dossier. It still will show the relevance as well as how it is connected to other articles

Additionally a relevant Dossier can be connected to a Dossier to create links inbetween Dossiers as well. In this case the War in Ukrain also caused a discussion on refugees in general, thus the Refugee Crisis can be connected to this one.



Switching between views is easy with a filter tab. Here you can choose which overview you prefer.

The timeline is also toned down and now just shows the articles within a Dossier in chronological order.



Figure 50 final design, overview pages

11 Final Design – the digital future of quality news

Search

The search function did not change much. However, Dossiers are now also included. In Figure 51, the feature is shown in more detail.

The search filter did not change that much. However, Dossiers are now also included and readers are able to filter and sort the articles how they like

It is also shown directly what kind of article something is. Or when something is not an article but a podcasts. This makes it easier to find what you are looking for.



Figure 51 final design, search page

Article page

The article page is as simple as possible to prevent that the reader get distracted. At the bottom of an article one or more Dossiers are recommended. An indication on why this Dossier might be interesting is also given. See Figure 52, for more details.

in the article page it is now easy to click through to relevant Dossiers. There is also shown a short tagline to clarify why these Dossiers are relevant.

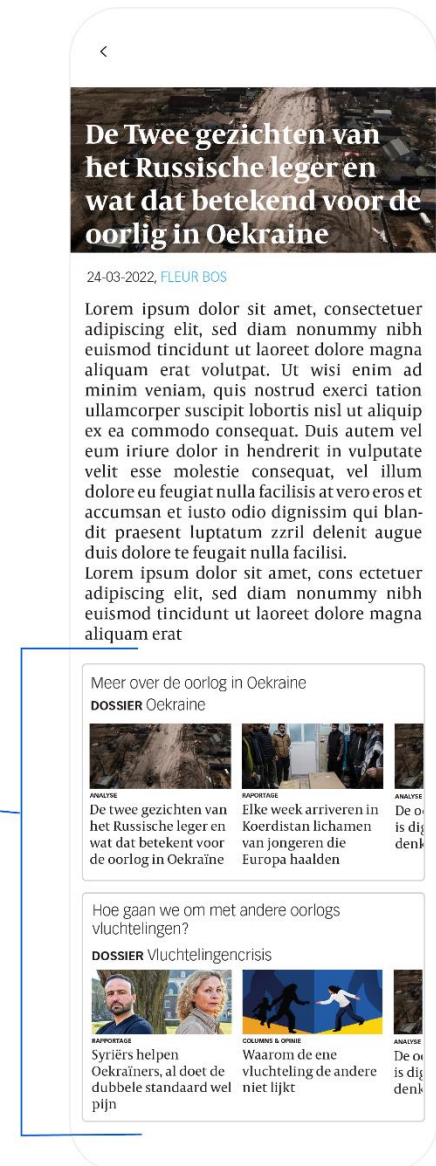


Figure 52 final design, article page

11.2 Organisational advice

In this thesis, I will not cover specific implementation steps to make the design a success, however, there is some advice I would like to offer the *de Volkskrant* organisation related to the design, the organisation and on becoming more future-oriented, from a theory and design perspective;

Experimenting with or introducing new features will not only improve the user experience, it will actually also impact the organisation. Figuring out which way you want the organisation to move could thus be an incentive to ideate on which features could help with that. Of course, we now only look at the Boundary Object the app. But several more boundary objects can be identified, such as *Slack*, through which most communication takes place or the system in which articles are placed on the website. All these places are potentially places to initialise change. In the theoretical framework I earlier explained that boundary objects are places where most learning takes place. Learning means acquiring new knowledge or gaining a new perspective, therefore, learning is automatically changing a person and should that person be an employee, that will also mean that this learning will change the organisation as a whole. The concept and the organisation should, therefore, not be seen as static but as two entities which interact and influence each other. Therefore, *de Volkskrant* should not underestimate the influence that changing the product can have on the organisation. By not being aware there is the risk that the change is done one-sided, which means

there is a new design but the organisation is not ready yet, this might cause employees to be frustrated. Where they do involve the employees, this could mean that a transition or a change could go over more smoothly and that some of that change might even come from the intrinsic motivation of employees.

Summarised beautifully by the quote at the beginning of my thesis; ***“A new medium is never an addition to an old one, nor does it leave the old one in peace.”*** (M. McLuhan, *Understanding Media*). The fact that the app is becoming the most popular product does not leave the other products, or organisation, untouched. Changing one thing means everything changes one way or another. If people read more digitally it will probably mean they will read less print. If people prefer mobile, it probably means they will not read on desktop as much. The moment news became digitalised it set in motion inevitable change, the questions *de Volkskrant* needs to ask themselves is who are they as a digital medium? In this thesis, I presented some ideas and visions on what I think *de Volkskrant* should be. My hope is that the research presented in this thesis will start the change needed for *de Volkskrant* to be as successful and impressive digitally as they are in print.

12 Conclusion, Discussion and Recommendations – final notes

In this chapter, the conclusion from this thesis is presented as well as the discussion and limitations and recommendations for further research.

12.1 Conclusion

In the introduction, several research questions were stated. After the research presented in this thesis, I can now answer these research questions;

What should a quality digital news service look like for de Volkskrant?

A quality digital news service for de Volkskrant is mainly focussed around their mobile app since this is the most popular device readers prefer to read the news on. The service should support both a quick-news update as well as a pleasant experience reading longer articles. I should help readers to give meaning to an article. To do so they should be able to put an article in perspective and be able to easily find other perspectives and articles about a specific topic. It should also service them by making it easy to find and read their favourite authors and topics.

Furthermore, the service shouldn't only provide readers with a good user experience but should also help employees of de Volkskrant in getting a better oversight of all the articles as well as help them to collaborate more. In the Master specific research questions answered below I will go more in depth to what this then means for the design and the organisation respectively.

Dfi: How should the user/reader experience of a quality news service (de Volkskrant) be optimised for digital reading?

The answer to this question is shown in Chapter 11 and Chapter 7, but I will shortly reiterate what a quality digital news service should look like for de Volkskrant. The news service should be built around a digital mobile app, since this is the most popular device as well as the fact that digital subscriber numbers are growing as well. The mobile application should communicate the same feeling of quality as the print products and should support quick-news-updates as well as longer reading sessions. Therefore, the application should be a balance between up-to date and curated news, which is embodied in the features shown in Chapter 11. Since de Volkskrant's unique selling point and identifying feature is mostly their columnists, analytical article, interviews and long reads, these should also be presented in a way that helps the reader to make connections between articles, thus giving meaning to the articles. Furthermore, reading de Volkskrant should be enjoyable and surprising, embodied by the challenges and personalisation, which can help readers to get outside of their comfort zone.

What new opportunities does digital consumption of quality news offer for user/reader experience?

Digital news enables newsbrands to create more interactive storytelling. The strength of digital is that there are more possibilities than in print. For example data visualisation is perfect for digital news. Furthermore, digital news is always up-to-date which provides the reader with a quick update and enables them to always know what is happening in

12 Conclusion, Discussion and Recommendations – final notes

the world. Additionally, digital news provides more touchpoints for the reader., the litteralry itteralry have *de Volkskrant* in their pockets. Thus there are more moments in which you can draw them in through for example notifications or through posting articles on social media.

Which challenges does digital news consumption pose for a quality newspaper, and how can those be dealt with? (e.g., How can the synergy between fast news and in-depth analysis be utilised better?)

Selecting articles is harder, thus you should make it easier to go from article to article. This can be done through the user of Dossiers, a bundling of articles which enables the reader to do a deep-dive into a specific topic. This also can create synergy between news-items and more analytical articles by recommending an Dossier or analysis article at the end of a news item.

Which characteristics of news consumption in print are valued by readers, and how should those be used to improve the digital reading experience? (e.g., how can a digital news service provide a good overview just like the newspaper?)

As stated in the research question, having an overview is important when you read the news. Placing an article in context is an important step in the meaning giving process. Thus, the Overview feature shown in Section 11.1 can provide such an interaction for readers.

*How can a design concept be used to get *Volkskrant* journalists to think about the future of their work related to digitalisation? (CDI research question)*

From the intervention, Chapter 10, we see that having a concept to discuss might make it easier to think about the future and see the implication that specific design and thus future might bring. Thus, a design concept can be used as a probe during the process of becoming more digitally minded. A concept can help in visualising what is possible in the future. For *de Volkskrant*, this means that they might want to involve their employees more into the design process since it became clear that a design does not stand on its own but is tightly connected to the organisation itself. Thus, changing the way in which they tell stories, for example by becoming digital-first, will automatically change the organisation. It is important to keep in control of this process to prevent the organisation going in an undesirable direction. It is also important to stay on top of this process to prevent that the product and employees grow apart, meaning that the employees will feel less ownership and identification with the product and thus might reject it earlier.

The sub-questions I stated in the beginning I will also shortly answer as most of them are answered throughout the thesis.

*What is the current mental model of actors at *de Volkskrant* related to digitalisation?*

Digitalisation is not something that is on top of the mind for employees; they do not see it as their task to really think about. From interviews I learned that the attitude towards digitalisation is very personal. Some are really interested, some do not care and some still are very loyal to print. Overall, the attitude towards the digital transition was positive but a complete digital transformation is not something many employees of *de Volkskrant* see happening in the near future.

What role do boundary objects play in the organisation, and what objects are there?

Logically the most important object within *de Volkskrant*, is the newspaper itself. Now, that newspaper is still the print one. The whole rhythm of the organisation is based on the print cycle. However, the digital products such as the website and the app are becoming increasingly important since an increasing number of subscribers is moving towards a digital only subscription.

Another boundary object that could be identified were the slack channels. However, I did not focus on that during my research and, therefore, will not elaborate on that.

*What are the organisational difficulties that *de Volkskrant* faces in the digital transformation?*

There are several issues that make the digital transformation difficult for *de Volkskrant*. Firstly, *de Volkskrant* is still working in a print rhythm. Therefore, Digital is not always top of mind, as mentioned

12 Conclusion, Discussion and Recommendations – final notes

earlier and secondly, the value of digital is not always seen by employees. Additionally, not many employees feel responsible for the digital transformation and thus do not really think about it.

What difficulties do de Volkskrant employees struggle with when it comes to being adaptive and future-oriented?

There were not many things de Volkskrant employees struggle with. The one thing that might sometime be difficult is the lack in a vision for the future. Therefore, they are unaware of what direction de Volkskrant will take and thus what they are working towards from a more longterm perspective.

what charesteristics should the design have to help the organisation to move forward?

Two helpful features were identified, the overviews and the Dossiers;

Dossiers enable the organisation to work more theme oriented. This in turn can help them to collaborate more between departments. The second charesteristic of the application that can help employees are the Dossier, these do not only provide readers with an overview of what is already written but also provide employees with an overview of articles and thus give them better insight in all the skill and knowledge that is available at the organisation. Dossiers make it easier to use their archives, which makes it easier to see what they have done before and thus make employees feel proud for the legacy that is de Volkskrant.

12.2 Discussion

What I think is the most interesting about the whole research is that designing a product is not simply designing a product, for a successful redesign of the core product a whole organisation is built around, the whole organisation needs to be redesigned. Using a concept design and involving employees into that process might make it easier to go through that transition. Not only making employees see how it can benefit them but also giving them space to voice their needs, pains, fears and ideas for the future of the organisation gives them the feeling of ownership and at the same time gets them visioning the future.

A reoccurring factor in why it is so difficult to change the product is that they organisation is not yet designed to support that change. From the rhythm to the way the organisation is organised, everything is still focussed very much on producing a print newspaper once a day. To be able to change the product, the whole system needs to change.

It could also be interesting to see how people react when a more disruptive design is proposed as a probe. So not a design which will be worked out further but one that reflects a possible future. I already tried this but I think I could be stronger in how I set up the scenario to help them to visualise a digital only future where print no longer exists.

For each new technology that becomes mainstream the impact on the organisation can be investigated

and help the organisation to become future oriented and thus help them prevent problems before they arise by envisioning them earlier.

Relating these insights to theory I think it became clear that one of the main issues now is that de Volkskrant is still very much attached to print. Again, creating more experiences of collaboration, creativity and sharing knowledge around the application might help in creating a social learning system around de Volkskrant digital products as well. For example by involving them more into the design process; actively involving all layers of the organisation into the design of a digital product and a more digitally focussed organisation might accelerate the digital transformation of de Volkskrant. What I already noticed was that collaboration around a certain theme helps with sharing knowledge. Interestingly, this process is much easier when all are in the same physical space. One participant noted that working from home made their work less visible to colleagues and that before covid hit she often was asked what she was doing, which was mostly met enthusiastically and after which her colleagues knew where to find her.

Furthermore, the app design shows that even though the brand is known for more analytical articles, there are several criteria that are a must in digital products. A lesson I learned is that no matter what a digital news product cannot be slow, you need to offer the opportunity to readers to also get their updates. This is a new criterion of trustability in digital news media.

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Readers want accurate but also up-to-date information. Readers expect a seamless experience and expect that the quality of the product, in this case a mobile app, is just as good as the articles that they read on it. This means that although *de Volkskrant* sees it as their core business to write, they should not underestimate the importance of the medium they publish them in. Therefore, the design of their product should not be *DPG Media's* responsibility only. Involving the brand for which the app is designed is very important since they know the needs of their readers best. As well as it is important that not only the readers are happy with the product, but *de Volkskrant* employees are as well.

In terms of Technology Acceptance; in some of the conversations I had with higher management they pointed out that sometimes employees were not even aware of the benefits digital could have for them. Not only is their reach many times more compared to print, it also makes it easier to republish or reuse an article multiple time. Thus, most of the time employees who are not interested in digital are so because they simply do not see how it could help them (*Usefulness*). The ease of use is important when it comes to introducing new features. I did not look into the specifics of the backend of the features I proposed but initial worries from employees were mainly about extra work or questions on who will actually have to create a Dossier of a Challenge. Thus, communicating clearly on why something might be useful for employees and pointing out how

they are expected to use the newly introduced feature might make the transition easier as well.

12.3 Limitations and reflection

This research was carried out during the Covid-19 epidemic. Therefore, I only had limited opportunities to go to *de Volkskrant* offices. Because of this some insights and observations about the organisation might not be complete. It also made it a lot harder to build rapport and get to know the people at *DPG Media* and *de Volkskrant*. Therefore, I often struggled with finding participants and getting the organisation to collaborate in carrying out the research, which could suggest that they do not see the urgency of the digital transformation but could also be because I was not that visible within the organisation.

The epidemic also impacted me personally, I am someone who thrives by working together and interacting with others. The lockdowns made this very difficult, as well as the fact that the thesis is an individual project anyway. The lack of interaction with *DPG Media* and *de Volkskrant* prevented me to fully emerge in *de Volkskrant* and *DPG Media* organisations, which later in my research made it harder to find participants for interviews, focus groups, brainstorm sessions and questionnaires. Facing these difficulties were demotivating since I did not feel seen and did not feel that my research mattered, furthermore, it made project management much more difficult since I could not easily drop by my company and TU Delft mentors. Since this was

the first time for me to carry out a big individual research project I often did not know what to expect and what was expected of me. And because it also was the first time mentoring a graduation research project for my company mentor, I often felt communication was difficult. If I were to do such a research project again, I would make clearer agreements of what is expected of me by all stakeholder, as well as what I expect of them and what the research project is about and what the outcome will be. I think this could have speed up the research and make communication much smoother. Because of the minimal interaction and communication with my mentors, the uncertainty of the me anxious and unsure of myself. Looking back now, I wish I had been more open about this and asked for help earlier. These struggles also impacted the quality of my work, especially during the design phase, when I was not in a good place mentally. I think this reflects on the safe choice I made in my designs. For me, the uncertainty of the thesis and the situation of Covid-19 made it harder to think outside the box and take risks. This was partly why I Decided to do one more iteration on the design, which reflects my skills as a designer better than the first design. I end this project with pride, even considering how hard it was and how much I struggled, I made it and finished my thesis. I also think that these struggles and the mistakes I made along the way are maybe the most valuable lessons I learned during this project. Eventually I became more confident in myself as a researcher and a designer. I am less anxious to make decisions on my own and take in a

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certain standpoint and show that opinion through my design and conclusions. I am less scared to show who I am and what I stand for that when I first started this project. Which I consider a huge step in my personal development and makes me feel proud and confident that I will be able to take the next step in my professional career.

12.4 Recommendations

To continue the research, it is important that there is enough support and interest in the research within the organisation the research takes place, since it is almost impossible to research the internal interactions and attitudes without someone inside who convinces others to participate. It could be very interesting co-create the organisation of the future, together with employees. In the future, if we look at my proposed design, the divide between departments might become less clear cut and might ask for a restructuring of the organisation, something you already see happening a bit with the new online department which writes about all relevant topics and developments as they happen, the lines between departments getting blurred. Actively involving everyone who will be impacted by this transition might prevent from problems arising and will facilitate an organisation where all heads point in the same direction. This will also mean that *DPG Media* will have to give more power and resources to *de Volkskrant* to involve them into the design process of the digital products. And for *de Volkskrant* this will mean that they will have to put in effort and time and give all employees time as well to think about organisational and product related topics. Even if it is a few focus group sessions, a lot of insights and input could be gathered about the ways in which employees think the organisation could function more efficiently but also what they are personally feel is still missing.

On a final note, it could be interesting to research new solutions to advertising. Since adds were

detested by both employees and readers, It could be interesting to rethink the way in which *de Volkskrant* show ads on their digital product. It lowers the feeling of quality and disrupts the reading experience. It is a difficult topic to tackle but it could be interesting to look for ways in which advertising could be done more elegantly.

A final recommendation is to think about separating the magazine from the normal articles, as is done in print as well. Since the magazine is a separate reading experience. How this should be done can be a design challenge in itself. For many the experience of reading the Saturday newspaper is unique and very different from their daily newsconsumption. Thus it might be interesting to think about ways to support these two different experiences even better.

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Appendix A-User research plan

Goal

To be able to design for the future of digital journalism understanding user needs and wishes is very important. Questions to be answered through this user research are; what are readers needs and wishes when it comes to news consumption? Which habits and behaviours are attached to reading news? What are the moments they want to receive news and in what modality? And, why do they read De Volkskrant and what do they value most in the brand? The next step in user research will be to understand future needs, therefore, I will be using context mapping. This method first focusses on current behaviours and practices of users to make it easier for them to start thinking about the future and the underlying principles of their behaviours, thus giving deeper insights into what is and what will be important in news consumption.

Method

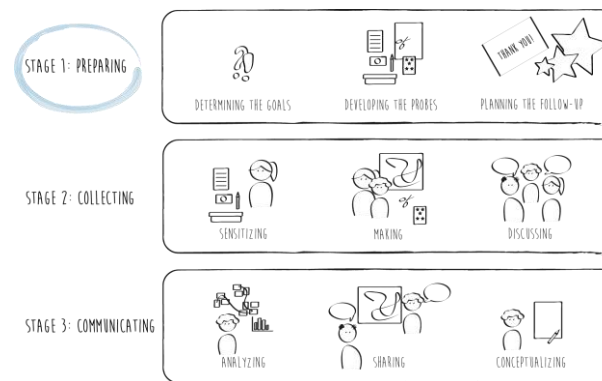
Context mapping is a method in which you research the everyday life of the user through tools such as diaries and probes. From this approach, users are seen as the experts of their own experiences, insights gathered from this research will be used in the ideation phase.

As a final step in user research I will be conducting interviews, where I will use participants answers from context mapping to discuss how they see the future

of their news consumption and De Volkskrant. The result of this research are rich and in depth insights into the users behaviours, current and future needs and wishes, what they find important values for the VK brand and why they prefer the VK over other news brands.

Steps:

1. Preparing and developing the probes/tools
 - a. Making research plan
2. Recruiting participants
3. Collect insights
 - a. Context mapping week
 - b. Interviews



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Stage 1. Preparing

Goal: Firstly, gaining insight into news practices of VK readers and determining what they find valuable in news and in the VK brand. And Secondly, translating those current practices and needs into the future, how do readers prefer future news consumption to be?

Gaining insights into current practices - Probes

A context mapping protocol was created. Covid-19 measures were taken into account and thus research was done through video call and WhatsApp. The research lasted 7 days, giving a clear overview of what participants' weeks look like and when, how and why they consume news.

The script for this research can be found below.

Participants: Six participants, all currently having a subscription to De Volkskrant. Recruited through a call on VK website and LinkedIn.

Looking into the future – interviews

An qualitative interview protocol was constructed to conduct interviews.

Participants: the same participants who also participated into the context mapping sessions.

Context mapping script

The week was kicked off by a short introductory meeting, shortly explaining the goal of the research and how the week will look for participants.

Recruitment text:

Denk een week lang mee over De Volkskrant!

Appendix A-User research plan

Participant selectie

Op de oproep, die is verspreid via de Volkskrant website en app en via mijn persoonlijke LinkedIn pagina, hebben 45 mensen gereageerd. Hiervan vielen er 4 meteen af omdat ze geen tijd hadden of geen abonnement. Ik heb er voor gekozen om te focussen op mensen met een abonnement omdat zij onbeperkt toegang hebben tot de Volkskrant producten, hierdoor kunnen ze alles bekijken wat de volkskrant aan bied en geeft hun gebruik goed weer wat er allemaal mogelijk is.

Ik heb geprobeerd om zo veel mogelijk diversiteit in mijn sample te krijgen, daarom heb ik 50/50 man/vrouw, een leeftijdsrange van tussen de 20 en 65. Ook heb ik geprobeerd om diversiteit in product gebruik en gebruiksfrequentie mee te nemen. Waar ik wel mensen heb uitgesloten die eigenlijk maar amper gebruik maken van de digitale producten. Ook heb ik een pilot gedaan om te kijken of mijn uitleg en plan allemaal duidelijk is, omdat de data die hier uit kwam bruikbaar was en mijn plan op een paar spellingsfouten na goed liep neem ik deze mee als participant.

Nadat ik had gecheckt of iedereen voldeed aan de minimale criteria (beschikbaarheid en abonnement) heb een man/vrouw verhouding van 50/50 gekozen en een leeftijdsrange tussen de 21 en de 61. Ook heb ik gekeken naar welke producten ze gebruiken en welk abonent ze hebben en daarin geprobeerd te variëren. Grappig is dat op het eerste oog, op basis van de vragenlijst, er geen verschil is te ontdekken in gebruik tussen de jongere en oudere participanten. Ook valt het op dat bijna iedereen de

Volkskrant meerdere keren per dag checkt, hoe dat verschilt, de een doet dat via de website en de ander via de app.

Day 1 – Introduction

Maandag 09:00

Kennismaking

Goedemorgen! Vandaag gaan we van start met de eerste opdracht; het zou leuk zijn als je deze in een video beantwoordt.

Ik zou je willen vragen jezelf kort te introduceren: wie ben je en wat doe je in het dagelijks leven? Daarna zou ik graag meer willen weten over je nieuwsconsumptie: wanneer heb je het meest behoefte aan nieuws? Op welke momenten check je het nieuws? En welke bronnen zijn dan belangrijk? In welke vorm ontvang je het liefste nieuws? Denk dan aan tekst, video's, radio, tv, of misschien iets heel anders?

Ik ben benieuwd!

Day 2 – Why de Volkskrant?

Dinsdag 09:00

Waarom de Volkskrant?

Goedemorgen! Vandaag wil ik het wat specifieker over de Volkskrant hebben. Ik zou je willen vragen om foto's te maken van artikelen, podcasts of andere dingen die de Volkskrant aanbiedt die voor jou van veel waarde zijn. Daarnaast zou ik graag een korte uitleg ontvangen van de redenen waarom deze bronnen belangrijk zijn voor jou. Kortom, vandaag wil ik erachter komen wat jij waardevol vindt aan de Volkskrant!

Succes!

Day 3 – habits

Dinsdag 21:00

Nieuwsdagboek

Omdat de opdracht van morgen over de dag verspreid is stuur ik deze nu alvast. Morgen staat in het teken van jouw nieuwsgewoontes. Ik zou je willen vragen om gedurende de dag bij te houden wanneer je het nieuws checkt, op welk nieuwsmedium of apparaat en waarom. Daarom wil ik je vragen gedurende de dag wanneer je nieuws consumeert berichtjes te sturen met:

1. Een foto of uitleg van waar je bent
2. Een screenshot of foto van het nieuws dat je consumeert
3. De reden waarom je nieuws consumeert en een emoji die jouw gevoel op dat moment het beste weergeeft.

Deze opdracht kost wat meer tijd dan de rest van de opdrachten dus ik waardeer de moeite! Voor nu een fijne avond en tot morgen!

Woensdag 09:00

Succes met het dagboek van vandaag!

Woensdag 12:00

Vergeet het dagboek niet!

Woensdag 17:00

Dank voor het bijhouden van het nieuwsdagboek! Mochten er nog momenten zijn op de dag die je bent vergeten om bij te houden, laat het me weten!

Day 4 – How do you get there?

Donderdag 09:00

Appendix A-User research plan

Hoe ben je er gekomen?

Goedemorgen! Gister heb je een dagboek bijgehouden van je nieuwsmomenten. Vandaag ben ik benieuwd naar de manier waarop je bij deze artikelen komt. *_Zou je vandaag kunnen vertellen_*
hoe *_je bij interessante artikelen bent gekomen?_*
Is dit via een vriend? Via het home-screen van de Volkskrant website of misschien wel op een heel andere manier? Hoe uitgebreider je me hierover vertelt hoe beter! Dit mag via een spraakbericht, tekst of video! Natuurlijk mag je ook altijd foto's meesturen als dit je uitleg duidelijker maakt. Succes!

Day 5 – Wishes and needs

Vrijdag 09:00

Wensen en behoeften

Goedemorgen! Vandaag twee korte vragen: *_Wat vind je belangrijk als het op je nieuwsconsumptie aankomt en wat mis je soms nog bij de Volkskrant?_*
Hoe uitgebreider je uitleg hoe beter, dus wees niet bang om voorbeelden mee te sturen!
En: *_wanneer geef je de voorkeur aan de papieren krant en wanneer aan de digitale variant van de Volkskrant?_* Je zou me blij maken met een foto van een typisch online moment en een typisch papieren krant moment!
Alvast bedankt voor je antwoorden!

Day 6 – weekend habits

Zaterdag 09:00

typische weekend nieuwsmomenten

Goedemorgen! Voor dit weekend één opdracht: ik zou je willen vragen om typische weekend nieuwsmomenten vast te leggen. Zou je gedurende dit weekend foto's kunnen maken van deze momenten en een korte uitleg over wat dit een typisch weekend moment maakt? Ik ben benieuwd! Fijn weekend!

Zondag 21:00

Ontzettend bedankt voor je moeite en input deze week! Het heeft me veel inzicht gegeven in je nieuwsgebruik! Deze week op 22 juni om 11:00 uur staat nog een interview gepland om alle resultaten van deze week door te spreken en ook om samen na te denken over de toekomst van de krant. Tot dan!

Appendix A-User research plan

Interview protocol

Hoi! Fijn dat je tijd hebt kunnen maken voor dit interview! Hoe vond je vorige week gaan?

- Kort gesprekje-

Digitaal altijd op de hoogte

Zoals ik vorige week ook al kort heb laten vallen gaan we tijdens dit interview aan de hand van de resultaten van vorige week nadenken over de toekomst van digitaal nieuws.

1. Welke digitale nieuwsproducten gebruik je? Ik zag dat je geen papieren krant hebt, welke digitale producten gebruik je het meest?
 - a. Waarom deze?
 - b. Wanneer gebruik je welke?
 - c. Wat zijn de voordelen?
 - d. Wat zijn de nadelen?
2. Wat vind je fijn aan de app van de Volkskrant?
 - a. Waarom?
 - b. Wat vind je minder fijn?
 - c. Waarom?
3. Wat vind je fijn aan de website van de volkskrant?
 - a. Waarom
 - b. Wat vind je minder fijn?
 - c. Waarom?
4. Wat vind je fijn aan de editie app van de volkskrant?
 - a. Waarom?
 - b. Wat vind je minder fijn?
5. Welke artikelen trekken het vaakst jou aandacht online? → verschilt dit nog per dag of moment van de dag?
 - a. Waar let je op?
6. Wat vind je belangrijk in digitaal nieuws?
7. Wat vind je de papieren krant toevoegen aan jou nieuwsconsumptie? Wat mis je nu je de papieren krant niet hebt?
8. Wat vind je de digitale producten van de Volkskrant toevoegen? Wat voegt de website toe?
9. Wat maakt de Volkskrant volgens jou de Volkskrant? Wat is typisch de Volkskrant?
 - a. Zie je dit in digitaal en papier even veel terug?
10. Vorige week heb je een dag een dagboek bijgehouden over jou nieuwsmomenten. Hoe ziet een nieuwsdag er hoop jij uit over 10 jaar?
11. Hoe zou je willen dat de Volkskrant er over 20 jaar uit ziet?
 - a. Wat is er nog het zelfde?
 - b. Wat is er anders?
12. Zijn er nog dingen die niet ter sprake zijn gekomen die volgens jou belangrijk zijn voor de toekomst van nieuws, digitaal nieuws of de Volkskrant?

Dan waren dit mijn vragen! Ontzettend bedankt voor je deelname, het heeft mij erg veel inzichten

gegeven die ik goed kan gebruiken tijdens de rest van mijn onderzoek!

Hoe werken de producten samen?

Waarom gebruik je de apps niet? Wat vind je niet fijn aan de apps?

Topics: heb ik maar vergeet ik. VK platform ook bijv regionaal nieuws weggeven aan VK lezers. Zet die ook op de app. Eindhoven

- Vrij nederland is top maar ik red het niet met lezen, voor een euro per maand extra krijg je leuke week voo
- VK als curator
- VK plus abbo
-
-

Appendix B – User research Cluster groups

- Difference between print and digital
- Print is for long articles, not for news
- Benefits of print
- Lack in overview
- It should be easy to recognise the type of article
- News on demand
- Slowing down
- Create our own newsmix
- Digital feels more rushed
- Reading should be relaxing and rewarding
- Relating to a topic personally
- Time is an important factor in reading experience (4/6 participants)
- Slowing down is not bad
- Paper newspapers are not sustainable
- Its harder to calm down reading digitally
- Quality should remain the same
- The Volkskrant is a curator of news
- Ads are annoying
- Rituals attached to reading the newspaper
- How to select articles
- Choosing the Volkskrant because of their analytical articles
- The Volkskrant should move with technological developments
- Digital News should be up to date
- Its positive that the Volkskrant also writes about positive stuff
- The News also has a social function in daily life
- Interactive elements, such as images or interactive charts, are a added benefit if digital news
- Reading for stimuli
- Reading to relax
- More is not always better
- The reading experience should be optimised
- Surprise and serendipity are enjoyable elements
- Sharing articles is an important feature
- How to trigger people to read; notification.
- Having an overview is important
- Benefits of digital reading
- It is unclear why an article is recommended or relevant
- Podcasts should be in a different section
- It can be difficult to find specific articles or columns

Appendix C – Interview guide concept evaluation

User Evaluation goal

To assess the potential of the concept.

Why

To assess the potential of the interaction concepts and find how and if the interaction vision/design brief connects to the concept. The result of the evaluation will be recommendations for further development and refinement.

Questions to be answered:

- To what extent does the concept fit the user needs and expectations
 - Which needs does it meet?
 - Which needs does it not meet?
- Which elements of the concept are considered positives/strengths?
 - Why?
- Which elements of the concepts should be improved?
 - Why?
- To what extent does the concept fit the brand of de Volkskrant?
 - Which elements fit?
 - Which elements do not fit?
- To what extent Does the concept add value compared to other news apps the participant is already experienced with?

Method

I will answer the questions above by doing early concept evaluations with six participants. There are three steps participants go through, explore, show and explain. Here the participants are initially free to explore the app in their own way. Then they are shown all the parts of the app and asked questions about it. Then the underlying ideas of the parts of the app are explained and the participant is asked questions about the connection between the idea and the concept.

Prototype link:

<https://www.figma.com/proto/BTBAPkYO82XQ6KwkZ6jKFZ/VK-app-ontwerp?page-id=0%3A1&node-id=0%3A1&viewport=241%2C48%2C0.6&scaling=scale-down&starting-point-node-id=55%3A974&show-prototype-sidebar=1>

Participant sample selection

6 participants were selected. Just as in the user research all participants are currently subscribed to the Volkskrant and use their digital products. Selection criteria/goals were:

- A wide range of age groups → diversity
- A balance between sexes → diversity
- Currently subscribed to VK → already familiar with the VK brand, knows the identity
- Already use digital news products, VK and/or other brands. → are used to digital news, familiar with digital news products

Evaluation approach

- Interviews with participants
- Digital, via Zoom with an online prototype
- Observation of participant expressions and behaviors towards the concept
- *AttrakDiff* questionnaire to evaluate hedonic as well as usability aspects

Test script

Introduction

Hoi! Ik ben Diede, leuk dat je tijd hebt om feedback te geven op een concept van de Volkskrant app. Voor mijn afstuderen aan de TU Delft heb ik namelijk een nieuwe app voor de Volkskrant ontwikkeld. De app bestaat uit verschillende onderdelen en ik zal je vragen stellen over deze 4 onderdelen. Het ontwerp is nog niet af dus we gaan aan de hand van een aantal schermen bespreken wat je er fijn aan lijkt, wat je er minder fijn aan lijkt en wat je van de gehele app vindt.

Ik zal je deze sessie de vragen stellen, deze wordt ook opgenomen zodat ik het later terug kan kijken en me nu volledig kan focussen op ons gesprek. Een kleine formaliteit, zou je misschien het **consent form** willen ondertekenen? Deze heb je ook al via de mail gehad. Om het samen te vatten, hierin staat dat je er mee akkoord bent dat je mee doet aan deze evaluatie en dat je het oke vindt dat deze sessie wordt opgenomen. → ik zal je later nog een consent form toesturen

Appendix C – Interview guide concept evaluation

Tijdens deze sessie is het belangrijk dat je weet dat alle feedback welkom is. Dit is geen test voor jou maar jij test de app. Je kan niks verkeerd zeggen. Dus ook als iets niet naar wens is of als je het graag anders zou zien dan hoor ik dat graag! Maar ook als je iets heel fijn vindt natuurlijk

Hiernaast is het belangrijk om te onthouden dat dit een versie van de app is die nog niet af is. Daardoor kan het zo zijn dat sommige dingen er nog niet helemaal af uit zien of dat er onderdelen missen. Als iets onduidelijk is wees dan ook niet bang om vragen te stellen! Het voordeel hiervan is dat de feedback die jij geeft ook daadwerkelijk nog kan worden meegenomen voor het uiteindelijk ontwerp. Als iets niet werkt of als iets anders reageert dan je had verwacht dan zou het enorm behulpzaam zijn als je uitlegt wat je had verwacht dat er zou gebeuren.

En als laatste, het zou fijn zijn als je zo veel mogelijk hardop denkt tijdens de evaluatie. Dus wees niet bang om je gedachte uit te spreken, het hoeven niet alleen maar goed geargumenteerde meningen te zijn. Juist de

Voordat we beginnen, heb je nog vragen?

Intro questions

1. Wat doe je in het dagelijks leven?
2. Hoe vaak gebruik je apps op je telefoon?
3. Welke gebruik je het meest?
4. Wat voor een soort abonnement heb je?
5. Hoe lang heb je al een abonnement op de Volkskrant?

Experience and brand knowledge questions

1. Hoe vaak lees je het nieuws digitaal?

2. Hoe vaak lees je nieuws op je telefoon?
3. Hoe vaak gebruik je de Volkskrant app?
4. Welke andere nieuws-apps gebruik je nog meer?
5. Wat is je favoriete nieuwsapp?
6. Waarom?

Concept Evaluation

Make co host to be able to start screen sharing

Prototype heel klein → niet goed te zien

<https://www.figma.com/proto/BTBAPkYO82XQ6KwkZ6jKFZ/VK-app-ontwerp?page-id=0%3A1&node-id=0%3A1&viewport=241%2C48%2C0.6&scaling=scale-down&starting-point-node-id=55%3A974&show-prototype-sidebar=1>

Oke, nu gaan we verder met het uitproberen van het nieuw concept voor de Volkskrant app. Zoals ik al eerder heb uitgelegd is deze app nog niet af, sommige onderdelen zullen daarom nog niet goed werken, dit ligt aan mij en niet aan jou! Dus als iets niet werkt zoals je verwacht, vertel dan gerust wat je had verwacht dat er zou gebeuren.

We gaan in stapjes door de app heen. Eerst mag je zelf de app verkennen, hierna zal ik de dingen aan je laten zien die je gemist hebt en als laatste leg ik de achterliggende gedachten uit en ben ik benieuwd naar je feedback daar op. Als laatste wil ik het nog even hebben over jou complete ervaring en zal ik nog wat afsluitende vragen stellen. Is dat duidelijk? Heb jij nog vragen? Oke, laten we dan beginnen. Nog een laatste ding, het zou mij enorm helpen als je al je gedachten hardop uitspreekt zodat ik weet

wat je denkt en welke overwegingen je maakt. Dus alles wat er in je op komt hardop uitspreken als dat lukt!

Explore 5 minuten

De participant mag eerst zelf de app verkennen. Hierbij gaat het er om wat de eerste indruk is en wat de participant begrijpt aan het doel. Alle input is hier welkom, het gaat hier vooral om de eerste indruk. 5 minuten.

Mogelijke vragen:

- Hoe gaat het?
- Wat ben je aan het doen?
- Kan je me vertellen wat je nu denkt?
- Waarom doe je [x]?
- Wat verwacht je dat er nu zou gebeuren?

Show

Afhankelijk van hoe spraakzaam de participant is kunnen onderdelen bij show worden overgeslagen. Als deze vragen al beantwoord zijn.

Voorpagina

- Wat denk je hier van?
- Wat doet dit denk je?
- Hoe zou je dit kunnen gebruiken?

Dossiers

- Wat denk je hier van?
- Wat doet dit denk je?
- Zou je dit kunnen gebruiken?
- Aantal dossier zichtbaar

Voor jou

- Wat denk je hier van?

Appendix C – Interview guide concept evaluation

- Wat doet dit denk je?
- Hoe zou je dit kunnen gebruiken?

Uitdagingen Wat denk je hier van?

- Wat doet dit denk je?
- Zou je dit kunnen gebruiken?

Uitzoomen/timeline overview

- Wat denk je hier van?
- Wat doet dit denk je?
- Hoe zou je dit kunnen gebruiken?

Explain

Het idee achter de app is dat hij je meer door het nieuws en de beschikbare artikelen leidt, De curerende rol van de Volkskrant speelt hierbij een belangrijke rol. Dit zie je terug in de dossiers, waarin relevante artikelen over 1 onderwerp gebundeld zijn. In de overviews, waar je de mogelijkheid krijgt om een tijdlijn van belangrijke gebeurtenissen te zien en de netwerk overview waar je kan zie hoe een artikel zich verhoudt ten opzichte van andere artikelen. Zo krijg je een beter overzicht van het totaalplaatje en staan artikelen minder op zichzelf. Ook de uitdagingen zijn een manier om lezers uit te dagen een completer beeld te krijgen van een situatie of zich te verdiepen in een onderwerp. Het delen van bijvoorbeeld artikelen en het opbouwen van gezamenlijke ideeën zorgt er voor dat de volkskrant ook de sociale functie van het lezen en delen van artikelen ondersteunt.

Wat vind je hier van?

Ik wil nu per onderdeel wat dieper in gaan op de uitleg en uitwerking en jou mening daar over.

Om te beginnen met de voorpagina

Voorpagina

Op de voorpagina zie je nu 1 groot artikel met daar onder relevante artikelen, deze kunnen ouder zijn of ook recent geschreven maar ze gaan allemaal over het zelfde onderwerp. Zo kan je een belangrijke gebeurtenis meteen in en bredere context plaatsen. De rest van de voorpagina is redelijk het zelfde zoals je gewend bent alleen wordt het nu als lijst gepresenteerd. Zo kan je meer artikelen zien en heb je dus een beter overzicht van het nieuws van het moment. Ook zijn dit niet perse de laatste artikelen maar hier staan de artikelen die de Volkskrant redactie het belangrijkste acht.

- Sluit de uitleg aan bij de uitwerking?
- Zou je dit gebruiken?
- Wat vind je er goed aan?
- Wat kan er beter?
- Wat zou je anders willen?

Dossiers

Dit zijn dossiers, hier worden artikelen op onderwerp verzameld. Zo is het makkelijk om meer over 1 onderwerp te lezen. Zo kan je je makkelijk verdiepen in een onderwerp. Dossiers worden ook onderaan artikelen aanbevolen zodat je na het lezen van een los artikel je een selectie van relevante artikelen te zien krijgt en het ook duidelijk is waarom deze relevant zijn.

- Sluit de uitleg aan bij de uitwerking?
- Wat vind je er goed aan?

- Wat kan er beter?
- Wat zou je anders willen?

Uitdagingen

Door middel van uitdagingen kan je heel gedoseerd je verdiepen in een onderwerp. Ook kan dit worden gekoppeld aan toekomstige gebeurtenissen, bijvoorbeeld verkiezingen. Zo is een uitdaging niet alleen een leuk doel voor jezelf maar begeleid het je ook door de overvloed aan artikelen en geeft het je een dagelijks doel.

- Sluit de uitleg aan bij de uitwerking?
- Wat vind je er goed aan?
- Wat kan er beter?
- Wat zou je anders willen?

Uitzoomen/tijdlijn

Door het uitzoomen kan je goed overzicht krijgen van de context waarin het artikel zich bevindt en hoe het zich verhoudt tot andere artikelen. Je kan hier kiezen voor verschillende weergaven die verschillende soorten connecties tussen artikelen weer kunnen geven

- Sluit de uitleg aan bij de uitwerking?
- Wat vind je er goed aan?
- Wat kan er beter?
- Wat zou je anders willen?

Mijn nieuws

Op de voor jou pagina staan alle onderwerpen en auteurs die jij volgt en hun laatste artikelen. Ook kan je hier de challenges terug vinden en zien welke je al hebt behaald/hoe ver je bent.

Appendix C – Interview guide concept evaluation

- Sluit de uitleg aan bij de uitwerking?
- Wat vind je er goed aan?
- Wat kan er beter?
- Wat zou je anders willen?

Afsluitende vragen

1. Hoe vond je het gaan?
2. Wat was je algemene indruk van de app?
3. Wat vind je een voordeel aan deze app ten opzichte van andere apps?
4. Wat vind je een nadeel van het concept ten opzichte van andere apps?
5. Wat mis je nog?
6. Wat zou je weglaten?
7. Vind je dat de app aansluit bij de identiteit van de Volkskrant?
 - a. Wat sluit er wel aan?
 - b. Wat past minder goed?
8. Hoe verhoudt dit concept zich met de andere nieuws apps die je gebruikt?
9. Is er nog iets wat je nog is opgevallen of wat niet ter sprake is gekomen?

Dankjewel voor het meedoen! Het was ontzettend behulpzaam om jou feedback te krijgen! Ik heb nog een laatste opdracht voor je, zou je de vragenlijst willen invullen die ik je via de mail heb gestuurd? Je mag het prototype er bij houden als dat makkelijker is.

→ AttrakDiff

Dankjewel!

Account aanmaken en dan eigen app indelen
Tijdslijn indelen, netwerk overview

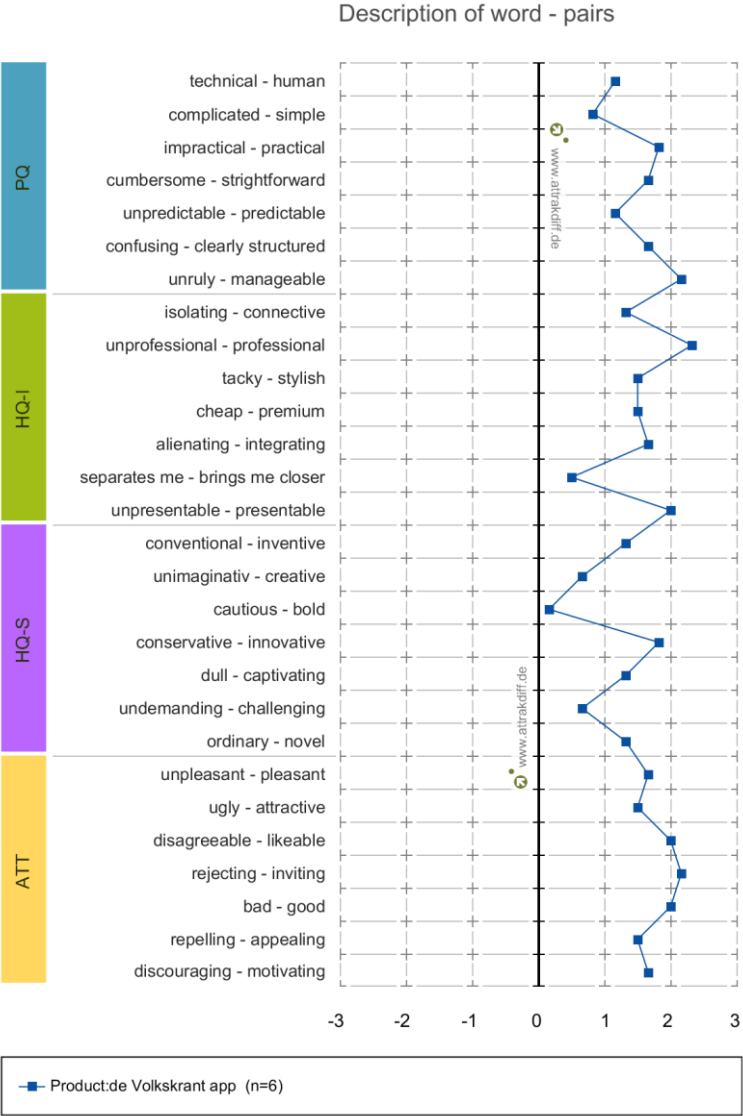
Data verzameling

- Audio en video opname participant
- Video opname scherm

Dataverwerking

- Transcriberen en coderen van interviews
- Observeren video opnames
- Clusteren inzichten, thema's uitwerken, recommendation schrijven
- Reflecteren op elk onderdeel.
- Ontwerp herzien voor verslag en aantal pagina's uitwerken

Appendix D – AttrakDiff



Appendix E – Intervention Protocol and Questionnaire

Research question CDI Intervention:

- What changes should be made within the organisation, according to VK employees, to realise a digital first future?
- How do VK journalists think the VK app concept will influence their work and the organisation as a whole?
 - What changes will have to be made to realise the future the concept envisions?
 - Related to professional development and skills
 - How do they think such skills or knowledge should/can be acquired?
 - How will the changes made to the VK app impact the organisation and the work of VK journalists?
- How does changing the boundary object, de Volkskrant krant, impact the journalists attitude towards transformational change and the digital future?
 - Does it help them to envision the future state, a completely digital future, of the VK organisation?

Dfl Research questions (concept validation)

- What do VK journalists think about the proposed concept?
 - Do they see the potential of the concept?
 - Why/why not?
 - What are the issues they worry about?
- How will this app change the work you are doing?
 - Extra work? Different work approach?

Questionnaire

Next to the interviews, I also set out a questionnaire to gain more insight in the general attitude within the Volkskrant organisation. Questions asked in this questionnaire are similar to questions asked during the interviews.

Ontzettend bedankt dat je de tijd wil nemen om me te helpen met mijn afstudeeronderzoek. Mijn onderzoek gaat over de digitale toekomst van de Volkskrant en hoe dit de organisatie zal beïnvloeden. In deze vragenlijst zal ik je eerst wat algemenere vragen stellen, daarna mijn nieuwe concept uitleggen en introduceren en dan vragen stellen aan de hand van dit concept.

1. Zou je een korte uitleg kunnen geven van het werk dat je doet binnen de Volkskrant?
2. Hoelang ben je al werkzaam bij de Volkskrant?
3. Wat is volgens jou de belangrijkste verandering geweest binnen de organisatie in de tijd dat jij er nu werkt?
 - a. Hoe heeft die verandering impact gehad op jouw werkzaamheden?

Ik wil je vragen om de volgende vragen te beantwoorden aan een scenario. Het scenario is als volgt; Het is 2030, de Volkskrant is een volledig digitale krant. Print bestaat niet meer en de focus is nu dus volledig op het brengen van online nieuws. De meeste artikelen worden gelezen via de Volkskrant app. Dus stel dat de gedrukte krant wegvalt;

Appendix E – Intervention Protocol and Questionnaire

1. Hoe denk je dat de Volkskrant app er dan uit ziet?
2. Is de Volkskrant dan nog even goed?
3. Mist er dan iets?
4. Hoe veranderd je werk dan?
5. Denk je er wel eens over na wat er zou gebeuren als de papieren krant ophoudt met bestaan?
6. Waar denk je dan voornamelijk over na?
7. Heb je het hier ook wel eens over met je collega's?

Concept evaluatie

De volgende vragen gaan over een concept voor de volkskrant app dat ik heb ontwikkeld. Aan de hand van het concept wil ik je vragen stellen over de toekomst van je de Volkskrant en hoe dat je werk bij de Volkskrant zal beïnvloeden. Het scenario omschreven op de vorige pagina geldt nog steeds. Dit concept heeft dus de papieren krant vervangen en is het voornaamste product wat nu door lezers wordt gebruikt.

Belangrijk om te onthouden is dat het om een prototype gaat. Het gaat dus om de ideeën erachter en niet de uitwerking van de details. Ik wil je dan dus ook vragen om voornamelijk te focussen op het idee erachter en om te proberen je een situatie voor te stellen waar dit ontwerp helemaal af is.

Uitleg concept + screenshots/link naar ontwerp

Mijn visie op de digitale app is en app waarbij de Volkskrant een sterke curerende en begeleidende rol inneemt. De functionaliteiten zijn erop gericht om de lezer een volledig beeld te geven van een situatie

of onderwerp. Hierdoor staan artikelen minder op zichzelf en worden de verbindingen en de relatie tussen artikelen belangrijker.

Image

Dossiers: In Dossiers worden de belangrijkste artikelen over een onderwerp verzameld. Zo is het makkelijker om je als lezer te verdiepen in een bepaald onderwerp. Zo kunnen lezers op een gestructureerde manier gebruik maken van het archief aan artikelen dat de Volkskrant in zijn bezit heeft.

Image

Overzichten: om een overzicht te krijgen van de context van artikelen gebruiken lezers verschillende soorten weergaves. Zo kunnen ze een netwerk overzicht zien met daarin elementen die artikelen verbinden. Zo kunnen ze makkelijker verbanden leggen en staan artikelen niet op zichzelf maar zijn ze onderdeel van een grote verhaal.

image

Mijn nieuws: mijn nieuws is de plek waar lezers artikelen terug kunnen vinden die ze hebben gelezen, hun geschiedenis, opgeslagen of de auteurs en onderwerpen die ze volgen. Ook zit hier een gepersonaliseerde sectie in waar je kan zien over welke onderwerpen je veel leest en daagt de app je uit om je of juist verder te verdiepen in deze onderwerpen of juist uit je bubbel te trekken en je

artikelen aan te bieden die buiten je normale leesgedrag staan.

image

Uitdagingen: Ook kunnen lezers op de mijn nieuws paginuitdagingen en hun voortgang in die uitdagingen vinden. Uitdagingen zijn een manier om gedoseerd geüpdatet te worden over een onderwerp. Het voorkomt dat lezers overweldigd worden door een overvloed aan artikelen en geeft ze een doel. Ook helpt het ze om zich bijvoorbeeld in te lezen in een onderwerp. Zo kunnen ze zich inschrijven op de verkiezingen uitdaging, hierbij krijgen ze vanaf twee maanden voor de verkiezingen elke paar dagen een nieuw artikel over hoe verkiezingen werken en wat de verschillende partij programma's zijn. Zo neemt de Volkskrant ze meer aan de hand door lezers door het nieuws heen te begeleiden en ook is het mogelijk een verhaal te vertellen over de duur van een aantal weken.

Vragen over verandering

1. Als je naar dit concept kijkt, welke veranderingen binnen de Volkskrant organisatie moeten er dan komen?
2. Hoe zal dit je eigen werk beïnvloeden?
3. Wat vind je daarvan?
4. Welke taak vind je dat jij hebt met betrekking tot de digitale innovatie van de Volkskrant?
5. Welke activiteiten onderneem je/zou je willen ondernemen om deze taak te vervullen?

Appendix E – Intervention Protocol and Questionnaire

6. Nodigt de app je uit om samen met je collega's kritisch te kijken naar de toekomst van de krant?
7. Welke aspecten of features spreken hierbij het meest tot de verbeelding? En waarom?
8. In welke situaties wordt er samengewerkt op de redactie?
9. Nodigt de app je uit om meer samen te werken met collega's?
10. Welke kennis of vaardigheden zullen in de toekomst nodig zijn die nu nog missen binnen de organisatie?
11. Stel dat er kennis of vaardigheden nodig zijn in de toekomst die jij nog niet hebt. Zou je dan deelnemen aan activiteiten om die te leren? Waarom wel/niet?
12. Heb je het gevoel dat het vergaren van nieuwe kennis/vaardigheden wordt gestimuleerd?
13. Vind jij dat er een duidelijk visie is voor de (digitale) toekomst van de Volkskrant? Zo ja, wat is deze visie dan? Zo nee, waardoor komt dit volgens jou?
14. Waar zou deze visie op gebaseerd moeten zijn?
15. Heb je het idee dat de app kan helpen om richting te geven aan de toekomst? Waarom wel/niet?

Afsluitende vragen

1. Als je de Volkskrant van de toekomst zou moeten omschrijven in 1 zin, hoe zou je dat dan doen?
2. Vond je nadenken over de toekomst makkelijker nadat je mijn concept had gezien? Waarom wel/niet?
3. Heb je nog opmerkingen over het onderzoek of ideeën over de toekomst van de Volkskrant?

Appendix E – Intervention Protocol and Questionnaire