Improving the user experience of brand portals by identifying the user needs and developing three patterns to improve the users' personalized experience.

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This study investigates if common preconditions can be found for a user friendly brand portal, so it can contribute to improve the brand performance of the organization of that brand portal. A contextual inquiry and paper prototype session are performed to investigate what the current user experience is in brand portals, and to explore the possible solutions identified problems. The results show that current brand portals mostly lack on the completeness and findability of information, and that users would like to have a personalized experience in the brand portal. Three personalization patterns are identified which can enhance the individual experience. The preconditions of these three patterns are expected to improve the user experience for the completeness and findability of information of brand portals in the future, and therefore as a consequence the brand performance.

DAM; Digital Asset Management; User Experience; UX; Brand portals; Brand Management;

1. Introduction

The meaning of a brand for an organization transformed over the years. Starting as a trademark of ownership, the brand is currently evolved to a holistic experience [1]. This means that everything where an organization stands for, is part of the brand expression, and therefore the brand is an organizational wide affair. To improve an organizations brand performance - which can be seen as a relative measurement of a brands' success in the market place [2] - the brand should be approached as holistic and should be managed in this way too. The brand portal is a tool that supports the management of a brand. According to Bloom [3], a brand portal is web-hosted software which has as core functionality to manage the digital brand assets of a brand and provides capabilities for ingestion, storage, retrieval, collaboration, and life cycle management of rich media assets, including text, graphics, images, videos and audio. The brand portal is an important element in the brand management ecosystem, because it provides a central environment where the brand can be controlled and managed. Besides that, the brand portal provides access to the brand to the whole organization and its stakeholders to create on-brand assets.

Thus, optimal use of the brand portal is beneficial to the brand. However, up until recently most organizations neglected to digitalize and perform user research on digital products in organizations [4], [5] and focused on the consumer market. Besides that, in the last few years software has become increasingly complex due to the evolution of making integrations with other software [6]. This is also the case for the brand portal, which is often integrated with other marketing or design software. The focus on the consumer market and the integrations with other software could indicate that the brand portal is running behind. Moreover, due to the COVID-19 pandemic user friendly tools are more important than ever, since users have to rely on it due to the necessity of working remote [7].

1.1. Research gap

In order to develop user friendly software, user experience research is important to perform. A user friendly brand portal can be important to ensure the brand portal is used by the whole organization. The expectation is that a user friendly brand portal is more easily adopted, and can therefore contribute to making the brand portal an organizational wide affair, suiting the holistic approach for a brand. When the brand portal suits better to its users, this can improve the brand performance of that organization.

This study investigates if common preconditions for a user friendly brand portal can be found, so it can be measured how current brand portals perform. These preconditions can also show how future brand portals can be improved, so they can help to improve the brand performance. This paper will describe the steps that are undertaken to come to these preconditions. First of all, a background research is performed, investigating what the different functionalities of brand portals are, defining the different brand portal users. This is followed by a framework, describing the design thinking approach which is used to shape the user interviews. Consequently, the methodology describes the performed research methods: a contextual inquiry, a paper prototype a validation interview. After that, the results of these three interviews are elaborated. This paper will focus on three discovered patterns which have an important role in improving the user experience. Finally, the results are discussed followed by the conclusion and some recommendations for future work.

2. Background

To get an overview of the subjects related to brand portals, a background analysis is executed. This background analysis elaborates on the four modules where current brand portals exist out of, and identifies the different users who use a brand portal.

2.1. Brand portal modules

Currently there are a lot of different brand portal suppliers [3], [8], [9], all having their unique selling points and different functionalities. However, globally four different modules can be distinguished where brand portals can exist out of: (1) a media bank, often called a DAM, (2) a guidelines module, (3) a templating module and (4) workflow facilities, whereof the DAM and

guidelines module are available in all brand portals. This study will focus on the guidelines and DAM modules.

The DAM lies often at the heart of a brand portal. In the DAM, all assets which are used to by the brand are stored and can be managed. Figure 1 shows an example of a DAM page in a brand portal. The DAM module in brand portals often exists of a couple of standard elements: Figure 1 nr. (1), shows that a large part of the page is dedicated to showing a grid of previews of the available assets. Figure 1 nr. (2)(3), shows that with a search function and filters, users can narrow down the amount of shown results. Users can filter on asset type, and other properties of a file, like the campaign where an asset can be part of. If a user has the user rights to do so, this page also facilitates to upload new media (Figure 1 nr. (4)).
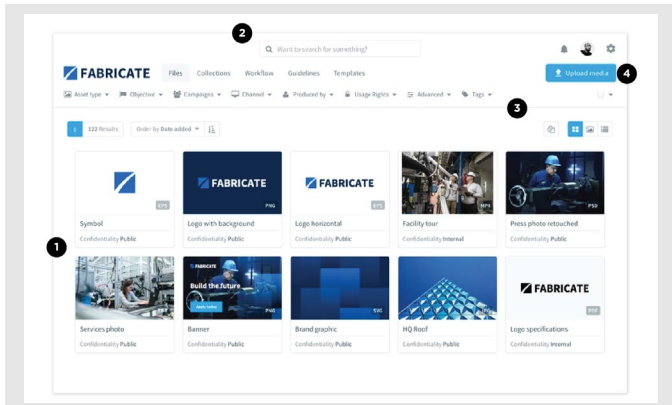

Figure 1.; Example of a DAM page in the Bynder portal with (1) previews of the available assets, (2) a search function and (3) filters and (4) the option to upload media [9].

The guidelines module offers a central, online accessible place where the guidelines on the usage of the brand can be captured. Figure 2 shows an example of a part of a guidelines page. The guidelines page is often built up out of several elements. Figure 2 nr. (1) shows that at the left side of the screen there is tertiary navigation, showing the different guidelines for specific building blocks or applied designs. A large part of the screen is dedicated to the guidelines themselves (Figure 2 nr. (2)). Text is supported by imagery explains the guidelines. These pages can offer some tools and interactions, it can be more than flat text. Figure 2 nr. (3) shows for example that the colour codes can be easily copied by a user.
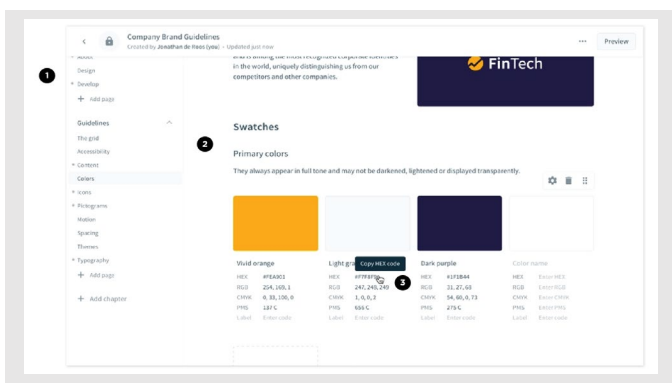

Figure 2.; Example of a guidelines page in the Bynder brand portal with (1) at the left side the navigation showing the different guideline sections, (2) and at the right side the guidelines itself with text and (3) more interactive elements [9].

2.2. Brand portal users

The introduction stated that preferably the whole organization makes use of the brand portal. In order to discover the preconditions for a brand portal for all brand portal users, all the (potential) users of brand portals should be taken into account. Giling [10] states that an organization can globally be separated into eight different departments. Giling states that the brand should be the pivot of these departments, in order to have the brand as a holistic approach. Table 1 shows these departments and provides a brief explanation:

	Department in an organization:	Explanation
The brand as pivot of these departments	Marketing and communication	The department combining the marketing channels and tools to communicate with the market aiming for brand awareness, promotion or advertising.
	Sales	Selling the product or service. Contact with consumers or clients.
	Human Resources	The department that deals with the organizations workforce and the recruitment of new employees in onboarding.
	Operations	Managing the operations and processes. For example making sure that the launch of a new product is on time.
	Executive management	The board.
	Research	Research for new opportunities for services and products.
	Product development	Production of services and products.
	Services	ICT, Finance.

Table 1.; Departments in an organization with the brand in the centre of these departments [10].

Based on these departments, eight different brand portal user groups can be determined which cover all the end-users of the brand portal. These user groups are used to ask participants for the interviews. An overview of these eight brand portal user groups is shown in Figure 3.
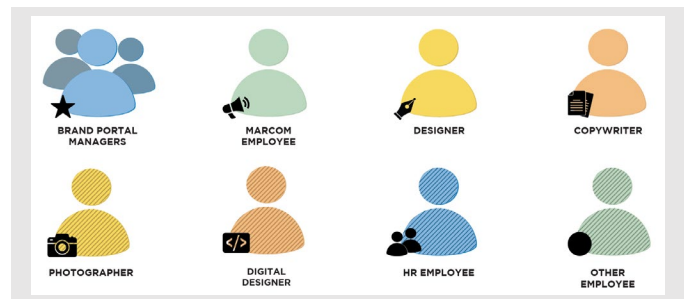

Figure 3.; Overview of the eight user groups of brand portals.

3. Framework

The design thinking approach is used as framework for this study. It helps to find an innovative solution which truly understand its users, challenge assumptions, redefines problems and creates a solution which can be prototyped and tested [11]. The design thinking approach exists out of six phases: (1)

Emphasize → (2) define → (3) ideate → (4) prototype → (5) test → (6) implement. The main takeaway of this approach is that when each stage is followed, an innovative solution can be designed, and a fundament is created to improve brand portals in the future. Due to the scope of this study, not every phase can be addressed. The next chapter will show which phases of the design thinking approach are used to draw up the setup of the user interviews.

4. Methodology

The fist user interview focused on measuring the current user experience in brand portals, emphasizing with the brand portal users and defining the user needs (Phases 1 and 2 from the design thinking approach). The second user interview focused on ideating on the possible solutions and indicating which possible solutions are interesting to elaborate (Phase 3 and 4 from the design thinking approach). The third interview validated a visual representation of a brand portal that was created based on the results from the first two interviews (Phase 5 from the design thinking approach). The following paragraphs will elaborate on the research methods of each user interview that are used in order to achieve this.

4.1. User interview 1 – Contextual inquiry

A contextual inquiry was chosen as research method to perform with the users of brand portals. A contextual inquiry is an ethnographic research methodology which combines interviewing with usability testing [12]. This enables the researcher – the person who is executing this study – to observe the user in his/her natural environment as they conduct tasks in the product, and the researcher can ask the user er for information to understand why and how the user does what s/he does. For this contextual inquiry, seventeen brand portal users from corporate organizations are interviewed, using six different brand portals. Table 2 shows the participants of the three user interviews, which participants participated in the contextual inquiry, and which brand portal they used.

To test the user experience of current brand portals, six UX aspects are defined where current brand portals can be graded on. These six UX aspects are based on the four levels of user experience defined by the Interaction Design Foundation [13], and the seven aspects of experience in the information architecture discipline by Morville [14]. The combination of these two definitions of user experience is chosen since it provides a more concrete explanation of the aspects where the participants of this interview can grade the brand portal they use on. The six UX aspects are: (1) Brand portal goal, (2) Brand portal design, (3) Brand portal accessibility, (4) Completeness of brand portal

information, (5) Findability of brand portal information, and (6) Reliability and trustworthiness of the brand portal.

The setup of the contextual inquiry existed out of four different parts. The first part existed out of background questions to identify the main information about the participants and their relation to the brand portal. The second part existed out of performing tasks in the brand portal in the different brand portal modules. This was followed by grading the user experience in the tested brand portal, using the six UX aspects. Finally, a small ideation was performed to summarize the session and to write down the user needs of that user as future brand portal functionalities. The contextual inquiry was held online in a Teams meeting by making use of a collaborative whiteboard platform to fill in the data. Besides that, the researcher also made fieldnotes.

4.2. User interview 2 – Paper prototyping

Paper prototyping was chosen for the second user interview. This method suited very well, to validate some first ideas that resulted out of the contextual inquiry, and to explore the possible solutions where a future brand portal should comply with in order to improve the user experience. Table 2 shows which participants participated in the paper prototype session.

The contextual inquiry made it clear that the user needs differed per brand portal page and module. Therefore, three screenshots of the most used pages of a brand portal were designed to use as a basis for the paper prototypes: (1) a homepage, (2) guidelines page, and (3) DAM page. Per page, the most important subjects that occurred in the contextual inquiry were treated. The paper prototype session was also held online in a Teams meeting by making use of a collaborative platform. Figure 4 shows an overview of the setup of the paper prototype session, and shows a screenshot of the home page, with at the left interface elements to prototype with.
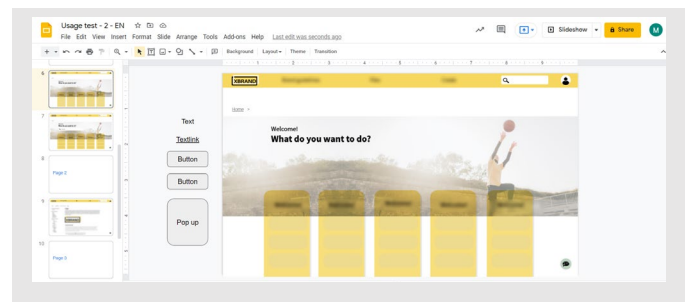

Figure 3.; Setup of the second usage test in Google Slides with interface elements at the left of the homepage.

Nr.	Function group	Tested brand portal	Interview 1	Interview 2	Validation	User level
1	Traditional designer	beta	x	x	x	2
2	Traditional designer	beta	x	x		2
3	Marcom employee	delta	x	x		3
4	Traditional designer	beta	x	x	x	2
5	Copywriter	alpha	x	x	x	2
6	Traditional designer	alpha	x	x	x	1
7	Brand manager	beta	x	x		3
8	Traditional designer	alpha	x	x	x	2
9	Brand manager	Zeta	x	x	x	3
10	Admin	alpha	x	x	x	3
11	Brand manager	alpha	x	x	x	3
12	Other employee	gamma	x	x		1
13	Other employee	gamma	x	x	x	1
14	Photographer	alpha	x*	x	x	2
15	Digital designer	alpha	x*	x	x	1
16	Other employee	epsilon	x		x	1
17	HR employee	Zeta	x*			1
18	Digital designer	n/a		x		1
19	Digital designer	n/a		x	x	2

Table 2.; Dataset of participants. The participants marked with an asterix *, did not perform the whole interview. They did not perform the set tasks in the brand portal

4.3. User interview 3 – Validation

Based on the results from the two user interviews – that will be discussed in the next chapter –, a visual representation of a future brand portal was made in Adobe XD,. Adobe XD is a prototyping tool where the user experience of designs can be tested. Visual representations were made of the homepage, guidelines page and DAM page. These pages were validated with a couple of participants from the first and second interviews. Table 2 shows which participants participated in the validation session.

The validation session was also held online. The visual representations were shared with the participants via the Adobe XD functionality, to share a weblink where the visual representation is shown. The visual representation of the guidelines page can be found here: https://xd.adobe.com/view/6d79f266-e675-448b-8971-4c93c55863c8-382a/ The participants were asked to fill in an online form, answering yes and no questions if they preferred a new implemented idea based on the results on that page or not.

5. Results

The results from the first and second interview show that users would like to have a more personalized experience in the brand portal, based on their individual behavior and characteristics. The brand portal scores on the UX aspects show that the findability and completeness of current brand portals lack the most. As a consequence, users perceive it hard to find the content they need and are not sure in which ways the brand portal can serve them. The results also show indications that when these two UX aspects are improved, the other UX aspects and consequently the overall user experience will also improve.

Identifying user needs on an individual level can help to determine preconditions to improve brand portals on the findability and completeness of information UX aspects. In the case of a personalized experience, a user is only provided with the brand content s/he needs and is not bothered by unnecessary information which can be distracting or confusing.

In order to enable this personalized experience, three personalization patterns are discovered where users have specific needs on. These patterns can help to provide structure in the individual needs. The three patterns are: (1) needs per user function group (which were already defined in Chapter 2.1), (2) needs per user level, and (3) different needs per user flow phase. The following subchapters will elaborate each result category.

5.1. User function groups

Multiple participants suggested in the user interviews that brand portal content should be available specifically for the user function group(s) that a user belongs to. The results show that users would like to have pieces of specific information for them in certain parts of the brand portal. The participants designed a lot paper prototypes which represented this idea, but something like a "for you" section was mostly mentioned. This "for you" section on a page can briefly mention what important information on the brand portal is for the different user function groups. This piece of content then links to other parts of the brand portal where this information is located. This ensures that there is no double information on the brand portal, which is important to maintain the single source of truth.

The design validation showed that the users were enthusiastic about this functionality. An important note the participants mentioned is that every user should be able to access all the user groups, because they might fall under multiple function groups and they do not like to have no overview of the available brand information. s

5.2. User levels

The results also showed that all brand portal users can be categorized in one of three user level groups, based on a combination of three different main end goals they want to achieve when using the brand portal. The three main goals were identified based on the actions the users wanted to perform on the brand portal in the first usage test, and the solutions in the designed paper prototypes in the second usage test. All participants wanted to use the functionalities of a brand portal to eventually work towards one or more of these three identified main goals. The identified main goals can be useful, since they help to understand how the brand portal can facilitate the steps toward these goals more clearly.

The identified main goals are: (1) using brand content available on the brand portal; (2) sharing brand content on the brand portal; and (3) managing the content, brand portal functionalities and user rights on the brand portal. Not all participants wanted or could (because of their limited user rights) achieve all the end goals. The results show that the user function groups can be categorized in three user levels, according to these three main goals. Some user function groups can have more main goals than other user function groups. The three user levels, have different user needs by trying to accomplish their main goal(s).

The identified user level groups are; (1) Content users, (2) Content creators, and (3) Content an Communication managers. Figure 4 shows how these main goals and user groups relate to each other. In this Figure 4 can be seen that:

- User level 1 only has one main goal (main goal 1). This can entail for example downloading a PowerPoint presentation or using a brand portal template.
- User level 2 has two main goals (main goal 1 and 2). So besides the first main goal, this user level want to shoot for example pictures or design icons and share these on the brand portal.
- User level 3 has all three main goals (main goal 1, 2 and 3). So besides main goal 1 and 2, this user level also wants for example edit guidelines text on the brand portal so it is more clear.
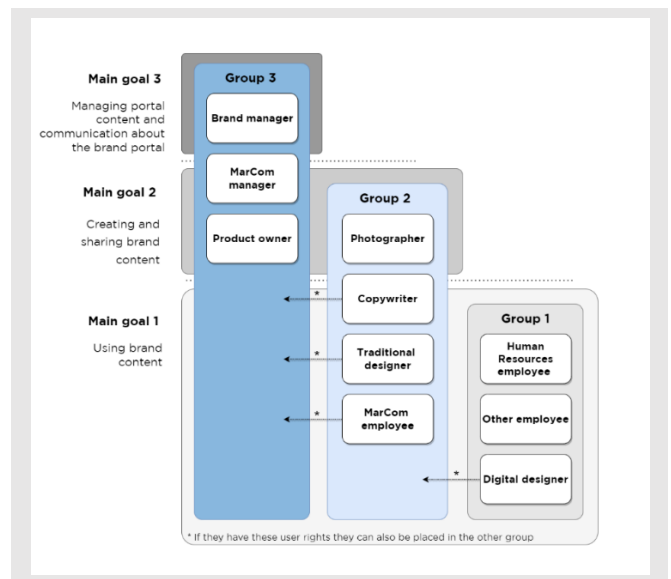

Figure 4.; Overview of the three different use levels, where the user function groups can be categorized in based on the one to three different main goals they have in a brand portal. The asterix * marks that these user function groups can fall into another group, depending on their responsibilities. For example, a copywriter can also have rights to edit brand portal guidelines, in this case s/he would belong to user level 3 instead of user level 2.

The overview of three user levels can help to bring more structure in providing user rights to users and to design the different brand portal pages, so they can facilitate the needs of the different brand portal users. One solution that stood out, was to create personalized quick link panels on the home page, based on the user level that user is belonging to. These quick links can instantly show on the home page what that user can do. For a level 1 user this can entail downloading files or using templates, for a level 2 user this can entail uploading files and/or exploring inspiration options, and for a level 3 user this can entail management tasks.

The design validation showed that the users were very enthusiastic to see the personalized brand portal design based on the user level they were placed in.

5.3. User flow phases

The results also showed that the users move through different phases using the brand portal. Five clear usage phases could be identified based on the performed tasks in the brand portals. Some users move through all the five phases, and some only can move through three or four phases, based on the user level they belong to. Figure 5 shows a visualization of these usage phases. The five phases are:

- Activation phase: The Activation phase includes the user navigating to the brand portal environment and the log-in process. This is the first phase where the user is in before s/he can actually start using the brand portal functionalities. All users move through this phase.
- Orientation phase: This phase entails the orientation of a user to the content s/he needs on a brand portal. This is the phase where users move to after the activation phase, it always follows up the activation phase. All users move through this phase.
- Creation phase: The creation phase entails the actual creation of brand assets and brand expressions. The user moves to this usage phase when s/he has found the right content on the brand portal and is about to do something with it. The Creation phase includes both the creation process on the create module brand portal but also in other software.
- Sharing phase: The Sharing phase is the phase where users share their created assets on the brand portal so other users can use them in the creation or orientation phase. Only user level 2 and 3 move through this phase.
- Managing phase: This phase entails managing the content and navigation and user rights and contact and support on the brand portal. The managing of the brand portal is a phase which is always active, only user level 3 moves through this phase.
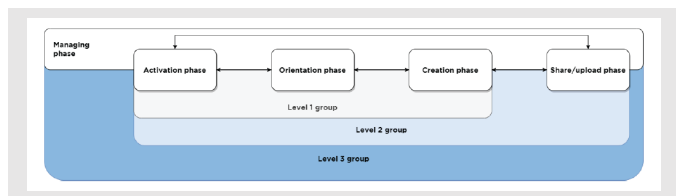

Figure 5.; Identified usage phases where users can move through, it differs per user level how many phases that user level user can move through.

The user flow phases help to understand how the pages which are used in the brand portal should be designed so they lead towards the different goals brand portal users have. Per phase, users have certain needs.

The design validation showed that the users liked that they were facilitated in the next step, because it makes it easier for them to reach their goal. However, they said that it was important to ensure that the design of a brand portal should not become too overwhelming. There should be a clear hierarchy in relevance of the different facilitations for the potential next steps.

6. Discussion

The user needs for the three personalization patterns could be seen as common preconditions which can help to improve the user experience in brand portals in the future, so they contribute to improving the brand performance of a brand.

The first discovered pattern, the definition of the eight user function groups can be useful when developing a brand portal which offers a personalized experience to the user in a couple of ways. First of all, the user function groups can function as personas. These personas can help the people who develop, implement and manage the brand portal to interpret more easily what a user with a certain function needs when using a brand portal. It can help to create specific content for these user function groups, or the brand portal can present for example quick links based on the user function group that user is categorized in. However, the design validation showed that some users fall under multiple user function groups, and not all the user function groups are validated. Therefore, this set of user function groups is maybe not representable.

The definition of the three user levels, where the user function groups can be divided in, can also be very useful for a personalized experience. They provide a simplified overview of one to three main goals users can have. Based on these main goals, users have specific user rights which define what these users want and can do on the brand portal. In order to provide a personalized experience, the three user levels can help to design the brand portal pages according to the one to three goals a user has. So the user levels provide insight in the certain bandwidth of preferences of what the brand portal should look like for the three levels. The design validation confirmed that the participants identified themselves in these user levels on the homepage and apart from the level 3 users, who wanted to see how the homepage looks like from the level 1 and 2 perspective. However, it was a challenge to clarify the difference between the user function group pattern and the user level pattern. In the end, a clear distinction is made and the validation test showed that there is a difference between the two. The user levels differ from the user function groups in that the user levels provide insight in how a page should be designed, while the user function groups provide insight in which specific information is needed.

The identified user flow phases can help to ensure that each brand portal page facilitates and stimulates the user to reach further in his/her main goal(s) by meeting the needs users have in that phase. The validation test showed that users liked the provided options in the screenshot designs that facilitated the user flow. However, these designs are screenshots and the validation did not represent a normal situation where a user has a task to execute on the brand portal. Besides that, the identified needs for the user flow phases overlap some needs for the user levels.

6. Conclusion

This study discovered common preconditions in the user needs for three personalization patterns. These patterns can help to improve brand portals in the future so they contribute to improving the brand performance of a brand. Since this study is performed in the midst of the COVID-19 pandemic, it provides a good view what the preconditions are during this fast pacing digitalization. However, future research should be performed to

see if this also represents the preconditions for a user friendly brand portal after this pandemic. The next chapter will elaborate on the future work that is recommended.

7. Future work /future research

In order to test if the user function groups are representable for multiple organizations, further research should be done to look if brand portal users from other companies also recognize themselves in one or more of the eight user function groups, or that there are other target groups which are making use of the brand portal and do have different needs. An indication that there is needed a new user function group is when there are a lot of users categorized in the other employees group, since this group does not need specific information for their function group on the brand portal. Another approach could be to identify the brand touchpoints where the brand is expressed to the consumer, and which employees do (partly) have some responsibility to express these touchpoints. Assuming that the brand portal is one of the core technologies in the brand management ecosystem, linking these different employee functions with the brand touchpoints can help to specify and define new user function groups. Besides that, it remains important that these user function groups are updated once in a while. User interviews with all the different user function groups should become a standard in the process of implementing and managing a brand portal.

Besides that, further research can be done to investigate what the potential is for the user levels. Since these user levels provide a way to simplify the user rights a user can have in the brand portal, it can be investigated together with brand portal suppliers how these user levels are linked with the real provided user rights in brand portals in practice. In user tests can be investigated how the different user levels can be expressed on other pages than the home page.

Finally, further research should be performed for the user flow to investigate how facilitating this user flow can look like on each page, when users can test it in a more realistic situation representing a real session in a brand portal.

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