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Journalism Innovation Labs 2.0 in Media Organisations: A Motor for Transformation and Constant Learning

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Abstract: Media organisations and their newsrooms are not structurally equipped to adapt to the dynamic transformation that is increasingly demanded of them. To change this, ten years ago, growing numbers of media organisations began founding journalism innovation labs within their operations. More recently, a new generation of innovation lab has come about that builds on the experiences of the first labs. This paper examines—on the basis of organisational culture and innovation culture as theoretical framework—how journalism innovation labs 2.0 in media organisations are organised and which learnings the lab members have made compared with the pioneers of the first generation. The explorative study focused on five labs in Germany. In some phases of the innovation process the new labs benefited from the pioneering work of the predecessor labs. However, changes in the lab organisation became apparent. A developmental leap is reflected in the manifold efforts of the lab employees not to stay in their laboratory environment but instead to act as an innovation motor for the transformation of their media organisation by knowledge transfer, sharing of new ideas and approaches through advanced training, comprehensive and transparent innovation communication, agile project accompaniment, and personnel rotation. The innovation labs 2.0 apply a process of constant learning and dynamic change.

Keywords: journalism innovation labs; newsroom innovation; media innovation; innovation culture; newsroom management; journalism transformation



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1. Introduction

Media organisations and their newsrooms are subject to a wide-ranging transformation process. Media consumption behaviour is changing, young audiences increasingly wander off, and competition from the digital sector is growing. Media organisations are not structurally equipped to adapt to their dynamic environment. For this reason, beginning some ten years ago increasing numbers of media operations have been setting up innovation labs within their operations, but outside of newsroom routines. This arrangement of organisational independence, while maintaining a close proximity to the content of the newsrooms, appears to offer a high degree of innovation potential. At the same time, however, conflicts with traditions and barriers must be expected (Küng 2013, p. 12; Paulussen 2016, p. 203), which is why labs strive to maintain an independence from the established structures of their media organisations (Boyles 2016, p. 235). A study conducted in 2019 on behalf of the World Association of Newspapers WAN-IFRA identified 123 innovation labs in 29 countries; though this also included university-based labs, incubators and accelerators, internal units' media operations, with a share of 31 percent, made a considerable contribution to the total figure (Bisso Nunes and Mills 2019). Apart from individual labs in the years before, the founding of innovation labs in media organisations began in earnest in the years 2007 to 2011 and occurred more frequently in 2016 and 2017. "Now, journalism is making the construct its own to help fuel innovation and meet the challenges of a sector that has experienced a significant and sustained period of flux" (Bisso Nunes and Mills 2019, p. 7).

The worldwide emerging trend was recognised as a field of media innovation research. Today, some studies are available on the foundation of the first lab generation in which the main focus was on the research of the structures, tasks, and working methods in the labs. Also investigated was their influence on the media organisations as well as resulting innovation products (Zaragoza Fuster and Avilés 2018, 2020; Boyles 2016; Salaverría 2015; Capoano and Ranieri 2017). Despite this, many research gaps on in-house labs in media operations continue to exist. To date, only certain aspects have been examined: research was focused mainly on the models of the first lab generation (García Avilés 2021, 13f.)—e.g., The BBC News Lab in the UK (founded 2012) or the RTVE Lab in Spain (founded 2011) (Zaragoza Fuster and García Avilés 2020)—as well as certain types of innovation such as intrapreneurial units by embedding start-ups within the newsroom (Boyles 2016). In addition, technological solutions for news (Lewis and Usher 2013; Meier et al. 2017) or journalism hackathons as “a community-based laboratory for translating open data from practitioners to the public” (Boyles 2020, p. 1338) have aroused the interest of innovation research.

However, its permanent dynamic transformation as well as the emergence of new competitors and initiatives have ensured that the scientific research and theory sector is a step ahead (Küng 2015, p. 5). In the meantime, a new generation of journalism innovation labs has developed. A number of such new developments founded in Germany during the last one to three years provide a suitable basis on which to investigate these journalism innovation labs 2.0: They build on the experiences of predecessor in-house laboratories, laboratories in other media operations in Germany, and above all, also the experiences in other countries, and therefore they work in a different way. What distinguishes these from the first generation is the fact that the latter were unable to refer to previous experiences of other media organisations when developing the laboratory concept and had instead to create it out of nothing, or at most apply the experience gained by other industry branches to journalism (Zaragoza Fuster and García Avilés 2020; Boyles 2016). Therefore, it is the objective of this paper to examine journalism innovation labs 2.0 in media organisations on the basis of new foundations between 2017 and 2020 and to identify learnings on the organisation of the labs compared with the first generation.

To date, no empirical studies exist on journalism innovation labs in media organisations in Germany. However, general studies on the German media innovation landscape (Buschow and Wellbrock 2020), individual studies on innovation culture (Meier 2020), or self-descriptions and self-reflections on journalism innovation labs are available—such as, for example, from the Bayerischer Rundfunk, the public service broadcaster in Munich (Spanner-Ulmer and Merkle 2019).

The environment and field of experience for these internal media labs now include a variety of other organisational forms for media labs in Germany. They can have their origin in the academic sector, such as the InnoLab of the Hamburg Media School, the Prototyping Lab of nextMedia.Hamburg, or the Innovation Lab of the Darmstadt University of Applied Sciences. In these cases, the main focus can be on academic research and/or the development of their own innovations, but the focus can also be on the cross-linking of science and practice. In addition, independent or state-promoted accelerators, incubator programmes, or initiatives for innovative media start-ups operate under the pseudonym “Lab”. They make available infrastructural, financial, and organisational resources for the purpose of enabling the participants themselves to engage in innovative activities (Buschow 2018, 227f; Buschow and Wellbrock 2020, p. 13). Examples of such promotional programmes in Germany are the Media Lab Bayern, Google News Lab, the VOCER Innovation Medialab, the Journalism Lab of the Media Authority North Rhine-Westphalia, or the Media Innovation Centre (MIZ) of the Media Authority Berlin-Brandenburg.

2. Organisational Culture and Innovation Culture as Theoretical Framework

The journalism profession is steeped in a spirit of scepticism and resistance to change. One reason for this is the fact that, for decades, there was no economic pressure to change.

Another explanation is that rigid routines in newsrooms (Tuchman 1973) have proven their value in managing the major time pressure inherent in news reporting. Scepticism about innovation exists in many industries, but unlike other industries, in journalism a product is not innovatively developed once in a laboratory and then uniformly produced thousands of times—as a car, a chewing gum, or a refrigerator. In journalism, the product changes permanently from day to day, even from minute to minute, if one considers the core of the “news” itself as the product and not the shell of the news, i.e., the format (the newspaper edition, the TV broadcast, or the website). Because the core is volatile, employees love the stability of a routinised shell. This results in a tension between news and format development, which can traditionally be mitigated by seldom bothering newsrooms with new formats or processes. However, the shifting of news content to digital media is massively increasing the pressure to change in the journalism sector (Plöchinger 2013, p. 164). Media organisations with rigid, long-established work processes are especially “falling behind developments” (Heidmeier 2019). In a leaked internal innovation report of the news magazine “Der Spiegel” (Germany) in 2016, journalists complained about the “encrusted, authoritarian structures” at their media operation and concluded: “At present, we do not have the suitable structures, courage and speed necessary to produce something new” (Ürük 2016). Besides such internal obstacles, journalism is confronted by additional, exogenous challenges. Intermediaries, such as Facebook and Google, are starting to become an “all-powerful competition” (Neuberger 2018, p. 11), especially in the battle to grab user attention. The attempt to win over the young audience with digital offerings, and thus strengthen both reach and user loyalty, takes on the character of a relay race.

Against this background, for many media organisations in the last years “innovation” has become a promising area of activity—in the hope of thus being able to secure their future (Spanner-Ulmer and Merkle 2019, p. 246). According to Plöchinger (2013, p. 162), many media organisations seem to consider themselves innovative just by enunciating the term, without launching any genuine transformation. For them to confront their “volatile, insecure, complex and ambiguous environment” (Spanner-Ulmer and Merkle 2019, p. 249), changes in the organisational structure are necessary: “To successfully manage the leap into the digital future, these organisations should have a second operating system in which new teams, new thinking and new production methods emerge transversal to the line structure.” (Heidmeier 2019)

In this change process, the construct of organizational culture and innovation culture comes to the fore as an important theoretical framework in the organisation of journalistic innovation (Steensen 2018; Küng 2017; Schein 2003). The organizational culture basically describes a “pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration” (Schein 1995, p. 222). Even though approaches to a culture of innovation have their origins in technology and innovation management (Hauschildt et al. 2016, p. 98), the cultural aspect in news organizations represents an important aspect for implementing journalistic innovations in a sustainable way (Storsul and Krumsvik 2013, p. 21; Dogruel 2013, p. 378). However, culture is discussed as “biggest obstacle to change in the legacy media newsroom” (Porcu 2020, p. 1556), which brakes innovation processes. The routines at the media organisation can hinder the innovative potential of independently working, structurally delineated innovation units: “[I]nnovative initiatives of the project group were significantly advanced [...], and informal power structures allowed other individuals to block the same innovative initiatives” (Steensen 2009, p. 832). Consequently, by being trapped in their encrusted structures, news organisations can block their own further development (Küng 2013, p. 12; Paulussen 2016, p. 203). According to a study by Boyles (2016, p. 229), the ideas of the “intrapreneurial units” of the first generation “were ultimately isolated from the lifeblood of the broader news organization”.

However, a sustainable culture of innovation in journalism can only be built up if an “orientation [...] toward innovation” (Amabile 1996, p. 8) is pursued not only in the lab but also in the entire media organisation. To do so, innovation communication is used as central

instrument for the diffusion and implementation of innovations in the organisation and for knowledge transfer among all members (Dogruel 2013, p. 40ff.). To fuel the transformation process from journalism innovation labs, the concept of a learning culture with “permission to fail” (Hauschildt et al. 2016, p. 111) is gaining importance even if the theoretical and empirical background still shows gaps (Porcu 2020).

3. Findings on Journalism Innovation Labs 1.0 in Media Organisations

Based on this theoretical framework, we elaborated what empirical findings are already available on the first lab generation. Predominant in the relevant publications are three central objectives and working methods of the first lab generation:

(1) In terms of **content**, the labs offer the possibility to experiment with trends and new technologies and permit the development of innovative journalistic products, processes, and services for users (Zaragoza Fuster and García Avilés 2020, p. 59; Salaverría 2015). Innovation labs in journalism have an interdisciplinary character, e.g., affected by technical and economic influences: “Laboratories are investigating [...] solutions to issues that combine technology and culture, hardware and software, academia and market” (Capoano and Ranieri 2017, p. 40). Despite the use of emerging technologies that labs translate into products and services for journalism, Bisso Nunes and Mills (2019, p. 12) point out that there is an absence of the labs’ own development of new technologies. Practices, values, and tools from the technology sector are applied increasingly to journalism. However, research reveals the difficulties confronting traditional news organisations wanting to implement new technologies into their established structures (Belair-Gagnon and Steinke 2020, p. 1725). Furthermore, journalists fall for the “Shiny Things Syndrome” (Posetti 2018, p. 15), perceiving an overt fascination with technology in their industry that in relation to innovation leads to “burnout and fatigue, and risk stagnation” (Posetti 2018, p. 9). Instead of being blinded by new technological advances and succumbing to pressure due to short product life cycles, Posetti (2018, p. 8) advocates “to move journalism innovation from being ‘technology-led’ to ‘technology-empowered’”. Similarly, Meier et al. (2017) call for a reversal of the initiative: Innovative newsrooms should express their wishes to technical developers, name technical gaps for innovative journalism, and by doing so, provide impulses for technical innovations from the journalism sector.

(2) In terms of **methods** journalism, innovation labs provide a platform for research, adoption and transfer of new knowledge, working methods, and skills (Zaragoza Fuster and García Avilés 2020, p. 45; Flores 2017, p. 169). In this way, labs create a specific, innovative experimenting and learning environment for members of news organisations (Capoano and Ranieri 2017, p. 40; Mills and Wagemans 2021, p. 8) in order to enable the implementation of different types of working culture. Innovation labs use management methods drawn from entrepreneurial journalism. To the fore here are especially working methods conceived for agile processes and aimed at adapting to the dynamic transformation of processes and structures (Küng 2017, pp. 49–52; Zaragoza Fuster and García Avilés 2020, p. 54). Labs frequently take a user-oriented approach in order to recognise the requirements of their target audiences and design the prototypes accordingly (Posetti 2018, p. 22; Zaragoza Fuster and García Avilés 2020, p. 55). In doing so, they refer to research results or cooperate with universities (Meier and Schützeneder 2019).

(3) In terms of **strategy**, journalism labs contribute to the digital and cultural transformation as well as to the innovation plans of their organisations in order to develop solutions for current and future challenges facing newsrooms, media organisations, or the industry (Zaragoza Fuster and García Avilés 2020, p. 54; Bisso Nunes and Mills 2019, p. 5). Salaverría (2015, p. 399), ascribes a two-fold innovation effect to the labs: On the one hand, journalism innovations are created within the innovation labs; on the other hand, labs emerge as a result of the transformation of traditional media and are therefore themselves the outcome of structural and process innovations. As another effect, labs help strengthen the reputation of their media organisation (Zaragoza Fuster and García Avilés 2020, p. 50).

4. Objectives and Methodology

In this study, we analysed the organisation and learnings of five journalism innovation labs 2.0 in media organisations. As mentioned, the background and theoretical framework are the organisational culture and innovation culture of media and newsrooms as well as the findings on first-generation innovations labs. The already existing chronologies of lab phases go back several decades, but these refer to media labs of other kinds, starting with the MIT Media Lab founded in 1985 (López-García et al. 2019, p. 154f; Ruiz Martín and Mellado 2016). However, our division into first- and second-generation labs explicitly refers to journalism innovation labs as part of media organisations. Except for very few examples such as the Knight Ridder Information Design Lab (1992–1995), they were founded in the first decade of the 21st century (Salaverría 2015, p. 398; Bisso Nunes and Mills 2019). In contrast to the first generation, the second generation is defined by the fact that the labs were founded in the last one to four years, i.e., between 2017 and 2020. Due to the different temporal development in the international context and a lack of literature about journalism innovation labs in Germany, it is difficult to determine an exact time period for the second wave of founding. However, what stands out is that the labs 2.0 were able to have recourse to many previous experiences with innovation divisions in their own or other media organisations and therefore have changed their way of organising compared with the first labs.

The research addresses the following questions:

RQ1: How are second-generation journalism innovation labs organised?

The organisation of the labs is decided basically by their strategies and objectives, which are therefore included in the study. Additionally taken into account is the rationale for the foundation of the innovation labs that contributed to the decision in favour of the organisational form selected in each case. The structural anchoring of the labs in the media organisation is examined against the background of the internal and interorganisational structural options of innovations. At the process level, the research considered how the innovation management in the labs and the degree of open innovation were organised. The innovation culture and its importance for the work of the innovation labs forms the overall framework of this research question.

Building on the results of RQ1, the second part of the study examined the findings in relation to improving the organisation of journalism innovation labs:

RQ2: What learnings on the organisation of journalism innovation labs do the innovation actors draw from the innovation projects?

The research work was designed as a case study, a form that is especially suitable in journalism research for the investigation of an organisational context with a view to structures and management processes (Swanborn 2010). Journalism innovation labs are a relatively new phenomenon in a rapidly changing environment. Taking an explorative approach can capture this dynamism to a certain degree (Küng 2015, p. 5; Rosenthal 2015, p. 18f.). Despite the fact that case studies mostly concentrate on the investigation of an individual case, studies involving comparisons of various cases are not uncommon (Swanborn 2010, p. 14).

Table 1 shows the labs selected for the study, together with the most important characteristics. They belong to the following media organisations: Deutsche Welle (DW) is Germany's international public service broadcaster with journalists from 60 nations and multimedia content in 30 languages. NOZ/mh:n is one of Germany's largest newspaper publishing groups with 30 local daily newspapers and a total circulation of 420,000 copies in northern Germany. Westdeutscher Rundfunk (WDR), Mitteldeutscher Rundfunk (MDR), and Südwestrundfunk (SWR) belong to the ARD—the joint organisation of Germany's regional public-service broadcasters. Zweites Deutsches Fernsehen (ZDF) is Germany's national public television broadcaster. Four of the five selected labs belong to public service media, who in Germany show a special interest in implementing an innovation strategy by founding innovation labs as part of their media organisation.

Table 1. Overview of the selected innovation labs.

Lab	Media Organisation	Foundation	Employees ¹	Founding	Location
DW Lab	Deutsche Welle	April 2017	3	Public service broadcaster	Berlin/Bonn
HH Lab	NOZ Medien/mh:n Medien	January 2018	10	Private media research lab	Hamburg
WDR Innovation Hub	WDR	February 2020	6	Public service broadcaster	Cologne
ida	MDR/ZDF Digital	May 2020	22	Public service broadcaster holding	Leipzig/Erfurt
SWR X Lab	SWR	September 2020	8	Public service broadcaster	Baden-Baden/Stuttgart

¹ status from October 2020.

A qualitative multi-method approach was taken for data collection: In the development of the instruments and data gathering, the guideline interviews and a complementary document analysis were functionally linked via a “cooperative connection” (Loosen and Scholl 2012, p. 21). Altogether, 13 interviews were conducted, as well as 5 internal and 18 external documents about the labs analysed. A list of the interviewees and documents is included in the Appendices A and B. In order to guarantee a uniform research design, the analysis of the interviews and the documents was carried out in accordance with a common category system. The data were assigned to the relevant categories with the aid of the Maxqda analysis tool (cf. www.maxqda.com (accessed on 6 June 2021)). The focus of the evaluation and interpretation lay on the bundling and comparison of typical organisational and established behavioural patterns across all case studies (Von Rimscha and Sommer 2016; Flyvbjerg 2006).

5. Results

5.1. Organisation of the Innovation Labs 2.0 (RQ1)

5.1.1. Foundation

The foundation of the WDR Innovation Hub, SWR X Lab and ida in 2020 testifies to a large establishment of journalism labs in Germany, especially in this year. The interviewees regard external influences as the main reason for this development (Montag 2020; Dauser 2020; Rieth 2020):

“My impression is that this is a result of the industry environment—competition has grown, digitisation has arrived with full force and developments have come at an increasingly faster rate. I believe that very many have recognised that they cannot go forward with the familiar, established structures.” (Scholz 2020)

The public service broadcasters in particular are facing numerous challenges. Their bureaucratic structures, e.g., linear production routines developed over decades and their organisational size, mean that they can introduce change only at a slow pace (Scholz 2020; D5_SWRXLab 2020):

“ARD is like a cruise ship [. . .]. I believe that the idea of all these innovation labs is that they are long-boats that are dispatched in the desired direction [. . .] and work in a simpler and more agile way.” (Nathusius 2020)

Within the framework of the defined innovation strategy several (temporary) innovation projects were launched or first predecessors of today’s innovation labs founded that influenced the formulation of the objectives of today’s innovation labs. This led to the centralised organisation of many digital change projects:

“We must create something that combines things that up to now were never considered together at WDR: innovation culture, scenario and future research, strategic thinking,

strategic transformation, cultural change [...] and not see this as a product forge, rather as something bigger [...] but where innovation is considered as a holistic and sustainable concept.” (Orgassa 2020)

Journalism innovation labs on the one hand pursue the overriding objective of promoting the digital transformation of the parent organisation in order to secure its future and capacity to innovate (D1_HHLLab 2020; D1_WDRHub 2019; Montag 2020). On the other hand, it can be recognised that the focus in many labs is very much content-oriented, i.e., directed towards gaining new target audiences by offering innovative journalism products and services (Wormer 2020; D2_DWLab 2019; Dreykluft 2020). At the same time, the labs are intended to serve as a platform for experimentation in order to test technologies and trends that cannot be implemented in the operative newsroom operation (Dießelkämper 2020; Thomas 2020; Wormer 2020). As far as methodology is concerned, the labs direct their efforts towards knowledge transfer and networking personnel.

A systematic approach can be recognised in the concept of the innovation labs. The persons responsible for their foundation get their inspiration from “a study tour to innovative operations in Germany and Europe” (Dauser 2020). The aim here is to become acquainted with different forms of innovation management in the areas of journalism and the entertainment media, though also businesses and start-ups in the fields of commerce and technology, and to discuss suitable innovation possibilities for own projects (Dauser 2020; Scholz 2020; Montag 2020; Orgassa 2020; D4_HHLLab 2018). Following these discussions, concrete solutions are developed in an internal, interdisciplinary concept workshop. Figure 1 shows the customary procedure.

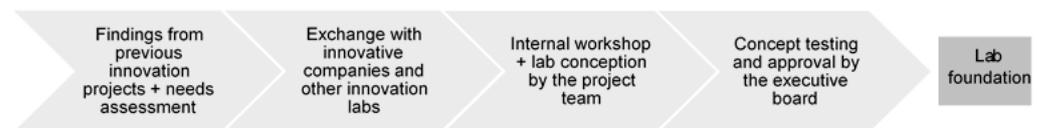


Figure 1. Process sequence for the foundation of journalism innovation labs.

5.1.2. Lab Structure

Most labs are embedded in order to create a link to the media organisation for which the journalism innovations are ultimately intended, as well as to ensure acceptance of the innovation activities of the lab. In this case, the labs are located at the highest management level in the strategy department and act independently of the directorates (Scholz 2020; Orgassa 2020; Dauser 2020). Another embedding possibility is to position the innovation lab in a daughter company belonging to the organisation (HHLLab). A third possibility is to outplace the lab on to the market as an independent daughter company in the form of a limited liability company operating under private law: The ida Innovation and digital agency is a daughter company of MDR and ZDF Digital that provides innovative services for the parent companies, though also for customers outside the public broadcasting service sector (Rieth 2020).

5.1.3. Resources

Most embedded labs have their own facilities, frequently at a remove from the media organisation (Orgassa 2020; Scholz 2020; Wormer 2020; Schierer 2020). The lab office space features in many cases an open and flexible design, in part without assigned workplaces in order to promote team networking (Montag 2020). In addition, creative spaces (D2_DWLab 2019) or a “playroom” (Wormer 2020) are provided for the use of Virtual Reality, as is the case in the SWR X Lab. In addition, financial freedom ensures that the labs’ exploratory activities do not interfere with the day-to-day operations of the media organisations:

“We work in exchange with potential sections in the organisation or also with in-house expertise, but first of all we bring to bear our own resources so that we do not prevent the organisation from performing its everyday ‘Doing’. For this reason, we need own

financial resources and own human resources [...] That is an essential prerequisite so that we can discover new things.” (Orgassa 2020)

5.1.4. Team Structure

The lab teams are distinguished by their interdisciplinary character. When bringing together the team members, every effort is made to achieve maximum diversity in journalistic, media-specific, technical, and organisational skills (Wormer 2020; Orgassa 2020). Besides recruiting personnel with a background in journalism, an increased involvement of technical personnel in the labs is evident in order to “quickly become effective” by developing the labs’ own prototypes (Wormer 2020).

Discussions among the lab team promote different views and prevent uniformity (Schamp 2020; Nathusius 2020). It occurs frequently that members of the lab team with a background outside of the industry question journalism practices, something that leads to communication problems, especially during the initial phases of the labs (Dreykluft 2020). At the same time, this gives the journalists the opportunity to reflect on customs and improve processes (Nathusius 2020).

Lab managers see themselves as “a type of protective interface” (Orgassa 2020) that defends the innovation lab from hierarchical constraints of the media organisation and keeps standardised processes at bay from the creativity of the team (Montag 2020; Wormer 2020). However, Dreykluft (2020) emphasises:

“In no way do we want to isolate the HHLab. On the contrary—in all processes that we carry out someone from the rest of the organisation, either within NOZ Digital or also from other units, should be involved.”

According to Dreykluft, such an interface management is important to ensure that the lab does not lose its connection with the rest of the organisation, “so that we are and remain a part of the business strategy. And vice versa, so that what we research and develop here also becomes part of the business strategy” (D6_HHLab 2019). To maintain the “support of the organisation” (D1_WDRHub 2019), some labs hold regular meetings with department heads or management, or directorates and artistic directors, respectively (Schierer 2020).

The results show: In the majority of journalism labs there emerges a new, feedback- and freedom-driven work culture that differs from the customary, mostly hierarchical structures in everyday newsroom practice. In addition, several lab employees emphasise a common journalistic vision which “fires up” their enthusiasm (Orgassa 2020; Wormer 2020; Nathusius 2020; Montag 2020): “In fact what brings us together is that we are all of the opinion that the ability to communicate focused information also in 20, 30, 40 years’ time is extremely important for society.” (Schierer 2020)

5.1.5. Processes and Methods

The development and management of journalism innovations in the labs is characterised by a multi-step process. In principle, the innovation process is organised in the following phases: (1) ideation, (2) concept development and prototyping, (3) pilot phase, before (4) integration into the regular processes. Smooth transitions between the individual phases, iterative cycles, and the parallel performance of innovation projects make innovation management in journalism labs a multi-project management (D1_WDRHub 2019; D8_HHLab 2020; Thomas 2020). Due to the size and structural intensity of the media organisation, internal labs act independently of daily operations, especially in the initial phases of the innovation process. However, most innovation labs try as early on as possible to involve representatives from other sectors in order to prepare the later implementation and continuation of the innovations (Schierer 2020; Thomas 2020).

In order to manage the coordination effort, to combine the requirements of the innovation with those of the target editorial team, and to ensure the acceptance of all innovation players (Schüller 2015, p. 168), in several cases the repatriation of the innovations is highly systematic: The lab gradually withdraws from operative activities and increasingly takes on a supporting role before handing over the innovation project to the target newsroom

(D1_WDRHub 2019; Scholz 2020). The initial separation of the lab's innovation management and the media organisation's routine management is thereby gradually eliminated (Hauschildt et al. 2016, p. 47). Moreover, outside the organisation boundaries, the labs try to enlarge their innovation potential by means of a networked, open form of cooperation with parties from other industries outside of the line organisation. The range of participating parties extends from start-ups, future researchers, and external consultants to universities and other journalism innovation units (Schierer 2020; D3_DWLab 2020; D5_SWRLab 2020; Montag 2020). In addition, the integration of users plays a decisive role in many labs, especially with a view to the aimed at editorial exploitation of the innovations—in order to extend their reach. Consequently, the lab's editorial reach goals can be economized by the media organisation (on the audience or advertising market), which marks a link between the editorial and the business side of innovations.

To structure the user-centred approach, the innovation parties have recourse to the Design Thinking Method—with their own user polls and analysis of user needs based on user personas (Wormer 2020; Schierer 2020; Nieschwietz 2020; Scholz 2020). Their own research plays an important role, something that is in direct opposition to newsroom routines and that requires new skills of the journalists: social science methodological skills.

The labs studied adapt an agile way of working and design development steps as sprints (Schierer 2020; Montag 2020). The fast prototyping method helps them to speed-up development and react flexibly to changes. With this method, a testable prototype is developed within weeks and permits unsuccessful ideas to be abandoned at an early stage, thus saving resources (Scholz 2020; D8_HHLLab 2020; D1_WDRHub 2019). In addition, the innovation labs have recourse to a wide range of methods to promote creativity (Montag 2020; D2_DWLab 2019; Nieschwietz 2020).

“We are of the conviction that innovation is not by chance. Therefore, it is not the result of simply locking people in a room and after five hours innovation emerges. Instead, innovation can be accelerated if it can be guided and given the correct impulses by certain theories and methods.” (Wormer 2020)

The lab personnel generate and expand their methodological knowledge by sharing experiences within the team or advanced training (Nieschwietz 2020; Schierer 2020). Thus, major importance is given to the individual and collective further development of the actors in the project (Schierer 2020; Dreykluft 2020).

5.1.6. Innovation Products and Projects

The described design of the innovation process, as well as the need for continuous adjustments to innovations, underscores the participants' process-oriented view of innovations; for this reason, they speak more in terms of “innovation projects” rather than finished “products” (D4_HHLLab 2018; Dießelkämper 2020). On the one hand, innovations can affect the core journalism business and are intended to reach users. On the other hand, process innovations should improve the work processes (D2_WDRHub 2020). Product innovations such as experimental forms of storytelling or new digital formats can be identified (Wormer 2020; Nathusius 2020). The labs also develop innovations aimed at audience engagement, such as quizzes and chat bots (D4_DW Lab 2020). One focal point is technical process innovations such as immersive technologies, e.g., AR or VR (Schierer 2020; Thomas 2020), sensor journalism, or the synthetic production of real voices (Schamp 2020), which affect the production and distribution of news contents. In principle it is possible to identify a mixture of different degrees of innovation in several internal labs: from incremental improvements up to macro-trends and future scenarios. In addition to higher-risk projects, it is also important to create innovations that can be easily implemented in the media organisation (Thomas 2020) to facilitate the diffusion of innovation. Due to their journalistic mandate and the social form of financing, in-house organised innovation labs from public service media act more cautiously, due to the high pressure to justify their innovations (Scholz 2020). In contrast, structural outsourcing makes it easier to strive for innovations with a greater degree of innovation (Montag 2020).

5.1.7. External Importance of the Labs

With their innovation activities, the labs not only provide internal orientation for the digital transformation but also aim to adopt a pioneering role for other news organisations by mapping out the road towards a future-oriented journalism (Schierer 2020; D2_HHLLab 2020; D3_SWRXLab). Several labs tour the individual locations of the organisation or conduct networking events in order to share experiences with other innovation parties (D7_HHLLab 2019; Nieschwietz 2020; Schierer 2020). Journalism innovation labs make every effort to position themselves as a strong, innovative, journalistic brand with the objective of strengthening the organisation's reputation and to stand out from other competitors—e.g., as an attractive employer when seeking to recruit talent (Orgassa 2020; Wormer 2020; Rieth 2020).

5.2. Learnings from Innovation Projects (RQ2)

5.2.1. Innovation Culture

The structural distance of the journalism labs from other areas in the organisations, or the parent organisation as a whole, and the initially isolated development of innovations in the lab emphasise the importance of an innovation culture. The aim of such an innovation culture is to embed the innovation concept throughout the media organisation (Dauser 2020):

“That is then in fact the decisive step: Not to remain in the laboratory situation, and develop things [...]. But also to have an effect as an innovation seed throughout the organisation and be able to move things forward there that perhaps go beyond any single project or product that we design.” (D4_HHLLab 2018)

Due to their methodological knowledge and the approach of innovation processes, the labs in the media organisations have “a special knowledge that is absent elsewhere” (Dreykluft 2020). Independent of their organisational form, the labs try to pass on these new types of knowledge resources to the media organisation personnel (Nieschwietz 2020; D2_HHLLab 2020).

“If the aim is to have an organisational culture that is progressive, future-oriented and innovative, then it is something that cannot be confined to a handful of persons somewhere within the organisation, but rather if possible motivate everyone to look forward and be prepared to help initiate, accompany or simply implement change processes.” (Schierer 2020)

The organisation members should test and adopt the solution-oriented and interdisciplinary working methods of the labs in ideation workshops or method-specific workshops, and ideally should implement them in daily operation in order to allow the phased transformation of the media organisation (Orgassa 2020; Scholz 2020; Montag 2020):

“That does not mean that the journalists return to their newsroom and daily invent new products and go through design thinking cycles. Rather it is a case of their knowing how we work, us knowing how they work [...] and that in this way we develop a common culture.” (Schierer 2020)

At the same time the journalism labs aim to use the knowledge transfer to achieve an inter-divisional and cross-location networking of the personnel (D2_HHLLab2020; Scholz 2020; Wormer 2020; Orgassa 2020). Thus, journalism innovation labs can help their media organisation become a “learning organisation”. The continuous expansion of personnel knowledge and skills enables the labs to act as an internal or outplaced training facility and establish a common learning culture.

Besides the workshops, most labs use a wide range of communication channels, such as newsletters, intranet articles, instruction video clips, and presentations, to support the diffusion of the innovation impulses within the organisation as well as to report on the latest innovation projects and make findings transparent (D3_WDRHub 2020; Scholz 2020).

All interviewees consider a distinct learning culture as a basic element of the described innovation culture. For this, it is important for the innovation participants to repeatedly call into question their own actions, recognise the errors that accompany the risk of journalism innovations, as well as discuss improvement possibilities (Orgassa 2020). A strong form of self-evaluation takes place in all labs—though with different degrees of systematisation. It must be taken into account that newly founded labs lack the findings of labs that can look back on several years of experience. Therefore, an evaluation routine takes time before it becomes an established feature (Dauser 2020). At the HHLab, for example, there is systematic error documentation and analysis of completed innovation projects, which it claims is “very meticulous” (Dreykluft 2020):

“Failure in itself hurts. Analysing the failure then doubles the pain because you naturally rub salt in the wound. But that is, of course, all the more important in order to achieve the learning effect [...] Naturally, we hope never again to make these mistakes. But there are errors that you make even if you have read books five times over [...]. You just have to have made them yourself.” (Dreykluft 2020)

5.2.2. User Focus

While the participants recognise how important it is to fight for their ideas, the focus of their working methods must always be on the user (Schierer 2020; Wormer 2020). If the users reject an idea, it should be abandoned. At the same time, carrying out user polls during a project can stimulate ideas for new innovations. The selection of the target audiences for polls is also of relevance, as these influence the later acceptance of the innovations. In one innovation project, the project team of the HHLab concentrated on users who were in favour of the project and too little on the project’s “resistors”, thus causing the innovation to have too little acceptance in the final instance: “For example, we should have talked to resistors much earlier on. We will not make that mistake again. We will talk with people who totally reject what we are doing.” (Dreykluft 2020)

5.2.3. Technologies

The results show that the labs use new technologies as the basis for many journalism innovations. Just as the integration of technologies constitutes a success-promoting factor, it is important also not to follow every trend in order to prevent failures (Thomas 2020). Several interviewees acknowledge the “Shiny Things Syndrome”. At the same time an overly complicated technical handling of the innovation can act as a brake on the success among users or can hamper the implementation by organisation members.

5.2.4. Further Development of the Lab

The interviewees recognise the need to constantly further develop the lab concept in order to react to internal and external changes: “In three years the lab concept changed at least three times. I kept an official written record three times [...] and said: We will now do that and that differently, and that we have learned. For me, I am conscious of the fact that it may continue to change.” (Scholz 2020)

For example, one important further development in the DW Lab concept concerned the integration of other areas of the organisation. At first, the lab acted with “a high degree of autonomy” (Scholz 2020). But upon arrival in the programme department, it proved impossible to reconcile the developments of the lab with the requirements of the target departments. In the meantime, due to transparent communication and the aimed integration of personnel from the target department there is “a very strong connection with the organisation” (Scholz 2020). For this reason, especially in the case of internal labs, innovations should not develop without taking into account existing structures. In addition, it would seem important after several years to integrate new personnel or exchange the team at regular intervals to ensure that “someone new becomes involved who brings new perspectives, as otherwise it is impossible to continue to be innovative” (Nieschwietz 2020; Rieth 2020).

5.2.5. Resistance

According to Orgassa (2020), it takes years to firmly establish a corresponding culture of learning among managers and employees in the media organisation and to acknowledge errors in the innovation process not just in theory. There is no “tradition” of failure, especially in the linear programme of traditional news organisations (Rieth 2020). The willingness on the part of the media organisations to take risks would appear to suffer under this. Structural and cultural obstacles, having in most cases historical origins, can put a brake on the efforts of internal innovation labs at media organisations and thus keep the level of innovation low:

“In fact, what always found favour among top management tended to be simpler things that did not give rise to major costs. Everything that was a bit more experimental, e.g., immersive technology, Augmented Reality, Virtual Reality, was always perceived as: ‘very nice’, only to be rejected for cost reasons and frequently not implemented.” (Scholz 2020)

The negotiation process between the autonomy of the innovation units and feedback from the management level becomes a balancing act for journalism labs. The labs in their media organisations can only set in motion the desired changes if management is prepared to actively promote innovations that involve an element of risk (Orgassa 2020). According to Nieschwietz (2020), in order to break the organisational path-dependencies it is important to defend new types of ideas put forward by the WDR Innovation Hub, even if management initially views these critically. To communicate the importance of a learning structure to both personnel and management, it is important also to avoid the use of terms having a negative connotation (Nieschwietz 2020; Scholz 2020):

“Many people always speak of ‘failure’ and ‘errors’. To me, that indicates an overtly negative view and attitude. I want to give the participating persons the feeling that it is always possible to make mistakes, in which case there is an opportunity to learn how to approach the task the next time in a way that is better, different, more clever, more reflected and more thought through.” (Montag 2020)

At the same time, the labs must take care not to become bogged down in incremental innovations and only optimise existing structures:

“In my opinion, it is an experience in itself that you have to really compel yourself to re-think in parts your role as that of an innovation laboratory. This means that you are not content to do the regular everyday work better [...], but really re-think everything ‘out of the box’. We do so repeatedly so that this concept doesn’t get lost.” (Dauser 2020)

Additionally, at the doers’ level there is a need to free oneself from intellectual blocks, and in the future “even more from the public broadcasting structures [...] and to be more courageous, more open, to think beyond boundaries” (Nathusius 2020). Therefore, the innovation management of the innovation labs and their media organisation must create possibilities to break open innovation-impeding path dependencies and clear obstacles to the change process out of the way in order to develop genuine innovations.

6. Comparison and Conclusions

The perspective of the organisational culture and the innovation culture has proven to be a valuable theoretical framework for the case study. On this basis the study provides an overview of various organisational forms and learnings of journalism innovation labs in media organisations founded between 2017 and 2020. The comparison now sets out to highlight where significant transformations exist compared with the available studies on the first-generation labs.

As the results show, the second-generation innovation labs consciously build on the experiences of the first generation. This becomes apparent already in the foundation process that was not manifestly examined in the previous research projects—because it was not considered relevant for the first generation. As the mutual exchange of experiences of parallel emerging innovation labs shows, interaction with other journalism innovators

at the foundation stage can provide motivation to found an organization's own innovation lab. Moreover, the emergence of new labs, especially in 2020, indicates a strong need for innovation labs compared with the first generation. It is now proven that the foundation of internal media innovation labs was not a hype but has developed to become an ongoing trend.

The study confirms what was indicated already in previous studies: Journalism innovation labs are a new type of phenomenon with a wide range of different characteristics in which there is more than one way forward. Depending on the innovation project concerned, each lab pursues individual objectives which basically build on the content, methodology, and strategic targets of the first-generation labs (Zaragoza Fuster and García Avilés 2020, p. 59; Capoano and Ranieri 2017, p. 40; Salaverría 2015, p. 402; Boyles 2016, p. 238).

Independent of which generation innovation lab is concerned, common to the labs is their structural positioning outside of the operative core business areas. This is intended to guarantee a certain distance from the hierarchical structures and routines of the media organisations (Mills and Wagemans 2021, p. 11). However, our study was able to expand the available findings, as the organisational positioning of the labs within the organisation in the previous studies represented only a marginal aspect (Zaragoza Fuster and García Avilés 2020; Boyles 2016).

As the results show, innovation labs today apply a wide range of structuring possibilities. In-house labs are complemented by inter-company organisational forms of innovation units, e.g., as outplaced limited liability companies. Despite the structural, financial, and location independence, none of the investigated innovation labs operate in total isolation. Isolation is more prevalent in the first generation (Zaragoza Fuster and Avilés 2018, p. 19, 2020, p. 59; Boyles 2016). Instead, most labs clearly make every effort to incorporate other sectors into the innovation process as early on as possible in order to build bridges to the rest of the organisation and to strengthen the innovation culture. The proposal from Boyles's (2016, p. 241) study "to fully integrate employees from the traditional newsroom into the intrapreneurial unit for short rotations to better bridge cultures" is applied in the second-generation labs: In some labs, employees are assigned specific tasks already at early stages, and as the innovation process progresses, the employee integration increases. In other innovation laboratories, employees temporarily exchange their regular workplace for the lab. The level of cooperation with other players in the media organisation varies, as was the case in part with the previous labs (Zaragoza Fuster and Avilés 2018, 2020, p. 59). In principle, however, there exists a clear internal networking concept extending beyond departmental boundaries.

Within the framework of organisational culture and the innovation culture, our study shows the efforts of the lab personnel to not just remain in their laboratory environment, but to act as an innovation motor for the transformation of their media organisation. Though individual measures of knowledge management are applied already in some cases of first-generation labs (Zaragoza Fuster and García Avilés 2020, p. 50f.), newer labs make this a priority. By operating a policy of active knowledge transfer to employees, e.g., in workshops, journalism innovation labs act as further education facilities and can give employees orientation in the era of digital transformation. However, the acceptance of the labs in the organisation increases only gradually, in line with their successes. Thus, some innovation labs attach all the more value to an active communication by means of a wide range of communication measures in order to promote the diffusion of the innovation projects and new know-how in the organisation. This represents a clear distinction from the first-generation labs in which scant provision is made for innovation communication outside of everyday communication.

The labs attempt also to extend their innovation potential beyond the organisation boundaries by means of a networked, open cooperation with parties outside the industry—occasionally also with other media organisations. Nevertheless, in part relatively little use is made of the potential of a collective exchange among journalism innovators.

The interviewed lab personnel gained several insights into the improvement of the organisation of journalism innovation labs. The basis for this is a pronounced learning and error culture as a fixed feature of the innovation culture. As a consequence, the interviewees see in unsuccessful innovations the added value of gained knowledge rather than seeing a failure. Besides the continuous evaluation of their own actions, the lab personnel see the need to constantly further improve the lab concept in order to react to internal and external changes. For example, the personnel of the DW Lab recognised the need to dissolve in part their initial isolation and more closely intermesh the innovation actions with the organisation.

As established already by [Boyles \(2016\)](#) and [Meier et al. \(2017\)](#), organisational resistance between the lab personnel on the one hand and journalists and management on the other hand can act as a brake on the innovation force of the labs, thus keeping the level of innovation low. Therefore, for the innovation impulses of the labs to have a sustainable effect, it is necessary to have an innovation culture throughout the organisation that removes barriers to innovation and triggers the will to change among all employees. This is a clear finding of the second-generation labs, for which the first instruments were developed: an active knowledge transfer, propagation of new ideas and manners of approach through further training offerings, a comprehensive and transparent innovation communication, and rotation of lab employees.

7. Limitations and Outlook

Many innovation labs in the journalism sector were founded in recent years, so the emergence of this new phenomenon is becoming ever more apparent. A majority of the interviews within the labs were conducted just a few months after their foundation, so the interviewees' experiences and the labs' development were quite in the beginning stages. Nevertheless, such newly founded labs as empirically "new and undescribed [cases]" ([Hering and Jungmann 2019](#), p. 621) are especially relevant for a case study. Changing internal media organisation factors that contribute to shaping the organisation of journalism labs, but also the rapid environmental developments within and outside of the media industry, mean that the findings on innovation labs can always only be a snapshot. Follow-on research projects should, in a similar dynamic, keep adding new insights into the field, which will continue to grow in the future. Embedded in the innovation labs 2.0 is permanent further development; they learn and change dynamically. To pursue and analyse this further is an important task for the field of media innovation research. Although our study was based only on the examination of five labs in Germany, there are quite a few reasons why the findings can be applied to journalism innovation labs in general: Several logical lines of development could be drawn on the basis of the existing studies of first-generation labs. Nevertheless, further studies should examine this assumption.

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Appendix A. List of Interviewees

- (Dreykluft 2020) Dreykluft, Joachim. Head of HHLab. August 2020.
- (Schierer 2020) Schierer, Soenke. Product Owner/Scout at HHLab. September 2020.
- (Dießelkämper 2020) Dießelkämper, Merle. Conversion Manager at shz.de, connected to HHLab. August 2020.
- (Orgassa 2020) Orgassa, Arne. Project Lead of WDR Innovation Hub. July 2020.
- (Schamp 2020) Schamp, Christina. Innovation Manager at WDR Innovation Hub. August 2020.
- (Nieschwietz 2020) Nieschwietz, Alexander. Innovation Manager at WDR Innovation Hub. August 2020.
- (Montag 2020) Montag, Matthias. Managing Director of ida. August 2020.
- (Nathusius 2020) Nathusius, Pola. Employee Audience Development/Content at ida. August 2020.
- (Rieth 2020) Rieth, Christoph. Founding Member of ida, member of MDR next.
- (Dauser 2020) Dauser, Thomas. Head of Innovation Management and Digital Transformation at SWR. October 2020.
- (Wormer 2020) Wormer, Vanessa. Head of SWR X Lab. October 2020.
- (Scholz 2020) Scholz, Nadja. Head of DW Lab. August 2020.
- (Thomas 2020) Thomas, Manoj. Project Lead Production/Requirements Management at DW. August 2020.

Appendix B. List of Analysed Documents

- (D1_SWRXLab 2019) Mayr, Stefan, and Claudia Tieschky. 2019. 'Die Jüngeren sind unte versorgt'. *Süddeutsche*, December 13. Available online: <https://www.sueddeutsche.de/m Medien/kai-gniffke-swr-interview-1.4720252> (accessed on 20 December 2020).
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- (D4_DWLab) internal
- (D1_WDRHub 2019) internal
- (D2_WDRHub 2020) internal
- (D3_WDRHub 2020) internal

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