NOW MEDIA

Mueller | Eichsteller | Rajaram [eds.]

# Innovation telling

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Now Media

edited by

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Volmue 1
# Innovation
telling
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A looking glass into a digital wonderland

Not long ago, in mid-2016, I pleasantly coined the term “#Innovation-telling in journalism” in a systematic approach to analyse and describe the positive potential of using contemporary digital tools in journalistic storytelling. During one of my talks at a German media university on my newly developed concept, the immediate response by a younger male academic baffled me. “I felt very old during your talk”, he said, somehow at the same time comfortably and ironically smiling at me.

Remember, how the legendary German youth magazine “Bravo” visualised the rift in the mind-set of generations, “if it’s too loud, you’re too old.” Can we translate this successful claim into a contemporary version, like, “if it’s too digital, you’re too conventional”? Sounds witty, doesn’t it. However, today the story no longer - if ever, it was - is about age, it’s about opposite mind-sets.

In the above-mentioned situation following my talk, I reacted politely and didn’t explicitly draw the audience’s attention to the many patriarchal implications in this casually uttered statement. Obviously, there can be observed the lack of acceptance in the (German) academic and media industry for a female professional of my age embracing the digital and virtually immersive technology for storytelling and experimenting with it. But instead of elaborating on this aspect of gender and innovation priming, I’d rather prefer to go ahead to the mind-set of practicing #Innovationtelling, which really matter most to me and should to everybody interested in journalism, media and communication.

To fully understand the rift between “old” and “new” in the mind-sets of media professionals, you have to take a close look at my generation of media and journalism professionals. I believe, professionals today looking at themselves as the “old” guards and experts, see media evolution still as a constant lane of incidents and innovation, and they themselves navigate in the driver’s seat. Professionals looking at themselves as “new” learners and experimentalists, see that media evolution in the age of virtual reality

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1 Based on the expression “A looking glass into a mathematical wonderland” by Ivan Sutherland (1965), in: Frank Biocca, (1995), Communication in the age of virtual reality, p.7.
has been lifted up on a revolutionary new level with real-time speed, which is a game-changer for every aspect of communication and life organisation.

My generation is born in the 60s and 70s and we are the last generation with in-depth practical and conceptual knowledge of both analog AND digital communication and media production. We are “timelines of the media evolution” as my co-editor Devadas Rajaram puts it. Our generation of ‘lively timelines’ will fade away since the innovation speed reaches now almost real-time. Hence, as ‘talking timelines’ we have the potential to act as the ideal mentors for the youth and much younger generations of “makers and mind crafters”2 - I don’t fancy the term “Generation Z” as the letter Z is the last letter of the chronological Latin alphabet - as well as we become #Innovationtellers in our own right.

Adam Grant tells us in “Originals”, his wonderfully new take on non-conformists, how research shows that creators and innovators are best in their twenties or in an older, experienced age of fifty and beyond3. That way he destroys the myth of experimentalists described as sprinters and short-term goal-getters. In the contrary, Grant highlights the proven connection between experimentalists and marathon, in the sense of a long-term production and prototyping line born from experience and patience.

The disrupted media industry and digital communication in real-time are anything but buzz words. In fact both notions - disruption and real-time - describe exactly the contemporary state of the media evolution lasting over 2,000 years.

If we’d like to acknowledge it or not, we are living now in the digital network society with means for non-linear mass-self-communication, for sharing relevant information of mutual benefit for both the user and the producer, for self-empowered communities as well as for transformative low-key and affordable devices which immerse users into the interactive communication environment. Diversity and inclusion are driving this disruption towards a very positive and new social good environment. At the same time digital environments are being tested by the negative counter-impact of commercialised and intransparent data flows as well as by the fake-news-industry.

The increased speed towards virtual and immersive storytelling and communication environments was long foreseen by visionary media professionals, only to name here three: Marshall McLuhan, Frank Biocca and Jaron Lanier. For the latter virtual reality gears are the first communication tools which do not narrow the mind. We can even say, that media always have been environments and have created their own environments, be it from scripted walls in ancient caves over typewriter offices and film sets and film theatres all the way through to VR-surgery-labs and VR-theme-parks. By now VR environments surround us and the goal of representation is not longer meaning but appearance.4

All said, to cut it short, leads to the insight that the digital and mobile ecosystem as well as the virtual reality and wearable ecosystem, where we are heading to, are forces of a revolutionary change. Human media history speaks of the unquenchable thirst for the “ultimate display” and “the essential copy” (representation), a looking glass which enables us to experience the digital wonderland which immerses us into a virtual environment not limited by a screen or headset.

Within this agile unfolding media evolution journalistic storytelling and relevant news stories were always developed at the interface of our human brain within a sensorimotor human body and with technological extensions. Against this background, I figured out the strategy of #Innovation-telling, which I owe to the experience that now everybody who owns a smartphone (or tablet) can use cutting-edge immersive technology to tell a story and empower her or his voice or voices of others. Just think for a moment about the sheer numbers: In 2017 more than 50% of the world population - 3,77 billion - use the internet, while more than 37% - 2,8 billion - use social media, of which 34% use social media with mobile devices.6

Naturally this development has its own downsides and especially with the global reach and intransparent data industry political fascists and destabilising propaganda using the internet can pose a real threat for every society. However, I belong to the group of professionals who strongly believe that we who oppose fake news and misguiding propaganda are urged to investigate and share the positive trends in the digital and immersive

6 See Global digital report 2017, we are social: https://wearesocial.com/de/
media communication to be able to respond to these attacks and downsides.

The more we understand and enable ourselves and empower others to use these tools, the more likely it is that we will experience a more informed and active global citizenry than ever before. Nonny de la Peña, so-called “godmother” of virtual reality storytelling in journalism, shares this belief:

“I think that hopefully VR will get us closer to that sort of transparency question we’re always pushing on in journalism. We’ve thrown objectivity out. We know that’s not there, so transparency is where did you get your information and facts?
I do believe that by offering these kind of experiences we begin to leapfrog boundaries, walls, cultural differences, and take people into stories that they didn’t have access to before. The hope is that we’re going to have a more informed global citizenry, and I think that is the underpinning of democracy. That’s how we work together to make decisions in the world.”

7 The notion Innovation/Telling is a compound word consisting of newly composed parts cut off “open innovation” and “storytelling”. I refer with this to the fact that we as storytellers have to get to know all over again the technological forces, platforms and tools which will help us to present our story content in the best possible way. In the age of digital and immersive story experience, while we encounter billions of storytellers sharing their information and stories in social media any time, we have to find new answers to the old questions: How do we tell relevant and important stories, and how can our stories stick out and be seen by the audience we would like to connect with?

Understanding stories and transferring knowledge are key skills for everybody and especially for quality content producers. Today with virtual and immersive storytelling we experience stories and information in the same way as we do experience the real world with things happening all around us. At the same time we access facts in a way that is more engaging and investigative. The strategy of #Innovationtelling can guide storytellers who look for a way to understand better how to approach the con-

constant flow of new technological tools and platforms in order to produce and share relevant stories.

The full explanation of #Innovationtelling is given in the same-named chapter in this issue. There you’ll find out more about the two major techniques of adapting to the new mind-set of our digital network society and digital and immersive storytelling: First, experiment and repurpose tech and tools for storytelling in real-time. Secondly, erase the words “no” and “never” from your vocabulary and try to think instead in solutions and experiments.

In honour of both solution thinking and the fast evolving media landscape my co-editors and I together with our publisher Nomos chose the name “Now Media” for the new publication series. We aim with our entire series on sharing insights on the latest trends based on the digital marriage of technology and content: liquid, interactive, prosumer-oriented, cloud-based, in real-time or on demand.

“Now Media” is designed for a multilingual and global authorship as well as audience and reaches out to entrepreneurs, students and scientists as well as to all interested users. We happily invite you to travel with us to the digital wonderland “Now Media”. Therefore our publication will start as a printed version and soon will also be available online.

Until today it was a fresh and inspiring journey to bring this issue “#Innovationtelling” into life. Personally I am very grateful to the circle of positive thinking colleagues in the media and in education as well as to my students for making this ambitious global project happen.

Explicitly I want to thank my colleagues at the Nomos publishing house in Baden-Baden. My editor Sandra Frey for being so open and understanding for this kind of journey into the unknown, as well as chief designer Peter Korn-Hornung for sharing his innovative creative mind with us.

I’d also like to thank my co-editor Devadas Rajaram for his all the time encouraging spirit, for sharing his knowledge with my students, and for making me familiar with many innovative aspects of today’s “Now Media” landscape. His inspirational input lead us to coining the title “Now Media”.

Cordial thanks also to my co-editor Harald Eichsteller who supported this endeavour with his positive spirit and input from minute one and who happens to be a model for a solution finder.

I also want to thank my colleague and vice-rector for innovation and international affairs Nils Hoegsdal for initiating the “Innovation Day” 2016 at the Stuttgart Media University, giving many Innovationtellers the op-
portunity to meet in analog and real-time and share interactively our knowledge with students and all interested.

I am very grateful to acknowledge the support of the independent media foundation “Etzold Stiftung” in Leonberg. The founder couple Christine and Ruediger Etzold have been very supportive for my initial implementation of the Young Lab VR/360/AR and are wonderful mentors for young media students.

Eventually I can’t find the right words to thank three innovators for their ongoing inspiration and support, Ulrich Hutschek, who introduced me to the creative aspects of “open innovation”, Yusuf Omar, who introduced me to the journalistic use of Snapchat stories, and Imran Azam, who made it easy for me to learn more about social engagement and the concept of taking and giving.

Last not least, I am grateful for the constant support and intellectual freedom given to my work and projects by my colleagues at the study program Online-Medien-Management at Stuttgart Media University.

May the force be with us all!

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Foreword

I have always been fascinated by the impact of technology on storytelling. Innovations in technology have opened up new avenues for storytellers to experiment with new formats and platforms, and expand their reach. As part of the “No Media” editorial team, I hope to explore new frontiers in storytelling in collaboration with my talented colleagues.

Innovation is the core objective of this publication. The new media ecology shaped by rapidly changing technology demands new approaches and techniques. “Now Media” publication will be at the forefront to advance storytelling techniques to communities, who will be an integral part of the platform.

Exciting technologies like virtual reality (VR) and augmented reality (AR) are no longer buzz words uttered in media conclaves. They are now part of content strategy of major mainstream media organizations and the immersive experiences are now accessible to a vast segment of audience.

Artificial intelligence is another exciting technological trend which will have a far reaching impact in storytelling.

Cheers,

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Now Media – … more to come!

Now Media is expressing, that media and especially digital media are evolving very fast – latest since David Weinberger and his friends expressed their beliefs in the “Cluetrain Manifesto” based on these ideas platforms and services are born, digital (media) brands are established – some of them forever, some for only a limited period of time. So Now Media is focusing on today’s digital reality and we are happy that we found an editorial partner to accompany these furious times and I can be part of the team.

(Wo)Men & Machines will be getting closer to work together in real life – this is also true for media and marketing. Not only showing a predetermined outtake of reality but giving the audience the power and possibilities of choosing what they want to see and which perspective they want to take, is a real game changing opportunity. Starting with 360° panorama pictures, 360 ° moving pictures, continuing with live or on-demand formats, ending in deep-diving in digital worlds with virtual reality devices or perceiving parts digitally augmented with reality (or the other way around) is just the inventory status of Now – more to come!

Purposeful multimedia storytelling is the way to our audiences, relevant content remains king. Together with my son Marvin Eichsteller, IT professional at Aldi Sued, and Michael Brecht, the former CEO of doodle, we started running www.emobilitaetsblog.de in autumn 2016. As a strategy and marketing guy it broadens my horizon to create ‘Now Media’ with ‘Now Content’ every day. Starting with a weblog, enhancing text with pictures and videos, adding social media we play ‘Now Media’ with relevant issues – the results in audience growth are unexpectedly and surprisingly high, traditional media after 5 months partially outperformed in google results on the first page.

The message for our students is: Go out, find your passion issues and create ‘Now Media’ on any (media) channel that suits you most! And finally when we find a student’s work and final thesis to meet our ideas about ‘Now Media’ we are happy to bring it to a broader audience in our publication.
Harald Eichsteller

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How to Build the World’s Biggest Mobile Journalism Newsroom

Yusuf Omar

We are entering the age of Robo-Journalism, where any story that can be produced by computers will be automated. During the Olympics in Brazil it was easy to plug in data that Usain Bolt won this race by that much at ‘x’ stadium and an algorithm could spit out stories. Financial titles have been reporting on the stock market with similar technology for a long time.

To survive as both storytellers and media organisations in the age of Robo-Journalism, we need to become Robocop journalists, armed with various storytelling weapons. That means filming a 360 degree virtual reality video in one hand and writing tweets in the other. The days of being just a photographer, writer or editor are long gone. Today we must tell the story from every angle and perspective with an ever increasing array of formats and platforms. A journalist’s greatest skill is the ability to acquire new skills.

Enter the Mojo, or mobile journalist, a title on the tip of tongues in newsrooms around the world. I’m a jeans journalist, with everything I need to tell a story in my pockets. That means being able to shoot, edit and publish with just a phone, a timely solution for media bosses desperate to both increase digital video output and reduce costs.

At the Hindustan Times we empowered over 200 reporters to produce 570 mojo videos, moving from ‘digital’ to ‘mobile first’ in just 10 months.

The benefits of the mojo revolution extended well beyond cost cutting. Videos produced on mobile devices have outperformed stories shot on ‘professional’ broadcast cameras and DSLR’s. In fact, of the top 17 ‘viral’ videos that surpassed a million views on Facebook between May 2016 and Feb 2017, seven of them were shot and edited on mobiles. The other 10 were repackaged wire and agency videos (sourced material, many of which were also shot by civilian’s phones).

Yet you’d assume that better cameras give audiences the best quality videos and audio. But we’ve found that the YouTube generation have never been more forgiving of shaky, handheld videos, they just want a good story. And when you’re producing stories using a mobile phone, you're
fundamentally thinking about how mobile audiences would want to digest that content. When I’m editing video on a phone I constantly consider “are these subtitles big enough, is this video feeling too long, wouldn’t it feel more natural in portrait mode?” And so, mobile journalism has a dual definition; BY the mobile, but also FOR mobiles.

However, in this mobile journalism revolution there has never been a more exciting or confusing time to be a storyteller. There’s more formats and platforms than ever before but most of us have just two hands and one mobile device, so what do you do? When a breaking news story happens, should a reporter tweet, do a live broadcast on Facebook, write a blog post or do an Instagram series. There’s so many choices!

**The Social Video Triangle**

Decisions must be based on both analytics- what has proven to do well in the past to help predict future results- and editorial gut feelings of knowing what formats fit each narrative. But when scaling a mobile journalism newsroom we need a guide to help storytellers focus their efforts on the right platforms. It’s all about the best return on investment.

Investment is the amount of effort you put into a video against the returns (in terms of views, engagement, referral traffic etc). The highest risk videos are those that require the most work- like a YouTube 30 minute documentary or virtual reality 360 video- where you invest lots of time in production and post-production without knowing if the stories will reach a large audience. The lowest risk videos are like 30 second Twitter video upload or Snapchat content which are easy and fast to produce.

I have created a mobile journalism triangle to help prioritise how much resources to give each video format and provide reporters with a plan of attack for any story. Note; this triangle changes all the time as social video behaviors evolves.

A mobile journalist’s competitive advantage is speed, so at the base of the pyramid is live video, followed by Snapchat storytelling (which I believe is the fastest way to tell a story without going live). Then we have Quik videos which are short 30 second explainer pieces, named after the app Quik.
When we edit together a Live video with a Snap story, we produce a mobile journalism piece. It’s all a continuum and audiences are migrated along the way from one platform to the next. So when you get that viral video success story, it’s not luck but rather a constant effort to build a loyal and engaged audience and take them on a journey from format to format. But at the heart of everything is live.

**Going Live**

Just press the red button. That’s our latest mobile video strategy, taking everything live all the time, and it’s working.

There’s lots of things we don’t know about what stories the mysterious algorithms at Facebook, Twitter and Instagram prioritise on people’s timelines, but one thing is clear; live video is being pushed harder than any other content right now and that trend is growing.

Facebook claim that audiences comment 10 times more on live videos than traditional video uploads and our experience on the platform echoes those findings. In an age of fake news and timelines manipulated by manicured edits, live broadcasts give audiences a raw and intimate view of the world from all angles. Reality is the new quality.

A third of journalists in the Hindustan Times newsroom found they struggled for time to produce video packages for social media alongside their day-to-day reporting.

As a result, we moved to prioritise lives, asking reporters to go live on Facebook for almost every story they do, finding it a quick and creative tool to engage with audiences, and a useful way to get footage back to the office where it can be re-packaged and uploaded for further use.
Today the newspaper is doing more live video broadcasts than most television stations, primarily on Facebook. The strategy is simple; use the massive reach of Facebook’s live videos to migrate audiences back to our platforms, seeding links to articles and videos on the website in the comments section.

Between May 2016- Feb 2017 we did 315 Facebook Lives. We tried making them ‘professional’- adding graphics, overlay, name straps and building studios with multiple camera, but none of it worked.

Every Facebook live that got over half a million views were handheld, outdoors, single camera and simple. The social media generation have never been more forgiving of shaky, poorly lit videos with average audio; they just want a good story. It’s about reinventing the live broadcast format, away from linear TV, anchors behind a desk and head and shoulder framed interviews. This is a new terrain where TV rules don’t apply.

13 Steps to Building a Mobile Journalism Newsroom

Designing the mobile journalism triangle and taking everything live all the time was the result of months of experimenting. Digital media strategies are in a constant state of flux, so mobile journalism revolutionaries must thrive in the chaos. Our rogue unit started with just two storytellers seeded at the intersection of the video, social media and graphics teams. We didn’t want to build a mobile journalism team, but cultivate an entire mojo newsroom. Here’s how...

1. Survey the newsroom. Know what content colleagues are digesting and on what devices. We found over 75 different types of phones in our newsroom alone. The big ‘F’ word for any mobile journalism effort is fragmentation — dealing with devices with different software, hardware and compatibilities.

2. There’s no holy grail of mobile video solutions and standardising the output quality is tricky. But there’s no time to obsess over perfection, especially at the beginning. We revise workflows weekly, constantly introducing new apps and tools. Be comfortable knowing that standard operating procedures are never standard for long.

3. Fly, run, walk. First, we raced ahead of the newsroom to build cool new storytelling formats. Then, we shared the findings with everyone and finally scaled the repeatable formats, using analytics to highlight
proven viral video ingredients. Publishing directly to our social media accounts with large followings is key to testing new videos. We focused on what emotions people evoked when they shared videos and pinned down the boring bits when they stop watching. The Ugly Indian, a story shot and edited on my iPhone 6s Plus, was watched 4 millions times in the first four days on Facebook. It became our case study in structuring viral videos to lead with provocative statements and end with questions. Good, positive and constructive stories constantly outperformed negative news.

4. Cut the fat. We calculated the return on investment on every video format being produced; time spent producing a video versus engagement generated. Analytics helped cull failing TV-style formats, replaced by edgy videos like the What The Fact series where we explained any story in one-minute.

5. Gamify the newsroom. Not all mobile phones or reporters are created equally so we built a hierarchy of devices and mobile journalism talent. Basic feature phones submitted video footage to better smartphones to add value and do the finesse edits. Vanity metrics like views and shares help rank reporter performance, rewarding them with storytelling gear like microphones, tripods and access to social media platforms. Hence we built influencers across the newsroom. Welcome to the million views club!

6. Remove workflow Z’s. 36% of the surveyed newsroom said they were already shooting video on their phones, but the footage wasn’t getting online, slowed by labour intensive workflows with numerous production pitstops. Where possible, we empowered reporters to produce their own stories on their phones and upload them directly to social platforms. More videos got online while reducing bottlenecks in the old workflow. We also introduced a traffic light approach, so if a story was gauged as a green, it could be uploaded directly to social media, but if it was more contentious, we called it a yellow or red and reintroduced more stringent editorial quality controls.

7. Build capacity from the outside-in. We trained the bureau offices in mobile journalism first because regional reporters were more deprived of video resources than our headquarters. We then embedded with the metro teams to focus on local stories. Hyper local is where mobile journalists excel.

8. Pick a day. We called it MOJO Monday’s- a two-hour weekly mobile storytelling workshop to empower journalists with the skills to create
something to share in two hours. Teams experience the latest apps, then storyboard, edit and upload their videos. Training in the middle of the newsroom means anyone can join and all training exercises are real news stories fit for publishing. This builds confidence and increases output. Training is about new tools, not rules.

9. Build a newsroom, not a team. We train everyone in basic mobile journalism, from the interns to the editor-in-chief, because no one knows who will be in right place at the right time with their phone when news happens. To meet a target of 25 videos a day, we expect one mojo video a month from everyone in the entire company. Encouraging people to shoot video for every story, there's a spectrum of uses for footage, from a thirty second twitter video upload to a YouTube documentaries.

10. Invest in great people, not expensive gear. We keep interns close because they're our closest link to the audience we seek. We were amazed by how much video talent was already on the newsroom floor, once we invited everyone to get involved. We encourage everyone to present their own stories on camera, the more awkward and quirky the better. Reality is the new quality.

11. Automate the boring stuff. We use Youtube to automatically transcribe our subtitles. Building workflows that minimise administrative tasks allows us to focus on the storytelling and creative bits.

12. Don't undermine any new platform as being too frivolous for journalism. Like our use of Snapchat face filters to hide the identities of sexual abuse survivors, look beyond the gimmicks and find the storytelling tools. Any significant technological innovation in the communications space can be an opportunity or threat to your news organisations.

13. Create conversations. Views, shares and retention rates will follow, but fundamentally YouTube and Google favor videos that lots of people are talking about, so ask your audience questions, evoke reactions and get people talking. That’s why 50% of a story pitch today must focus on the editorial aspects but the other half of the conversation must ask how we can make the video travel, which groups will share it and what debates we want to spark.
The Naysayers

Old newsroom habits die hard and disruption is impossible without some conflicts. Both internally and on the global media scene, many dismissed mobile journalism as an inferior storytelling platform, both technically and editorially.

But since 9/11, it hasn’t been traditional media breaking the world’s biggest stories, but people with cellphones. From the Arab Spring to the #BlackLivesMatter protests, social media has often dictated the news.

Yet in the age of fake news it seems traditional media is positioning itself as the sole arbiter of accurate and accountable news.

I see the potential for misinformation and manipulation of social media in this new age of selfie journalism. But too many voices, perspectives or angles is a good problem to have. There’s value to everything online, even the lies. Statistically, larger sample sizes mean more accurate reporting of a population.

Journalists in 2017 must separate the voices from the noise, curate the correct, and debunk the fake. This is the role of all of us, together. The platforms, media, and the users. But it means moving beyond a narrow definition of journalism.

The future is millions of sources, broadcasting in real time. Our job is to make sense of it all. Curation is the new creation.

Traditional media feels so threatened by social media, but they don’t have to. In this web of unfiltered information, we need editors with news values to explain it all. Now, more than ever before. Because social and traditional media must work together to make journalism great again.

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The Power of Purposeful Social Media Communication

Fabian Ulitzka

Introduction

The 21st century information era keeps bringing up new tools in order to facilitate communication, interaction and engagement.

The high bandwidth available turns moving-images into an ever more attractive and therefore - from a marketing perspective - more important communication channel.

Moving-image communication such as video-telephony being once a future vision, has become a standard feature of any smartphone. With a continuously growing amount of information and communication, channels that provide constant actuality, e.g. snapchat, are more and more in demand.

Today’s coexisting social media tools and platforms are being used in juxtaposition with each other: In function of content and topicality, users select the respectively most convenient channels in order to keep their community up-to-date – using text, voice, photo or moving-image.

Based on those developments and technologies, we founded the production company Filmemacher Deutschland in February of 2016 in order to develop and realize a new type of documentary production. The young team has made it its business to use innovative technologies and direct social media communication as well as data-driven online marketing in the production of extravagant outdoor documentaries.

Filmemacher Deutschland started its online presence as a small Facebook Community which has meantime grown to the biggest community of filmmakers in Germany. In cooperation with its Facebook community, Filmemacher Deutschland organizes documentary shooting trips to remote areas abroad in order to capture special outdoor experiences which often have a charity aspect as well.

One of our most successful projects, our road trips to Nepal and Tanzania, impressively demonstrate the power of purposeful social media communication. In the following, we will explain the project and its success factors.
Outline of the Project

The road trip documentary projects in Nepal and Tanzania are a great example of how the Filmemacher Deutschland concept ideally works out. The project was staffed with the core Filmemacher team and members of the online community, as well as two “social media stars”, that is, social influencers well-known from YouTube.

For this project, we aimed at reaching and engaging the widest possible social community during the shooting already, so a lot of background information, inside impressions and interviews were distributed that gave users the chance to participate in the journey from day one. Through this early interaction with followers, we were able to respond to viewers’ demands or ideas in the course of production. This way, a broad audience got engaged in the project within only few weeks:

Within three weeks of shooting for the Nepal project, 1.2 million people were reached, 278,000 views and 68,000 likes were generated.

The Projects’ Performance Factors

The online marketing strategy for distribution and performance measurement of content on various online channels was designed and implemented together with Frankfurt-based online performance-marketing agency Klickkonzept GmbH. The projects’ success was not a lucky break – on the contrary, the project was purposefully designed, carefully set up and professionally implemented and supervised, employing a specific methodology and following defined performance objectives. Here are the main performance factors:

A Passionate Team with Intuitive Know-How

Each of the team members who planned and realized the documentary travels grew up knowing and using the functions and potentials of social media. The intuitive use of those media together with passion and enthusiasm evoked by the project itself is essential in order to create and distribute authentic contents effectively. The production of social media content as an end in itself where protagonists only re-enact certain scenes
leads to an inherent lack of authenticity, which is often fatal in social networks.

Technologies that Open up New Perspectives

Social platforms are under constant innovation pressure: Each platform aims to be the first to provide new formats or ways of interaction to its users. The upcoming developments in the area of virtual reality, for example, will take user experience to a new level. Generally speaking, applying the newest technological options in social marketing campaigns leads to a higher chance of viral distribution, regardless of the respective contents.

In this project, the latest live-streaming functions on Facebook were combined with the newest camera technology, the use of 360°-videos and impressive aerial photography through the use of drones, in order to make the user experience as attractive as possible from a technological perspective as well.

Knowledge about the Target Group

Profound knowledge about the target audience is essential for any successful online campaign. In the first project stage, the team gave a lot of thought to the target group we were aiming to reach and engage. These considerations were necessary in order to match the content of the film to the audience, but also to select the right online channels: Different channels can have a very different user structure. Furthermore, the specific targeting through the use of demographic data was indispensable for the initial addressing of the target group.

The Right Online Channels

The selection of the best online channel(s) for each piece of content is another important step. Not all channels are suitable for all types of content. There is a need to distinguish between visually-complex and non-visually-complex content. The latter can be communicated via microblogging platforms such as Twitter. Since our project is about film documentary and therefore visually-complex content, wide-ranging channels such as Insta-
gram and Facebook were chosen. The live-streams were also spread over Youtube. Very recent interviews, pictures and personal content were filmed and published via Snapchat.

Next to the consideration of the user characteristics in each social channel, it is important to consider also the absolute reach within the target groups. These data may vary greatly from country to country. For example: In 2015 there were 13.08 million Twitter users in the UK. In Germany, Twitter only had 5.08 million users.

**A Functional Distribution Strategy**

In order to generate large ranges in social networks, the distribution strategy is crucial. With today's abundance of online content, there is hardly a chance to land a viral hit exclusively through user sharing. Therefore, the content must be disseminated through a large community or through paid distribution in the networks for initial spreading. Once a relevant distribution within the target group has been achieved, the effects of viral spreading come into play and additional large reach can be achieved.

The main success factor in the project was the collaboration with influencers, that is with popular social media broadcasters who have large audiences and interact with their communities on a daily basis. Filmemacher Deutschland also maintains an online network of influential filmmakers on Facebook. These Facebook community members and well-known YouTubers were invited to participate in this and upcoming projects. Due to the attractiveness of the projects’ travel destinations and the professional team at Filmemacher, who also produced content for the influencers to use on their own channels, we were able to engage many influencers from each relevant online channel. Furthermore, the content was advertised with a small budget in order to support the initial spark for the viral spread.

Through the described strategy, the project achieved a very strong engagement within the social networks.

**Gather Specific Goals and KPIs for all Channels**

Still, user engagement is not everything. The consistent recording, evaluation and use of the online data was equally important for this project’s and the following projects’ success. By defining key performance indicators
(KPI’s) and analyzing the user handling of different content on different channels, we were able to identify the relevant content and formulate specific goals. The extensive statistics that social networks provide, clearly indicated which videos were most clicked, how long users watched which video and whether users had further interactions with our campaign. Thus, during the course of the project, the best-performing pieces of content were selected, used and further elaborated. In addition, the most attractive documentary content could be identified on the basis of user comments and was deepened in the further production process.

Look at the Entire Customer Journey

When looking at and analyzing a project’s key figures, the entire customer journey is important. The customer journey refers to the different contact points a user has with a campaign from the first encounter to the final conversion. Looking at the whole customer journey allows to see whether users are coming back to view the next posts and news of the project. It also shows whether the users have viewed and followed the content on a daily basis or rather during longer time intervals. A profound analysis of the customer journey also revealed whether the content generated real fans or merely entertained different people for a short time.

No Content without a Call-to-Action

Another main success factor is the activation of viewers. In the social media world it is important to tell the user exactly what you expect from him through well-placed call-to-actions. Since most social media strategies are about generating fans or subscribers, this is one of the most important hints that should be given to viewers or readers. Also, the announcement of new content or the reference to alternative channels with other or complementary content is a sensible activation in order to increase the reach and the engagement of the community.
The development of this project illustrates very well the positive power of social media communication. The project, launched as a documentary film project, became a very influential social media charity project. It was the power of social networks with their direct communication and the numerous possibilities of interaction that made it possible to reach so many people in a very short time. We made sure that there were a lot of influencers among them who would contribute to the further distribution and increase engagement. Also, they registered with Filmmacher Deutschland to participate in the next documentary projects.

The biggest success was the strong response from the community. As the documentary content revolves around poor or disadvantaged regions and people, thousands of comments were posted about how to support the aid projects presented in the documentary. The response was so great that the project team decided to carry over the charity impulse of this project into a non-profit organization called LifeAllstars.

At www.lifeallstars.com, there are now a number of charity projects in which the social community has participated through personal engagement as well as donations. The development of those project is continuously documented on the social platforms.

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Future is ‘now’

Devadas Rajaram

Technology is often seen as a great “disruptor” of traditional practices and customs in every profession. Storytelling is no different. Advancement in technology has pushed the frontiers of storytelling beyond anyone would have imagined a few years ago. Interactive documentaries, Virtual Reality (VR) and Augmented (AR) technologies currently available enable storytellers have to experiment new formats and enhance the user experience immensely. As a result of enhanced user experience, stories have become more engaging and impactful.

**Disruption is Empowerment**

The problem with “disruption” is it has a negative connotation. Something that results in progression of a process is actually empowerment. Hence, the “disruption” technology has caused to storytelling in general and journalism in particular is empowerment. Innovations in technology have empowered more people to indulge in storytelling, opening up new avenues for engaging with communities. The progression from print to radio, radio to TV, TV to online, and online to mobile has been mind boggling. What is remarkable is the pace of change brought about by technology and innovation in storytelling. It took almost four centuries for media industry to evolve from print to radio, but the pace quickened from radio to mobile thanks to rapid progress in technology. What we are witnessing now is a leap in the process at a much quicker pace, pushing the boundaries of storytelling.

**Evolution of storytelling**

Storytelling has always been a means of communication since the advent of spoken words. Most of us grew up listening to tales told by our grandparents, learning our first lessons about our culture, history and communi-
Oral storytelling has played a key role in the formation of our early ideas about the world we live in and laying the foundation of our impressions about our culture and society. With the evolution of new means of communication, our ability to tell stories also evolved, making the process more engaging and impactful. Technology has played a key role in advancing the process of this evolution, enabling more and more people to indulge in storytelling as a form of art and profession. Media has not been an exception to this evolution.

The invention of printing technology in the 15th century brought about a revolutionary sea change in how stories were produced and distributed. From being an oral tradition, storytelling had suddenly become a restricted activity, although more organised and structured, by people who had access and means to printing press. The process involved in printing technology turned stories into products with a limited means of production. However, the age-old tradition of oral storytelling continued to survive albeit with limited impact and engagement.

Radio, TV and online technologies opened up new frontiers for storytellers, breaking the barriers imposed by printing technology and enabling them to experiment new techniques and formats for better engagement with audience.

**Mobile revolution**

Evolution of smart phone technology has been a game-changer in storytelling - both in the process and format. The ease and intimacy fundamentally changed the production and consumption behavior of the audience. Mobile technology enabled anyone and everyone to be a storyteller, breaking the entry barriers for ordinary people to be storytellers in digital formats.

With three billion smart phones around, mobile has become “the internet”, empowering almost half of the humanity to tell their stories the way they want. The giant leap in mobile technology has brought VR and AR storytelling into the mainstream, enabling publishers to engage with their audience more powerfully.

Wearable technology used by Snapchat Spectacles and recently launched augmented reality overlays of both Snapchat and Facebook AR studio are significant pointers to where storytelling is headed. Every de-
Development in mobile technology is impacting the way stories are created, distributed and consumed.

*Everybody can be a storyteller*

As entry barriers to journalism collapse with the spread of digital technology, storytelling has become more democratized. One doesn’t have to be an accredited journalist to be able to tell her story. Anyone and everyone can be a storyteller with a smart phone. In fact, eye witness media has become an integral part of main stream media for telling important news stories.

As technology evolves further, future of media and storytelling cannot be seen and understood as an abstract idea in isolation. Future is already here and we, as journalists and storytellers, should embrace it without hesitation if we are to make any impact on communities we serve.
One insight, almost every author of this issue shares with us, is that the abilities to quickly adapt to new tools and skills and to repurpose existent (“fun”) tools for journalistic stories turn into the key competences in journalism and storytelling in today’s digital media environment. I personally assume that these skills have already and will in future have the greatest impact on storytelling competence, while the impact of competence fields as journalism will fade out.

Bringing data, information and stories into appearance - remember, in immersive storytelling “appearance is outdating meaning” - is the new dynamic we all live and work in. It demands, at the one hand, technological affinity - at least the knowledge how tools work, even if someone else is handling the practical part of it, so that one can at least project the timeline and requirements of a workflow. On the other hand, it demands experiments and innovative responses to the questions, which stories and which content can be told best by using which technological means and tools.

When we look at how immersive storytelling unfolded over decades, we can see a strong circle of early pioneers and believers in the positive potential of virtual reality and immersive media environments, as well as a slow moving mass of sceptics and “no-sayers”. According to Jaron Lanier, who despite of being a genial virtual reality pioneer more often than not raises his critical voice in public on the downsides, virtual reality happens to being the first medium that does not narrow the human mind1.

Lanier’s overall positive judgment follows fifty years after Vannevar Bush’s visionary experiments. He built early as 1945 a hypermedia computer - by the name “Memex” - which turned out being a personal library of thought, but one that would eventually expand into a cyberspatial asso-

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ciative network of various forms of information: text, audio clips, and so forth.\textsuperscript{2}

The search for an immersive media environment is driven by the longing for an environment in which the mind lives and works. The overwhelming experience that the environment realised through our media communication turns more and more in an extension of our brain, motivated me to name the smartphone our second brain and I stopped apologising for using my smart devices at any time at my convenience and the convenience of the people around me.

The first step to understanding new phenomena, as usual, lays in (self-)awareness and positivity. The revolutionary dynamic of the digital tools and apps makes it urgent, to learn to adapt to a transformative environment of constant change in high speed. The influence and tech journalist Robert Scoble, whose recent book “The Fourth Transformation” summarises the contemporary state of virtual reality environments, believes that “the coming transformation will change virtually everything, just as previous transformations to the graphical user interface and then to mobile devices has affected most of modern life.” And he concludes optimistically, ”in fact, everything, everything will be different and overwhelmingly so. Despite the potential for significant downsides, things will be better.”\textsuperscript{3}

One of the consistencies in this dynamic is the storytelling as a meaningful craft. Human communication takes place in stories and stories about human beings are appreciated worldwide. Stories bring a rare universalistic value to the table. In all times storytellers in all genres use analogies, metaphors, fables and other semiotic and rhetorical techniques. These are like vehicles which transport images and knowledge from one layer to another. For example the story of “Tootsie” teaches us the value of true love. “Cinderella” tells us how inner strength can overcome great challenges. The metaphor of the “cloud” visualises the real-time structure of our present digital order. And so on.

In principle in today’s digital sphere we tell stories in short and compact mini-formats, which we link and as such extend. One important finding is: You can only understand and learn more of this exciting new digital way to tell stories and link knowledge, if you work with it hands-on. You can’t

\textsuperscript{3} Interview and report: Robert Scoble in Forbes (2017) (https://www.forbes.com/sites/johnkoetsier/2016/12/12/the-fourth-transformation-augmented-reality-artificial-intelligence/3/#60c7ef5160c7)
just theorise about it. As soon as I came to understand this, I am deter-
minded to explore more of these snippet-formats and bring them on: Short 
clips and stories, in real-time, multi media, produced on mobile only and 
amost instantly shared on social media.

This new umbrella-technique of storytelling I brand as #innovation-
telling, because it is born out of “open innovation” principles. I make use 
of #innovationtelling in all story-snippets on new developments in mobile 
journalism. Furthermore I explore in snippets-formats innovative tech and 
apps on diverse social media platforms. Like in this test-sample interview 
produced @ snapchat:

- VIDEO Brexit interview: https://youtu.be/8Nrzxd1x3wc

Open Innovation has been researched among others by the American 
economist Henry Chesbrough\(^4\), who focuses on Lean-startups - “lean” 
(flat) and user-oriented enterprises - in the 21. century. Open innovation 
refers to the dynamic that an enterprise blends external and internal 
knowledge in order to increase and speed up its innovation strength. Addi-
tional methods are crowdsourcing and interactive participation of the pro-
sumers - the consumer who turns producer.

In particular open innovation can be applied to or rather works at the 
heart of mobile journalism (#mojo) and social journalism. Here it connects 
perfectly well with the #mojo focus on intimate interactive production 
techniques in real-time and reciprocal beneficiary user-relations which 
transform content into the liquid form of ongoing conversations.

In my view #mojo is much more than using a mobile device. Instead it 
is useful as an umbrella-term for the global paradigm shift from gatekeep-
ing journalism to social and interactive journalism. Definitions often work 
exclusively. The beauty here is: #Mojo can be applied inclusively, by defi-
nition, it blurs the lines and can be executed by everyone with a “mo” and 
common digital sense.

Having said that I like to draw your attention to the relation of innova-
tive openness for external knowledge and experience with the convention-
al internal code of conduct of journalism. The latter referring to research 
and digging-techniques which guarantee credible and fact-checked content 
which has been proven critical and skillful for quality journalism since at 
least the early days of the 20th century. The credibility and in-depth of in-

\(^4\) See: http://openinnovation.net/category/henry-chesbrough/
formation given in the stories or, most often, in the story-capsules, remain key. Journalists were, are and will be hold responsible for gathering, sourcing, analysing information, and then presenting the information/knowledge/facts in a credible story, making it relevant and beneficiary for users and public.

The conclusion is that the traditional code of conduct in journalism will apply also in the era of artificial intelligence (#AI) and digital clouds. Yet, in #mojo and social media research these principles require new techniques. On the one hand, journalists will be measured by the ethical standards of their reporting and building up within the information flow. On the other hand and nowadays, journalists build their personal brand by their standards of authenticity and credibility. Internal journalistic code of conduct are extended to recent tech and applied on the knowledge transfer with external stakeholders and user-communities.

One example for open innovation in journalism can be seen in the trend, that all global media companies open journalistic newsrooms rolling out the entire cross media landscape. Look at Bloomberg, whose success was built on financial products and terminals only. Today their new journalistic newsroom benefits from the strength and circulation of the financial products and vice versa the financial products benefit from the credibility of the journalistic content. That’s a win-win.

VIDEO Snapchat for journalism: https://youtu.be/SAaqYSDwea0

As well the face-detection software introduced on Snapchat and using latest #AI applications counts as a prominent example of open innovation in mobile journalism. The #AI software is activated in selfie-mode and then puts playful filter-masks on the real face on camera, like animal features, colourful feathers and crazy headdresses. Yusuf Omar is one of few mobile pioneers worldwide who explores all the latest tech for journalism and investigative journalism. He describes it as “hacking” the tech and repurposing it. You can read more about his work in his text in this issue #Innovationtelling. There he tells about his time, when he worked at The Hindustan Times in Delhi, where he and his team built up the largest mobile only newsroom worldwide with about 750 reporters and developed the concept of the “Mojo triangle”. At present, Yusuf Omar works at CNN London as Senior Social Reporter and for CNN Snapchat Discover.

In July 2016 Omar produced and shared interviews with female Indian sexual abuse survivors who told their story to a worldwide public, first via social media and successively on all possible cross media platforms.
women were enabled to do so by making use of Snapchat face-detecting filters which would mask their identity but leave the emotional expression and authenticity visible and audible.

Hence, Omar hacked the #AI-Filter-tech in Snapchat for an innovative purpose in an investigative journalistic story. Furthermore in the process each woman was able to choose her own filter, connecting with a new identity - as a public storyteller and groundbreaking witness - and partly gaining back more control over her story and her life.

Omar published his insights and more detailed background information on his approach later on Medium\(^5\) and in interviews with the BBC, The Guardian and many news organisations worldwide. In his talk at the Mojo Meetup\(^6\) in London on August 15, 2016, he said: „The point is you must see the potential and experiment with all the platforms and don’t judge from first sight. Snapchat on first sight is for teenagers sharing nudes. You must see far beyond that and find out how can you repurpose this tech for journalistic storytelling.“

If this understanding of mobile journalism is not a true journalistic model and displaying the ideal marriage between tech and investigative content plus empowerment - what else could be rightfully called so? It is the most exciting and social innovation technique in today’s world of journalism. It could become an valuable and feasible USP for news organisations who are willing to keep up the pace of the digital innovative engine and transform their organisation accordingly. Open innovation in the heart of #mojo is the new “digital queen”.

(This article was first published in a different version on Medium 2016.)

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Real-Time Reporting

_Vera Kirschbaum, Nils Kraft, Aline Spantig_

Our world is getting faster and faster and so does the news reporting. There are different ways to cope with the change of information telling. One of the latest solutions is real-time reporting which will be explained in this chapter.

We will give a definition and describe a practical case how real-time reporting works (at the practical example ”Moot Court”), we will explain useful tools and narrate some experiences of student real-time reporters at Stuttgart Media University.

But first, some personal impressions to start.

_Students Recall their First Real-Time Reporting Experience_

The real-time reporting workshop and the practical experience at the Moot Court were the best days in my whole studies. It was real fun and I learned so much in these two days. There was so much input from the workshop, which we could use immediately at the Moot Court, what was really cool to experience. The day of the Moot Court was actually really exhausting but in the end you are so proud of all the content you spread all over the world to your audience and the success when you reached a prominent journalist who answered your tweet and took part of your reporting ... this is priceless and an experience, I will not forget. I really want to do this again.

_Vera Kirschbaum (Crossmedia Journalism and PR)_

To sum it up, real-time reporting was a very special experience. Why? Because during our real-time reporting at the Media University, I felt that this is something really innovative. We learned another kind of journalistic thinking. We found out, how to think in short reports and how to transfer an event like the Moot Court into the various social media tools.

In my opinion, best advantage of real-time reporting is that you communicate directly with the audience and at the same time you create infor-
mal content for them. We experienced that very well, because a famous German journalist noticed our reporting and retweeted our posts. Through certain hashtags or links we get the chance to communicate in a new dimension. It really breaks down barriers. Moreover I love those diverse possibilities. You can produce informations in a range of different forms – from short texts and pictures to videos.

If I am honest, before we joined in this real-time reporting event, I was a bit skeptical about some social media tools. But the combination of fast, authentic live reports, team work and innovative news communication convinced me.

Nils Kraft (Crossmedia Journalism)

The Moot Court was one of my highlights at Media University. It’s beautiful, because the younger students are getting in touch with media law softly. Following, they are prepared for their own Moot Court one semester later. When I was in the second semester, I’ve never done real-time reporting before, because I thought it’s reserved for big players in media business. But then I learned that everybody with a smart device can be a real-time reporter. Unless internet or battery strike. Since the Moot Court is over, I am continuing real-time reporting, if there’s something on my way worth talking about. I’m still surprised about the reach of Facebook live videos. Unbelievable, that thousands of foreign people are watching my content.

Aline Spantig (Crossmedia Journalism)

What is Real-Time Reporting?

Compared to print media, real-time reporting works non-linear and across media platforms. You are reporting an event in real-time, instantaneously, at the moment it happens, with using a range of useful devices, apps and social media platforms to spread information in many different ways which ideally are all referring to each other. Because it works up-to-the-minute, the audience feels like taking part of the event and can also decide what the reporters should report about while participating in the conversational platforms. This is the difference to the old, conventional live broadcasting journalism. Speed is necessary in real-time reporting, so preparation is the key to success because you are producing in real-time but within the journalistic frame of preparing and verifying to be able to provide
Credible and relevant information for your users. It’s all about to create a reliable, interactive and fascinating live experience by using mobile technology and social media platforms.

So, be prepared...

- plan locations for interviews
- your phone should be fully charged (also all other technical devices)
- you need free storage space for new photos
- your personal social media profiles should be looking professional and igniting

Useful tools for real-time reporting are:

Facebook: You can post texts, images and you have also the possibility to do a live stream (be careful to use the right format). The video stream appears in your timeline as soon as you go live.

Twitter: It is very useful to keep your audience up-to-date quickly with short texts (limit of 140 signs) and images. Hashtags can be used very profitably for reach and connection.

Instagram: Use this app to complement your information with pictures and post little videos. You also have the possibility to do an Instagram-Story.

Snapchat: You can post images, verify material through geo-code, hand off the video stream and work with your material in the cloud. All posts are only seen by your followers and will be deleted.

Periscope: A powerful app to be live on twitter. It posts the notification that you are going live to all your twitter followers. But your videos are deleted after 24 hours.

Youtube: This platform is useful to do a wrap-up of your reporting. You can generate a sum up of the day or post for example some interview videos.

There is a lot of change in this area, so stay tuned!
In the next passage we show, what is necessary to do in practical real-time reporting presented by an innovative learning experience called “Moot Court”. Step by step you can see, how we evolved our reporting, which apps we used and which platforms we found most useful (from a perspective in June 2016).

Real-time reporting is taught, where tomorrow’s journalists are studying. Some student groups at Stuttgart Media University are getting in touch with this concept early as in 2nd term by taking part in a unique teaching format: The Moot Court at Stuttgart Media University is created by Professor Tobias Keber who is an expert in media law, privacy and international law. The Moot Court offers an interactive and real-time simulation of a media law court. You’ll find more detailed information in Keber’s article in this issue.

Students of the third semester have to do a class with the subject media law. For the final exam they simulate a court day with fictional but realistic media cases. The Moot Court takes place at the Media University, but everything is realistic: Judges, Lawyers and ... press corps. The press is represented by the 2nd year students. They report about the Moot Court in real-time and as if it is a real court.

So, while the third term students prepare their pleas, the second term students arrange their streams.

Therefore they undergo a real-time reporting workshop during a few days prior to the actual Moot Court. The workshop is guided by Stuttgart Media University Professor Marie Elisabeth Müller and Professor Kristian Strøbech, who is a journalist, digital and mobile consultant and associate lecturer at the Danish School of Media and Journalism in Aarhus. During the workshop students get to learn a whole toolbox for real-time reporting, formats, platforms, apps, devices. After this intense coaching, the student reporters are ready to work in this new way of journalism.
Real-Time Reporting

The Process of Real-Time Reporting in Connection to the Moot Court

Real-time reporting due to the Moot Court is structured in three steps, which will be explained below.

1. Prior to the Moot Court

This phase is all about preparation. First you have to decide, which tools and social media platforms you want to use for which reason, as each platform works best with different story-formats on a different time-line, and relevance for users differs in relation to platforms and formats.

Generally it is necessary to create some concise hashtags for first of all Twitter and also for usage across platforms. It is important to announce your reporting to your audience, tell them what it’s all about and establish your hashtags prior to the main event.

All students involved in the reporting use their personal social media accounts as there is no valid distinction between private and public accounts for media professionals. (Rather to manage private content through your stream management.)

We worked in groups of five students and after the decision what platforms and hashtags we use, we clarified who serves which channel and which tasks.

Because the Moot Court format isn’t common in Germany, we had to explain first in our streams, what a Moot Court and our particular case is about. So we did research and pre-interviews. Then we presented the results to social communities for example on Facebook and Instagram.
Facebook is useful for the preliminary reports, because you can post longer texts combined with pictures and graphs. In order to reach all interested parties and not only our own Facebook friends, we used the same hashtags, which we created together in the workshop.

2. **During the Moot Court**

And action! This phase is about operating while the running event. Be fast, be relevant and be informative. These are three of the crucial rules that you have to consider by doing real-time reporting. In other words, before you push the button for releasing a tweet, you have to determine: What do I want to say with this short text? Why is this interesting for my audience? Simultaneously the challenge is again to determine the message of your post very fast – you have no possibility to think about your content for a long time.

So exactly these were the points, we also had to consider during the Moot Court at Media University. You can publish millions of posts, but you should never be irrelevant. And the risk to be irrelevant is very high. While reporting about the various cases of the Moot Court, it was important to take a journalistic point of view. Consequently we had to keep the...
advice in our mind, which our Danish workshop professor Kristian Strøbech gave us:

- filter out the relevant information
- keep an eye on details
- tell a story and maintain a narrative
- find a catchy motive for pictures
- exercise a critical thinking

In the next step, it was important to weigh up the content of the posts. There are some aspects you have to consider every time:

- combine the content with suitable pictures
- convey emotions
- show it (or live it) – don’t tell it
- link to other accounts
- use a core hashtag and determine other useful hashtags
- choose the social media tool, which is the best for a certain content

When you take the previous points into account, it increases the probability that the interested audience can find you in any of the social media platforms you use and they use. And if you produce igniting and relevant content, they will follow your reporting and some will connect long-time with you. Consequently you reach one of your main targets. Because that is also a typical point of real-time reporting: You have to generate your audience. You have to consult other users about the relevant hashtags and links and convince them with your genuine and important content.

This is exactly how we followed up our reporting. During the Moot Court, Twitter was the best platform to use, because its fast and you can easily keep your audience up-to-date with short texts about the development of the trial. We told our audience when our Moot Court case started, what happened, gave them quotes of the presenters and announced the outcome.

One challenge was that we were not allowed to take photos with our smart devices during the court hearing. While we reported about the Moot Court, one student worked as caricaturist and drew cartoons of the courtroom scenery.
Then we integrated the cartoon in a texted tweet. So we focused on a combination of cartoon and text information related to the motives of the picture.

(©: Nils Kraft)
All in all, this entire process should not take more than five minutes. Otherwise you are slow and loose real-time track. Because the reporting gives the audience live information by using mobiles (often on the go) – so be as fast as possible.

After the main court hearing, we interviewed the lawyers:

(©: Vera Kirschbaum)

This was a great possibility to supplement our feed on Twitter with live videos. We transmitted those interviews with Periscope – again hitting real-time.

At the time the Moot Court at Media University took place, Instagram didn’t offer the story tool. So Twitter in combination with Periscope were the most important tools, due to their great reach by the quick and short information you can give to your audience.
3. **After the Moot Court**

In this phase you document your event and do a resume. After the event is over, you still do some things to finish your real time reporting properly. One thing you could do is to sum up all posts you made. For this you can use for example Storify. In Storify you can generate a feed with the best posts of the day to show the event-reporting chronologically in review.

(Screenshot: https://youtu.be/LpeGFzka1CI)

As a final action you can produce a summarizing movie. Our Moot Court team constructed a summary by using pictures and video material to create a special memory of the event. We posted it on YouTube but you can also spread it on Facebook, Instagram or Twitter, if it is short enough.

We got great feedback and some retweets of well-known journalists. It was quite international and also Kristian Strøbech gave us both thumbs up plus created a little wrap up movie of our whole real-time reporting project.
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360° Video as a Leading-Edge Tool for „Just-Like-There“ Reporting?

Max Schmierer

Ever since the dawn of storytelling one of our main goals was to make our readers feel as if they were on the scene with us. To actually make them feel as if they were part of the scene. First, there were our ancestral cave drawings. Then, for hundreds of years, text was the chosen medium to convey these feelings. Then along came images, sound and film. The internet opened up completely new possibilities, and here we are in 2017, talking about Virtual and Augmented Reality. Welcome to the Matrix!

Once again, these “new” mediums provide us new ways of telling our story. Thing is: VR, AR or 360° are actually not that new. The first VR goggles for military use were released at the end of the 70s and Walt Disney shot the first 360° film in 1955. The technologies have just shortly been made available to all general consumers – you no longer have to spend several thousands to get your kick. Still, quite comparably to the likes of the Lumier Brothers, the storytellers of today are right now in a phase of trial and error. Even the most reduced and simple content can make audiences clap their hands in joy (or scream in fear), just because a mixed or virtual reality experience is something so novel and unprecedented. I often find myself searching for the true value in these productions that would have probably been better off with using another, traditional medium instead.

But actually what is behind all of these buzzwords? Let’s start with the basics. Contrary to popular opinion, there is not just “one” new medium (VR) but actually three. Virtual Reality immerses the viewer into an experience where he or she is no longer able to see the real world. Inside the virtual world, interaction and / or free movement is possible. There are different types of VR goggles, but typically those that use smartphones as their image source can not really be considered “full VR” since they do not allow natural movement through space. Virtual Reality content always involves software development and computer generated images. Augmented Reality or “mixed” reality allows its users to combine the real world with holographic overlays. It necessarily makes your “real” reality
part of the internet of things by facilitating the display of virtual content. And no, Pokemon Go is “not really” AR. It is 3D models being shown as an overlay on your phone camera. Did you ever try to move towards the Pokemon? They will just slide along the ground. In “real” AR the technology allows you to place objects in mixed-reality space that hold their actual position. Thus, you could for example re-decorate your living room and all the virtual objects would stay in place indefinitely. 360° film, often also wrongfully referred to as “VR video” is just what the label says. A regular video, played back on the outside-in 3D model of a sphere, thus allowing the viewer to look around. These videos are recorded using several cameras combined into a so-called rig. A typical set-up would be 7 GoPro cameras arranged in a cube-like formation. If it is necessary to capture the depth (stereoscopy) you even use up to 14 GoPro cameras to film at once. Although 360° videos can be watched inside of VR goggles, they still are not “real” VR content since the interaction is very limited and free movement not possible – The viewer always assumes the position of the camera, but can not lean forward or backward. This impacts the sought-for immersion in a very bad way.

There is however one reason why 360° film is currently the medium on the rise: Making content is comparatively cheap and easy, especially when using the customer-grade 360° cameras that offer a great ease of use. The resulting projects can be watched from any smartphone, just using a “Google Cardboard” (essentially a piece of paper with two plastic lenses). For photographers or reporters it’s as easy as just throwing in one additional camera into their gear bags. The biggest trouble is however getting a decent quality, since there are so many factors influencing 360° video creation.

When I shot my first 360° project in 2013 there were many unsolved puzzles: How do you “stitch” (assemble) the 360° video from all the single video files? How do you deliver the final project or even view it online? Luckily, most of there riddles are solved by now. Hundreds of start-up companies came up with a wealth of solutions and software. A few limitations do however remain: You can not get closer than 50cm from any 360° camera, you should not put the 360° camera on a moving platform (else your viewers might get sick while watching) and you should also avoid moving objects that cross the “stitches” between each pair of cameras, since that makes a lot of post production necessary. Then there is the thing with resolution. With the output image being stretched on a sphere, fullHD is a laughable format: Every single point on the sphere will
only have about a 1/6\textsuperscript{th} resolution of the total image. Thus, shooting in 4K is absolutely necessary, which gives you at least close to HD ready (720 p) fidelity per eye when played back on a sphere. In order to get a really nice quality you would however need to go up to 8 k in resolution, 16 k would be ideal. No regular smartphone and no computer can do such a playback in real-time right now. You won’t believe how often I had to explain to my customers why the resolution of our 360° videos seemed so poor!

Despite all the technical limitations many of our customers still request 360° - just because it’s leading-edge and super cool. However, if your storytelling does not use the full 360° view, why bother shooting in 360°? About 80% of all 360° movies are still shot in a traditional, 180° staging. It’s not only a way of re-thinking for the videographer, but also for the customer. Imagine shooting in a car plant – usually, you could just leave all the secret stuff behind the camera. Now, the whole room around the camera needs to be prime, clean and good-looking. Also, sound becomes more important than ever before. Since you can’t just force your viewers to move their heads into a certain direction all you can do is give them binaural audio cues that hint them in the right direction of looking. It is our general approach to tell the story in a clock-wise fashion: The first action happens right in front of the viewer, then the story begins to unveil itself in the natural reading direction (which, in western countries is from left to right). The right audio then clues the viewer to gradually keep looking to the right.

To make your 360° film a really awesome, sure-to-never-be-forgotten experience, there are new technologies on the rise that might bring VR and 360° closer together. One of those is to create a 3D model of the 360° film’s set. By combining both the 3D model and the 360° film the viewer is able to move around in a very small area, creating a much better immersion than in a regular 360° film. The downside is that no actors or moving objects may be near the viewer, so this works best for e.g. wide shots of a landscape. Also, adding the possibility for the viewers to direct the film themselves (by e.g. looking at hotspots within the experience) makes everything much more enjoyable.

Another hot topic is using lightfields (basically capturing the path of all rays within a volume of light) instead of “old-school” video recording. This technology also allows the user to not only look but move around a 360° video in a limited way. How much the user can look around is determined exactly by the size / diameter of the camera rig – the bigger the camera, the worse the quality, but the larger the space to move within.
Crazy file sizes and great hardware cost (both for recording and playback) are still deal breakers for this approach. There is simply no “real” hardware outside a laboratory using this technology, yet.

Whenever there is enough time and budget, I urge our customers to create a “real” VR experience. That means, adding interactivity and immersion to an extent that (currently) is not yet possible with 360° video. A great example is the BBC project “We Wait” that tells the story of a Syrian refugee family that struggles to get to Europe via Turkey. Despite using the most simple cartoon characters (in a sense, comparable to our ancestor’s cave drawings) the story is deeply gripping. The virtual characters actually hold eye contact with you: That creates the illusion of really being in the story, no matter how crappy the graphics are. They literally take you by the hand and show you their world.

Independent from all the rapid, technical developments, all three mediums have a huge power to convey our stories in an unprecedented way. When I let my neighbors’ 6-year old boy try out VR glasses for the first time, he was hypnotized. Riding on the back of a dragon, he had to solve several math puzzles to win the game. About three weeks later, when we met again, he was absolutely convinced that he had actually ridden a blue dragon in the real world. Wearing VR goggles kind of removes the filter that content watched on a “regular” screen entails. Even for grown-ups that means that all the content is experienced in a much more personal, empathic way than it would be possible in any old-school medium. Still, in just about 15 years we will look at today’s technology just how we look at a caveman’s drawings today. Who knows if we will even be able to distinguish the real world from the virtual world at all?

I want to urge you: If you are interested in VR, AR or 360° - just start making stuff by yourself. It’s really not that hard if you have a couple of days to spend. Game engine software such as the market leaders (Unreal or Unity) are available completely free of charge. Entry-level 360° cameras are already available far below 500 Euros. Who knows - you might as well be the chosen medium’s next Steven Spielberg since so many aspects are yet to be discovered or un-claimed. I am very sure that we are right now at the beginning of something very big. So big in fact, that it might one day change all of our lives and humanity altogether. Be part of it!
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Innovative Storytelling with Snap Inc. Spectacles

Julian Bossert

With the steadily increasing innovation progress technical achievements also affect storytelling and journalism. At the beginning of rudimentary communication the only way to spread a message wide was by using the voice to tell stories. With the progress of time and technology people invented plenty of tools to let people know contents they want to share. Audiences grew bigger, messages delivered faster and more precise.

Nowadays people are always connected to everything. Most of the communication is held with people in their environment with a partial close relation. Another important part for the individual is mass media and a demand in interest based information. The third and newest part of communication for people is the human computer communication. With the rise of internet of things – which connects the physical world with the digital – devices can communicate and interact with people and each other. Driven by the promise to make the lives of their users easier and more convenient, more and more intelligent (smart) hardware is consumed and published. To have these advantages without being forced to pull out their smart phones, wearables are enjoying an increasing popularity over the past years.

In 2016 Snapchat the social messenger – famous for their self-deleting messages – split up in a hardware centered and camera focused company called Snap Inc. the messaging service remained as Snapchat. In the increasingly more difficult getting sector of multi media messaging applications Snap Inc.’s goal is to reinvent the camera to help Snapchat staying a successful Messenger and turning into a successful immersive TV platform.

„We believe that reinventing the camera represents our greatest opportunity to improve the way people live and communicate.“ (Snap Inc. Website)

After Snapchat helped changing the way how people consume video on there devices it seems their key mission now is to impact how content is captured. The focus on the paradigm shift how users produce content can be great advantage for the future of both companies. As soon as Snap Inc. is giving users an added value with the usage of their cameras they will be kept in the ecosystem of Snapchat. With this strategy the innovated and
produced hardware makes it more difficult for competitors to copy the unique physical characteristics than copying features of a software.

Usage and Advantage for Storytelling

Snap Inc.’s first product is called Spectacles which are sunglasses with a build-in HD camera which is modeled like the human eye. It’s located in the left side of the Spectacle frame. With a press on a button on the right side of the frame you can record a ten second video – three presses record 30 seconds. While recording, the LED lights are spinning in a circle to show that the spectacles are capturing. After the record has been stopped by the user the content automatically syncs via bluetooth with the connected smartphone. The recorded videos are stored in the Snapchat application where the user can edit the content and work it up in a story similar to Snapchat native content. The videos are stored and uploaded chronologically by the time of the recording. The whole process is accompanied by a convenient user experience. Not enough that spectacles have another feature for storytelling which wasn't seen before.

Horizontal versus vertical recording is a decision which divides the minds of people all over the world since the smartphone screen came into life. Snap Inc. found an answer for that question with a really simple solution: Make both perspectives happen – now the spectacles capture a round sphere which is cropped by the smartphone screen. As the user turns his device the section of the video follows the orientation of the device.

Function of the displayed content of the Snap Spectacles by Snap Inc. (Illustration in own production)
With this technique and the ability to let people experience situations through the eyes of the person who tells the story, the connection with what’s being said is getting more immersive. The spectator sees the whole scenario from the participants perspective. With this rhetorical device the viewer is getting closer to the story which is being told. Not only is the immersive view of the person who records the video a great achievement, also the ability to act and move around hands-free is a big advantage. For example, when the participant is recording a working sequence, he is able to work by himself without any help of others. Natural situations can be created by the video maker. A camera or microphone hasn’t to be hold in hands.

Another benefit is that the usage of the Spectacles is less intrusive than pointing on somebody with a camera. People who get portrayed or interviewed are not that distracted by obviously getting filmed. Combined with the convenience of recording and editing Videos Snap Inc.’s Spectacles provide users, brands and journalists a opportunity to create low-key content with a huge potential to deliver immersive stories instantaneously, interactively and informally.

How Snap Spectacles Impact Storytelling and Journalism

In times of Fake News people are getting increasingly distant from actual facts. The oversupply of sources, the gain of speed with wich news are published and the lack of attention and thoroughness overstrain spectators increasingly. Most of the views lack the references to many topics. Dishonest sources use this deficiency to show topics in a way – either by concealing facts or by adding false reports – to confirm their persuasion or the view they represented to influence the people.

With the increase of diverse and user transformative technological tools information brokerage got easier. The monopoly of information getting passed from broadcaster to recipient changed completely – anybody can produce and share content any time. In conclusion there are much more independent sources which are trusted and established by their audiences’ engagement. Platforms like Snapchat help users to receive and share content in real-time added with all kind of meta-information about the published video for example geolocation, time, temperature, etc. Wherewith users can show the documentary evidence of authenticity of their content.
With a tool like the Snap Spectacles the process of creating authentic and igniting content is significantly simplified.

Similar to politics, advertising and marketing both have a great problem with trust issues. Consumers see through superficial campaigns which promise a lot but are not being able to meet their needs. They are more skeptical and inform themselves as well as others through blogs and social media. The new social currency in advertising is an added value and secures authenticity towards the customer. Only this results in sustainable attention and solidarity towards a brand. Of course, this is a basic rule in using Spectacles for storytelling, too. Content always has to keep the low-key, spontaneous character to make customers trust in it. Scripted scenes to fit the campaigns claim precisely and to distribute a perfect image become a no-go.

For now, content creators and journalists have to find key conclusions to be drawn from this new kind of creating content. Workflows have to be created and concepts to be developed. It will be interesting to see how new formats will be realized just the same as what updates for the spectacles or entirely new products will follow from Snap Inc.

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Integrating Agility into Strategic Project Management – Reflections on a Project within the Global Mobility Team at Daimler AG

Sarah Spitzer, Vera Clausen

Introduction

Realizing strategic projects in an environment of dynamic changes has become one of the key challenges for companies. Current research is analysing how enterprises can “alter their path dependence by transforming their strategic intent and capabilities”.¹

In “pure” strategic management, tools and perspectives on strategic management seem to remain stable since the overall mission and vision of companies cannot change on a day-to-day perspective. Although some authors have stressed the possibilities to combine both, agile- and plan-driven methods for software development,² recent discussion about the combination of agile and strategic tools for general project management rather focus on the differences and come to the conclusion that both approaches exclude each other.³ In practice, however, business needs to overcome this gap to ensure that project results are in line with a company’s strategy. This is why Collis suggests a lean strategy process that combines agile methods with strategic management thinking.⁴

The present article shows how this suggested combination of strategic and agile tools can help to “get the best of both worlds”⁵. Based on a theoretical framework that illustrates how agile management tools help to overcome the shortcomings of traditional project management, the article outlines ideas for a project management modification that allows to deal with the present challenges of strategic management in dynamic environments. The applicability of these considerations is illustrated by the exam-

² Boechm, Get ready for agile methods, with care.
³ Collis, Lean Strategy, p.22.
⁴ Ibid, p.29.
⁵ Ibid, p.22.
ple of a project set up by the Global Mobility Team at Daimler AG that applied the suggested tools and methods during a strategic project.

The article progresses in five steps. In the first section, the strengths and weaknesses of traditional project management will be described, focusing on the key aspects that lead to the development of agile management tools in the IT industry. The next section outlines why agile management is a good method to bring together different perspectives. After that, the authors characterize the previously mentioned project of the Global Mobility Team of Daimler AG, focusing on the project setting and framing conditions. They will then show how different agile techniques shall help to overcome critical aspects in the project setting and ensure project success.

In the last step, the experiences of the project realization will be described and discussed.

From Traditional to Agile – A Short Summary of Different Project Management Techniques

For a long time, traditional project management helped to adapt strategies in smaller increments and for certain issues. The quality of a project is usually defined as the fulfilment of the three different, sometimes conflicting, dimensions of project success that are time, budget and scope of project.\(^6\) Traditionally, project management includes four main phases: Initiation – Planning – Execution – End of project; these come along with project controlling and project documentation.\(^7\) The use of different project management methods that shall be illustrated in the following sections is depending on the project complexity. Figure 1 summarizes the positioning of the reflected methods.

\(^6\) also called “project management triangle”, see for example Kessler/Winkelhofer, p. 55.

\(^7\) Schwarzer/Krcmar, Wirtschaftsinformatik, p.114.
Lean Management

Lean management focuses on the avoidance of “waste” trying to make project management more effective in reference to different perspectives (e.g. production, standby times, customer orientation). Based on the experiences of an analysis of Toyota’s “lean production”, principles and strategies for the realization of project management were developed. The successful implementation of lean management is optimal for projects that are characterized by rectified principles like team work, planning processes, just-in-time production, Kanban etc. ⁸

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⁸ Thommen/Achleitner/Gilbert/Hachmeister/Kaiser, Allgemeine Betriebswirtschaftslehre, p. 496.
**Waterfall Model**

In linear project management, the main phases are seen as increments of a linear process. One step is completed after the other: once completed, it is assumed that it will not be revisited. A popular application of a linear approach is the so-called “waterfall model”. (See Figure 2)

![Waterfall Model Diagram](https://example.com/waterfall_model_diagram.png)

*Figure 2: Waterfall model*

In many companies, these projects are planned by fixing the beginning and end of a project. Thus, this form of project management traditionally leads to the result that time (and budget) determine the outcome of a project. Additionally, the “customer” often can give his input only at the beginning of the project. This is appropriate if the project itself is of a limited complexity and the framing conditions are known. If not, it is difficult for him to state all requirements early in the project. Consequently, one risk of this approach is that the result of the project may not be as expected since the project team usually does not get (or ask for) any feedback during the process.

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Spiral Model

Circular project management methods try to deal with more complex projects and requirements by frequently integrating customer feedback into the product development process. After a first briefing, the project team develops a rough prototype. This prototype is presented and the customer feedback is used to improve the model. A next feedback round allows another improvement of the prototype and so on. Instead of a fixed deadline, these projects often risk exceeding cost and time budget since it is not clear, how many feedback circles have to be realized before the product is ready.\(^\text{10}\)

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{spiral_model.png}
\caption{Spiral model}
\end{figure}

\textsuperscript{10} Schwarzer/Krcmar, Wirtschaftsinformatik, p. 152.
Figure 4: Agile project management

For several reasons, companies have been experimenting on different project management approaches that overcome the shortcomings of all previously mentioned methods.¹¹

**Agile Project Management**

Agile project management differs from these approaches due to the very clear statement of the key principles that projects have to commit to.¹²

Agile projects focus on interaction, customer collaboration and the possibility to adapt very quickly to changes, if necessary.¹³ Like traditional projects, agile projects follow clear project phases and follow the classical step sequence of project management.

However, they also include regular review sessions that allow customers to specify the requirements and to give feedback. Agile project teams discuss the feedback with reference to the clearly defined project value and thus, make sure that the customer can actively overview the consequences of additional requirements on the project outcome.¹⁴

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¹¹ *Leitl*, Lost in transformation p.31 ff.
¹² K. *Beck* (and others), The agile manifesto (http://agilemanifesto.org).
¹³ Ibid. Since the agile manifesto is initially written for software development; the fourth principle is: Working software over comprehensive documentation.
¹⁴ *Hass*, The Blending of Traditional and Agile Project Management, p. 3.
In contrast to spiral methods, the number of review cycles is defined at the very beginning of the project as well as the end date of a project. The inclusion of “lessons learned” reviews ensures an earlier detection of misunderstandings and discrepancies between customer expectation and developed solution.

Table 1 summarizes the general concepts of traditional and agile methodologies, focusing on the comparison of the theoretical concept and state of mind of both approaches.

<table>
<thead>
<tr>
<th>Traditional Methodologies</th>
<th>Agile Methodologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan-driven prediction</td>
<td>Active response to emergent change</td>
</tr>
<tr>
<td>Focus on planning the future in detail</td>
<td>Emphasis on adapting quickly to changing realities</td>
</tr>
<tr>
<td>Teams report on an exact planned set of actions</td>
<td>Teams change direction when the project changes</td>
</tr>
<tr>
<td>Inflexible division of projects into separate stages</td>
<td>Each stage’s tasks emerge from the outcome of the previous</td>
</tr>
<tr>
<td>Demand early detailed definition and commitments</td>
<td>Focus on workable functionality required to deliver business benefit</td>
</tr>
<tr>
<td>Depend on structure</td>
<td>Embrace creativity</td>
</tr>
<tr>
<td>Resist change</td>
<td>Welcome change</td>
</tr>
<tr>
<td>Slow to respond to requirement changes</td>
<td>Responding immediately to requirement changes</td>
</tr>
</tbody>
</table>

*Table 1: Traditional Methodologies versus Agile Methodologies*15

Agile management is based on values and principles that are fundamental for the right application of agile methods and tools. These principles are the clear commitment to flexibility and a reduction of the concentration on structure as well as the belief in the self-organization skills of (enabled) teams. To be able to realize agile projects, organizations have to identify the people that are qualified and enable them to make quick decisions to ensure a smooth project management process.16

16 Prüßig, Agiles Projektmanagement, pp.73 f.
How Agile Elements can Help to Improve the Management of Complex Projects

The application of agile management for projects with a strategic dimension is useful for several reasons:

First, agile management is based on the classical linear process of traditional project management – consequently, it is easy to include innovative tools into these projects while implementing defined, short review periods that allow adjusting the project outcome.

Second, the rolling-out of agile methods allows to permanently include different project stakeholders into the project and to react quickly to changing requirements. At the same time, the fact that it is possible to define a fixed timeline for the project can ensure the compliance with a time schedule.

Third, the agile approach allows adapting the structure of the project to present requirements while also allowing creative approaches. For example, a method to ensure the empathy of all project team members with the stakeholders of a project is the use of design thinking methods. The design thinking toolset focuses on the understanding of the needs of the user demographics.\textsuperscript{17} The process consists of five steps: After getting an in-depth understanding of the customer’s needs (Emphasize), the project team tries to identify the central problem (Define) and develop numerous innovative ideas to solve these problems (Ideate). After collecting customer’s feedback for these solutions, a prototype of the most attractive solution is developed (Prototype) and tested on the customers (Test).\textsuperscript{18}

An additional tool that allows developing more empathy for customers is the development of personas. **Personas** represent “a fictional profile that represents a particular target audience: A thumbnail summary of the characteristics, needs, motivations and environment of typical website users”\textsuperscript{19}

\textsuperscript{17} Hasso Plattner Institute of Design at Stanford: An Introduction to Design Thinking Process Guide.
\textsuperscript{18} Ibid.
\textsuperscript{19} Chaffey/Ellis-Chadwick, Digital Marketing, p.668.
The project of the Global Mobility Team of Daimler AG is targeted to overhaul the company’s policy for Global Assignments. This policy defines rules and general commitments and benefits for global assignees according to the strategy.

About three years ago, the Global Mobility Team underwent a strategic realignment process: this included a complete redesign of the global mobility policy.

After a successful implementation of this policy the organization had realized the needs to accommodate several changes to keep up with the changing environment and to further improve the current version of the policy. Consequently, it started a project to manage this policy update.

The project faced a couple of challenges:

• It had to accommodate/consider the different perspectives of multiple stakeholders: different types of assignees, managers and supervisors in the home and host locations, members of the Global Mobility Team that have to manage the assignments, etc.
• As in many corporate processes, the specialist knowledge lies within the operational level whereas the management is held accountable for the overall costs and long-term consequences of each decision.
• Because of the strategic dimension and the global impact of the global mobility policy, major changes would have to be approved by senior management.
• In order to stay in line with other corporate schedules, the project had to follow a very strict timeline.
• The Global Mobility Team is located in different regions; project members are working in different locations and have to overcome different time zones and cultural backgrounds.
• The topic itself is very complex: assignment management has to deal with all types of different questions from legal questions (e.g. taxation, social securities, employment and contract law) to local topics (different per country or even entity), management of global processes (e.g. payroll, relocation, destination services) as well as applying standardized benefits and processes to very diverse individual assignee situations (including their families).
The requirements regarding the financial impact of the project, i.e. the overall impact of the changes would have to be neutral: increased or more generous benefits in one area would have to be compensated by cost-saving in another area.

The next section describes more in detail how the previously mentioned principles, values, selected tools and methods were integrated into the project management process to also help overcome some of the challenges the project was facing.

Applying Agile Principles, Values, Tools and Methods into a Strategic Management Project

Project Management Process

Based on the fixed timeline, the project was split up into six increments.

1. During the preparation phase, all members of the organization were asked to give input and feedback concerning relevant topics, issues and problems. Next, this collection was clustered into six packages to be able to deal with the complexity.

   Different groups within the Global Mobility Team were invited to select and nominate project members to discuss and develop solutions for each of the six packages. These project members received so-called preparation packages that they should familiarize themselves with before the kick-off.

2. During the kick-off meeting, all project members were invited to get an overview of the project design, the scope and expectations. Also, the kick-off session included a presentation on agile management in general as well as specific tools (like personas) that were then applied during the workshops.

3. During the first workshop, different solutions and answers for the defined work packages were developed. The groups started with a reflection on the topics, issues and problems of their packages and clustered them into easy and more complex/challenging topics. The latter were then explored by applying the personas. The results were documented in standardized templates.

4. After each workshop, these templates were uploaded on a Share Point platform and all members of the Global Mobility team were invited to

Sarah Spitzer, Vera Clausen
give feedback. Additionally, the core project team condensed the results into a summary that focused more on the underlying strategic direction of the solutions (i.e. the motivation and purpose). The target of these presentations was to receive guidance and direction from the leadership-team (the why) rather than providing detailed feedback (the what). The results of this alignment process were collected as input for the second period of workshops.

5. The second workshop period aimed to clarify questions that had occurred after the last workshop, to discuss and evaluate the feedback that had been collected and to finalize the three solutions (including a detailed calculation on the cost impact for each solution). Also, if applicable and possible, the project group was asked to develop solutions/ideas to address the question of transition, process changes and other implications for the organization.

6. Again, this workshop round was followed by an alignment period, this time leading into a “pitching session”: a synopsis of solutions for the different packages (including calculations and recommendations and effects) was presented to the management team for final decision.

**Agile Principles, Values, Tools and Methods**

The process design is based on the main principles of agile management – the iteration, reflected by two “alignment processes”, the incremental development of the final solution, the positive allowance of feedback (and modification requests) and the focus on “simplicity” by selecting the most relevant topics before project start.20

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20 K. Beck (and others), The agile manifesto (http://agilemanifesto.org).
By enabling the subject matter experts to discuss and select appropriate solutions while also aligning the direction of the solutions with the management, the project managed to overcome the gap between operational expertise and strategic direction.

To facilitate the understanding of the different stakeholder’s perspectives, personas were developed, characterizing the most important representatives that have to deal with the final “product” of this workshop. These personas were presented in the kick-off-meeting and proved to be intuitively understandable for all project team members.

Additionally, the process was set up as a modified design thinking process: An important part of the first workshop round was the understanding of the needs and benefits of the different stakeholders (Emphasize), followed by the discussion and ranking of all questions of a workshop package (Define). For each package, various solutions were discussed and three solutions were finally chosen and finalised for the first alignment period (Ideate and Prototype). In the first alignment period, these prototypes were critically reviewed by different stakeholders (Test). This then lead to the modification during the second workshop.

To ensure the smooth handling of the second workshop period, additional methods were introduced. To assist team members to also take into account the consequence of the package result as a whole, the method of de Bono’s value medals was applied. This method recommends reflecting on critical issues following the different perspectives of people (including Sarah Spitzer, Vera Clausen

Figure 5: Combining strategic and operative perspectives in project management
stakeholders), organization, quality, innovation and simplicity, and interpretation.\textsuperscript{21}

During the pitching session, the project team prepared customer journeys for the management team, thus, combining the decisions for all six work packages with an assignment lifecycle.

Table 2 summarizes the different agile elements that were applied during the project.

<table>
<thead>
<tr>
<th>Agile element</th>
<th>Aim of use</th>
</tr>
</thead>
</table>
| Adjustment of first project phase to accommodate review and alignment periods | Including management feedback into the process at an early stage  
Allowing for readjustment of priorities |
| Workshop set up with non-management workshop participants (subject matter experts and operational experts) in charge of developing solutions | Including specialist’s knowledge into the project from the beginning  
Enabling officials in charge to reflect on different solutions and prioritize/weight them |
| Workshop without fixed agenda except for daily scrum meeting, self-organizing workshops | Allowing for dismissing and readjusting of initial ideas  
Positive understanding of feedback |
| Persona Development and Customer Journey | Ensuring empathy with different stakeholder’s perspectives |
| De Bono’s Value medals | Ensuring empathy with different “customers” that have to deal with and are affected by the project result |

Table 2: Agile Elements within the project management process

First Experiences and Learnings

First experiences of this project setup were predominantly positive. The structure of the workshops led to a high motivation in the team. The personas were perceived as beneficial to get key stakeholder interests and perspectives into the project right from the beginning as well as to cluster complexity of subjects while staying focused. Additionally, the methodology helped to reduce/overcome cultural differences between the project members in working methods.

The first workshop round delivered precise scenarios that were crucial for the initiation of the feedback process. The review process also helped to verify ideas and get the whole Global Mobility Team involved at an ear-

\textsuperscript{21} De Bono, The six value medals.
ly stage. The organization provided more constructive and more feedback than in previous project settings.

Also, the feedback from the management team was very positive: they were impressed with the ideas and the thoroughness of the results, the alignment of the different packages, the alignment with the organization’s strategy and the direction the project was taking.

All of these aspects helped that initial reservations from the management team towards this new project approach disappeared.

However, some issues that came up during the project process show limitations and even risks of this approach:

During the preparation period, all related departments had to give feedback concerning topics and issues they wanted to be discussed in the project. This period resembled the initial “requirement specification” of traditional linear project management and showed to be similarly complex. As the project had not officially started at that time, there was some risk that this feedback loop might include some non-relevant topics and not include some relevant topics. However, as the review process also allowed for modifications, this shortcoming was absorbed by the process definition.

The long workshop periods bundled the workload of this project and made it visible – but also required all departments to follow a very strict agenda and to release the nominated project members from their everyday work for a defined period of time. During the first workshop-phase it became clear that for some topics the global variances are so significant that more operational experts were invited for the second workshops to ensure that the solutions provided answers not only for some regions but on a global level.

Also, the workshop-setting sometimes made it difficult for the project members to keep up the new concept and method and not fall back into traditional workshop thinking, i.e. developing pragmativ solutions rather than continuing to think out of the box and develop different/ new solutions. However, in those situations, typically a workshop member called for a break and “traditional workshop tools” helped the group to reset and refocus.
Conclusion

In an increasingly dynamic environment, companies have to find ways to deal with complex projects and to integrate numerous stakeholders’ perspectives as well as to make sure that project managers keep in mind the strategic implications of their decisions. Agile management – although initially developed for a defined setting in IT project management – proves to be a good inspiration for dealing with similar complex requirements.

The underlying philosophy of agile management – to keep things as simple as possible and to integrate stakeholder’s feedback while also communicating to them the consequences of different solutions – leads to new understanding of the role of project team members. The example of the project of the Daimler Global Mobility Team shows how agile tools and methods can successfully be integrated into a known project management process.

Bibliography

Beck, Kent et al.: Agile manifesto, publication date: 2001; accessible under http://www.agilemanifesto.org

Leitl, Michael: Lost in transformation. Harvard Business Manager, Mai 2016, 30-33


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Festo is at one and the same time a global player and an independent family-owned company with its headquarters in Esslingen am Neckar. The company is among the leaders world-wide in automation technology and is the world market leader in industrial basic and further training. Festo supplies pneumatic and electrical automation technology to 300,000 customers in over 35 industry segments.

The end of 2014 saw the opening of the company's new production facility, its Scharnhausen Technology Plant. Within the Festo global production network, it is the lead plant for the production of valves, valve terminals and electronics.

History

One of the main objectives in the planning and construction of the plant was to facilitate close multi-departmental corporation. Not only within the plant itself but also with departments such as research, development, purchasing and many others which are not located in Scharnhausen.

Festo's Research and Development department constantly develops new products, which are manufactured using ever more complex production systems. These highly automated production systems require a high level of engineering performance and countless experts, who need to be coordinated appropriately. The challenges to realise very efficient communication between these specialists in order to ensure that any possible errors are detected at an early stage and are not able to cause considerable additional costs later during operation. A further challenge is to keep planning and implementation times as short as possible in order to meet the demands of the market for ever greater speed.

The new-build project at Scharnhausen created a unique opportunity to lay the architectural foundation for innovation, creativity and efficient cooperation. Last but not least, the new plant was also intended to offer an attractive environment for the people who work there.
What is Innovation?

We first had to answer the following question:

How can we motivate our project teams to generate innovation?

Leitfrage:

"Wie können wir unsere Projektteams anregen, Innovationen zu generieren?"

(© Festo AG & Co. KG)

A small team began to research into this question. Based on Internet research, internal interviews and "lessons learned" from previous projects, key topics were defined. In further workshops, there was a discussion of how we can positively influence these key topics.

During our research activity, one statement in particular attracted our attention.

About innovation:

"Some of the greatest inventions are not new ideas, they are two old ideas coming together for the first time."

Stanford d-school
Innovation is a daily activity and develops itself constantly in every brainstorming session. One thought forms the foundation for the next, and at the end of the process something new is created. There is sometimes the impression that the solution had been within reach for some time but no one had noticed it.

Our central concern was to create a room environment which would specifically promote innovation in creation. It should be an environment which would motivate staff to give of themselves and share their ideas with other people – after all, innovation is not a solitary activity but always originates in teamwork.

In consultation with external architects, we designed four innovation rooms which are located directly in the production hall of our Scharnhausen plant – at the interface between classic industry and modern science.

Cooperation between classic production colleagues and the less formal office designers initially proved rather difficult. On the one hand, we wanted to create something new, something which had never been seen before while on the other hand we were required to conform to the guidelines of our internal corporate design scheme and the directly adjacent cost-efficient shopfloor environment. The innovation strategy of being initially willing to take up any idea, no matter how crazy, and adapt this later to a practical form proved to be a highly successful concept. Ideas were discussed in the form of garage music, Q’s laboratory in the James Bond, changing modes by using musical instruments such as a drum kit or musical armchair, and much more besides. Festo staff were actively involved in the opening of the new rooms and were able, as part of an ideas-gathering process, to participate in the naming of these rooms.
Hammering out Ideas in the Ideas Workshops

Our Scharnhausen Technology Plant is next to a nature reserve and very close to Stuttgart Airport. The location alone suggests a link between nature and technology. On the top floors of the building, the four creative rooms, the so-called ideas workshops, offer an unusual environment for a production plant. Here, colours are bright, the driving force is design. Promoting creativity, inspiration and other ways of thinking – also an unusual concept for a production plant. Nonetheless, these ideas have been put into practice. Four rooms, four colours – green, red, blue and black – four different approaches. All the rooms are based on the same principle – the Fibonacci sequence

Nature Meets Mathematics

The scientist Leonardo Fibonacci, (ca. 1170 to 1240), while researching into rabbit populations, discover the so-called Fibonacci sequence: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34... These Fibonacci numbers exhibit remarkable mathematical features – if we add together two adjacent numbers, the result is the next number in the sequence. The further we follow the sequence, the closer the quotient of successive numbers approaches the Golden Section. The Golden Section is considered to be a very harmonious ratio and is therefore often used by artists in the composition of their works. The dimensional ratios of the human body, the dimensional ratios of animals and plants, the structural laws of music, painting, sculpture and architecture also follow the principles of the Golden Section.

In the case of the innovations by Festo, the four manipulated variables – nature, human beings, technology and design – play a central role. Festo engineers frequently used bionic principles and apply biological phenomena to technology. In this way, a combination of mechatronics and models from nature can be used to create a series of new and better solutions.

The four ideas workshop rooms are arranged around a central coffee area in the form of a snail-like shell. This is where creative minds can meet for a mutual exchange of ideas. This geometrical arrangement is modelled on Fibonacci numbers. If the sequence is represented graphically by means of squares, the result is a pattern frequently encountered in nature. It can be seen in, for example, shellfish and fir cones.
Freedom of Motion and Thought

Each room offers several working areas. Several people at a time can work on interactive media walls. Groups can hold discussions at large conference tables. Individual workstations can be used to withdraw for a certain time and pursue a person's own thoughts. Ergonomic chairs help combat fatigue. Groups of sofas allow free rein to creativity. Even unconventional ways of working are encouraged, such as building with Lego blocks or painting with coloured pens. Festo believes in so-called design thinking methods and is arranging for selected members of staff to train to become experts in this.
The interior of each room is matched to a particular theme, a particular colour. Walls, chairs, tables, everything matches seamlessly. Just as with Festo products, a great deal of importance is attached to design. Accordingly, the rooms are places of inspiration, motivation, dimensioning creation.

High-quality materials and a thoroughgoing room concept generate enthusiasm for creative work. Interdisciplinary teams or complete departments. Standing, sitting, leaning – everything is possible and encouraged. The aim is for nothing to be static – patterns of thought least of all. Colourful and creative is the motto. Ideas should flow freely. The glazed outside walls form a link to the world of production See and be seen.

**Colours Generate Creativity**

The green room aims to foster inspiration. Green is soothing, healing and harmonious and stands for safety. Green can help awaken unrealised potential in human beings. Green is the most common colour in nature stop Fibonacci sequences are also found in the leaves of many plants. The seed boxes of sunflowers and the leaves of many succulent plants consist of intersecting Fibonacci helixes.

..."nature inspires people".
(© Festo AG & Co. KG)
The theme of the red room is motivation. Red increases interest, stands for strength, a compulsion to action, courage, with an activating and stimulating effect. Without human beings there would be no technical innovation. Human beings are the starting point and objective of every new invention. Thanks to the motivation of all of Festo's staff, the company has succeeded in being an innovation and technological leader.

The theme of the blue room is dimensions. Blue is a cool colour, with a relaxing, refreshing and expansive effect. Blue encourages farsightedness and openness. Blue stands for trust, rest and a sense of duty. It is here that we find the so-called Tafal mirrors. These mirrors have been produced using FIDU (free in a pressure deformation) technology. This creative production technology plays with dimensions, since pneumatics – Festo's core business – introduces curvature into two-dimensional objects, such as flat sheet metal, and gives them a three-dimensional shape. These mirrors are as unique as the world which can be seen in them. They were created by chance. There is no manufacturing technique which could reproduce their shape. The visual dimensions of the mirrors therefore show the reflection of an inimitable reality.
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... there are infinite possibilities for innovation“
(© Festo AG & Co. KG)

Creation is the topic of the black room Black stands for stillness, depth and safety. Blackie can amplify and emphasise strength. The plough, the wheel, the sail: human beings' greatest inventions are based on ideas which existed long before in nature. In many cases, nature has also provided the model for development processes. In all cases, however, it is interdisciplinary teams which create decisive innovations and inspire each other with their specific know-how to achieve cutting-edge performance. From inspiration to a finished product takes several phases: in the first in-
stance, paper sketches are made to visualise the product idea. Engineers and designers then refine the concept and produced technical drawings for detailed planning. In a parallel additive process, 3-D models are created before the prototype is perfected through product development to the point where it is ready for market.

**The Return to Normal is Difficult**

The ideas workshops are much sought after. They are reserved almost every day. Everyone who has ever visited an ideas workshop is happy to come again – in the meantime, visitors have included not only staff from our Scharnhausen Technology Plant but also colleagues from Festo in Esslingen Berkheim. Even Federal German Chancellor Dr. Angela Merkel has visited us and was impressed. Festo has succeeded in creating a place of creative retreat within a production environment which is accepted by its staff and used by them with great enthusiasm. Once a person has had the opportunity to spend a day in this unusual environment, it becomes all the more difficult to return to a conventional office.

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Pilots in The Newsroom. Strengthening the Fourth Estate through Safety Communication

André John

Introduction

“Doing more with less, dealing with increasing complexity, coping with uncertainty” – Buzzwords like these are ever-increasing in our daily discourse as well as in sociological, psychological and business research. These topics are not only mentioned in the media, their very dynamic of course is applicable to that same professional world. How can a political scientist as well as a researcher of cross-cultural communication contribute methodologies and ideas to deal with these influences? The circumstances in which journalism is being done and the way that it is being exercised are dramatically shifting – not only technologically but also ide- ally. Since this is the case, it makes sense to consider the current situation in journalism as a working world from its teleological role. That is the political side of it. The communicative perspective on the other hand can help in providing tools and methods which not only help in tackling the aforementioned challenges of the working world that is the media, but also in positioning it in these new circumstances in a way that aids in achieving the original goal of journalism as well as in redefining and fulfilling the essential role that it has in the political world.

In this short essay, the fine line between being critical about and acknowledging the existence of the omnipotent buzzwords mentioned in the very beginning will not be found addressed. It is a very different venture that I will embark on: How can building a shared mental model – a mutual understanding and agreeing on the problem at hand as well as the world around it – help journalists and those tasked with any sort of informative media production in delivering value to a democracy in a functioning humanistic and democratic society and improve the product in the meantime?

In order to provide some initial thoughts on the way in which safety-related research could help within the working world of media and journalism, we will first look at the levels of complexity that this world deals
with. Furthermore, a framing from the political role of the media will be provided before looking at the evolution of Human Factor Research (Green, 1990; Hawkins, 1987) and the transferable insights and methods it might provide to the working world of a media professional. The terms media, media professional, journalism and so on will be used somewhat randomly. In this case, I will forgo a lengthy definition of these terms and will talk about the working world of journalists/media professionals in broad strokes. In the case of this essay, the insights that will be derived from Human Factors Research are widely applicable. A finer distinction between the different media professions and the here relatable insights would have to be made during a broader empirical study.

Journalism, Media, and Politics

Journalism is the fourth estate (Schultz, 1998, p. 49) – it has an imperative role in any liberal\(^1\) political system (Christians, Glasser, Nordenstreng, & White, 2009). Especially in a time during which terms like ‘alternative facts’ or ‘fake news’ make rounds, journalism and its added value are in need. But they also find themselves under threat. The two terms coined during the 2016 US Presidential Campaigns and during the first months of the Trump Presidency show this vividly.

Berger & Luckmann (1966) show in their groundbreaking work about the way in which humans structure their social world how institutions are constructed and how their role in reality is being assigned. Regarding the challenges described in the next chapter, it will become clearly visible that former established journalism and media institutions in the sociological sense of the word have somewhat deteriorated. The institutions have been deconstructed and the level of trust in the media has either fallen to extreme lows (Jones, 2004) or the institutions as such have changed in a manner that realigns the way the media is made up, how it works and how it interacts with its audience and the broader public. All of which are fac-

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\(^1\) Liberal here is of course to be understood as in its use in democratic theory rather than in the sense of how current American political philosophy on the left is being described.
tors that increase uncertainty\(^2\) and call for methods and tools for the actors within that field to not only make sense of the situation that they are in, but also be able to aid their audiences and help them make sense of the world and what’s happening in it.

Since journalism is essential for a functioning democracy, it is crucial to assess the working world of media production and journalism in order to make suggestions to deal with new situations and ultimately fulfill its societal role and serve its democratic duty.

**Levels of Complexity**

The media profession and journalism as a whole sees itself facing several challenges in recent years. Of course, the reach of any publication or newscast has always been one of its measure of success and keeps putting pressure on the production and dissemination of current information critical to the political process. TV stations, publishing houses and other actors in the field with financial responsibilities have to drive their media towards being a profitable enterprise with many exceptions, for example state-financed and compulsory-fee-financed outlets which underlie some even more complex drivers and motivations and a high scrutiny by the public crucially eyeing every penny these fee-financed houses spend. The very personal consideration of a media professional’s career also has an influence on the way reporting is being done. News sometimes makes news because of the way certain headlines make for a bigger presence in the market.

Technological changes like the internet, the ubiquity of internet access and mobile devices have had a huge influence on the material side while on the software side blogs, news sites, social media etc. have thrown an old profession upside down during the last three decades (O’Sullivan & Heinonen, 2008). The boundaries between journalism, PR, advertising, podcasting, data science and further forms of media production have become blurrier. This enhances not only the uncertainty experienced by the public when looking at these phenomena, but changes the way in which

\(^2\) “Uncertainty“ here serves as the English language substitute for the concept “Unbestimmtheit” (Dörner, 1999), which might be more accurately translated with “indeterminacy” and regards the feeling of not being able to logically explain oneself the surrounding events or reality.
journalists do their work. Media production processes are increasingly
driven by a convergence of “communication modalities” (Deuze, 2005, p. 452). In the words of Deuze (2008) journalism is becoming “newswork”.

Phenomena like online as well as data journalism seem to redefine a whole professional profile (Fahmy, 2008). Most famously the aforementioned new form of reporting and a blurry line of reporting and editorializing in connection with professionals capable of examining big data for journalistic purposes can be found in the project FiveThirtyEight and its editor Nate Silver. The “intercept” website project founded by the eBay founder Pierre Omidyar also comes to mind in this context.

Journalism has shifted from being a single reporter covering a story to a more and more team-focused project work (Deuze, 2005, p. 451). Best examples are the new fact-checking units at the Washington Post, the international teams of journalists from the Guardian and the Süddeutsche Zeitung sighting and reporting on the WikiLeaks material as well as the famous Spotlight team of the Boston Globe.

Next to these institutional factors that make up the challenges in media production there are an individual professional’s internal considerations that add to complexity in reporting. These reach from the personal view of the reporter of his own role to the way they have been educated and trained – not only technologically but also in the very vocation that is reporting (Deuze, 2005). A striking example are the findings by Grubermann & Meckel (2015) relating journalists’ self-identity with engagement in online tools in media production. The media as a whole and the media professional as an individual have also always had a great responsibility in considering the complexity of their own product. What is the acceptable reduction of complexity in a certain topic that at the same time keeps with the professional ethos that comes from being considered the fourth estate? Other factors are a professional’s own career planning and their personal situation.

When it comes to effective decision-making research has shown that a protected and well-maintained self-confidence3 is necessary to correctly assess and evaluate a problem and hence effectively work on a project. Fi-

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3 The term self-confidence is in this case used as the English translation for the concept of “subjektives Kompetenzempfinden” (literally translated “subjective feeling of competence” developed by Dietrich Dörner in his opus magnum “Bauplan für eine Seele” (1999)).
nally, as in other professions, journalists and media professionals work in cross-cultural settings and within ad-hoc project teams rather often.

These levels of complexity described in this chapter challenge assumptions and rules that had been reliable cornerstones of this working world for decades. The changing media landscape is being reevaluated by the broader public. Stakeholders involved with the media professionals have to integrate new technologies and changing ways into their understanding of and dealings with media institutions. Journalists find themselves confronting their own self-image and identity. Media houses shift towards understanding themselves as content managers and producers. All these challenges – most of them old, some of them new and with a huge potential for change – have changed the very way our daily experienced world is institutionalized.

Dealing with Uncertainty – Human Factor Research

Human Factor Research is a field originally intended to improve socio-technical systems, meaning systems in which humans interact with and within complex technical settings (Hawkins, 1987). Originating from the military sphere during World War II in Great Britain, it is now largely a civilian research program aimed at making working worlds like aviation, nuclear power production and other high risk environments safer. The first trend in this field was characterized by identifying humans as the weakest link in complex technical systems and trying to exclude them from these systems as much as possible. Where exclusion was not possible, several redundant safety mechanisms would be instigated in order to inhibit mistakes and thus make failure as improbable as possible (Strohschneider, 2010).

In later years, Human Factors research found that in some cases human involvement in systems had made them more resilient by being able to compensate for technical failure. Moreover, it became clear that a specific human mistake within a complex socio-technical system is rarely to blame on an individual’s incompetence but rather to be identified within a larger environment that often provokes these individual errors (Strohschneider, 2010). Grech et al. (2008) have thus identified a heuristic of the individual, the technology, and other environmental factors in form of a heptagon of mutually influencing factors when considering the safety mechanisms of complex socio-technical systems.
This heuristic shows that successful collaboration of humans with and within complex socio-technical systems needs the acknowledgement of potential influence of all seven elements of the heptagon. This heptagon for the first time focuses on the systemic nature of these work processes rather than choosing the techno-centric perspective from earlier Human Factors Research (Strohschneider, 2010).

With an intellectual leap one might recognize that the heptagon somewhat describes what in the works of Schütz & Luckmann (1979) has been called the “lifeworld”, the daily experienced world as an intersubjective reality. In the case of this thought experiment the heptagon could be used as a heuristic device to describe the lifeworld or working world of a media professional – meaning their professional culture. Hence the Human Factor recommendation is simply that a culture of the working world needs to be intentionally developed at all the intersections shown in the heptagon in

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4 The term culture is being used here in its open interpretation, comprising everything that defines and makes up the intersubjective reality of media professionals as well as implicit rules, conventions, and assumptions.
order to work effectively under the influence of uncertainty and complexity (Strohschneider, 2010).

In our example of an ever-increasing complexity within the working world of journalism, it makes much sense to start at the individual interacting with their co-workers and fellow media professionals. To not only protect the cognitive capabilities of an individual professional but also facilitate team work, building a shared mental model is imperative. These models represent an individual’s abstract representation of the world around them (Johnson-Laird, 1980), but of course this can be focused on a specific problem. Considering the drastic shifts in media and journalism, mental models might be less and less easy to construct. The role of shared mental models, in any case, is to provide the individual with some sense of certainty and understanding of the situation which in turn protects their self-confidence and consequently makes for better decision-making (Dörner, 1996, 1999).

**Shared Mental Model Building For Media Professionals**

Since Human Factor Research found that intentionally designing any sort of collaboration is beneficial to people working in complex environments, shared mental model building can be a helpful part of this design in order to aid in media professionals’ day to day work. How does shared mental model building work? According to Strohschneider (2010) nine areas have to be addressed. He also divides them into three categories, which are task, team and process models (Klimoski & Mohammed, 1994; Strohschneider, 2010):

**Task:**

1. Scope of the problem: Which aspects belong to the problem, task, or project, which do not? What should be achieved, what should be avoided?
2. Which general relations exist between variables of the problem, which general assumptions can be made?
3. What is the history of the project? How did the situation come to be? Do I know the problem’s/project’s/task’s exact state?
4. What can I expect? What scenarios are possible short- and long-term? Which developments can I observe?
Team:

5. Who, apart from myself, belongs to the team?
6. What is my task, what is my role? What are the tasks and roles of the other team members? What goals do they each have individually?
7. Who knows what? Who can help me? Whom can I support?

Process:

8. How do we organize our own work? Which explicit and implicit rules do we follow? What ethics guide our behavior?
9. What are the larger organizational framework condition of our work? What boundaries are there? What are sanctions for overstepping them?

In order to properly answer these questions, a team needs the right methods to structure the itself and design appropriate team processes. Strohschneider (2010) hence discusses methods like

• regular pre-flight and other briefings throughout the project,
• regular visualization of answers to the aforementioned task, team and process model questions,
• heedful interaction as well as mutual support,
• discussion and agreement on leadership and leadership expectations,
• clear roles and responsibilities between team members,
• an effective moderator role next to the leadership role

in order to achieve a shared mental model within a team.

Finally, some simple communication rules can enhance team work and shared mental model building. Explicitly discussing the relations between native languages and a team’s lingua franca is very important as it might have not only a strong effect on information dissemination inside the team but also might add to individually experienced uncertainty. Successful teams often follow very simple communication rules like “read-backs” and explicit addressing of team members rather than asking “would someone please…”. Encouraging new and young team members to speak up in complex, dynamic and open situations has also proven helpful since their ‘innocent’ questions might reveal some hidden faulty assumptions that the team has been guided by.

Spending time on questions regarding team as well as process design and remembering that the task at hand is not the only thing team members need to be discussing is of utmost importance when designing meaningful collaboration. Especially in the media business, when things can become...
hectic instantly, team and process considerations need to be addressed beforehand, so when the next big project comes in, media professionals and teams are ready to go.

Teamwork is already – especially in modern temporary and often ad-hoc project groups – a factor of uncertainty for the individual in and of itself. Building team shared mental models in a world of uncertainty becomes even more difficult. As in Human Factors Research, looking at the heptagon in which a media professional and their team is located, it might become clearer where pitfalls and risks are and how they could be addressed – provided the team shares the mental model of the situation or problem. Building a (shared) mental model hence serves three purposes:

1. Reducing the uncertainty for an individual in order to better understand the situation AND to protect the self-confidence in order to improve decision-making.
2. Improving team work by facilitating a common understanding of the problem or situation and the goal of the team AND in consequence reducing the uncertainty that originates from new and unknown team members and structures.
3. Enhancing the media product to not only create a common understanding of the situation and the teamwork but the event or situation to be reported about – specifically including the addressee of the product as part of the heptagon and thus of the shared mental model.

**Outlook**

Challenges in a rapidly changing world are affecting all areas of life and not only influence the reporting but also the very vocation of journalism and media production. Methods and tools from Human Factors research might help build shared mental models which in turn would enable journalists and media professionals to tackle the complexity of working in heterogeneous teams. They would also be able to use this new-found strength of combining heterogeneous competencies and capabilities in order to more effectively deal with the complexity of the topic they are covering as well as the complexity of how to cover it.

As beneficial as these first thoughts on improving the working world of media professionals might prove, they will not yield much merit without a presupposed large research endeavor regarding the working world of me-
dia professionals. There is a vast array of research topics which make for interesting research projects and do not solely focus on the influences on the media sector as a whole or its role within the political systems, but rather on the journalist and regard their realities and specificities when it comes to their everyday working world, like the work by Weaver & Willnat (2012). As much as media professionals and journalists usually are regarded through their work and their reporting, as much as their profession usually is considered in form of its role for the democratic process: It is necessary to understand the people behind these essential institutions in order to provide meaningful help in their daily challenges to ultimately add some small value to the institution ‘media’ as a whole.

Mental models help not only reducing an individual’s experienced uncertainty, they also protect their self-confidence. On a team level, shared mental models and the tools for creating them enable teams be more effective and again reduce uncertainty deriving from team friction. Ultimately, they can be used on a different level when it comes to developing a media project itself. Human Factor Research provides the necessary heuristic and the methodology to work on shared mental models. Creating them is part of a larger set of skills, which for some years now has been called “generic competencies” (Bergström et al., 2009). These transferable skills can be trained in engaging settings using case studies and computer-simulated scenarios, which are more commonly known in aviation but make their way more and more into classical team-training scenarios, where their potential is still far from being realized.

Bibliography


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