

'Planetarium@home': Digital Astronomy Outreach During the Covid-19 Pandemic

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The Planetarium Bochum is one of Germany's largest, most frequented, and modern multi-functional planetariums. It is known for programmes ranging from educational astronomy shows for adults and children, music concerts, and numerous live events covering scientific, cultural, and immersive live performances. When the German government decided to implement the first national lockdown in mid-March 2020, the planetarium's communications team knew they needed to act quickly. They produced a consistent, educational, and entertaining digital offer to fill the gap of not having any visitors for an unknown length of time. Correspondingly, they came up with a range of digital activities under the content bracket, 'Planetarium@home', online and on the planetarium's social platforms of Facebook, Instagram, Twitter, and YouTube. One activity that requires highlighting is the weekly video series 'Streifzüge durch das Universum', translated into 'Expeditions through the Universe', a highly edutaining science format delving into topics like 'the possibility of life on other planets' to last December's Jupiter-Saturn conjunction.

Introduction

The main goals of the communications strategy of the Planetarium Bochum are to inform the public and advertise the scientific and cultural shows and events on offer, to establish, strengthen, and upkeep the perception of being a compelling site of live cultural events for its science and astronomical educational content. When the German government implemented the first national lockdown in mid-March 2020, the planetarium's communications team acted quickly by producing a consistent, educational, and entertaining digital offer to fill the (visibility) gap of not having any visitors for an unknown length of time.

Planetarium@home

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planetarium's communications team was as unprepared as others, but responded to this challenge by implementing proactive communicational strategies under extensive supervision. The first phase of communication includes the closure of the venue and sorting the basics, such as events and tickets cancellation, and informing about office opening hours (Figure 1) for refunds. The adapted strategic focus then shifted towards the question, how to remain visible and transport high-quality and valuable content while closed for visitors for an unpredictable period.

This challenge was met with a key visual element, namely, an addition to the logo (Figure 2) with 'Planetarium@home'. This addition was simple and served two communication purposes:

1. To emotionally convey a continued presence while everyone was asked to 'stay at home' and shelter-in-place, and
2. A pointer to an expansion of the planetarium's digital offers with the '@'.

'Planetarium@home' became the brand to communicate all (educational) public



Figure 1. Artwork for initial lockdown communication. Credit: Planetarium Bochum



Figure 2. Planetarium@home logo. Credit: Planetarium Bochum



Figure 3. Artwork for the educational video series 'Streifzüge durch das Universum'. Credit: Planetarium Bochum



Figure 4. Artwork for 'Astro-Feeling für Zuhause'. Credit: Planetarium Bochum

engagement and visibility activities while the planetarium remained closed. The Planetarium Bochum first had to close on 13 March 2020, after which it went to limited/regulated operations from 6 June to 26 July. From 27 July to 15 December, the dome auditorium and its technology were renovated and updated thoroughly - a well-planned measure before any notion of the worldwide coronavirus pandemic. The planetarium's regulated re-opening happened over six months afterwards, in 17 June 2021 and is still ongoing according to German regulations concerning cultural institutes. Up until then, all expectations and visibility actions were met by the Planetarium@home activities, thereby creating quality content with value for star-lovers and space-gazers who during that time could not visit the real-life dome. All activities listed here are specific to the communicational challenge posed by the pandemic, as communication and marketing measures did not instantly serve the purpose of informing and raising interest for the shows and events on offer. The focus shifted in keeping the planetarium visible and engaged, thereby strengthening its image and people's relation to the place and its topics, and promoting free, entertaining, and informative astronomy content with

pandemic-specific uplifting and solidary content and messages.

The activities planned and implemented ranged from YouTube formats to Instagram video series, online concerts, DJ-gig-premieres, and astronomy live streams. In the following list, we name and highlight a few of these activities:

- *'Streifzüge durch das Universum'* ('Expeditions through the Universe') is a weekly video series (Figure 3) posted on both YouTube and Facebook channels. 'Streifzüge durch das Universum' is a highly edutaining science format delving into topics, ranging from 'the possibility of life on other planets' to current events, such as last December's Jupiter-Saturn conjunction. Typically, the 'mini-talks' are approximately 15 minutes long and come with various images. We switch between astronomical observation hints for the naked eye and binocular observations, recent research highlights, and occasional excursion into astrophysical basics such as stellar evolution or Black Hole physics.
- *'I Need Space: Unser Sonnensystem'* ('Our Solar System') is a six-part educational and entertaining lecture format with astrophysicist and science slammer Michael Büker, who used

gimmicks such as avocado halves, muffins, and confetti to explain astronomical phenomena, catering to a younger audience. The videos were filmed in front of a green screen; the background was edited in post-production and visually expanded by freely available astronomy images from the NASA and ESO image libraries.

- *'Astro-Feeling für Zuhause'* (At-home Astro feels'. For special occasions, such as the Easter holidays 2020, when people had to shelter-in-place but assumingly had a longing to be entertained and educated, we decided to adopt two of our popular dome shows in a 360 degrees video format sold-out at regular ticket pricing and posted them online for free (Figure 4).
- *'Insta Space Facts'* is a weekly playful Instagram story format that gives a snippet of the 'Streifzüge durch das Universum' content combined with flashy bullet-point explanations, engaging GIFs, and precise info while linking to the longer and more educational original YouTube format.
- *'Sterne über dem Ruhrgebiet'* ('The Stars over Germany's Ruhr District') is a monthly series in the online version



Figure 5. Artwork for 'Astro Live Streams'. Credit: Planetarium Bochum



Figure 6. Artwork for the Instagram format 'Behind the Scenes: Show Productions'. Credit: Planetarium Bochum

of the largest regional newspaper 'WAZ', explaining constellations and current astronomical phenomena with a short video, an explanatory text, and highlighting an object of the month.

- 'Astro Live Streams': With the updated technological possibilities after the planetarium's renovation (see part 2), we offered different educational astronomy live streams from the dome, integrating live visual rides through the universe using the 'Uniview' software for the astronomical visualisations and the OBS suite software for live editing the stream in three different perspectives, while streaming via our YouTube channel (Figure 5).
- 'Behind the Scenes Show Productions' and 'Behind the Scenes Planetarium Technology Tour' were two Instagram story formats that invited the channel followers to virtually step inside and have an exclusive glance behind hidden doors and processes. It involves the actual production process of a new full-dome show (Figure 6) and a tour of the planetarium, including what it does and what it takes to make full-dome shows come alive on the screen with an on-site seated audience.

- Service topics: 'App and Telescope Check' During the weeks before Christmas, we decided to introduce two service topics for potential amateur astronomers with testing astronomy and stargazing smartphone apps and various types and price ranges of hobby (and advanced hobby) telescopes (Figure 7). It, thereby, delivered added value for those Planetarium@home-users who not only wanted to receive information but were interested in exploring with the help of our professional guidance.
- Podcast 'Gemeinsam durch die Galaxis' ('Crossing the Galaxy Together'). The podcast (Figure 8) is the newest



Figure 7. Artwork 'Telescope Check'. Credit: Planetarium Bochum



Figure 8. Artwork for podcast 'Gemeinsam durch die Galaxis'. Credit: Planetarium Bochum



Figure 9. Artwork for music compilation series 'Apollo Mixe'. Credit: Planetarium Bochum

communications venture that has long been pre-planned and emerged at the perfect time in mid-April 2021 when cultural institutes remained closed. In the general atmosphere of unrest and impatience (along with a third pandemic wave and ongoing vaccinations), the podcast contributed to an educational and highly entertaining audio format

simultaneously that delves deeply into various astronomical topics in a chatty tone. The half-hour format is hosted by Prof. Dr. Susanne Hüttemeister, the Head of the institute, alongside Jochen Malmshaimer, a professional planetarium show speaker, regional satirical review star, and astronomy expert. They bring together an intriguing mix of topics and conversational approaches to complex scientific matters while catering to a general audience.

- *'Kulturkuppel'* ('Culture Dome'). A modern planetarium is more than a place of scientific education and entertainment. The range of live concerts, DJ gigs, digital art events, etc, has become increasingly important over the years. To honour this ever-growing programmatic side, we integrated concerts, DJ gigs, and astronomy-related music compilations (the 'Apollo mix' series, which can be downloaded from Mixcloud for free). (Figure 9) Whenever possible, we integrated 'pay-what-you-want' requests to support the

local artists and thereby demonstrated solidarity.

Closed but Open to the Public Eye: Renovations During a Pandemic

The communications challenge met by the 'Planetarium@home' activities described above was heightened by the planetarium entering a remodelling and technology update in late July of 2020, which had been pre-planned for years. The venue remained closed, even beyond what the legislation demanded of the lockdown of cultural event sites. During the construction period, the @home-measures were flanked by exclusive 'sneak peeks behind the scenes'. It was achieved by working together with two micro-influencers ('Schichtmeister' and 'Ruhrpoet'), who focused on regional (cultural) topics and photography with two very distinct and complementary visual styles. (Figure 10 a), b), c)) For every construction milestone (be it the delivery of the new Zeiss Velvet beamers or a Christo-like wrap-up of the star projector in the dome's centre), the two Instagram photographers developed unique posts

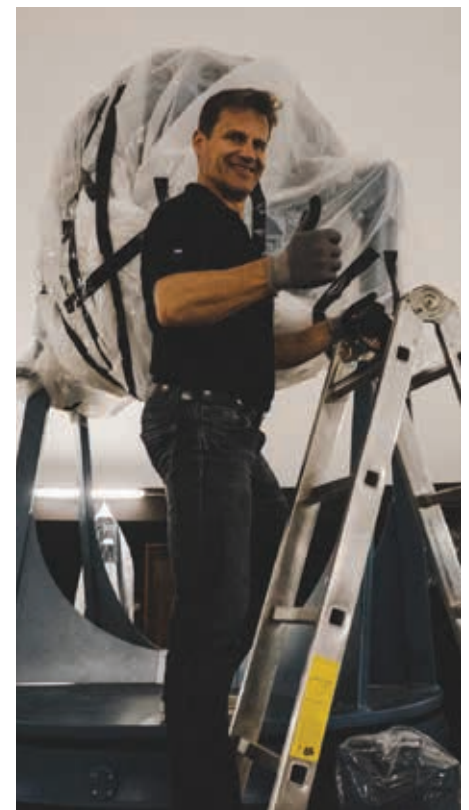


Figure 10. a) b) and c) Behind the scenes construction photography for Instagram. Credit: Planetarium Bochum



Figure 11. Artwork for the 'Es ist nur eine Phase' campaign. Credit: Planetarium Bochum



Figure 12. Artwork for the 'Nächste Phase: Play' campaign. Credit: Planetarium Bochum

and (video) stories that were shared on the planetarium's channel, thereby inviting digital followers to a transparent, vibrant, exciting, and exclusive glance behind closed doors. The 'behind the scenes' appeal was also highlighted in two YouTube films featuring major advancements in the overall construction process and a time-lapse movie documenting the entire 5-month process in only 2.5 minutes.

It's Just a Phase: Emotionalizing a Delayed Re-opening

By late December, it became clear that there was no possibility of planning, celebrating, and communicating a re-opening post-construction, but a whole new world (nay, universe!) of technological possibilities waiting to be used and shown to visitors. The communications team thereby developed a visual campaign (Figure 11) that works on several levels. 'Es ist nur eine Phase' ('It's just a phase') is a lithographic design of the moon's phases in black and white with a prominent red stop sign on it and a slogan suggesting, 'We are ready whenever we get a go'. The visual was hung across and in neighbouring towns, covering bus stations, prominent framed poster spots, and 'city lights', which are premium out-of-home advertisements

and awareness spots. Therefore, while the planetarium had to remain closed to visitors, a reliable stream of astronomical and cultural output with the planetarium@home activities continued. The 'It's just a phase' campaign managed to foster emotional connections and brand loyalty, and its supportive message, connected and drew old and potential future customers to the planetarium. The campaign succeeded in triggering interest, established an emotional connection, signalled solidarity in hard times, and guaranteed visibility. The second campaign wave exclaimed 'Nächste Phase Play' (Next Phase: Play) for the re-opening in mind-June 2021, as the next step to connect to the first campaign motif (Figure 12), in this process underlining both the transitory nature of both astronomical phenomena and the global pandemic and the connected next step.

Final Considerations

2020 and 2021 prove to be the worst business years for a long time. However, during the continuous closure of the highly successful event venue, it is satisfactory that no time is lost sharing astronomical, educational, and cultural content to real-life visitors. With Planetarium@home, those

who otherwise attend these shows in our dome auditorium, experiencing unique visual and sound travels to space establish brand trust, loyalty, and connection. We have managed to raise awareness and digital reach on all channels and create an active, responsive, emotionally and factually involved, interactive community in the process.

Biographies

Jennifer Christoph has a Master's degree in American literature and is responsible for the planetarium's communications and marketing. Her communication career has focused on topics of science, technology, education, and culture. The planetarium encompassing all these aspects makes a perfect place to work for this communications all-rounder.

Susanne Hüttemeister studied physics and astronomy in Bonn and spent several years as a postdoc in the US and Sweden. She holds an adjunct professorship in Astronomy at Ruhr-University Bochum has been director of the Planetarium Bochum for more than a decade. She also coordinates a citywide network of STEM-related activities and organisations and is Vice President of the Association of German Language Planetariums.