11. Designing digital media. Towards a user-centric approach for public communication strategies

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11.1 The digital landscape of public communication

The study described in this contribution explores the public dimension of communication design, focussing on how digital media can enhance social awareness. It discusses the multifaceted role of digital tools and methods in creating social value, considering the design process together with its outcomes. It delves into the research process for the design of a digital media strategy for a public sector organization (PSOs), highlighting how the engagement of stakeholders and citizens can contribute to the development.

The current and constantly evolving digital landscape implies a shift toward more inclusive and interactive paradigms. Such a transition towards a user-centric approach also highlights the importance of accessibility, inclusivity, and engagement (Bonsón *et al*., 2012; Mergel, 2013; Lovari and Valentini, 2020), facilitated by the adoption of new digital communication models that support multidirectional dialogue and community-building. These models highlight the participatory

nature of generative practices in the design space (Sinni, 2018, p. 21), as a dialogical dimension between providers and users. As a consequence, the need emerges for well-structured and effective communicative elements that are designed to facilitate direct interaction among various stakeholders while allowing them to express and share their identity (Visconti, 2017, p. 73).

The role of the user has shifted from one of passive observer to an active community member, with platforms like YouTube, Facebook, Instagram, X, LinkedIn, and TikTok contributing uniquely to this new landscape (Shahbaznezhad *et al*., 2021, p. 48). The evolving context of digital media and their language emphasizes the role of visual identities in connecting individuals and creating emotional bonds.

In response to these changes, the public sector is increasingly leveraging digital media to connect with citizens and facilitate meaningful public engagement, aiming at developing and sustaining relationships with citizens through bidirectional information exchange and multifaceted communication processes.

The results of the study range from insights to inform strategies to the generation of original content as well as amplifying social awareness. Despite having encountered new challenges such as the digital divide (Haro-de-Rosario *et al*., 2018; Lee *et al*., 2021), this study advocates for innovative engagement methods that address the needs of various audiences and encourage public engagement and feedback mechanisms. This marks a departure from traditional top-down communication methods (Kent, 2013, p. 341), while underpinning efforts to enhance inclusivity, equity, and public trust (Park *et al*., 2016; Lovari and Materassi, 2021). Principles and practices of user-centric digital media design are explored to define how PSOs can communicate and take on the ethical responsibility in accurately translating and representing the values and narratives of communities through digital campaigns. In particular, the study reflects on how digital media communication can be designed to better resonate with the diverse identities and needs of the community, thus contributing to a more informed and engaged society and authentically reflecting their needs.

11.2 Theoretical background

The integration of digital media into PSOs is significantly influenced by the ongoing overall digitization and modernization of societal frameworks (Bertot *et al*., 2012; Bonsón *et al*., 2012). This transformation has prompted discussions on ways to improve democratic participation and engagement through mechanisms like co-production, and crowdsourcing. The theoretical background of digital communication within public organizations and its strategic design highlights various areas, among which is the transformative role of social media and Information and Communication Technologies (ICTs) in enhancing engagement and interaction between public sector organizations and citizens.

Social media platforms offer PSOs the opportunity to reach wider audiences quickly, facilitate knowledge-sharing (Gálvez-Rodríguez *et al*., 2018, p. 269), and encourage a participatory dialogue. The division of social media into expressive and collaborative forms can serve as a framework for understanding its potential application, suggesting a strategic approach to digital media design aligned with the objectives of PSOs. The movement towards digital communication within the public sector, as detailed in the works of Lovari and Valentini (2020) and Haro-de-Rosario and colleagues (2018), underscores the importance of selecting appropriate platforms and strategies to effectively engage citizens. The adoption stages of social media by PSOs' social media adoption reflect a progression from experimentation to institutionalization that evolves in response to internal and external feedback.

Notwithstanding the opportunities that the use of social media represents for the enhancement of public communication, its potential impact needs to be carefully taken into account considering factors such as online transparency, ethical considerations, data management, and the participation gap encouraging young people to engage more in discussions in the public sphere. Moreover, the unique challenges faced by public organizations in branding and communication, as discussed by Leijerholt *et al*. (2019) and Chapleo (2015), necessitate an adapted approach that considers the distinct operational environment and societal goals of the public

organization, and effectively manages diverse stakeholder interests.

This inquiry suggests integrating traditional and modern communication models to develop diverse communication styles that resonate with various social and cultural groups. McLuhan's finding (1964) that media only gain significance through their interrelationships stresses the importance in using contemporary social media. Furthermore, it is crucial to enhance the quality of graphic design and storytelling used on such platforms, as their engagement rates depend strongly on visual appeal and originality.

Table 1 provides an overview of the theoretical dimensions that were primarily taken into account in this study. Although not exhaustive, they outline key critical areas and provide insights regarding the strategic use of digital media. Collectively, these dimensions determined a starting point for opportunities, challenges, and strategic considerations involved in PSOs' communication, and served as guidance for the analysis of the presented case and its findings.

	Dimension	Sub-dimensions	Related Authors
D01	Transformation of PSOs Communication	Digitization and modernization	Bertot et al., 2012; Bonsón et al., 2012
D02	Role of Social Media and ICTs	Enhancing engagement, co-production, crowdsourcing	Gálvez-Rodríguez et al., 2018; Lovari and Valentini, 2020; Haro-de-Rosario et al., 2018
D03	Engagement and Interaction	Wider audience reach, participatory dialogue	Gálvez-Rodríguez et al., 2018; Mergel & Bretschneider, 2013
D04	Digital Strategy and Communication	Selection of platforms, online transparency, emotional tone	Lovari and Valentini, 2020; Haro-de-Rosario et al., 2018
D05	Branding and Communication	Adapted branding strategies, managing stakeholder interests	Leijerholt et al., 2019; Chapleo, 2015
D06	Ethical Considerations and Data Management	Participation gap, leveraging data for strategy	Irfan et al., 2019; Manovich, 2020

Table 1.
Key theoretical dimensions and authors considered for informing the strategic use of digital media in public sector communication.

The strategic design of digital communication in the public sector requires a comprehensive understanding of the theoretical underpinnings of digital media's role; the challenges of digital divide

and engagement; and the adaptation of branding strategies to the context of public organizations. Within this framework, the inclusion and diversity of perspectives, accessibility, adaptation to technological changes, strategic management, and the specific utilization of social media are leveraged to enhance citizen engagement.

Future research should continue to look into these aspects to further explore the effectiveness and inclusivity of public sector digital communication strategies.

11.3 Study approach and methods

The study adopts a mixed-method approach combining the analysis of the scientific discourse on visual identity and digital media strategies applied by PSOs (Mergel and Bretschneider, 2013; Irfan *et al.*, 2019; Leijerholt, Biedenbach *et al.*, 2019; Ihsaniyati *et al.*, 2023). It does so via an applied case study that gathers specific insights into the use of digital tools and methods in generating social value and investigates the application of the discussed theoretical concepts in a real context. The study furthermore explores the complexity in formulating a digital media strategy grounded in active engagement of stakeholders and citizens through co-creation and co-design of digital media contents specifically for PSOs. Bridging the theoretical constructs and empirical findings, it contributes to a better understanding of the current and potential future roles of citizen- and stakeholder-engagement in shaping digital media strategies that resonate with people's values and experiences.

Key learnings and outcomes are presented following the dimensions identified in the theoretical framework (Table 1), showcasing how engagement can be effectively leveraged and operationalized in the digital communication strategy of a PSO.

11.4 Case Study: Enhancing the cultural and environmental heritage of a natural park through digital communication channels

Bosco delle Querce is a regional protected area and natural park in the province of Monza and Brianza around 25 km north of Milan. It was established as a reforestation project on the site contaminated by a dioxin-laden toxic cloud from an incident at the ICMESA factory in 1976. The research group from the Department of Design at Politecnico di Milano was given the opportunity by Fondazione Politecnico di Milano to investigate the qualities and values of this natural site through field research. As an outcome, digital materials were produced from the perspective of communication design for dissemination across the digital channels of the public body. The approach explores how the engagement of users and stakeholders can enhance the quality of communication materials in the public sector and increase social awareness through digital tools and methodologies. As such, this case represents a relevant initiative to discuss the (need for) transformation of PSOs' communication (D01).

Digital media is seen as an opportunity to create social value, both in the design process and in distributing its outcomes with the goal of promoting the historical, cultural, and environmental heritage of the natural reserve. The promotion activities extend the research scope by exploring new modes and opportunities of how new and existing users can engage with content, changing from passive into active figures. This shift, facilitated by social media platforms, transforms the traditional one-way information delivery into a more stratified and richer personal experience marked by relationships that develops throughout the engagement process.

Three main work phases with corresponding actions were set up to deepen the understanding of the site itself, the actors involved in the management, and the users who spend their free time there.

A fundamental premise concerns the ethical considerations and data management dimension (D06) as the study addresses such considerations not merely in terms of informed data-collection but also in how data are processed and translated into meaningful visual

representations and narratives. This dimension is relevant in ensuring the ethical alignment with the values and meanings of those providing their stories and knowledge as data for the generation of insights and material, thus respecting the integrity and intentions of the community members and stakeholders involved.

Preliminary investigation

This phase outlines the research framework, instituting a methodology for participatory investigation with the park's stakeholders and users through field activities and mechanisms for gathering and amplifying content. As such, it leverages knowledge from effective stakeholder engagement and consistent participatory dialogue (D03). Initial meetings were conducted, mapping the diverse interests of stakeholders and delving into the values and initiatives they represent (Chapleo, 2011; Gromark and Melin, 2013). This was critical in ensuring the relevance and inclusivity of developed strategies and improving their acceptance by involving stakeholders early in the process.

The definition of a lens for observation steers the identification of specific narrative scopes, informs the fine-tuning and refinement of analytical tools for implementing the designated actions and provides insights for the design and development of the outputs. The research uses *harmony* as its guiding principle, understood as both the consonance of voices or instruments and the proportion and holistic interplay among various elements. This approach and its investigative filter result in three narrative scopes as trajectories guiding the observation and the overall project:

- *asynchronous harmonies*: stories related to the stigma of the environmental disaster;
- *polymorphic harmonies*: variations of nature and the voices of the park;
- *singular harmonies*: narratives of the community *living* the park.

Field research

This phase focusses on conceiving the communicative profile of *Bosco delle Querce*. Activities as observation and stakeholder- and user-engagement provided a plurality of knowledge, elements,
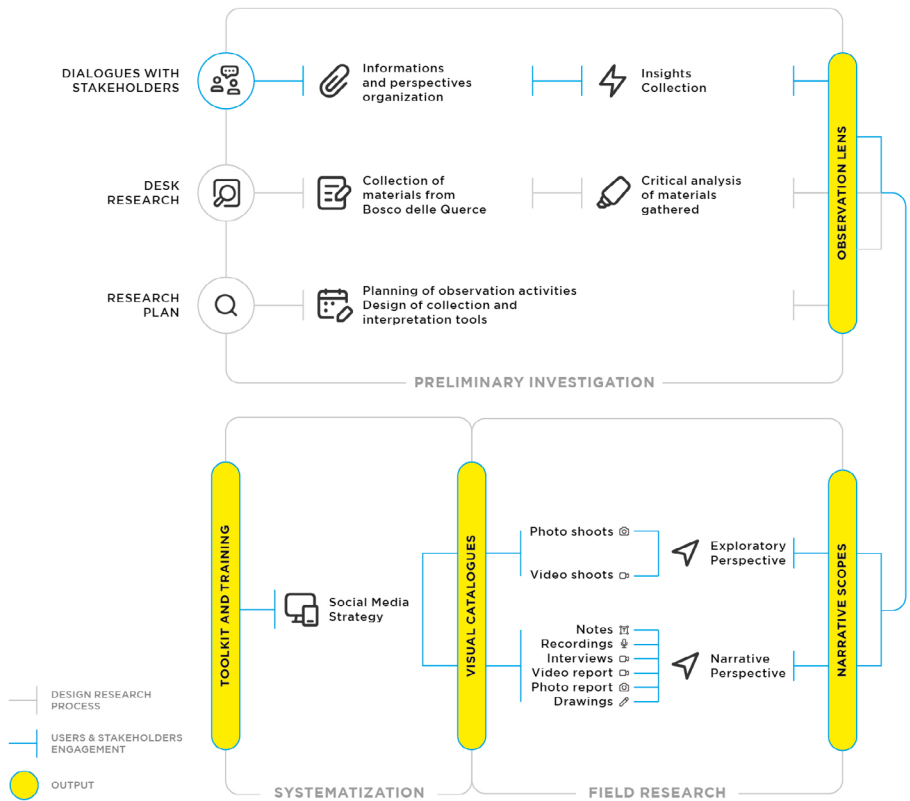
Figure 1.
Research process of the project flow and phases.

evidence, and testimonials. The identification and documentation of diverse points of view laid the groundwork for the creation of maps and visual catalogues (Veca, 2007, p. 210), systematically organizing potential narrative elements. The photographic field research adhered to a structured methodology for capturing images (subject, framing, viewpoint, composition), culminating in a multifaceted portrayal of the park's morphology and aesthetics (Anceschi, 1992; Bucchetti, 2017). It included 20 days of on-site data collection and 14 days of post-production, yielding approximately 800 curated photographs and 120 minutes of video content. These assets shaped a thematic digital archive, coherently and comprehensively presenting the park and its users from varied perspectives. The narrative scopes previously identified influence the observation in the field, offering two distinct observation perspectives: the exploratory perspective seeks to capture the essence of the context through uncommon and unexpected viewpoints and narratives by assembling voices,

experiences, relationships, and subjective and collective memories to portray fragments of the park's tangible identity. An audiovisual documentation portrays the videos and recordings of the park categorised into eight distinct categories: *Pathways*, *Patterns*, *Symmetries*, *Horizons*, *Gazes*, *Profiles*, *Contrasts*, and *Transformations*.

Conversely, the narrative perspective explores the ecosystem with detailed descriptions of its natural elements (flora and fauna) across the various areas of the park (wetlands, meadow areas, shrublands, deciduous forests), distinguishing eight categories: *Ecosystem*, *History*, *Interpretations*, *Stories*, *Intercepts*, *Actions*, *Bench,* and *Park Life*.
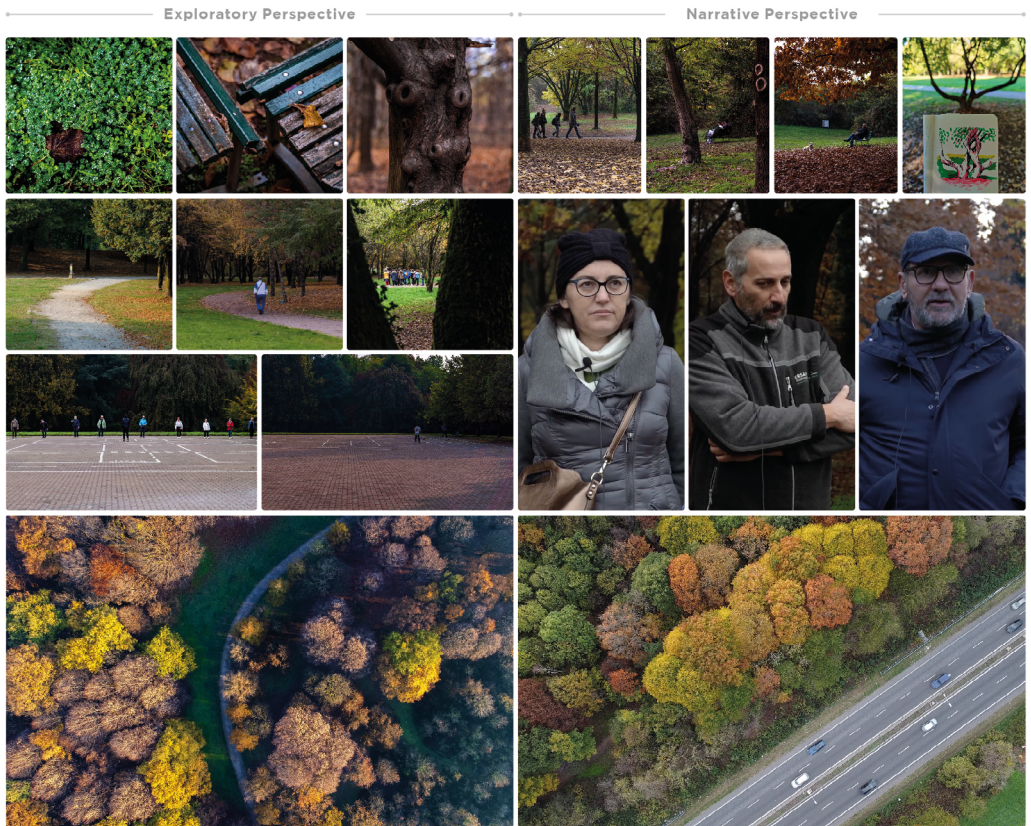
Figure 2. Composite of visual outcomes of the field research.

Each intermediate artefact collected during this phase of research, whether a photo, video, text, or audio, became part of the park's discursive identity, elevating it from its instrumental function of device for inquiry and contributing to the final outputs as part of the produced content. This dual approach fostered both a rich

and complete understanding of the park while contributing
to a holistic and nuanced digital design strategy (D04).

Systematization

The collected raw material was further developed into digital
artefacts for the social channels of *Bosco delle Querce*.
The material aims to reflect the park's qualities through its digital
channels, ranging from social media to other applications that
emphasize videos and images as core subjects of communication.
The intervention adopts a participatory approach, valuing the
uniqueness of the involved subjects and constructing a collective
vision thorugh moments of listening and engagement.
It seeks harmony between the historical and the contemporary,
intertwining memories and visions, environmental qualities
and shared imaginaries. The approach emphasizes how branding
and communication (D05) are consistently built from the insights
and values of the local community.

   Initial activities refined the brand image of *Bosco delle Querce,*
streamlining its visual elements and adopting a geometric approach
to reinterpret the park's aesthetics, thus enhancing the readability
and accessibility of digital content. Intermediate products gen-
erated during the field research nurture the clusterization of the
materials co-produced with stakeholders and users of the park
across the different types of digital content presented above.

   The study applied digital media (D02) to showcase the values
and meanings of the park, building on its rich stories and heritage.
As such, social media platforms and ICTs are transformed from mere
tools for the dissemination of information into dynamic mediums
that narrate the park's unique environmental and cultural narratives.

   The editorial plan, its content, and a toolkit of editable digital
formats (on *Canva.com*) were designed for customization, accessi-
bility, and user adaptability, regardless of graphic design expertise.
Training sessions were organized for social media operators,
offering up-skilling in digital content management and introducing
them to the use of the newly released tools.

   This design research contributes to a broader conversation
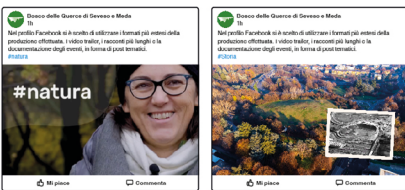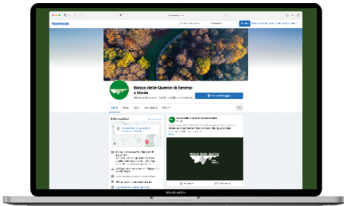recognizing the dual function of digital media: on the one hand,
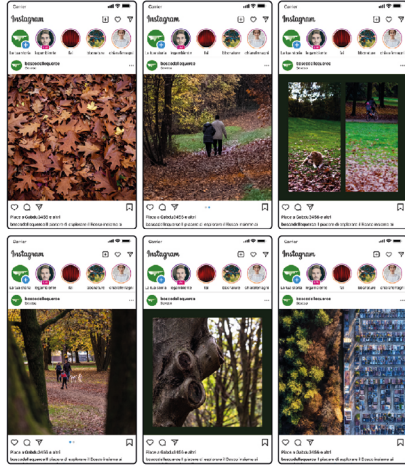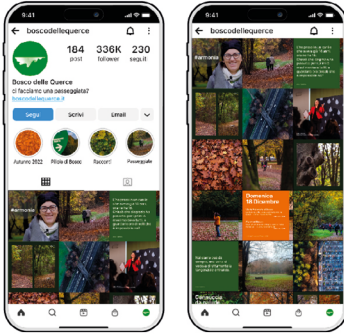
Figure 3.
Digital strategy across media: posts, carousels, videos, stories, and calls to action for user engagement, on Instagram and Facebook profiles of Bosco delle Querce.

it functions as a platform for individual expression and a mechanism for achieving collective objectives, spotlighting its multifaceted and inclusive engagement with communities (Bertot *et al*., 2012; Lovari and Valentini, 2020). On the other, it seeks to contribute to the development of communication language that not only mirrors the institutional intentions of a PSO but rather genuinely resonates and addresses what truly engages the public, thus answering an ongoing significant challenge in public-sector communication (Irfan *et al*., 2019; Leijerholt, Biedenbach, *et al*., 2019; Ihsaniyati *et al*., 2023).

This challenge, however, demands a transition from institution-centric information flows to more engaging and user-focussed dialogues driven by a process of collaboration and attentiveness to community feedback. This approach necessitates the conceptualization of a usage scenario where the adoption of a location-based community model (Carroll, 2012, p. 185) favours a sense of belonging through the sharing of values and experiences.

11.5 Discussing a comprehensive approach to public sector communication

This chapter critically examines the use of a *people-centred* framework within the design process for digital media and its assets by transforming the traditional, often unidirectional, top-down design practices frequently used by PSOs into more interactive and engaging ones (D01). It outlines strategies that transcend established communication models entrenched within institutions, aligning with the dimension of digital strategy and communication (D04).

The use of a case study provided insights into the practical implications of involving citizens and key stakeholders in the co-design of digital media contents. This collaborative process, central to the reasoning about the role of social media and ICTs (D02), and engagement and interaction (D03), reflects how such collaborative processes can significantly impact the effectiveness and relevance of communication strategies. It emphasizes the strategic engagement of users and stakeholders in the design of digital media content, highlighting its importance in enhancing interest, visibility, and accountability. The study advocates for a participatory process methodology informed by user engagement, which leads to better framing, designing and directing communication assets. In this way, legitimacy and reputation are built (Sataøen & Wæraas, 2015; Karens *et al*., 2016) touching upon ethical considerations and data management (D06).

Literature indicates that while large private organizations predominantly invest in complex and elaborate communication strategies, communication practices of public organizations are significantly

different and often less engaged in the topic. The study addressed the need for branding and communication (D05) by exploring new practices and languages, and developing visual systems that are consistent with the operational context. It positioned communication design in close relation to strategic planning and carefully selected appropriate tools. To fully leverage the opportunities of these platforms, a process that fosters a virtuous correlation between visual culture, planning, organization of adopted media, and constant monitoring of results is recommended. Moreover, it is shown how digital technology should go beyond its role of activating interaction online, but needs to enhance participation throughout the design process, with designers acting as mediators and translators (Anceschi, 1981; Baule and Caratti, 2017) carefully considering ethical dimensions and data management (D06).

Strategic alignment and inclusive design are key factors for the design of content and strategies for digital media shaping public communication that aligns with significant content and topics for society, ultimately enhancing the public's eagerness to participate in the creation of public value.

Acknowledgements

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