

EDITED BY

Juliet Pinto, Stephen Mainzer and Lola Xie



**Communicating
Resiliency^{and}
Efficacy
in
a Digital Age**

MEDIATED COMMUNITIES

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Communicating Resiliency and Efficacy in a Digital Age: Mediated Communities

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Foreword

In an era marked by unprecedented global challenges, from climate change to pandemics to political upheaval, I increasingly find myself feeling moments of uncertainty and discouragement as I consider my responsibilities – as a scholar, teacher, and human being – in contributing to a greater societal good. So much of my professional life, first as a journalist and now in academia, has centered on amplifying marginalized voices. As a reporter, I often covered protests and social movements, and now as a scholar I study them. Most of my research has contributed to scholarship aimed at explaining the ways that digital media – whatever the latest iteration looks like – have been deployed for resisting oppression and advocating for justice. And yet, in the face of so many global crises, it’s hard not to question, even doubt, whether the arc of the moral universe actually bends toward justice, as Dr. Martin Luther King Jr. famously said. This book reminded me, though, that while the challenges we face are daunting, our capacity for resilience and collective action is remarkable. This book instills hope for long-lasting transformations that prioritize the public interest. By exploring how digital technologies both shape and are shaped by our collective responses to crises, this compilation provides insights into the ways communities can adapt, persevere, and thrive in the face of adversity. From the role of advertising in climate change mitigation to the preservation of cultural heritage in war-torn regions, each chapter in this volume illuminates a facet of the potential of digital media for fostering resilience and empowering communities in the face of global crises, particularly climate change.

Before the pandemic, “resilience,” generally understood as the ability to adapt positively and recover from adversity and maintain mental well-being, was not an everyday word in my vocabulary. The pandemic and other environmental, health, and social crises, however, prompted many of us to confront our own abilities to adapt and cope, seemingly making the concept ever more relevant and personal. Understandings and definitions of resilience have evolved over time as research has found psychological, behavioral, personality, social, and environmental/societal factors all to contribute to resilience (e.g., Buikstra et al., 2010; Greene et al., 2004). Scholars agree, though, that resilience is not a fixed trait, but is something that can be learned and strengthened. It’s a concept often understood as it relates to social work and health, but increasingly is being studied from a communications standpoint. For example, the journalism field in recent years has begun paying closer attention to the well-being of journalists, who not only cover

conflict and trauma, but themselves often are traumatized as they report from conflict zones or are threatened and harassed for their work (Frey, 2023; Pearson et al., 2021).

Although it originated in the field of individual psychology, the concept of resilience has broadened to a community level construct. Magis (2010, p. 401) defined community resilience as “the existence, development, and engagement of community resources by community members to thrive in an environment characterized by change, uncertainty, unpredictability, and surprise,” and suggested that community resilience is key for social sustainability. Local training, skills, and knowledge; availability of physical and mental health services; access to resources; community cohesion; and meaning- and information-sharing infrastructures all have been shown to be important factors in developing community resilience (Olcese et al., 2024). In other words, community resilience involves cooperation and interconnected systems: in a resilient community, members “are connected to one another and work together, so that they are able to function and sustain critical systems, even under stress; adapt to changes in the physical, social, or economic environment; be self-reliant if external resources are limited or cut off; and learn from experience to improve itself over time” (Arbon et al., 2012, p. 7).

The foundational importance of community systems – particularly mediated ones – for fostering resilience and creating collective responses to crises is a through line for this book. At the heart of this collection lies a central question: How can we harness the power of digital connectivity to build stronger, more resilient communities and an engaged citizenry?

Scholars increasingly are delving into the links between digital tools and resiliency through a lens of communication, engagement, and collective action. We’ve seen how, around the world, social media have revolutionized the sharing of information during crises, such as during the early days of the pandemic. For example, George et al. (2023) found that in Bangalore, India, during the COVID-19 lockdown, social media facilitated connectivity and the exchange of information, helping to engender community and both individual- and community resilience.

Digital tools have expanded the reach and accessibility of community engagement initiatives, enabling organizations to more effectively and efficiently connect with broader and more diverse audiences, without being constrained by time or location (Bimber et al., 2012). We’ve also seen increases in civic and political participation facilitated by social media (Boulianne, 2020), as platforms give citizens the ability to express opinions; organize protests and other forms of collective action; and interact with leaders, politicians, and other citizens. The personalization afforded by social media, as well as information access, also contributes to the effectiveness of community and civic networks, opening spaces for community building, empowerment, and participation (Bennett & Segerberg, 2013). During times of crisis in particular, social media offer benefits that can contribute to community resilience, such as enhanced information exchange and communication via real-time updates from diverse sources and timely sharing of alerts and tips, fostering of social connections via virtual community gatherings

and shared resources and experiences, and empowerment of citizens to participate in crisis response efforts via crowdsourcing and mobilization. Combined, these factors suggest a digitally enabled form of community resilience.

Of course, this is not to say that digital connectivity and its role in resilience are free from challenges and drawbacks. Digital divides that mirror societal inequities, the quality of engagement and concerns over superficial participation and the creation of echo chambers rather than deep discourse and deliberation, the prevalence of mis- and dis-information, and data security and privacy – or lack thereof – must be accounted for to ensure inclusive and meaningful participation in order for digital connectivity to contribute to stronger, more resilient, engaged communities.

In fact, a recurring theme that emerges across the chapters in this volume is the importance of inclusive, participatory approaches that empower local communities – especially vulnerable and marginalized groups – to shape resilience-building endeavors. Chapters highlight how top-down solutions often overlook the nuanced needs and priorities of communities directly impacted by climate change and other crises. This book presents an argument for co-created, culturally rooted strategies that leverage local knowledge and foster a sense of agency to build collective resilience and action. The chapters challenge us to move beyond a one-size-fits-all mindset and instead embrace hyper-local approaches that are tailored to the unique needs and strengths of diverse communities.

Notably, the book itself is an exercise in co-creation and inclusivity, integrating perspectives and knowledge from across multiple domains, including Indigenous communities, public health, environmental communication, and youth engagement. Building resilience as we tackle climate change and other threats requires a multifaceted approach involving education, community engagement, technological innovation, and systemic societal changes. This book emphasizes the interconnectedness of these issues and advocates for collaborative, interdisciplinary solutions. Its multi-perspectival approach to the intersections of community engagement, digital media, and resilience offers vital insights for researchers, practitioners, and policymakers working to support just and effective efforts to combat climate change and other global crises. Most crucially, it centers the voices, needs, and strengths of communities themselves in building resilience and charting a path forward.

The focus on resilience in mediated communities – rather than simply the role of media in communities – underscores the importance of communication and engagement as building blocks for resilience. Whether it's through hybrid online-offline networks during disasters, youth-led climate activism, or collaborative efforts between researchers and Indigenous communities, the power of connection and collective action, shaped by digital technologies, is evident. The authors highlight how digital *and* traditional communicative practices not only help communities respond to immediate threats but also build adaptive capacity and long-term resilience in the face of environmental and social challenges.

Together, these chapters construct a narrative that:

- Highlights the complexities of addressing multifaceted challenges like climate and health threats – particularly for vulnerable communities
- Recognizes the imbrication of communication, community engagement, and collective action for building resilience
- Acknowledges the need for inclusive, justice-based approaches that value and integrate diverse knowledge systems
- Calls for more research on effective interventions and measurement tools for climate anxiety and community resilience
- Underscores the potential of digital technologies and strategic communication in preserving knowledge, countering misinformation, and fostering community resilience and collective efficacy and action

As we grapple with the growing threat of climate anxiety, particularly among young people, this book provides a sense of optimism by showcasing innovative approaches to building collective efficacy and fostering community engagement. This book is not just an academic exercise; it is a call to action. It challenges us to reassess our interactions with digital technologies and to imagine novel uses of these tools for the greater good. Whether you are a scholar, a community leader, or simply a concerned citizen, you will find valuable insights and inspiration within these chapters.

In this digital age of global crises, let this book serve as a guide and a reminder of our shared potential to create positive change. As you read through these chapters, I invite you to reflect on your own role in fostering connection, community resilience, and collective action. For it is when we join forces, drawing from rigorous research grounded in community knowledge and engagement, that we can begin to navigate the complex challenges of our time and create a more resilient future for everyone.

Summer Harlow
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Introduction: Resiliency, Efficacy, and Community in a Digital Age

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In 2023, the United Nations reported that at the midway point toward its 2030 Sustainable Development Goals, many of its goals were “severely off track” (United Nations, 2023). In response, the United Nations Secretary General called for accelerated, transformative, and integrated actions that addressed gaps and weaknesses in each nation’s ability to meet these challenges. The rapid acceleration of climate change, re-aligning our societal norms in a post-pandemic world, and the ever-present threat to human safety and well-being will only make addressing these challenges more difficult in the future. And yet, the need has never been greater. We imagine that a part of that effort is to examine the synthesis between who is being affected (the community), how can they best absorb changes (resilience), and to what extent they believe in their own capacity to change (efficacy). This book presents theoretical foundations, applied case studies, and interdisciplinary examples that interrogate the interfaces of community, communication, media, health, and the environment toward identifying leverage points in addressing challenges both theoretical and practical.

Community resiliency, collective- and self-efficacy, and individual coping have become buzzwords across academic disciplines and applied research areas, as disruptive crises, ranging from extreme weather events, regional conflicts to global pandemic, continue to impact communities across the globe. The ways in which individuals seek and employ coping mechanisms, the roles of communication industries and tools in fomenting – or undermining – such mechanisms, the dimensions of communities impacted by crises and risk, and the ways in which community resiliency is strengthened or weakened in the face of vulnerability. By engaging scholars across disciplines, we intend to provide new examinations of how these concepts intersect across academic disciplines. The contributors point to problems, the ways in which communities and individuals try to cope with or overcome these problems, and the touchpoints for scholars grappling with how to better understand these mechanisms.

The origins of this edited volume began with conversations regarding the different approaches that scholars and those working in applied areas have utilized to define and operationalize ideas of community, resiliency, and efficacy. Certainly, in recent years, as societies increasingly face threats from “wicked problems” such as climate change, pandemics, war, and other societal ills, scholars in myriad disciplines have interrogated these concepts. Community resilience has gained increasing attention over the years as communities around the world face threats from multiple hazards and crises. The term has been recognized as a critical construct by scholars and practitioners across academic disciplines and practical fields. Resilience describes the capacity to withstand and recover from disturbances. As [Seeger et al. \(2024, p. 1\)](#) note: “Resilience has emerged as a keystone concept and dominate theoretical paradigm for stimulating a variety of interdisciplinary approaches that bolster the capacity of systems to manage risks and respond to disruptive events.”

Under the United Nations Office for Disaster Risk Reduction’s framework of community resilience, the term is conceptualized both as an outcome, where a community overcomes adversity and returns to status quo ([Adger, 2000](#)), and as a process through which a community transforms itself to adapt to disruptions; where individuals collectively respond to trauma, community crisis, or challenge by harnessing a variety of adaptive capacities ([Folke et al., 2002](#); [Norris et al., 2008](#)). In this process, community members collaborate, drawing on social capital and structural resources within the community to preserve its identity, structure, and function in the face of crises. This process can be either progressive or regressive, meaning that community resilience can either be strengthened or undermined as communities navigate transformational challenges. While some communities may be severely disrupted or devastated by a crisis, others may emerge stronger. A resilient community is one that learns and adapts ([Gunderson, 2010](#)). Resilient communities internalize lessons from past experiences, apply those lessons in practice, and avoid repeating previous mistakes. Resilience is not only about returning to equilibrium but also about adaptation and progress, allowing a community to “bounce forward” after a disruptive event, creating a new normal where adaptive capacities are enhanced and vulnerabilities are minimized.

At community level, community resilience can refer to the “collective activity in which individuals join together” ([Pfefferbaum et al., 2013, p. 279](#)) to respond to a common crisis. Building community resilience, as an ongoing and dynamic process, involves complex interactions between individual community members and the broader social and physical environments in which they live ([Buikstra et al., 2010](#)), necessitating interdisciplinary collaboration. To fully understand community resilience as an adaptive process, it is necessary to systematically examine how scholars from various fields pertaining to this process define and study resilience. This includes analyzing their unique approaches, the way they conceptualize resilience within their research, and the strategies they propose for strengthening communities during crises. Such an integrative review can illuminate viable pathways for building stronger, more adaptable communities in challenging times.

Connections between humans and the land may be broken during an environmental disturbance event. Hawley (1971) suggested there are two ways an ecosystem may be resilient to disturbances. First, multiple bonds with the landscape which allows the community to remain in place by adapting how it meets its needs. Second, multiple bonds among humans which allow the system to effectively migrate to a new place while maintaining critical social connections. These ideas remain central in landscape ecology approaches to environmental challenges. For example, DuRussell and Temple's and Stempel, Nasr-Azadani, and Grilli's chapters examine ways of engaging with communities that are largely rooted in a place when people cannot or may not prefer to relocate. Here, the affected communities are faced with how to adapt their current connections to the landscape. Whereas Boon and Mainzer's chapter explores the importance of preserving socio-cultural bonds – some of which are inextricably linked to the landscape – when migration may be the only available adaptation strategy.

Media scholars have been interested in the role of communication in building resilience at multiple scales. Since mediated communication can significantly influence how individuals anticipate, prepare for, cope with, and recover from crises, it has become an essential component of most community resilience models. Effective crisis communication requires accurate and timely top-down messaging, bottom-up information exchange, and social interactions among community members, leaders, and institutions. News production of risks and disasters associated with climate change and public health crises have been scrutinized for how it might foment, or conversely, undermine, individuals' and communities' abilities to recover, adapt, or transform. In the digital age, there has been increasing scholarly focus on the impact of information and communication technologies (ICTs) on resilience-building, and contributors to this edited volume include examinations of how ICTs facilitate collective coping, risk communication, and public health interventions as societies face disruptive challenges.

Community resilience has also gained growing recognition in public health research as a concept that integrates individual-level response and preparedness with a networked system of social support within communities during public health emergencies. As an evolving framework in public health, the significance of community resilience has increasingly been acknowledged by policymakers and international organizations. Both the World Health Organization and the US Department of Health and Human Services have highlighted building resilient communities and supportive environments as a public health priority. In this area of research, community resilience is frequently analyzed in conjunction with collective efficacy, a key predictor of the capacity of a community to manage crises and implement collective goals (Cagney et al., 2016). Collective efficacy encourages individuals to engage in collective actions to address public health challenges and is therefore considered an important element in the development of community resilience (Cohen et al., 2013). A strong sense of collective efficacy enhances community members' belief in their community's resilience and motivates them to participate in pro-community behaviors (Plough et al., 2013; Xie et al., 2022).

Rooted in social cognitive theory (SCT), collective efficacy pertains to the belief in a group's capability to achieve a common goal (Bandura, 1997), whereas

self-efficacy relates to an individual's belief in their own ability to accomplish a task. Both collective and individual levels of efficacy are essential for members of social groups to imagine themselves taking action in preparation for or in response to a biophysical disturbance. The individual's ability to act in ways that benefit other members of their social group and the places necessary for their safety and well-being fosters a community resilience to the escalating public health threats. Perceptions of efficacy significantly influence attitudes toward collective action, community responses to disruptive events, and, ultimately, the communal objective of building resilience against environmental threats. However, the distinctions between community resilience and these closely related concepts remain ambiguous. It is our goal that this volume contributes new understandings in a multidisciplinary context as a means of fomenting more in-depth explorations into these key concepts.

This volume is interdisciplinary/multidisciplinary by design: it features work from contributors located in disciplines such as public health, journalism, landscape architecture, urban ecology, crisis, and strategic communication. The contributors discuss community, resilience, and efficacy in the contexts of disaster preparedness, emergency response, and crisis recovery, alongside related terms such as collective efficacy, self-efficacy, collective coping, and community adaptability. "Community" is applied differently across geographic scales, civic areas, and the boundaries of social groups. However, "community" is commonly used to refer to a group of people affected by environmental changes in their local context.

As an initial foray into these complex issues, we asked contributors to think about how community, resiliency, and efficacy intersect, how they are approached, and the ways in which scholars have approached these challenges in their research and practice. We have organized it into sections, each one sharing dimensions with others, given the nature of the volume, but essentially foregrounding components of each.

In the first section, "Coping with Crisis and Disaster," the chapters explore the ways in which community resilience or collective efficacy may be bolstered in an age of threat and risk from "wicked problems" such as climate change and pandemics. Climate change and resulting impacts and threats present substantial threats to public health through multiple pathways. Beyond environmental-related illnesses, such as heat-related conditions and vector-borne diseases, it also leads to compromised air and water quality, food insecurity, and profound psychological impacts. In their chapter, Troy and Thier review the literature on collective efficacy within the contexts of environmental and health communication, foregrounding the centrality of communication processes in understanding the complex behaviors and perceptions surrounding public health challenges induced by global warming. Pulling in work from public health research, they provide an important research agenda for those examining the roles of collective efficacy with the threats posed by climate change impacts on public health.

For communities in disaster-prone areas, frequent natural disasters have become the new norm, posing significant challenges to their disaster preparedness and response systems. The concept of cascading disasters, which refers to multiple

types of disasters occurring either sequentially or nonlinearly, has recently garnered greater attention as scholars explore complex disaster scenarios and strategies for strengthening community resilience. In her chapter, Sun reflected on the role of community resilience in various cascading disaster events, including the 2021 Texas Winter Storm and the global COVID-19 pandemic, redefining community resilience as a communicative process that facilitates hyperlocal and hybrid organizing. This redefinition underscores the importance of effective communication in complex disaster scenarios, especially in a hyper-connected digital world. Sun further explored the use of ICTs in resilience-building efforts and highlighted the vulnerabilities caused by technological inequalities in this process.

The global epidemic of mental health crises driven by climate change is expanding, affecting millions worldwide. Climate-related stress, anxiety, and depression can be triggered by disaster events such as hurricanes, floods, wildfires, and droughts, as well as by the displacement and loss of livelihoods resulting from these occurrences. As climate change continues to impact society, a growing concern is climate anxiety, a term that describes the anxiety associated with perceptions of climate change. This phenomenon affects not only those who have directly experienced climate-related adverse events but also those who have never encountered such impacts personally. Prolonged climate anxiety can severely impair daily functioning, particularly among vulnerable and younger populations. Addressing this challenge through collective actions that enhance community resilience to the burgeoning epidemic of climate anxiety is imperative. Ding's chapter specifically examined the actions that communities can take to engage their members, develop supportive networks, provide essential social resources, and ultimately foster resilience.

In the following section, "Tools for Fostering Resiliency," best practices for community engagement are discussed in case studies that focus on best practices for collaborations that nurture communities as they seek to reimagine themselves, fortify natural systems, and center at-risk social groups. Stempel, Nazr-Azadani, and Grilli explore the critical role of data-driven landscape visualizations (DDLVs) in communicating with affected stakeholders and local leaders the risks and opportunities of sea level rise. Large-scale interventions in physical and ecological systems, such as natural and nature-based features (NNBF), are becoming increasingly common ways of responding to the challenges posed by climate change. Yet they are potentially divisive among community members. DDLVs do not look like traditionally engineered solutions and communicating their effectiveness often requires a complex understanding of ecological systems. The authors' collaborations in coastal Delaware model processes of co-creation in building community efficacy.

Likewise, DuRussel and Temple's chapter recounts a practical application of building ecological literacy and social resilience through community engagement. In Detroit, Michigan, the authors sought opportunities for vacant land revitalization and transformation through a three-phase collaborative framework process focused on learning, exploration, and action with community members. Their efforts present a framework for effective University and community partnerships that center the affected people.

Boon and Mainzer's chapter provides a deeper discussion of the ecological, geographic, and social dimensions of community. The authors examine community as a frame for interviews with researchers and practitioners who collaborate with Indigenous communities to address climate change adaptation and relocation resulting from sea level rise in tribal lands. Indigenous groups are at a high risk of being affected by sea-level rise due to historical colonial disenfranchisement, systemic displacement, and loss of traditional subsistence practices. These communities are making efforts to adapt by creating plans to address sea level rise on their tribal lands or relocation plans, often requiring federal support. Nongovernmental organizations (NGOs) and academic institutions serve as intermediaries between Indigenous groups and resources, yet face challenges in maintaining trust with tribal governments due to historical mistrust and different values and experiences.

The last section, "Risks and Opportunities in a Networked World," presents critical views of digital media as tools and strategies for cultural and social resiliency, including destruction of intellectual and cultural repositories, increasing material consumption and the spread of misinformation via social media. The challenges wrought by the realities of capitalism, of the deliberate and malicious use of mis- and dis-information to undermine trust in the scientific consensus around climate change, and the horrors of 21st century warfare in a mediated age are themes explored by contributors in this section.

Zhang et al. present a global sense of community resilience that emerges from shared information. Their examination of sustainable consumption behaviors highlights the importance of effectively communicating scientific consensus. When misinformation is shared widely, individual communities are less prepared to adapt to changes in climate systems in how we move, eat, and live. In her first-person reflection, Beshero-Bondar argues for the urgency of preserving cultural artifacts, in an age where modern warfare encompasses the obliteration of portions of the information economy, cultural artifacts, and in some cases, cultural institutions. She presents a case study of community networks uniting to utilize digital tools to protect and support cultural resiliency. Other chapters present examples of how researchers are advancing the nexus of information, community, and resilience in climate-based challenges. Park explores the critical need for policy that addresses reformulating advertising in a capitalist world, and the ways in which consumption, production, and growth economies might be retooled to meet the challenges of sustainability.

Taken collectively in this volume, the chapters present readers a range of ways in which researchers and practitioners have connected with those affected, described means of engaging resilient actions, and examined a collective sense of believing in those actions. We found in our call for contributions that chapters did not neatly align with our pre-supposed categories of community, resilience, or efficacy. Rather, each chapter speaks to a bit of each, some more innately rooted in one topic than another. As a guideline for reading this book, we encourage readers to discover where each chapter's insights connect with others.

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