Canadian media theorist Marshall McLuhan famously argued that the purpose of media studies was to make visible that which normally remains invisible – namely, the effects of media technologies rather than the messages they convey. When he originally proposed this idea in the 1960s McLuhan was widely celebrated as the great prophet of the media age, but in the decades that followed his work gradually fell into disregard. In the 1970s, for example, Raymond Williams claimed that McLuhan's ideas were 'ludicrous' and Hans Magnus Enzensberger dismissed him as a 'charlatan' who was 'incapable of any theoretical construction' and who wrote with 'provocative idiocy'. This tacit dismissal of McLuhan's ideas was largely accepted until the late twentieth century, when there was renewed interest in his work among several German media theorists, such as Friedrich Kittler and Norbert Bolz. Unlike the critics associated with the Birmingham Centre for Contemporary Cultural Studies, who primarily focused on the content of media texts and the interpretive work performed by media audiences, these theorists applied epistemological and philosophical questions to the study of media, which was largely inspired by McLuhan's famous claim that 'the medium is the message'. Kittler even argued that '[w]ithout this formula...media studies itself would not exist as such in isolation or with any methodological clarity'. Kittler's emphasis on the technical aspects of media gradually became fashionable in intellectual circles, and it is now widely known as 'German media theory'. Some of the concepts and ideas that are common to both Canadian and German media theory include their focus on the materiality of communication, the notion of media as prosthetic technologies or 'extensions of man', the concept of media ecology, the impact of media technologies on the formation of subjectivity as well as the military applications of media technologies. Although German media theory has often been criticized for ignoring questions of content and reception and for promoting a kind of technological determinism (as was McLuhan and other critics associated with the Toronto School of Communication Theory), it has also been described as one of Germany's most significant intellectual exports, and despite these criticisms the technical aspects of media have once again become a central issue in the humanities.
Sybille Krämer is rarely mentioned in these discussions, as her work is not widely known outside of Germany and it does not share the technical emphasis that is widely seen as the hallmark of German media theory. Nevertheless, her early work primarily focused on developing a philosophy of technology and theorizing the function of the computer as a medium. Krämer received a Ph.D. in philosophy at the Philipp University of Marburg in 1980, and her doctoral thesis, *Technik, Gesellschaft und Natur: Versuch über ihren Zusammenhang* (Technology, Society and Nature: An Attempt to Explain their Relationship), outlined her earliest reflections on technology. Beginning in 1984 she was also part of the ‘Mensch und Technik’ (Humans and Technology) work group as well as the ‘Artificial Intelligence’ commission of the Verein Deutscher Ingenieure (Society of German Engineers) in Düsseldorf. In 1988 she published her second book, *Symbolische Maschinen: Die Idee der Formalisierung in geschichtlichem Abriss* (Symbolic Machines: A Historical Abstract on the Concept of Formalization), which investigated the use of formalization, calculization, and mechanization in mathematics. Krämer introduced the terms ‘symbolic machines’ and ‘operational scripts’ to refer to mathematical equations, as these equations are not readable texts but rather executable processes. If concrete numerals are replaced by letters, for example, it is possible to calculate using signs in a fundamentally more abstract manner. The introduction of algebra thus made it possible to use new signs for new operations, such as the introduction of differential calculus, which made it possible to work with infinitesimally small values. This book effectively expanded Krämer’s understanding of technology by arguing that all mathematical equations are essentially mechanical operations. In other words, Krämer did not attempt to provide a history of the computer or even to suggest that the machine should be understood as a manufactured object; rather, she suggested that the concept of the machine was a result of the mediating function of symbols or the process of ‘formalization’. *Symbolische Maschinen* thus signaled a shift from the study of technological history to the study of intellectual history and from the concept of technical operations to the concept of symbolic operations.

In 1989 Krämer became professor of theoretical philosophy at the Institute of Philosophy at the Free University of Berlin, and in 1991 she published her habilitation treatise *Berechenbare Vernunft: Kalkül und Rationalismus im 17. Jahrhundert* (Computable Reason: Calculation and Rationalism in the 17th Century). This book represented an extension of the argument presented in her previous book by elaborating on the history of the idea of computation, and it similarly focused on operations rather than technologies. *Berechenbare Vernunft* can thus be seen as part of a similar
shift away from the technological a priori that shapes or determines medial processes to the question of ‘mediality’ itself as a topic of philosophical inquiry. Kramer’s divergence from the dominant trends in German media theory at this time was made particularly apparent in her contribution to the 1998 anthology Medien, Computer, Realität: Wirklichkeitsvorstellungen und Neue Medien (Media, Computer, Reality: Perceptions of Reality and New Media), in which she articulated a very different concept of media: ‘We do not hear vibrations in the atmosphere but rather the sound of a bell; we do not read letters but rather a story.’5 In other words, the medium is supposed to be inaudible and invisible, and it only becomes apparent when it is not functioning properly.

Krämer made a similar argument in her 2001 book, Sprache, Sprechakt, Kommunikation: Sprachtheoretische Positionen des 20. Jahrhunderts (Language, Speech Act, Communication: Theories of Language of the 20th Century), which focused on the disembodied nature of speech acts:

Not only is language dematerialized, but also the speakers themselves. Vocality as a trace of the body in speech is not a significant attribute for language, just as the embodiment of speakers is not a constitutive phenomenon for their linguisticality…. Just as the vocal, written, gestural, and technical embodiments of language are marginal for language itself, so too do the bodies of speakers – the physical precondition of their speech – remain hidden.7

Krämer added, however, that language is always already embodied, and this embodiment takes two different forms. On the one hand, ‘language itself provides access to a material exteriority in the form of voice, writing, gesture, etc. And this materiality of language is not marginal, but rather a basic fact’.8 In other words, language only exists as language through the mediation of an intervening medium, whether it be speech, writing, or gestures, and therefore it is closely linked to the bodies of language users. Sprache, Sprechakt, Kommunikation thus not only employed speech acts in order to show that media are never entirely transparent, but it also shifted the discussion of mediality from technical operations to interpersonal communication as well.

This argument has been most fully developed in Krämer’s 2008 book Medium, Bote, Übertragung: Kleine Metaphysik der Medialität (Medium, Messenger, Transmission: A Small Metaphysics of Mediality), which is her first book to be translated into English. Krämer’s primary argument is that in order to understand media we must go beyond the technical apparatus and
understand the relations of mediality upon which the apparatus depends. Krämer also argues that all forms of communication are actually acts of transmission and that all media should therefore be understood as transmission media. The confluence of these two ideas results in a philosophy of media that defies much of the conventional wisdom about communication, which is commonly understood as dialogue, understanding, self-expression, etc.

Krämer explains this distinction in her prologue to the book, in which she describes two competing approaches to media philosophy. She refers to the first approach as the ‘technical’ or ‘postal’ principle, which is based on the notion that all communication requires an intervening medium, yet communication is only successful when this medium fades into the background and remains unobtrusive. According to the ‘postal’ principle, in other words, communication is asymmetrical and unidirectional and the medium represents a necessary precondition for the possibility of communication, as it facilitates the connection between the sender and the receiver. This is essentially the technical transmission model of communication developed by Claude Shannon and Warren Weaver, and the phenomenon of ‘information entropy’ occurs when the medium becomes a ‘disruptive third’ through the generation of noise or interference. Krämer refers to the second approach as the ‘personal’ or ‘erotic’ principle, which is based on the notion of communication as social interaction or dialogue, whose goal is social interaction, understanding, and community. According to the ‘erotic’ principle, communication is a symmetrical and reciprocal process and the aim of communication is not connection but unification through direct and unmediated access. In other words, communication allows speakers to transform heterogeneity into homogeneity and difference into identity, thereby achieving a kind of ‘single voice’ or consensus that represents the fusion of separate halves. This is essentially the personal understanding model of communication developed by Jürgen Habermas, and it implies that the presence of any intervening medium constitutes a form of disturbance since the unification of these disjointed fractions depends on the annihilation of the intervening space. These two approaches thus represent two contradictory trends in media theory, and Krämer explicitly argues that ‘the concern of this book is...to rehabilitate the postal principle and thus the transmission model of communication’, as ‘most community-building and culture-founding forms of communication precisely do not follow the standards of dialogical communication’. In short, media are essential tools for bridging distance and difference, and they thus represent a necessary precondition for the possibility of culture and community, yet they also
preserve this distance or difference, as the presence of an intervening medium implies the existence of an intervening space that precludes any possibility of unification. In other words, mediality represents the negotiation of radical alterity rather than the formation of a consensus reality.

Krämer explains this argument by providing a comprehensive overview of various philosophical theories of transmission, including Walter Benjamin’s theory of translation as the revelation of an unbridgeable gap between languages, Jean-Luc Nancy’s concept of community as founded on a basic divide that constitutes our very essence as communal beings, Michel Serres’ notion of communication as an attempt to establish a bridge between worlds that always remain distinct and unbridgeable, Régis Debray’s theory that immaterial ideas are only transmissible when they are embodied in material objects, and John Durham Peters’ theory of communication as non-reciprocal, non-dialogical dissemination, which is based on a fundamental separation or difference. The idea of communication as dialogue is problematic for each of these thinkers in their own way, and Krämer is able to draw a series of preliminary conclusions from these theories:

(i) A philosophy of mediality can only begin by recognizing that there is an unbridgeable distance between the sender and the receiver – a distance that can never be overcome.

(ii) The medium occupies the intervening space between the sender and the receiver, and it is able to facilitate their connection while still maintaining the distance that separates them.

(iii) All forms of communication are reducible to acts of (non-reciprocal) transmission between the sender and the receiver, as unification and dialogue remain impossible.

(iv) Transmission is an embodied, material process, yet it is frequently understood as disembodied, as the medium is supposed to be invisible through its (noise-free) usage.

Krämer illustrates these ideas using the figure of the messenger as a key metaphor for all medial processes. The figure of the messenger provides an ideal illustration of the function of transmission for three reasons:

(i) As with the classic sender-receiver model of communication, the concept of transmission presupposes the existence of a divide or difference between heterogeneous worlds, and the function of the messenger is to mediate between these worlds while simultaneously preserving the distance that separates them.
(2) The messenger is able to establish this connection between heterogeneous worlds by making something perceptible, thereby embodying the immaterial in a material form. As a representative of his employer, for example, the messenger’s body becomes an extension of his employer’s body. The messenger thus transforms his employer’s absence into a form of presence, which shows how all transmissions function as forms of display.

(3) The embodiment of the message is only made possible through the disembodiment of the messenger, as the messenger must relinquish his own autonomy and agency in order to become invisible and imperceptible. In other words, the messenger disappears behind the content of his message, which makes the process of mediation appear to be direct and unmediated. This idea is most vividly illustrated in the trope of the dying messenger, who expires at the very moment his message is delivered.

According to Krämer, every form of mediality illustrates these aspects of the messenger model. For example, films are not supposed to be perceived as celluloid strips but rather as moving pictures, and the presence of the material strip only becomes apparent when the transmission is disrupted, such as when it jams in the projector. In the same way, the messenger is also supposed to remain transparent in order to facilitate the transmission of his message.

The implications of this theory are fourfold:

(1) All forms of communication are actually forms of transmission, which are always unidirectional and non-dialogical. In other words, communication is a form of dissemination rather than dialogue, and it is directly opposed to the ‘personal’ principle of communication, which is based on the concept of understanding, dialogue, consensus, etc.

(2) The medium embodies the message through its own disembodiment, and therefore transmission depends on the separation of text and texture, sense and form, signal and noise.

(3) The medium is heteronomous, as it speaks with a voice that is not its own and therefore it is not responsible for the content of the message it transmits. The messenger model is thus directed against hermeneutics and points to a subject-free theory of communication that challenges the notion of media as autonomous agents or as the cause of cultural-historical dynamics (i.e. Kittler’s famous dictum that ‘media determine our situation’).
(4) The invisibility of the messenger enables its function as a transmitter to be easily replaced by non-human entities, which suggests that the technical transmission model of communication can be used to explain the function of interpersonal communication and vice versa.

*Medium, Bote, Übertragung* thus moves beyond the history of technology and the study of technical operations and focuses instead on the ways in which the phenomenon of mediality shapes our understanding of the world around us. In other words, mediality is fundamentally productive because it represents the basis of all forms of social and material systems of exchange.

Krämer explains this argument in more detail by examining a diverse range of transmission events, including angelic visitations, the spread of infectious diseases, circulation of money, the translation of languages, psychoanalytic transference, the act of bearing witness, and even the development of cartography. Angels illustrate the concept of mediality because their embodied manifestations facilitate communication with God while at the same time implying the impossibility of direct communication between heaven and earth. The connection between God and humans thus remains unidirectional, and it is only achieved through the process of embodiment, as angels can only communicate with humans in so far as they themselves also assume human form. Viral infections also depend on physical contact between two heterogeneous entities, and they similarly illustrate the unidirectionality of transmission, as they are one-sided and non-reciprocal. Money also represents the transfer of ownership between sender and receiver, which is only possible through the establishment of an equivalent relationship between heterogeneous goods. Money thus enables the desubstantialization of goods, which makes ownership objectifiable. Translators also bridge the differences between languages by making these differences visible, yet they also maintain the divide separating languages by preserving different connotations. Psychoanalysts similarly function as media during the process of transference, as they serve to represent primary attachment figures from their patients’ past, thereby enabling the transmission of feelings from their patients’ unconscious minds. While analysts make these feelings perceptible to the patient’s conscious minds, they must not respond to them emotionally. Psychoanalysis represents a dialogue not between the patient and the analyst (which is implied by the notion of the ‘talking cure’), but rather between the patient’s unconscious and conscious mind, and the analyst is only able to facilitate the transfer of unconscious emotions by remaining neutral and withdrawn. The act of bearing witness also presupposes a gap between the witnesses, who have
perceived a past event, and their listeners, who were not able to perceive the event for themselves. Like messengers, witnesses are able to make this event perceptible to their listeners through the process of transmission, which depends on their presumed neutrality and impartiality. In other words, witnesses are ‘data collection and retrieval instruments’, and they are expected to withhold their own opinions and judgments from their testimony. Krämer describes martyrdom as the most extreme form of witnessing, as witnesses are considered to be most trustworthy when they are prepared to die, and the suffering of their bodies thus serves to guarantee the truth of their testimony (much like the dying messenger). Krämer’s final case study focuses on the use of maps, which similarly function as media by making perceptible something that is invisible to the eye. Like an incorruptible messenger, maps are also supposed to serve as a transparent window onto the world. In order for maps to facilitate transmission, in other words, users ‘must remain blind’ to their distortions. Krämer thus concludes that ‘cartographic distortion is a condition of possibility of representation’ and ‘transparency and opacity are two distinguishable dimensions of maps that require and include one another’. Krämer thereby rejects the debate between maps as neutral visualizations of reality and maps as cultural constructions that shape our perceptions of reality by suggesting that there is no point in fighting over the truth of maps; instead, it is more important to understand how maps mediate our perception of the world by obscuring their inherent inaccuracies. More than any of her other case studies, this chapter most clearly illustrates the significance of traces, which reveal that the medium itself is never completely transparent or neutral. By making users aware of the map itself, in other words, cartographic distortions preclude the possibility of transparency, yet the illusion of transparency remains a necessary precondition for the possibility of transmission, as users must perceive the map as an accurate representation of reality in order to be able to orient themselves in space.

According to Krämer, all of these various forms of transmission – angels, viruses, money, translators, psychoanalysts, witnesses, and maps – can be seen as media in the sense that they simultaneously bridge and maintain differences between heterogeneous worlds. The messenger model thus depends on the basic insight that a community of different individuals is founded on the distance that separates them, which precludes the possibility of unification or intersubjectivity, and all attempts at communication are actually acts of transmission, as communication is fundamentally unidirectional, asymmetrical, and non-reciprocal. This theory also implies that the technical transmission model of communication is no longer unique
to mass media; rather, it is an inherent dimension of all forms of human communication – a point that is emphasized throughout Krämer’s book, as she repeatedly focuses on interpersonal rather than technical forms of communication. The emphasis of the messenger model thus allows for a media theory based on processes and thirdness rather than the technical apparatus.

In her conclusion, Krämer acknowledges that the figure of the messenger is also fundamentally ambivalent, as ‘every messenger acts as a reversible figure: the angel becomes the devil, the mediator becomes the schemer, the circulation of money develops into greed and avarice, etc.’ In other words, the danger always exists that the medium might introduce a degree of noise or interference into the act of transmission by making his presence felt instead of remaining neutral and transparent, such as when the devil attempts to manipulate listeners, when the psychoanalyst falls in love with his patient, or when the user of a map becomes aware that it is presenting a distorted image of reality. Ambivalence is therefore inherent in the role of the messenger, and it is reflected in the form of the trace, which exposes the mediating function of the messenger by making his participation perceptible and revealing the possibility that the messenger might also represent a sovereign being with his own individual autonomy and agency.

While Krämer’s messenger model may appear somewhat esoteric to readers who are unfamiliar with her previous work – and particularly to English-language media scholars who are more familiar with the technical emphasis of most German media theory – it provides several insights that are potentially valuable for contemporary media studies. In particular, it outlines a general theory of transmission that does not distinguish between technical and interpersonal communication or between technological and human agents. It thus expands our understanding of the concept and function of media as active agents in all systems of social and material exchange, which offers exciting new possibilities for other interdisciplinary approaches to the study of media and communication. Krämer’s conflation of technical and interpersonal communication also allows her to avoid the pitfalls of technological determinism, as it does not grant undue power to the technical apparatus, while still recognizing the importance of the materiality of communication or the interface between the medium and the senses. Krämer thus emphasizes the notion that communication is dependent on embodiment, yet at the same time it she also preserves the idea of communication as non-dialogical and non-reciprocal, thus acknowledging the active role of the receiver, who does not necessarily interpret messages
in the way they were intended by the sender (i.e. Stuart Hall’s ‘encoding-decoding’ model of communication). Krämer’s messenger model thus offers an alternative to McLuhan-style media theory, which focuses primarily on the impact of media technologies, and the Birmingham School approach to media studies, which focuses primarily on content and reception. Within a German context, one could also say that it carves out an original space in contrast to Kittler’s emphasis on the technical aspects of media and Habermas’ emphasis on the dialogic aspects of communication.

By reinforcing the function of perception and mediality as opposed to that of technology and content, Krämer’s book occupies a key position in contemporary debates concerning the future of media studies in Germany and it represents a significant contribution to a growing body of work that challenges dominant trends in German media theory, such as the work of Hans-Dieter Huber, Dieter Mersch, Matthias Vogel and Lambert Wiesing. The fact that some of these names may be unfamiliar to English-language media scholars clearly shows that we need to expand our understanding of media theory in Germany and the wide range of approaches that this field of study encompasses. This edition will hopefully encourage increased international visibility for these alternative approaches, many of which have not yet been translated into English.