



Approaching “the expert” in times of (digital) disruptions: Towards a geography of expertise

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Abstract

The demand for “experts” and “expertise” has never been higher than in the present time, characterized by complexities, uncertainties and (digital) disruptions. At the same time, expertise has never been more contested and attacked, particularly due to social media. In this paper, we delve into the social-scientific literature on expert(ise) and argue for a strong differentiation between *knowledge* and *expertise*. We outline a geography of expertise, to be developed at the intersection of the three relational categories “authority,” “trust,” and “coalitions” and pay particular attention to digital media as the key driver for the re-configuration of expertise and expert roles.

Keywords

Credibility, digital media, experts, knowledge, lay expertise, mediation

1 Introduction

We live in contradictory times. On the one hand, our need for expert knowledge has never been greater than in times of complex technologies, interdependencies and competition for ideas and innovation in a so-called “knowledge-based” society, providing the ground for an array of consultancy services (Grundmann, 2017; Stehr, 1992). On the other hand, expert authority has never been more contested and attacked (Brigstocke et al., 2021). Within digital spaces, this is reflected in users’ performances of knowledge and expertise. “I am not an expert but...” is one of those phrases we encounter frequently in the comment sections of social media platforms nowadays. The self-disclaimer works in an ironic way:

What appears as the admission of lacking competence to seriously contribute to a specific topic or question has become a credibility claim in its own right, not least because it implies an explicit dissociation from established, certified experts (Au and Eyal, 2022).

The phenomenon of “lay experts” and “lay expertise,” which gained renewed momentum in the aftermath of the COVID-19 pandemic, addresses this

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tension: The increasing societal relevance of experts as well as a reconsideration of the foundations of expertise. The term “lay expertise” appeared in the 1990s in sociology (Epstein, 2023: 78) and is ascribed to Epstein (1995) and his article on activists contributing to AIDS treatment research, challenging the epistemic authority of certified experts. Definitions of the “lay expert” remain fragmented but tend to revolve around actors who fulfill the role of “expert” despite lacking formally accredited qualifications. Interestingly, especially for geographers, lay expertise is commonly ascribed to the spatial scale of the “local” by referring to it as “contextualized” knowledge in contrast to “universal” scientific knowledge (Haughton et al., 2015; Lidskog and Berg, 2022; Yli-Pelkonen and Kohl, 2005). Recently, particularly due to digitization and the connective capacities of so-called social media, lay expertise has once more reached broader relevance and attracted renewed research focus (Au and Eyal, 2022; Epstein, 2023; Wenninger and Dickel, 2019). This time around, it has emerged under different conditions related to mistrust in (certified) experts and the easy digital spread of fake news as current and difficult-to-ignore social phenomena. We utilize the provocative term “lay expertise” as a springboard towards a closer examination of the credibility and authority of expert status and its related knowledge sources. Indeed, the term “lay expertise” forces us to scrutinize the distinction made between the categories “lay” and “expert” and requires us to explore the basic question of what constitutes expertise (or laity).

Our paper is motivated by two theoretical shortcomings in the literature: First, there is a difference between knowledge and expertise worth exploring and we should not contend ourselves with transferring concepts and insights from knowledge theories to the study of expertise. While there is plenty of research on the “geography of knowledge”, especially from the field of economic geography, we have not yet developed a “geography of expertise” systematically. Moreover, there is a tendency to use the terms “knowledge” and “expertise” interchangeably, neglecting valuable entry points for research on the latter. In this paper, we present a conception of expertise as a relational category, describing an assessment, potentially linked to

actionable advice and rooted in one’s ascribed knowledge, intended for another to implement (Büttner and Laux, 2021; Grundmann, 2017; Stehr and Grundmann, 2010). As Kuus (2021: 1342) rightly outlines, “expertise is not a free-floating substance.” A geography of expertise needs to address questions of authority and power in the production and circulation of “knowledge claims” (Kuus, 2011; also Brigstocke et al., 2021), distinct from a much more elaborated geography of knowledge creation. Second, there is confusion between the notions of “expert” and “expertise.” Usually expertise is regarded as something “delivered” by the expert (Grundmann, 2017: 26). However, this understanding and especially the reduction of expertise to the person of “the expert” has been challenged recently (Eyal, 2013, 2019). This paper, thus, discusses different conceptions of the role of the “expert,” linking these to knowledge and expertise and placing the expert in the historical and social contexts within which they gain significance (thus returning to the phenomenon of the lay expert).

In this paper, we identify blind spots in current social-scientific research on experts and expertise as well as starting points for a research agenda on the geography of expertise. The main aim is to contribute to a debate on expert(ise), which is, despite some notable exceptions (e.g., Brigstocke et al., 2021; Elsmore and Congreve, 2022; Kuus, 2011, 2021; Owens, 2015; Prince, 2010; Vogelpohl and Wintzer, 2017), still in the niche of human geography research. We develop our arguments in three main steps: First, we briefly illustrate dominant conceptualizations of knowledge in human geography and connect the emergence of “the expert” to these different approaches. Second, we demonstrate how current confusion in social-scientific debates on expertise results from mixing the concepts of knowledge and expertise. Finally, we outline a geography of expertise, based on the three analytical cornerstones *authority*, *trust* and *coalitions*. Geographical research emphasizes the spatiality of these cornerstones (e.g., Brigstocke et al., 2021; Glückler, 2005; Withers, 2018). However, authority and trust are still dominantly conceptualized as effects of “presence and proximity” (Brigstocke et al., 2021: 1360), as well as stable (institutionalized) relations,

neglecting the fluid time-spatial dynamics in practicing trust and authority, which are observable in the digital age (Brigstocke et al., 2021). The notion of “coalitions” (see Allgaier, 2020) is inspired by relational geography, conceptualizing expertise as an effect of an assemblage comprising human and non-human actors (Prince, 2010). Here again, digitization critically affects the spatial configuration of such assemblages by providing extended options of connectivity across physical distance (Van Dijck, 2013). However, this does not make expertise “free-floating” (Kuus, 2021: 1342) but still situated in locally embedded but increasingly mediated practices.

II Knowledge and expertise

We begin with a discussion of the notions of “knowledge” and “expertise,” which appear, intuitively, to be closely related, if not interchangeable. However, we argue that they should be considered separately. A geography of expertise distinguishes itself from the already far more elaborated geography of knowledge creation by addressing questions of authority and trust in the production, performance, and circulation of assessments or “claims” made on the basis of such knowledge (Brigstocke et al., 2021; Kuus, 2011). It also investigates how relationality and spatial embeddedness affect how such claims are received, as well as under which circumstances they gain credibility. We thus begin below with a geography of knowledge, showing that it alone cannot fully account for a theory of experts and expertise, before proceeding step by step to lay out the foundations of a complementary geography of expertise.

I Approaches to knowledge

The “geography of knowledge” is an established field in human geography research. Especially in the field of economic geography, questions of knowledge creation are intensively explored. A focus of this literature lies in disentangling different conceptualizations of knowledge, as well as in investigating whether and under which circumstances knowledge may be transferred between actors and

physical as well as social contexts. This issue of transferability also ties into a conceptualization of the expert as an actor who possesses, implements, or mediates to others their knowledge. Three perspectives on the transfer of knowledge emerge: (i) knowledge as “codified” and thus easily transferable, (ii) knowledge as tacit and/or social, transferable only under certain socio-environmental conditions, and finally (iii) knowledge as a resource that needs to be made accessible for practical use via the mediation of an expert interpreter.

One important distinction within this field lies in the differentiation between conceptions focusing on knowledge as “possession” or “object” and those emphasizing knowing as/in “practice” (Amin and Cohendet, 2004; Ibert, 2007). In one understanding, knowledge is a transferable good. The difference to most other goods is its non-rival character, meaning that the use of knowledge by one person does not exclude others from using the same knowledge (Stehr, 2023: 31). In economics, knowledge is widely conceptualized as a “stock resulting from the accumulation of information” (Amin and Cohendet, 2004: 18). It contains sense in itself and exists independently from the context of its discovery.

However, this perspective has been challenged early, for instance, by Polanyi’s (1966) differentiation between codified and tacit knowledge. Following Polanyi’s (1966: 4) famous quote “we can know more than we can tell,” only limited parts of knowledge are and can be codified while the ability to make something out of data, documents, instruments, tools etc. is embodied and evades processes of codification. In more recent accounts, this “tacit dimension” (Polanyi, 1966) is usually referred to as “know-how”—as opposed, for example, to the “know-what” of codified knowledge (Lundvall and Johnson, 1994). The differentiation between tacit and codified knowledge has been taken up prominently in geography due to assumed differences in terms of mobilizing potentials (Gertler, 2003; Malecki, 2000). While codified knowledge is seen to travel easily from one location to another, tacit (or implicit) knowledge cannot be verbalized and, hence, easily mobilized. Its transfer is dependent on face-to-face interaction and shared local contexts.

A stronger expression of this latter critique may be found in science and technology studies (STS), as well as practice theory, which disagree wholly with the idea of knowledge as an object that can be possessed. From this stance, knowledge is always situated in practice (Knorr-Cetina, 1981; Latour and Woolgar, 1986; see also Haraway, 1988). Even scientific knowledge is in this understanding not simply discovered but generated in a very specific context consisting of, for example, the laboratory, the scientists, the scientific community, instruments etc. (Amelang, 2012). Put differently: Scientific practice is embedded in “epistemic cultures” (Knorr-Cetina, 1999). Hence, from an STS perspective, “contextuality” does not work as an analytical differential criterion between lay and expert knowledge. Community of practice theory emphasizes that knowledge transfer is realized through “legitimate peripheral participation” of newbies learning from more experienced members in situ (Lave and Wenger, 1991). Thus, from this perspective, knowledge inevitably has a social dimension and is transferable only when the conditions of the respective practices, for example, similar material conditions (e.g., equally equipped laboratories at two locations) and knowledgeable human beings move in space. These thoughts correspond to a relational (“network”) conception of space after which “proximity [...] is a question of the network elements and the way they hang together. Places with a similar set of elements and similar relations between them are close to one another and those with different elements or relations are far apart” (Mol and Law, 1994: 649; orig. emphasis).

A third important contribution to the debate comes from Stehr (2001a: 89) who defines knowledge “as the ‘capacity to act’, as the potential to ‘start something going’”—but one which “may be left unused” in practice (Stehr, 1992: 114). Stehr and Grundmann’s (2010) conceptualization of knowledge is further tied to the figure of the expert. In a contemporary “knowledge society” (Bell, 1974; Drucker, 1969), in which scientific and technical knowledge become the central economic driver and resource, Stehr (2001b) identifies a gap between the rapid growth in the production of this knowledge and the complex process of its distribution. This requires

actors with the competence to interpret knowledge and to make it accessible for those who are not in the know. For him, this is where “the expert” comes in (Stehr and Adolf, 2018).

2 Approaches to the expert: Moments of encounter

Three perspectives on the transfer of knowledge thus emerge from an analysis of the above-mentioned literature: (i) knowledge as “codified” and thus easily transferable, (ii) knowledge as tacit and/or social, transferable only under certain socio-environmental conditions, and finally (iii) knowledge as a resource that needs to be made accessible for practical use via the mediation of an expert interpreter. From these perspectives three conceptualizations of the expert would logically follow, who might thereby be (i) a repository of information, (ii) a practically experienced and likely socially embedded doer, or (iii) a specialist mediator of knowledge (i.e., an advisor). Indeed, we may see these conceptual traces throughout prominent theoretical debates within the literature. Past quantitative social research, for example, has been criticized for assessing the “public’s understanding of science” (PUS) based on a simplistic repository perspective—that is, on how many “science facts” they can answer correctly in a survey (Irwin and Michael, 2003). Similarly, Eyal (2019: 21–26) traces different conceptions of the expert either as a doer asked to provide know-how to solve a clearly defined problem, or as an advisor asked to give an assessment in a situation of uncertainty. This last advisor and mediator perspective, especially, has been developed by Stehr and Grundmann (2010), who rightly ask: what sets an expert apart? On the one hand, there is no need for expert mediation of just “objectified knowledge” (as any search engine will do). On the other hand, competence (know-how) cannot simply be imparted but needs to be learned in socially embedded practice (see discussion above). According to Stehr and Grundmann (2010: 44), it is, thus, mainly the interpretation of knowledge which is at the center of expertness. In the latest literature, too, we see a shift towards an emphasis on the act of

knowledge mediation in research on expertise. This mediating function is discussed in geographical research on “policy mobilities” (e.g., McCann, 2011; Peck, 2011), emphasizing the powerful role of consultants in the transfer of “best practices” (also Vogelpohl and Wintzer, 2017). In the introductory chapter of the Oxford Handbook of Expertise and Democratic Politics, expertise is defined as “a phenomenon of the *interface* between specialized (professional, technical, scientific, bureaucratic, or even ‘experience-based’) knowledge and (political, legal) decision-making” (Eyal and Medvetz, 2023: 5; orig. emphasis). This latest development in expert definition implies a decoupling of knowledge and expertise since now the practice of advising is constitutive instead of the substantive basis of the given advice.

This inside-out approach from theories of knowledge to those of the expert is a useful starting point. However, discussions around the role of the expert have also been shaped by the historical and political circumstances in which (a) experts came to prominence in society, and, similarly, (b) in which a discussion of the term “expertise” became necessary. These moments of encounter, we argue, in drawing from the existing literature, encourage critical interrogation of the concept of “expertise”—be it the clash of expert testimonies in court, the confrontation of expert and “lay” views in environmental or health matters, or the rise of digitally mediated “lay expertise” in recent years. The following sections address these issues before returning to a clearer demarcation of the terms knowledge, expert and expertise.

2.1 Court appraisal. In Western countries, the expert appears to have been first institutionalized as a personalized role in court in France in the late 17th century and equated an appraiser of economic goods or practices drawn from the ranks of craft guild representatives (Hirschi, 2018). Likewise, the English word expertise, adopted from the French (*une expertise*), originally referred to an action—that of giving an appraisal (Eyal, 2019). Over the years, however, the word began a shift from “designating the procedure of inspection or appraisal to a shorthand for the training and experience of the specialist

conducting these” (Eyal, 2019: 12). Hence, the current meaning of the English word “expertise” as a competence to be possessed by the expert (more on this below). According to Eyal, the identification of the word expert with court appraiser persisted well into the 20th century. In their institutionalized role as representatives of the professions (or other organizations) in court, expert legitimacy was not tied to any notion of expertise, but rather to their membership in (and being vetted by) these organizations (Eyal, 2019: 18). The expert’s impartiality was to be ensured by laying down certain rules of social and professional distance (e.g., by appointing only those experts who did not execute exactly the same practice as the one to be evaluated; by prohibiting the acceptance of gifts) (Hirschi, 2018: 62–64). Experts thereby possessed a socially recognized role, therefore whatever they did was socially recognized—there was no need for a distinct term for and discussion around their “expertise.” In fact, “expertise” as a distinct word did not enjoy widespread use in the English language until the 1960s (Eyal, 2019: 17). Once expert status became challenged in this era, however, there was a need to justify what experts did, as well as distinguish between experts backed by different organizations when they disagreed publicly—hence the concept of expertise as a means of evaluating the basis for expert legitimacy independently of their organizational membership (Eyal, 2019: 14–17).

2.2 Technology, risk and politics. Around the same time that this latter shift occurred, a second societal development encouraged discussion around the term “expertise”—the advent of powerful technological changes and the risks and political decisions these brought with them. Prominent contemporary thinkers have argued that we live in an age where new technologies have brought new risks, leaving us ever more dependent on expert judgments (Beck, 2020; Eyal, 2019; Jasanoff, 2005; Lidskog, 2008). Thus, emerging biotechnologies, nuclear power, as well as the rise of the internet, big data and AI have been positioned as creating a global technological landscape which has become ever more difficult for laypersons to penetrate, sharpening knowledge asymmetries, and creating a strong reliance on expert

judgments to navigate everyday decisions and risks. Politics, too, is seen as being ever more intertwined with scientific expertise in seeking to legitimate its decisions as technical solutions rather than political choices (Arancibia, 2016). This insight is at times associated with the idea of the “knowledge society,” in which science (or knowledge practices more broadly) becomes the arena in which political struggles are cloaked and carried out. As politics seeks to insulate itself from critique by appropriating such “regulatory” or “policy” science (Eyal, 2019; Jasanoff, 2005), however, this very science is seen as coming under increased attack from political critics, who begin to question its hegemonic stature. Thus, according to Weingart (1999), the “scientification of politics” entails inadvertently the “politicization of science” (Weingart in Eyal, 2019: 97). Related dynamics feeding into this greater interrogation of and alienation from expert judgments include the perceived vulnerability and uncertainty among individual laypersons as a result of this personal “over”-reliance upon expert judgments, and expert bodies’ historical lack of recognition for lay experiences and capabilities (Eyal, 2019; Lidskog, 2008; Wynne, 2001). Grundmann (2017: 31) diagnoses

“a paradoxical development: it lays out that the emergence of the knowledge society has led to a proliferation of, and dependence on expertise. It has led to a loss of trust in scientific experts while at the same time generating forms of expertise that are not based on professional accreditation or scientific reputation.”

As laypersons thus come to feel overly dependent upon—and, often, disappointed by—expert individuals and institutions, and less agential themselves in the face of a rapidly changing and threatening risk landscape, skepticism towards expertise may also be linked to anti-elitism or populism more broadly. The idea that a small group of experts possess the competence to make decisions which affect the population as a whole is easily transposed to the narrative of a small group of elites conspiring against “the people”—a tenet of populism (Erhard et al., 2024). This is not to say that all criticism of the authority of formal experts may be dismissed as populism. Indeed, the existing literature displays a

tension between various evaluations of such “incursions” upon experts’ jurisdiction. In either case, however, the once iron-clad defenses of science and the expert classes are seen to have been weakened, opening up the public floor for the emergence of multiple competing claims to knowledge and accurate risk analysis (Grundmann, 2017; Lidskog, 2008). Stepping in to exploit this “legitimacy gap” (Sheehan, 2022: 1158) there have emerged activists (Akrich, 2010; Epstein, 1995; Eyal, 2019), “lay experts” (Au and Eyal, 2022; Epstein, 1995; Irwin and Michael, 2003) and “prophets” (Weber et al., 1999; also Eyal, 2013; Sheehan, 2022). On the one hand, this has allowed previously unrecognized voices to be integrated to varying degrees into mainstream political, medical, and other processes. Previous research has documented, for example, the successes of AIDS treatment activists (Epstein, 1995) in gaining recognition and funding against the resistance of the medical establishment, as well as the general turn towards more representative and participative expert bodies and processes of expertise (Eyal, 2019; Jasanoff, 2005). On the other hand, it has sparked a reactionary rush to “protect” science from pseudo-science and improper or irrational incursions from lay actors (Collins and Evans, 2009; Irwin and Michael, 2003; Lidskog, 2008; Prior, 2003). Dominant scientific and political actors thus proclaimed a “crisis of public confidence in science”, whose roots they saw in an irrational and ignorant public, incited by irresponsible media practices (Wynne, 2001: 445), leading to calls for “better science” (Beck, 2012: 10)—or, even more appealingly, simply a “better”-educated public (Irwin and Michael, 2003).

2.3 The digital catalyst. The section above already indicated that the “lay expert” is not a product or consequence of digitization. Activist movements (e.g., patients of a medical disease or environmental activists) provided the ground for lay expertise long before digital media (let alone “social media”) emerged (Epstein, 2023). However, digitization certainly contributes to the lay expert’s increasing prominence and relevance by providing an easy-to-use infrastructure for producing and distributing user-generated media content which is not (or rarely)

curated by the providers of such infrastructure (Büttner and Laux, 2021). As such content reaches increased relevance, it constitutes a further “moment of encounter” between various knowledges and claims to expertness which re-ignites theoretical discussion around the nature of expertise. Just as the moment of increased encounter between competing testifying experts in court, or between experts and the public around technological, environmental or health issues prompted interrogation of the concept of expertise in the past, the prominence of internet forums and social media as spaces of digital encounter may be seen as prompting its own timely public debate. What is different, then, about “the digital,” is primarily its facilitating the increased reach of lay actors’ voices—and thus the latter’s public confrontation with formal expert voices.

This is illustrated most vividly, for example, in recent realizations of just how influential online lay actors can be in the distribution of information during a crisis - in this case, the COVID-19 pandemic (Marchal and Au, 2020; Mirbabaie et al., 2020). Through their popularity, wide reach, and often simply by virtue of acting in an authoritative manner, such actors can become credible in the public eye (Mirbabaie et al., 2020: 199). Platforms such as YouTube have therefore been accused of having “subordinated credible expertise to a logic of likability,” leaving “institutional experts trailing behind” (Marchal and Au, 2020: 1). “X” (formerly “Twitter”), too, has come under critique for “provid[ing] an infrastructure that can facilitate rumours and the spread of misinformation” (Mirbabaie et al., 2020: 196). On the one hand, this has spurred stark emotions, leading to worries that “any actor seeking influence or profit can readily exploit information gaps or strategically mobilize claims from reputable sources (Golebiewski and boyd, 2019) and take them out of context to serve the agenda that an audience expects of them” (Marchal and Au, 2020: 3). On the other hand, this has also led to innovative strategies for crisis communication, seen, for example, in the WHO’s use of social media influencers in spreading information and shaping crisis response measures in the public (Mirbabaie et al., 2020: 197).

III Disentangling concepts

I Disentangling knowledge and expertise

As the outline above illustrates, discussion around the nature of expertise has tended to emerge within specific societal contexts in which established experts and their testimonies are subjected to increased scrutiny. The question which is then asked by stakeholders across the board goes: Whom can we (or the public) trust to provide legitimate assessments? Against this backdrop, the following section illustrates the potential analytical leverage of a clearer distinction between knowledge and expertise in addressing the theoretical basis for such concerns. The following section introduces a few of the most dominant voices within this debate (represented by Collins and Evans, 2009; Eyal, 2013, 2019) to show how and where they clash, and suggests the persistence of conceptual confusion around the terms “expertise” and “knowledge.”

One of the largest debates within theories of expertise asks whether expertise is a substantive competence or quality (Collins and Evans, 2009), or whether it is attributed and thus “merely” constructed (see Eyal and Medvetz, 2023 for a discussion). This has implications for the politically motivated question of how to recognize “real” from “false” experts. In seeking to establish a means of discriminating between competing expert judgments, thinkers such as Collins and Evans (2009: 2) have argued that there is a “real and substantive” expertise which can be distinguished from merely attributed legitimacy, and that we should teach the public to recognize this substantive expertise in order to know whom to trust. For them, expertise is the basis by which experts “know what they are talking about” (Collins and Evans, 2009: 2). To our ears, this sounds like they are referring to the knowledge upon which experts draw in order to make their assessments. The use of the term expertise, then, is misleading. We might rephrase their argument into the following: recognition of specialized knowledge should be the basis for deciding whom to attribute legitimacy in providing expertise.

Eyal (and colleagues), on the other hand, advocate a socially constructed and relational perspective on

expertise. Eyal (2019) counters the realist perspective in pointing out that (i) we often lack the time, resources, or competence to realistically evaluate a proclaimed expert's "substantive expertise" (i.e., knowledge) in practice, and (ii) we thus evaluate experts instead based on our trust in culturally constructed signs, which the former "perform" to indicate that they possess knowledge in an area. His emphasis shifts, thus, towards understanding the contexts in which trust is granted, or (the possession of) knowledge successfully performed, imparted, and received—rather than trying to identify and clearly demarcate "real" from "false" expertise. For Eyal, expertise is a "historically specific type of performance aimed at linking scientific knowledge with matters of public concern" (Eyal and Medvetz, 2023: 5). The two authors (and the larger theoretical stances for which they stand) appear to be using the term "expertise" in substantially different ways.

In observing these exchanges, we argue that a sharper theoretical differentiation between expertise and knowledge becomes useful. Scholarly inquiries into both the types of performances which make a given assessment credible, as well as the underlying knowledges which inform such assessments, may both be fruitful. However, using a single term "expertise" for both of these phenomena is misleading, we argue. While we are not the first to point to this distinction (see, for instance, Jasanoff, 2005), the persistence of its conflation points to the need for further calls for enforcing greater clarity. For the purpose of this paper, and based on the literature on the geography of knowledge outlined above, we concur with authors, conceptualizing knowledge as a complex "architecture" (Amin and Cohendet, 2004; Ibert, 2007), consisting of multiple interrelated explicit (or codified) as well as implicit (tacit) elements. In practical terms, knowledge can be described as an ability that enables to make sense of the world, to act in the world and to create new opportunities by recombining (and re-interpreting) aspects of knowledge. Following ideas from pragmatism, knowledge "enable[s] humans to accomplish their purposes" (Barnes, 2008: 1545; Stehr, 2001b). Elements of knowledge can be codified, for example, in texts, documents or tools. However, its understanding/interpretation and enactment is bound to abilities

which are learned over time through interaction with peers and in respective socio-material practices (Lave and Wenger, 1991). Expertise might be seen as knowledge's external counterpart of making an assessment or evaluation, potentially linked to actionable advice and rooted in one's ascribed knowledge, intended for another to implement (Büttner and Laux, 2021; Grundmann, 2017; Stehr and Grundmann, 2010). Recall here the historical meaning of the word expertise as an appraisal or evaluation, later conflated with the idea of expertise as a competence (Eyal, 2019).

2 Disentangling experts and specialists

In our view, much confusion is caused, too, by equating the notions of "expert" and "specialist" (see also Grundmann, 2017): A bearer of knowledge is a specialist, while a provider of expertise is an expert—though merely situationally in the act of imparting an expertise. "The expert" does not exist as a descriptive category of actor outside of the moment of giving expertise. There are many contenders who wish to "wear the hat" of expert—experts are merely designated or elevated for a moment by another party. Here, we might re-adopt the lost concept of "expertness" (Eyal, 2019: 13) to describe the quality of being an expert. Contenders to the status of expert may then be seen as attempting to perform expertness so as to gain acceptance for their expertise. A scientist, for instance, can become an expert in a situation of advice giving (Brinks and Ibert, 2023) but is not an expert per se (they are specialists for a particular topic). This issue is complicated by the hegemony of scientific knowledge in defining what counts as legitimate expertise in contemporary society (Irwin and Michael, 2003; Irwin and Wynne, 1996; Sörlin, 2013)—the terms "scientist" and "expert" have become near synonyms in colloquial speech (see also Stehr and Grundmann, 2010). As the phenomenon of lay expertise demonstrates, however, a broad range of actors may be declared "experts" in current public debate—not merely those whom we would traditionally term (accredited) "specialists."

This differentiation is of course merely of an ideal type nature: knowledge cannot always be assessed from the outside. Who, after all, judges whether the

specialist's "elements of knowledge" in fact "enable" them to make sense of the world and to act in it? This, too, can be seen as a matter of legitimacy (see [Lave and Wenger, 1991](#)). As such, we recognize the importance of the concept of power to a socially grounded discussion of knowledge and expertise. However, and here we return to Collins and Evans versus Eyal: Just because the possession of knowledge is difficult to ascertain, does not mean that it does not exist independently of the issues of authority and trust which surround the act of presenting oneself as possessing knowledge. Without delving into deeper discussions of, for example, the role of power in expertise versus in knowledge within this paper, we argue that a clearer separation of the issues of knowledge and expertise in the first place would allow for each of these concepts to be discussed on their own terms, without being weighed down by the baggage of what should be another distinct theoretical discussion. At the same time, recognizing that characterizations of different forms of knowledge are often conducted towards the ends of legitimating certain actors' given expertise, allows for the uncovering of interesting tensions between the two concepts.

IV Towards a geography of expertise

What do we learn from the discussion above? We began with the idea of the "lay expert" as a boundary figure which provoked a greater theoretical interrogation of the concepts of knowledge and expertise. We also argued that a geography of expertise was necessary, alongside an already established geography of knowledge. What, then, is a geography of expertise? We argue for a relational conceptualization of expertise foregrounding the question of "cultural acceptance" ([Stehr and Grundmann 2010: 77](#); German in orig.), meaning how certain expertises get credibility and legitimacy instead of trying to identify the substantive ground of "real" expertise. We feel confirmed by recent approaches in the social sciences locating expertise at the "interface" of (specialized) knowledge and decision-making ([Eyal and Medvetz, 2023: 5](#)). Following [Kuus \(2011: 277\)](#), "expertise [...] is not a thing but a social relation—not something that one has but something that one

uses or performs." Based on such a relational understanding of expertise, we suggest a geography of expertise to be developed at the intersection of three key deeply relational categories relevant for the performance of expertise: authority, trust and coalitions.

I Authority

Power is performed (or realized)—inter alia—through authority: "In contrast to coercion, a system of authority relies on voluntary submission, due to belief in its legitimacy" ([Brigstocke et al., 2021: 1358](#)). As pointed out above, (rational) knowledge has received an outstanding—legitimizing and authoritative—status in contemporary knowledge societies ([Stehr and Grundmann, 2010](#)). [Brigstocke et al. \(2021: 1359\)](#) define authority as a "relation of guidance that takes place between free actors and is performatively enacted by recognizing inequalities in access to truth, experience or objectivity" ([Brigstocke et al., 2021: 1359](#)). The conceptual similarity to the relational approach to expertise, as introduced above, is obvious. By considering the role of affects and (digital) technologies, [Brigstocke et al. \(2021\)](#) emphasize the necessity for extended geographical research on "infrastructures of expertise" ([Brigstocke et al., 2021: 1372](#)). The phenomenon of lay experts and digitally mediated expertise requires an engagement with the material side of technologies fundamentally contributing to the "capacity to affect and be affected" ([Ash, 2015: 84](#)). From this stance, authority (and charisma) of the (lay) expert results from and resides in a socio-technical assemblage of human and non-human actors. Without explicitly referring to the concept of lay expert(ise), digital geographers already explore digitally mediated (lay) authority. Taking the example of activists and citizens participating in the production of geodata-based services and cartographic projects, [Elwood and Leszczynski \(2013\)](#) discuss a "possible transition away from an expert-amateur binary" (556) and identify "different epistemological strategies for establishing the legitimacy and authority of knowledge claims" (544). Namely, exploratory, experiential and local knowledge of the contributors is accentuated as an indicator for credibility and

strategically de-coupled from “disciplinary cartographic rationalities” (Elwood and Leszczynski, 2013: 555). A further line of research concerns the material, technical side of digital platforms and its effects on the formation of expertise. Young (2019: 271; orig. emphasis) argues that the design of digital interfaces critically affects the “types of knowledge that are rendered *visible* and *authoritative*” and invites geographers to contribute to a “rigorous understanding of digital encounters across very different cultural and epistemological systems” (Young, 2019: 277).

2 Trust

A key factor for the performance of expertise and the constitution of the expert is trust (Stehr and Grundmann, 2010: 46), roughly defined as “the conviction that someone or something is reliable and/or truthful” (Rogers et al., 2013). Human geography has a long tradition in dealing with questions of trust (overview in Withers, 2018). On the one hand, respective studies highlight the role of physical proximity in generating interpersonal trust. For instance, face-to-face interaction (at least occasionally) is seen as a prerequisite for the establishment of trustful relations which, in turn, are believed to have beneficial effects as, for instance, the rich literature on economic clusters suggests (e.g., Dupuy and Torre, 2006). On the other hand, human geography (especially economic geography) developed a much more nuanced picture, differentiating, for instance, “personal,” “professional,” and “institutional trust” (Bathelt and Henn, 2014). This strand of literature explores trust as a key social mechanism to cope with (or: to reduce) uncertainties. One finding is that “with growing uncertainty of interaction [...] agents tend to communicate and meet more frequently” (Bathelt and Henn, 2014: 1420). In a study on the globalized consulting market, Glückler (2005: 1741) identified “network reputation” as a key mechanism for successful foreign market entry (also Glückler and Armbrüster, 2003). Recommendations by other clients served as substitute for not yet established personal trust (Glückler, 2005). How trust affects social relations is highly contextual. Besides interpersonal trust, “systemic trust,” understood as

more abstract expectations in “standards of expertise, rules and procedures” (Bachmann, 2001: 349; also Shapin, 1994), is regarded as fundamental for the functioning of societies. By acknowledging that (a) trust is a relational resource which is enacted in space and (b) the finding of remarkable cultural (and territorial) differences in the attribution of trust in knowledge claims (Jasanoff’s (2005) concept of “civic epistemology” is enlightening here), the relevance of a geography of expertise comes to the fore. For exploring expertise, trust is best operationalized as “credibility” (denoted “trustworthiness” by Withers, 2018). Thus, a geography of expertise needs to explore the performance of credibility in its multi-dimensionality as Withers convincingly argues:

“Trust rests in the knowledge claim itself (*what* is being argued or told us). Trust is consequential upon the informant and their motivation (*who* is telling us and *why* we should place our trust in them). We must be attentive to the means by which we place trust and trustworthiness in people by virtue of the things used to inscribe trust, such as words, numbers or instruments (*how* and *where* trust is embodied).” (Withers, 2018: 490; orig. emphasis)

Digital media and its influence on the performance of credibility is widely underexplored in geographical research and deserves much more consideration. The sections above illustrate an ironic reversal of once accepted “standards of expertise” (Bachmann, 2001: 349) that worked as a basis for (systemic) trust. Instead, the performance of laity and non-expertness becomes an ingredient of credibility in some social media spaces (Au and Eyal, 2022). Moreover, Bodó (2021: 2673) introduces the notion of “technology-mediated trust” to “address cases of digital technology indirectly transforming the established logics of trust production by (re)mediating those interaction where trust traditionally emerges.” An illustrative example of technology-mediated trust is the publication of (positive) user reviews on platform services (“trust by technology”; Bodó, 2021). The similarities to the concept of “network reputation” are obvious. The author also addresses “trust in technologies,” referring to the trustworthiness of the technology itself (e.g., (mis)trust in search

engines to display the most relevant answers) (Bodó, 2021). We argue that a geography of expertise needs to pay close attention to the digital technologies “used to inscribe trust” (Withers, 2018: 490).

3 Coalitions

Related to the concept of network reputation, we see a third dimension of (lay) expertise that deserves attention in geographical research under digital conditions: coalitions (see Allgaier, 2020). Conceptual starting point is—again—a relational perspective whereupon “the credibility of expertise stems from the strengths of the networks that actors are associated within the controversy” (Allgaier, 2020: 377). Particularly the concept of “ethno-epistemic assemblages” by Irwin and Michael (2003) provides the theoretical basis, arguing that societal disputes on “the right” expertise usually do not evolve along the lines of clear-cut differentiated actor groups (such as scientists and non-scientists) but in hybrid coalitions:

“These flows enable, and reflect, the emergence of particular blocs or groupings of actors that cut across scientific, commercial, civic, regulatory, media and lay sectors. It is these blocs or groupings that enter into controversy and contest the ‘truth’ and ‘value’ of various knowledge.” (Irwin and Michael, 2003: 112f.)

It is within such assemblages that knowledge claims are produced and (re)negotiated. By referring to the notion of “(de)territorialization” (Deleuze and Guattari, 1988), Irwin and Michael (2003: 120) reconstruct how social relations (e.g., the relation between science and society) are stabilized by “patterns and routines” (“territorialization”) and may “become scrambled so that novel relations emerge” (“deterritorialization”). Especially in social media research, the idea of “deterritorialization” serves as an analytical lens to explore “powerful configurations” emerging from the “rhizomatic” character of the internet (Beck, 2016). From a human geography perspective, Wiertz and Schopper (2019) contributed to this research area by illustrating the dissemination of knowledge claims in social media. While much attention has been given to the idea of the rhizome,

their research demonstrates how knowledge claims might circulate in much more narrow configurations/coalitions (“echochambers”). For a geography of expertise these insights are enlightening for exploring the rise and dissemination of various (counter) expertises we are currently experiencing. Moreover, algorithms need to be explicitly considered as “an ally” (Allgaier, 2020: 382) in emerging coalitions of expertise.

To sum up, authority, trust and coalitions build the cornerstones upon which knowledge claims are mobilized and get societal relevance. Currently, we see fundamental transformations in the constitution of these cornerstones that need to be addressed by a geography of expertise. From our point of view, an extension towards the analysis of non-human actors such as algorithms, artificial intelligence and digital interfaces is necessary (see also Hayles, 1999). Such technologies critically influence the formation and proliferation of knowledge claims. As for instance Wiertz and Schopper (2019) illustrate, claims do not spread homogeneously through virtual spaces. In line with Brigstocke et al. (2021: 1371), we see specific value in a topological perspective on the geographies of expertise emphasizing “shifting connections” and “dynamic relations and mobilities that cannot be contained by scaled spatial entities” (Lury et al., 2012: 5). According to Lury et al. (2012: 9), it is “the frames of mediation” which “have come to produce topological spaces.”

V Conclusion and discussion

In this paper, we delved into the social-scientific literature on expert(ise) and argued for a strong differentiation between *knowledge* and *expertise*, showing how these terms, as well as those of the *expert* and the *specialist*, have a tendency to be conflated in current debates. Drawing from a broad range of sources from the disciplines of geography, sociology, and STS, we traced discussions around the nature, production, dissemination and reception of both knowledge and expertise in order to interrogate the role of “the expert” in society. This discussion was prompted by the increased impact of lay actors’ expertise on public issues both in a digitalized

society more broadly, and in an era of multiple crises, specifically.

Especially in times of uncertainty, we expect “the expert” to assist decision-making processes by supplying the relevant “expertise” (Brinks and Ibert, 2023). Expert advice has become more important than ever but has also never been more contested and attacked (Brigstocke et al., 2021). The social-scientific literature reveals substantial differences in terms of concepts of experts and expertise, producing confusion and talking at cross purposes. It is a great difference if scholars conceive of expertise as a real and substantive property of individuals (Collins and Evans, 2009) or as a relational category and product of interaction (Eyal, 2019; Grundmann, 2017). We argued in this paper for an understanding of expertise as an *assessment, potentially linked to actionable advice and rooted in one’s ascribed knowledge, intended for another to implement*. Thus, for expertise to exist, at least two persons are necessary (a sender and a receiver of a knowledge claim). Certified, professionalized or institutionalized expertise are regarded as types of expertise but the latter is not restricted to these. The main analytical consequence of such an understanding is that the *content* of expertise is not the object of investigation but its *performance* and *circulation* which require to deal with questions of authority and trust as well as the formation of hybrid coalitions enabling the formation and dissemination of expertise.

From our point of view, such an understanding of expertise increases its clarity as a social-scientific concept. However, we are well aware that our definition also produces concerns and criticism. When expertise is essentially constituted by the mediation of (not necessarily science-based) knowledge claims to an audience and receiving credibility by that audience, we cannot avoid thinking about the fine line to alternative facts and populism (Collins et al., 2023; Eyal and Medvetz, 2023). Indeed, one of the most pressing issues, especially when exploring the phenomenon of lay expertise in the digital sphere, is the confrontation with a variety of knowledge claims, from proponents of flat earth theory (Landrum et al., 2021) to, for example, people sharing practical hints for saving energy costs. Should such heterogeneous fields be treated as just different examples of the

same phenomenon: “lay expertise”? Digitization widens the scope of expertise which becomes more diverse and heterogeneous. It would be naive to suggest that lay experts and lay expertise are inevitably positive phenomena in the sense of a democratization of expertise. However, it would be equally unfair to discredit any form of uncertified expertise automatically as unworthy to be heard and considered in questions of societal relevance. Here, we argue, especially long-term engagement with a topic and/or experiential knowledge bears potential for differentiating between (lay) expertise and sheer assertions. It is a difference if people engage in a practice for many years and acquire experience-based knowledge or simply make assertions on whatever happens to be the latest “hot topic.” Of course, even long-term engagement does not guarantee the soundness of an argument, let alone advice. However, such a differentiation would be a first step to explore the heterogeneous field of claims and advices from uncertified sources which has gained new relevance in times of digital media. By following Stehr and Grundmann (2010: 77), we see great potential in a research program on expertise focusing on explaining the “cultural acceptance” of certain knowledge claims instead of evaluating the substance of that claims.

Human geography has a lot to contribute to exploring expertise which is not “free-floating” (Kuus, 2021: 1342) but situated in time and space. Expertise refers to specific situations of uncertainty and is, as such, embedded in time. Expertise also unfolds in space. The relational conceptualization of expertise already suggests a network or rather a topological perspective for analysis. We concur with authors such as Prince (2010) and Eyal (2013, 2019) seeing expertise as “distributed” among human and non-human actors being (temporarily) “assembled.” While we can observe and experience many situations of performing expertise in our daily lives (e.g., when we consult a medical professional), the formation of expertise in societal and political controversies is of particular relevance in the social sciences. From STS literature, we can learn that expertise is enacted in an assemblage, composed of different actors from various fields, by no means restricted to certified experts (e.g., scientists) (Irwin

and Michael, 2003; Jasanoff, 2005). Expertise is a “form of politically dealing with a problem” [“eine Form der politischen Problembearbeitung”] (Kumkar, 2022: 126; German in orig.). Thus, it is not a one-to-one transfer of (scientific) knowledge to the public and politics (Grundmann, 2017).

We see specific value in digital geography for exploring the contribution of technology in performing expertise and connecting different actors. Current research provides intriguing insights of how digital interfaces contribute to generating trust (Bodó, 2021), authority and credibility (e.g., Elwood and Leszczynski, 2013; Young, 2019). Even though the connecting capacities of digital media (especially “social media”) are well known in general (Van Dijck, 2013), the variety of configurations of digital spaces (e.g., rhizomatic or encapsulated/isolated structures; Beck, 2016; Wiertz and Schopper, 2019) and their consequences for the occurrence and dominant circulation of certain expertises (in hybrid coalitions) are still under-researched. The recent public and social-scientific debate on the constitution of experts demonstrates the necessity to re-embed expertise in theory in order to make it a useful analytical concept for empirical investigation as well as to focus on the geography of performing expertise.

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