Spatial troubles with teaching under COVID-19

Theodore R. Schatzki

Abstract: This essay explores the multifaceted underpinning that spaces provide to social affairs, in particular, educating. It does this by examining a particular episode, involving spaces of educating, that reveals this support through its undermining: the sudden rushes to home and online teaching that university instructors in the US underwent in the spring of 2020. Part one of the essay outlines a practice theoretical account of the spaces of social life according to which there are three principal spaces of sociality: material spaces, activity spatialities, and places. The discussion compares this account to educational literature interested in the significance of space for education, contrasts it with a rival ontological viewpoint found in this literature, and concludes with a sketch of the evolving ecology of education bundles. Part Two then uses this account to diagnose spatial challenges that instructors faced that spring when they suddenly found themselves at home teaching. The contrast between what happened then and normal educating at universities makes clear just how crucial diverse spatial features of social life can be to the successful carrying on of education practices. The conclusion points out that this episode also affirms that one form of continuing education for educators is becoming conscious of, better appreciating, and acting on things they already know.

Key words: social spaces, social practices, teaching under Covid-19, spatial problems

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This essay is ultimately about the significance of space for social affairs . It approaches this topic by focusing on the relationship "between built spaces and practices of educating." (CFP 2020) This topic is broad. Consequently, I will discuss this relationship by analyzing a particular social episode in which it figures. The episode concerned is the simultaneous madcap dashes to home and to online educating that U.S. university instructors made in March 2020 as SARS-CoV-2 spread across the country. I choose this episode in light of the oft-cited adage that crises are good at revealing extant structures and the roles they play in social life. This particular crisis reveals, among other things (e.g., large health disparities between whites and people of color in the US), just how far stable social phenomena rest on settled spatial set-ups. My analysis, moreover, conceptualizes the spaces of social life as the spaces of bundles of practices and material arrangements. This is because social life, I have argued (Schatzki 2002), inherently transpires as part of such bundles. Working with this conception reveals that both the spatial features of bundles on which effective teaching relies are more multiple than might at first be apparent.

The suggestive quality of this episode, the fact that examining it points at larger truths, is tied to the structure of the investigation. I begin by outlining a theoretical account of the spatial dimensions of social life (see Schatzki 2002). I then use this account to diagnose spatial dimensions of the challenges that American university educators faced that spring: the ways the spaces of new workplaces at home intersected with practices of educating to throw up challenges, with which educators eventually coped. This analysis reveals how important spaces had been all along as university instructors, pre-COVID, educated students at universities and how crucial diverse spatial features of bundles are to effective teaching.

1. Practice ontology spaces

The account of social life that I have defended elsewhere (e.g., Schatzki 2002, 2010) belongs to a family of accounts known as "practice theory." Accounts of this sort make practices central to the analysis of social affairs. Space limitations preclude engaging here with theories of practices generally (or with social theoretical ontologies more broadly). As a result, the current section simply presents my own ideas about practices and their spaces. All I will say about the wider field of such theories is that they affirm three theses beyond the centrality of practices: (1) that multiple practices exist, (2) that practices connect and, as connected, form wider complexes and constellations, and (3) that some practical capacity—habitus, practical consciousness, knowing how to go on, skills, practical understanding etc.—underlies human activity. These propositions are affirmed in the work of theorists as varied as Pierre Bourdieu, Anthony Giddens, Silvia Gherardi, Jean Lave, Andreas Reckwitz, Elizabeth Shove, Stephen Kemmis, and others.

Practices are open-ended collections of organised human activities. Different theories of practices conceptualise activities and what organises them differently. My own account—on which I here focus—holds that activities are performances of action that befall people and that what organises a set of activities as a practice is a pool of understandings, teleoaffectivities, and rules, varying combinations of which are realised in the individual activities involved. Activities, moreover, come in two basic varieties, doings and sayings, where sayings are doings that say something about something. Uttering intelligible combinations of words is the paradigm form of saying. Finally, understandings, teleoaffectivities, and rules form pools by virtue of (1) their hanging together, (2) cross-references among them, and (3) the existence of a common set of concepts drawn on in composing or formulating them. I realise that this lightening quick

overview of my account might be too quick to be completely intelligible to all readers. Luckily, the nature of practices is not crucial to the following.

What does matter is how the theory treats the material dimension of social life. All theories of practices attend to this dimension. Whereas some practice theories treat material entities as elements of practices (e.g., Reckwitz 2002; Shove, Pantzar, and Watson 2012), others treat material entities as distinct from though closely tied to practices. My own account treats material things, events, and processes as distinct from the open-ended sets of activities that are practices. Moreover, by a 'material' thing I mean a thing with a physical-chemical composition, and by 'material' events and processes I mean events and processes that happen to material things by virtue of their physical-chemical composition. As noted, material things, events, and processes are tightly bound to practices. Not only do activities as performances happen to conscious living bodies, but activities and material arrangements are related to one another in a myriad of ways such as causally, prefiguratively, intentionally, through use, and as intelligible (see, e.g., Schatzki 2019). In fact, practices qua sets of activities, on the one hand, and arrangements of material entities together with the events and processes that occur to them on the other, are so closely related that on my view the central phenomenon in social life is, not practices, but practice-arrangement bundles. Bundles of practices and arrangements, meanwhile, form wider constellations. At universities, for example, practices of educating-practices of teaching, advising, mentoring, grading and the like-are bundled with the material arrangements that make up auditoriums, classrooms, offices, staircase landings, and the like. These multiple bundles of practices and arrangements interconnect as a particular constellation of educating. With time, the practices become regular and the arrangements appropriate. Something similar

holds of online teaching, except that in this case the bundled arrangements are simpler, fewer, and scattered in comparison to those bound up with educating in auditoriums and classrooms.

Constellations such as these exhibit three sorts of spatial features: physical spaces, activity spatialities, and places. Physical spaces are tied to the material nature of things and inherently characterise the configurations that material things form. It does not matter for present purposes whether such spaces are analyzed as devolving from positions in absolute space, as a matter of relations among material entities, or as clusters of coordinate assignments relative to frame of reference. However they are ultimately analyzed, I will construe the physical spaces of configurations of material entities as the physical distributions of the entities that make up the configuration relative to one another. Accordingly, the physical spaces of practicearrangement bundles are the relative physical distributions of the material things that make up the arrangements among which practices proceed. Note that human bodies are among the entities that at once are in and help determine physical spaces (this claim should not be equated with Husserl's and Merleau-Ponty's phenomenological thesis that the lived human body both constitutes and is an entity in lived space). Among other things, this fact indicates that practices are open-ended sets of events that befall entities of one of the sorts that compose material arrangements.

The second type of space is activity spatialities. Activity spatialities are arrays of places and paths that are distributed through the circumjacent environment through which people proceed. Anchored in material things, they are distributed through material space. A place in this context is a place to perform a particular activity (a place to X), for instance, a place to sleep, whereas a path is a route of egress between places. Human life is such that people, in their moment-to-moment existences, proceed through the world sensitive to the anchoring about them

of particular places and paths at particular entities. If someone is sleepy, for example, they might go lie down in bed. Which places and paths are anchored at which material entities depends partly on the ends people pursue. A kitchen table, for instance, might be a place to work on a lecture that needs finishing and later revert to being a place to eat dinner. The distribution of places and paths also depends on the normativised organizations of practices, which result in (a) various places and paths being acceptably and appropriately anchored at particular entities and (b) the activities that compose practices then upholding this distribution (e.g., a bed as a place to sleep is a normative feature of practices that people uphold by getting into bed when sleepy). Relativity to practices makes activity spatiality a very different entity than physical space. Whereas physical spaces are inherent features of arrangements of physical entities, activity spatialities are relative to practices and practitioners.

The third type of space is place, which I will distinguish from the sort of places that composes activity spatialities by referring to them as "encompassing" places. For present purposes, I will treat an encompassing place as a meaningful localised region, through which people proceed related to it as a whole (compare Tuan 1977; Massey 1994; Cresswell 2015). The region holds significance for the people for whom it is a place; it is localised in the sense of having a boundary, however vague or protean this might be (see Chaudhary 2020); and people bear some sort of relation to the region as a whole, ranging from thin connections such as having a name for it to intermediate connections such as a "sense of place" to thick connections such as deep emotional attachment or repulsion. Like activity spatialities, encompassing places are relative to practices and individuals. Just as different arrays of places and paths can be anchored via different practices and practitioners at the same material entities, so, too, can different encompassing places envelope one and the same geographical expanse (e.g., National Park land

as wilderness and as ancestral grounds, Spence 1996), in different practices or even for different participants in the same practices. Nonetheless, activity spatialities and encompassing places are just as much features of social life as physical spaces are. Not only might grasping any of them be pertinent to explaining what is going on in a particular episode of social life, but the deeper and fuller an understanding of social phenomena an investigator of social life aspires to, the more spaces of all three types must be grasped.

Spaces of all three types characterise constellations of practices and material arrangements. They also result from practices. Multiple kinds of "resulting from" are involved, including setting up, intervening in and changing, instituting, and being the object of human thought and activity. Mulcahy (2015, 511) says much the same about spaces of learning, where a space of learning is a physical space where learning is to take place. According to her, learning cannot take place apart from some space or other, and the organised activities through which learning occurs in schools are tied to the physical spatial organization of the latter. At the same time, practices "assemble spaces of learning:" a space is not a space of learning apart from the learning practices that occur there and that help set it up. Similarly, in my eyes, physical spaces are features of material arrangements that bear on—and are set up in—the practices carried out amid these arrangements, whereas activity spatialities are a normative dimension of practice-arrangement bundles tied to the particular practices and arrangements involved, and places are whole chunks of constellations of bundles to which people relate. All three are omnipresent features of social life.

As noted, spaces of these three types also characterise larger constellations of practicearrangement bundles. This is obviously true of physical spaces since the material arrangements that compose individual bundles link, thereby forming larger arrangements. The material

arrangements involved in university teaching, advising, administering, research, and lab work etc. connect with one another, sometimes by virtue of overlapping or contiguous elements and sometimes by virtue of hallways, entrances, plazas, paths, and the like. This overall arrangement is, in a sense, singular: one overall arrangement composing a constellation of bundles, different parts of it forming the arrangements that help compose particular bundles.

Activities spatialities and encompassing places are more multiple. Consider an office. It contains a singular (though malleable) material arrangement. But which places and paths are distributed through it depends on the practices carried out there, for instance, practices of research, advising, or cleaning. The mix might also evolve over time as different individuals occupy the office (this is also true of the material arrangements involved). This multiplicity ramifies over the entire complex of offices, classrooms, auditoriums, labs, hallways, plazas, and paths that make up a university. Indeed, as a general rule the more public a setting is the more multiple are the activity spatialities anchored there.

Something similar holds of encompassing places. Activity spaces tend to be confined to particular settings (as defined by physical structures serving as barriers to sight, sound, smell, and movement). Places, by contrast, can encompass multiple, indeed large numbers of settings. An office, for example, is likely to be a place for its occupant. But so, too, might be the complex of settings of the department or the large complex of settings of the university. The department and especially the university might also be encompassing places for students, as are likely their dormitories or certain campus eateries. Variation in these matters is in principle endless but in practice greatly narrowed by, among other things (e.g., biography and daily paths), the fact that people interact and enact joint actions (Blumer 1969) in carrying out common practices.

Relatedness and commonalities pick out particular constellations of practices and arrangements-and not others—as meaningful regions people live through relating to as wholes.

It is my view that physical space, activity spatiality, and encompassing place supplemented by the embodied space of activity—are all the conceptions of space needed to analyze social affairs. Although this asseveration conflicts with other accounts of social spaces, I will not defend it here. I am instead interested in discussing a narrower thesis, namely, that the existence of digital technology, and the difference it makes to the character and development of both human and social existence, do not require the postulation of such entities as cyber space or digital space (see Schatzki 2019). This narrower claim applies as much to online teaching (pace McGregor 2003 and Jamieson et al. 2000) as it does to consuming social media, making online purchases, watching a sporting event live on the computer, and offering goods for sale on Tor. Zoom meetings, MMORPGs, and cocktail hours in Gather do not take place in spaces adjacent to the world we exist in: they are just elaborate means through which people carry out certain practices and, among other things, interact with individuals and groups.

Conceptions of cyber or digital space can direct attention away from the fact that humans are always material creatures living material lives amid arrangements of material entities. This declaration does not imply that everything about human life is material. Among the things it does indicate, however, is that scholars and thinkers need to find ways of understanding digitality, and the differences that digital phenomena make to human life, that do not forsake this truth. Talk of digital space obfuscates what people encounter on the screens of their devices and how it shapes their lives, including their social lives and the bundles of practices and arrangements through which they proceed. As noted, what is accessed on device screens should not be treated as composing or populating a world, space, or place in any sense. What people

access by way of their screens are, instead, the sounds and graphics—the texts, representations, and images—that appear on these screens. These include myriad representations of space. These representations should not be treated as forming a type of space (pace Lefebvre 1991). It is more perspicuous to treat them as forming a type of representation since they contribute to the ordering of social life—in such activities as planning trips, playing MMORPGs, designing buildings, rendezvousing with friends, and exploring a city through augmented reality—in the ways that representations generally do. Most important, the texts, representations, and images that appear on screens, along with the devices and networks the screens are part of, mediate among individuals, and among the bundles in which they proceed, in fundamentally the same ways—though the details are potentially more complex—in which other text-, representation-, and image-bearing material entities do so, for example, scrolls, letters, books, movies, telegraph systems, runners, horse drawn mail wagons, and television broadcast networks.

The sketch of practice ontology spaces just provided both diverges from and has echoes in the work of education researchers who have examined the significance of space for teaching and learning. One key point of divergence is that too many education researchers treat space exclusively as physical space. This penchant is reflected in the fact that learning spaces are generally treated as physical spaces where learning is to take place (e.g., Mulcahy 2015; Byers, Imms, and Hartnell-Young 2018; Wood 2019). Architects and planners, too, when reflecting about schools and learning, have treated space as physical (e.g., Dudek 2000; Hertzberger 2008; Dovey and Fisher 2014). This common focus bespeaks the immense importance of the material world in social life. However, it is long past time in the human sciences to stop treating space exclusively as physical space. Not to stop is to miss that ongoing lived-through human

directedness into the world is relevant to understanding activities, practices, and social phenomena.

Phenomenology's attention to active lived experience has been the source of additional fruitful conceptions of space such as encompassing place and what I am calling 'activity spatialities' (both go back to Heidegger's (1974) account of the spatiality of being-in-the-world). Both are contexts (amid-whiches) of the human lived-through directedness in the world that transpires in the activities that compose practices. They are not, however, subjective phenomena. Rather, they are social: common, shared, and derivative of people's lives together. Although, moreover, phenomenologists have sometimes prioritised these alternative spaces over physical space, for the purpose of theorizing social life they and physical space can be treated as complimentary.

Another contrast concerns ontology. The present essay draws on a practice theoretical ontology and describes the spaces that characterise constellations of practices and arrangements. Some educational researchers writing about space and educating/learning cite practices as a central component of social life (e.g., Mulcahy 2015; Blackmore et al. 2011). Mulcahy (507), moreover, suggests analyzing practices through sociality, materiality, and textuality, a characterization that converges with the conceptions of practices developed by theorists of practices. Still other theorists work with Etienne Wenger's notion of a community of practices. I am not sure whether these researchers equate practices with activities or treat them as organised activities. The current special issue, too, brings together researchers interested in how spaces of educating influence teachers' work and continuing education, who make practices—and the attendant sites (Schatzki 2002) or architectures (e.g., Kemmis et al. 2014) of practices—central to their theoretical framework.

Other education researchers draw on actor-network theory to analyze space and educating/learning (e.g., McGregor 2004; Mulcahy 2015; Dovey and Fisher 2014). The exceptional reductionism of this theory squeezes reality into networks composed of heterogenous actors, only some of whom are human. These networks resemble the material arrangements that I treat as helping to compose bundles and constellations. However, actor-network theory does not recognise practices as a context for actors and actions: all that exists are networks (of networks of networks...) of heterogenous actors. Actor network theories, moreover, have said relatively little about space (for one statement, see Law 2002). This is because the only spaces they can acknowledge are those that characterise or pertain to networks. When actors (of all sorts) are treated as material entities, distributions of material actors relative to one another in networks converge in character with the physical spaces of practice-arrangement constellations. If actors need not be material in character, their heterogeneity institutes a kind of abstract space: distributed multiplicities of entities of different sorts. Because actor-network theory does not privilege human actors over others, it is hard-pressed to recognise spaces such as activity spatialities and encompassing places that are inherently connected to lived human experience. This limitation then carries over to accounts of space and educating/learning that are based on actor-network theory.

The final item I would like to address before turning to spring 2020 Covid-19 teaching troubles concerns the interconnectedness of practice-arrangement bundles. As noted, bundles are part of larger constellations of bundles. Any large social phenomenon (e.g., a university or a school system), and any sector of social life (e.g., education), consists in such a constellation. Not surprisingly, what goes on and how things change in individual practice-arrangement bundles, and as well as in constellations thereof, often depend on what goes on and how things

change in other bundles and constellations to which it is connected. Indeed, the stability and hitchless carrying on of practices in particular bundles and constellations typically depends on the existence of, and various activities and events that take place in, other bundles and complexes to which the former are connected. These other bundles and constellations can provide physical, cultural, and organizational support among other things. In Kemmis' terms (e.g., Kemmis et al. 2014), they "hold practices in place."

For example, teaching in a classroom or an auditorium, like the particular layout there of places to lecture, take notes, and chat with students etc., depends, not just on the material arrangement in the room, but also on the presence of AV people down the hall and the proximity of bathrooms in case of emergency, as well as on the existence of libraries where reading material for the class is housed. It likewise depends on the provision of electricity to keep lights and devices operating and of heating and air conditioning to maintain room temperatures favorable to educating and learning. Teaching and place-path arrays depend, further, on the isolation of the educating space, which is effected by walls and doors and by signs instructing students not to enter until the previous class is concluded. The classroom or auditorium, moreover, might form an encompassing place for the instructor and students in a given course, namely, the place where the course takes place. The existence of any such place similarly depends on the existence elsewhere of other encompassing places, for instance, places for students to congregate and to get food. It depends on this wider array because the effective existence of distinct places for educating depends on the consignment of practices of different sorts to different locations in the overall nexus of material arrangements.

In this way, the practice-arrangement bundles of education form an evolving ecology (on ecology, see Radloff 1998). It is an ecology due to extensive interdependence among bundles,

and it evolves in the sense of changing over time. Kemmis (e.g., Kemmis et al. 2014) captures the interdependence involved with the notion of practice architectures: the cultural-discursive, material-economic, and social-political arrangements and set-ups that hold practices in place. I treat evolving ecologies also as spatial phenomena: the different components of an ecology, including the activity spatialities and encompassing places involved, are distributed across the broader landscape of material arrangements. The ecological character of educating and learning is obvious once pointed out. Nonetheless, it usually goes unnoted. Until something goes wrong.

2. Spatial troubles with educating under Covid-19

My discussion of the multiple spatial dimensions of the challenges that university teachers faced during the reign of Covid-19 concerns the challenges they faced in the spring of 2020 in the United States when, midsemester, universities suddenly terminated in-person teaching and sent everyone home. It might be that this or that point also applies to challenges the subsequent fall. But what distinguishes that spring in the US from the following fall in the US (and elsewhere) is that it was a crisis: the shut down and rush home occurred precipitously and without clear warning, and classes suddenly had to continue electronically. Most instructors were unprepared for this switch. By contrast, teaching the following fall, however reinvented, time-consuming, and challenging it might have been, did not amount to a crisis. Instructors had plenty of warning to establish desired home teaching spaces and to organize the educating practices they carried out at home, and at least most institutions provided training. I concentrate on the period of crisis because, as noted, crises have a knack of revealing structures that are unattended to until the crises occur. The multiple spatial dimensions of educators' challenges

point at such structures, which are also, it so happens, fundamental to practices and bundles of educating broadly.

My focus on space, moreover, does not imply that difficulties of other sorts were not also present. For example, endless problems were caused by inadequate, nonfunctioning, or nonexistent electronic devices and broadband connections. Instructor competence, moreover, always mediates what goes on in education bundles (see Byers, Imms, and Hartnell-Young 2018, 157), and many if not most US university instructors lacked the know-how and preparation to teach online, let alone suddenly. (Of course, some instructors—including those at institutions like the University of New England or the Western Governors University—had considerable knowledge in this arena.) For most, the precipitous switch became an exercise in taking easy, minimally acceptable steps to keep courses going. Such measures required at least a little instructor re-education, but they are not the principal focus.

Spatial problems with educating are sometimes acknowledged in the literature. Usually, however, the spaces concerned are physical spaces, and the problems involved connect to the different ways that physical spaces can constrain or enable practices (e.g., Jamieson et al. 2000; Wood 2019). Problems of this sort concern how the surface qualities, hard forms, obstacles to sight and hearing, locations within or beyond earshot and view, directional orientations, relative positionings, and the like that are established by arrangements of physical entities put obstacles in the way of, or give free rein to, the pursuit of this or that educational activity or practice. Byers, Imms, and Hartnell-Young (2015, 161, 163), for instance, identify three ways that changed configurations of (physical) space can pose problems: by challenging teachers' extant practices, by supplying changed affordances, and by enabling or hindering different learning practices. These are important problems to which teachers, administrators, architects, designers,

and even students pay attention (see Fisher 2018). I should add, incidentally, that elsewhere I have argued that the notion of enablement/constraint must be expanded into the notion of prefiguration—for the present bears on the future in more ways than simply opening or foreclosing what is possible. On my view, the issue is less how material arrangements such as those found at schools enable and constrain practices and more how they make practices easy or more difficult, more or less time-consuming, more or less expensive, and so on.

The first spatial trouble I will address resembles this common concern. It is the absence—especially at first—of adequate supporting arrangements, that is, adequate physical spaces in which to run courses from home. Anyone who participated in a Zoom meeting with colleagues in the spring of 2020 saw them sitting in all sort of locations evidently commandeered to serve as electronic educational hubs. Dining room tables, living room chairs, back porches, attic cubbyholes, bedroom corners, and more suddenly became material arrangements for educating (or the center points of such arrangements). Environs not set up with educating practices in mind suddenly had to accommodate them, and hurried ad hoc transformations of those settings sometimes had only passable results. The inadequacy of these arrangements-spaces expressed itself in such matters as things being missing and getting in the way, in the need for instructors constantly to rearrange things, and in instructors' desperation to find more permanent arrangements that were easier to use and more suitable for educating.

This state of affairs can be contrasted with normal educating bundles, the material dimension of which is intentionally set up by a series of people carrying on different practices (e.g., architects, builders, technicians, occupants). Consider, for example, the black square that Mulcahy (2015, 507-8) describes in an Australian primary school classroom. The black square is where students gather when the entire class is to be taught as a group. It is an intentionally set up

material arrangement that anchors an encompassing place where particular practices are carried out. The material arrangements that are part of higher education bundles are generally of this sort (though, of course, some arrangements are open to spontaneous rearrangement by instructors, students, and administrators). Think, for instance, of the layout of a classroom or auditorium. The functionality and reliability of these arrangements-spaces contrasts with the often unplanned and ad hoc and sometime fragile material arrangements-spaces at home amid which instructors that spring initially struggled to teach online.

Another spatial issue concerned the inflexibility of many material arrangements-spaces at home. As just suggested, home educating arrangements-spaces were often circumstantial or thrown together. In all cases, however, a computer—or tablet—formed the centerpiece of the arrangement; everything else was arrayed relative to it. The computer was irreplaceable since online educating can be carried out only through computers. The resulting constriction of educating practices and teaching techniques—the shape of which varied among universities and also depended on individual instructor's knowledge—straightjacketed educating. Contrast this situation with the spatial multiplicity and also increasing flexibility of classrooms and even auditoriums at universities (e.g., Teal classrooms). Instructors use computers in classrooms, too. But much that they can do there does not require computers, including walking about and professing. Classrooms and auditoriums also embrace multiple spaces and facilitate the establishment of community. This basis of community is missing in online education, and community must be created elsewise.

According to Bernstein, pedagogic practices have two levels: instructors first organise interactions among their students on the basis of their understanding of pedagogical discourse and "then order the physical space and the objects in ways that accommodate the required

interactions" (Jacklin 2004, 383). That spring, it was, if anything, the other way around. Instructors had no choice but to work at material arrangements centered on a computer: the material space of educating was established for them. This space, together with what they knew about online education, then prefigured the educational choices they could make. Of course, many instructors do not avail themselves of the multiple spaces and flexible arrangements found in classrooms and auditoriums. And some instructors that spring knew quite a bit about online teaching practices prior to the crisis. This neglect and knowledge, however, do not gainsay the challenges most instructors faced in the restricted spaces they occupied.

Let us dwell a bit longer on the constricted material arrangement-spaces in which instructors operated. In these arrangement-spaces, objects were arrayed and places as well as paths anchored relative to a computer. A curious feature of today's world is that multiple practices are carried out at such computer-centered arrangements. Computers today are sites where people carry out consumer practices, gaming practices, practices of citisenry, entertainment practices, communication practices, organizing practices, and so on. In each of these practices, computers, and maybe other material entities arrayed around them as well, anchor a set of places and maybe also an encompassing place, for instance, the place to carry on that practice. Paths, moreover, are missing. A computer on a desk or in one's lap anchors multiple activity spatialities and encompassing places, among which a person can switch without need of perambulation. This is already a change for many people since, previously, different practices were often carried out in different locations. The sudden move online that spring only complicated this coincidence. For an additional set of places was overlaid on the coincident activity spatialities already found there, further densifying the location and dramatically contributing to pinning participants in their seats. Of course, in recent decades increasing

numbers of people, working in different professions, have been riveted in front of computers. What is different about the present case is that home computers had already long been the site of multiple practices, and the rush home added educating practices to the coincidence, in some cases displacing other spatialities or destabilizing them. This discombobulation further deviated from the similar coincidence in instructors' school offices because the practices and needs of other family members were part of the mix.

Under classic Taylorism, production is broken into tasks, and the tasks distributed spatially. The product is assembled step by step as it passes from spatial station to spatial station where workers perform their jobs. Production, consequently, is streamed past the individual worker. The worker remains riveted in place and performs the same operation repeatedly. Today, increasing numbers of workers are stationary once again. But this time they are not performing a single function. Rather, they are carrying on multiple practices at arrangements centered on computers. Computers enable more and more of the total range of practices that people carry out over their day to be carried out at particular arrangements where they toil alone (regardless of how many other people might be working in the same room or building in a similar situation). Driving people from their workplaces, Covid-19 moved this development into the home, where people work and carry on a range of other practices at singular computer-centered arrangements.

Fisher (2005) describes five principles of learning space design. These are (1) types of spaces/spatial qualities that support individuals in self-directed learning, (2) types of spaces/spatial qualities that support groups, (3) types of spaces/spatial qualities that support specific activities, (4) types of spaces/spatial qualities that support activity that should not be isolated from students.

Another way of describing the development I just pointed to is to say that under Covid these five principles were compressed into the same physical arrangement-spaces. On campus, the principles can be spread out across different arrangement-spaces that are often built to realise them. Distinct activity spaces are instituted, and encompassing places to carry on this and that practice can develop or be established, at the disparate physical arrangement-spaces on campus involved. At home, by contrast, there is only one space for these multiple principles and practices. The effect, furthermore, of this compression was not that, at home, one and the same physical space hosted multiple places, each associated with a given principle or set of practices carried out there (consuming, organizing, educating etc.). More likely, this surfeit of principles and practices resulted in *no encompassing place(s)* being established at this arrangement-space. No distinct meaningful region to which instructors related as a whole likely emerged from this cacophony. And if one did, it was the place where "lots goes on."

For many instructors, their offices are encompassing places. These settings form meaningful regions, bearing a distinct array of places and paths, to which instructors relate as a whole: my office. This might also be true of departmental meeting rooms as well as the classrooms and auditoriums where people teach. Of course, these things might not be true. An instructor's office might just be a physical location she reluctantly visits, and she might barely pay attention to where she teaches. In the spring of 2020, moreover, these things were often not true of the material arrangements at home where many instructors educated: these arrangements might have constituted the physical spaces where people taught, but these arrangements did not house encompassing places of educating. Too ad hoc, too unlived-in, too transitory, too much an arrangement at which all manner of other practice were carried out and a surfeit of place-path arrays was anchored. It was hard for such spaces to acquire singular identities tied to how

instructors related to them as meaningful wholes, hard for such spaces to become something that instructors might identify with or distinguish themselves from.

One result was that the quality of teaching suffered. Many practices are such that people are more likely to carry them out well when there is an encompassing place to do so. Examples are practices of rehearsing, childrearing, knitting, and teaching. Other examples are practices that are carried out at arrangements set up to house them, e.g., practices of auto repair, cooking, scientific research, retail, and religious service. Such places need not be something to which a person has a deep emotional attachment. They could just have meaning as where a given practice is carried out. The existence of such places—like the existence of buildings (cf. Wood 2019, 6)—engenders, and is a component of, stable social states of affair. This thought, however, should not be overplayed. Some practices can be carried out well in all sorts of locales and in the absence of an encompassing place to do so. But I don't think educating is thus. University educating in the US undoubtedly suffered that last spring from a loss of encompassing place. Teaching ad hoc-ly in a location commandeered for the purpose, it was also hard for instructors to achieve what Hartmut Rosa calls "resonance" (Rosa 2019; see Hannah 2018, chapt. 5). Resonance is Rosa's term for a healthy, harmonious connection to a world that is felt to be meaningfully connected to oneself. This world is a "supportive, nourishing, warming, and responsive" one in which a person feels themself to be effective. A relation of resonance between an instructor and an encompassing place of educating is an "axis" around which a generally rewarding relationship to the world can grow. Resonance of this sort was missing that fateful spring when instructors set up at home wherever they could: educating at home was too often what Rosa calls a "resonance desert." Anchoring a temporary ad hoc cacophony of

possible activity spatialities, the material arrangements never had a chance to coalesce as a place where resonance could emerge.

One mark of the absences of encompassing place and of resonance was a particular mismatch between the practices of educating and the material arrangements where they were carried out. All practices have certain rhythms (Lefebvre 2004) that those proficient in them master. These rhythms mesh with the affordances and constraints of the material and technical environment in which the practices are carried on (Jacklin 2004, 386-7). In the spring of 2020, familiar university practices of educating could not mesh with the material locations at home. New online practices had to be adapted. Unfortunately, the rhythms of these online practices failed to jibe with home arrangements of educating and the technical resources available there. The cacophony of these arrangements resisted the new practices taking hold. The result was the absence of reliable rhythms, which educators experienced as hecticness and an out of sync-ness. The material arrangements-spaces precluded the extension of familiar university educating practices to the home environment and obstructed their reconstruction or even reinvention there.

The final problem I want to consider is that the bundles that home educating was connected to, that is to say, the evolving ecology of bundles at home it was part of, did not adequately support it. I noted above that the successful pursuit of educating in classrooms and auditoriums depends on the existence of connected bundles, the isolation of the educating bundle from spatially proximate ones, and the establishment of the classroom or bundle as one encompassing place among many at the university. These supporting ecological ties were missing in the home ecology that educating was thrust into that spring. Instead of AV people down the hall, bathrooms around the corner, and the library a short distance away, family members were down the hall, the kitchen or bedroom lay around the corner, the ad hoc material

arrangement for educating might or might not have been isolatable, and both a location and an encompassing place of educating might not have easily fit into spatial arrangements at home. (This is deliberately not to mention all the non-"spatial ecological" features of family home life that made stitching teaching practices into it difficult.) Even if family members stayed as quiet as possible during class periods—and the dogs did not bark—the ecology was different. For there was no help coming from down the hall, and the major activity alternatives to preparing lecture did not include, as at school, such academic activities as conversing with a colleague or student or addressing some matter in the department office, but instead such nonacademic matters as doing a chore, working out a detail with a family member, and taking the dog for a walk. Moreover, after class concluded noise and distraction returned. Such an ecology was simply not as supportive of successful educating practices as the ecology at school, which had been set up to achieve this (among other things). Wood (2019, 4) observes that incoherences can arise among buildings, individual spaces, and both processes and persons within them. That spring incoherences gripped homes, home spaces of educating, the practices carried out there, and the persons involved; similar incoherences probably did not arise in connection to practices of cooking, child raising, game playing, cleaning, and the like. As noted, moreover, the end result was that encompassing places of educating only slowly established themselves at home.

Writers often claim that technological transformations in late Capitalism have brought about a surfeit of interruptions and distractions in daily life. While the creative destruction of capitalism, so the argument goes, results in constant changes to the social, economic, and cultural contexts of daily life, new technological media ensure that people—including instructors in their offices—are subjected to a barrage of "demands and solicitations" (Hannah 2018, 132). Although some people in the US escape or take effective measures against this potential

bombardment, quickly moving home that spring undoubtedly added to the barrage instructors faced since the range of interruptions and distractions to which they were open expanded—due to spatial changes—to include household ones mostly unknown at school. One interesting effect of this intensified peril of interruption was that interactions became simpler. Interactions, generally, have suffered under Covid-19. Instructors, for instance, thrive on informal interactions with one another, through which know-how is acquired, ideas gleaned, and identity as instructor strengthened. Informal interactions disappeared at a wink of an eye that spring (and remain largely absent up to present writing). Interactions among instructors instead took the form of scheduled electronic conferencing, above all, Zoom meetings. Zoom meetings are almost the opposite of informal conversation since in them only one, moreover public conversation can realistically take place (only the chat function can support multiple private exchanges of text-like messages). Interactions with students and other instructors also metamorphosed. The greater openness to distraction from the circumjacent environment that infected interacting with others from home led to a simplification of interactions. They became shorter, more to the point, with fewer asides (and without much of the physical movement that normally accompanies interaction). They also probably became less personable. Interactions evolved to fit the new ecology, and to whatever extent this trend has since reversed resulted in part from the relocation or reshaping of the material arrangements that support educating at home.

3. Conclusion

This essay has presented the outlines of an account of social space and used this account to identify spatial troubles with teaching in the spring of 2020 when instructors in the US were suddenly sent home. These troubles concerned inadequate or inappropriate physical spaces, the centering of the arrangements involved on computers, the coincidence of multiple activity spatialities at these arrangements and the way this obstructed the establishment of an encompassing place of educating there, and the fact that the evolving ecology of bundles into which home educating was suddenly inserted was not conducive to the smooth enactment of educating. These difficulties, however, did not arise out of nothing. Rather, they point at the way the converse states of affairs are central to educating as we have known it.

Stable and effective educating depends on the provision of adequate or appropriate physical spaces. Physical spaces must contribute to, or at least not obstruct, the attainment of educational goals and make it easy, inexpensive, and efficient for educators and students to implement the pedagogical practices and techniques they select. These spaces, moreover, must not be homogenuous or undermine the flexibility and multiplicity of practice and technique that are essential to good educating. Practices of educating must also be kept separate from those of other operations and anchored in arrangements whose appropriateness will foster the establishment of encompassing places of educating. This, in turn, will encourage excellent educating. Finally, educating bundles must be part of ecologies of bundles that support their mission.

My sense is that educators have known these facts all along; indeed, educators tacitly or intuitively know much about education bundles. Consequently, dealing with the spatial difficulties they faced that spring required less in the way of deliberate workplace learning and more in the way of acting on this dormant knowledge and intentionally shaping spaces of

educating at home. Educators also became wiser by virtue of consciously grasping and acting on this knowledge. Of course, instructors needed to explicitly learn other things in their new workplaces, for example, the use of new software and how to achieve course objectives in new ways. Still, one lesson suggested by this episode is that continuing learning can take the form of becoming conscious of, better appreciating, and acting on things one already, i.e., tacitly knows.

Space and place are essential to the sustenance and excellence of educating. Similar comments can be made about many other practices and about a decent amount of social life. The maintenance of many practice-arrangement bundles rests on settled, reliable spaces and places, not just physical arrangements-spaces but activity spatialities and encompassing places, too.ⁱ

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