This article is drawn from a larger project on the modern research university and its historical alternatives. The goal of the larger project is to understand the third and final phase of secularization, understood in a specific sense to mean the transfer of cultural reproduction, in particular education, from the purview of the church to the purview of the state.¹ The first phase was the seventeenth-century Scientific Revolution, during which natural philosophy arose to challenge the supremacy of Christian theology. The second was the eighteenth-century Enlightenment, when rationalist and empiricist methods and principles were extended to other domains of knowledge, from aesthetics to government to morality to economics. The third was the nineteenth-century movement, led by nation-states, to construct systems of public education, the culmination of a prolonged, tortuous effort to bring the benefits of Enlightenment to the people.

If the first two stages of secularization originally took hold in Italy, England, and France, Germany led the way into the third, as home to the world’s first comprehensive, integrated system of both higher and lower education. Wilhelm von Humboldt personified this educational revolution. The archetypical secular humanist, Humboldt, as chief of Prussia’s Department of Culture and Education from 1808 to 1810, shepherded Berlin’s research university, hundreds of secondary-level Gymnasia, and thousands of primary schools into existence. Humboldt was, however, an accidental revolutionary. He came late upon the scene, and his achievement consisted more in synthesizing a reform program from tried and tested pedagogical principles than in founding new institutions or
developing new theories. Several decades of educational experiments, many of them failures, had shown the way. This is why it is important to excavate the historical alternatives to the course of action his reforms ultimately institutionalized.

The subject of my talk today is one complex of such alternatives, the late eighteenth-century “popular Enlightenment” or *Volksaufklärung*. I will discuss three examples of popular Enlightenment, a printed book, a learned society, and a periodical, together denoting a much wider field of institutional experimentation. Each represented a different institutional solution to the problem of reforming society in line with Enlightenment ideology. Each employed different combinations of written and spoken communication to organize a diffuse but already half-enlightened stratum of mediators. Composed primarily of preachers, teachers, doctors, officials, and agriculturalists, this mediating intelligentsia was defined by its already-close contact with the as-yet-unenlightened common people.

In surveying their efforts, I’ll argue that the older institutional forms pioneered during secularization’s second, “Enlightened” stage, particularly the printed book and the learned society, proved unsuitable for the third stage, leading to the development of new institutions for the nineteenth century. The scientific disciplines comprised one group of these, and I’ll conclude with just a few words about how the scientific periodical, the principal written medium of disciplinary cohesion, fits in to this picture. But my main objective with respect to today’s panel is to map out rough changes in the terrain on which nineteenth-century scientific communication would spread.
I. The scholarly literature on the *Volksaufklärung* is dominated by its manifestations in print culture: the 1,500 works of popular Enlightenment published in German Central Europe before 1780, and the nearly 4,000 to appear over the next two decades alone. Of these, Rudolph Zacharias Becker’s *Need and Assistance Book for Peasants*, first published in 1788, was by far the most widely disseminated and imitated. It sold 150,000 copies in its first two editions and close to a million by 1811. Set in the mythical village of Mildheim, the 800-page advice manual was amply illustrated, clearly and simply written for a peasant audience, and chock full of useful information and moralizing anecdotes on how to live happily, get rich honorably, and deal with setback and misfortune. The *Need and Assistance Book* was in many ways the German analogue to Benjamin Franklin’s *Poor Richard’s Almanack*.

Becker wrote the book, he later claimed, not just to aid rustics but also to help scholars and professionals overcome their isolation from the people, communicate their knowledge, and contribute meaningfully to the common good. Its innovative manner of production and dissemination contributed as much to this objective as its popularizing form and content. Three years before publishing the *Need and Assistance Book*, Becker canvassed his potential readership by circulating a pilot project entitled *Attempt at the Enlightenment of the Rural Man*, outlining the plan and themes of the later work. He had already sent queries to various “experts” in the field soliciting useful facts, recipes, and suggestions for improvement. This yielded three sample chapters appended as teasers to the *Attempt*. Such shrewd marketing, besides allowing Becker to tailor successive versions to reader response, also secured a committed subscriber base assuring the financial success of the enterprise. Becker in fact required subscribers to the final edition
to order multiple copies—at least eight, and an average of 57 per person. Most of these acted not as private readers but as institutional subscribers, distributing free copies to various local clienteles. Analysis of subscriber lists shows that 21% of these were officials, 15% clergy, 15% professionals, 7% schoolteachers, and 11% noblemen (usually landowners and/or high officials), all of whom enjoyed a regular occupational connection to Becker’s true target audience.4

Becker’s subscriber lists provide a rough social portrait of Germany’s mediating intelligentsia and testify to its extraordinary demand for works of popular Enlightenment. To a great extent Becker himself brought this group to self-consciousness by penning one of the most talked-about books of the late eighteenth century. He even enlisted its members in a form of two-way communication atypical of the printed book as a genre, by retooling his published output from their handwritten feedback—but only once, and as a result of great personal effort and expense. Becker remains the exception proving the rule of the popular Enlightenment’s inefficacy more generally. As Becker himself admitted, the printed book was an ad hoc medium for targeting the people, not a regularized opportunity to communicate directly to them: “Given the current constitution of civil society, the popular book appears, if not the best, at least the simplest means of reaching the peasantry, and just about the only one that a private citizen can undertake.”5

Becker was a success, but only in the sense that his own book sold; none of his imitators or epigones even come close to the influence he had. And though we can presume his work was actually read and used with profit by the common man whom it targeted, Becker himself accomplished nothing, nor could he, to shape how the book was used. His written publication ultimately depended on the spoken mediation of those who
came into possession of the book and who, for their own reasons and motivations, brought it to the attention of their local constituencies.

II. The Moral-Economic Society of Ötting-Burghausen, my second example, aimed not only to galvanize a group of mediators but also to intensify their contacts with the wider populace. Founded in 1765, this learned society in rural Bavaria existed in three incarnations until its dissolution in 1802, first as a “Society of Polite Sciences” in Ötting, a famous Catholic pilgrimage site dedicated to the Virgin Mary; then as the “Agricultural Society of Electoral Bavaria,” relocated in 1772 to the nearby county seat of Burghausen; and finally as the “Palatine Society of Moral and Agricultural Sciences.”

The sequence of official titles is telling, reflecting an evolution from general to applied science and thence to moral, not just practical, education. This was typical of the broader academy movement that in Central Europe produced about 200 scientific, economic, and patriotic societies between 1760 and 1810, not only in larger cities like Hamburg, Berlin, and Zürich but also in rural, but Enlightenment-friendly enclaves like Celle, Ansbach-Bayreuth, and Lautern. In contrast to the latter, the Burghausen Society represents a limiting case: an attempt to adapt the institutional forms of gentlemanly science to one of the most provincial, least hospitable locales for popular Enlightenment in Germany.

The Burghausen Society’s activities centered on regular social gatherings, special festive convocations, and prepared talks. Debates over written statutes governing entry requirements, rules of order, and the scope of the organization’s intellectual mission reflected members’ anxiety to establish a semi-permeable barrier from the outside world.
and secure themselves against the decay of corporate cohesion. Such a hybrid sociability, buttressing the fluidity of speech with the fixity of writing, was not easily extensible to those outside the Society’s own membership. Thus its public lectures targeted, but seldom reached, a broader audience of local farmers, especially when formal academic discourses on mathematics, moral philosophy, and natural history stood high on the agenda.

Networks of handwritten communication enjoyed wider scope but even less resonance than the spoken word. Correspondence with other European academies bolstered the Society’s sense of participation in international research, but, to the chagrin of many members, even the nearby Academy of Science in Munich rebuffed many of its overtures. On the local level, prize essay contests often failed to generate the hoped-for volume of submissions, the prize in one case, a competition for proposals to improve the grain trade, going to a member of the selection committee itself.

The Burghausen Society’s communication with the outside world was thus restricted mainly to print culture, and it did enjoy considerable success in its publishing ventures. Numerous reports and expert opinions in applied agricultural science, on how to prevent epidemics, apply dung, grow clover, and the like found their way into the pages of regional newspapers and local announcement bulletins. Even with the assistance of the Bavarian state, however, campaigns to drum up subscribers for Society publications met with indifference and downright truculence from subaltern local officials unwilling to foot the costs themselves.

Proposals for more ambitious undertaking foundered for lack of both popular interest and state support. As the Burghausen Society became a magnet for dreamers and
project-makers, plans proliferated to buy land for experimental farms manned by convicts and deserters and to set up cameralist academies, rural schools, and agricultural institutes.¹³ Such schemes were as practically unworkable as they were institutionally creative. The only similar project that, elsewhere in Germany, combined practicability with an appeal to the Enlightened imagination was beekeeping: a cheap, profitable side-venture popular among farmers, requiring nothing from the state, and indeed providing a living demonstration of spontaneous self-organization and industriousness.¹⁴

From the outset, the Burghausen Society’s success was hindered by inherent ambiguities in its institutional mission: pure versus applied endeavor, international research versus local improvement, voluntary association versus state tutelage, deliberation versus action. But its most fundamental limitation was one it shared with of the eighteenth-century learned academy generally: its core sociability revolved around speech, but virtually all of its communication with wider publics was filtered through the written word. The Burghausen Society cultivated a regular, active, face-to-face sociability among its members, binding them much more tightly than printed works like Becker’s, which reached isolated subscribers, and then only sporadically. But by the same token, its field of influence was too concentrated, by locality and by social class, to enjoy the support among either state or populace.

III. The intelligence gazette for the county of Lippe, my final illustration, assumed precisely the inverse institutional form and enjoyed much greater success as a result. As a printed medium, it lacked physical presence, but its subscribers by and large worked on the ground and in the trenches, in direct oral contact with their charges. A regional
bulletin board in the form of a weekly newspaper, the gazette reached local officials and other mediating intellectuals widely scattered over the Westphalian principality’s compact territory. Only a small editorial staff and an established print shop in the town of Lemgo provided the bricks and mortar. In this respect it resembled Becker’s *Need and Assistance Book*, the crucial difference being periodicity: readers could, and did, respond to articles in the gazette and contribute their own essays, observations, and expert opinions to subsequent issues. A running discussion on improving the peasant diet, for example, featured a local official’s complaint that he had met up against recalcitrance and obstinate traditionalism when, in response to an article he had read in the gazette, he talked up new uses for salt.¹⁵

The *Lippisches Intelligenzblatt*, founded in 1767, belonged to the single most important medium of printed communication of the eighteenth century besides the book itself. The gazette’s historian counts 160 similar enterprises in Central Europe, which by 1800 enjoyed a combined circulation of over 100,000 copies.¹⁶ Reckoning ten readers per copy, a conservative multiplier among press historians, these reached over a million pairs of eyes. Such a reach dwarfs that of Germany’s scholarly journals and learned newspapers. Academic periodicals like the *Allgemeine Literatur-Zeitung* often attached intelligence gazettes to their pages carrying items like book reviews and university lecture catalogs. But these were the tip of the iceberg. Gazettes enjoyed a genuine appeal among all classes as a forum for the exchange of useful information from grain prices to weather forecasts, to notices of auctions and land sales.¹⁷

Enlightened states like Lippe acted as midwives to this market, subsidizing gazettes carrying moralizing essays and practical recommendations on agricultural
techniques, hygiene, and householding à la Rudolph Becker. In contrast to Ötting-Burghausen, a relative consensus obtained in favor of popular Enlightenment among central and local government officials, including, crucially, the clergy.\(^{18}\) Projects that in Bavaria would have foundered for lack of coordinated initiative enjoyed much wider assent in Lippe. So, for example, when the government proposed to require teachers to subscribe to the gazette and use it as a lesson book in their classrooms, it was able at the same time to convince its editors and contributors to shift the gazette’s content away from academic treatises and in favor of more practical and accessible articles. Schoolmasters and the clerical Konsistorium responded enthusiastically by taking out bulk subscriptions, and the state did its part by subsidizing their cost.\(^{19}\)

Germany’s federated political structure encouraged its smallest and least significant states to subspecialize in Enlightenment projects: architecture in Karlsruhe, literature in Weimar, mercenary warfare in Hessia, education in Dessau—and in Lippe.\(^{20}\) The principality was small enough that personal connections among the mediating intelligentsia supplied cultural cohesion, but large enough to need—and profit from—the economies of scale provided by a printed medium. Compact scale was indeed the key factor making broad-based and deep-seated support possible for the Lippisches Intelligenzblatt and for allied projects such as folk calendars, reading clubs, primary and secondary schools, and teacher-training seminars. The absence of a university, learned academy, or other center of intellectual sociability in the principality only made it more fitting that a periodical written medium should emerge to give spatially dispersed practitioners of popular Enlightenment the impetus to practice their tutelary craft.
The contrast with the nineteenth-century scientific periodical is striking. Its specialization and fragmentation marked an abandonment of the intelligence gazette’s encyclopedism. While the Lippisches Intelligenzblatt constituted a running playbook for a dramatic, quixotic project of popular Enlightenment, the scientific periodical emerged to unite islands of intellectuals and scientists physically dispersed in Europe’s various intellectual centers. After nation-states (Prussia preeminently) took up where experimental enclaves like Lippe left off, the periodical truly came into its own, knitting together far-flung scientific communities increasingly segregated from the populace at large. By then, the mediators had changed, and with them, the nature of the mediation.

If, in my remarks today, I’ve neglected this moment of mediation to focus on the institutions the mediators populated, it’s because I want to draw contrasts with the our own modern educational and scientific establishment. Institutionally speaking, the end of the popular Enlightenment marked a twofold retreat from the dream of direct, unsupervised, tutelary contact with the people. The first and better known is the professionalization of the mediating intelligentsia, which ensconced doctors, lawyers, scientists, professors, schoolteachers, and others at the top of a graduated hierarchy of primary, secondary, and tertiary schooling. Again, Humboldt’s reforms serve as a convenient reference point for this process.

The second, lesser-appreciated shift made speech, rather than writing, the primary means of organizing the knowledge generated since the Enlightenment. The printed book, the academic “Proceedings,” and the intelligence gazette gave way to the lecture hall, the seminar room, and the laboratory as the chief sites where disciplines formed during the
1800s. In the academic disciplines, Wissenschaft was constituted by removing Enlightenment from the fields, the pubs, and the town halls and immuring it in the research university. A full account of this shift would reconstruct the traces of spoken mediation to parallel the story about writing I’ve sketched today. It might begin with A.H. Francke’s laboratory school at Glaucha and Pestalozzi’s at Yverdon, pedagogical colonies like Dessau and Lippe, philology seminars for future Gymnasium teachers at Halle and Göttingen, and philosophy lectures at Königsberg and Jena.

Historians of science have long recognized the importance of spoken communication in the form of the tacit knowledge that transmits disciplinary expertise. They must now attend to this wider institutional field if they are to understand the properly scientific innovations that the nineteenth century brought. The fortunes of the scientific periodical are an apt place to begin.

Becker, *Versuch*, 56 [= p. 82*].


Huneke, *Die Lippischen Intelligenzblätter*, 49, 196.


I do, however, treat this issue extensively, albeit in a different context (the growth of civil society within the bureaucratic state through written communication) in *The Emancipation of Writing*. 