Chapter 19. Looking Backwards Towards the Future

Søren Kierkegaard has been imprecisely quoted as saying, "Life can only be understood backwards; but it must be lived forwards."

Guessing the future, the world in which our students will live, is a fool's game. The future makes fools of us all because we need to live life forward but have only our past to rely on. Before we can even understand the past, life keeps pushing us into the future. The actual words of Kierkegaard taste of this anxiety, if not the tragedy. But perhaps it is a comedy of pratfalls as we keep trying to look backward while we are forced to step forward. Kierkegaard's actual words from his Journal (1843) in English translation are:

> It is quite true what philosophy says, that life must be understood backwards. But then one forgets the other principle, that it must be lived forward. Which principle, the more one thinks it through, ends exactly with temporal life never being able to be properly understood, precisely because I can at no instant find complete rest to adopt the position: backward. (Cappelørn et al., 2008, p. 179)

Born almost eight decades ago, I am especially aware that I am a creature of the past, trying to live for today and tomorrow. I was formed in a world long ago, but still I must adapt and respond to the accelerating changes around me, unless I am to be left muttering in my beer. Moreover, I have studied the communicative worlds of the past to understand the invention and elaboration of literacies to assist us in our current pedagogical work. Our students today, however, will live their lives and use their literacy skills throughout the 21st century, perhaps even into the 22nd. So we are pushed, dragged, and sucked ever more rapidly into a quickly evolving future, with barely time to look backward and even less to glance forward.

Writing with Technological Changes

For the first 40 years of my life, until 1985, practices of writing were much the same as they had been since the beginning of the 20th century, including practices at the university, despite a few curricular and genre changes. During this period, I learned to become a published scholar and writer and developed many of my approaches to teaching. During the next decade desktop computers changed the practices of many writers, myself included, facilitating drafting, revision, formatting, and multimedia. But much remained the same: People printed out the same documents in the same genres and transmitted them on paper. Computers worked their way into a few university classes, with some of the same effects on

writing processes and document design, but most writing at primary, secondary, or tertiary levels stayed much the same as before. Students wrote traditional essays on exams or at home for their classes, based on prompts from the teacher and submitted on paper, to be commented on, corrected, and graded.

But starting in the mid-1990s cheaper computers, mobile devices with writing capabilities, the internet, email, assistive technologies, cloud computing services like Google Workspace, and social media began to transform the possibilities of writing for people in many spheres of life and in many nations. These changes are likely to continue into the foreseeable future with consequences for the means of production and distribution, the social arrangements and uses for writing, and the proliferation of media that are seamlessly being integrated with the use of letters.

As a result of these changes people now write a lot more, and the balance between reading and writing has shifted. Deborah Brandt in *Literacy in American Lives* (2001) spanning much of the 20th century, found that most of her interviewees had happy associations with reading but most found writing unpleasant, evoking painful memories of school corrections, and did not do much writing in their current lives. Yet just a few years later, in her 2015 book *The Rise of Writing*, she found text production pervasive among all age groups and in many spheres of activity.

So after more than 30 years of rapid technological change in writing production and distribution, where are we left with writing? And where does writing seem to be going? Let's start with what valuable remains from the first 5,000 years of writing. We still rely on alphabets, patterns of syntax, genres, written records, written regulations, inscribed knowledge, and many spheres of activity that have evolved through millennia of literate communication. Systems of law, finance, commercial production, marketing and distribution, governance, scriptural religions, schooling, academics, philosophy, literary culture, and knowledge production along with their associated genres have evolved and continue. Practices of text organization, evaluation, and reasoning also continue, though with some additions and changes. Cultural practices of narratives, autobiography, trauma writing, fiction, poetry, journalism, scripted drama, and media productions all endure. Publishing and journalistic industries are struggling to find new business models, but their basic work continues. And most relevant for those of us in writing education, schooling continues and even expands, driven by the multiple societal needs for literate citizens and workers.

Much the Same

Although writing continued much the same during the 19th and first half of the 20th centuries despite the technological advances of telegraph, telephone, phonograph, movies, radio, and TV, these advances increased the need for more literates to work in the resulting industries. Only a few functions migrated to these early forms, such as brief informal messages by phone and movie entertainment. Dissemination of information, advertisement, news, political engagement, enduring

records, regulations, contracts, knowledge production and dissemination, and other functions remained largely in written form. And even many of the audio and graphic productions were scripted, transcribed, or recorded and maintained, giving them the permanence and reach of writing.

Within schooling, in addition to skills of handwriting, typing, spelling, grammar and syntax, certain genres evolved in relation to schooling practices, local cultures, and subject matter priorities. As students became more advanced, they were introduced to forms of reasoning, logic, use of evidence, argument, and intertextual relations to selected educational and library materials. Longer and more demanding texts were expected at the higher levels of education with more disciplinary specialization. Students were expected to produce disciplinary forms of argument, intertextuality, reasoning, and evidence. These longer forms of argument particularly became associated with the production and validation of knowledge within disciplinary publications. Postgraduate education and research careers became focused on the production of such documents along with the research activities that provided the data or substance of those publications. Thus, these longer forms of academic argument were highly prized and seen as the heart of the communal project of the advancement of knowledge.

These are the legacies of the print world, most of which continue to be valued (even if transformed) in our contemporary era, although they may be placed under stress by new possibilities and values enabled by technological changes. In the academic world this continuity may be most visibly seen in the continuing popularity of the pdf article as the main method of academic knowledge contribution and distribution (Owen, 2007), though pdfs may now embed more graphics, links, and other digital objects. This continuity in the face of so many new possibilities for production, form, and distribution suggests these continuing practices serve ongoing needs and structures of academic life and are not simply the nostalgic artifacts loved by dinosaurs like me.

The introduction of computing into secondary and higher education was uneven in the late decades of the 20th century, largely because of economic disparities. Where computing was introduced, however, the initial impact on education was on facilitating revision through ease of change, decreasing time and labor to produce and transform drafts, and facilitating sharing of drafts for peer and professorial feedback. Computing also made possible more use of multimedia and document design. Multimedia and greater control of document design excited a number of teachers and did have some consequences for tasks and instructions, but these remained mostly a niche set of potentials in schooling, more talked about than used, though multimedia did have greater impact on commercial worlds and the public sphere.

Much Different

In the last two decades, however, technology has proliferated in the classroom with the internet, search engines, learning management systems, smart mobile

devices, assistive technologies, social media, and cloud services. These developments have opened up new possibilities for the educational world, as catalogued in the recent volume *Digital Writing Technologies in Higher Education: Theory, Research, and Practice* (Kruse et al, 2023).

Seemingly mundanely, learning management systems (i.e., software platforms for use in educational settings) initially facilitated access to course information and materials, but they also had the potential for increasing interactivity among students as well as between students and professors. LMSs were to become integrated with other internet enabled tools, including asynchronous video lectures, forums, collaborative workspaces, assignment submission, feedback cycles, and interactive video classes. These added tools became central to distance education and became widespread during the Covid pandemic.

Mobile devices have put computing devices in the hands of many students and other people who would not otherwise have them. Even the simplest of these devices now has massively more computing power than the desktop models of the 1980s and 1990s. While this has not eliminated the digital divide, it puts more people in the middle of the accessibility spectrum.

Electronic communication and its associated tools are accessible to users everywhere and at every moment. This accessibility has proliferated messaging and other text-based productions as constant potentials and frequent activities. Everyday considerations for most people now include immediacy of written communication and response (in contrast to the slow time scales of sending letters or publishing articles and waiting for response, if any ever comes), explicit selection of audiences (or consequent dangers of uncontrolled recipients), and shaping of messages for context and audience. Because most people engage in messages with different degrees of informality and formality, genre distinctions, and a range of different consequences and responses, students potentially bring with them much rhetorical experience along with conscious awareness of the choices they make.

Further these mobile devices are deeply multimedia with cameras, videos, sound recording, and music built in. The affordances of multimodal composition are at the heart of several of the social media apps, like TikTok. Even what started out as word-based apps like Twitter or even email now may embed multimedia. Because students are likely to have had lots of experience viewing and producing for these multimedia social forums, they may have some knowledge of their associated tools and design principles.

The possibilities of production, even on small handheld devices, are greatly expanded by cloud tools, storage, and collaborative cloud workspaces. Composing and editing tools are readily available and often free in these workspaces, and the creator can move across platforms and programs readily, so what starts as a video or audio on a phone can be embedded, redesigned, and edited on a large screen. Collaborators can work closely, synchronously or asynchronously, with full transparency of contributions and discussion of possible choices. So more

complex, extended, and collaborative composing processes are supported, along with extended feedback and revision cycles.

Other kinds of assistive tools are increasingly embedded in the workspaces, not only the now familiar spell check and autocorrect, but also word choice suggestions, phrasal suggestions, voice to text and text to voice, and format templates. Text is now automatically generated to provide real-time reports of highly typified information and more extended Artificial Intelligence responses to prompts and queries. We can only imagine the automatic production of text will increase while overcoming some of the current difficulties of large language models discussed in the next section. Translation software is becoming usable and is likely to get even better rapidly. As well distribution of messages and information is often automated. All this means that humans need higher-level skills to monitor, critically evaluate, and confirm these choices. Humans over time may become more like the executives that edit and finalize drafts produced by ghostwriters than the lowly intern who has to produce the first draft.

Not only do mobile devices coordinate with multimedia, cloud computing, and assistive tools, they work hand in hand with the internet. The internet gives ubiquitous access to information, much of which is free, though some is firewalled and expensive. Newspapers, Wikipedia, medical websites, climate information, commercial offerings, cosmetic recommendations, celebrity biographies, and an endless variety of other information, of good and bad quality, driven by organizational interests and agendas, are a click away. No longer are students in their knowledge of the world limited by what they learn from their family and what the teachers provide through the textbook. The proliferation of access to information and disinformation created by people and groups with different motives requires new levels of critical evaluation by users, which creates challenges for us as teachers of writing, because students use this information as core elements in the arguments they make. Whether we would agree with the criteria various people have developed for assessing information quality, there is no doubt searching for and evaluating information are part of popular culture. Students will bring practices, beliefs, and stances toward research and information into our classrooms from their lives outside. We have responsibility for helping students develop their critical understanding and assessment of information as well as awareness of why and where they might seek and use information. As they bring information to the classroom and their writing, it is also more puzzling for us to understand what their sources are and how they are using them, unless students learn the practices of making their sources transparent and open.

Social media proliferating on the internet and the devices students use raise many of the same issues of genre, format, multimedia, selective and broadcast audiences, quality of sources and intertexts, and immediacy of response. Social media have lowered the bar for informality while increasing personal motivation and immediacy. They have also raised the stakes for audience response, making

students more aware of the way others perceive them and increasing the pressure for managing social impressions of one's self and one's message.

Social media are also sometimes the gateway to new social groupings for writers to engage with. Most obvious for writing are writers' groups such as fan fiction writers, poets, or autobiographical writers. But there are also groups for technical writers, journalists, environmental activists, political activists of all stripes, and so many others that elicit highly motivated writing. Social media groups that aren't organized around communication still communicate through writing, whether extended family groups, community and neighborhood groups, job-related groups, faith communities, or whatever draws people together. There are also new roles for content creators, such as the notorious influencers and those who promote their organizations and businesses through social media platforms.

The internet offers so many possibilities for connecting people and engaging them in communal projects that groups previously stabilized over the last century are now being reorganized. Citizen journalism, labor organization, wider participation in commercial markets, consumer reviews, self-publishing, and distributed authorship are just a few examples. Even family and friendship groups are becoming wider and reorganized. The distribution of work—connecting office, field, home, organizational partners, and contingent workers—also is being reorganized, using writing as a coordinating medium. I do not know where these social reconfigurations will end, but wherever they go their changes are likely to be at least as consequential as, perhaps more than, the technological changes that have enabled them. Our social arrangements are being reorganized because technologically we have more possibilities of connecting with more people in different kinds in different situations. For us as teachers that means we would do well to provide students with the tools to read the changing social communicative landscape and evaluate where they want to contribute and how—and even how they may innovate to bring new groups together in new ways. The choices facing them to engage in composed communication are expanding, and our responsibility seems to extend beyond the most obvious and immediate charge to help them succeed in their academic classrooms. That means we may need to offer support in more than just the traditional academic genres. And we may need to see how we can use all the new kinds of support technology can offer, leaving us to ask, in the words of the title of another recent chapter of mine "What Do Humans Do Best?" (Bazerman, 2018). That is, what are the important judgments that no technology is (as yet?) ready to take over more efficiently and accurately? These are the critical judgments our students will need to direct technology, monitor what technology produces, and then edit the productions so that technology fulfills human purposes, intentions, and values.

The Puzzles Posed by AI

No technology seems to challenge our critical communicative judgment more at the moment than artificial intelligence, posing large puzzles for how writing

will be produced, what kinds of writing will be produced, what functions it will carry out, how it will be directed and monitored, and how it will be circulated for what purposes. First, I should note that the technologies, the technical understandings embodied within them, the discussions about them, and the controversies and issues that arise are now moving so rapidly that anything I say here is incompletely informed based only on public reports with little technical knowledge and will be rapidly out of date, overtaken by events. Further I should note that there are many kinds of artificial intelligence that have little to do with writing or language, and some of these are already with us—whether biometric recognition, autonomous vehicle navigation, manufacturing quality control systems, or graphic rendering. These systems may have little reason to communicate with humans beyond those engineers who design and monitor them, except for occasional specific highly routinized reports or, on the other hand, the relatively sparse prompts humans give them—in fact that is their very idea, to do things on their own, communicating only digitally within their systems. So for these AI technologies the first puzzle is to ask the following: When do these varied technologies need to communicate with humans as input or output? Then what should be in the content and form of that human-computer interaction? Coordinately, when and how should humans be monitoring what is occurring within the black box of autonomous technologies? Some of the most poignant examples of these kinds of concerns currently occur around military or police use of autonomous robots when confronting hostile or criminal human adversaries.

The specific kinds of AI that most immediately puzzle us now as writers and writing instructors are those that are aimed at producing the kinds of communications now largely done by humans. The large language models (LLMs) currently gaining attention have been around for several years in the form of translators, phrasing suggestions, and speech to text transcribers. All of these train on large corpora of data from humans to make suggestions based on prior collocations in their corpora. The text production tools now being introduced are just quicker, being trained on much larger corpora, and easier for non-technical experts to access. Some of their products may appear to be pleasantly, amusingly, or appallingly surprising, but they are simply predicting the next word based on the corpora of human-produced texts they employ or are prompted to use. The current state of this technology has a number of limitations, as being noted and documented in the media. While the technology can be remarkably effective in pulling together prior knowledge and producing texts that sound human, they are prone to spectacular errors, including misrepresentations or hallucinations that may have the sound of things that might be said but need to be caught and corrected. Where any novelty, fresh thought or expression, technically complex accuracy, or critical acumen is required, they fall short, and at the very least human monitoring and review are required. A number of pedagogical responses have already been implemented to develop students' critical tools to be able to do that monitoring,

evaluation, and revision. These limitations, even as we may assist students to spot them, nonetheless leave these LLMs adequate for certain writing tasks that are highly predictable and repetitive, and there are already reports of humans being replaced by them in some jobs as catalogue copywriters or business report writers, drawing on information already in symbolic form. The plausible sounding texts they produce also seem to be quite effective in cheating on academic assessments, which may say a lot about the nature of classroom interactions, the assignments being given, and the aspects of writing being assessed. Such considerations pose important questions about the differences among learning, intellectual development, and assessment.

We need to remember and take seriously that at the moment LLM text production is very good in aggregating and replicating the past, but LLMs have little way to evaluate the accuracy of their productions, to look toward the future, nor to form intentions. Current AI text production uses historical data to guide current formulations. Its only potential creativity is within the remixing of ideas and representations already existing in symbolic form. AI text prediction currently does not bring in new experience of the world through fresh data or through formulating intentional projects that lead it to interact with the world. Current tools that I am aware of lack means to evaluate the truth, judgment, or wisdom of what people have said or what the tools draw on to construct their new amalgam of former patterns of symbols. Nor do they know how to make sense of areas of controversy where minority opinions may reflect deeper or more currently emerging truths. They simply replicate what is in the digital record, which at best is the common wisdom and at worst is common bias and error. If there are intentions, they have been placed there by humans—either the designers of the systems (who are likely interested in profit maximization) or the purposeful queries of the users, who accordingly need to become critical and thoughtful about what the tools are capable of and what they want them to do.

These limitations of AI text production, however, need not remain the case as AI tools add filters or layers to their text production. As a start, checking of citations against actual texts seems an easy next step to be then combined with improved summary capacities and relevance checks along with monitoring for fair use and appropriate crediting norms. Such layers of checking seem not far in the future, and parts are already available, as some of the text production models are being integrated with search tools such as BING or Google. Further, since AI text production systems theoretically have access through the internet to the same full set of digital texts produced anywhere in the world, any novel digital texts entered into the global information system can influence statements going forward, particularly if they gain the attention of many humans through links, citations, or visits if the LLMs are weighted for this interaction, and even further if the expertise or prominence of those users are additionally weighted. So through this kind of rapid social learning these systems may become more sensitive to the most persuasive near-current texts.

An even greater transition will be when digital text production tools go beyond symbol manipulation of existing human texts to gather fresh data about the world, and when they start to move around in the world. They may begin to observe the world's complexities and challenges as they carry out their tasks. Ultimately, they may formulate their own inquiries and writing projects to address their needs of carrying out their missions and perhaps sustaining their systems. Then we may see AI producing nontrivially new things. Also as part of effective communication AI communication tools would need to take on problems of addressivity, which would seem to require gaining some data about their audiences and some kind of theory of mind and emotions of their audiences as they anticipate the communicative needs of human users.

A number of these capacities are already at hand, at least in early forms. Some digital text producing tools are attached to sensors about the world to provide information they report and analyze. Internet traffic is regularly monitored to distinguish between normal patterns of traffic and anomalous patterns that suggest malign actions, with reports then generated for users. More familiarly, for years automatic seismographic and meteorological reports based on instrument data have been produced in real time to warn humans about emergent conditions. Robotic devices with internal and external sensors move around on this planet and elsewhere in space to report to humans about what they encounter, operational difficulties, and the tasks they accomplish. Some of these robots are now moving autonomously. Even my robotic vacuum cleaner does a rudimentary form of these things, sending reports to my iPhone about missions accomplished, machine problems, and maps of the floor plan and furniture footprints in my rooms.

Some of the information collected and evaluated also includes psychological and sociological conditions and preferences of audiences. My media and communication devices record my choices and algorithmically suggest next items for my tastes or news I might find engaging as well as people I may wish to contact and messages I may want to send them. Devices are also being wired into the nervous systems of disabled persons to guide artificial limbs as well as to assist word choice and production. This could be considered developing a theory of mind, thoughts, and emotions so as to be able to address, anticipate, and support individual desires along with social networks the individuals are engaged in and the activities carried out within those networks. Biometric and visual recognition information then can correlate this psychological and sociological characterization with physical movement of individuals in the world.

Autonomous robots on extraterrestrial vehicles seem to identify and solve challenges to carrying out their missions and even to extend their working lives. These actions may even involve them setting their own new fact-finding and analytical inquiries, including internal diagnostic inquiries along with the consideration of ambient conditions, challenges, and opportunities. This may mean that machines train and use as resources machine-produced texts as well as the initial human samples. This can lead down some novel paths of text production, making

text production less conservative and dependent on prior human productions but more capable of manipulating human perceptions, interests, and emotions. If and when these various capacities are integrated into writing tools, I am not sure where this will leave writing and how soon. But if humans are to stay in control of the productions, monitor whether these capacities continue to meet their intentions and interests, and make final choices, humans will need to develop some level of understanding of the operations, consequences, and values enacted by the automated devices as well as a critical understanding of their limitations and tendencies. With respect to text production, this means writers would need to remain final editors with a full understanding of all issues at play in the documents.

The ethical questions and dystopian possibilities of these integrations of AI systems proliferate. But the ways human agency may insert itself into these emergent possibilities are also unknown in large part because these possibilities depend on human creativity, critical intelligence, and agency that will largely be carried out through symbolic, inscribed means. That leaves us with questions as to who the human agents will be that will be able to assert presence and power within these emergent systems and what roles and values may affect their evaluations and choices. Again here is the role for writing education, to be able to develop in students the critical understanding, communicative competence, and knowledge to be able to monitor the products of AI, direct and instruct the systems, and to come to agreement about policies that will guide the design, principles, and uses of these technologies. This especially means that those in charge of policy need to be able to discuss these matters on high levels and that all citizens need to be able to judge and communicate on these matters with informed views. Further, technologists will need to be able to discuss and take seriously ethical, social, and other communal issues and to be able to integrate their respect for those concerns and communal policy decisions within the design of tools at effective points of control. It also means users need to understand and respect the limits of those tools. This will be a tall and somewhat utopian order for education in the future.

Social Challenges

So far, I have been addressing the consequences of technological changes that offer new challenges and opportunities for writing education, perhaps because they are easiest to see from our classrooms looking outward, but of course there are other challenges that will change the needs and uses of written communication in the coming decades.

We already see some very large challenges facing our societies that need rhetorical skill and will change the conditions and motivations for communication. Climate change, with its economic, geographic, political dislocations, and conflicts, will call forth more intense communicative needs across wide locations and communities. Climate change will increase natural disasters with the need for accurate, precise, real-time communication and long-term coordination for

recovery and readjustment. Agriculture, food production, and distribution will require constant coordination and adjustment. Changing conditions will likely require constant medical advances and responsiveness, coordinating advances of science with real-time community services and citizen-provided information, if the recent Covid pandemic is any guide. Preserving democracy and freedom of communication in an increasingly stressed world will require more sophisticated communication and intelligent communal deliberation.

This may all sound like bizarre science fiction premises, and I may be tripping over my own imagination fed by dystopian novels from prior decades and newspaper stories in the more recent past, but what else do we have to go on to imagine the communicative environment and composing tools that our students may live among? What we understand of this emerging world and how we teach communicative skills and communicative systems will contribute to how much agency and critical understanding our students will have in this evolving world. Ready or not, something is coming.

Yet before we crash into the blinking lights in front of us, we still need to think through how our past practices serve us in the current moment and may be of use in the future. Some traditional skills and expectations may not require the same level of practice and persistence as previously. Keyboarding has taken pressure off handwriting. Spelling and grammar checks can monitor texts and suggest changes. Words, synonyms, and phrases can be suggested to finish our thoughts. Even format can be suggested and variations flagged. Citations can be enabled and formatted. Artificial intelligence can now suggest wording and information for even whole texts. Such tools no doubt will increase in number, quality, and ambitiousness. These tools if used wisely can in themselves improve spontaneous practice, as the tools remind us of the expected forms while also giving us the option of intentional variation. They may even provide us fresh evidence, reasoning, or means to reach our readers.

Perhaps the most important legacy for education, however, is also what may be too easily lost. Intellectual discipline, organization of thought, and creative insight that come with the longer forms of academic writing which incorporate critical thought, conceptual reformulation, and intentionally sought evidence to solve human problems are at the heart of advanced education. Whether within works of multiple paragraphs, pages, or chapters, these longer forms are associated with density and coherence of concepts, evidence, and reasoning. They rely on explicit engagement with related texts and disciplinary resources that are examined critically and form important parts of the knowledge context. These modes of thought may be precisely what is needed most to address the complexities of both the technologies and problems facing us.

So the challenge I see for us as educators is how we integrate the kind of disciplining of thought and reasoning that we associate with extended academic writing with all forces that call for change—whether the exciting and terrifying potentials of technology, the new social configurations emerging through new

communicative possibilities, the richness and accessibility of ubiquitous information, or the pressing social needs to be addressed. These in turn all need to be mobilized within the students' own desires for personal contribution, understanding, and advancement. Furthermore, all education is using increasingly large components of online interaction. Online interaction encourages writing as the regular medium of exchange, but it is often in short forms of chats, forums, and brief assignments. While the shorter assignments and activities may provide some built-in feedback and interactivity, longer forms also offer an intensity of reading, response, and feedback so students can learn to meet critical examination by viewers. These prospects are exciting, but they require we understand our roles as teachers of communication more deeply—not just correcting and enforcing expected forms but bringing students to higher levels of reasoning, disciplined inquiry, and thoughtful participation within information-based society.

One thing though is fairly certain, that higher levels of analytical understanding and agency will require high levels of education and knowledge about technological systems and the tasks carried out by them along with the consequences for society. What writing will mean in this new world and what kind of education will be of value to these writers of the future is yet to be determined. We have met previous rounds of technological advancement and increased needs for writing with creativity and developing practices, though it has sometimes taken a while for progressive responses and new pedagogies to emerge. Even internet and plagiarism fears have been domesticated by new practices and understandings that have limited the assessment-driven punitive first response. So looking backwards gives us some hope as we move forward, even though the changes seem to come more rapidly and with greater consequence.

A more optimistic and hopeful version of Kierkegaard's dilemma, but one equally fraught with peril, appeared in 1769, almost a hundred years before Kierkegaard wrote his journal, when Joseph Priestley published what may have been the first timeline of human history in *A New Chart of History*. It was a large fold out sheet with an explanatory booklet. On the extreme right side was a barely discernible empty column for the readers to fill out during their lifetimes, to record the history that they would live through. But that is also the history they would make. So let us think how we will fill out that column.

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