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Documents and Time

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We were young, and we had no need for prophecies.
Just living was itself an act of prophecy.

—Haruki Murakami, *The Wind-Up Bird Chronicle*, 1994

I.

From penciled words spring lighthouses, castles and sheep, signs warning of *clogwyni peryglus*—dangerous cliffs—ferries from Ireland, sacred wells, Roman ramparts, ancient swells and angular crags, burial rings, salty gusts and circling birds... and the distant mountains of Snowdonia like an avalanche on the horizon.

I wrote:

I came across a farmer fixing a kissing gate at one point. This was on a path not ten feet from a cliff into the sea. “Trying to get this gate to close is all,” he said. “I had a spring, but it rusted. No spot for metal here.”

I remember this farmer, with his wrinkled Welsh smile, and I remember remembering this farmer as I wrote those words late at night on Easter 2013, in my guest room after a long day of walking. And I remember *pre*remembering my present self, for whom I was writing, reading these words in some far off future which is now (or, more precisely, *was*).

This futurepresentpast unfolds in my reading of a small, brown notebook. The notebook is softcover, three inches by five and not a quarter-inch thick, and inside it are written such banal observations as: “It was still 2hrs before my bus, so I went to a restaurant”; and “I sat listening to accents and thinking about things like denim vests”; and “I had 2 of the 4 peppers and had 3 eggs.” And yet what emerges in reading is not at all banal. Images bubble up with phrases and thoughts, things I didn’t or couldn’t record in the form of pencil scratches years ago. So the words I wrote are not merely words, but triggers—for memories—reconstructed, preconstructed, deconstructed. This is remarkable, and I’m afraid we rarely, if ever, consider just how remarkable it is.

II.

Time is one of our great preoccupations. From the busy person, who struggles against it, to the philosopher, who struggles to understand it, to the physicist, who struggles to explain it. In my view, the discourse on time, which has spanned

millennia and methodologies, has attempted to explain time from two points of departure: the physical and the experiential.

The physical view of time has been the predominant view for most of modernity (Lindley, 2015). The physical theories see time as that which is measured by the clock and calendar and is necessary for the scheduling of appointments and the routing of trains. Physical time is the physicist's time: one-dimensional, conceptually inextricable from space and pointing like an arrow toward entropy (Hawking, 1988). It can be understood as a series of fleeting nows; the nows that *were* are called the *past*, the now that *is* is called the *present*, and the nows *to come* are called the *future*. This conception of time impinges on the way that we, as beings in society, see the world—the reason we, as Stephen Hawking says, “remember the past but not the future” (1988, p. 145).

Some have argued that the physical view of time does not fully capture the complexities of the concept. A purely physical description of time cannot explain, for example, how a person's childhood may feel at once “like yesterday” and “like forever ago,” or how a fifty-minute lecture may seem to fly by on a Monday but crawl on a Friday. This was Henri Bergson's (1889/2001) point in lambasting the definition of *time* as “what a clock measures.” Using human experience as his point of departure, Bergson sought to develop a theory of time that was non-homogenous. Though Bergson's theory was seen as iconoclastic, and boggling, by some of his contemporaries (as chronicled by Canales, 2015), Bergson's time was still essentially one-dimensional and, for that reason, deemed insufficient by those who sought a truly experiential view of time.

The time we experience, after all, does not march along in such a straightforward manner. As we experience the present in everyday life, memories from the past seem to dance with predictions of the future. We even modify these memories in recalling them, effectively modifying our pasts. (Was the Welshman really smiling?) This being the case, it would seem that the clock and calendar have nothing useful to say about experienced time. On the contrary, they are the reason that explorations of experienced time can be so jarring. Wisława Szymborska (2015, p. 71) wrote beautifully of this sensation in a poem called “Travel Elegy”:

I won't retain one blade of grass
as it's truly seen.

Salutation and farewell
in a single glance.

For surplus and absence alike,
a single motion of the neck.

An account of this sort of experienced time was attempted by Edmund Husserl, who argued that time is the basis of consciousness. Husserl's theory of time-consciousness, as he called it, proposed that "the past and future are integrated into the present of experience" (Keller, 1999, p. 64). These time-unified experiences are also fused into a singular, inner experience of selfhood which is disconnected from the outside world—what Husserl called the "transcendental self." Thus, through the integration of the tenses and the transcendence of selfhood, individuals have a tenseless existence (Keller, 1999).

Husserl's student Martin Heidegger responded to this theory with revisionist admiration. First, Heidegger argued that lived experience only has meaning in the context of the outside world—the two cannot be disconnected. Moreover, Heidegger argued that Husserl's view of time as a unity implies that time exists as an entity; in this way, Husserl's theory suffered the same limitation as theories of physical time, for which time is an entity that can be measured by tools like clocks (Keller, 1999). Instead, Heidegger saw time as a verb.

For Heidegger, time unfolds in being. This theory of time was articulated in *Being and Time* (Heidegger, 1927/2010). Heidegger's primary purpose in this book was to develop a description of the way of being of human beings as an approach to the study of being in general. Heidegger argued that humans are fundamentally in the world—indeed, to be human, one must "always already" be in the world.

This already-in-world status forms our humanness. In being human, we are preoccupied by the present but also oriented toward the future. In this way, past, present and future are united in our being; Heidegger calls this unification *being-ahead-of-itself-in-already-being-in-a-world* (2010, p. 185). This fusion of past, present and future echoes the non-sequential time-consciousness of Husserl, but Heidegger seems to shed more light on how these three tenses actually coalesce and function in concert. The past, present and future are not simultaneous, but they co-exist and can co-determine each other (Keller, 1999). In being present, the past and future interact: Our present-preoccupation reflects the interpretation of the self as defined by the past; our past-definition reflects the entanglement with the environment as directed toward the future; and our future-direction reflects acquaintance with possibility.

In later writings, Heidegger demonstrated that this account of time described not only the temporality of human beings, but of nature more widely—that is, of being in general (Capobianco, 2014, pp. 33–34). In the essay "Time and Being" (1969/1972), Heidegger frames time as four-dimensional: (1) the present, (2) the past, (3) the future, and (4) the intelligibility of the unity of past, present and future.

III.

For all the academic discourse on the subject of time and on the subject of documents, the two only coincide in a surprisingly small number of investigations. There is much to be said about documents and time, however: From the physical point of view, documents occupy space, and space is time; from the experiential point of view, documents exist, and existence is time.

Just as the physical view of time has predominated in general, so too has it predominated in discussions of documents—borne out, for instance, in the apotheosis of Unix time. The dominance of physical time in the document literature reflects the overarching research interests of information studies in general, whose foci include organization, retrieval, measurement and seeking (Bawden & Robinson, 2012). Time, of the physical sort, has found significant application in information retrieval, where researchers have, for instance, developed methods for processing temporal expressions in search queries (Berberich, Bedathur, Alonso, & Weikum, 2010), extracting temporal expressions from document content (Kanhabua & Nørvåg, 2008), and storing documents for long-term preservation and access (Song, 2010). Physical time also underlies discussions of the evolution of information and documents, in terms of both macroscopic, humanity-level evolution (Bates, 2006) and the historical trajectory of single documents within sociotechnical systems (Olsen, Lund, Ellingsen, & Hartvigsen, 2012). To this end, the notion of “document life cycle” has been adopted in business knowledge management (*e.g.*, Microsoft, n.d.), but is rarely mentioned in academic research.

A head-on and commendably robust approach to modeling the complexities of documents and time came from Jean–Paul Metzger and Geneviève Lallich–Boidin (2004). Aspiring toward universality, the authors presented a framework consisting of three universes: the documentary universe, which includes the material aspects of documents; the social universe, which includes authors and readers as they create and use documents; and the discursive universe, which features commentary on documents. Each of these universes, the authors argue, includes a time element. Documentary time includes the appearance, destruction and modification of documents, as well as the “succession of chapters, paragraphs and words in a text” (p. 17, translation mine), recognizing the temporal aspects of the reader’s interpretation as part of documentary time. Social time is the time in which society takes place, constituted by calendar dates, historical periods and life stages. Discursive time, lastly, arises from the relationships between documents and people which play out in a sequential order. After spelling out these three universes and their respective times, the authors go on to identify a complex set of linkages among the three universes, the complexity of which is exacerbated when it comes to digital documents, finally concluding that, “At present, we are unable to go further in clarifying the links among the three times. Could general laws really

exist? Are we not dealing with as many links as there are documents?” (p. 19). This impasse might have been predicted by Bruno Latour, whose work constitutes, in Frohmann’s (2007) words, a “long campaign against the separation of material, discursive and social realms” (p. 32). Latour instead favors a view of the social not as a thing, but rather—recalling Heidegger’s view of time—as an unfolding (Latour, 2007). I might also attribute some of the limitations of their model to their appropriation of an essentially physical (if a tinge Bergsonian) view of time—that is, as a progression of instants.

This discussion begs the question of whether experiential time could be used in the study of documents and time in order to overcome the limitations of physical time, just as limitations in conceptualizations of time in general were overcome through an experience-based approach (Heidegger, 1972, 2010). The question of how changes in technology coincide with changes in how we experience time has already emerged in academic discourse (Day, 2014; Lindley, 2015), and documents manifestly have a technological component (Lund, 2009).

To operationalize an experiential view of time in the study of documents would necessitate studying information *in use*. This is a scantily researched area, perhaps because of the complexities involved in its very conceptualization (Kari, 2007). Moreover, Raya Fidel (2012) identifies the highly contextualized nature of any findings in studies of information use as a barrier, as such context-boundedness prevents generalization, which is a value for many researchers.

Despite these challenges, more and more researchers are exploring information in use (Case & O’Connor, 2016). One thread of this research concerns people’s in-the-moment engagement with information—what Jarkko Kari (2007) calls “engagement with information-as-thing”—which has yielded two budding research areas: information experience and document experience. Information experience is understood as “complex, multidimensional engagement with information” (Bruce, Davis, Hughes, Partridge, & Stoodley, 2014, p. 4), with a focus on

the way in which [people] engage with information and their lived worlds as they go about their daily life and work ... encompassing the many nuances of that experience within different cultures, communities and contexts. (Bruce *et al.*, 2014, p. 6)

Bruce *et al.* identify information experience as both a research domain and a research object; as a research domain, it offers a broad view of the experience of human engagement with information; as a research object, an information experience is a discrete instance of engaging with particular information (*e.g.*, a document). Particularly as a research object, information experience has only begun to be explored. Of note for the discussion at hand is research in the area of document

experience (*document*, in my view, constitutes a particular conglomeration of information).

K. F. Latham (2014) introduced the notion of document experience, drawing principles from phenomenology, pragmatism and reader-response theory to offer a methodology for describing and interpreting human experiences with documents. This methodology is centered around the concept of document transaction, which positions the document as the momentary coming-together of a person and an object. A document transaction is the mechanism by which a document comes to be. The document is neither the object nor the person, but something that arises when the two meet (Wood & Latham, 2014). The transaction, and thus the document, constitutes “its own thing, a moment that can only exist by the fusion of the person at that moment with the object in that place” (Latham, 2014, p. 549). Building on this, Daniel Carter (2016) called for a broader view of document experience that considers how a document’s infrastructural context impinges on an individual’s experience of that document. As researchers continue to develop an understanding of document experience, it may prove useful to incorporate an experiential theory of time into that understanding. In a way, Johanna Drucker has called for just such an account of documental time, with direct applications in humanities research:

Humanists deal with the representation of temporality *of* documents (when they were created) [and] *in* documents (narrated, represented, depicted temporality), the construction of temporality *across* documents (the temporality of historical events), and also the shape of temporality that emerges *from* documentary evidence (the shape of an era, a season, a period, or epoch). They need a way to graph and chart temporality in an approach that suits the basic principles of interpretative knowledge.

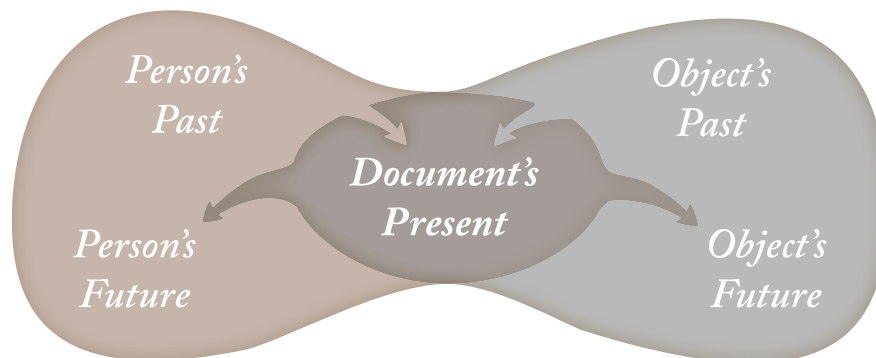
Conceptions of temporality in humanities documents do not conform to those used in the social and empirical sciences. In empirical sciences, time is understood as continuous, uni-directional, and homogenous. Its metrics are standardized, its direction is irreversible, and it has no breaks, folds, holes, wrinkles or reworkings. But in the humanities time is frequently understood *and represented* as discontinuous, multi-directional, and variable. Temporal dimensions of humanities artifacts are often expressed in relational terms: before such and such happened, or after a significant event. Retrospection and anticipation factor heavily in humanistic works, and the models of temporality that arise from historical and literary documents include multiple viewpoints. Anticipation, foreshadowing, flashbacks, and other asynchronous segments are a regular part of narratives, and they create alternative branchings, prospective and

retrospective approaches to the understanding of events that cannot be shown on empirical timelines. (Drucker, 2014, pp. 75–76, emphasis hers)

IV.

In effort to establish a theory of documental time that satisfies the needs of information-in-use and humanities researchers, the theory of document transaction can be revisited through the lens of Heidegger's (1972, 2010) theory of time.

For Heidegger, time is the unfolding of being. Time occurs as the past directs the present toward the future. If a document constitutes the conceptual fusion of person and object, then it also constitutes the melding of the past, present and future of both the person and the object. These temporalities intersect at the present—the moment of the transaction, which is the moment of the document. This understanding of documental time is represented in the figure below. Visually, it echoes the convergence of the person's and object's lifeworlds illustrated by Wood and Latham (2014, p. 41).



A document, then, arises from the past of the person and the object, it manifests in their shared present, and it directs the future of both.

A human is composed of ancient molecules, including a set of organisms upon which the human is co-dependent, which are constantly being exchanged with molecules from the environment (Meadow, Altrichter, Bateman, Stenson, Brown, Green, & Bohannan, 2015). In a very real sense, then, a person *is* their environment, and the environment *is* the person. This worldliness is inextricable from humanness; it is a person's most primordial past, and it colors their evolving past as they grow. Memories, for instance, are embedded with the environment that bore them. In the same way, an object's environmental embeddedness is a characteristic of its primordial past. By virtue of being an object, it always already has a relationship with other objects. Objects, indeed, are composed of objects. Worldliness directs the future in that the future must also be worldly. A human

makes plans and imagines possibilities, and an object also has a worldly future: It may be blown away, disassembled or destroyed. It may erode and fade, or become humid or brittle. And insofar as human and object intersect—in present, documental moments—an object may change hands, be altered and interpreted, become the subject of stories, make an impression upon a person, constitute a marriage or graduation, and any number of other futurepresentpast possibilities.

Again prescient, Szymborska (2015, p. 162) observed:

We read the letters of the dead like helpless gods,
but gods nonetheless, since we know the dates that follow.

A reader, in the present, apprehends a letter, affording a document. The reader has memories of a long-gone loved one: the writer. The writer's past, present and future (from the reader's perspective, all past) are infused in the past of the letter. As the reader engages with the letter in their present, they grapple with the possibilities and impossibilities of the future, given the past and present. The result in this case: helplessness in the face of death. But that helplessness emerges only at first—by the end of the poem, the reader experiences redirection.

V.

This unfurling, as it were, of documents and time reveals one last frontier to be explored before its conclusion. Certain kinds of documents (engaging with the letters of the dead, perhaps) engender the sublime: numinous experiences (Latham, 2014). Such encounters have been described as “unified experiences” (Wood & Latham, 2014, p. 95), wherein the past, present and future of both the person and object commingle to an extraordinary degree. Such experiences may also transcend space as well (Latham, 2014). These experiences are awe-inspiring, deeply personal and often connected with reverence, spirituality and a feeling of transportation.

Such singular experiences beg an addendum to my conceptualization of documental time. The theories of time outlined above all sought to characterize time in general—as it is in its “average everydayness,” as Heidegger (2010, p. 16) would say. But it would seem that in such powerful moments as numinous experiences, time may be experienced differently.

Indeed, another theory of time has been put forward which relates to time as experienced in the particular mental state of Buddhist enlightenment. As a spiritual experience, enlightenment defies intellectual description, but it has been described as the attainment of absolute emptiness and unity, which entails the fundamental loss of self. In the view of Dōgen, a Zen monk who lived in thirteenth-century Japan, enlightenment also constitutes a rupture in the experience of time,

which is characterized by radical impermanence (Michelazzo, 2011). Along with the sense of self, all notions of duality disappear—including temporal distinctions such as permanent–impermanent, continuous–discontinuous and past–present–future (Michelazzo). In other words, Dōgen, like Heidegger, describes the unification of past, present and future. But whereas Heidegger’s time is future-oriented, Dōgen’s is present-total. In Dōgen’s words: “Life is absolutely life, death is absolutely death; spring is absolutely spring, summer is absolutely summer; each in itself is no more and no less—without the slightest possibility of becoming” (Abe, 1985, p. 64, as cited in Michelazzo, 2011, p. 81).

This numinous view of time, I argue, can be used to explore the temporality of numinous document experiences. Time in these experiences is fundamentally present-oriented. Though in all document experiences the past and future come to bear on the present, in numinous document experiences the boundaries between past, present and future are fully ruptured. This sheds further context on some of Latham’s (2014) findings, which exposed numinous document experiences as transportive in both space and time.

VI.

Time is wrapped up in, and wraps up, everything. Time is everything, and everything is time. Put more precisely, if opaquely: *Everything times*. My purpose here has been to shed a bit of light on the mechanism of time—enough, I hope, to demonstrate that time, particularly when it comes to documents, is not entirely inscrutable.

Still, I fear I have done nothing to temper the mystique of time. Actually, perhaps that is for the best. Indeed, I hope that I have exposed time in its average everydayness as a stupefying conundrum. For we often disparage the average and the everyday, and I would not want to rob them of their due. As it is, the average and the everyday receive scant admiration—we tend to be much more interested in those special moments we call *experiences*. But, as I’ve discovered, there is much wonder to be had in the world, even in a boring, gray afternoon of sifting through old notebooks.

As I opened with some of my own writing from a trip to Wales, it seems fitting to close with the writing of my favorite Welsh poet, R. S. Thomas (1993, p. 379), whose lyric virtuosity I could only imitate:

Where are you? I
shouted, growing old in
the interval between here and now.

The “interval between here and now,” we are now prepared to see, contains both the past (shouted) and the future (growing old). Indeed, if this discussion has served to elucidate anything, it is only what the poets have been saying all along: There is much more to the present than merely the present.

References

- Bates, M.J. (2006). Fundamental forms of information. *Journal of the American Society for Information Science and Technology*, 57(8), 1033-1045.
- Bawden, D., & Robinson, L. (2012). *Introduction to information science*. Chicago: Neal-Schuman.
- Bergson, H. (2001). *Time and free will: An essay on the immediate data of consciousness*. New York: Harper. (Original work published 1889)
- Berberich, K., Bedathur, S., Alonso, O., & Weikum, G. (2010). A language modeling approach for temporal information needs. In C. Gurrin, Y. He, G. Kazai, U. Kruschwitz, S. Little, T. Roelleke, S. Rüger, & K. van Rijsbergen (Eds.), *Advances in information retrieval: 32nd European conference on IR research, ECIR 2010, Milton Keynes, UK, March 28–31, 2010. Proceedings* (pp. 13–25). Berlin: Springer.
- Bruce, C., Davis, K., Hughes, H., Partridge, H., & Stoodley, I. (Eds.) (2014). *Information experience: Approaches to theory and practice (library and information science, volume 9)*. Bingley, UK: Emerald Group.
- Canales, J. (2015). *The physicist and the philosopher: Einstein, Bergson and the debate that changed our understanding of time*.
- Capobianco, R. (2014). *Heidegger's way of being*. Toronto: University of Toronto Press.
- Carter, D. (2016). Infrastructure and the experience of documents. *Journal of Documentation*, 72(1), 65–80.
- Case, D. O., & O'Connor, L. G. (2016). What's the use? Measuring the frequency of studies of information outcomes. *Journal of the Association for Information Science and Technology*, 67(3), 649–661.
- Day, R. E. (2014). *Indexing it all: The subject in the age of documentation, information, and data*. Cambridge, MA: The MIT Press.
- Drucker, J. (2014). *Graphesis: Visual forms of knowledge production*. Cambridge, MA: Harvard University Press.
- Fidel, R. (2012). *Human information interaction: An ecological approach to information behavior*. Cambridge, MA: The MIT Press.
- Frohmann, B. (2007). Multiplicity, materiality, and autonomous agency of documentation. In R. Skare, N. W. Lund, & A. Vårheim (Eds.), *A document*

- (re)turn: Contributions from a research field in transition (pp. 27-39). Frankfurt: Peter Lang.
- Heidegger, M. (1972). *On time and being* (trans. by J. Stambaugh). New York: Harper & Row. (Original work published 1969)
- Heidegger, M. (2010). *Being and time* (trans. by J. Stambaugh and ed. by D. J. Schmidt). Albany, NY: State University of New York Press. (Original work published 1927)
- Kanhabua, N., & Nørvåg, K. (2008). Improving temporal language models for determining time of non-timestamped documents. In B. Christensen-Dalsgaard, D. Castelli, B. Ammitzbøll Jurik, & J. Lippincott (Eds.), *Research and advanced technology for digital libraries: 12th European conference, ECDL 2008, Aarhus, Denmark, September 14–19, 2008. Proceedings* (pp. 358–370). Berlin: Springer.
- Kari, J. (2007). Conceptualizing the personal outcomes of information. *Information Research*, 12(2), paper 292. Retrieved from <http://www.informationr.net/ir/12-2/paper292.html>
- Keller, P. (1999). *Husserl & Heidegger on human experience*. Cambridge: Cambridge University Press.
- Latham, K. F. (2014). Experiencing documents. *Journal of Documentation*, 70(4), 544–561.
- Latour, B. (2007). *Reassembling the social: An introduction to actor-network-theory*. Oxford: Oxford University Press.
- Lindley, S. (2015). Making time. In *CSCW '15: Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing* (pp. 1442–1452). doi: 10.1145/2675133.2675157
- Lund, N. W. (2009). Document theory. *Annual Review of Information Science and Technology*, 43, 399–432.
- Meadow, J. F., Altrichter, A. E., Bateman, A. C., Stenson, J., Brown, G., Green, J.L., Bohannon, B.J.M. (2015). Humans differ in their personal microbial cloud. *PeerJ*, 3, paper e1258.
- Metzger, J.-P., & Lallich-Boidin, G. (2004). Temps et documents numériques [Time and digital documents]. *Document Numérique*, 8(4), 11–21.
- Michelazzo, J. C. (2011). Human dwellings as time expressions: Dialogue between Heidegger and Dōgen. *Natureza Humana*, 13(2), 63–84.
- Microsoft. (n.d.). The document life cycle. Retrieved from <http://msdn.microsoft.com/en-us/library/dd163515.aspx> (Archived by WebCite® at <http://www.webcitation.org/6emdaudR>)
- Olsen, B. I., Lund, N. W., Ellingsen, G., & Hartvigsen, G. (2012). Document theory for the design of socio-technical systems. *Journal of Documentation*, 68(1), 100–126.

- Song, S. C. (2010). *Long-term information preservation and access* (Doctoral dissertation). Retrieved from <http://drum.lib.umd.edu>
- Szyborska, W. (2015). *Map: Collected and last poems* (trans. by C. Cavanagh & S. Barańczak). Boston, MA: Houghton Mifflin Harcourt.
- Thomas, R. S. (1993). *Collected poems: 1945–1990*. London: J. M. Dent.
- Wood, E., & Latham, K. F. (2014). *The objects of experience: Transforming visitor–object encounters in museums*. Walnut Creek, CA: Left Coast Press.