

2017

Ubiquitous Media and Monopolies of Knowledge: The Approach of Harold Innis

Edward Comor

University of Western Ontario, ecomor@uwo.ca

Follow this and additional works at: <https://ir.lib.uwo.ca/fimspub>



Part of the [Cultural History Commons](#), and the [Film and Media Studies Commons](#)

Citation of this paper:

Comor, E. (2017). Ubiquitous Media and Monopolies of Knowledge: The Approach of Harold Innis. In Michael Daubs and Vincent Manzerolle, eds., *From Here to Ubiquity: Critical and International Perspectives on Mobile and Ubiquitous Media*. New York: Peter Lang (forthcoming 2017), pp. 183-200.

Ubiquitous Media and Monopolies of Knowledge: The Approach of Harold Innis¹

Chapter 10 in Michael Daubs and Vincent Manzerolle (eds.), *From Here to Ubiquity: Critical and International Perspectives on Mobile and Ubiquitous Media*. New York: Peter Lang (forthcoming 2017), pp. 183-200.

Edward Comor, University of Western Ontario

Harold Adams Innis (1894–1952) began his career as a political economist and economic historian but beginning in the 1930s he turned his attention more to questions concerning culture, media, and civilizational survival. Known today mainly for his “staples theory” of development and what came to be called “medium theory,” in retrospect, Innis charted the foundations of a broadly conceptualized dialectical materialist analysis of ubiquitous media. It is in relation to this that Innis forged a concept that is particularly germane to the subject of this book: what he called monopolies of knowledge.²

Ubiquitous media, for Innis, are developed and used as means of organizing and sustaining power-laden social relations. More than the presence of a pervasive technology (in a contemporary context smartphones and automobiles, for example), in addressing ubiquity Innis was referencing media (broadly defined to include institutions, organizations, and technologies³) that constitute means of producing and reproducing a given socio-economic order.⁴ Innis, having analyzed over four thousand years of history, found that the predominance or ubiquity of some media in a given place and time reflects and affects—they *mediate*—that society’s power relations in complex and often contradictory ways.

In this chapter, Innis’ approach to ubiquitous media will be outlined. It will focus on how and why such media influence taken-for-granted thinking in a given place and time. To explain, the concept “monopoly of knowledge” is applied to two ubiquitous media of Innis’ time: the price system and printing. In the first section, some background concerning the bases of his interest in media and monopolies of knowledge is provided. In the second, what might be called Innis’ approach to ubiquitous media is presented and this, in the third section, is demonstrated through the examples of the price system and printing. In the penultimate section, his approach is loosely applied to the contemporary ubiquity of digital communications technologies. Finally, in the chapter’s conclusion, key parts of the argument presented will be summarized and Innis’ admonition against those treating such an approach as some kind of prognosticative template is underlined.

As I explain in what follows, the ubiquity of a medium or complex of media generally facilitates status quo relations and thinking but, in so doing, it also tends to ossify or “bias” that culture’s capacities in relation to knowledge. Ubiquity or monopolization thus implies problems and these can impel alternative developments involving, prospectively (but not inevitably), a re-casting of the monopolies of knowledge. For Innis, ubiquity reflects, shapes, and yields conditions that are contradictory for both dominant interests and, in most cases, even those who oppose them.

CONCEPTUAL BACKGROUND

In the Preface of his book *Political Economy in the Modern State*, Innis (1946) references the apprehensions expressed by Socrates concerning writing and its implications for memory: through their use of “written characters” learners “will be hearers of many things and have learned nothing; they will appear to be omniscient and will generally know nothing; they will be tiresome company, having the show of wisdom without the reality.” In the same paragraph, Innis relates this warning to the printing press and radio, stating that they also “have enormously increased the difficulties of thought” (Innis 1946, vii).

Here and elsewhere Innis recognizes the Promethean paradox of humanity’s mastery over nature: the advance of science and technology, essential as they are to civilizational advance, also imply the shackling of the intellect. Indeed, for him, a turning point for Western civilization was the invention of the printing press. With the ubiquity of the printed word, mechanized ways of thinking flourished. Modern printing technologies and their commercial and political applications mediated a certain inter-subjective mentality that was decidedly unreflexive (i.e., an absence of critical self-awareness). This, from Innis’ perspective, reflected and furthered the capacity to manage, administrate, and control—to apply power—on an unprecedented scale. Unreflexive and present-minded norms of thinking thus were both consciously promoted (especially through advertising, the price system, and mass democracy) and structured into the relations of daily life.

Innis, in the mid-1940s, drawing from the classical dialectic between power (or force) and knowledge (or intelligence), points to the growing predominance of power over knowledge with technologies, organizations, and institutions mediating their (prospectively tragic) imbalance. The struggle between power and knowledge is, for Innis, universal in the history of civilization while the specific implications of such institutional, organizational, and technological media are not. To underline this, in addition to Prometheus, Innis references the myth of Minerva.⁵

Innis begins his first dedicated historical analysis of the role played by communications in civilizational history (in his paper “Minerva’s Owl”) as follows:

“Minerva’s owl begins its flight in the gathering dusk not only from classical Greece but in turn from Alexandria, from Rome, from Constantinople, from the republican cities of Italy, from France, from Holland, and from Germany” (Innis 1951, 5). Minerva is the goddess who embodies force and wisdom. Derived from Athena, she represents the dynamic tension between power and knowledge. Her owl—a bird of prey—scavenges marginal cultures seeking the materials and ideas needed to sustain and reproduce. Rather than just looting or emulation, knowledge can be developed in creative ways with the support of power, and power, in turn, is regenerated through living forms of knowledge (“living” knowledge refers to forms developed and used to be thoughtful and creative while “dead” forms are crafted and applied to administer and control).⁶ When and where this balance takes place, civilization can adapt in the face of crises.⁷ However, when power dominates and its agents do not understand their long-term need for living knowledge, collapse beckons (Watson 2006, 306–312).

The owl—once an extension of Minerva’s wisdom—provides Innis with a metaphor for the status and treatment of knowledge in the twentieth century. Scholars and other intellectuals now are subservient; they furnish the powerful—primarily the state and corporations—with tools and techniques needed to administer and control. The powerful perpetuate themselves but, under these imbalanced conditions, the creative capacities that knowledge and wisdom entail are eradicated.

More than just a resource to help his contemporaries assess their political-cultural conditions with some perspective, Innis, more ambitiously, drew on such mythologies and the histories of ancient empires as means of assessing what shapes the parameters of cultural capacities. What he referenced as “the Greek tradition” (1946, 65) was, arguably, the fulcrum of this perspective.

Before the invention of the Greek alphabet, communication through writing in the Near East was inaccessible to all but a small number of mostly religious elites whose mastery over an esoteric and thus sacred language separated them and the media they monopolized from the vernacular. Their diffusion of knowledge to others mostly involved rituals and ecstatic modes of learning. In Greece, the oral tradition—reliant on myth, song, poetry, and performance—was itself similarly limiting (a limitation to rational thinking that Plato, for one, criticized). Writing using a phonetic alphabet, however, enabled people to counterbalance the dominance of their ears and an ecstatic education to instead use their eyes through script. Emotive rituals now could be complimented or countered through a widely accessible communications system removed from the spoken word. As such, the individual’s ordering of his/her own ideas (and thus sense of individualism) was significantly advanced (Watson 2006, 370).

In terms of the dialectic between power and knowledge, this and many other examples demonstrate the complexity in Innis’ work—a complexity that is almost certainly purposeful. References to power and knowledge invite readers to actively

engage their intellectual capacities and Innis, in keeping with this method of presentation, refused to champion some form of media determinism. As he puts it in the first paragraph of *The Bias of Communication* (1951), the papers in that book are an attempt to answer the question “Why do we attend to the things to which we attend?” Innis then tells us that “They do not answer the question but are reflections stimulated by a consideration of it. They emphasize the importance of communication in determining ‘things to which we attend’ and suggest also that changes in communication will follow changes in ‘the things to which we attend’” (xlili).

Here Innis states that changes in communication follow changes in the things to which we attend. Innis’ concept of bias clearly is not about the inherent conceptual and sensual orientations inscribed through media; bias, instead, is a heuristic tool used to assess the historical determinants shaping power-knowledge dialectics. Rather than a master concept applied to find *the* truth, bias is applied as a means of investigating why dominant truths are conceptualized as they are. In fact, bias served an almost secondary role for Innis—secondary and supportive to his more general concerns regarding power relations and what he termed “monopolies of knowledge.”

INNIS’ APPROACH TO UBIQUITOUS MEDIA

Through monopolies of knowledge we find what is, in essence, Innis’ approach to ubiquitous media. For him, space and time are the two fundamental indices of human existence, not just organizationally but also in terms of perception and understanding. The need to comprehend and control both is, for him, a profound and complex endeavor not least because they are the subjects of ongoing change. “The concepts of time and space,” he writes, “must be made *relative and elastic* and the attention given by the social scientist to problems of space should be paralleled by attention to problems of time” (Innis 1946, 34. Emphases added).

Controlling or monopolizing knowledge—control over both the information available and how it is interpreted—prospectively takes place through predominant and, certainly, ubiquitous media.⁸ Media, in effect, enable not only a dominant way of organizing society, they also facilitate appropriate or common sense ways of thinking. There is, in fact, a link between the development or presence of ubiquitous media and such monopolies but it is not a direct causal relationship. Moreover, the use of a ubiquitous medium does not itself yield a monopoly of knowledge, but in its absence, the capacity to develop and sustain such a monopoly is questionable.

For Innis, media are the relational environments through which human interactions take place. They reflect and influence biases. Biases, generally, constitute our conceptual capacities—the parameters in which information and experience are processed into what is knowable. Simply put, how a medium is structured—whether it is

writing, the price system, a bureaucracy, or the Internet—influences how people using it think. Ultimately, the materialization of such biases through social structures and a society's inter-subjectivities constitute the framework for what is thinkable and imaginable.⁹

Over the long course of civilizational history, Innis tells us that empires come and go alongside their capacity (or incapacity) to sustain and control political economic activities. In this *longue durée* analysis, ubiquitous media constitute crucial intellectual and structural nodal points through which social-economic relations are established and extended over time and space. The development and maintenance of an empire thus involves the capacity to recognize and respond to the endogenous and exogenous problems that such mediated conditions entail. Media are developed, entrenched, or reformed in response. Successful empires can do this while others fall into crises.

Informing this historical pattern was, to repeat, a dialectic that Innis was familiar with in part through his encounters with the work of classicists—that between power and knowledge. Power (involving coercive mechanisms and force) needs knowledge (often in the hands of specialists and elites) that can be applied to organization and administration. Those in commanding positions (particularly political, economic, and military leaders) tend to focus on such dimensions to the neglect of more reflexive and critical forms of knowledge (knowledge usually produced by intellectuals, artists, and even political dissenters). In other words, those in power occupying the centre or core are compelled to dominate the intellectual and political margins. The core, however, needs what the margins produce—from wealth to creative thinking—in order to (at least in the long term) reproduce itself. Power's necessary dominance over knowledge thus constitutes a threat to itself.

Power tends to dominate knowledge—promoting and using what Innis would refer to as “dead” forms of knowledge—yet power also needs another kind of knowledge—“living” knowledge—in order to successfully respond to the (inevitable) problems facing the system or empire. In sum, living (self-reflective, creative, critical) forms of knowledge are needed as a resource for thinking differently; to, in effect, counterbalance the tendency towards a monopolization of knowledge. As Innis (1951, 34) recognizes (and warns) in *The Bias of Communication*,

The use of a medium of communication over a long period will to some extent determine the character of knowledge to be communicated and suggest that its pervasive influence will eventually create a civilization in which life and flexibility will become exceedingly difficult to maintain.

A sustainable society, empire, or civilization thus must possess the capacity to resist its own biases and ossification. This capacity is not (simplistically) the outcome of some kind of liberal tolerance of marginal groups who wish to communicate and express

themselves (i.e., outcomes of, in a contemporary context, access to the Internet and entrenched civil and speech rights). Such human rights, while theoretically desirable, are not directly equated, in Innis, with the capacity to think reflexively and produce living forms of knowledge.¹⁰ Nor is this capacity seen to be an inevitable outcome of an individual's or group's marginalized status. Instead, Innis recognizes that *a monopoly of knowledge can engulf not just elites but also a society's most exploited and intellectually radical elements*.

With this and the overarching power-knowledge dialectic in mind, we can read one of Innis' most widely cited passages with some precision. In *Empire and Communications*, he outlines his oft-quoted theory of technology and time/space bias:

The concepts of time and space *reflect* the significance of media to civilization. Media that *emphasize* time are those that are durable in character, such as parchment, clay, and stone.... Media that *emphasize* space are *apt* to be less durable and light in character, such as papyrus and paper. The latter are *suited* to wide areas in administration and trade.... Materials that emphasize time *favour* decentralization and hierarchical types of institutions, while those that *emphasize* space *favour* centralization and systems of government less hierarchical in character. Large-scale political organizations such as empires must be considered from the standpoint of two dimensions, those of space and time. *Empires persist by overcoming the bias of media which overemphasizes either dimension*. They have *tended* to flourish under conditions in which civilization *reflects* the influence of more than one medium, and in which the bias of one medium towards decentralization is *offset* by the bias of another medium towards centralization. (Innis 1950, 5. Emphases added)

The reader will note that Innis, in relating media to an empire's control over space or time, stresses how their characteristics emphasize propensities, not concrete necessities, and that they entail tendencies rather than determining factors. Media, in other words, imply the structuring of capacities—the parameters of what is possible or impossible, imaginable or unimaginable. Spatial or temporal biases emerge from the use of technological, organizational, and institutional mediators in the pursuit and administration of (or resistance to) power. The predominance of particular mediators in a given place and time reflects and tends to perpetuate general biases. These biases are shaped by and, in turn, shape the formation of particular ways or systems of thinking and, more abstractly, monopolies of knowledge.

In most of his writings Innis uses the concept of a monopoly of knowledge liberally. In "Minerva's Owl," for example, he writes that

I have attempted to suggest that Western civilization has been profoundly influenced by communication and that marked changes in communications have had important implications...I have attempted to trace the implications of the media of

communication for the character of knowledge and to suggest that a monopoly or an oligopoly of knowledge is built up to the point that equilibrium is disturbed. (Innis 1951: 3)

In just this paper, Innis lists an array of influential technologies (most directly clay, the stylus, cuneiform script, papyrus, the brush, hieroglyphics and hieratic writing, the pen, the alphabet, parchment, paper, printing, the printing press, celluloid, and radio) in what can be read as an overview of the rise and fall of monopolies of knowledge. Also, Innis addresses the development and implications of many dozens of other media—technologies, organizations, and institutions. For example, the ancient development of the horse and chariot facilitated the unity of city states primarily through the use of force but also through the corporal awareness of Rome's power that this military technology entailed. The use of coins after 700 BCE provided for both the flexible development of market systems and the capacity to further abstractify the nature of human relationships. The development of libraries and museums enabled both the conservation and utilization of the past. The Roman contract clarified obligations and reduced the costly need for public ceremony. The rise of monasticism provided the Roman Catholic Church with agents who reproduced (selections of) written knowledge while also promoting faith and the bible throughout Europe. The rise of commerce involved institutions that encouraged exchange, individualism, and order. Advertising promoted aspects of existing reality and stimulated new and more abstract realities. In these and many other examples, institutions, organizations, and technologies are developed, applied, or modified to mediate capacities concerning power and knowledge. They extend existing relations and open up potentials for their disruption.

THE PRICE SYSTEM AND PRINTING

Let us now be more specific on how the concept "monopoly of knowledge" is related to Innis' analyses of ubiquitous media. In this section, I do this through a brief consideration of two relatively contemporary examples: the price system and printing.

The price system is the predominant means of valuing what people exchange using monetary representations—representations that, by the twentieth century, constituted a dominant means of understanding economic relations and policymaking. Innis began his critique of the price system by demonstrating the inaccurate and even delusional aspects of its use. What had been a relatively rational measurement of human preferences in relation to resources became the central mechanism through which imbalances in (or a disequilibrium between) desires and capabilities were understood and worked out. Innis thus critiques more than just the price system's influence in capitalist development; he also assesses its implications in modern thought.

The price system is a predominant institution providing unprecedentedly complex economic relations with both their grease and glue. As such it mediates and fundamentally influences human thought through its concrete applications and in how it is used to organize abstract relations and ideas. Assessing its impact, Innis traces the price system's development from the efforts of European states to administer mercantilist activities involving the importation of gold and silver to subsequent developments in the construction of classical political economy to its use as a means of managing (and legitimizing) political economic relations promoted by powerful vested interests. Thus, through its pervasive use, the favored calculations or valuations of merchants, industrialists, bankers, accountants, state administrators, and others (such as advertisers and modern corporations) came to take precedence as reified ways of thinking.

A monopoly of knowledge thus can be structured through the ubiquitous use of such a medium. More than this, however, Innis was disturbed by how such monopolies became entrenched in ways of thinking that are largely unperceived and self-perpetuating. In the case of the price system, through its material and intellectual pervasiveness, it became a means through which its own faux neutrality was reproduced and applied in everything from the calculations used to declare war to the costs and benefits of staying in a marriage. The price system, according to Innis, has even limited our capacity to imagine the future by funneling our community and personal values through a prism of monetary and mathematical calculations. "The successful politician," writes Innis (1946, 165), "is precluded from policies which indicate class or self-interest but he is successful in so far as he succeeds in enlisting the support of the price system."

The ubiquity of the price system and its largely unspoken advantages for some interests over others enables its perpetuation and encloses both expert and common sense thinking in an invisible cage that delimits the boundaries of reality. For example, given the price system's institutionalization in the seventeenth century in response to the vast influx of gold from the new world, he writes that "It would be interesting to speculate on the history of economic thought if England had been an important producer of precious metals and not an importer and an exporter" (*ibid.*, 146). The price system, while initially counter-balancing the irrationalities of religion, subsequently perpetuated biases that enabled control while, in so doing, it also framed the parameters of creativity.¹¹

The price system's "dangers," writes Innis (*ibid.*, ix), "follow obsession and intolerance to a philosophical interest and skepticism." It is in this context—the tendency of "dead" forms of knowledge to overwhelm the "living"—that Innis assesses the first half of the twentieth century in a way that emphasizes the extraordinary implications of such intellectual mechanisms:

The outbreak of irrationality, which in the early part of the twentieth century became evident in the increasing interest in psychology following the steadying effects of commerce in the nineteenth century, is the tragedy of our time. The rationalizing potentialities of the price system and its importance in developing powers of calculation in the individual have failed to prevent a major collapse. It has been argued that man as a biological phenomenon has been unable to sustain the excessive demands of rationalism evident in the mathematics of the price system and of technology. (Innis 1946: 98–99)

As for another ubiquitous medium—printing—Innis stresses its importance in terms of what he calls the mechanization of knowledge. Rapid economic growth, particularly dating from industrialization in the nineteenth century, and the related rise of democracy and public opinion (mostly through literacy and the commercial press) entailed the development of media (institutions, organizations, and technologies) enabling growth and control over workers/consumers/citizens. This complex of developments directly implied the ubiquitous availability and use of printed forms of communication.

With wood pulp replacing rags as the raw material for newsprint, and with a train of print technology developments (driven most overtly by the demands of advertisers), mass market journalism flourished by the end of the nineteenth century. Changes in other areas of publishing emerged also; changes molded, perhaps most significantly, through the growing power of voters and consumers. What was called “the new journalism”—the penny press being an extreme form—was facilitated by (and itself influenced) broader and deeper cultural developments. In this history, through his understanding of center-margin relations and the power-knowledge dialectic, Innis saw media being used in a paradoxical way: power seemingly was being decentralized through democracy and the rising influence of public opinion but these also constituted means of controlling politics and markets. The demands of the working class, for example, were funneled through mediators (such as advertising-sponsored newspapers) that both fragmented intellectual capacities and incorporated dissent through another institutional development—mass consumption.

In this process, journalistic and other writing standards were debased. But also in the context of these changes, some news organizations turned away from “spuriousness” and, instead, promoted “accuracy and truth,” especially as the former was not in keeping with the newspaper’s emerging role as the medium of their advertisers supposed truthfulness (Innis 1946, 27–28). Nevertheless, in seeking to accommodate mass readerships on behalf of capitalist interests, and in light of the growing competition facing the press with more sensually-engaging media such as cinema and radio, newspapers and other printed communications came to demonstrate an antipathy to

“the deep intensity of thought” (Babe and Comor 2018, n.p.; Sir Walter Scott, quoted in Innis 1946, 30).

Printing, as a technology developed in conjunction with (and in support of) other influential developments, promulgated a general interest in current events, accessible explanations, and seeing-is-believing standards of “truth” (the latter typically involving images and statistics). The development of mass education, for example, involved the state-sponsored rise of textbook publishing. Beyond its political and nationalistic implications, Innis (*ibid.*, 100) argues that the textbook “has become...a powerful instrument for the closing of men’s minds” due to, among other things, “its emphasis on memory and its systematic checking of new ideas” through indexes and their re-publication as updated editions. “Biases,” Innis continues, “become entrenched in textbooks which represent monopolies of the publishing trade and resist the power of thought.”¹²

Textbooks enabled power (through the state) to manage the dissemination of knowledge and, in so doing, particular forms of knowledge were perpetuated. Even Canada’s universities were compelled to conform. They were (and still are), after all, publicly funded. As such, research and teaching activities—particularly in the context of a present-minded and price system dominated culture—have to be substantiated in terms of their demonstrable (as opposed to abstract and long-term) contributions. As with the newspaper, in the university the timeliness of knowledge and its relevancy to contemporary (and often fashionable) concerns became increasingly valued. Both journalism and academia actively perpetuated this shift and the volume, subject matter, and quality of publications reflected this directly.

The ubiquity of printing enabled an explosion of information and knowledge in largely debased and vernacular forms and the qualitative dimensions of knowledge were, in effect, flattened.¹³ Partially in response to this (and enabled by the unprecedented availability of print technology), specializations flourished. More than just advertising and its immediate gratification priorities had come to dominate cultural norms and intellectual pursuits.

The upshot, for Innis, has been the mechanization (and deadening) of knowledge and, through this, some disturbing developments. Indeed, Innis characterized the nineteenth century as a period of relative rationalism while, in light of the changes mediated through the price system, industrialized printing, and other ubiquitous media, the twentieth was characterized by an irrationalism yielding “a century of war” (*ibid.*, 55; Babe and Comor 2018, n.p.). Publications addressing increasingly isolated fields and sub-fields revealed, for him, a lack of perspective that is both spatial (as with cross-at-your-own-peril boundaries of expertise) and temporal (especially in terms of the present-mindedness that most specializations imply).¹⁴

The unprecedented availability of information and the precision afforded by print technologies constituted something very different from a democratization of knowledge and the foundations for a more thoughtful society. Academic knowledge, for one thing, was being produced and thought about in more functional, instrumental, and exacting terms, rather than in terms of its value as a means of reflection, critique, and even collective understanding. “Knowledge,” Innis observes, instead “has been divided to the extent that it is apparently hopeless to expect a common point of view” (Innis 1951, 190). According to Innis (1946, 126):

The rapid growth of bureaucracies recruited from highly specialized social sciences has brought the rapid growth of ecclesiasticism and the rapid decline of scepticism. Democracies are becoming people who cannot understand, run by people buttressed and protected by the ramparts of research....[In the words of Locke] ‘The greater part cannot learn and therefore they must believe.’

The mechanization and mass consumption of printed communications propagated, through both form and content, the value of the new, the practical, and the intellectually manageable. This, for Innis, constituted a fundamental contradiction. Industrial scale printing enabled and embodied a pernicious compounding of the short-term and unreflexive thinking that had become lauded as an inherently democratic and thus unimpeachable right. But in the absence of even those on the political and intellectual margins (for example, many workers as well as artists and intellectuals concentrating on mostly “living” forms of knowledge) having the capacity to recognize this decline of thoughtfulness, the ahistorical (if not suicidal) drumbeat of “progress” continued. More than this, Innis viewed the rapid development of efficient and more “perfect” methods of communication to be compounding this mostly invisible crisis. Beyond the many specializations these afford, the power to produce and circulate sounds and images portraying “reality” would mediate even more time-neglecting forms of knowledge. Power (Minerva), in effect, was treating knowledge (her owl) as a pet rather than a means of enlightenment and survival (Watson 2006, 309). The “enormous capacity” of Western civilization “to loot,” writes Innis (*ibid.*, 102), particularly through the ubiquity of increasingly realistic mediations, “has left little opportunity for consideration of the problems which follow the exhaustion of [cultural and intellectual] material to be looted.”

TOWARDS AN INNISIAN APPROACH TO UBIQUITOUS DIGITAL MEDIA

To summarize, the ubiquity of a medium facilitates or provides the capacity for the emergence or entrenchment of some form of monopoly of knowledge. While the medium itself does not determine this monopolization, the ways in which a medium structures, or enables the production and communication of some kinds of information

over others and some ways of thinking in relation to others are its most germane implications. The price system and printing demonstrate this and so too might an Innisian analysis of digital communications technologies.

As with other ubiquitous media, Innis certainly would assess digital technologies in the context of a complex of political economic and cultural dynamics and in relation to other influential mediators. Monopolies of knowledge, such as the mechanistic, specialized, organizational, administrative forms of knowledge dominating much of the twentieth century (and related biases concerning spatial control to the neglect of time), are neither automatically perpetuated nor transformed by the wide scale introduction of such a medium. Moreover, as an historicist, Innis would argue that we cannot fully comprehend the implications of any emergent technology, organization, or institution until time gives us the perspective needed to make such an assessment.

Having said this, however, following his efforts to comprehend the uses and implications of the predominant media of his time, we can at least begin an Innisian analysis of ubiquitous digital media by recognizing them to have been built within (and in response to) the parameters of existing media (broadly defined) and the general dynamics driving (and the capacities framing) their development. The price system, for example, was and remains an institutionalized means of organizing and facilitating economic (and other) activities in ways that are constitutive of a particular political economic order and the values and vested interests it supports. Likewise, printing enables some powerful interests to maintain or extend their control over a society's wealth and common sense thinking involving the capacity to shape public opinion through education, advertising, and the allocation of or specialized control over such resources. Viewed historically, the ubiquity of these media has been and remains a reflection of their enormous usefulness and flexibilities especially (but not exclusively) as nodal points of power among both status quo and competing interests. If for no other reason, ubiquitous media become ubiquitous because they are handy to vested interests. The consequences of their use, however, are not always predictable as the dynamics and factors shaping history are too complex.

For Innis, history provides us with the potential to assess the present with some perspective, enabling us to identify general tendencies and patterns that we might apply to contemporary developments. For one thing, established cultural and economic capacities and dynamics shape the structuring of emergent media while older media are compelled to change in response to the demands mediated by the successful new ones. The owners, editors, and writers of newspapers and books, for example, in their responses to radio and cinema, modified their products in order to be more attractive and accessible (mostly through simplifications, sensationalism, photography, color printing, comics, etc.). Today, in light of the "obvious" advantages of online forms of journalism, most newsprint versions are deemed to be a waste of time (and

money)—especially for advertisers—and the book, through its many digitized iterations, is becoming a hybrid vehicle crafted to engage consumers even more sensually (as opposed to intellectually) than it had in the past. Through this technological “progress”—involving the book’s “democratization” and “liberation” from publishers—the value of concentration, reflection, and long-term considerations (not to mention the prestige of the author and the written word itself) likely are being further marginalized. 15 As Innis (1951, 82–83) observed, such spatially biased developments—i.e., the unprecedented reach and accessibility of online publications—make it “increasingly difficult to achieve continuity or to ask for a consideration of the future.”

Part of this annihilation of time involves, for Innis, an understanding of the pressures facing people in our time—given that “time is money” and “money is time” (George Gissing quoted in Innis 1951, 83)—and that new media enable us to live more of our lives without having to engage in the difficult and time-consuming task of critical/self-reflexive thought. Representations of reality—like assumptions that “Truth” is the outcome of scientific and mathematical applications—have been perfected through digital technologies. However, as Innis quotes Geoffrey Scott, “It is...the last sign of an artificial civilisation when Nature takes the place of art” (Scott quoted in Innis 1951: 193). What Innis means by this becomes apparent in the following excerpt from his essay “A Plea for Time”:

The effects of new media of communication evident in the outbreak of the Second World War were intensified during the progress of the war. They were used by the armed forces in the immediate prosecution of the war and in propaganda both at home and against the enemy. In Germany moving pictures of battles were taken and shown in theatres almost immediately afterwards. The German people were given an impression of realism which compelled them to believe in the superiority of German arms; realism became not only most convincing but also with the collapse of the German front most disastrous. In some sense *the problem of the German people is the problem of Western civilization. As modern developments in communication have made for greater realism they have made for greater possibilities of delusion.* (Innis 1951: 81–82. Emphases added)

In the absence of an innate capacity to recognize that information and experience are not themselves objective realities, the technological mastery of media presents the individual and the mass public with little room for interpretation (i.e., nature over art). In this observation, Innis harkens back to the concerns that Plato says were expressed by Socrates with the advent of the Greek alphabet and writing (as quoted earlier). To repeat, as Innis (1946, vii) quotes Socrates in *Phaedrus*, with writing, people will convey “the show of wisdom without the reality.”

In a world mediated, regulated, and governed through mostly unquestioned representations (prices as values; printed words as truths; digital technologies mimicking concrete experiences), ways of thinking that entail little or no reflection (let alone historical or philosophical perspective) are normalized. Thoughts, let alone actionable concerns, about society's long-term duration thus become further marginalized; they are deemed to be a waste of time and money, especially in a political economy and culture that perpetually lacks the former and values, more than anything else, the latter.

An Innisian analysis, furthermore, would recognize that digital technologies reflect and extend capitalism's (and, more generally, power's) emphasis on timeliness and efficiency in decision-making and, indeed, daily life itself.¹⁶ As with Innis' recognition that biases tend to be self-perpetuating, this closing off of reflexive thinking in effect undercuts critiques concerning the monopoly of mechanized knowledge. In a cultural environment stressing individualism and efficiency and in the absence of time-consuming reflexive capacities, all kinds of digitally-mediated communications are embraced as the priorities and values they facilitate are both pervasive and seemingly obvious.

Innis, of course, assessing contemporary developments through his historical perspective and historicist epistemology, underlined that such media-facilitated monopolies of knowledge are inherently contradictory. Power appears to be served as Minerva's owl has been all but caged. Amidst splintering attention spans and fashion-induced moments of dissent, powerful vested interests (including, when organized, the citizens of liberal democracies) tend to focus their energies on management and control rather than conceptualizing (let alone forging) radically different ways of thinking. More generally, this neglect of time—particularly the value of understanding history, the time required to reflect, and the imagination and creativity needed to think about alternatives—compels the Innisian analyst to consider contemporary developments involving digital technologies to be far less liberating than many assume them to be. Here we would do well to recall the myth of Prometheus.

From Innis' study of history—a study driven in part by his quest to develop an alternate (relatively unbiased) perspective—he tells us that the margins of any political economic system and culture have the greatest capacity to resist, particularly given their removal from the full force of the core's framing dynamics and mediated realities.¹⁷ In their struggles with the core (or political economic empire) they may be compelled to adapt dominant media in light of their own needs and interests. This, for Innis, is not necessarily the basis for revolution but, instead, it constitutes an important means of countering monopolies of knowledge. To use his preferred language, marginal demands may constitute part of a system's unused capacities and, thus, new ways of thinking may emerge as a result of center-margin tensions and dynamics.

As Innis' work reveals, however, imperial centers draw from or directly loot the economic and cultural resources of their margins as they are primary sources for ideas and innovation. The systemic drives associated with capitalism compel new means of control, new bases for resistance and, indeed, the potential for cultural vibrancy. But in our contemporary context, through the price system and other ubiquitous media (including digital technologies used to educate, advertise, market, and "stay connected all the time"), Innis' concerns about spatial control, the mechanization of knowledge, and an immediate future of misunderstanding and instability appear to be warranted.

CONCLUSIONS

Under the conditions of their contemporary use, digitally mediated communications provide instantaneous knowledge. Their seeing-is-believing qualities facilitate what Innis might call the delusion of certainty. Specializations are perpetuated and publics gravitate towards the less time-consuming and intellectually supportive views of like-minded others. Arrogance and narcissism deepen as truths are pontificated based on not much more than experientially-informed reckonings and prejudices. The reach and perfection of digital communications likely would prompt Innis to reiterate his statement that:

Enormous improvements in communication have made understanding more difficult. Even science, mathematics, and music as the last refuge of the Western mind have come under the spell of the mechanized vernacular. Commercialism has required the creation of new monopolies in language and new difficulties in understanding. (Innis 1951, 31)

Innis also observes that the introduction a new medium tends to "check the bias of the first [and dominant medium] and to create conditions suited to the growth of empire" (Innis 1950, 169). In other words, there is a tendency for power to adjust its course as a result of the counterbalance to its monopoly of knowledge that may emerge through the use of a new (and perhaps ubiquitous) medium. Barring complete collapse—a development that in the twentieth century he associated with another, now atomic/nuclear, world war—Innis, however, does not anticipate anything remotely revolutionary.

Perhaps today's rapid development of ubiquitous digital media constitutes this very occurrence: digital media somehow constituting a check and counterbalance to print (or, as McLuhan put it, the dominance of typographical man). Certainly, other ubiquitous media—such as the price system—are not directly threatened by digitization. However, a goal of this chapter has been to point out that such general tendencies are, for Innis, not laws of history. There is no, to borrow from some Marxists, immanent dialectic at

work (except, arguably, the trans-historical dialectic between power and knowledge). Innis' dialectical materialism is, instead, historically conditional in that Innis resisted what he criticized others for following: ossified schools of thought generating mechanized forms of knowledge.

Nevertheless, from an Innisian perspective, the transition to digital media seems to constitute the widening and deepening of pre-existing conditions more than the mediation of a new period of cultural vibrancy. Certainly something new is taking shape but, most likely, this is unfolding through an entrenched monopoly of knowledge and, therefore, the dawning of a more reactionary political culture—"reactionary" on the part of not just the right and left but the center also.

What Innis provides analysts conducting research on the subject of ubiquitous media is an approach that compels us to focus on the structural and intellectual capacities at hand, the complex dynamics and mediations at play, and the generally unseen tensions and contradictions that may be at work. Innis' understanding of ubiquitous media is slippery and complicated and, thus, prone to simplifications bordering on assessments akin to some kind of media determinism. In this chapter, following Watson (2006), I have argued that the most productive link to Innis' concerns is not some straightforward analysis of media bias but, instead, it is to relate ubiquitous media to monopolies of knowledge and, more broadly, the dialectic between power and knowledge.

In monopolies of knowledge, assumptions about the truth fatally supersede "the search for truth" (Innis 1946, 126. Emphasis added). In pursuing questions concerning the development and implications of ubiquitous media, Innis would underline this very point as both a guide and a warning.¹⁸

NOTES

1. This chapter was written while preparing, with co-editor Robert Babe, the re-publication of Innis's *Political Economy in the Modern State* (Toronto: University of Toronto Press, 2018). Through that project he played an important role in the intellectual development of what I present herein, and I recognize that portions of this chapter echo parts of our work for that book. I also acknowledge the assistance of Vincent Manzerolle for his thoughtful input during the chapter's development. Finally, I am compelled to dedicate this chapter to the late Professor Ian Parker. His influence on my understanding of Innis' work has been immeasurable.
2. Although I have found no direct (let alone sustained) use of the term "ubiquitous media" in Innis' work, in what follows I hope to demonstrate his interest in the subject.

3. Institutions, in Innis' works, refer to both formal institutions (such as the Church) and the more socio-economic (such as the price system). Organizations generally reference headquartered collectivities such as banks, political parties, or universities. Technologies, it should be noted, also imply techniques (his references to print, for instance, involve abilities related to literacy).
4. For Marx, the commodity form (conceptualized as an institution) might be said to mediate such contemporary relations while, for Innis, what he called the price system was central in similar (but more limited) ways.
5. Later in his career, during the 1940s, Innis came to appreciate Greek mythology as an ideal-type form of knowledge in that it embodied both the vibrancy of orality (particularly at the time of Plato, at the dawn of writing) in conjunction with its capacity to communicate ontologically objective truths concerning shared conditions. Alexander John Watson (2006, 301) suggests that Innis' critique of monopolies of knowledge drew from similar themes found in Greek mythology.
6. Innis' understanding of power developed from a political economy-based relational and structural conceptualization (as in his earlier research on Canadian economic history) into an approach characterized by a complex of relations in which power/force and knowledge/intelligence constitute dialectically interdependent capacities.
7. According to Innis, "The success of organized force is dependent on an effective combination of the oral tradition and the vernacular in public opinion with technology and science." (Innis 1951, 5).
8. Although Innis never used the term ubiquitous to describe an institution, organization, or technology, the engaged reader can discern quantitative and qualitative differences between media that are predominant and those that are ubiquitous at a given place and time. In his six years of dedicated writing on media and communications (1946–1952), various media such as radio, the automobile, and roads had become predominant while the price system, print capitalism, and the state were ubiquitous.
9. Of course, the material properties of media foundationally shape the capacities of such structures.
10. On democracy as practiced in the mid-twentieth century, quoting François Guizot, Innis writes that "It readily sacrifices the past and the future to what is supposed to be the interest of the present" (Innis 1946: 95).
11. In Marx, something very similar can be seen in the predominance of the commodity form and its profound implications in social relations. Its ubiquity—more abstract and defining than Innis' concerns about the price system—mediate concrete/living relations through the predominance of abstractions.

12. On the other hand, “Abolition of standard texts in favour of the publication of a wide variety of books increases the cost of education to the publishers, the state, and the purchaser of books, but it tends to break down broad stereotypes” (Innis 1946, 162).
13. The first two chapters of Innis’ (1946) *Political Economy in the Modern State*, for example, explore and demonstrate this theme through the history of the newspaper in the United States and Britain and the modern press in England.
14. On this second point, as the interests and exclusionary vocabularies of specialists develop, their work becomes less accessible to others and, as such, their primary readership are similarly specialized administrators, scholars, and bureaucrats.
15. It is in this cultural context that pension fund investments and insurance issues are worth losing sleep over but seemingly abstract concerns involving, for example, ecological survival or the proliferation of nuclear weapons are, for most, mere “issues.”
16. More generally, as classical political economists (most notably, Marx) first recognized, capitalism is a historically unique form of production (and reproduction) entailing, through legal and other modes of abstractification, a *systemic drive* to expand the accumulation of capital and, in the process, shorten the time frames of all kinds of social relations.
17. Through his direct and indirect references to center-margin and core-periphery relations, Innis alludes to a range of structural and cultural conditions that, to repeat, elaborate classical power-knowledge dialectics. His use of space-time dialectics in his later writings is an obvious example (both alluding to tensions and contradictions involving the capacity to control and think reflexively). Implicit in this ever-mediating dynamic is the complexity of hegemonic power, entailing both coercive and consensual capacities.
18. Indeed, in the first paragraph of his Preface to *Political Economy in the Modern State*, Innis writes that “The volume is intended as a guide and as a warning” (1946, vii).

REFERENCES

- Babe, Robert E. and Edward A. Comor. 2018. “Editors’ Chapter Introductions.” In *Political Economy in the Modern State*, edited by Robert E. Babe and Edward A. Comor, n.p. Toronto: University of Toronto Press.
- Innis, Harold A. 1946. *Political Economy in the Modern State*. Toronto: The Ryerson Press.
- . 1950. *Empire and Communications*. London: Oxford University Press.
- . 1951. *The Bias of Communication*. Toronto: University of Toronto Press.

Watson, A. John. 2006. *Marginal Man: The Dark Vision of Harold Innis*. University of Toronto Press.