

## **Moving Past the Canadian Pacific Railway : The impact of transportation networks on Canadian communications thought**

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- Abstract** This paper addresses the limitations of Canadian railway technology as a conceptual model for mass communication in Canada – especially online communication. Despite the railway’s capacity for importing foreign goods, the Canadian Pacific Railway (CPR) in particular persists as an image of national unity, facilitating the equation of the Canadian nation with state-sponsored transportation and communication technology: a tendency Charland (1986) terms “technological nationalism”. Despite, and in fact because of parallel developments in Canadian transportation infrastructure and Canadian communication networks, this paper draws on Acland’s (2006) account of history as geographic inscription to displace the railway’s central place in nationalist imaginary of Anglophone Canadians. Informed by Innis’s (1923, 1930) histories of the CPR and the fur trade, this paper forefronts the fur trade’s water networks as a conceptual model for online communication in Canada and as a corrective for the nationalist tendencies of Canadian communications thought.
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## **1. Introduction**

The national railway, completed in the late nineteenth century, continues to be the primary focal point for the imagination of Canadian nationalism. The nation-spanning railway network – a permanent infrastructure of iron and steel deployed according to the physical contours of Canada – functions in the popular imagination, and in academic accounts, as a technology of national unification. The fundamental place of the state-sponsored national railway in the Canadian national imagination epitomizes the problems with Anglophone Canadians' tendency to imagine their national bonds according to space binding network technologies – a tendency Charland (1986) terms “technological nationalism”. Despite the railway's capacity for importing foreign goods, the Canadian Pacific Railway (CPR) persists as an image of national unity, facilitating the equation of the Canadian nation with state-sponsored technology. This essay attempts to displace the railway's primary role in the Canadian imaginary by revealing the railway to be one stage in a continued succession of reorganizations of North American space by network technologies. After outlining some of the problems Charland attributes to technological nationalism, and outlining the relationship between Canadian transportation networks and Canadian communication, this paper draws on Acland's (2006) account of history as geographic inscription to forefront the water networks of Canadian fur trade as a means of understanding contemporary online communication in Canada.

## **2. Technological Nationalism and its insufficiencies**

Charland (1986) addresses the tendency for Canadians to imagine their nation in terms of space-binding transportation and communication technologies. Because Canada's nationhood and national economy are predicated on transportation technology – the deployment of the CPR accompanied British Columbia's entrance into Confederation and the telegraph lines synchronized transcontinental communication and trade – Charland argues that there is a tendency for Canadians to see technology “as constitutive of Canada, and as a manifestation of Canada's ethos.” (p. 196) Charland cites the CPR as a particularly potent image of technological nationalism; given its construction against political, economic and geographic obstacles, its existence as a state

project and the physical power associated with the steam engine itself, the CPR, in addition to linking Canadian territory, “offered the possibility of developing a myth of national origin” (p. 198). The myth of the railway remains as fundamental to the Canadian imaginary as the actual railway was to Canada’s political and economic interconnection.

Charland identifies a number of problems with technological nationalism. He calls one of these problems the “absent nation” (p. 197); when Anglophone Canadians equate their nationhood with space-binding technologies rather than populations, the result is a faith in the nation-building media networks whose “content” often amounts to little more than idealistic representations of technological nationalism itself. Charland references the Canadian Broadcasting Corporation (CBC)’s televisation of *The National Dream*, Pierre Berton’s history of the CPR, as one such example. While the CBC’s existence can be justified according to its national transmission of such Canadian-centric programming, the program itself idealizes the railroad according to its nationalist impetus and nation-binding capacity. The resulting situation is a paradox in which the CBC justifies its own existence as a provider of Canadian content by distributing content that amounts to an idealized representation of Canadian network technology rather than a definition of the particularities of Canadian people and experiences.

Another problem with technological nationalism is that it “identifies a medium ultimately based upon a foreign economic and programming logic as the site for Canada’s cultural construction” (Charland, 1986, p. 204). In other words, the transportation and communication networks projecting Canada’s national unity are affected by foreign influences and operate in ways that are not distinctly Canadian, resulting in a cultural landscape that is not distinctly Canadian in any significant sense. The foreign influences on the Canadian broadcasting system are apparent in the transmission of foreign programming by Canadian broadcasters (two examples being CBC’s airing of *Jeopardy!* and *Coronation Street*) and, less obviously, in the production of Canadian programs that amount to domestic versions of popular foreign programs (*Canadian Idol*, *Dragons’ Den*, *So You Think You Can Dance Canada*).

The foreign influence on Canadian broadcast networks is equally characteristic of the railway network that provides a myth of national origin and serves as the key image of technological nationalism. While

the CPR marked the most extensive national project facing the newly established Canadian federal government, by the 1880's North American railway tracks were built in accordance with continental gauge standards (Puffert, 2000, p. 933), enabling foreign (American) penetration of Canadian territorial and economic space. The bidirectional flow of North American railway traffic in the late nineteenth-century set the tone for the foreign (American) penetration of the Canadian cultural landscape alongside Canadian radio in the 1930's and Canadian television in the late 1940's. As noted by Dowler (1999) "The communication apparatus, though it binds together the material space of the nation for the purposes of sovereignty, also facilitates importation of foreign culture." (p. 344) While the most obvious examples of Canadian broadcasters importing foreign culture would be the primetime broadcasting of American television programs by private Canadian networks like *CTV* and *Global*, the national public broadcaster has distributed foreign programming since its inception in the 1930's, as apparent in the appearance of American programs on the Canadian Radio Broadcasting Commission (CRBC)'s schedule in the 1930's. (MacLennan, 2005)

Despite the inability of the Canadian transportation and communication apparatuses to provide a means of significantly distinguishing Canadian economic and cultural space from foreign markets, transportation network infrastructure - specifically the CPR - remains a focal point for rhetoric of Canadian nationalism.

### **3. Parallel lines: transportation and communication**

While it is problematic that the CPR, an early example of Canadian network technology undermining national sovereignty, remains a particularly potent image in Canadian technological nationalism it makes sense to draw parallels between Canadian transportation infrastructure and the development and regulation of Canadian broadcasting infrastructure. Early Canadian broadcasting was closely tied to transportation technology. Canada's *Wireless Telegraphy Act* of 1905 put the *Department of Marine and Fisheries* in charge of the medium (Vipond, 1992, p. 8). From 1922 until 1932 the *Department of Marine and Fisheries* issued licenses for radio broadcasting technology (Vipond, 1994, para. 1). One of the first activities of *The CRBC* - the public broadcaster preceding the CBC and established by a 1932 act - was to sign a contract

with *Canadian National Railway and CPR Telegraphs* “enabling four hours of national hookups a day” (Vipond, 1994, para. 39).

The crucial place held by the CPR in popular histories such as Berton’s book and its televisation also resonates with the place of the CPR in academic histories of Canada – most notably Innis’s dissertation and first book *A History of the Canadian Pacific Railway* (1923), where he cites the CPR as evidence of colonial civilization’s expansion beyond the areas dictated by the rivers and drainage basins shaping the fur trade and its settlements (p. 2) and instrumental in extending “a civilization narrowly described as Canadian” (p. 128). Innis (1923, p. 20-1) details how British Columbia’s entrance into Confederation was secured alongside the development of the Canadian Pacific line, and explicitly relates Canadian civilization to the deployment of railway technology, stating that the “The addition of technical equipment... of the Canadian Pacific Railway Company was a cause and an effect of the strength of the character of that civilization” (p. 287).

Carey (2008) distinguishes between models of communication that focus on transportation and geography, and models that do not; for Carey, the telegraph serves as the pivotal point between these two models. He argues that the innovation of the telegraph “can stand metaphorically for all the innovations that ushered in the modern phase of history and determined, even to this day, the major lines of development of American communications” (Carey, 2008, p. 156). Because the telegraph was the first technology to separate media transmission from the physical movement of objects, freeing communication “from the constraints of geography” (p. 157), the telegraph allows one to think about the transmission of knowledge and culture without having to dwell on geography and space; in this sense, the telegraph emerged as both a technical tool and “a thing to think with” (p. 157). It is significant, however, that even as communication is thought of in terms of transmission, geography and the transportation networks deployed to traverse space persist as formative elements of communication infrastructure. As Carey puts it: “improvements in transportation and communication merely worked a modification on what preceded it. The telegraph twisted and altered but did not displace patterns of connection formed by natural geography” (p. 156). Likewise, just as emergent communication networks exist as modifications of

geographic patterns and the transportation networks related to them, existing transportation networks endure as ways of thinking about emergent communication technologies.

The similarities between the development of Canadian transportation infrastructure and the development of Canadian communication infrastructure are reflected in the place held by transportation and communication in Innis's thought and writing. Innis began as an economic historian focused on dominant institutions and their role in determining the avenues by which raw materials and finished products were exchanged; by the late 1940's Innis turned his attention to the materiality of communication and cultural transmission. Innis's special contribution to communication studies is his maintenance of a transportation-focused approach to media and communication. As Salter (1981) stresses, Innis "tended to view communication as the transportation of ideas" (p. 194) and it makes sense to "trace the pattern of railway development as an introduction to Innis's contribution to understanding the nature of the Canadian media system" (p. 197). Like Innis's first object of study, the CPR, the Canadian media system (and the transmission of information and culture generally) is the effect of space-binding network technology, funding structures, policy decisions and institutional logics. Innis's attention to the space-binding effects of technology and the institutional effects of national sponsorship and regulation leads to his focus on the centralizing and marginalizing effects of dominant institutionalizations of systems of power or "empires". Berland (2009) defines "margin" as a space "drawn into the axes of imperial economy, administration, and information but which remains 'behind' (to put it in temporal terms) or 'outside' (spatially speaking) in terms of economic and political power" (p. 77). Berland (2009) stresses that "Innis's analysis of colonial relations between center and margin preceded his research on communication and shaped its parameters" (p. 68). This kind of analysis moves Canadian communication studies beyond a focus on representation inherited from the humanities towards a literal mapping of the dynamics between the centers and margins of the Canadian communication system. Salter (1981), for instance, suggests that the response of marginalized, rural territories and native communities to media empires "could offset the alienating impact of mass media" (p. 193), whereas Dowler (1999) argues that "the margin ... cannot be viewed as a source of dissent" because "protest takes the form

of a demand—that government step in ... to support cultural production” (p. 350).

Innis’s attention to spatial extension, derived from his economic histories of projects such as the CPR, provides a framework for thinking about power in terms of spatial relations, allowing one to literally map the shifts in economic and political power, and map the changing authorities over communication and cultural transmission, that accompanied Canada’s shift from a marginalized, resource offering colony to a nation with its own powerful centers and marginalized regions and populations. In short, Innis’s attention to the avenues of the CPR’s westward extension serves as an indispensable point of reference for accounting for the power dynamics of the Canadian broadcasting system. Yet, the CPR serves as only one such point of reference.

#### **4. Residual formations: the fur trade and the CPR**

While attention to geography and transportation networks provides useful insights for the critical consideration of Canadian communication networks, it is problematic to limit such attention to the CPR alone. Although the CPR closely followed Confederation and ensured the most western province’s entrance into in, the bidirectional nature of railway traffic undermines national economic sovereignty as much as it facilitates political and economic union. Ironically, while the broadcasting system’s importation of foreign programming merely parallels the internationalization of Canadian economic territory intensified by the CPR, the railway, framed by technological nationalism as a force of national unity and cohesion, has lead policy actors to address emergent forms of media in Canada as crises for Canada’s cultural sovereignty. The Massey Commissioners’ expressed concern over American television reception in Canada in the early 1950’s was preceded by the *Canadian Radio League’s* expressed concern over American radio reception in Canada in the late 1920’s and early 1930’s, and is echoed in contemporary concerns over new, online media in Canada. Thus, the CPR, treated as a mythical image of national origin, limits discourses of Canadian media networks to protectionist discourses surrounding a national sovereignty that never truly existed.

While *A History of the Canadian Pacific Railway* (1923) marked Innis’s first economic history of spatially extensive transportation and trade

networks, it was not his only history of such networks, nor does the CPR stand alone or separated in Innis's thought and writing; Innis does not address the CPR, even in his book dedicated to it, without addressing the fur trading network that preceded and affected the formation of the railway network. In *The Fur Trade in Canada* (1930), Innis emphasizes the formative role of this earlier trade network, stressing that "(Canada's) economic development has been one of gradual adjustment of machine industry to the framework incidental to the fur trade" (p. 402). Thus, while the deployment of the CPR marked the extension of western, Canadian civilization beyond the fur trade's geographically-dictated avenues of extension, the railway network (and the succeeding communication infrastructure) in many ways developed according to the boundaries, operational frameworks, and administrative logics developed for the fur trade. Innis (1930) notes that "the present Dominion coincides roughly with the fur-trading areas of northern North America" (p. 392) and that Canada "emerged not in spite of geography but because of it" (p. 393). The fur trade was, in many senses, the first example of a network in the space that is now Canada, but its avenues of extension were enabled and constrained by geography; the trade was organized according to water routes than ran according to drainage basins and linked according to settlements strategically placed "at the heads of lakes and the forks of streams" (Innis, 1923, p. 6). As the first operative, large-scale network in Canadian space, the fur trade served as a testing ground for administration of transportation and exchange over such a large area, and the CPR inherited its centralized management, and some of its managers, from the fur trade; Innis (1930) stresses that "the large central organization of the fur trade facilitated the transfer and the organization of the new technique (of railway transportation) over a wide area", noting that D.A. Smith, for instance, "was not only an important official in the Hudson's Bay Company, trained in the school of the fur trade, but he was an influential force in the construction and management of the Canadian Pacific Railway..." (p. 397). Perhaps most significantly, Innis's account of the fur trade illustrates how the inequalities between Canada's federal centers and its outlying, marginalized regions and populations mark a repetition, at a national level, of the tensions between European centers of Empire and the staple resource-offering North American colony.



Acland (2006) provides a geographically expressed model of history that both links the CPR back to the framework and administration of the Canadian fur trade and accounts for the CPR's operation as a conceptual barrier that provides the basis for technological nationalism. Resonating with Carey's insistence that technologies alter geographic patterns without displacing them, Acland proposes that historical processes, including developments in transportation and communication but also particular economic and social arrangements, inscribe reality with literal and figurative "grooves"; physical, political and social processes both literally and abstractly "(leave) deposits and (produce) layers of sediment constituting the new geography" (p. 177). Acland describes what he calls *residual formations*: "part of the process of inscription that guides what can more easily emerge" or "act as a barrier to entry for alternate forms" (p. 177). Acland's model of history explains how the physical dimensions, economic frameworks and administrative practices that took shape during the fur trade were formative for the continental, centrally managed railway network. Acland's formulation also illustrates how the CPR, both as a technology and as a conceptual tool, enables and constrains particular physical and conceptual formations pertaining to the Canadian nation-state and to Canadian media networks. As a *physical configuration*, the train network facilitated the centrally managed Canadian state, and later the centrally managed Canadian public media system. As a *symbol* of Canadian technological nationalism, however, the train network acts as a *conceptual barrier* to thinking about the international and border crossing potential of communication and media networks in Canada.

## **5. The persistence of geography: the fur trade, new media, and overcoming technological nationalism**

The attitude of cultural protectionism compatible with technological nationalism is incompatible with the border-crossing capacity of new, online media, and overlooks the international extensions of existing Canadian network technologies, including national railways. However, the conceptual barrier provided by the CPR – a barrier that is a key factor in technological nationalism – can be avoided by reaching back historically, past the establishment of the CPR, and considering the formative power of earlier lines in North American space: the geological grooves that served as distribution routes for the fur trade. In addition to

offering a better metaphor for online communication than the rigid, permanent, and relatively simple railway network, the fur trade's water routes provide an image of communication networks that is not caught up in circular rhetoric of technology as a force of national unity or sovereignty.

On the most superficial level, the lakes and rivers making up the fur trading networks resonate better with the interface of online media than the permanent steel lines of railway transportation. While online communication, like broadcasting, is dependent on a rigid network infrastructure of wires, cables and satellites, the material form of the fur trade's avenues of extension – water – resonates well with the experience of individual, online users navigating communication channels by way of hyperlinks. While the railway's traversal of space by way of a relative few, predetermined lines resonates with the experience of audiences choosing amidst the various channels offered by the radio dial or television menu, the internet user can follow a variety of avenues that connect and intersect in a variety of ways.

More importantly, however, the imagination of communication according to the fur trade's water networks avoids the pitfalls of imagining a technologically-enhanced nation according to its most powerful symbol, the CPR – most notably the false equation of existing Canadian transportation and communication networks with national economic or cultural sovereignty and the alarmist discourse surrounding emergent forms of communication and cultural transmission. The fur trade's water networks, like the telegraph and like the CPR, can function as a conceptual tool – as “a thing to think with”, to use Carey's terms; but instead of operating as a mythic image of national origin, the water networks serve as a reminder of how existing patterns of connection are modified, but not displaced, by emergent network technologies. Likewise, the fur trade networks provide a means of mapping power relations according to space – according to the centers and margins enabled by institutional organizations, their material forms of transportation and communication, and their managerial logics – without allowing one to get hung up on the idea of the Canadian nation. The historical precedence of the international, colonial fur trade serves as a reminder that state-sponsored transportation and media networks are merely stages in a succession of layered, reorganizations of North

American space which can, and will be reformulated in ways that we can and cannot predict. While the CPR serves, however problematically, as an image of national unity, the fur trade and its geologically enabled avenues of extension were always international.

## **6. Conclusion**

While the fur trade networks, as Innis points out, influenced the contours of the present Dominion, they serve equally as a reminder of the non-permanence of particular organizations of space, and of the changes accompanying the progression of time. The story of the CPR, of the advent of the Canadian state, is already finished, static – set in steel. Its cold, technological imagination of the Canadian nation does not provide a surface porous enough on which to graft an image of Canadian people. The flowing, multiple connections of the fur trade provide an opportunity to reimagine connectivity beyond the boundaries of the nation state and outside of the rigid and tired framework of national identity.

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