

Bringing Fences Down: The Role of Critical Innovation Studies in Engaging STS with Innovation and the Contribution of Benoît Godin

TIAGO BRANDÃO
HTC-CFE NOVA FCSH
PORTUGAL

CAROLINA BAGATTOLLI
4P-UFPR
BRAZIL

Abstract

Innovation has constituted a subject of key interest for quite some time. However, only a few fields and scholars have embraced the challenge of finding ways to deconstruct our contemporary society's most recurrent mantra. Questioning the "pro-innovation bias", the assumption that innovation "is always good" and without undesirable consequences, is what critical studies of innovation (as a new research agenda) are trying to achieve. These critical studies might redeem the study of innovation for the STS interdisciplinary field by merging different critical perspectives. This emerging niche aims to reach beyond the techno-economic understanding of innovation, pointing a path of learning along cross-disciplinary and more critical, historical, and qualitative-based approaches to innovation phenomena – adopting as our example here the intellectual legacy of Benoît Godin (1958–2021). Godin's work, together with other colleagues, opens up many avenues for engaging STS with innovation, and the appeal for a much-needed critical stance on science, technology and innovation (STI) 'political' phenomena – analysing discourses, policy narrative(s), theories, dissecting different kinds of models, etc. Our aim is to demonstrate how critical innovation study could be crucial and fascinating to an STS scholar, adopting as reference the intellectual work of Benoît Godin – whose lessons teach us how to work on a historical and discursive methodology – that studies STI policies by embracing their intellectual and conceptual histories.

Keywords

innovation studies; STS field; Benoît Godin; critical studies of innovation; STI policy

Introduction

Innovation has been a subject of interest for quite some time – primarily in economic history and economics. However, over time, several other fields and scholars have turned their focus on one of the most captivating and complex phenomena of contemporary times. Nevertheless, the 'challenge' posed by one of our society's most recurrent mantras has only slowly attracted other academic areas despite occasional calls from the 1970s–1980s. That should not be a surprise since the Anglophone management culture has been particularly prolific in producing innovation discourses, as the rest of the world (including scholar communities) has been keen to jump on the bandwagons of the 'innovation-speak' of our times ([Vinsel and Russell 2020](#)).

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To email contact Tiago Brandão: tiagobrandao@fcs.unl.pt.

Several streams of critical thought in different regions and distinct academic communities have long questioned contemporary technoscience. Still, with a few exceptions like Oliveira (e.g., [2011](#), [2013](#)), those critical accounts did not frame exactly an agenda of studying innovation per se, as a discursive phenomenon qualitatively different from other policy reflective frames. Innovation was left aside to economics, usually treated as a synonym of technology, as another word to allude to technoscience within capitalism, fulfilling the role of added-value mechanism and very much commonly leaving it loose (in its understanding and uses) as a self-evident concept ([Blok 2021](#), [Blok and Lemmens 2015](#)).

Therefore, scholars from Northern Europe were among the first to raise *explicit* concerns (specifically) about innovation as a systemic phenomenon in our societies, including its unintended and undesirable consequences. In May 2010, the Hanken School of Economics (Helsinki, Finland) organized a workshop with the title “Beyond the Pro-Innovation Bias”, which came to provide us with a seminal book ([Sveiby et al. 2012](#)).¹ This ‘pro-innovation bias’ is the assumption that innovation “is always good” ([Blok and Lemmens 2015](#)), widely accepted as *desirable* and largely *unquestioned* ([Sveiby et al. 2012, 1–2](#)).

This arises out of our present hegemonic paradigm in which innovation emerges as (1) *technological innovation*, that (2) “is primarily perceived from an economic perspective”, (3) *inherently good* and (4) presupposing a symmetry between agents and addressees ([Blok and Lemmens 2015, 19](#)) – in presuming the proponents (inventors, entrepreneurs, and corporate stakeholders) and the addressees (*adopters* or *users*) share the same interests as well as enjoy (and benefit) from the same social status and political influence. Therefore, a *critical studies of innovation* research agenda has been proposed to contribute to rethinking and debunking these kinds of innovation narratives.

This does not campaign against innovation but rather seeks to make up for the lack of qualitative empirical basis to the pro-innovation bias of our days. As a field, this spans a scope of interests and critical approaches: (a) *deconstructing theories and models of innovation*; (b) *the discourses proposing, idealizing, and selling them*; and (c) *confronting diverse ontologies of policy and development with rational innovation models and other views*

¹ As with several colleagues participating in this movement, Benoît Godin gave a contribution to the origins and evolution of the concept of innovation (i.e., *kainotomia*, *καινοτομία*, lit. ‘innovation’). His remarkable chapter opens with the most interesting epigraph:

Wherein It Is **Documented** that Innovation Is a Political Concept
Which Has Been **Contested** for 2,500 years,
Together With an Explanation on
How and Why the Concept Got De-Contested
Over the Twentieth Century.

([Sveiby et al. 2012, 37](#); added emphasis by the author)

of officials and development agencies; but also, (d) constructing different models and proposing alternative narratives.²

Indeed, it is more than time to deeply question innovation processes as this thematic collection intends to achieve. Firstly, as studied by more critical approaches: *When it comes to engaging with and acting upon socio-technical change, is ‘innovation’ part of the solution or (of) the problem?* (Irwin 2023). Innovation becomes part of the problem whenever accelerating change for the sake of change per se – such as developments beyond environmental limits or driving economic and social inequalities without any consideration of their implications. *Creative destruction* or *destructive creation* tend to be socially and environmentally harmful. This kind of Darwinist worldview renders innovation inseparable from the footprint of capitalism. Indeed, innovation theory appears almost absent of any reference to structures of exploitation, whether of natural resources or social relations. Furthermore, a huge proportion of the innovation narrative(s) adopts a firm-centric worldview and very much stems from an entrepreneurial bias. In addition, innovation is increasingly perceived as part of the solution for discovering the means of solving societal and environmental problems through technological solutions and/or breakthroughs – as intended by some green technologies and socially inclusive and sustainable innovations.

Nevertheless, other questions are perhaps still less consensual these days as highlighted by Irwin (2023): *How should we view the relationship between Science and Technology Studies (STS hereafter) approaches to innovation and neighbouring fields, especially Innovation Studies (IS)?*; or – *What new conceptual and empirical resources can STS bring to the study of innovation?* We may still, not without a certain audacity, add a third provocative question: *What might the STS field learn from critical IS?* Those questions are subject to reflection in the following sections. Far from offering definitive answers, we aim to nurture this debate. Our aim here involves pointing out some of the prevailing tensions and dilemmas, which scholars have yet to deal with, as the means of bringing down the fences raised among them, visible throughout different ‘spaces and places’ (Bhupatiraju et al. 2012). This essay thus intends to demonstrate how (critical) innovation study could be crucial and fascinating to an STS scholar. And the mainstream IS field might also have something to learn from cross-disciplinary and more critical, historical, and qualitative-based approaches to innovation phenomena – adopting as our example here the intellectual legacy of Benoît Godin (1958–2021).

Tensions and Dilemmas between the STS Field and Innovation Studies

Evolutionary economics assumed a hegemonic position in innovation studies over the 1970s–1980s. Inspired by Schumpeter and biological metaphors (see Langrish 2017), innovation studies established itself as a field. Nevertheless, there is ongoing resistance to acknowledging the true extent and nature of the pro-innovation bias prevailing in our societies, neglecting innovation’s unattended consequences – including its

² For Novation statements see: <https://revistas.ufpr.br/novation/article/view/91170>.

undesirable effects. However, some awareness has been emerging of the pitfalls of the mainstream innovation theory, especially among a relatively more critical group of scholars.

As several colleagues have demonstrated, the non-neutrality of those self-reinforced discourses (and its policies) explains the bias. (Segercrantz et al., 2017) Godin was probably one of the first to unveil the nature of those narratives, specifically denouncing what he termed the ‘performative discourse’: thus, the stance of proposing a new organization of knowledge while simultaneously participating in its realization and political implementation (Godin 1998, 465). He additionally classified that type of literature as ‘normative’ and ‘prescriptive’: i.e., when policy issues and/or firm-centred concerns drive the analysis. Furthermore, the performative bias explains the only limited debate on innovation – mostly innocuous in the sense of not questioning its fundamental nature. That policy appeal means the predominant view of innovation – its theory and policy models – is bound to have its authority go unchallenged.

Furthermore, innovation studies (IS) seems somewhat indifferent to STS studies. Adopting an interdisciplinary stance and striving to understand the social construction of science and technology (S&T), STS emerges as culturally and philosophically postmodern, appearing somewhat as leftist deconstructivism, viewed by some quadrants as undermining the authority of the knowledge society/economy.

Deconstructing Discourses and Narratives in the STI Policy Arena: The Legacy of Benoît Godin

An internationally renowned scholar and outstanding researcher, the work of Benoît Godin is probably among the most pivotal in the study of innovation. Throughout his career, Godin produced extensive contributions to the following research areas: (1) R&D statistics and the culture of numbers; (2) a critical ‘exegesis’ of STI policy, through intellectual and conceptual histories; (3) the study of innovation as an idea, and (4) the links between innovation and religion – a project he left unfinished. Some homages have already taken place, and his legacy is here for us to comprehend and introduce it to young scholars, researchers around the globe, and our students.

Godin somehow probably straddled the middle ground between STS studies and the IS field. He received his PhD. degree at SPRU – the Science Policy Research Unit (Sussex University, UK), a school very much responsible for the policy reputation of IS in Europe. However, he was never especially receptive of modelling through econometric and systemic-based extrapolations. In all fairness, some of us also believe that Godin was not actually an STS scholar – at least not in the usual sense. Godin was not the kind of militant scholar, particularly engaged in questioning the authority of science, and although a sociologist by formation, he was not an advocate of either micro-sociology or Latourian approaches. He cultivated an almost monastic devotion to research, being zealous of method and rigour – though he insistently rejected proposals to write papers explaining his methodological approach, as Quentin Skinner, Reinhart Koselleck and others did, for instance. Nevertheless, he was keen on proposing critical perspectives, deconstructing discourses and narratives in the STI policy arena, generating many broad implications that several fields should look upon – including the innovation studies and STS domains, both prone to historical amnesia and tending to relapse towards historiographical perspectives, as Godin insisted.

Godin's intellectual legacy rests on deconstructing STI policy myths, their theories and models, and the discourses proposing, idealizing, and selling them. However, and most importantly, his work changed perceptions around how to approach these problems: i.e., in STI policy formulation in general, particularly regarding innovation theorization and modelling. In his efforts to deconstruct the techno-economic narrative of innovation (e.g., [Godin 2020](#)), Godin was among those leading the launch of a new agenda: critical studies of innovation. We may summarize his contribution to this agenda around three main issues:

Deconstructing the technocratic STI policy concept: from early-on Godin's work provides a complete account of the history of STI policies throughout the second half of the twentieth century. This history accounts for the reception of a technocratic STI management and funding model, which came to be increasingly supported by a pro-innovation discourse. Three principles guide this technocratic matrix of a STI policy concept: (i) that contemporary science has become inseparable from technology and that its integration has inexorably given way to technoscience in keeping with the twentieth-century technoscientific milestones (e.g., radio, atomic bomb, transistor, etc.); (ii) the idea that science (i.e., technoscience) should serve for economic acceleration through innovation – almost always understood as 'technological change', i.e., the commercialization of new products or, indirectly, through increments in manufacturing production processes; and finally (iii) a core feature of this technocratic concept is the 'system' approach. Godin's work on this topic conveys how this STI policy model became pervasive in technocratic sectors all around the globe with a decisive role played by international organisations. As Godin put it, the system approach, pervasive to several policy "framework[s]³ suggests that the research system's ultimate goal is innovation" ([Godin 2007, 5](#)).

Conceptual frameworks as narratives: Godin ([2009](#)) sets out a new perspective for the analysis of the STI literature by proposing the understanding of the STI framework as a narrative. This follows the identification of a 'framework' for/in STI policy as "... an argument or discourse that acts as an organizing principle to give meaning to a socioeconomic situation and answers to a series of analytical and policy questions" ([ibid., 2](#)). In addition, a conceptual framework usually: "1. Identifies a problem, its origins and the issues involved; 2. Suggests an explanation of the current situation; 3. Offers evidence, often in terms of statistics and indicators; 4. Recommends policies and courses of actions" ([ibid.](#)). The profusion of those kinds of conceptualizations for political action has been such that these frameworks usually compete with each other even while commonly aiming at the economic appropriation of knowledge. Today, some of those frameworks are now looked upon as authentic models, applied by scholars, practitioners, and politicians to endow theoretical authority on a political orientation, serving different practical purposes and pragmatic rhetorical functions.

Innovation as a performative discourse: by pursuing the deconstruction of the system/systemic perspective and acknowledging the pro-innovation bias of our societies, Godin enlightens on how to historically and critically perceive STI policies – one essential trace of his intellectual legacy. Godin highlights that STI intellectual and conceptual 'frameworks' have broad implications and, most meaningfully, they fulfil many purposes within the policy process – i.e., 'frameworks' are performative, normative, and provide a 'symbol of scientificity' for policy modelling (e.g., [Godin 2015a](#)). In fact, very similar to the implications of policy frameworks are theoretical models,

³ Those frameworks were then perceived as being the following: National System of Innovation, Knowledge-Based Economy, Information Society, New Production of Knowledge (Mode1/Mode 2), and Triple Helix.

studied by Godin through the historical inquiring of analytical models and, in particular, the models of innovation, whose performative nature he unambiguously unveiled: models of innovation serve a rhetorical function – among others. The theorists address experts in research and economic policy and policy-makers. Yet, policy-makers and advisers are not interested in scientific theory per se. The theorists have to give their findings a different name. A model entails the promise of action and flexible adaptation to different situations ([ibid., 40](#)).

Innovation lies at the centre of the performative bias that characterises our times with Godin devoting many pages to its history and ideology. Innovation may appear today as an undisputed paradigm of social change. However, as Godin ([2015b](#)) reminds us, this is very different to the past – when innovation was used as a derogative term for social reform, social change, heretical behaviour and/or thinking – only in the twentieth century did innovation assume a positive connotation and become truly linked to technological change:

Innovation is a concept we use unconsciously, often without knowing precisely its richness. Innovation does not exist in itself. It is constructed through the eyes and through discourse. [...] This construction is the result of the contributions of many individuals over many centuries. Forbidden in the past, innovation has become an ideal everyone believe in. Today, everyone display his innovative performance ([Godin 2012, 51](#)).

More recent years have seen the introduction of new meanings for innovation – social innovation, frugal innovation, responsible innovation, among other theories –, aiming to render innovation beyond the scope of technological innovation, searching for and striving to become alternative meanings ([Godin et al. 2021](#)).

Conclusion

In sum, in the light of Benoît Godin's work, neither IS nor STS seem to escape the pro-innovation bias of our times – intrinsically in the IS field, based on a positivistic epistemology bound to raise and convince external audiences and less evidently, and rather implicitly, in STS studies. Nevertheless, some geographical nuances may already be in place and with some colleagues and contributions indeed naturally inclined to critically studying innovation – very much in line with this kind of research agenda (e.g., [Brown et al. \[2000\] 2016](#)). Moreover, despite its social approach to technology, the STS field seems primarily focused on technological innovation as an undisputed paradigm of social change – *extended to include expressions of creativity, care, concern, hope and resourcefulness beyond the logic of the marketplace* ([Irwin 2023](#)). Most frequently, any critique of innovation still remains veiled by implicit meanings and tacit assumptions – even innovation itself appears *as part of a larger entanglement (or assemblage) of socio-technical relations* ([ibid.](#)). We can also observe how STS scholarship embraced the pro-innovation bias through its overemphasis of revolutionary technological change (e.g., [Cozzens and Wetmore 2011](#)). There is indeed a mass of literature on emergent technologies, describing waves of overhyped technologies that have failed to deliver on their promises – biotech and genetic engineering, nanotechnology, artificial intelligence, autonomous vehicles, etc., – *despite all the lessons from technology history* ([Edgerton 2008](#); [Vinsel and Russel 2020](#)).

Likewise, critical studies of innovation today appear as a 'niche' that falls beyond the economic imperatives of innovation, involving other analytical dimensions – such as power relations and the bond between policy and politics, disregarded cases of 'outlaw innovation', innovation 'through withdrawal', or looking at the

neglected side of destruction in innovation processes, to give just a few examples of what colleagues have been doing in terms of alternative approaches to the study of the contemporary phenomena of innovation (e.g., [Godin and Vinck 2017](#)).

Additionally, the critical studies of innovation agenda also seeks to enlarge the methodological scope of IS, embracing other perspectives and different means of scholarly practices, such as intellectual and conceptual histories (one of Godin's legacies) and discourse / policy narrative analysis. Ideology, power relations and discursive practices are very much entangled. Deepening the dialectic between discursive cultural studies and the more materialist approaches represents one of the main future challenges for critical studies of innovation.

Critical innovation studies thus emerge as an interdisciplinary field, broad in scope, that seeks to search beyond the hype. The trends and fads of our techno-globalism should be traced back to their historical roots, contextualizing and framing the actual innovations and the innovation-speak of our times, their languages and theories, frameworks and models, interests and ideologies. Therefore, any perspective on innovation should, above all, focus (even if not exclusively) on the historical and material aspects: in short, what is the 'originality' of the theories? To what extent do the alternatives challenge existing theories? This includes consideration of the context around the emergence and origins of alternative theories, their evolution and recent developments, goals (explicit and implicit) and rationales – as well as the conceptual and discursive aspects. Certainly, there are various challenges to building an identity in this critical studies field. However, in our view, it seems certain that *critical studies of innovation* return findings of great value to STS scholars worldwide.

Accordingly, Godin's work opens many avenues for engaging STS with innovation. His legacy together with other colleagues includes the appeal for a much-needed critical stance on STI 'political' phenomena – analysing discourses, policy narrative(s), theories, dissecting different kinds of models, etc. His lessons teach us how to work on a historical and discursive methodology that studies STI policies by embracing their intellectual and conceptual histories. This also invites reflection whether on the pro-innovation bias of our times or regarding the system/systemic perspective, the hegemonic method used by epistemic communities, and public policies around the globe. Those are, we believe, relevant issues worthy of examination by the STS field.

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Author Biography

Tiago Brandão is researcher at Nova University of Lisbon, Faculty of Social Sciences and Humanities (NOVA FCSH) / research group History, Territories and Communities from the Centre for Functional Ecology (CFE-HTC), Portugal. Av. de Berna 26 C, 1069-061 Lisbon, PORTUGAL.

Carolina Bagattolli is Associated Professor, Department of Economics | Public Policy Graduate Program, Federal University of Paraná (PPPP/UFPR – Curitiba, Brazil). Av. Prefeito Lothário Meissner – Jardim Botânico, Curitiba – PR, 82590-300, BRAZIL.

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