

Technologies of Choice: the structural shaping of 'choice' on the World Wide Web

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Abstract

'Choice' and web technologies have occupied entangled trajectories for more than two decades now since the birth of the World Wide Web. Nowadays, hundreds of millions of people use websites such as www.amazon.com and www.tripadvisor.com to compare between goods and services in order to make 'informed' decisions in a complex, bewildering world of consumer choice. Further, people living in advanced welfare states increasingly use the web to exercise choice in relation to public services, for example comparing schools (www.myschool.edu.au) and health and social care providers (www.nhs.uk/service-search). However, to construe such websites simply as neutral tools for enacting 'free choice' fails to recognise how choice is highly 'manufactured, shaped and governed' in the online world (Henman, 2007, p.171). This paper explores and develops this idea by drawing on the notion of 'Technologies of Choice' (ToC), a term loosely inspired by recent literature. In particular, ToC are explored through a Foucaultian governmentality-inspired conceptual framework, providing a conceptual and theoretical tool to empirically analyse how choice is structurally shaped on the web. This paper aims to contribute timely sociological research in an era when choice and web technologies have collided with force. In doing so it highlights key questions centring on identity or self-formation, the government of populations, and the very notion of 'free choice' in techno-social hybrid societies.

Keywords

Technologies of choice – Web 2.0 – choice – governmentality – consumerism

Introduction

“... modern individuals are not merely ‘free to choose’, but *obliged to be free*, to understand and enact their lives in terms of choice.”

(Rose, 1999, p. 87)

People nowadays are confronted with “a wide-ranging and unending series of choices” across almost every domain of life (Clarke, 2010, p. 58). The emergence of the ‘consumer society’ provides one account of this apparent ‘glut’ of choice; in consumer societies individuals take on the role of consumers who exercise freedom through the right to choose (Bauman, 2007). In this way choice is integral to societies based on the production and consumption of goods and services (Rosenthal, 2005), constituting a means through which individuals exercise freedom, for example, voting in democratic elections and choosing products to suit personal requirements. Yet, as Henman argues, “to see our choice ... solely as an exercise of freedom misses the ways in which the choices we make, the range of choices on offer, and the location in which we make choices is intensely manufactured, shaped, and governed” (Henman, 2007, p. 171).

Indeed, there is now a well-established literature exploring how choice is shaped in contemporary consumer societies. Notably, Thaler and Sunstein’s *Nudge* examines how choice can be ‘nudged’ through ‘choice architecture’ in order to subtly influence behavioural change (Thaler & Sunstein, 2009). ‘Nudging’ and ‘choice architecture’ also resonate with the concept of ‘framing’ (Callon, 1998, pp. 244-269), whereby what is chosen often depends upon the way choices are presented. Examples include: modifying the location and availability of food items to nudge supermarket shoppers towards healthier choices (Katarzyna & Jane, 2012), and influencing civic behaviour through public policy (John, 2011).

Nowadays it is also clear that information and communications technology (ICT), and more recently the World Wide Web (herein ‘web’), obtain a complex and pervasive role in shaping choice in consumer societies. Although the relationship between choice and web technologies has attracted very little sociological attention, recent studies have

explored choice and ICTs more broadly. In particular, Dorothea Kleine's Choice Framework (Kleine, 2010) charts new territory by conceptualising the varying 'degrees of empowerment' that ICTs offer in terms of creating or inhibiting choice in a development context. Importantly, Kleine's Choice Framework deploys social theoretical perspectives that recognise the non-neutral, *political* nature of technology. This highlights the role that technologies have in differentially *shaping* choice. Thus, Kleine questions the role of ICTs in providing choice, reflected in the book title "Technologies of Choice?" (Kleine, 2013).

This notion of 'Technologies of Choice' is also loosely explored in other work as an object of inquiry, rather than a rhetorical question. Indeed, Dotson argues "contemporary scholarship ... pays too little attention to the shaping power of technology on human choice-making" (Dotson, 2012, p. 326). Drawing on Borgmann, Dotson conceives 'technologies-of-choice' as any technology or device that promises or appears to liberate individuals to pursue the 'good life'. He then critiques this conception, arguing against technological liberalism's "illusory belief that one can become an encumbered self who makes 'free choices'" (Dotson, 2012, p. 335). In doing so, he illustrates how 'technologies-of-choice' are not neutral and do not simply extend the human will without distortion. Rather, such technologies have a *performative* function that shapes, and is shaped by, particular conceptions of 'free will' and imaginaries of the 'good life'.

'Technologies of Choice'

This paper seeks to draw upon and extend the conceptions of Technologies of Choice (herein "ToC") in recent literature. Whilst Kleine's work broadly focuses on how ICTs (e.g. tele-centres, information systems) increase or decrease 'choice' within a capability framework, attention is directed in this paper towards *web* technologies (i.e. websites and web-enabled platforms). In particular, this paper focusses on how web technologies shape choice by providing a structured online space in which people compare between and make decisions about consumer goods and services. Therefore, at a rudimentary level, ToC may be firstly conceptualised as an assemblage of technologies *qua* tools assembled within an online space, enabling individuals to compare between goods and

services in order to make informed choices. For example: comparing between hotels on www.tripadvisor.com based on ‘5 star’ ratings; comparing laptops on www.newegg.com based on *popularity* or *price*; browsing personalised *customer recommendations* on www.amazon.com; comparing *reviews* of local restaurants on www.yelp.com; or making choices about publicly-funded services, such as comparing Australian school performance (www.myschool.edu.au) or health and social care providers in the UK (www.nhs.uk/service-search).

Ostensibly, the above websites (conceptualised as ToC) appear unproblematic; they simply provide tools that empower individuals (*qua* consumers) to compare between options and make ‘informed’ decisions. Thus in analysing such websites, the answer to Kleine’s question ‘Technologies of Choice?’ would appear to be *yes*. That is, these web-based technologies are utilised daily by millions of people in the experience and enactment of ‘free choice’.

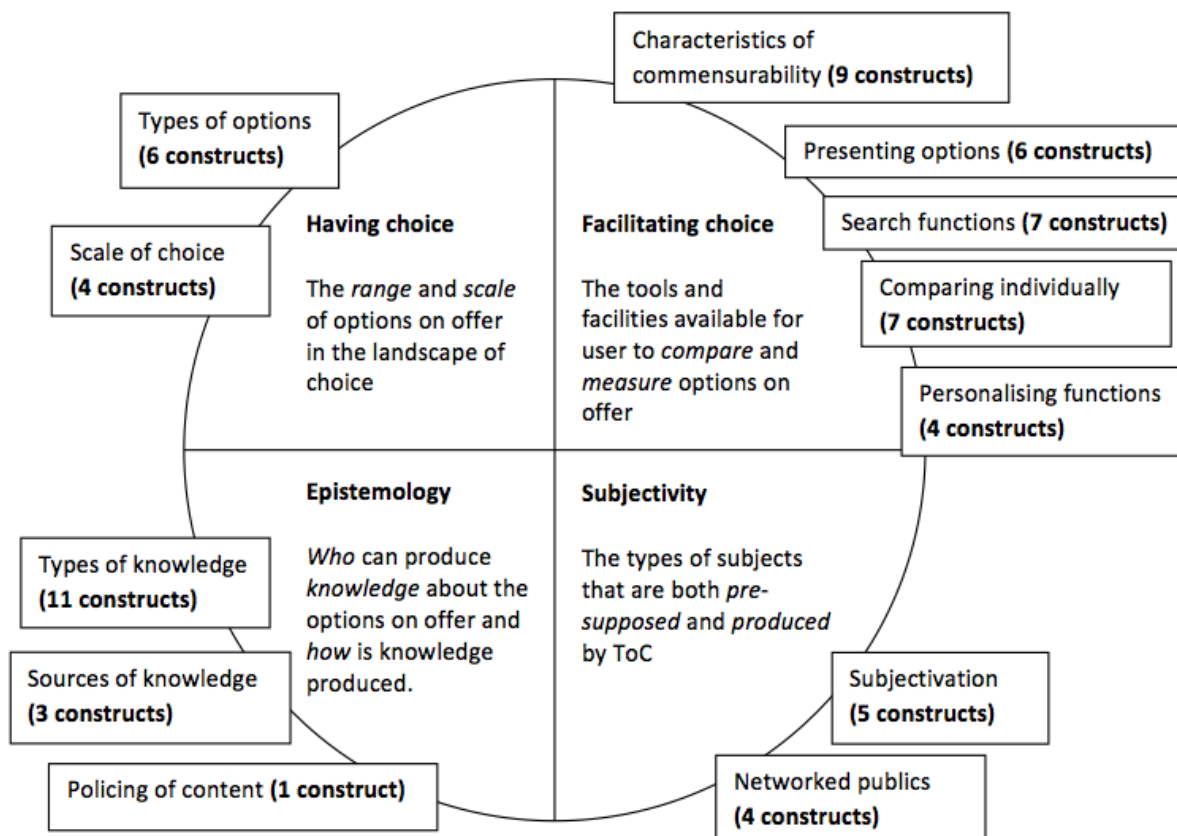
However, Dotson initiates a further line of argument that can be drawn upon to examine how ToC not only ‘decrease’ or ‘increase’ choice, but also *perform* and *shape* it in particular ways. This provokes a more sociologically attuned conceptualisation of ToC that examines not whether, but *how* such technologies shape choice. In this way, attention is drawn to how, as Henman argues, “we exercise our choices in governed spaces” (Henman, 2007, p. 171), extended here to include *online* spaces. Therefore, in the online world, choice is not separate to, nor merely a function of, technology; rather, *choice itself is socio-technological*, something that can be engineered, shaped, calculated and governed in order to “structure the possible field of action of others” (Foucault, 1982, p. 221). As web users we are “governed through our freedom” (Rose, 1999, p. 62); we exercise ‘free choice’ in online spaces where choice is structurally shaped and governed. In this way, web users in the context of ToC are not ‘more’ or ‘less’ free, but rather free in different ways.

‘Technologies of Choice’: a governmentality-inspired conceptual framework

The remainder of this paper seeks to develop and extend the notion of ToC through a conceptual framework (*Figure 1*) drawn from broader research. The conceptual framework draws theoretically on Foucaultian governmentality, the sociology of

knowledge, science and technology studies, and economics, and empirically through the analysis of top-ranking websites. It provides a conceptual and theoretical tool to empirically analyse and examine how choice is structurally shaped on the web. The four over-arching ‘dimensions’ of the conceptual framework will now be explored.

Figure 1 – ToC conceptual framework



Dimension 1: ‘Having Choice’

As recent studies suggest, *having* choice is not the same as *making* choice (Ogden et al., 2009). In other words, choice involves ‘having’ options to choose between; individual’s social realities are shaped not only by what options are available, but also what options they are aware of. Indeed, there is a diverse sociological literature engaging with the structural aspects of choice, for which space precludes discussion here. However, the way in which *online spaces* structure what choices are on offer has not been explored in

sociological literature.

The Internet has been regarded as the “medium of choice *par excellence*” (Norris, 2001, *in* Kleine, 2010, p. 119). Yet this perspective does not fully consider how this never-ending online ‘universe’ of choice is delimited within each website into a localised subset. The first ‘dimension’ of ToC concerns a problematisation of the *types of options* on offer and the *scale* at which choice is provided in a given online space. For example, www.comparethemarket.com.au provides users with “simple and easy-to-use tools that can help you make choices on [insurance] products that may suit your needs most”. At first glance this appears unproblematic—one simply compares between insurance packages and selects the ‘best’ option. However, only in the ‘fine print’ does it specify that users are not comparing between *all* insurance packages on the market, but rather only those companies or brands that are signed under contract with the website.

It is therefore evident that choice is, perhaps paradoxically, *produced* in online spaces through the *delimitation* of the options on offer and the scale at which it is provided. From a governmentality perspective we can begin to position ToC as a technology of governing populations through the principle of choice, and moreover “begin to understand freedom not simply as an abstract ideal but as material, technical, practical, governmental” (Rose, 1999, p. 63). This dynamic can be somewhat obscure (e.g. the contractually delimited ‘market’ of www.comparethemarket.com.au), but also relatively overt (e.g. comparing new cars on www.ford.com/compare, which only includes Ford models).

Dimension 2: ‘Facilitating Choice’

Individuals typically draw upon a plethora of tools and resources in order to make *informed* decisions, such as ‘word-of-mouth’ recommendations, expert reviews, value for money, instinct or ‘gut feeling’, statistical data, and so on. In recent years the advent of Web 2.0 has brought about a diverse ecology of *web-based* tools that facilitate choice. The aim of the ‘Facilitating Choice’ dimension is to conceptualise and chart the techniques, or tools, by which comparison is made possible in the online world.

Firstly, the notion of ‘facilitating choice’ can be conceptualized through recent work in

the sociology of classification and standards. The seminal work by Bowker and Star provides a reference point: “to classify is human ... we all spend large parts of our days doing classification work, often tacitly, and we make up and use a range of ad hoc classifications to do so” (Bowker and Star, 1999, p. 1). In this way we can examine the role of ToC in facilitating decision-making through the classification of options on offer. Importantly, this not only presupposes truth claims about the world but also *produces* them through the practical facilities of sorting, order, classifying, differentiating—e.g. Mazda 626s are *better value* than BMW Roadsters (www.kbb.com); Trinity College is a *better performing school* than Woodlawn State High (www.myschool.edu.au); Sony laptops are *more popular* than Dell laptops (www.newegg.com).

Secondly, ToC play a powerful role in facilitating choice by enabling people to compare between options in particular ways. The idiom ‘comparing apples and oranges’ harkens to this problem. Indeed, Kuhn reminds us: “lack of a common measure does not make comparison impossible. On the contrary, incommensurable magnitudes can be compared to any required degree of approximation” (Kuhn, 1982, p. 670). Hence, if it is possible to introduce or adapt a common language or standard—or *technology*—to compare two dissimilar items, the problem of commensurability can be resolved to some degree of approximation; our decision making has been *facilitated*. For example, if an Amazon user compares a recipe book and a physics text book based on their ‘5 star’ ratings, this person has rendered these two different options commensurable, albeit perhaps in a very approximate manner.

Dimension 3: ‘Epistemology’

When confronted with many different options to choose between, how do we *know* which one is better? Where does this knowledge come from and what forms does it take? In the online world, information about options on offer is embodied and represented in the attributes that are used to define, classify, and differentiate options in order to make comparisons (see previous section). Yet little is known about how knowledge about ‘choice’ is constructed on the web. We can begin to conceptualise and examine this problem *vis-à-vis epistemology*.

It is clear that the epistemology of ToC varies significantly from one website to another. For example, www.amazon.com produces knowledge about products using crowd-sourced 5-star ratings, qualitative user reviews and sophisticated recommender systems (broadly a Web 2.0 approach). In contrast, the government-operated website www.myschool.edu.au produces knowledge about Australian schools using government statistics such as the results of standardised literacy and numeracy tests (NAPLAN), combined with other statistics (broadly a Web 1.0 approach). Thus, Amazon users experience choice within a landscape of knowledge that is co-produced by ordinary people as well as the website administrators. On the other hand, MySchool users do not have the ability to provide their opinion or experience of schools to the website because knowledge about schools is constituted solely by 'expert' statistical measures of performance (and brief textual descriptions of each school provided by the school executive or principal).

Hence, there are clear and significant epistemological differences between how different websites construct and shape 'choice'. Moreover, this serves to open up a space to analyse the complex relations of power and knowledge that ToC are embedded in, which range across commercial, non-profit and public spheres. With respect to the latter, there has been increased pressure for governments to infuse public services with the same level of 'consumer choice' that people expect in the private sphere (Le Grand, 2007). Yet the atypical 'Web 1.0' epistemology of MySchool suggests that such government-operated ToC websites might not simply be about 'consumer choice'; rather, they may obtain a more significant role as a technology of advanced liberal forms of governing (cf. O'Brien, 2014). Indeed, recent literature suggests that MySchool operates within a framework of "normalized neoliberal assumptions" that serves political imperatives rather than the needs and desires of citizens (Redden & Low, 2012, p. 35).

Dimension 4: 'Subjectivity'

Choice is fundamental to the formation of self-hood in contemporary Western societies. Individuals cultivate a sense of self through the choices they make in consumer societies where nearly every aspect of life is self-referenced (Rose, 1999, p. 231). In this way, individuals draw upon a range of tools in order to govern their conduct and shape their selves through the choices they make. Recent studies have explored web technologies as tools for the formation of contemporary self (Bakardjieva & Gaden, 2012; Sauter, 2013). Drawing on this literature, ToC can be conceptualised as one such tool— a digital 'technology of self' (Foucault, 1988). Moreover, this positions ToC as techniques of self-formation by developing an important—and presently under-theorised—link between choice and web technologies.

This perspective interfaces directly with Foucault's notion of 'subjectivation' (see: Foucault, 1988; Foucault et al, 2005), providing a problematic of the construction of the *individual subject* within ToC. Further, this raises at least three key questions. Firstly, what kind of 'selves' are rendered possible within ToC-infused online spaces? Second, what do the tools provided enable or afford users in order to differentiate and 'make up' themselves as individuals? Third, how are individuals enabled to position themselves alongside, within, or in opposition to, the 'true discourse' presented in the online space, "so as to see if [they] are really in the process of *facere suum* (making it [their] own)" (Foucault, 2005, p. 351). For example, are users able to have personalised profiles or accounts? If so, how do such profiles enable users to 'make up' and conduct their activities as *individuals* within the online space? Moreover, to what extent are users able to categorise themselves as a result of activity conducted on the website, e.g. by earning 'badges' or 'achievements'. We might also consider in what ways users are able to experience themselves as 'producers' of knowledge (Bruns, 2008), and how this links to practices of subjectivation.

Lastly, the subjectivity dimension of ToC also raises a deeper line of inquiry: is it possible that ToC not only *presuppose* the subject, but also *produce* types of subjects as well? As Bucher (2012) suggests more broadly in relation to algorithms in web applications, could it be the case that ToC not only algorithmically shape user practices and subjectivity, but also lead users to internalise their norms and priorities?

Conclusion

This paper aimed to conceptualise and explore the complex relationship between 'choice' and web technologies through the notion of 'Technologies of Choice' (ToC). This was achieved through introducing and elaborating upon a governmentality-inspired conceptual framework for ToC. As previous literature suggests, ToC constitute a complex, multifaceted phenomenon with multiple lines of conceptualisation, interpretation and application. This paper provides a novel line of inquiry to examine how choice is structurally shaped on the web. It hopes to contribute to much-needed sociological research at the confluence of choice, technology, consumerism, and contemporary modes of government.

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