Bell, Foucault, Innis: What Determines the Nature of the Information Age?

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Abstract: *This article examines the nature of today's society and a number of perspectives on how it differs from societies of the past. Daniel Bell refers to today's society as 'post-Industrialist', where technological advancements and a new importance of information have transformed the nature of work and the value we place on products versus services and experience. Michel Foucault (2004) sees the nature of today's world as based on the relationship between citizens and those with authority through a constant sense of surveillance. For Anthony Giddens (1987), this surveillance establishes society's collective behaviours but also its organisation to maximise efficiency and liberty of citizens. Harold Innis (1951) on the other hand sees society's dominant communication methods as the main force in shaping its structure, values, and survival. These perspectives each have their limitations and critics, while also providing a framework to understand different aspects of today's society and how we got here. The original version of this article was submitted as an essay for the CM2008 'Perspectives on a Networked Society' module.*

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Introduction

The evolution of society to one dominated by information has led to developments in the worlds of work, authoritative control, and communication methods. Daniel Bell (1973) traces this evolution from pre-industrial, through industrial, and now to a post-industrial society, based around the collection, utilisation, and spread of information for beyond material needs. Technological developments are driving force of change in his timeline of history. Michel Foucault (2004) however sees the surveillance of citizens as the constant operation of power in modern society, where the collection of information on individuals creates self-regulated discipline. Anthony Giddens (1987) goes beyond this to point to the gathering of this information as instrumental to the operation of our organised society, offering citizens choice and liberty. Harold Innis (1951) also sees the nature of technology as a driving influence over the nature of a society, but in particular the dominant communication medium of that society. The nature by which citizens communicate creates a framework for the society's organisation and culture. This article will explore each approach to modern society and determine how valuable they are in its characterisation.

Daniel Bell and The Post-Industrialist Society

Daniel Bell in his theorisation of a new age of society, drew from the need for answers in a time of drastic technological change. Bell outlined the Post-Industrialist Society (PIS) model in *The Coming of Post-industrial Society* (1973), however he first used the term much earlier in the 1950s (Webster, 2014). He approaches a time of uncertain societal change with the growth of information technologies in the 70s and 80s with real-world analysis and attempts to theorise what is happening. Bell's background makes it possible to see the motivation for his direction. Being raised in poverty in New York City by his newly widowed Polish immigrant mother spawned a need in Bell to understand the world and possibly change it (ibid.). Technological developments made changes to economic and ideological structures also. As new technology made its rise, Marxist ideologies were deconstructed and the economy was being restructured, and Bell recognised these changes and tried to make sense of the uncertain future (Waters, 1996). With so much uncertainty and a desire to understand our trajectory, Bell addresses large-scale issues and analyses the changes of the past to predict the future.

The Post-Industrialist Society is one where occupations are predominantly those in service industries, and where information is centre to value. The moves from pre-industrial to industrial to post-industrial societies have come from increases in productivity and efficiency aided by new technologies (Webster, 2014). With the rationalisation of materials and labour in manufacturing industries, where manufacturers can get 'more for less', increased output creates new wealth and new needs to be catered to by service industries (ibid: 45-46).

Besides the nature of work, the role of information is at the forefront of this modern society. Bell explains that there is not only more information at play, but different kinds, with a rise of what he refers to as 'theoretical knowledge'. This knowledge is coded into abstract system to be applied in different ways for a range of operations (Webster, 2014, Waters, 1996). Kumar (2005) centres this society around how this type of knowledge is acquired, used, and traded. Where commodity had once required physical labour, innovation and technological knowledge now forms the basis of interaction and creation of service-industry professionals.

Bell uses the trajectory of change from pre-industrial to industrial societies while analysing the changes occurring in the twentieth century to conclude the nature of the new post-industrialist society. In the pre-industrial early eighteenth century, agricultural work was most common, a 'game against nature', where getting the most out of the natural resources was the main struggle (Webster, 2014: 42, Waters, 1996: 109). As technological advancements were made in agriculture, efficiency increased, and people moved to towns and moved towards the industrial society. In the late nineteenth century, factory work was a 'game against fabricated nature', where the production of tangible goods was the main operation, and owners of these means of production were those with power (Waters, 1996: 109). However, as technologies continue to advance, this work can be automated by machines for cheaper, and less workers are needed. Due to the new potential for increased wealth from industries, new needs are conceived of for this money to be spent on, needs that are fulfilled by service industries in the 'game between persons' post-industrialist society (109). Moving further into the future, Bell does not predict that service jobs will become automated, but more service needs will steadily increase (Webster, 2014).

Dominance in service industry jobs and an increased value of information creates changes in attitudes in the rest of society. Bell has split the contemporary world into three realms: social structure, politics, and culture, and the post-industrialist society has emerged only from changes in the social realm (ibid.). Webster (1996) outlines the different ways the PIS changes how society operates. The dominance of service jobs allows for inter-personal relationships to be vital to a career, as well as a rise in meritocracy; importance placed on education and skill instead of wealth or privilege. Webster describes the PIS as having greater job satisfaction, as jobs are more person-orientated creating a 'caring society' where people are valued not for the material goods they produce but for what they can do for others (2014). With so much information, 'technological forecasting' becomes possible; future change is intentional with consequences already considered (Waters, 1996: 111), intellectuals are now able to predict and control future society's operation (Webster, 2014).

The post-industrialist society is one where there is a rise in employment and spending in services and experiences rather than physical goods. Webster (2014) gives a wide range of services that have benefitted from the excess wealth created by the rationalisation of industry practices. These include hotels and tourism, psychiatry, masseurs, participative sports, cleaners, restaurants, childcare, schooling, and holidays. These services will only increase as the wealth further increases and the benefits need to be reabsorbed (ibid). We today can place more value on our experiences than what products we own. It is clear that with the automation of manufacturing practices and the value of information in today's society, we have moved to a society beyond industry dominance. Statistics prove that more and more people are moving from employment in agriculture and industry to service

jobs. Statista (2019) show that in Ireland alone, employment in the service sector grew from 74.5% in 2009 to 76.8% in 2019, as employment in agriculture and industry dropped by more than 1% each.

Bell's conception of this new society has not been accepted without criticism. The idea has been considered too reductive, too bold in its making of large statements, too focused on select areas of change. As mentioned earlier, the PIS has emerged from only one realm of society. Therefore, the term 'post-industrial society' is inaccurate as it suggests change on society as a whole, though it ignores changes in politics and culture (Waters, 1996). Webster (2014) points to Bell's idea as being technologically deterministic and placing too much emphasis on changes in employment. All changes that occur in Bell's society are down to technological developments only, moving into societal processes and having massive effects for the social world. While the nature of work is important to a society, a shift in this work producing a new age is too reductive and ignores every other aspect of society's operation (ibid.). Bell's analysis of the trajectory of agriculture and industry leading to a service-based society has been called oversimplification. Webster refers to instances in third world countries today where services are a major employer without the industrial base for goods production (ibid).

The Surveillance Society
Where Bell saw the information society as introducing new sources of power for individuals and a shift in work, Foucault sees new ways of power being exerted on individuals and the disciplining of society towards efficiency. Michel Foucault uses the Surveillance Society to describe the relationship between those in power and their subjects. Through subtle techniques of surveillance, an impression that power is being exercised may be given without concrete certainty, making a population act more obediently and efficiently as they may be being watched (Downing, 2008). Foucault sees this disciplined society as operating like a panopticon setting. A panopticon is a prison structure with a central viewing point, all prisoners can be seen from this point, but cannot see each other or anyone in the central structure. As they can not be sure they are being watched at all times, prisoners begin to act as though they are, and discipline becomes self-regulated (ibid.). The group are isolated in cells and cannot see each other but may always be watched by an authoritative figure, and so their power as a collective disappears and they now act as individuals (Foucault, 1979).

Beyond Foucault, the Surveillance Society has been considered for its practicalities and now may be considered as essential to how modern society operates. Anthony Giddens sees the extent to which society is organised as a feature of modernity, and this organisation is facilitated by the gathering of large amounts of information (Webster, 2014). It is because of the level of surveillance we live with that we have so much personal choice and freedoms and are able to make risk assessments of our decisions. This surveillance may be non-intrusive in our world through modern technologies, yet it is unclear who is gathering our information this way (ibid.). Though surveillance may be seen as an assault on privacy, Wood (2006) demonstrates its practical necessity for governments, businesses, and military for efficient organisation and administration.

The Surveillance Society looks at how the modern world functions as a whole, rather than just the realms of occupation and knowledge. Surveillance's aim is to strengthen societal institutions by learning more about each aspect, hoping to increase productivity, develop the economy, improve services and institutions like education and healthcare (Foucault, 1979). Surveillance is not always hidden but is part of daily routine, occurring when we spend money, use public transport, appear on camera, or use a phone (Wood, 2006). Our data however may also be misused to target groups or gathered to be sold for profit, as is done by websites who we give our information to (Webster, 2014). Foucault is similar to Bell in his method of studying the past in order to understand the present, however Foucault looks at 'archaeology' specifically: a more individualistic approach, studying how power operates on individuals to make them think a certain way without being overt (Downing, 2008).

The Surveillance Society considers broader areas of concern than the PIS and can offer explanations for how complex societies operate. While the PIS focuses on the nature of work and the role of information, the Surveillance Society looks at how power is exercised on citizens without too much of their concern.

Harold Innis: Technological Determinism

Daniel Bell's conception of the PIS has been criticised for being technologically deterministic: all changes that have brought us from one society age to the next have been technological developments. Innis and McLuhan focus on communication technologies specifically as being the centre to a society's organisation. Innis sees communication methods as affecting social organisation and culture specifically depending on the technology's temporal and spatial capacities (Scannell, 2007). Communication methods have been at the forefront of technological developments through history with innovations always being applied to communication methods first (Carey, 1967).

Innis's division of communication technologies is based on their temporal and spatial possibilities; they can either last long periods of time or spread a far distance (ibid.). Depending on the dominant medium's qualities, the social organisation and culture potential for the society are different, according to Innis. Space-bound media foster the growth of an empire and its expansionist institutions (Carey, 1967, Scannell, 2007). Time-bound media however emphasise shared history, tradition, religion, and hierarchical authority (Carey, 1967). The dominant communication media of a society determine the boundaries society can be organised in and shape the ideals of its members.

Bell and Innis both determine specific factors of a society as having great influence over its structure, whereas Innis's model concerns influence over a society's culture also. This has been the case for civilisations for centuries, for Innis the history of mass media is a way of studying the history of Western civilisation (Carey, 1967). These societies have evolved through the introduction of new technologies, like the PIS, however these technologies are concerned with the articulation of new knowledge (ibid.). When a new communication media fosters a new society and institutions, these dominate the society's culture with the characteristics the medium offers (ibid.). A stable mode of communication is vital to a civilisation's survival. Stability is offered for a long-lasting modern society with increased possibilities for transport and communications with new and emerging technologies (Scannell, 2007). Both Bell and Innis are technologically deterministic in their conceptions of the basis of society, yet while Bell is more focused on the role of information, Innis is concerned with the means of communication of that information.

Conclusion

Each theory analysed has its strengths in its contextualising of today's Information Age, and each has had its flaws identified by following scholars. Bell's analysis of the role of ever-increasing information in the changing of societies can effectively be applied to today's technological landscape, and though he may have focused heavily on employment in its shaping of a whole new age, this information growth continues to change the nature of work around the world, creating lucrative industries and eliminating automatised jobs. The nature of work opportunities today is vastly different to that of fifty years ago, and information and technology plays a role in that change. With these developments in the use of technology, Foucault's ideas of surveillance have become more of a concern for everyone from lawmakers to users. Though we have seen surveillance through our use of technologies causing concern for our free will, privacy, and our data being sold, our data is also used by some for improvements of wider society by predicting our needs and finding solutions to benefit society's institutions. Innis's ideas on the time and space-bound nature of communication media have evolved in how today's digital social media forms allow for messages to last and spread beyond the limits of previous communication media forms. Parts of each scholar's ideas can be applied to different sectors of today's society to convince us of their worth.

There are a range of perspectives on what specifically makes a society operate the way it does and why. Bell, Foucault, Giddens, and Innis have focused on the changes in employment and the dominance of information, the relationship between authority and citizens, the use of information collection for the benefit of social organisation, and how qualities of different communication technologies shape a society. Each approach can be applied in some way to explain the nature of Western society, or at least part of it. Each approach has its own limitations, whether it is oversimplistic or cautionary or reductive. They all however have qualities that relate to each other and that can come together to benefit our understanding of the world we live in, how it works, and how we got to this stage.

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