

# 21 The Effects of Technology on Existing Ways of Governance

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In our modern world the introduction of new kinds of technology has severely affected the conduct of economic transactions on a massive and unbelievable scale. Current levels of development have focused on an innovative, unexplored model of accumulation which is primarily based on flexible specialization. The informative revolution that has dominated every inch of the earth places a particular emphasis on a constant reassessment of the working skills of the employees in many professions altering in a significant way not only the productive process but the whole edifice of the modern administration. The previously almighty industrial unions tend to be replaced by those mainly employed in networks of medium-sized firms who abandon the earlier rigid bureaucratic structures and form more all-rounded, versatile coordinating mechanisms.

The new technological environment fosters the need for the establishing of collaborative alliances that have a keen interest on the sharing of information among a wide array of dynamically-shaped, key economic sectors. It seems evident that we live in the era of globalization where the networks of experimentalism concentrate their efforts on research and on the communication of new knowledge with a tremendous, unprecedented rapidity. However, we should also acknowledge the imperfections of the market mechanism and the pathologies that have ensued with the conquest of nature through Technocapitalism. Therefore it becomes increasingly apparent that the only path in order to avoid the negative repercussions which the diffusion of technology has brought about is through a democratization of technological decisions along with a broader reconstruction of the socio-technological platform of society. It is in this light that neo-corporatist policies can provide a counterbalance by reducing the amount of uncertainty that surrounds us.

Within the current highly volatile and uncertain economic order the main focus of development has been redirected towards an accumulation process based on flexible specialization. The rapid technological advances and the informative revolution necessitate a constant effort for the improvement of the skills that employees offer in order to meet the new demands arising from a renovated form of production. The increasing rate of the spread of technological innovation instigates a restructuring of the inner core of the labour force as it needs to be turned into a multidimensional entity equipped with all-round training on diverse sectors of the production. Initially the industrial partners showed a reluctance to embrace the social implications of the contemporary era. Their excessive concern with the reduction of job opportunities was accompanied by a fear for the lowering of wage standards. However, in the course of time a nascent emphasis emerged on the incorporation of innovative methods at the level of production along with a gradual realization of the beneficial effects of technology and their utilization by everyone involved. Soon it became clear that we live in the new era of technocapitalism where the networks of communication are primarily centered on research. Creativity has been recognized as the most fundamental source in our society through the generation of new kinds of knowledge that it spreads throughout the world. A rejuvenated form of corporatism has emerged that is based on the high-cost of undertaking cutting edge research. For example, expensive, complex and highly sophisticated hardware is required in such fields as bio-informatics, nano-technology, genetic decoding and proteomics.

In an epoch of intangible resources corporations usually have no choice but to externalize their functions and reach out through networks for the intangibles they need. They require enormous persistence, long-term commitment and costly arrangements to be reproduced and sustained. The social character of creativity makes corporate experimentalism more dependent on social mediation than ever before. This societal interference opens up the frontiers of creativity making it necessary for the corporation to be more extrovert than its predecessors in an

attempt to capitalize on the benefits of universal cooperation. The accumulation of technological knowledge confers power to those societies that can adapt faster to the new demands. The boundaries between technology and science have become blurred and the long-standing question of whether technology is driven by science or the inverse has become largely irrelevant.

A major contradiction often arises between the influence that is exerted on creative imaginations by the surrounding social context and the prevailing objective of commodification which praises the extraction of profit in the shortest possible time. Experimentation for fostering seminal thought relies on the gradual cultivation of harmonic relations among professional communities whereas the sheer pursuit of commodification frequently constrains the feeling of trust. The main reason for that is the prevalence of strict regimentation and the compartmentalization of creative processes. For instance, new software codes created on an Open Source framework and posted freely on the web has no market value since it is not sold or exchanged. On the other hand, it carries an enormous amount of social value as it helps many people to deal with their processing problems. Different programmers from around the world can voluntarily make their contribution by designing software that anyone can use or improve upon. Posting all improvements and making them freely available to anyone allows all flaws to be immediately spotted and tackled successfully. Friction is avoided since face-to-face contact doesn't take place in such transactions as banking, financing or the purchase of major items like autos and homes. The net result is a significant reduction in terms of cost, time, effort and space.

A key feature of network relations is that their consequences most of the times increase their utility through their connections with other creative innovations as the possibilities for testing and improvement multiply rapidly. As significant talents are multidisciplinary it becomes harder for most corporate organizations to assemble them internally. The complexity is compounded even further by the acceleration of technological change which typically results in short product cycles, greater specialization and short-life market niches. The preferential, reciprocal and voluntary character of network-based relations and governance emanates directly from a feeling of interdependence and sharing as the web of social links deepens and enhances individual talents. In this way uncertainty is reduced since an aura of mutual understanding is built up over long periods of time. Therefore, contingencies are resolved faster and obstacles are avoided altogether.

The Scandinavian countries showed the way as pioneers in the signing of collective agreements that prescribed the provision of appropriate training of employees directly affected by the introduction of new-born scientific challenges. They catered for the forging of workers suitable for a hitherto unfamiliar environment who possessed the unprecedented right to determine the terms of the automotive renovation capable of intervening in each step of the decisive process. As a consequence, a milieu of trust and mutual consensus was established in the various economic fields which led to the eventual consolidation of a prosperous period of workplace tranquility and social stability. Similarly, countries on the size of Austria and Finland succeeded in adapting themselves with admirable versatility to the fledgling technological deluge smoothing out the abrupt eruption of a globalized market. Their intimate dependence on the demand for competitive international products worked against any imposition of trade barriers making them more susceptible to innovative alterations and forcing them to acquire a unique flexibility. As far as the internal political landscape was concerned the measures implemented prevented the recurrent explosion of reactions on the part of the industrial partners and ensured the equilibrated maintenance the democratic reforms that uplifted the productive capacity of the workforce.

In Finland the established institutions promoted a form of collaborative interaction which stressed the importance of technological reform by facilitating in a dynamic way the urgent redirection of key resources towards highly competitive industrial sectors. This effort produced in its aftermath a keen interest for participation in the research campaigns that were embarked upon by divergent groups involved in the drawing of economic planning. The whole initiative was depicted as part of a holistic approach in which the research undertaking was incorporated

into an elaborate national plan of instilling innovative methods. It gradually forged an organic link between the public and the private sectors inspired by a strong faith in the interplay among diverse attitudes and ideas. In a concerted manner, eminent research institutions, subsidiaries and public authorities joined forces in order to accomplish a bold attempt to diffuse the findings of crucial technological discoveries. The ensuing industrial rejuvenation came about naturally as a concomitant of pursuing congruent aims. Therefore there was a complete absence of wage differential, labour safety was reinforced and economic competition thrived.

As P. Choate made clear the effective utilization of the communitarian field is considered vital in order to track down the necessary resources that foster creativity. As we witness a reality that generates constant information flow along with a thirst for unceasing acquisition of knowledge the accommodative behavior of all parts engaged in the research process becomes a sine qua non for the signing of mutually agreed contracts by the main economic players. The agreements reached should be endowed with a universal character so as to cover the enormous expenses that these projects cause and ensure their timely completion.

Singapore has been one of the early adopters of e-government initiatives and is one of the few developed Asian countries at the forefront of technological advances. It fulfilled four factors presented as critical for a successful e-government infrastructure, an educated citizenry, adequate technical equipment, e-services that citizens need and commitment from top government officials to support the necessary changes with financial resources and leadership. On many occasions the government collaborated with businesses and used e-services to simplify regulatory processes and to supervise the corporations. The promotion of e-democracy improved communication between elected representatives and their constituents. Greater citizen participation was encouraged and common people had the opportunity to learn about potential policy changes before they were enacted and gave their valuable input. Singapore has been ranked consistently among the world leaders in terms of effective regulation, network readiness and other measures of information and communication technology development. The 2000 action plan sought to offer most of the public services online by focusing on identifying customers' needs. It transcended organizational boundaries by integrating inter-agency services and increased the number of citizens that use them.

Through the web the new e-government action plan intended to motivate participants to provide feedback and contribute to the policy review process through electronic consultations. Educational and technological infrastructure elevated literacy levels while availability of affordable broadband access led to the successful implementation of e-initiatives to the whole nation. The most significant aspect of Singapore's efforts was that in addition to the general e-citizen portal there were two sites soliciting suggestions on how to cut waste of resources and red tape. Business, citizens and government employees were asked to express their views with the promise that everything would be kept confidential and be referred to the appropriate ministry in case it was considered worthy of attention. Specific feedback units had been formed where groups of ordinary citizens interested in a particular issue could come together and discuss. It was also mandated that members of Parliament should set aside a time slot each week to meet with members of their constituents. Transparency allowed regulators to gain information and consult all stakeholders thus building some political consensus for their decisions.

Thus, they were able to justify their actions by citing the facts provided to them, making cogent arguments in favour of the public interest. Furthermore, other Ministries such as the Finance department requested public comments through a public consultation link in its website on income tax reform. In 2004 the Singapore 21 Committee held 80 public forums where approximately 6000 members of the society responded in an effort not to leave matters solely in the hands of the government but to become energetic participants in building their own future. This version of social corporatism was responsible for elevating Singapore from a developing to a developed nation within two generations while keeping it a cohesive country despite the existence of a large diversity of ethnic groups. As far as the economy was concerned, the frantic flux of modernizing transformations made unexpected convulsion be dealt with sufficient perseverance and persistence due to the decisive collapse of pre-existing hierarchies. Despite

the fact that the unanticipated technological breakthroughs could be blamed for the onset of a deep rift in the foundations of the economic structure, the country managed to recover with admirable dexterity. An irrevocable transition of power took place from the entrepreneurial monopolies to milder forms of co-existence and a sharing of the productive endeavor and a quest for intangibles. Even a layman could observe an emerging multiplication of social networks and an agonizing search for seminal minds that would carry out the reinvigoration of the social mechanism.

## 21.1 References

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