State, Economy, Society and Recent Information Society Policies in Greece

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STATE, ECONOMY, SOCIETY AND RECENT INFORMATION SOCIETY POLICIES IN GREECE

État, Économie, Société et Politiques Récentes Liées à la Société de l'Information en Grèce

Completed Research Paper

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Abstract

Building on recent literature on national cases of information society (IS) and the knowledge-based economy, the paper examines the evolving processes and shapes of the Greek IS, by looking into recent policies promoted by the Greek state. In doing so, it deploys a state/society conceptual approach, which highlights the ways in which European IS policy and its national interpretations are articulated or confronted by national socio-cultural, political and economic idiosyncrasies, as well as the role of the state in articulating global policies with national characteristics. The emphasis of the study is on the period 1998-2007, a period including the first comprehensive IS strategy in Greece, as well as enabling a critical examination of its effects.

Keywords: Information society, implementation politics, IT policy, Greece, state
Résumé

Ce papier traite des caractéristiques et des formes évolutives du « cas grec » en SI, en soulignant la dialectique entre la politique européenne et les idiosyncrasies socioculturelles, politiques et économiques nationales, et en soulignant les faiblesses rencontrées ainsi que le rôle de l’État dans l’articulation entre le mondial et le national au travers de sa rhétorique et de ses politiques. L’étude met l’accent sur la période 1998-2007 qui inclut la première stratégie générale des SI.

Introduction

The concept of the ‘information society’ (IS) (or ‘post-industrial society’, or ‘network society’) is often invoked to capture a new societal paradigm with information and communication technologies (ICTs) at its centre. Loosely defined, it can be taken to denote a form of economic and societal organisation at various levels, which emerges when the diffusion of ICTs interacts with pre-existing social, economic, cultural, political arrangements, which involves new patterns of living and working, and where, in addition, information and knowledge are considered central assets for competitive advantage, profit, growth and employment (Castells 1996; Mansell et al. 2000; Webster 2006).

The concept has often been accompanied by definitional problems (Stalder 1998), as well as problems of measurement (Menou and Taylor 2006). Moreover, it has stimulated debates as to the challenges that it presents, the characteristics it involves, as well as its social implications. A central question in IS debates has been whether the emerging information society constitutes a radical break with previous social organisations: some speak of the IS as a new type of society in a deterministic way (Bell 1976), while others prefer to identify continuities with industrial capitalist societies and place ICTs in context, trying to view societal transformations as emerging from the articulation between new technologies and pre-existing economic and sociopolitical structures and characteristics (Avgerou 2002; Miles 1996; Sassen 2002; Webster 2000).

These latter approaches, which allude to variation and context-specific differentiations of the ICT paradigm, seem to be gaining currency in the IS literature. M. Castells, who has celebrated the ‘network society’ as a new paradigm, admits that there is no unitary and homogeneous network society, as there was no uniform industrial society, but rather considerable historical variation in different countries (Castells 1996). C. May likewise has claimed that ‘The information age, like previous technological “ages”, will not be unitary or uncontested character; society has a profound impact on ICTs every bit as much as they have an effect on society’ (May 2003).

As a result, the issue of national variations is gradually becoming salient: such variations are attributed to different pre-existing national political and socio-economic circumstances, as well as different institutional structures, which are seen to influence the outcome of IS policy. Moreover, they are expected to reflect often conflicting ambitions and aspirations of different arrays of involved actors, and varying ICT-related expectations from the population in accordance to perceptions and needs.

‘National cases’ of the IS are increasingly studied, notably in the European context (Castells et al. 2002; Falch et al. 2000; Sancho 2002), but less so in semi-peripheral and middle-income EU countries. This is the gap that this paper seeks to fill, by examining IS policy in the Greek context, in conjunction with the evolution of similar policies at the EU level. In doing so, the analysis is limited to IS policies in Greece during the 1990s and until 2007, and in particular between 1998 and 2006, a period which includes the introduction of the first comprehensive IS strategy, as well as enabling a critical examination of its effects.

Our argument is that the unfolding of any national IS is a contested process feeding on previous, historically established, social, economic and political arrangements. We claim that the historically formed relationship between the state and the national economy and society is expected to inflect global IS tendencies and processes, leading to differentiated national IS trajectories and outcomes. Our research question is: In what ways have the IS policies implemented in the period under examination interacted with pre-existing national characteristics (encompassed in the state/economy/society relation)?

The structure of the paper includes a conceptual and methodological section, which outlines the conceptual state/society approach based on historical sociology, as well as the research methodology and data collection.
methods. Next, we turn to a brief presentation of the IS policies at the EU level, followed by a more detailed account of IS policy in Greece. Subsequently, a concise picture of the current situation of Greek IS is given, based on standard IS indicators, which can be seen as one of ‘lagging behind’. In order to analyse this picture, the paper presents an account of the historical evolution of the state/economy/civil society relation, which highlights the basic components of the state/society relation as historically formulated in Greece. The characteristics of this relation are then used to identify continuities with the past and highlight dimensions that are replicated in the context of the IS, as they emerge from a set of in-depth interviews with key IS actors. Finally, conclusions are drawn, as well implications for future studies of national IS cases.

Conceptual and Methodological Approach

Since capitalist diversity is our starting point in examining IS developments, and since this diversity rests historically on the characteristics of the national society, the national state and, broadly, the particular relations between them we would argue that a conceptualization of the national variations of the IS ultimately can be captured through a state/society historical theoretical approach. The value of a state/society approach is related to alerting the researcher as to the historical unfolding of a national economy/society relation (and inescapably the role and evolution of the specific national state in this unfolding). As such, it prepares the ground for an adequate comprehension of the outcomes of what has been operating as the IS project at the international level by considering pre-existing historically formed (at the national level) economic arrangements, social relations, cultural characteristics, institutional traditions, together with the role of the particular state in the socio-economic development of the national context in question. By doing so, however, it does not rule out the (global) structural context in which such national variations are placed. The ultimate goal is no more than arguing that the impact of IS global processes will depend on the nature of the society and the state (seen through the state/society relation) under examination.

A state/society approach involves the study of, firstly, the nature of state structures (including bureaucracy) and, secondly, the particular state/society relations. The notion of ‘state autonomy’ is relevant in the first dimension and conveys the idea of independent state bureaucratic and policy-making activity. Evans claims that the more state bureaucracies approach Weber’s ideal type (i.e. based on meritocratic recruitment, secure careers and rewards, independence from external interferences) the more they can contribute to economic development (Evans et al. 1999). In the second dimension, however, autonomy is coupled with the idea of embeddedness of state mechanisms into the wider society, resulting in the concept of ‘embedded autonomy’, which denotes that states ‘are embedded in a concrete set of social ties which bind the state to society and provides institutionalised channels for the continual negotiation and renegotiation of goals and policies’ (Evans 1995). Based on comparative research, Evans argues that the ways in which states are coupled with their societies vary significantly and this impacts on the role of the state in the economy, which can be either developmental or detrimental to economic development (or a mixture of both). Successful state involvement in the economy presupposes an understanding of the limits of state action, as well as close societal links (embedded autonomy). Austria, for instance, presents a fine case of adequate embedded autonomy, including a harmonious combination between a solid bureaucracy, with good links with a well-organised entrepreneurial class, as well as an organised working-class and other civil society groups (Evans 1995).

The analytical notion of ‘embedded autonomy’ is taken to express the embeddedness of state mechanisms in wider societal arrangements and their institutional capabilities (ample or limited) to promote social projects. This concept is expected to capture the IS development process at the national level as a social process. Using Evans’s logic, one could argue that the Finnish IS case presents a combination of solid bureaucracy and well-built links with the economy and the civil society groups and other forces, i.e. a case of adequate embedded autonomy.

As recent Greek IS policies are under examination, methodologically a case study approach has been used since what is studied is a contemporary phenomenon in a real-life context, especially when the boundary and context are not clear (Yin 1981). The case study strategy has also offered the advantage of combining a variety of research methods, including analysis of documents, interviews, as well as observations.

An overview of the EU and Greek policies has been obtained through study of relevant documents, including the Greek White Paper of 1999, and the OPIS policy document. Statistics on the IS in Greece, obtained from the Greek IS site (www.infosoc.gr) (using relevant data from surveys) have been juxtaposed and synthesised with statistical data obtained from relevant Eurostat indicators on the information society in the EU. Last, but not least, two comprehensive overviews of the Greek IT sector carried out in 2003 and 2006 have been consulted.
The core of our data collection methods has been a series of (twenty) elite interviews carried out between 2005 and 2006 and involving actors related to IS policies: the three Special Secretaries to the IS and their advisors, participants in the Management Authority of the OPIS and the IS SA, government officials from the Ministry of National Economy and Ministry of Interiors, IT corporate executives, members of SEPE (the Association of Greek IT firms), IT consultants, and academics. The interviews have been unstructured with open-ended questions, based on a topic guide to structure discussion around broadly defined areas: the political background to IS policies, the capacity of state mechanisms to implement projects, the role of the IT sector, the practices followed in the allocation of projects, the role of civil society. Last, but not least, the IS policy developments (1998-2007) have been followed closely by the author through the Greek IS site, but also in situ during periods of extended visits in Greece and participation in relevant meetings and conferences.

IS Policy at the EU Level

An IS vision has been since the 1990s communicated at the EU level, with the intention of promoting diffusion of ICTs at various geographical scales, including national, sub-national, regional, supra-national, EU-wide and even beyond. The 1993 European Commission White Paper ‘Growth, Competitiveness, Employment: The Challenges and Ways Forwards into the 21st Century’ was the first influential policy document, revealing the opportunities and challenges involved in the emergence of the information society, which were linked with European competitiveness and prospects of growth and employment, particularly in skilled jobs and the creation of new services. At the same time it warned of risks of unemployment, notably for people without skills, and potential social segregations, which had to be prevented through appropriate policies (European Commission 1993).

Subsequently, the influential 1994 Bangemann Report set out certain IS goals: a) promoting the use of information technologies; b) providing basic services at a European level; c) creating an appropriate regulatory environment; d) developing training in new technologies; e) improving technological and industrial performance (European Commission 1994a). These proposals were followed by the action plan ‘Europe towards the information society’, which contained four action lines: a) the adaptation of the regulatory framework for telecommunications to facilitate infrastructure liberalisation, b) the promotion of network, services and content applications c) the harnessing of the social and cultural impacts of the information society d) concrete actions to promote the information society (European Commission 1994b; Sancho 2002).

The EU Lisbon summit in March 2000 signified a qualitative change in the unfolding of the information society. The challenges of a transition to a knowledge society facing Europe were again highlighted, mainly through the articulated need to set up a competitive platform that would at the same time sustain the European social model, maintaining social cohesion and cultural diversity (Council of the European Union 2000). Furthermore, a new open method of inter-state coordination was adopted for the acceleration of the translation of European goals into national policies. This method was supposed to combine European coherence with respect for national diversity. It operated by firstly setting European guidelines in each policy domain, then identifying best practices and reference indicators and, finally, leading to national plans consisting of concrete targets in accordance with each nation’s case (Rodrigues 2002). The purported aim was to develop a knowledge economy with social cohesion and to promote convergence in Europe.

The new open method of coordination has been applied to a number of policy domains, including IS policies in the context of the ‘eEurope 2002: An Information Society for All’ initiative, which had been launched by the European Commission in December 1999. It initially set out ten priority areas for joint action by the Commission, the member states, the industry and the citizens. After the Lisbon summit and the informal Ministerial Conference on the Information and Knowledge Society a month later, the eEurope priorities were clustered around three main aims: a) cheaper, faster and secure Internet b) investment in people and skills c) stimulation of the deployment of the Internet. An Action Plan was prepared afterwards by the Commission and was endorsed at the Feira Summit in June 2000, setting specific targets to be reached by specific deadlines by the public administration and the private sector in member states. The subsequent ‘eEurope 2005’ action plan also set out to stimulate Internet services, applications and content, to improve the underlying infrastructure through the promotion of broadband and increased awareness of security matters; it also stressed the need to promote ICT skills and ICT-based opportunities, something that has been termed ‘e-inclusion’ (Eurostat 2003). The most recent EU plan has been the so-called i2010, which aims at promoting an internal market for electronic communication and digital services, stimulating innovation through investment in research, development and deployment of ICTs and ensuring inclusion.
From the EU to the National Context

The EU information society programmes, particularly the eEurope initiatives, have indeed mobilised the formulation and introduction of strategic national programmes in almost all the member states (including the new Accession countries). The EU sixth Framework Programme, with its Information Society Technologies programme (budget around 4 billion euros) has been largely devoted to the implementation of the eEurope Action Plan, with larger emphasis on social aspects (e.g. social cohesion). Moreover, the development of a complete legislative/regulatory framework (including EU directives on access, authorisation, privacy, universal service) has ensured the smooth transportation of policies across the different member states (Berleur and Galand 2005). As a result, recently there have been certain degrees of convergence with regard to the content of IS policies adopted, more or less reflecting the eEurope objectives. In parallel, the expansion of European professionals exchanging national examples and best practices has led to adoption, avoidance or modification of certain policies in accordance with the international experience.

Placed under the open method of coordination, the eEurope initiatives have, however, been operating under state consensus, i.e. acceptance on the part of the member states of the political commitment to implement it, in cooperation with other states, the European Parliament, the European Commission and business and societal actors, according to predetermined schedules but taking into account national priorities (Sancho 2002). The Lisbon agenda leaves much room for variation in the information societies to be finally implemented at the national levels. In parallel, it retains a significant role of the state, the structures and institutions of which are called upon to carry out the implementation of the European IS project.

As IS policy-making in the national context still rests with the authority and power of the member states, similar frameworks might lead to different translations, according to the different state/society traditions in different member states of the EU (Perrons 2004). Contrary to the early visions of the IS unfolding in a single evolutionary pathway, current literature asserts that there are many possible forms of the European IS, depending on technological developments, interaction with users as well as global and national policies and politics (Mansell et al. 2000). The role of the state as organiser of socio-cultural forces at a given moment is particularly important in articulating international policy aspirations with national realities and can, generally speaking, either propel or obstruct IS at the national level.

We therefore suggest that a careful examination of the relationship between the state and the national economy and civil society, as historically developed, can provide useful insights regarding key dimensions of a national IS. Further, dominant structures and configurations of the industrial era cannot be simply ignored in the information age: on the contrary, we claim that their central features and modes of operation are expected to be to some degree and in some form replicated in emerging IS arrangements.

IS Policy in Greece

The seeds of a Greek IS agenda in the making can be said to have firstly emerged in the 1980s, when the so-called ‘Mediterranean Integrated Programmes’ (1983-1993) were at the time the tool for IT funding. In this context, 25 billion drachmas were invested with the intention of ‘jumping on’ the IT bandwagon.

During this period, mainly universities and research centres but also to some extent the public sector, as well as SMEs became aware of the new technologies. Nevertheless, the narrow conception of most projects as simply procurement of hardware equipment and the overlooking of software applications and of educational needs led to many failures or in any case unsatisfactory outcomes. At the same time, it has been claimed that this short-sighted attitude vis-à-vis the new technologies formulated at this early stage the dynamics of the IT sector mainly towards assembly or retail activities, which in retrospect has been regarded as a missed opportunity in terms of the potential of software development in Greece. Nonetheless, the initiatives succeeded in introducing IT in key public sectors, namely education, transport, utilities, as well as the stock market and private firms.

The first policy document regarding the IS in Greece was a White Paper titled ‘The Greek Strategy for an Information Society: A Tool for Employment, Development and Quality of Life’ (1995), which raised four goals to be pursued within the following 10-15 years. Specifically:

- to limit the gap between Greece and the other EU countries in the use of advanced ICT infrastructure within 10 years
• to ensure that a considerable proportion of Greek firms would have access to markets associated with the information infrastructure within 15 years
• to ensure that family units increasingly have access to the information infrastructure within 15 years
• to see that the greatest part of transactions with the state be carried out electronically within the following 15 years (Hellenic Republic 1995).

This first document served as a means of setting the IS agenda in the Greek context. It echoed the discourse of opportunity associated with ICTs, as well as the dangers of being left behind, and it presented the whole issue as a great challenge for Greece. It was mainly concerned with the inadequate national infrastructure, which limited electronic transactions and access to new products and services both for firms and for households in comparison with the other EU countries. Most of its actions were funded by the 2nd Community Support Framework (CSF), including the development of a national infrastructure linking universities, technological institutes and public research institutes and the promotion of an e-commerce environment for business with the establishment of a National Committee on Electronic Commerce (Constantelou 2001).

The operational programme Kleisthenis (1994-2000) run by the Ministry of Interiors, Public Administration and Decentralisation and with a total budget of 100 billion drachmas was the main IS initiative of that period. The central aim of the programme was the modernisation of public administration (both in terms of hardware procurement and regarding services and training of employees). The programme adopted an integrated approach to IT, including development of infrastructures, applications and training in the design and implementation of each separate project. In the case of large projects, project management was supported by large consultancy firms. Information systems for municipalities, fiscal administration (TAXIS), the stock market, customs, as well as training of public administrators were some of the basic initiatives. In parallel, digitisation of the public telecomms operator (OTE) network, the development of certain fibre optic rings, and the creation of the national network for research and technology (EDET) were important initiatives at the level of telecommunications infrastructure. During this period a small number of significant IT firms developed, while the IT sector was consolidated and entered the Athens stock market (Papakonstantinou 2005).

The main development related to ICTs in the 1990s in Greece has been the liberalisation of the telecommunication sector. Until the late 1980s the telecommunication sector in Greece (and in Europe at large), was based on a state monopoly in the provision of telephone and telecommunication services. Following the early EU IS documents, a series of laws carried forward the liberalisation of telecommunications, beginning with value-added services and mobile telephony services (Law 1892/90 and 2075/92); after 31 December 2000 all restrictions including those on the provision of voice telephony and the network infrastructure have been removed and full competition has been officially established, under the supervision of an independent regulatory authority, the National Telecommunications and Post Commission (EETT) has also been set up (OECD 2001).

In April 1999, a second White Paper was prepared by ten policy experts and advisors to the Prime Minister, based on international experience and feedback from the Ministries regarding the actions and steps that had been taken vis-à-vis the IS. This was more strategic and comprehensive and was titled ‘Greece in the Information Society: Strategy and Actions’. It emphasised the potential of ICTs for competitiveness and better public services, present in the early EU documents, together with the requirement of building human skills to take advantage of these opportunities. The imperative of universal access and the prevention of new types of social exclusion, reminiscent of similar concerns in EU documents, were also highlighted (Hellenic Republic 1999).

Following from the White Paper, through the eEurope initiative of 1999 and the Feira Summit of June 2000, the Greek government proposed a systematic ‘Operational Programme for the Information Society’ (OPIS), linking it to funds within the structure of the third European Community Support Framework. This was an innovative horizontal programme, involving a number of government departments, and aiming to implement the essential features of the 1999 White Paper.

The OPIS set as objectives over the period 2000-2006: a) to provide better services to the citizen and improve the quality of life through the deployment of ICTs in public administration, health and welfare, transport and the environment, b) to promote development and build human potential through actions to increase competitiveness and employment and to put into place a suitable educational system (Constantelou 2001). To do so, it sets out the following four lines of action (with the corresponding shares of the total national and EU funding):
• Education and culture (17%), which addresses issues of IT infrastructure and content, Internet connectivity for all primary and secondary institutions by 2001, training for teachers in IT resources as educational tools, promoting Greek cultural heritage

• Citizens and quality of life (37%), focusing on the improvement of public services to citizens by connecting central, regional and local public administration, developing online applications, training of public sector employees in ICTs, reforming the management of health and welfare services, introducing telematics applications

• Digital economy and employment (24%), encouraging use of ICTs by SMEs, improving conditions for high-tech business start-ups, intensifying university-industry links, introducing ICT-related training programmes for the wider population, creating digital content

• Communications (19%), including measures to enhance liberalization, development of local-access network infrastructure, promotion of broadband services for the public sector, facilitating access for remote areas and disadvantaged groups (OPIS 2000)

• Technical Support (3%)

( Ministry of National Economy 2000)

According to Law 2860/2000 several bodies were set up to manage and implement the OPIS: a) The Management Authority, operating under the Special Secretariat for the Information Society established within the Ministry of National Economy, which deals with the design of action lines for the OPIS, the follow-up and control of their implementation, as well as writing of annual techno-economic reports and supervision of financial, legal and logistical aspects; b) The Monitoring Committee comprising representatives of ministries, public organisations, economic and social partners and non-governmental organisations and having a supervisory and advisory role; c) The Information Society S.A., a public not-for-profit organisation operating under the supervision of the Ministry of Interior, Public Administration and Decentralization, and charged with the administration of public calls for tender, while providing assistance and advice to government and other public and private institutions in the implementation of the OPIS; d) The Observatory for the Greek IS, aim at transferring expertise and best practice relevant with information society issues, as well as providing training tools and supervising benchmarking studies (this was put into place in 2003) (Constantelou 2001).

Current Picture of the IS in Greece

In 2000, when the OPIS had just begun, Greece was significantly behind the EU-15 average in ICT infrastructure and use, with the exception of fixed and mobile telephones. Table 1 shows an increase in PC and Internet usage for individuals and PC and Internet possession for households between 2001 and 2003, but this increase cannot be characterised as a take-off; on the contrary, falling rates were observed between 2003 and 2004. After 2004, there is a stable increase in most of the indicators of the table, but this has to be seen as a natural evolution, also assisted by a big Operational Programme which has overcome the costs of its initialisation period and has begun to bring about results. Further, the increase in these indicators has to be put in comparative perspective, i.e. regarding other EU countries.

At the enterprise level, in 2003 92% of firms with 11-250 employees possessed PCs (94% in the EU), 82% were connected to the Internet (83% in the EU), while 48% had also a website (52% in the EU). These tendencies were reinforced through the “eBusiness” action of the OPIS, resulting in an 87% Internet connection in 2004 (90% for the EU-15) (EDET 2005). Very small enterprises (up to 10 employees) lagged significantly behind the EU average in 2002, but by 2006 had increased their Internet connectivity substantially (72.4%) (Observatory for Greek IS 2008).

In the public sector, diffusion and deployment of ICTs has been limited in almost all areas, which also explains the low use of Internet-mediated interaction with public authorities. Exceptions have been certain parts of the TAXIS Net project (addressing fiscal procedures), as well as the area of education and training, with the development of the advanced Greek Research and Education Network (GRNET) interconnecting academic and research institutions, primary and secondary schools. In 2002, 100% of secondary education institutions were online (36% in 2000), while 47% of primary education institutions were online (only 3% in 2000) (Eurostat 2003). Another significant achievement has been the e-Business Forum, an open consultation mechanism involving government agencies and stakeholders from business, academia, and the media for rising IS awareness.
**General topics**

<table>
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<tr>
<th>Indicator</th>
<th>2001</th>
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<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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<tr>
<td>% population over 15 using PC</td>
<td>20.8</td>
<td>27.1</td>
<td>25.9</td>
<td>35.4</td>
<td>37</td>
<td>38.9</td>
</tr>
<tr>
<td>% population over 15 using Internet</td>
<td>10.6</td>
<td>19.9</td>
<td>19.7</td>
<td>23.2</td>
<td>26.5</td>
<td>30.2</td>
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<tr>
<td>% population over 15 using Internet weekly</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>31.2</td>
<td>25.8</td>
<td>24.9</td>
</tr>
<tr>
<td>% population over 15 using Internet to interact with public authorities</td>
<td>3.5*</td>
<td>6.1</td>
<td>7.2</td>
<td>4.7</td>
<td>5.5</td>
<td>9.5</td>
</tr>
<tr>
<td>% households having PC</td>
<td>23.3</td>
<td>30.5</td>
<td>29.9</td>
<td>39.4</td>
<td>41.7</td>
<td>41.8</td>
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<tr>
<td>% households having Internet access</td>
<td>12.4*</td>
<td>15.2</td>
<td>17.1</td>
<td>22</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>% households having broadband connection</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>% population having mobile phone</td>
<td>49.5</td>
<td>64.7</td>
<td>69.4</td>
<td>85.6</td>
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</tbody>
</table>

*in 2002

**Table 1: Evolution of basic IS indicators in Greece**

**Source:** EDET 2005, Eurostat 2007, Observatory for Greek IS 2008

In 2006, the overall Internet use in the Greek population presented certain digital divide patterns in terms of sex, age, educational level and geographical location:

i) The percentage of 36.1% for men was contrasted with 24.4% for women.

ii) Very low use was observed in the 46-55 age group (20.4%) and the 56-65 group (8%), compared to 55.6% in the 16-25 group.

iii) Only 1.7% of men and women with primary education, and 35.5 with secondary education were connected, compared to 65.5% of the population with higher education.

iv) The lowest usage was recorded in the Thessaly municipality (17.7%) and the highest in the Athens municipality (35.4%). (Observatory for Greek IS 2008)

Despite the vision of the OPIS, in 2006 Greece presented the lowest percentages in EU-25 in the following indicators: Internet usage at least once a week by individuals (25.8% compared to 47% for EU-25), Internet access by households (23% compared to 52% for EU-25), as well as Internet usage for interaction with public authorities (9% of the population over 15 in 2006, compared to 26% for EU-25). It also occupied one of the last positions in PC usage among the population (37% in 2006). Internet access among enterprises was about 94% (93% for EU-25), but broadband access was 58% (74% for EU-25). Perhaps the most dramatic part of the picture emerges in broadband Internet access by households (4%), which was the lowest percentage even in the EU-27 (i.e. including also Romania and Bulgaria) (Eurostat 2007).

**The Greek IS in Historical Perspective**

Notwithstanding certain ‘success stories’ Greece is still significantly behind not only in terms of ICT diffusion, but also with respect to the overall economic, social, cultural and institutional aspects of the IS project. The few attempts to assess the Greek IS situation have stressed that a robust approach to policy formation has been let down by inadequate or unsuccessful policy implementation and have identified certain implementation barriers (Caloghirou et al. 2006).

We approach these implementation impediments and lagging behind as indicative of broader characteristics of the national context that have been developed over time. As one of our interviewees suggested, “The degree to which...
the Greek society and economy has historically absorbed different technologies (from electricity to ICTs) is one of Greek particularities. Generally speaking, it has been observed that we are on the whole superficial users of technology” (interview). The fact that Greece has historically shown receptiveness to the idea of technological modernisation at a first level, but has found difficulties in the actual absorption and deepening of new ways of living and working (Voulgaris et al. 2002) can be seen as perhaps the best justification for using a historical approach in analysing the Greek case. In the next section, we use our state/society conceptual approach by providing a historical overview of the state/economy/civil society relation in Greece and identifying the nature of state structures and state/society relations.

**State, Economic Development and Civil Society in Greece**

In his influential analysis, Mouzelis takes Greece to belong to the capitalist semi-periphery, as well as the late-late development paradigm (i.e. economies where industrialisation only happened after 1929), which is associated with an increased role of the state or state-controlled institutions for direction (Mouzelis 1986).

The gradual integration of the Greek economy into the world market and the process of urbanisation in the late 19th century gave an important role to the state for building infrastructures, regulating prices and exports etc. The articulation of agriculture with industry took place in ineffective ways and resulted in a quite limited domestic market. Increasing urbanisation led to rising unemployment for large segments of population drawn in urban centres. These processes, coupled with the relatively early development of democracy and parliamentary institutions, resulted in increasing pressures for those segments of urban population to be absorbed in the tertiary sector, particularly public bureaucracies, which in turn grew enormously (Sotiropoulos 2003). The public sector size augmented and public administration soon became very fragmented and inefficient, while clientelism became a mode of operation in the allocation of posts with significant negative impact on the developmental potential of the state.

Gunther et al (2006) identify the common structural characteristics of a southern European state that has developed historically in all Spain, Italy, Portugal and Greece (notwithstanding the exceptions in each case). These characteristics identify a particular state/society relation, which reflects the particularities of south European capitalism and, being dissimilar to state/society relations in Northern and Western Europe verifies the capitalist diversity standpoint.

In their approach, Gunther et al. conceptualise these states as both ‘heavy’ and ‘weak’. The ‘heaviness’ of the southern European state is constituted by the great centralization of state power, which in Greece was introduced by the Bavarian monarchy selected by the Great Powers in order to rule over a peasant population that was divided by local rivalries; centralisation was coupled with the use of coercive force against those threatening the establishment, and the frequency of periods of emergency or dictatorial rule. In addition, ‘heaviness’ is also demonstrated through the interventionist role of the state in the economy. When industrialisation took off in the 1930s, the already established state structures were more potent than a still weak industrial sector. This was the historical root of a tendency for the private economic sector to operate under the protective mechanisms of the state (e.g. seeking increased subsidies, enjoying protection through high tariffs or other kinds of favourable treatment), rather than building its own independent capabilities (Lyberaki et al. 2002). Further, these practices were applied in asymmetrical ways between industries or within an industry, with certain economic groups enjoying privileged access to public resources. State interventionism was very prominent in the 1960s and 1970s across industrial and service sectors, and included tariff protection, preferential treatment, and overall protectionist practices to defend the interests of economic elites.

On the other hand, the ‘weakness’ of the southern European state derives from a number of factors: the sustained power challenges from local elites in the second part of 19th century, which involved systematic tax evasion and resulting unjust distribution of taxes, as well as insufficient revenues and growing public deficits; the prominent power of the military establishment, often taking the rule in its hands, something manifested in Greece from 1821 until the 1860s, and more so in the 20th century; the inadequate, almost rudimentary provision of social services, which has been a far cry from the universalistic schemes of Western Europe, as well as regressive taxation systems and inadequate revenues to support state activities; the incompetent public administration characterized by pervasive clientelism, corruption at lower levels, uneven development of institutions, with some departments overstuffed and others underdeveloped, as well as rigidities and over-legalistic frameworks; the ineffectiveness in promoting economic development, until at least the 1980s or 1990s (in Greece); the fragile legitimacy, originating from mistrust in royal
authorities\textsuperscript{1}, but also partly due to the early introduction to parliamentary rule before social and economic development (Gunther et al. 2006).

The late industrialisation of Greece, as well as the role of the state in economic development, have also affected the character of civil society.\textsuperscript{2} Firstly, insufficient industrialization prevented the development of traditional industrial unionism, with much lower rates of unionisation than Western Europe. When trade unions appeared around 1909 they lacked ideological and organisational coherence and had as a result limited impact on social legislation. The General Confederation of Greek Workers (GSEE), created in 1918, exemplified state paternalism and obstructed the development of other associations (Garcia et al. 2006). Secondly, social movements and other entities (e.g. the Church) have historically had limited independence from state mechanisms. Thirdly, there have been formal civil associations that are very strong: for instance the associations of liberal professionals (lawyers, doctors, engineers), which enjoy considerable strength, and have systematically resisted any political reforms affecting their interests (Sotiropoulos 2004).

Overall, the corporatist arrangements in Greece, involving the state, and the labour and business interest groups, particularly after 1974, have been characterised by fragmentation and political factionalisation of trade unions and at the same time weakness of the state vis-à-vis business interests, an overall asymmetric power situation that has led to a notable absence of ‘social corporatism’ and the ability to engage in collective decision-making and negotiate social pacts, something also exacerbated by the two civil conflicts of the 20\textsuperscript{th} century (1916-1917 and 1944-1949) and the antagonistic practices and relations between political parties (Lavdas 2005).

Building on the above account, the following picture of dominant characteristics of Greek politics, economy and society in the period from 1970s to the end of the 20\textsuperscript{th} century, has been identified in a growing body of literature (a summary provided here based on Featherstone 2005); we treat these dimensions as expressions of the particular state structures and state/society relation as historically developed in the Greek context.

\begin{itemize}
  \item[a)] the public policy process is hierarchical with complex relations between ministers and personal advisors often operating across ministries, weak connections with civil service, absence of think tanks and policy communities and lack of social dialogue with societal forces (Ladi 2005)
  \item[b)] Public administration has been systematically subject to abusive interventions by successive governments for purposes of bureaucratic clientelism, something which has prevented the development of a Weberian bureaucratic culture based on rational/legal expertise (Lyberaki et al. 2002)\textsuperscript{3}
  \item[b)] state/economy relations are characterised by over-regulation and strict legal frameworks on the one hand, while suffering on the other from an unhealthy relationship of mutual dependence which involves corruption and patronage in the allocation of favours and contracts
  \item[d)] Parties over-determine politics, while inter-party relations are highly conflictual and built of opposing social identities and competing patronage systems
  \item[e)] Formal civil society (measured in terms of organisations and participation rates) is limited and organisations are often dependent on state mechanisms; on the other hand, informal civil society mechanisms should be taken into consideration; importantly, interest mediation is characterised by a potent rent-seeking behaviour from sectional interests, which reveals a civil society strong in its appropriating potential; and the state/business/labour industrial relations are characterised by a ‘disjointed corporatism’, whereby labour unions tend to be patronised by the state
\end{itemize}

\textsuperscript{1} In Greece, this became evident during WWI with the conflict between Eleftherios Venizelos and King Constantine and resulted in the National Schism.

\textsuperscript{2} taken to denote societal interests, associations and institutions that exist outside of the state (Keane 1988).

\textsuperscript{3}The link between meritocratic recruitment and the cultivation of bureaucracies with shared norms and culture is addressed by Evans and Rauch who argue that meritocratic recruitment and predictable career development help the creation of a more cohesive bureaucracy that pursues long-term goals more effectively, including advocating public sector infrastructure investment rather than consumption expenditure and other short-term goals (Evans et al. 1999).
and the political parties, while the policy capacities of the state regarding business are weak, a situation which accounts for the deadlock in social dialogue throughout the 1970s and 1980s (Lavdas 2005).

f) Political culture shows mistrust opposite the state, in particular regarding its regulatory and redistributive functions, but is accompanied by rent-seeking individualist behaviour; it incorporates the ambivalence of patriotism on the one hand and individualism and lack of collective spirit on the other.

The above characteristics paint a picture of Greece in the beginning of the 21st century across the economic, political, social and cultural spectrum. According to our broad argument, such characteristics are expected to play a role in shaping the IS in Greece, as well as in the forms that the latter might take. It goes without saying that the relative contribution of each of the above factors is not expected to be the same; nor, on the other hand, can each such contribution be singled out in order to produce a direct mapping of historical realities and their contemporary replication in the IS in Greece.

Analysing the Current Picture of the Greek IS

These characteristics have been to some extent common in the broader South European context. Since the 1970s, south European countries have been witnessing processes of democratisation, Europeanisation and modernisation and have approximated Western and Northern Europe in terms of partisan politics and economic change. Nonetheless, the Southern European state and its patterns of public policy outputs have continued to exhibit institutional legacies that impede substantial change (in certain sectors more than in others) (Gunther et al. 2006).

During the 1990s the ambitious socio-economic ‘modernisation’ project of Prime Minister Costas Simitis (1996-2004) This project revolved around the mission of securing the position of Greece at the core of EU both in economic (including incorporation in the core of the Eurozone) and in political terms (Featherstone 2005). The comprehensive IS strategy, as demonstrated through the 1999 White Paper and the OPIS has to be seen in this context. In what follows we try to present a more detailed picture of the ways in which the IS strategy has been articulated with the specific national context based on data obtained through the elite interviews mentioned in the methodological section. Our presentation attempts to link our evidence with the particular characteristics of the state structures and state/society relation shaped historically in Greece as outlined above.

Policy processes

As mentioned, the public policy process in Greece has been characterised as hierarchical, with complex relations between ministers and personal advisors often operating across ministries, weak support from civil service and absence of think tanks and policy communities that would provide technocratic legitimation (Ladi 2005); as a result, political initiatives suffer from antagonisms and competing interests within government agencies. Moreover, such antagonisms are exacerbated through highly conflictual relations between the political parties, based on opposing social identities and patronage systems (Featherstone 2005). Our research in the IS has revealed that there has been from the beginning a significant problem of antagonism between ministries as to the allocation of responsibilities of the OPIS, as well as the lack of a coherent and continuous IS vision at the prime ministerial level that would bridge such rivalries. In the words of a former Special Secretary for the IS: “Of course, all ministries would be involved in actions of the programme, but the question was who would ‘own’ it. Ultimately two ministries took the responsibility, namely the ministry of National Economy and the ministry of Interiors. This duality, which was necessary for the programme to be approved, has taken its toll, in terms of delays, coordination difficulties, antagonisms and enmities with regard to who ‘carries the flag’ of the information society in Greece” (interview).

Bureaucracy, Public Procurement and the IT sector

Certain characteristics of the Southern European model of bureaucracy (first visible in the 19th century) have been persistent in Greece in the beginning of the 21st century. Firstly, political clientelism at the top level, meaning the political party-mediated appointments at the top levels of bureaucracy, as well as promotions and transfers to high civil service. Secondly, political clientelism at the low levels, i.e. selective recruitment at entry-levels jobs in public administration. Thirdly, lack of an institutionalised administrative elite with considerable political and social stature
and a corresponding lack of Weberian bureaucratic culture based on rational/legal expertise. Fourthly, the uneven character of the public sector, with unbalanced distribution of personnel and resources (Lyberaki et al. 2002; Sotiropoulos 2006). These characteristics seem to have participated crucially in the evolutionary course of IS in Greece.

Firstly, there has been observed an overall incapacity of the state to carry out, monitor and implement certain IT projects, due to limited experience on the part of the design, implementation, monitoring and management mechanisms, as well as in the unbalanced distribution of personnel and resources. As a central figure of the Management Authority remarked, “The most obvious reason for this has been the lack of project management personnel both capable and aware of the contours of the Greek reality that could navigate through a labyrinth of problems and procedures”. On the other hand, as a senior member of a large IT firm put it: “Implementation has also been impeded by the complexity of the legal, administrative and institutional framework for IT projects. Certain administrative procedures (e.g. procedures for acquiring funding) have continued to be quite complicated”. This seems to have characterised public procurement mechanisms as a whole, reflecting the fragmentation of public administration that has been formed historically.

Secondly, the public sector presents inadequacies as provider of digital products and advanced applications, as well as consumer of digital products and services. According to a member of the Special Secretariat, “there has been fragmentation within public organisations, perpetuation of quite obsolete structures (e.g. different departments for telephony, IT and Internet, and different departments dealing with procurement for those technologies), inflexible institutional frameworks which were only suitable for large public projects”, all of which have been incompatible with the needs for flexibility, adaptability, dynamic change, improvisation in new patterns of working and living, associated with ICTs in general and mostly with those projects that were of a particularly innovative nature (interview). Incorporation of a project in the daily administrative routines has been particularly difficult as lack of understanding and motivation on the part of employees. The rationalisation and digitisation of the public sector is regarded as a sine qua non for ICT-related social transformation (Caloghirou 2003).

Thirdly, the historical characteristics of Greek capitalism and its relationship with the state have been reflected in the current state/IT sector relations in Greece. The incomplete industrialisation and the resulting small market has been reflected in an IT sector of limited scope, with very few SMEs and large enterprises and a vast majority of small and micro firms. This has differentiated Greece from other national cases where large ICT firms have acted as leading edge technological innovators (e.g. Nokia in Finland). Further, the relationships of dependence of firms on the state observed in the industrial era have been reproduced in phenomena whereby the IT firms, although private, have relied extensively on state promises for funding that either have not been materialised, or, have not been accompanied by appropriate monitoring of industrial performance (Voulgaris 2003). As an advisor to a former Special Secretary remarked, “In most countries, the IT sector pushes the public sector forward, while here this does not happen, on the contrary often the public sector needs to make the IT sector aware of developments. This is reflected in the way the market deals with projects: it does not create its own dynamic, but expects the state to generate projects” (interview). This has been confirmed by other state actors, as well as representatives of the IT sector in further interviews.

Moreover, state/economy relations have been historically characterised by over-regulation and strict legal frameworks on the one hand, while suffering on the other from an unhealthy relationship of mutual dependence which involves corruption and patronage in the allocation of favours and contracts (Kazakos 2001). In the case of IS, clientelism and micro-corruption have been frequently involved in project allocation and have been accompanied by a defiance of rules and codes of conduct during implementation. Lack of IT expertise has often resulted in public administration succumbing to pressures from the IT sector to purchase products and adopt solutions in accordance with what specific IT firms have to offer. The relevant committees involved have either obstructed allocation of projects or have made bribery commonplace, while the IT firms in Greece have been used to the logic of bribing every committee for allocating or evaluating a project.

As a result, there has been observed the phenomenon of a small number of hegemonic firms able to appropriate the majority of projects due to their capacity to take advantage of their relations with the public sector (personal
relations with IT managers of Ministries etc), with obvious implications for fair competition. The practice of such firms was either to bribe the pertinent committees in order to get the project, or to establish such connections and relationships with Ministry employees and cadres, which gave them early access to information as to what the specifications of the project were and as a result comparative advantage in the preparation of their proposals for the project in question. In many cases, these dominant firms were in the position to create the specifications themselves. These phenomena led one interviewee to remark: “Characteristics of the industrial era are replicated in exactly the same way today. We have state dependent enterprises and the logic of appropriation of resources, funds etc by the small segment of ‘the selected’” (interview). Overall, the absence of formal procedures guiding IT actions have perpetuated unhealthy relations of dependence and distrust between the state and the IT firms, which in turn have prevented the development of patterns and relations of mutual accountability, trust and smooth cooperation between the private and the public sector.

Civil society

On the other hand, the overall limited formal civil society have had a limited impact on the evolution of the IS project in Greece. It is true that there have been professional associations that have systematically promoted IS developments in Greece (e.g. the Greek Technical Chamber TEE, or the Greek Association of Information Technology and Communications Scientists and Professionals EPY). It is also true that there have throughout been enthusiastic individuals who have consistently worked towards the promotion of IS (e.g. the team behind EDET). These activities have nonetheless not managed to link the vision and knowledge of certain individual or team experts with broader societal structures and mechanisms of diffusion. The social networks and local communities that could help advance the IS (as has happened in Finland, for instance) by increasing awareness have either been absent or limited or characterised by inertia. As a result, the wider social forces and civil society groups do not seem to have comprehended the dimensions of IS developments or have simply shown a logic of resistance or appropriation: “The OPIS articulated policies that were out of touch with the Greek context and were not acceptable by the Greek society. Conflicts of interests and local communities did not help the promotion of ICTs, either because actors were acting out of their own interest and only regarding their own interest or because local communities were not in a position to understand” (EDET member interview).

The overall profile of Greek civil society (partly weak, partly strong but often with appropriating rationale), then, seems to have contributed to the IS trajectory. In the case of the Greek Association of IT firms, for instance, the culture of short-termism and quick profit-making has often impeded the realisation on a social level of multiplier economic and social effects resulting from the promotion of the IS.  

Limited awareness of potential benefits and dominance of individualism and short-termism have resulted in the formation of resistance identities vis-à-vis the prospect of ICT-related social transformation (Castells et al. 2002). These identities are linked to some extent with technophobia, notably in older individuals: “There is a kind of technophobia, particularly among the elderly, which is due to the lack of a technological culture; this is why we tried to find vehicles for communicating the programme and ICTs in the family, through young people that could persuade their parents to use ICTs; similarly in small (up to 10 people) and very small businesses (up to 5 people), of which there are several thousands in Greece” (interview).

Conclusions

Through our interviews with experts involved in some capacity in the IS initiatives and their implementation, we have acquired a reasonably detailed, elaborate and ‘low-level’ picture of the difficulties of implementation of

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4 A case has been Altec, one of the most hegemonic IT firms, particularly regarding projects for the Ministry of Interiors, where it enjoyed certain connections. Other firms were dominant in other areas, for instance Intronsk undertook almost all tasks relating to the TAXIS project, as well as a lot of projects within the Ministry of Health.

5 Characteristically, as suggested during an interview, IT sector representatives have repeatedly reacted against the prospect of spending funds on education programmes (something that would indirectly boost demand) and have instead demanded channelling them towards direct purchases of IT equipment.
policies and projects in the unfolding of the Greek IS, despite following closely the EU rhetoric and having formulated a comprehensive strategy. Moreover, we have been provided with explanations as to why these problems have occurred. These have had to do with factors like the institutional arrangements in the public sector that were not seen as ‘fit’ for the IS/KBE age; antagonistic power relations in policy-making circles; the operation of clientelism in implementation mechanisms at various levels; the lack of a Weberian (rational and efficient) culture in the public administration; the small IT market and the intricate links between the IT sector and the state mechanisms, where again clientelism is predominant; the absence of significant civil society driving forces that could have given impetus to developments; the apparent lack of interest in IS developments shown by large segments of the Greek population.

By adopting a state/society approach, we have attempted to link the evolution and current picture of the Greek IS to the history of the Greek social formation. To summarise our findings using the language of the state/society approach, we can claim that in the context of IS, the Greek state/society coupling has demonstrated limited ‘embedded autonomy’: on the one hand implementation of policy has been enmeshed in various personal and institutional interests, clientelistic relations and micro-corruption (lack of autonomy of the state from society); on the other hand the IS project has been designed top-down without social dialogue and with subsequent limited mobilisation of civil society, while the links between state and entrepreneurs at the local level have been weak and presenting problematic aspects (inadequate embeddedness of state into society).

What has been interesting for us in the light of these findings has not been the picture of lagging behind, but rather the persistence of historical societal legacies that have apparently continued to be salient in the context of IS developments. Legacies related to the nature of Greek public administration, the policy-making processes, the state/economy relations, the civil society outlook and modes of operation, as well as cultural characteristics which also have historical underpinnings (e.g. lack of collective spirit and heterogeneity that links back to a postwar era troubled by Civil War and subsequent social divisions).

We have offered a critical account, in some detail, of a national case of information society that has not been sufficiently looked into, notably in a broader geographical area (southern Europe) that has also been relatively understudied in terms of IS. But also at a higher level and by drawing on the Greek case we hope to have contributed to the formulation of more general theoretical propositions as to the impact of the pre-existing and historically shaped particular state/society configuration on IS in any national context. To our knowledge, though frequent in literature on social change and comparative political economy, state/society historical approaches have not informed analyses of IS national cases. The methodological implication of our research, then, is that historical studies of societies can be informative of contemporary IS developments. The Greek case shows that national variations should be taken seriously in discussions of the IS, as the adoption and implementation of IS policies is a contested process that comes up against historical societal legacies. These legacies can act as impediments and barriers to implementation (as in the Greek case so far), but there is no reason to doubt that they can contribute to the eventual physiognomy of any national IS in other possible ways.

The EU rhetoric on the information society and the knowledge-based economy, as expressed in the early documents and subsequently in the Lisbon Agenda and the eEurope initiatives has clearly promoted an ideal type of an IS/KBE driven by ICT developments. The EU policies have sought to establish a new pan-European social reality with ICTs at the centre of economic and social activity underpinned by a common liberalised telecommunications framework and a digital convergence of different media. In doing so the EU circles have implicitly (and even explicitly) adopted the assumption of non-exceptionality as far as IS societal arrangements are concerned, i.e. the idea that media convergence and ICT-diffusion will result in societal convergence as well. Our overall aim has been to argue against such a homogenisation approach by drawing on the Greek case.

References


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