Large network services and the organisation of contemporary capitalism

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Les grands services réseaux et l'organisation du capitalisme contemporain

Résumé :
Cet article analyse les signes de désorganisation des économies développées contemporaines, à la fois en termes de paradoxe de la productivité sur le plan macroéconomique et en termes de blocages organisationnels au niveau des entreprises pour le plan microéconomique. Ceci conduit à souligner le potentiel de changements organisationnels dans les grands services en réseaux (dont les services publics) et leur rôle dans la dynamique de croissance. On rappelle alors les contraintes qui pèsent sur de telles évolutions, liées en particulier au fort développement de politiques d'offre de services réseaux (y compris à l'échelle internationale) et au faible développement des politiques de demande correspondantes.

Large network services and the organisation of contemporary capitalism

Summary :

This paper analyses the signs of disorganisation in developed modern economies, both in terms of productivity paradox in a macroeconomic perspective and in terms of organisational deadlocks at the level of the firms. It leads us to stress the potential in terms of organisation and sources of productivity growth of the large network services. We then recall that much of this potential is conditioned by improving the matching between the strategies of an over developed supply side and the policies in support of an underdeveloped demand side.

MOTS CLES : Réseaux, services, organisation, croissance

KEY WORDS : networks, services, organisation, growth

CLASSIFICATION JEL : L80, L90, O14

Large network services and the organisation of contemporary capitalism[1]

By Pascal Petit[2]

1 - Which services and which organisational stakes ?

We are hereafter concerned with the organisation of large network services (LNS hereafter), be they intermediation services (eg banking, distribution, communication, transport) or household services such as education and health, to which we can add government services.

All these activities tend to play a special role in the restructuring of modern economies. Network externalities, e.g. the fact that the services under view are all the more valuable that the number of users is important, account in the first place for their importance. Altogether with their long term effects on the structures of the economies, it explains the concern of public authorities for their provision and for their consumption.

Their relative importance in terms of share of GDP or of total employment kept increasing. They represent a large share of employment and GDP (see table 2). Most of them also retain large share of the stocks of human capital and Information Technology and Communication equipment.

For these various reasons they look from the start as key issues in the development of a second brand of modern capitalism. Whatever a knowledge-based economy is, it must directly be concerned with these activities.

Our question is that although they represent the biggest potential for the implementation of new technologies and accompanying reorganisations, they have not displayed so far these expected dramatic changes in productivity. In a way they are at the core of the productivity paradox, which stress that "we see computers everywhere except in statistics" of national growth accounts.

The reasons for such situation are many and do not apply similarly across the board of all these activities. Some like communications may be doing well in all countries. Others perform differently among countries. Some of these differences may also stem from differences in measurement. In all cases these activities are strongly country specific, meaning that they rely on a strongly national specific institutional basis, historically rooted and expressing the public concern raised by their strong external effects. Their development therefore took place under various kinds of public tutelage, at both sectoral and national levels.

In that respect the universal pressure to deregulate these activities strongly launched by Reagan and Thatcher in the 80s did not end up with an universal full

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disappearance of all regulatory frameworks. The last decades, which could have appeared as a phase of transition towards an era of full neo-liberalism, finally look as a turning phase from one type of regulation to another (which has also been qualified as a shift from regulating fields of activities to more prudential kinds of regulation). By the beginning of the new century, after the East Asian financial crisis, the burst of the financial bubble, the failures of recently privatised utilities and large network services and finally after the series of Enron like scandals, the necessity of relevant regulatory frameworks has been widely reckoned.

This general change in attitudes in favour of some controls and regulations of activities still left a lot of controversial issues on the provision of services (public, private or in partnerships), on the content of products (quality norms of services) or on its diffusion (the importance and nature of universal services). The remake of the broad regulatory frameworks is thus an important part in the reorganisation of capitalism that followed the crisis of the 70s and the political and institutional changes launched in the 80s.

These reforms are, as we shall stress, at the core of the transformation of markets that characterizes the present era. Because of their size, of their mobilization of human resources and of information and communication technologies (ICTs hereafter), the nexus of service activities we consider should play a rather central role in the debates on the transformations that our economies should undertake to deliver the potential of a new growth regime, able to take advantages of a set of major structural changes such as the rise in education, the diffusion of a new technological system centred around the technologies of information and communication or the denser internationalisation of the economies.

So far the period of slow growth and unemployment that followed the outburst of the crisis in the 70s in most developed economies displayed features of disorganisation at both macro levels and micro levels. The productivity paradox (as expressed by the contrast between a steady diffusion of ICTs and a sluggish growth of productivity) or the lack of national model that would stand as a general solution (after the stalemate of the Japanese model, fully manifest from the early 90s onwards) illustrated this disorganisation of capitalism (to echo Lash and Urry denunciation 1987, 1994). The challenge is thus to see how and to which extent these preponderant services activities can support some reorganisation of contemporary capitalism. In other words to what extent they can constitute engines of growth by means of their own reorganisation.

To assess this issue the paper will first review the main features of disorganisation, first at macro level (section 2), then at micro level (section 3). This assessment will put forward some stylised facts on the present growth regime that will help to explain how the transformation of large network services (LNS) can contribute to support economic growth (section 4). This perspective will contribute to characterize the various ways in which reorganisation of LNS can be addressed (section 5). These organisational paths are not merely technical issues. They are at the core of the political debates that surround this issue of “public” services. Namely we shall distinguish between approaches insisting on the provision (supply side) and approaches that are focusing more on the content and distribution of services (section 6).

Section 2 - Disorganisation: macro features.

We shall consider three types of features to account for what we call the macro disorganisation. One will look at a broad assessment by sector of what remains of the

productivity paradox at the turn of the century, e.g. some twenty years after it was first pointed at. The second will take the measurement issue and check to which extent we can track down the real growth of our economies. The third will simply list some of the major speculative booms that occurred in the recent past.

a) On the productivity paradox: an unbalanced growth?. An interesting feature in the productivity debate assesses the magnitude of the gains in the 90s for respectively manufacturing and service industries, according to whether they use or produce ICTs.

The figures in table 1 stress that productivity gains have been especially strong in ICT producing sectors and especially weak in services classified as non using ICTs.

Table 1

Labour productivity growth (value added per person employed), by industry group, 1990-1995 and 1995-2000

1990-1995	ICT Producing		ICT Using[a]		Non-ICT		
	Manufacturing	Services	Manufacturing	Services	Manufacturing	Services	Others
France[b]	10.0	2.6	3.3	0.5	3.4	-0.3	1.6
UK	15.8	5.6	2.1	2.5	4.0	1.5	6.1
EU	11.1	4.4	3.1	1.1	3.8	0.6	2.7
US	15.1	3.1	-0.3	1.9	3.0	-0.4	0.7
1995-2000	**ICT Producing**		**ICT Using[a]**		**Non-ICT**		
	Manufacturing	Services	Manufacturing	Services	Manufacturing	Services	Others
France[b]	15.0	6.2	1.9	0.7	2.7	0.1	1.1
UK	16.1	5.2	1.7	2.6	0.5	0.9	1.5
EU	13.8	6.5	2.1	1.4	1.5	0.2	1.9
US	23.7	1.8	1.2	5.4	1.4	0.4	0.6

Source: Van Ark (2001)
(see in annex partition between ICT producing, Using and non using of industries)

Table 1 clearly shows the strong dynamics of productivity gains over the 90s in ICT producing manufacturing industries. Gains are also consequent in ICT producing services. Results are rather mediocre for ICT using industries of all kinds all over the 90s, much on line with the non using industries, with the clear exception of the using services in the US over 1995-2000. The productivity paradox is thus manifest in all these activities using ICTs without any clear effect. The exception of the US services is worth to be discussed. It results from both changes in measurement practices (following the Boskin report) and effective structural transformations as in the distribution industries (the Wall Mart effect).

As important in this overall discussion on growth dynamics is the fact that ICTs have no indirect effects on the productivity of non using ICTs activities while externalities of let us say large network services for instance could have helped to increase productivity (which is obviously not the case as shown in table 1).

If one takes into consideration the magnitude of the various industry divisions under view (see table 2), where the weight in terms of GDP or employment of industries with low productivity gains is highly preponderant, the unbalanced nature of the growth paths of contemporary economies is therefore obvious: industries where productivity is directly boosted by ICTs represent less than 8% of GDP. Regarding LNS industries only telecommunications figure in this dynamic core of the economy;

the others are split between ICT using (such as trade, banks, insurance) and non using (such as transportation, health and education).

Table 2

GDP shares of ICT producing, ICT using and non-ICT industries

Year 2000	ICT Producing		ICT Using[a]		Non-ICT		
	Manufacturing	Services	Manufacturing	Services	Manufacturing	Services	Others
France	1.4	4.1	5.0	20.3	11.8	47.8	9.7
UK	1.8	5.3	5.8	21.5	9.8	44.7	11.1
EU	1.6	4.3	5.9	21.1	11.9	44.7	10.5
US	2.6	4.7	4.3	26.3	9.3	43.0	9.8

Source: Van Ark (2001)
Notes : a) excluding ICT producing ; b) 1999 (see in annex partition between ICT producing, Using and non using of industries)

b) A measurement issue.

Another way to look at our difficulty to track down the real trajectories of our economies consists in not taking at face value the national accounts by sector on which the above measures of productivity gains are based. In effect as stressed by Griliches (1994) a lot of our measures in real terms are ill defined, either because we confuse output measures with inputs measures, or because we are not able to take into account quality changes that have deeply transformed the products since the early times when the accounting framework was established. We have by now reached a stage whereby the weights of non measurable sectors have by far bypassed those of measurable sectors in most countries (see table 3). Data on productivity show that gains have been much higher over the last 20 years in the measurable sector. The idea that real growth has been underestimated in non measurable sectors cannot be discarded. Most LNS belong to the non measurable category; only transport and communication being considered as measurable. The uncertainty that follows strongly bears on policy making, as illustrated with the episode of the Boskin report (1996), which followed to solve a debate in the US over the estimation of inflation to check whether or not an overestimation of price inflation (which corresponds to an underestimation of real growth) had led to excessive transfers and undue increases in budget deficits).

Table 3

Nominal Output Share and Labour Productivity Growth of Measurable and Non-Measurable Sectors of the Economy 1980-1998

	Canada		Denmark		Finland		France		West Germany		Italy		Japan		NL		U.K.	U.S		
	MS	**UMS**	**MS**	**UMS**	**MS**	**UMS**	**MS**	**UMS**	**MS**	**UMS**	**MS**	**UMS**	**MS**	**UMS**	**MS**	**UMS**	**MS**	**UMS**	**MS**	**UMS**
Share of sector in current GDP																				
1980	42	58	33	67	49	51	39	61	44	56	59	81	40	60	37	63	45	55	37	63
1988(a)	38	62	31	69	41	59	30	70	33	67	34	66	32	68	32	68	32	68	28	72
GDP per hour worked (1980 = 100 (b) (c)																				
1990	123	103	129	108	161	120	155	124	134	121	141	103	152	133	136	119	153	116	138	107
1998(d)	143	109	166	116	258	134	209	129	178	137	181	107	187	144	176	126	203	139	172	115

MS = measurable sector (agriculture, mining, manufacturing, utilities, transport and communication)
UMS = non measurable sector (construction, wholesale and retail trade, finance, insurance and business services, other services and government)
Source : Groningen Growth and Development Centre Sectoral database, NIESR Sectoral Database, and STAN new database.

c) Speculative bubbles. A third category of signs of sizeable disorganisation has been given by the successive speculative bubbles that affected all developed economies at the turn of the century. The first one is of course the financial bubble whereby the stocks rose to unprecedented levels with regards to the earning ratios of the shares. This speculation impacted whole economies until the end of 2000. It coincided with what we can call a technological bubble with the Y2K fear[3] that information systems would collapse and therefore would have to be replaced before the end of their normally expected lifetime. This fear had pro cyclical effects on the ICT producing industries which had lasting effects years after on the industry.

To this "technological bubble" one could had the speculation made in the field of biotechnology where major discoveries and applications were expected well ahead of time in the general enthusiasm driven by the two other previous speculations. Of similar brand is the speculation in Europe over the coming of the next generation of mobile phones (UMTS) which led to large indebtednesses and therefore fuelled the strength of the financial bubble.

In all these disorders two LNS, namely the banking and the communication services, have been strongly involved. Meanwhile the shocks seem to have affected all countries, more or less at the same time, and with similar magnitudes. Conversely macroeconomic changes in inflation, growth and unemployment seem to have been more synchronous across countries than in the 80s[4], with strong cumulative effects as observed with the peak of the late 90s and the through at the beginning of the new decade.

Section 3 - Disorganisation at the micro level.

Looking at micro level a diversity of situations is of course expected. Disorganisation as shown by successes and failures of enterprises is part of normal, much as observed in Adam Smith famous statement opposing seemingly erratic moves of agents and orderly overall working of economies as a whole.

Beyond successes and failures of enterprises and the diversity of organisational patterns, we shall simply in this section present results of surveys assessing the main causes of inefficiency or mismatches that are, according to entrepreneurs themselves, affecting the performances of their firms.

Let us start with an OECD assessment of the main impediments to entrepreneurial activity.

[3] the fear of the year 2000

[4] The correlation between GDP growth rates in industrialised countries rose from 0,35 in the 80s to 0,58 in the 90s, a phenomenon which did not show up within the sub set of developing countries (cf Kose, Prasad and Terrones 2003)

Table 4

Major impediments to entrepreneurial activity in the OECD

1 Lack of financing	19%
2 Low internal market openness	4%
3 Undeveloped R&D transfer mechanisms	9%
4 Inefficient government programmes and guidance	9%
5 Inadequate infrastructure	11%
6 Burdensome regulations	15%
7 Negative cultural and social attitudes	16%
8 Lack of education and training for entrepreneurship	17%

Source: Takashi, presentation January 2003, OECD

If one excludes financing which could either stem from lack of adequate financial intermediation but also from the facts that firms do not meet "objective" criteria to raise finance, the reasons invoked tend to combine a lack of entrepreneurial spirit on one side (reasons 7 and 8 which have the biggest scores) and a default of proper environment on the other side, much to blame on public interventions and regulations(reasons 4,5 and 6 in table 4).
Looking now at a survey on the causes of unexploited productivity potentials (table 5) stresses more directly the impact of deficient organisation mainly of management.

Table 5
Unexploited productivity potentials:
Invoked causes in 2002 (in %)

Causes	**1**	**2**	**3**	**4**	**5**	**6**
Germany	45	20	12	8	11	4
Australia	47	24	9	7	4	9
Austria	47	14	15	10	9	5
United States	36	25	16	9	9	5
France	45	22	15	6	6	6
U. K.	37	25	13	10	3	12
Average	43	23	12	8	7	7

Source : Proudfoot and IMR Consulting (2002)
Notes: Causes: 1 – insufficient control and planning, 2 – Ill management
3 – Lack of motivation of employees; 4 – Problems with ICTs; 5 – Inefficient communication;
6 – Ill qualified manpower.

The reckoned sources of mismatches and problems at firm level point in the first place at some lack of control and planning and at some ill management. This ranking of unexploited productivity potentials is quite unexpected at a time of large diffusion of information and communication technologies, precisely supposed to be

very helping to solve contemporary organisational issues. Conversely problems of labour management are much less quoted while they ranked first in the list of firms worries in the 50s and 60s. It does not imply though that work organisation does not raise any issue. The intensification of work, shown by the percentage of workers, at all ranks, declaring rising stress at work (see OECD Employment Outlook 1997) does show the existence of problems at this level, but they are not considered as a major cause of blockade by the firms.

Moreover numerous scandals, in the follow up of the Enron scandal, point at a rise in frauds accompanying a more finance led governance of businesses. Most of these frauds, being based on manipulating information and accounts, show that problems are not simply unresolved organisational issues.

Still to summarize most of the difficulties met by firms have to do with the organisation of the managerial tasks and of the relations with the external environment of the firm. More precisely problems are not so much stemming from organising and controlling blue collar works or of following and accessing product markets but in renewing constantly the core of entrepreneurial resources (finding finance, applying and adjusting regulations, transferring R&D,..). Organising internal management and external relations of the firms appear in that respect essential. It concerns the use of intermediaries (from all intermediary services to business and government services) as well as sub contracting and partnerships among firms.

Section 4 - Organisation and balanced growth.

The question is now to precise which could be the engine of growth that could emerge from the features of disorganisation just stressed above. The old model of cumulative causation based on demand led productivity gains in manufacturing is not valid anymore, as we can see from tables 1 and 2, with the dynamic manufacturing sector representing only a small fraction of GDP. Obviously services, be they intermediation or final services, have not yet taken over as substitutes. The question is whether, one way or the other, they could do so at some point and support the economy on higher growth paths. In our framework it could be achieved in combining two ways: delivering high productivity gains in a reasonably large set of service activities and/or providing logistics of services with strong enough positive externalities that would support a better dynamics in other industries (greater productivity gains in particular in ICT using industries, whether manufacturing or services).

Table 6 shows that productivity gains in services, and more especially in LNS (large network services), in OECD countries, do not show any growth differential in productivity as well as no clear acceleration between the 80s and the 90s, with the clear exception, already noticed, of the communication services, where productivity gains are relatively important, but where also accelerations between the 80s and the 90s are not so universal across the board of developed economies despite a general increase in the diffusion of ICTs. Direct productivity gains are not ruled out in large network services which we consider are less prone to a Baumol syndrome of stagnant productivity in one to one service relationships, as they consist of large systems where rationalisations can take place in many ways. Still as the provision of services depend on both the organisation of supply and of demand, improvements may require organisational changes on both side of production and demand.

Table 6

Productivity gains in large network services
Yearly growth rates Over 79-89 and 90-97

	Distribution		Transport		Communication		Finance		Bus. Serv. b)	
	79-89	89-97	79-89	89-97	79-89	90-97	79-89	90-97	79-89	90-97
Australia	0.1a	1.0a	2.1	3.5-	7.5	8.6		-0.6	0.6	
Canada	1.6	2.3	2.5	0.5	3.7	5.0	-0.4	1.7	2.3	0.1
Finland	2.6	0.7	2.3	3.8	5.8	7.0	3.9	6.1	-1.8	1.6
France	1.6	0.6	1.7	1.4	7.4	4.8	0.2	-1.8	-0.3	0.4
Germany (west)	1.2	0.7	2.0	2.0	4.9	7.2		1.6	2.8	
Italy	0.5	1.5	1.3	2.6	4.6	10.9		0.0	2.5	
Japan	4.4a	1.0a		4.1	0.5			2.3	1.8	
The Netherlands	3.0	0.5	3.5	2.5	3.7	3.1	0.3	-0.4	0.4	-1.3
Sweden	2.4	3.3	3.2	0.2	5.2	7.5	3.1	4.2	-2.9	2.5
United States	1.4	3.0	0.2	1.9-	3.9	2.7	-0.4	1.3	-1.8	-1.2

Notes: a) including catering avec hôtellerie et restauration

b) These business services are not counted as intermediary services are included in this table as often they cannot be distinguish from financial services.

Source: OCDE 2001, p.22

It may also be the case that efficient organisational changes required in such vast systems of production do require time to take off and that they will effectively “deliver ” in a near future. Independently from these productivity gains, it may also be the case that these services actually provide economies with more or less relevant logistics, eg with more or less positive externalities. We have only rough ideas on the conditions that preside over the delivery of such network benefits. Are they easy to access in terms of price and information? Is the yield management pricing well adapted to the learning processes, concerning user values? Beyond the fact that here again some organisational level may have to be reached before any externality can become effective, it may also be the case that barriers to access these external benefits do exist, requiring specific structural policies towards demand or/and supply. Econometric studies on the effects of LNS on overall economic growth are bringing rather rough insights on the issue. Röller and Waverman (2001), investigating the effects of the telecommunication infrastructures on growth suggests the existence of a threshold under which effect is null. In fact studies at the level of broad sectors are most often unconclusive. Only at more detailed industries levels (around one specific type of equipment) can one find significant results. It leaves open the question of the overall result on economies of infrastructures with various levels of performance. Clearly at present the question to be answered needs preliminary investigation at the level of specific services in order to specify what is exactly the content of the positive externalities of large network services. How do they diffuse and last? All this clearly raises questions on the nature and content of the supports brought to users and non users. Hence the focus given in the next section on some issues on the economics of networks that seem at the core of our questioning.

The fact also that a country may display (even by common accounting standards) some high level of performance in one specific service industry and a poor one in another one, rather close to the first one, at first sight, is telling that the performing nature of a service logistics is not uniformly determined at national level (see for instance the productivity levels in various industries in table 7). Our investigation on the potential for supporting economic growth, that LNS represent, should therefore be pursued looking more at the specific organisational issues raised in the course of the development of each LNS.

To conclude this section let us note that the potential for these services to support national economic growth is all the more realistic that it can be based on exploiting local synergies which would favour some greater embeddedness of the activities under view than is the case with manufacturing industries, forced to be more and more footloose in the globally competitive environment that developed in the past decades[5]. Moreover, and this is a general trait, in all activities producers and users are growingly concerned by some accountability principles leading to specify in all transactions a broader range of stakeholders and responsibilities, encompassing the kind of external effects referred to above, a marked sign of the overall change in the forms of competition that tend to prevail in the emerging regime (see Petit 2003).

Table 7

Levels of productivity in large network services
(base 100 in the US in 1990)

	Retail trading	Air Transport	Communication	Retail Banking
France	96a	66d	51[e]	100a
Germany W.	96a	66d	51[e]	85a
Japan	54b	-	82[e]	-
Korea	27c	100[e]	83b	76[e]
The Netherlands	95a	66d	-	154[e]
United-Kingdom	103a	66d	49b	64
United-States	100	100	100	100

Notes : a) 1994, b) food distribution in 1994, c) food distribution in 1995, d) European average in 1995 , e) in 1995
Source : Baily, Solow (2001)

Section 5 - Organising principles of LNS: the missing link.

There are two perspectives to approach problems of "market failures" in LNSs. One focuses on regulating the provision of these services, the other looking more directly at the demand side and seeing that most needs are developed and satisfied. Both perspectives are complementary. The past two decades have seen a large development of the first approach with the development of the new industrial economics, which applied in the first place to the kind of services under view. In many situations in effect the problem was to lead agents, by means of rules, to meet some objectives in an uncertain environment, when you don't have the possibility to check their effort. Such cases seem to apply to the situations of mismatches precised earlier. A whole literature and experience on problems of principal-agent of this

[5] Some business services, especially in activities dealing with information, have shown a similar footlooseness.

category developed in the 80s and 90s, accompanying the deregulation of many activities. The other approach has been relatively neglected and classified as non problematic. It concerns the needs of the users, their capacity to access services, to use them efficiently if not to interact with producers in order to improve them. Only in the cases of education and health did such perspective seem effectively relevant. As for most other services it has been largely assumed, once networks had been fairly developed, that providers could take care of the content, appreciate the needs and satisfy them. Debates on services did take place for instance at the beginning of the 20th century with the discussions on universal services, when access to electricity networks, but also to telephone networks were seen as a characteristics of citizenship. Later on, providers either took over the lead, fixing norms and innovations with very little interactions with users (often the case in France with its strong large service industries) or simply did not develop the supply, keeping strictly to the principles of this early phase. We shall argue that this demand side perspective has been too much neglected and that this neglect conditions the relative stagnation of the sectors, marred with various inefficiencies. The fact that one has the greatest difficulties to express these activities in real terms (see table 2) is telling of the lack of convention to appreciate the use value of these services at their present stage. Also illustrative is the fact that a rethinking of the issue has been taking place in the last decade in certainly the most crucial activities in that respect, namely in health (see Triplett 2001, Mansell and Curry 2002) and education (see OECD Pisa study).

We shall hereafter survey some of the issues raised in following the two perspectives just mentioned, if only to show that an unbalanced approach, favouring more one approach than the other, is rapidly detrimental to the overall process of setting a satisficing tutorial environment for the development of LNS and of their beneficial external effects.

Let us start with the supply side perspective as given by the principal-agent problem. Although it applied initially (Holmstrom 1979, Mirlees 1976) to private firms aiming to control employees when no direct supervision was possible (which apply to distant sites, white collars jobs, and the like), it seems well qualified for the type of issue that were found at the centre of the nexus of mismatches that we identify and in the first place to the “regulation” of the provision of services under tutelage as it has been developed in the wave of the deregulation trend of the 80s and 90s (especially in the works of Laffont and Tirole). In the basic framework of the principal-agent problem, the principal (the tutelage authority) needs altogether to fix clear objectives to the agent, to set an incentive scheme for the agent (the service provider) and to dispose of some (indirect) information on the results. The principal requires of course ex ante information to set up the objectives and the incentive schemes.

This problematic has been diversified in many directions, namely in cases of multiple agents, diverse principals, segmented objectives.

The situations which are the less addressed are those where the users of services react, change their minds and means, while learning during the process. To some extent this is left, in the principal-agent framework, to the agent, the effective provider of services, who will have to adjust to this change in demand. The problem is more fundamentally transformed if one considers that the principal (the tutelage authority) can somehow react to the users and adjust its objectives accordingly. This perspective may follow from various concerns that will become clear once we developed the second perspective. Still one can stress that, if only from a political perspective, authorities may be well advised to follow the qualitative and quantitative shifts in demand by users who are also important voters in these large services. We

shall discuss more at length, in a following section this political dimension, all the more important that we contend that these issues on LNS quality and dynamic progressive provision tend to become central elements in the process of refounding contemporary political terrains.

A demand led approach: taking into account learning processes on the demand side.

To present the second perspective we shall start with the idea that public services in essence are tied up with some citizenship by ways of being entitled to access and fully use the corresponding networks. The notion of universal services is central in this vision. The debates at the turn of the 20th century on this issue has marked the development of modern societies, along with the spread of wage labour relations. The notion of universal services, as an objective of social and political cohesion, has been undermined by the very developments of these LNS, with massive access for well improved services. This mass provision has masked some inner evolutions which have altered the citizenship enhancing effect of these services. Mass provision does not mean that quality has been systematically altered, even if it is the case for some products and chiefly some countries, where the upgrading and development of these activities have been noticeably poor. The changes under view concern more the differentiation of products and the differences in users's ability to take advantage of the services. The basic element concerning the current changes is then that the range of products and of modes of provision allows more or less smart uses of these networked services. This trend is deeply re-enforced by the new technologies as well as by contemporary modes of management (principal agents or not) much driven by a rationality of cost reduction for a much enlarged range of products.

This sophistication is quite obvious in the case of yield management pricing where complex schemes are discriminating according to your willingness to pay for a dedicated product (specified in time and space). Citizens users are not equally in position to develop strategic attitudes allowing to take the most of the schemes. While nation states had been cautious (with little success) to avoid anti redistributive evolution in education and health, we fostered in most countries anti redistributive schemes in banking, transport, trade and communication.

To clarify the issue a bit further we can use some formalisation à la Varian and Shapiro (1999) on the economics of networks. The (social) value of a network is for each member at first sight somehow proportional to the number of participants. The total value of the network is therefore a function of the square of the total number of participants. Still the weight for each member of rank and file participants may diminish while sub sets of people will value more the presence of members with similar needs. The logic may not be that one of distinction à la Bourdieu but straightforwardly linked with a community of more elaborate needs that could then be fulfilled in more precise terms. There is a logic of differentiation at work. At a given point in time the needs of the population, to which the service is addressed, are more or less sophisticated and correspond to an effective demand. The expansion of the phenomenon presently corresponds to the fact that it is not only differences in wealth which are driving this differentiation process but also differences in knowledge and information.

This relatively recent change of context, which is not only accompanied by the development of ITCs but also chiefly by general rise in education and deep changes in domestic spheres (family structure, individual aspirations) as well as in professional spheres (with to say the least a reshuffling of social classes), all concur to change "la donne" and foster a new structure of "needs". This transformation is

indeed transitional, not because it could be reversed but because it obviously seems open to new adjustments following new learning. Still the timing of these transformations is bound to be slow, especially when compared with the time taken by providers to adjust their supplies to the existing structures. We have already stressed (Petit Soete 2001) the potential danger of such unbalanced process of adjustment by which providers can, according to their "bon vouloir", either lock their supply structure to meet actual demand (with an obvious risk of lock in) or anticipate some transformations to adjust to what the demand will be (in quality terms) a few years ahead. Most of the time it is not of the responsibilities of the service providers to decide, one way or the other, over the structure of the future needs. It is risky for them when they don't know if "principal'" will not adjust (at last) in other directions[6].
Once we suppose differentiation of needs, unbalanced learning on the supply and demand sides, issues are much more complex and calling for broad political choices. In other words LNS development is calling back for new investment in their citizenship dimension.

Section 6 - Political terrains in a more open world.

We have focused so far on organisational changes, in the view that these changes contributed to foster the new growth regime. We had roughly identified the "mismatches" that could explain the blockades that contemporary evolutions of developed economies seem to display and these organisational changes seemed grossly correspond to the areas under transformation. The above section stresses that the solution may not simply stem from an adjustment in organisation of the main operators concerned. The dynamics of the transformations and the evolution of the needs suggest that institutional and political changes are also at stake.
We already took into account that deregulation policies had changed the context. We want to stress now that some political debates are required that could turn into further institutional changes, allowing in turn for more important or far reaching or more balanced organisational changes. We view the articulation between organisational changes, political debates and institutional changes as presented in figure 1. Organisational problems can either be solved within the frame of already legitimised institutional changes (which therefore have to be acted) or require opening of new political debates that would allow further adjustment of institutional contexts. Things are not so mechanical and despite the needs for the very functions filled by the activities under view (and their potential roles in support of the growth trajectory of nations), political debates on these issues remained secondary. The long strike of winter 95 in France did brought back the issue in the forefront. Jospin (1999) did see his own brand of third way policies largely centred around these notions of public services, but little was put into effect (see Petit 2002). Clearly the drive towards such debates at national levels is blocked by the "global" context in which these issues are raised in the various developed countries. On one side governments and direct stakeholders around these issues of public services (broadly speaking) are blocked by international agreements (and in the first place by regional ones such as exist in Europe where the logic of benchmarking and what is left of the old strong neo liberal drive in favour of "deregulation" does not help any adjustment). On the other side users, who are divided in their objectives (see above) and slow in formulating their

[6] It may be an highly valuable reason to ask for a public provision of public services (no private agent acting as intermediary) in order to face the complex and dynamic objectives that the tutorial authority should express, as advocated in Crouch(2003) in looking a public services in the perspective we retained.

objectives, have not pressed sufficiently at national levels to launch the debates to a sizeable scale (in accord with the importance of the issues at national and international levels as assessed above). Moreover users have found a unifying terrain in mobilizing around global objectives (the list of participants and alternatives objectives presented at the yearly meeting in Porto Allegre for an other globalisation is very telling). Even if it is promising, it still concerns rather small groups by national political standards and leaves unchallenged situations which limit a priori the cumulative effect required for these debates around the provision of public services to reach some momentum which could lead to reconsider political agenda. All countries moreover do not see the above dilemma in similar ways. Public opinions are as diverse on these issues as are the various systems of provision installed through history. Some countries which have been reformulating their political agenda mainly around some reforms of the labour markets (to increase involvement and individual responsibilities) may tend to neglect the importance of the other issues (of which the UK could be a good case in point). Though the Scandinavian countries do show that more fully fledged approaches to the reformulation of political agendas are feasible.

Still at regional level the concert of nations tends to align on the “moins disant” and what happened on this subject in the drafting of the European convention (at this stage) is telling: Article II-36 which regards access to services of general interest just mentions that the EU respects whatever is legal and common practice in member countries. At least the European benchmarking practice has not led to a justification of a gross levelling ad minima. It leaves countries in this domain in the poor state we described where very little has been done to give some content to the modernity of the linkage between elaborated “public” services, stronger citizenship and economic development.

Section 7 - From global to regional and national?

The conclusion could be pessimistic. If one identifies, as we did, the field of public services (in broad terms) as an essential terrain for the unbundling of the growth potential of modern economies (even if it is not the only condition and even if the ensuing qualitative growth could not match with the productivist golden years of capitalism), then the unbalanced situation between providers and governments, trapped in regional accords, and users, highly divided on these issues between and within countries, leaves very little room for any kind of arrangements that would bring a significant potential of development. In other words this blockade may prevent the deployment of the kind of political convention likely to be required if a Modern Capitalism II is to emerged.

Still one should not neglect to get out of such deadlock the dynamics that can develop at a global level. Some examples will help to hint at the kind of evolution we have in mind. Annual gatherings at Porto Allegre for an alternative globalisation have ended with stressing the need for common objectives, congruent to the practices of each nation, still with cumulative effects when efforts are undertaken worldwide. Protection, development and improvement of water supply has been a first case in point, obviously of common interest. The diversity of modes of provision (see Lorrain 2002) and in emergency is important. Still one can see the cumulative effects, if only because on one side large multinationals are involved and on the other side it reopens in all countries a debate on public services. In another direction large international institutions such as the World Bank are instigating debates on global public goods (see Kaul 1999) to counter the detrimental effects on the image of

global governance that harsh policies towards developing economies displayed in the follow up of the Washington consensus. This return of the public domain (to quote Drache (1999)) in the debates and programs of major international institutions, whatever their real impacts on the working of these institutions at this stage, should be taken advantage of to reopen the debates at regional levels and to remobilise, in an updated manner, over these issues of public domains and services in member countries. If such leverage effect could operate at national levels, it would also clearly broaden the audience of international movements for alternative globalisations and help to precise their strategies.

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List of industries by ICT categories

ICT Producing Industries
Manufacturing
- Computers
- Semiconductors
- Communication eq.
- Figer optics
- Instruments
- Radio and TV eq.

Services
- Telecommunications
- Computer services

ICT Using Industries[a]
Manufacturing
- Electrical machinery
- Watches & instruments
- Apparel
- Misc. manufacturing
- Aircraft
- Machinery
- Railroad and other
- Printing & Publishing
- Ships

Services
- Securities trade
- Retail trade
- Wholesale trade
- Banks
- R&D
- Professionnal services
- Renting of machinery
- Insurance

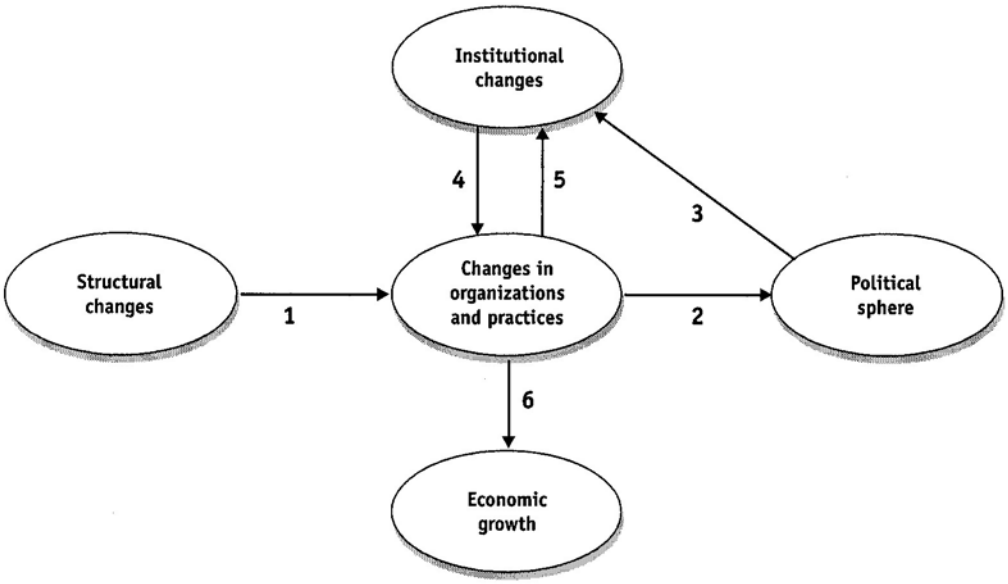
NON-ICT Industries
Manufacturing
- Chemicals
- Rubber & Plastics
- Textiles
- Basic metals
- Stone, clay & glass
- Petroleum & coal
- Motor vehicles
- Leather
- Fabricated metals
- Wood
- Paper
- Food & beverages

Services
- Real estate
- Transportation
- Hotels & Restaurants
- Private households
- Government
- Other business services
- Health
- Education
- Repairs
- Personal & social serv.

Other non-ICT industries
- Agriculture
- Utilities
- Construction
- Mining

Figure 1

Relationships among Structural, Institutional and Organizational Changes



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