

INTERNAL GOVERNANCE:

*Management and Organization in the New Economy*

*Address*

delivered in shortened form on accepting  
the appointment as Professor of Organizational Studies and Organizational Change  
at the University of Amsterdam on  
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by

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*Mister Rector,*

*Learned fellow professors, lady and gentleman students, and all other interested parties,*

I am happy to accept the Regents' request to take up the position of Professor of Organizational Studies<sup>1</sup> and Organizational Change by presenting an address. In this address, I shall explain what I perceive as my field of specialization, what developments are emerging in it, which issues are important in that field of study, and which insights and opinions and with what aims I intent to substantiate this chair.

*Introduction*

The title of my address, *Internal Governance, Management and Organization in the new economy*, indicates what the field of education and research is—of organization and the inseparable issue of management—the demarcation within that: the managerial relationships - but not the organization of operational processes—and what is and will be different in them as a result of developments that are identified under the term 'new economy'.

The words 'management' and 'organization' refer to the title of the celebrated book from one of my predecessors, the distinguished Prof. Van der Schroeff: *Management and organization of the firm (Leiding en organisatie van het bedrijf)*.<sup>2</sup> When the first edition of this work appeared in 1961, a reviewer wrote that Van der Schroeff did not approach the issue of management and organization from a dogmatic point of view and the monistic approach associated with it, but rather with the aid of a variety of images. There is no single prescriptive truth with respect to the issue of management and organization. Organization and management cannot be treated as a closed consistent exposition of one theory based on a few hypotheses and axioms.<sup>3</sup> A second reviewer wrote in appreciation of the book from Van der Schroeff: "Organization is not just an issue of the creation of proper quantitative relations between

economic variables, because people themselves are involved in it, with all of their complex structure of the relationship to themselves and to their fellow men.”<sup>4</sup> Both principles, that the issue of organization cannot be treated dogmatically and that people play a central role in it, in relation to themselves and to others, are still valid where organization and organizing are involved.

These principles do not mean that anything goes. The fact that there is not a single prescriptive truth does not imply that there are no laws, standards and values. The fact that also or specifically because, man is the measure of things in organizational issues, does not imply that there is no necessity for objective aims and rules above the personal level. Education and research have among other things, later I shall refer to another function, the task of providing new generations with the insights and techniques that are necessary and useful to enable the new generations to achieve their ambitions and ideals. This includes the recurrent quandary of which insights and techniques are determined by circumstances, and which have a more durable and invariable nature.

That new generations design their own versions of time-honored principles does not arise from impertinence, but is an expression of their sense of responsibility, from their being aware that people are the authors of their own society. In literature and the arts, the constant themes are those of love, grief, death, fear, hope and life itself. Each generation always presents its own expression of this, with its own shape and significance. It is just the same with directing companies, management and organization. The various manifestations, of companies, the organization of companies, the management, or the ways of managing, are not constants or invariables. They are determined by material circumstances, opinions, the image that the people have of themselves, of their society and of their future, and by available technologies. Underlying these continually changing manifestations, there are *natural laws*, relationships, regularities, and needs, which do not vary with respect to forms of expression and technology.

In a social system, there are always some rules and assumptions that direct the behavior of individuals and groups. It is not the writing down of rules and agreements that creates a prison, but not being aware of the existence, the origin, the whys and wherefores of those rules and agreements that creates a cage of steel for mankind. What organizing involves is the self-awareness, collectively and individually, remaining aware and becoming increasingly aware of the whys and wherefores of the assumptions, the context, of opinions and insights, such as those that are basic principles for organizations, institutions and their instruments. It does not involve formulating what the organization must be in the new economy. What is essential is that social processes exist and are maintained, for example, in the form of

education and research, which continue to ensure that we are aware of what the manifestations are, what are principal changes and what are constants, in order to responsibly provide shape and substance to the adjustment of organizations to changing objectives and circumstances. I want to explain what this involves, therefore, and how to achieve it, in this address to you.

### *Internal Governance*

What is *internal governance* and why is it important to call it that and pay attention to it? *Internal governance* is the relationship between the executive board and the management of operational entities, such as divisions, operating companies and *business units*. This does not just concern companies or other private forms of enterprise. The term *internal governance* is also applicable to government bodies, particularly the form of independent management authority and, for example, universities with their Board of Regents and Faculties. It is about larger, more complex enterprises and institutions. *Internal Governance* does not just denote the managerial relationship between the board and the management of operational entities. It also involves determining the operational model of the enterprise, divisions, operating companies, staff departments, their tasks and mutual relationships. The term *governance* expresses the fact that, in contrast to the neo-classical economy, the enterprise is not just considered as a production function, which creates products and services based on the production factors of capital, ground and labor. The corporation, certainly the relatively larger one, is primarily also a *governance system*.<sup>5</sup>

Why is it important to pay attention to *internal governance*? In the first place, because of the problems that are experienced with it in practice. Despite the fact that, at the beginning of the nineteen-twenties, the doctrine of the relationship between the executive board and the management of the operational units was already being elaborated <sup>6</sup> by Alfred P. Sloan, the chairman of the board of General Motors, that doctrine is still not known in many enterprises and institutions to this very day. Incidentally, this is typically a Dutch problem because, in contrast to the United States and Germany, conglomeration has only recently started on a larger scale in the Netherlands. The management of a group is something different to supervising an operation, with respect to the managed object, management instruments and issues. That managements do not properly recognize this distinction, or that many do not know that the doctrine of *internal governance* had already been elaborated in the past, results in a number of companies and institutions incurring unnecessary expenses and wasting time in their

search for a solution to the issue of how to manage the company or institution. This problem can and should be solved easily through good education, accessible publications and consultancy.

The second reason that it is important to pay attention to the *internal governance* is because its quality not only plays a role in the effectiveness and efficiency of a company, but especially in the company's manageability. Managing a group is more than just some *performance management* alone. Specifically, at the level of a group's executive board, it involves timely restructuring of marketing activities, operations and technologies, without any need to impose this externally. Jensen of Harvard University suggests that, in the United States, eighty percent of the boards of listed companies, for various reasons, do not have the capacity, or have insufficient capacity to initiate and implement essential restructuring, without external pressure to do so.<sup>7</sup> External pressure includes intervention by the shareholders, hostile acquisitions, forced break ups and/or bankruptcy. Jensen therefore concludes that in the majority of American companies, what he calls *internal control*, which is identical to what others call *internal governance*, fails in practice (at least with respect to the capacity for restructuring). There are no figures known for the Netherlands. Based on observations in the consulting practice, and what is known about the mechanisms that cause managers not to undertake restructuring,<sup>8</sup> however, it can be assumed that what Jensen reports for the United States, applies here too by and large. A lot of attention has been paid in recent years to the quality and type of *corporate governance* of companies, the Anglo-Saxon or the Rhineland model. In practice, we see that these two models converge. In the Netherlands, the Board of Supervisors has come much closer to the Board of Management, for example, by a more active involvement in strategy. In countries such as the UK and US, there is the development of the *one tier board* operating more distinctly in an executive part and a non-executive part. In the US, it is increasingly common for two different people to occupy the positions of CEO and Chairman of the Board. In the UK, several companies, via their *bylaws*, have split the Board into an *executive* part and a *non-executive, supervisory* part. The quality of the *internal governance* is much more important to the performance and the continuity of a company than the issue of which type of *corporate governance* should be adopted. The determination of the type of guidance, *financial holding company* versus operational steering, the role of the Board of Management with respect to value creation by the utilization of synergy, by raising the performance of the operational management to achievements that it would not have accomplished by itself, that is what is involved.

The third reason why attention must be paid to the *internal governance* issue, is whether the existing opinions, techniques, concepts about it, which essentially date from the beginning of the twentieth century, still satisfy today's demands, even separately from the discussion about the new economy. In recent years, we have seen that several heavily diversified companies have returned to the activity with which they originally started.<sup>9</sup> Other companies, particularly *financial holding companies*, such as Hanson Trust in the UK and Pathé in France have been split into separate parts. The diversification of companies that emerged in the sixties, influenced by portfolio theory and portfolio strategy, brought with it the phenomenon that the group management did little more than portfolio management, merely based on financial parameters, little different to what investors do. The *financial holding company*, which had its origins in the non-functioning of capital markets in the nineteenth century in countries like France, for instance, has similarly been driven out of business by increasingly improved operation of the capital market. This development has made it clear that a group's Board of Management also has to justify itself by providing added value. It can be expected - the first indications of this are already visible internationally - that external parties, shareholders, *financial analysts*, governments, will press directors with increasingly penetrating questions about the quality of the company's *internal governance*.

Finally, a fourth reason why attention has to be paid to *internal governance* is that further insight into it is important for development of theories. The question has to be posed about what exactly is the function of the company as *governance system* now. The neo-classical market model proposes that a system in which the prices of goods and services (can be) are properly determined is the most efficient method of coordinating activities in the economy. The fundamental theorem of welfare economics suggests that the market mechanism provides the best possible allocation of production factors. In the light of this, therefore, we cannot explain why the elementary economic actors, consumers and producers, and particularly the latter, need something such as a group board. The fact that groups still exist, however, can aid better understanding of the operation of the market, or rather of the shortcomings in it, and that can then contribute to enabling the understanding of the function of the group board more deeply than simply the phenomenological level. That understanding can then contribute to improvements in the working of the corporate board.

*The new economy*

What does the 'new economy' mean? In 1998, in the United States, there was excitement about a combination of macro-economic statistics: the GNP showed an increase of 4%, the productivity growth was 2 to 3%, unemployment dropped to 4.3% (4% at the beginning of 2000) and inflation was less than 2%.<sup>10</sup> From an historical perspective, this was an unknown combination; that low unemployment should go hand in hand with higher inflation. It also seemed, although this was not supported by all economists, that the short fluctuations, the Pig Cycles, had disappeared from the economy, which should then be able to be attributed to improved stock control and *value chain management*.<sup>11</sup> This information, combined with the increased split in shareholder value between companies that produce information, distribute it and provide communications on the one hand, and the traditional industrial enterprises on the other, all together became referred to as the new economy. In particular, it was then shown that it was possible for new capital, AOL, to acquire old capital, Time Warner, funded by fictitious money in the form of shareholder value. The question must be asked whether these are indeed the defining elements of the, or a, new economy. Economists, level-headed people, more down-to earth than all those management gurus, point out, correctly, that the growth figures cited are not unusual from a historical point of view. The growth of the US GNP and productivity is still below the level of comparable short periods of growth in the seventies and eighties. The nineteen-fifties and sixties experienced higher growth figures, for both the GNP and the productivity.

At this moment in time, there is a multitude of developments in and around the business community: the de-verticalization of companies, alliances being forged between companies, in the airline sector, for example, the development of networks of companies, acquisitions in the financial services sector, *outsourcing*, horizontal mergers, in the chemical industry, for instance, complementary mergers, as in the case of AOL and Time-Warner, and the emergence of *e-firms*, companies that have virtually no physical assets and which earn their money by trading information. These latter companies have replaced the physical marketplace by the *market space* on the Internet. It is tempting to bundle all these developments into the basket entitled the 'new economy'. That is wrong. A number of the developments mentioned must be considered as the logical consequences of the second industrial revolution,<sup>12</sup> some result from the market mechanism's better operation, and yet others can be seen as phenomena—which is something different to defining elements—of the 'new economy'.

Our economy is constantly changing and, in that sense, there is always a new economy. When can and may we speak of a new economy? Greenspan uses the criterion that we can speak of a new economy when there is a fundamental change in the way in which the

economy operates, a change that implies a discontinuity with the past and which holds the promise of a higher economic growth curve in comparison with that of the preceding decades.<sup>13</sup> In this context, Greenspan does not go into the question of the interaction between the changes of the new economy and other changes in society. An economy operates thanks to a set of standards and values; a burgeoning new economy can only continue if there is a complete set of values, opinions and, for example, confidence that props up that new economy.

It is very understandable that one of the central questions in economic theory is what factors encourage economic growth. This is not the time and place to present an exhaustive examination of the theories of economic growth; I shall highlight *those* elements which, in my opinion, are significant to organization and organizational change.<sup>14</sup>

Adam Smith foresaw unbridled growth of economic prosperity, provided there was some form of free market mechanism to make the best possible use of the means of production. The government can then concentrate on national defense, public order, administration of justice and education, and should refrain from imposing restrictions on trade. Adam Smith saw division of labor or specialization, technological developments and investments, as being more specific factors for economic growth. In this context, Smith assumed that there would be an adequate supply of *entrepreneurs*, just as is also still central to the theory of economic growth. The role of the entrepreneur as a factor for economic growth, beside technological innovation, is the second essential point in the theory of economic development propounded by the Austrian economist Joseph A. Schumpeter. The importance of Schumpeter's theory is that, in contrast to the Harrod-Domer model for economic growth, technological development is not contained as an exogenous variable, but as an endogenous variable. Technological developments are manageable by the entrepreneur by means of investments and the creation of good organizational conditions. Schumpeter's theory therefore implies that not only do capital, land and labor play a role in the economic production function, but also human capital, in the shape of trained and experienced designers of products. In the Harrod-Domer model, it was assumed that research and development would be exclusively conducted in universities, and that graduates with the knowledge acquired there would then enter industry. Research and development was originally perceived as a government task. That assumption had to be modified very swiftly; the German chemical manufacturers organized their own laboratories in the final decades of the nineteenth century.<sup>15</sup> It is therefore wrong to characterize the current or developing economy as an, or the, 'knowledge economy'. The development and utilization of knowledge has always been central to the second industrial revolution. As early as 1927, the economist Clark perceived that knowledge was the only production factor that is not subject to

the law of diminishing returns.<sup>16</sup> Because this knowledge was already *embodied* in physical things, products, means of production and a physical infrastructure, the economics of physical things continued to dominate that knowledge, so that Clark's observation did not acquire any practical significance.

The above makes it clear why technological innovations and economic growth are frequently mentioned in the same breath. Indeed, historically, technical inventions have often been the cause of significant shifts in the relationships in society. The invention of gunpowder changed political-military balances of power, the invention of the stirrup increased the fighting power of the horse rider, the invention of the ploughshare made marginal soil productive, so that food supplies increased, printing of books contributed to a wider level of development in society and electricity lengthened the working day.

Technology explains a good part of, but not everything in economic growth and the operation of the economy. The market mechanism does not only function thanks to an aloof government, but particularly thanks to institutions such as the right to dispose of private property, administration of justice and a system of standards, values and mutual trust.<sup>17</sup> (The government, however, does play a role in the maintenance of a system of standards and values so that the market mechanism can continue to operate.) It is just a question of whether our Western market mechanism, and therefore economic growth, would have got off the ground without the organizing influence of the Catholic Church and subsequent values that were propagated by Protestantism. Also, the Age of Reason, which brought people into a different relationship with their religious world and, in doing so, opened the way to futurological thinking—with which people imagined their ideal society as a cue for investments, inventions, the development of new production, production methods and particularly social institutions also—must be seen as a crucial factor in economic growth.<sup>18</sup> In the context of the issue of management and organization, it should also be pointed out that the improvement in the organization of companies is also considered a significant factor in economic growth, by the OECD among others, although there is no clear quantification of this view.<sup>19</sup>

The new economy is identified with modern information and communications technology (ICT). The question now is whether the effect of ICT on the economy satisfies the criterion formulated by Greenspan for a new economy. As stated, the characteristic of the new economy is not that it is a knowledge economy - after all, the economy of the second industrial revolution is already that. In particular, the blossoming of entrepreneurship involved in the new economy, in the shape of *e-firms*, denotes that ICT, expressed in the theory of the prosperity economy, disturbs the balance in the economy because it substantially lowers the price of one

of the production factors, specifically knowledge. This involves disturbances to the economic equilibrium, *disequilibriums*, which, as described by Thurow, for a certain period enable tremendous growth and high profits in new sectors of the economy. Precisely the same was previously true because of the introduction of the railroads, electricity, and the automobile.

This is, of course, what ICT does; bring about *disequilibriums*, which explains the success of companies such as Microsoft from a macro-economic point of view. Just as a hundred years ago, it is a few entrepreneurs who sense such disequilibriums, then do business and, by setting up new companies, take advantage of new opportunities. It is an economic fact that fundamental new developments, for example, the replacement of the radio valve by the transistor, the shift from hardware to software, are mostly taken up by new companies. Of the five largest manufacturers of radio valves in the nineteen-fifties, Philips was the only one that successfully transferred to semi-conductors; General Electric, now much praised because of its capacity to change, failed in precisely the same transition.<sup>20</sup> It was not IBM, once *industry shaper* in the field of computers, which made and cornered the market for up-to-date *operating systems* and application software, no; the newcomer Microsoft captured that market. The fact that the majority of new developments continue to be taken up by new entrepreneurs, and not by existing companies, is very important to the issue of organizational change to support strategic innovation. The issue of organizational change cannot be perceived solely within the context of the existing company. From the perspective of economic development as a whole, change also means that new companies take up new opportunities in the economy, so that existing companies find themselves in the sidelines or disappear completely.

If the effect of modern ICT would simply be that one of the production factors in the formal production function was to be made substantially cheaper, we couldn't talk of a new economy. Although it is true that this enables the economy to attain a higher growth curve, this effect itself does not imply a fundamentally different operation of the economy. For companies, the effect of ICT outlined above does mean that they have to review their strategy and their production process; the costs of these have to be systematically reduced.

Modern ICT is also brought up in connection with outsourcing, de-verticalization and formation of networks in the economy. There certainly is that connection, but the phenomena essentially find their cause in the improved operation of the market mechanism as realized since the Second World War.<sup>21</sup> That the market mechanism has operated better must mainly be attributed to liberalization of world trade by reduction or removal of fixed-rate and non-fixed-rate trade barriers, the development of standards for technical components and sub-systems,

the M6 precision screw, the OSI standard, for example, learning effects on the field of contracting<sup>22</sup>, purchasing and *outsourcing* contracts, etc.

The proposition applicable in this context is contained in the article by economist Ronald H. Coase, *The Nature of the Firm*<sup>23</sup>, which can be paraphrased as follows: complex enterprises have the right to exist in their vertically integrated form, as long and insofar as they coordinate their activities more effectively and more efficiently than can be done by the market mechanism. Entirely in line with the improved operation of the market mechanism because of technological developments, standardization, and a government taking a back seat, there was continuous dismantling of the vertically integrated enterprise after the Second World War. Alexis P. Jacquemin and Henry. W. de Jong, for example, described this phenomenon statistically and mathematically for European industry, even before the nineteen-seventies.<sup>24</sup>

The dismantling of the vertically integrated companies created different types of economic networks within the context of the market economy. With respect to an economy – and the literature about it—which was dominated by vertically integrated companies, perhaps that appeared to be a new development. In a longer historical perspective, it is not<sup>25</sup>.

The development outlined above is certainly accelerated by ICT because of the improved technical facilities for detailed communication, even separately from the phenomenon that ICT itself is also subject to *outsourcing* at many companies. Without ICT, there would still also be the phenomena of de-verticalization, *outsourcing* and network formation. In economic terms, the effect of *outsourcing* and dismantling of the vertically integrated enterprise is that separate processes in one total production chain can be optimized much better; production factors will be raised to an increased productivity level. Completely in accordance with the premise of the neo-classical market model, production factors are better allocated and therefore better used, which contributes to higher economic growth. That also applies to the operation of internet: in the shape of websites, such as compare.com, e-bay.com, priceline.com, etc., internet provides transparency of prices and product information that is historically unprecedented. Completely in line with the neo-classical market model, this contributes to higher economic growth.

A second effect of ICT, therefore, is that this technology makes the market mechanism operate better. The effect of this, however, is again not only an increase in economic growth, but also a damping of the short fluctuations because of *value chain management*. This is possible because several—independent—companies, which jointly make up a single production chain to the market, by using communication based on ICT and planning and allocation techniques based on *operations research*, know how to balance the chain better than ever

before, resulting in supply and demand being better tuned to each other, with reductions in buffer stocks at the same time. This explanatory argument is, however, inadequate. The improved techniques in marketing for the prediction of the development of market demand, in which it is also estimated in advance how the supply side might possibly develop, also have a damping effect on stockpiling and overcapacity in industry as causes of fluctuations in the economy. More decisive for the damping of the short fluctuations will be that the demand to the manufacturer, which was determined in the past by the distributive trades, will now be dominantly set by the consumer, with better *demand management* as a mechanism in the trade. Consumers don't build up stocks of TVs, cars and suchlike, even apart from the fact that consumers' basic needs are fully provided for.

These two effects of ICT, the one on the costs of one of the production factors and the other on the operation of the market mechanism, do not justify the conclusion that there is a case of a new economy. After all, the existing economic theories, including the role of knowledge in the economic production, provide an adequate explanation for the effects of ICT on the economy. The effect described up to now does not imply any more than a strengthening of the economy of the second industrial revolution, an economy with characteristics including: the law of diminishing returns, profit maximization that is achieved at the point where the marginal yields are equal to the marginal costs and learning curves in the production. In addition, the current situation of overcapacities, acquisitions, *mergers* and suchlike, is actually no different to that at the beginning of the second industrial revolution.<sup>26</sup> What is different, however, is that the operation of the international market mechanism deteriorated during the period of the nineteen-twenties and thirties. On the one hand, there was the positive effect of the new technologies on the economy, consider the automobile, electricity, the emerging electronics, chemicals. On the other hand, as a consequence of the trade barriers erected during the period mentioned, there was the emergence of national, and also international cartels and the decline of international investment from 4-5% to less than 1% of the total world investments, the operation of the market mechanism deteriorated sharply.<sup>27</sup> The effect of this on the economy, with the 1929 crash as its nadir, to say nothing of the political effects of the economic crises in Germany at that time, are assumed to be known. Now there is the favorable constellation of a new technology, which is not only lowers the price of a most crucial production factor, but also contributes to improved operation of the market mechanism.

At the meso-economic level, also called the level of the *industrial organization*, another development is visible that might be interpreted as a sign of a new economy. This concerns the growing dominance of companies that produce information, which is designated

as *content* or software, over companies supplying hardware, the traditional *manufacturing industry*. This dominance is primarily a consequence of the shifting expenditure of consumers' disposable income to *experiences* (see below) and information products. It follows from this that a development is underway in which companies, such as Microsoft, AOL/Time Warner, attempt to impose standards on companies in the electronic hardware sector and on automobile manufacturers. In the same way that, during the advent of the industrial economy, the agrarian economy did not disappear but became ruled by industrial food industries, there are now signs of a similar development in which the *manufacturing industry* is being forced down to a second level in the economy. The *manufacturing industry* will not disappear, modern means of communication need hardware, there is still a good living to be made, but *manufacturing industry* and other traditional companies will be driven to make a *break through* in their costs. In other words, overcapacity has to be wound down and the remaining operations have to be organized and performed much more efficiently. At the same time, the knowledge content of products will increase. This will be accomplished by the traditional knowledge in the field of *industrial engineering* being coded into software and put into practice. This will also mean that the dependence of *manufacturing industry* on the information industry will increase.

There is yet a third effect of ICT on the economic process, this time at micro level. It was explained previously that a characteristic of the second industrial revolution was the use of development of knowledge specifically focused on new products and means of production. This knowledge continued to be what economists call *embodied*, epitomized, in physical products (medicines, automobiles, radios), means of production (lathes, computer hardware) and physical infrastructure (railroads, telephone network). The *embodiment* of knowledge in physical products did not bring with it any fundamental change in the economic laws in the economy of the first industrial revolution. As quoted previously, in the twenties it was already recognized that knowledge as such had a different economic pattern than material, but because of the *embodiment* of knowledge in physical products, the economy of physical products remained dominant.

What the application of knowledge to materials did, and does, is raise the level of material productivity and the energy productivity. For example, the replacement of copper communication cables by optical fibers means that, for the same or even higher functionality, substantially fewer kilograms of material are required. This development, in combination with the increasingly far-reaching miniaturization and computerization, prompts some to talk of a *weightless economy*.<sup>28</sup> However, there is a basic difference between the reduction of the materials required for a function, transport, for example, and the complete removal of the need

for materials for a function. In comparison with the situation during the second industrial revolution, in which knowledge was (and is) applied to materials, current ICT, particularly in the shape of the Internet, has a completely different nature. This technology is applied to information, even in the sense of data processing, communications, and tools to assist with interpretation of information, etcetera.<sup>29</sup>

This can assist in achieving a marked increase in productivity, at least in data processing, the interpretation of data; it remains to be seen whether that also applies to the generation of knowledge.

A second, most significant, characteristic of modern ICT at micro level is that information transfer, of whatever nature, administrative data, news, backgrounds, literature, entertainment, scientific publications, no longer involves the use of materials. Of course, material is still required, such as optical fibers, servers, computers with their displays, but the material is not consumed, in contrast to today's newspaper that will be used to wrap up fish tomorrow. This means that goods, information products, can be manufactured without involving raw materials that can run out and stocks having to be replenished. This means that, among other things, the issue of holding and planning stocks acquires will acquire a very different nature. Stocks of information products are simultaneously infinitely high and zero in combination with a high reliability of delivery. They are available on request; distance does not play a role, because delivery cannot be upset by inadequacies in the physical transport. In economic terms, this means that goods are produced with virtually zero marginal additional costs. The U-curve for a product's costs, which shows that the cost of a product reaches a minimum point at a specific level of production per annum, no longer applies. Nor does the law of diminishing marginal returns apply. With information products such as Windows from Microsoft, it actually works precisely the other way round, the more that are sold, the more the value the product acquires for the end-user, without the producer having to make any additional investment for this.<sup>30</sup> This so-called *network externality* of a product is not unique to current ICT, this already operated previously in the form of standardization in, for example, the Edison fitting for light bulbs, mains voltages and mains frequencies, but especially also standards for television, sound recording media and video recorders.<sup>31</sup> Now this mechanism appears on a much larger scale, with a greater number of products and markets and therefore companies.

This development in the supply side would have no significance unless there was also demand for knowledge products. Whether this should now be perceived as an intrinsic component of the new economy, or as something that crops up coincidentally at the same time,

the fact is that currently there is a shift in consumer demand from products to services and from services to what Pine and Gilmore call *experiences*.<sup>32</sup> What is meant by *experiences*, for example, is what a family experiences at a visit to Euro Disney, events that provide a shared memory for those involved to recollect. This shared experience touches a fundamental need in people, wanting to belong to a group, identity. It appears that consumers are increasingly prepared to pay a *premium* for this, hence the emergence of an *experience economy*.

In the nineteen-eighties, for what we now call *home entertainment*, consumers spent their budget mainly on the hardware needed for it. Now consumers mainly spend their budget for *home entertainment* on *content*, buying or renting a film, software for games and other computer programs and on facilities such as *pay TV*. Such a shift in demand creates *disequilibriums*, just as with technology, and therefore opportunities for accelerated growth profits that are above average.<sup>33</sup>

This is now basically different in the developing economy compared to the second industrial revolution: in this economy, in the sense of expenditure on and investments in, the products that dominate are no longer physical objects, which means that they no longer exist at a physical location, with a volume and weight and are only reproducible by transformation of material and energy. Knowledge is applied to knowledge and is no longer *embodied* in what economists call *tools*. It implies that the traditional *production frontier curve* (a choice must be considered between producing either product A or product B, but neither can be produced limitlessly) no longer ascends or, in any case, is now at a much higher level. One example is the so-called *richness or reach* problem in the retail trade. Thanks to internet, it is possible to offer the consumer a choice from the maximum selection in the world of products such as books and CDs, without this occurring at the expense of too few sales for each linear meter of shelf space in the shop.<sup>34</sup> The separation of (sometimes extremely detailed) information about a product from the product as a physical object means that classical dilemmas in operational management are lost (only to be replaced, however, by different ones).

The development of information products, particularly the so-called *content*, and the *disembodiment* or separation of information from physical products, means that the *sunk cost* industry, which up until now was mainly confined to the film industry, also now extends to *manufacturing industry*. Because control of equipment has become computer control, the *embedded software* increasingly determines the product's value. For consumer products such as GSM telephones and *set-top boxes*, 80% of the development costs are incurred for developing software.<sup>35</sup> This means that industrial companies are increasingly becoming *sunk cost industries*. This development implies that *manufacturing industry* will have to adopt the

organization models associated with the *sunk cost economy*, models that are very different to the existing ones in *manufacturing industry*. Where industry was becoming accustomed to the principle of decentralized and flexible organizations, the organization of Walt Disney, a typical *sunk cost manufacturer*, suggests an increase in the centralized, functional organization.

Does the characteristic of the new economy, specifically that use of knowledge is possible without this being *embodied* in physical *tools*, mean that it will only be new companies which take up, or exploit, this opportunity? Not necessarily; after all, the *embodiment* of knowledge in physical *tools* had its necessity in technological limitations and, now that today's ICT has solved this, it is not out of the question that older companies too will have the opportunity to distinguish their *core competence* more precisely and therefore utilize it. An example of this is the oldest company in the Netherlands, Lucas Bols, founded in Amsterdam in 1575, now operating as Bols Royal Distilleries. This company took the step of distinguishing the exploitation of its brands from the actual operation, distilling, bottling, distribution and selling. This choice can be found reflected in the structure of the organization, also in terms of *accountable* units and the corresponding management processes. This choice enabled this company to solve the classic dilemma of simultaneous optimization of *local responsiveness*, *economies of scale* and *economies of scope*, and so strike out on a new growth curve<sup>36</sup>.

In terms of the classic function of production in the economy, in which the output is a function of capital, land and labor, we now see that knowledge was actually present in that function, but was locked up in the factor of physical capital and in labor. In the current society, that the Spanish-American sociologist Castells calls the *informational society*<sup>37</sup> and the American economist Thurow dubs the third industrial revolution, knowledge takes the place of the traditional production factors, land and energy.<sup>38</sup> The question can even be posed whether or not the capital factor, in the sense of funding capital, has also been pushed out of the production function. The idea that knowledge will be the only remaining factor in the production function is unsatisfactory. This cannot explain the current developments in the business community.

A distinction is made in economics between two types of sources of profits for companies; Ricardian—or scarcity profit, and Schumpeterian—or *entrepreneurial* profit.<sup>39</sup> Ricardian profits are obtained on goods that are scarce and when demand is such that the owner or operator of the goods can realize a more than marginal profit. This does not only involve raw materials, such as tungsten, for example, but also capital equipment that is difficult to construct, such as power plants. Sources for Ricardian profit have a long life, but

the number of them is limited. Innovative companies make Schumpeterian profits during the period between the introduction of a new product on the market and the time that it becomes widely available on the market. Schumpeterian profits are therefore always temporary, but do have many sources. What is now apparent? Modern information products, in combination with internet as instrument for both market research and distribution, makes it possible to differentiate products and services at much lower costs than was the case in the economy of the second industrial revolution. A prerequisite to this is that the company has a production process with which it can combine specific knowledge of what individual or specific groups of customers want, with technical and/or professional expertise in services and products tailored to customers' requirements. It appears that customers are prepared to pay a *premium* for this.

In economic terms, this means that the production function then consists of technical/professional knowledge, carried by door *professionals*, their social system and supporting infrastructure, and the specific knowledge of (segments of) the market. Therefore, the customer, as it were, becomes part of the production function. This insight, combined with the premise that the basic needs of the consumer in the Western markets are satisfied and that there is manufacturing overcapacity for virtually all products, makes the consumer the scarce factor in the economic process. That is why all those alliances also focus on the expansion of the *customer base*. In other words, it is not so much knowledge in a generic sense that is the determining factor for the production function or the company's profit model, it is the combination of different types of knowledge that is decisive for the success of the company.

The consequences of this insight go much further than the classical view that marketing has to be involved at an early stage of product development. The customer or logical group of customers has to be made into a building block of the organization to be successful in this new economy.<sup>40</sup>

The discussion about the new economy could currently be summarized as follows: at macro level, no clear conclusions can be drawn, at the level of the *industrial organization*, a new economic organization is clearly taking shape; at micro level, at the level of the company, there are clear signs of a new economy. The fundamental characteristic of the new economy is that knowledge, or products based on knowledge and information, no longer has to be *embodied* in physical *tools*—products, means of production and physical infrastructure—in order to utilize that knowledge. The use of knowledge that is not *embodied* has far-reaching consequences for what is business, for the organization of the company, even for the company concept and particularly for the labor factor as well. In order to enable proper assessment of these effects, we also have to realize that the evolution of the new economy does not take place

in isolation, but in a complete environment of developments, such as the declining role of the national state, the development of multi-ethnic societies, religious developments, the development of postmodern thinking, in short, all factors that mutually interact to produce a single result, the developing modern society. Before explaining more particularly what a number of these consequences are, it is a good idea to take a step back to enable better consideration of matters as a whole.

### *Current opinions on management and organization*

An analysis, in particular one such as that of Manuel Castells, which is second to none in the clear way it outlines the distinction between the second industrial revolution and what he calls the *informational society*, or the new economy, shows that the second industrial revolution brought not only cheap products, but also numerous other matters. The whole gamut of opinions about organization and management as we now know them and with which we work, was developed within the context of the second industrial revolution. The vertically integrated enterprise did not exist before 1875. The standard structure for a business was contractual, *der Verlag*, not institutional. Contractual means that the businessman, for what we would call his enterprise, made contracts for all the various activities (extraction of raw materials, processing, transport, selling) with third parties, with other businesses.

The American Harvard historian Alfred Chandler has written about how and why the vertically integrated enterprise came into existence. This was related to factors such as non-functioning or absence of factor markets, for distribution, for example, but also sometimes for supplies, the need for capital accumulation, the need for scaling up to reduce the unit price and the mitigation of supply risks. So, around 1900, the great corporations of Rockefeller, Carnegie, Vail and Morgan came into being, later followed by companies such as Ford and General Motors.<sup>41</sup>

All the existing literature about organization and management was written in the economic and social context of the emergence and growth of the vertically integrated enterprise, in answer to problems that entrepreneurs encountered in the implementation of their plans. The writings of the founding fathers of organization and management, who include Rathenau, Fayol and Barnard, date from around 1900. Taylor's *scientific management* also dates from this period, but only concerns organization of the shop floor and not the management of the company or the group as a whole. The doctrine of how to manage a

*business unit* organization, or a company with a multi-divisional organization, was formulated in the nineteen-twenties by businessmen such as Du Pont and Alfred Sloan. It is obvious that the opinions and practices of company management developed by these businessmen were solutions to problems that they saw posed at the time. This also means that, in the solutions they selected, consciously or subconsciously, they took the then current technological concepts and the labor factor as points of departure. There is criticism frequently leveled at Taylor's *scientific management*. Two things are then overlooked. The first is that *scientific management*, completely in line with Adam Smith's theory specifying that labor specialization increases the labor productivity, has made an enormous contribution to increasing prosperity.

The second is that, at the time, America had many immigrants who had scarcely mastered the English language and had to make their own way in what was, to them, a foreign, multiform society of standards and values. Then coordination did not work via pre-organizational socialization, consistent values and aims, but very precise instructions had to be provided. With a different composition of the workforce, a higher educational level and/or forming a more homogenous labor market from a sociological point of view, more sympathetic techniques for coordination can be applied.

In this connection, we must also refer to a persistent misconception about what organization concepts are founded upon. There are usually complaints about companies that are too bureaucratic. The truth is that the principles for a bureaucratic organization (this term originally had a positive meaning!) as formulated by Max Weber, are not applied in practice. There is talk of innumerable formal organizations, but these organization's literature, about their practice describes how little is actually rational in them in practice: there are no clear relationships, it is unclear who decides about what, and the total work is not unambiguously divided into sub-tasks.<sup>42</sup> Therefore those who, in their considerations, decry the Taylorian organization (which was never defined for the management level) and the Weberian bureaucracy are hunting non-existent ghosts.

It is not only the *business unit* organization and the vertically integrated enterprise that are products of the second industrial revolution, but also the company, as we now know it. The idea that the business must and can be given a legal form in a single company and then in an institutional form too, i.e. that it is a legal entity comparable with a natural legal entity, dates from the end of the nineteenth century. This view, the so-called *entity law of the firm*, developed via several court rulings in the United States, with the leading ones from the state of Delaware.<sup>43</sup> According to this view, the firm as an economic entity in society is identical to the

company under which it is accommodated; as vertically integrated enterprise, the organization of the company is also entirely situated within that company, or within the group of companies.

The view of management, which developed in the second industrial revolution, is that the management divides all the work into sub-tasks, finds the most suitable people for these tasks, motivates these people, allocates tasks, supervises performance, evaluates and rewards. A characteristic of this form of organization and style of management is that authority to make decisions is actually delegated, but not the right to transfer this decision-making authority to anyone other than subordinates.<sup>44</sup> This form of management is based on the Western principle of the right to dispose of private property. Employees do not have any property in this, but simply provide their capacity to work. The practical consequence of this is that the so-called *residual claim* – that which remains after all liabilities have been paid, including the wages – exclusively rests with the shareholder or the owner of the company. This form of management assumes that the supervisor can explain precisely to the subordinate what and how he or she has to do, and that the supervisor evaluates not only the end result, but also the way in which the subordinate performs his or her task. The latter is necessary to ensure that the subordinates do their work as efficiently as possible. These people, after all, are not stimulated to do this by, for example, a reward in shape of a share in the *residual claim*. In addition, the control of a multi-divisional company, as formulated by Alfred Sloan, presumed that the group management is as up to date as possible on the nature of the market and the operation of each division, so that no unacceptable *agency costs* arise in the relationship between the divisional management and the group management. Sloan, therefore, introduced an extensive reporting system of statistical information to check whether divisions were operating as efficiently as possible.

With respect to management, we should also refer to the important role of the social sciences in the second industrial revolution. The pre-modern, orthodox, sociological organizational theory, as drawn up at the end of the nineteenth, beginning of the twentieth century by Saint-Simon Auguste Comte, John Stuart Mill, Herbert Spencer and Emile Durkheim, argued for analogy of organic systems, i.e. functionalistic. Each component of the organization has to perform a logical sub-function in relationship with other components. The organization itself is considered as an invariable, just as was the case in the later structuralistic view. The logical consequence of this view was that methods and techniques were developed to select the most suitable people, by intelligence, skills and knowledge, for specific positions in the organization. Mayo's so-called 'Hawthorne experiments' highlighted that personal attention and space for the social organization within the economic organization can exert a still bigger,

more positive influence on the motivation and productivity of individuals than physical circumstances or conveniences. This insight led to the development of the so-called *Human Relations School* in organization sociology, which produced a shift in the attention paid to the human factor in the production system. In the capitalism of the nineteenth century, indeed, the workers with their personal skills were not considered so important. Labor was a *hired-and-fired* marginal factor in the complete production process. The emergence of socialism was, at least in Europe, one answer to the second-class position of the employer in capitalism that held the promise of giving the labor factor a central position in the economic system.<sup>45</sup> In the United States, there was a different reaction to the marginal position of the employee. Originally, working in a huge, hierarchical organization was considered as conflicting with the American ideal of individual freedom and responsibility. This was resolved by making a distinction between the position someone holds and the person who holds that position. Personal responsibility is emphasized in this way, particularly for the best possible performance of an allocated job, also partly based on the *self-control* principle.

Where people work together with each other, there are not always formal relationships focused on the joint implementation of a task, but, first and foremost, there are emotional relationships. This is also the source of the distinction between formal and informal organizations. The latter arises from the human need to associate with each other more than just formally. After all, in every relationship between people there is the need for recognition, social validation, social comparison, the need to be treated fairly, and the need for physical, economic and social security. This last need means that a company's organization is not only a *Gesellschaft*, a company, a group of people who cooperate for economic motives, but also a *Gemeinschaft*, a community from which individuals derive their identity, in which they know that they are safe, which provides meaning, which makes it possible for the individual to live. Once the organization has been created for an economic goal - as the tool of the businessman - the organization acquires its own reality.<sup>46</sup>

The organization structures and economic laws in the nineteen-sixties and seventies were so stable that the whole discussion about organization could shift to the social aspect, the personal perception and the mutual emotional relationships. That was also possible because the efficiency expert also concentrated on accomplishing the improvement of labor productivity and the controller provided reliable management accounting. This led to a *goal shift* occurring in the organization of many companies: the organization of the company as a *Gemeinschaft* outstripped the organization of the company as a *Gesellschaft*. In this way, organizational

theory became identical to organizational sociology. In the sociological approach to the organization, management accounting was perceived as part of the organization's structure and not part of the organization's process. From time immemorial, the management accounting was central to the exercising of the stewardship and the supervision of the company's managers. Therefore, at the beginning of the twentieth century, in the case of Du Pont, for example, we see that innovation of the organization goes hand in hand with innovation of the management accounting. The invention of the *business unit* accompanied the introduction of the famous Du Pont tree.<sup>47</sup>

The emergence of the major, vertically integrated, multi-divisional companies at the beginning of the twentieth century is closely connected to innovations in techniques for management accounting.<sup>48</sup> The proper elaboration of systems for management accounting that were and are part of the formal structure of the organization, in the thinking about organizations and the discussions on how to organize, has led to less and less emphasis on the economic aspects of the organization, such as task structures, formal authorizations and coordination processes ('Coordination is the essence of managership'.<sup>49</sup>)

Within organizations, as a result, there is no longer the tension between 'maximizing and satisficing', but the discussion now concerns substantial rationality versus procedural rationality.<sup>50</sup> Substantial rationality concentrates on the results of decision-making, not on how that decision was made. Procedural rationality concentrates on the manner in which decision-making takes place and is focused on the need for involvement, the creation of support, and to do justice to consensus formation.

Modern management accounting enables the expansion of organizations of companies, but simultaneously reduces the organizations' substantial rationality, i.e. the degree to which the complementary tasks and dependencies are elaborated into explicit tasks, rules and authorizations.<sup>51</sup> Above, it has already been mentioned that Weber's concept of bureaucracy is never applied in practice. This means that organizations can be discussed, considered, and written about, in numerous forms that bear no relation to the reality of organizations. These forms are actually sociological interpretations of what are perceived as organizations and the way in which members of these organizations claim that the organization is, without referring in this context to underlying systems such as the management accounting system, for instance. These are assumed so obvious that they are not considered as variable in the mutual relationships. This has resulted in organizational theory, as embedded in management accounting, developing separately from insights such as those that particularly caught on in business administration of the nineteen-seventies and eighties. Management accounting talks

about organizations in terms of *profit centers*, *investment centers* and suchlike, sociological business administration talks about configurations (Mintzberg) and metaphors (Morgan). Then I have still not spoken about the torrent of terms that became fashionable because of motives that are more commercial.

At this point, the term 'organizational studies'<sup>52</sup> from the description of my chair should be explained. Why, for example, was not the choice made for the term 'organization theory' or 'organization processes' (as some would have like to have it<sup>53</sup>)? The term 'organizational studies' suggests that there are insights, opinions or a doctrine about the way in which a company or institution should be organized. The term 'studies' suggests the existence of a standard that enables testing for whether or not a company is properly organized. Various authors hotly dispute the existence of such a standard. Organizing, it is argued, is a question of how those involved want it. In reality, the company has to satisfy certain regulations concerning the recording of information, valuation principles and other requirements demanded by society, and which need translating into the organization of the company.

Besides, as can be derived from the literature,<sup>54</sup> the organization of a company still has to satisfy certain market economical requirements, in particular the *fit-to-market* criterion. It are those companies that know best how to adapt themselves to changing circumstances that survive. At the same time, it is very understandable that the debacles of the companies described in the book *In Search of Excellence*<sup>55</sup> have made many people cynical about the rules of thumb for success suggested in that book.

It is also striking that the classic organization principles, such as those formulated by Fayol around 1900<sup>56</sup> – and also in the nineteen-fifties by Koontz and O'Donnell<sup>57</sup> and later reinforced by Van der Schroeffer in his book that was mentioned previously – were dismissed by social scientists in the nineteen-seventies as empirical rules of thumb that cannot be scientifically proven. The irony is that the attention to communication and culture that emerged in the nineteen-eighties attempted to repair some of what was created by disregarding the classic organization principles: a dysfunctional organization culture. (Another factor that also plays a role is that, because of the emergence of the multi-ethnic and postmodern society with its multitude of views and insights, explicit organizational socialization, i.e. the standards and values in organizations being made explicit, becomes essential). As Weihrich & Koontz argued, non-compliance to principles, such as the *linear chain of command*, for example, and the parity principle, leads to a dysfunctional culture of cynicism and lack of confidence.<sup>58</sup> That in its turn strengthens the mechanism of the informal organization, but undermines the economic

operation of the organization, particularly with respect to its adaptability. The latter is not an insurmountable problem in times of stability in markets, technology and other external circumstances. After all, the organization consists of routines that are mainly supported by social structures.

During times of significant changes in the market, in the competitive relationships, in the technology, the organization, in its function of system for the coordination of activities within and of the company, has to be adapted to the changing circumstances. That adaptation becomes laborious if the formal relationships are too implicit with respect to the social system. A change in the formal relationships is then perceived by those involved as a disruption in affective relations, identity and status, and thus as a violation of the basic human need for safety, appreciation, respect and justice. After all, these are the laws that are the foundations for the classical organization principles and issues of communication and culture. The latter, in their formulations, their manifestations and in their relative importance, are still determined by the circumstances at that time. The basic principles and psychological laws are invariable in relation to social circumstances, forms of expression, human perceptions, politics, economic and technological relationships.

The above implies that an organization has to satisfy not only the existing applicable regulations and other institutional conditions, such as economic laws, but also specific invariable psychological laws that are more deeply embedded. That is why it is useful, for example, to speak about 'organizational studies' in addition to the use of 'organizational theory', which has a more explanatory character. Organizational studies involves knowing and applying the temporary and more permanent institutional requirements, in common with relevant economic laws and particularly the laws of the human psyche, both from an individual perspective and in relation to others. The words and symbols with which the underlying social-psychological laws are expressed in specific situations, generally subconsciously, the relative importance of the various laws and the way these are dealt with, will be different again for each generation and that is how it should be. The freedom in forms of expression for mutual agreements suggests that there are no compulsory rules for determining how a company's organization should be designed, with respect to structure and processes, while there is an existing collection of underlying principles that cannot be ignored. Thus, the term 'organizational studies' is used rather than 'organizational theory'.

The student of company law Raaijmakers also wrote that compulsory rules are not suitable for an internal organization.<sup>59</sup> In his case, it was concerned with the issue of the reason for compulsory company law. Company law is needed for the protection of the external

interests, at least that is the accepted view. It was mentioned previously that the company as we now know it – especially in its institutional form, as a non-natural legal entity – is also a product of the second industrial revolution. One of the consequences of this is that, in addition to the organizational studies included in management accounting, that included in business administration and in sociology, yet another organization school has developed: the legal school. Up to now, this school has existed independently from the other schools, although it could be argued that the organization studies included in management accounting forms the bridge between the business administrative organization and the legal organization. Why is it important to shed light on the legal organization school? Because, particularly in companies that operate internationally, the legal organization can conflict with the necessary business administrative or business economic form of organization. In multinational companies, and in companies with headquarters in the Netherlands and a wholly-owned subsidiary in the UK, for example, the legal organization is usually determined by tax considerations and local legislation. (To a lesser degree, the desire for external flexibility also plays a role, i.e. that a subsidiary with low or no separation expenses can be transferred. ) This means that virtually all multinational companies, in each country where they operate, certainly where this involves development and manufacturing, maintain a local company, in many instances even a local group structure. If the total market of a multinational company is built up from separate national markets, this does not pose any problems. Then it can simply satisfy the ‘*Rechtskongruenzprinzip*’. This means that the operational structure matches the legal structure one-to-one. In this context, therefore, issues such as ownership ratios, formal control and the *accountability* match, on a one-to-one basis, the delegation of authorizations, the implementation of the strategy and the operational task allocation, in the way that these emerge from the business economic organization.

As a consequence of the internationalization of the various sales markets, this applies to many professional customers and for the *first tier* consumer markets, the market structure does not coincide with the area of sovereign states. Because many companies have to compete on the basis of *global economies of scale* and, to an increasing extent, have to perform *global account management*, divisions of *business units* cannot be organized as *self-contained* units within national markets. The result is that virtually all multinational companies, in industry at least, have a completely different legal organization to the business administrative organization. This has consequences including that the so-called *entity law concept*, according to which each company is considered as a separate and independent legal entity (even if it is wholly owned

and controlled by another company), the parent company, no longer corresponds to the economic reality.<sup>60</sup> Yet, we currently see several business houses and companies in transportation and financial services too, wrestling with the unraveling of the legal organization and the business administrative organization. In the financial services, this struggle is understandably partly a consequence of local legislation, especially supervision. Nevertheless, in many companies it is also significant that the legal organization is used as an instrument for supervision and control of the business economic organization. There are various views on this in the legal world. Internationally, however, the following view is prevalent: '*Die rechtlichen Struktur weder qualifiziert noch dominiert den Konzernaufbau, sie ist der organisatorische Rahmen für die Gestaltung der wirtschaftlichen Aufgaben.*'<sup>61</sup> This statement does indeed include the function of the legal organizational studies in its relationship to the company: the legal organization has to enable the economic operation of the company. At the same time, the statement cited also includes the idea that the business is included in a single company, or a group that can be considered as a single company. The recent development of alliances implies that the business in an economic sense no longer coincides with a company.

*The effect of the new economy.*

What does the new economy, as outlined above, mean for the management and organization of companies and institutions, for the doctrine of organization and management and also for the research and education in this field? For their specific situations, of course, businessmen want contexts, objectives, resources and people, and solutions that work for them. As has always been the case, most businessmen frequently find a solution intuitively. Whether it is the right solution is simply determined by the answer to the question 'does it work?', not whether the solution satisfies all manner of theoretical insights. (The businessman does appreciate that he can present his organization in generally accepted and particularly anticipated terms, such as flat, flexible, open, customer oriented, learning and process oriented.) For the scholar and the professional management consultant, it is much more important to know what concepts can be used to find a solution for specific problems, with the aid of which insights and techniques.

Currently there are roughly two methods to find an answer to the question of what the effect is, or could be, of the new economy on the management and organization of companies and institutions. The first is observation, empirical research. Can examples be found of companies that, in one way or another, have applied the defining characteristic of the new

economy in their business? This defining characteristic is that knowledge is used without that knowledge being *embodied* in physical *tools*, as was the case in the economy of the second industrial revolution.

The new economy is associated with companies such as AOL, Amazon.com, E-bay.com and Microsoft. This association is founded not only on the activities of these companies, but also on their higher stock exchange value in comparison with traditional companies, such as Time-Warner and General Motors, for instance. I am talking here of a stock exchange value that is not only higher in absolute terms, but also in comparison to the operational profit and the invested capital. The higher stock exchange value is mainly a consequence of the fact that these companies identify and exploit *disequilibriums* in the economy in combination with an expectation pattern of investors. A company such as E-bay.com<sup>62</sup> makes use of internet to create an electronic version of the Waterlooplein (street market in Amsterdam) on it. The company, however, does this on a global scale, with many more articles, for many more suppliers and customers, and especially at lower prices. In itself, E-bay.com does not exploit knowledge, but does use the opportunities of modern ICT to enable the exercising of a basic human need, to trade. E-bay.com exploits the phenomenon of lower transaction costs and is therefore a modern version of the classic merchant.

It is different with an old firm such as Walt-Disney. This company exploits *content*, but is also carrier for another development in the economy, the emergence of the *experience* economy mentioned previously. It is a business that has developed rapidly as a result of modern technology, because the *content* has been freed from the laws of the old, physical economy. Because of this, Walt-Disney can now fully utilize the pattern of knowledge exploitation, identified by Clark as early as 1927. Microsoft is typically a company of the new economy. Its core activities center around the exploitation of *intellectual property*, which is not subject to the laws of the economy of the second industrial revolution. The profits of Microsoft, however, are more determined by a quasi-monopoly situation of its Windows *operating system* and the *network-externality effect*, than by Microsoft exploiting the combination of technical and specific market knowledge. The latter is actually beginning, albeit slowly and laboriously, to get started in the retail trade and financial services sector. It is slow because the expert systems required are not yet well developed, and laborious because, to utilize the continuous Schumpeterian *Neukombinationen*, different operational models and different forms of organization are needed in place of the classic multi-divisional organization, the *business unit Organization* or the *financial holding company*.

In this context, therefore, we see an initial effect of the new economy on the organization of companies: the building blocks of the organization are different entities than those used in the second industrial revolution. The *disembodiment* of knowledge from physical *tools* therefore has the logical consequence that the currently dominant production factors, technical/professional knowledge and specific market knowledge, have to be clearly defined as accountable units in the operational model of the company. For some time, there has been talk of a development in this direction, that market segments be defined as accountable units, in the form of account management among other things. This was a reaction to the contraction in wholesale and retail trades, but was perceived as a disturbance in the model of the multi-divisional organization, not as precursor to a fundamental change in the economy. Companies clung tightly to the model of the multi-divisional organization, in which each division has its own market and is vertically integrated. The contraction in trade implied that clear and stable market segmentation, which is fundamental to the multi-divisional organization, applies less and less and this effect is amplified by internet and e-commerce. As a result of the technological developments, it is increasingly untenable for many companies to hold on to vertical integration. It may still be possible for the company as a whole, but not for the separate divisions. The consequence of this is that the multi-divisional model no longer applies for an increasing number of enterprises.

This in itself has nothing to do with the new economy and nor is it because there is more need for openness, network building and the use of synergy. The principles on which the multi-divisional organization was founded no longer apply. In practice, there are a number of companies that have responded with fundamentally different forms of organization that, ironically enough, return to the basic model for doing business in the second industrial revolution, the *Verlag*. This model now appears to contain the production function of the new economy: the explicit exploitation of specific market knowledge and technical professional knowledge in their mutual combination in *differentiated* products and services.

This development is significant, not only for issues of management and organization, but also for the concept of business as such. As explained previously, terms such as company and organization were generally considered as synonyms in the economy of the second industrial revolution, certainly in the management literature. In addition, the terms business and company were taken to be synonyms as a rule. It follows from this that the *internal governance* of companies is an institutional *governance* model, i.e. based on power of disposal of private property, hierarchical subordination and contracts of employment. Currently we see companies developing under the management of a *nodal firm*<sup>63</sup> that consists of several

companies combining to form a new company on the basis of agreements. This can be temporary in the shape of a consortium, or more permanent, without there being any group formation in legal terms. The participating companies, in terms of property, are not consolidated into a larger whole. Take care, this development is not new in itself, but is now emerging on a larger scale. Coordination of supply and demand in the market, in the sense of the combination of specific market knowledge and technical/professional knowledge, can be utilized separately from the use of physical means of production, or operations such as transport and retail. This too is a result of the *disembodiment* of knowledge from physical products, means of production and physical infrastructure.

This means that the term business can no longer be taken as synonymous for the term company. The business is much more of a *nexus of contracts*;<sup>64</sup> the institutional *governance* is making way for contractual *governance*. Therefore, in its legal definition, the company is no longer generally so much an amalgamation of goods and debts, but is also rightly what it is in economic terms, a form of cooperation focused on producing goods and services. In a certain sense, therefore, we are back where we started because the company had its origins in the partnership, i.e. in several buddies who jointly undertake something, and therefore at the contractual view of the company.<sup>65</sup> The point here is that the views and practices involved in the role of the Supervisory Board, the Executive Board, the relationship between the Executive Board and the management of the operational entities, views and techniques for *management accounting* and *management control*, etc. have developed in the context of, and are based on the institutional view of the company. What we currently see, therefore, is a search for forms and techniques with which alliances can be controlled, in operational terms, without even considering the position of the shareholders in alliances. Obviously, there are already practical examples in operation, but it is currently too soon to conclude whether it is indeed possible to arrive at stable alliances in the long term, as these seem to have been rare up to now. To date, alliances have either collapsed into *arms-length-contractual* relationships, or changed into a legal merger.<sup>66</sup>

The use of knowledge that is not *embodied* in physical *tools*, particularly the use of specific knowledge - which is knowledge that can only be transferred to others at high costs<sup>67</sup> - has consequences for the *internal governance* of companies. Up until now there was reference to the *agency costs* between the owner of the company - regardless of whether the company actually has an owner, but in any case the shareholder is intended - and the person who performs the day-to-day management of the company. The increasing role of specific knowledge in the production function - the profit model of the company in terms of business

economics – means that the *agency costs* between the Board of Management and the management of the operational units actually becomes a much bigger problem.<sup>68</sup>

In the classic model, the Board of Management does indeed control divisions and *business units* in a responsible manner, on the basis of a limited number of parameters moreover, that generally do not change significantly during the passage of time. In a situation in which products and services are continuously differentiated, in which professional knowledge, and therefore local decision-making capacity, plays a role, in which knowledge and skills are intrinsically linked to a person or a team and not, as in Taylor's time, codified in specifications and tools independent of people, it is no longer possible to manage on the basis of a few operational parameters. (This development puts a different complexion on the issue of the ownership of the company.<sup>69</sup>) Naturally, the increasing dependence on individual or team knowledge is felt within companies. The reaction to this is with *performance management*: 'how do we managers know whether they, the employees, only provide performance in the form of cash flow, ROI, EVA.' This approach does not work without the reimbursement of the managers also being based differently, as they also have to provide achievements in such a context. This occurs partly in the form of share options, bonuses that make up a considerable portion of the salary, partly by division, business units and other operational entities being transferred to the ownership of their management. This latter solution is the most obvious, of course. This does indeed fully solve the issue of the *agency costs*, because the *residual claim* goes to those who make the decisions that directly influence the *residual claim*. This construction has the provision that an *arms-length contractual* relationship should still be maintained with the original company, i.e. there should be no guarantees made for staff to return to the original company, nor for the purchase of goods and/or services. In practice, this also appears to be the most motivating for those involved, but it also shows up, in no uncertain terms, who are managers and who are entrepreneurs as far as personality is concerned. The development outlined does not mean that all companies disintegrate into networks of small companies in this way. Contractual relationships do specifically have the uncertainty that the parties involved have the freedom to go their own way. The market mechanism also carries its own costs, constraints and risks. Not everyone is a born entrepreneur, not every risk can be adequately limited or described via a contract. Moreover, there are activities that need to be protected from the demands of the financial market, in order for them to flourish.

In that sense, the integrated enterprise can achieve several things that cannot be accomplished via the market mechanism, or only at a higher price.<sup>70</sup>

Furthermore, the human factor also plays a role in this. Richard Sennett's publication, *The Corrosion of Character: The personal consequences of work in the new capitalism*,<sup>71</sup> and also other earlier sociological studies, suggests that network organizations, flexible organizations, always working in different projects, *peer group control*, have a high negative effect on the social welfare of employees. Loss of identity, absence of bonding with others, the perception of only going through a superficial experience in life, weakening of the personality in the sense of having the feeling of not having any real significance to and not being needed by others, *burn out* at the age of thirty-five, are only some of the effects that are identified with the forms of organization mentioned. It is known that self-employed people build closely-knit networks with other self-employed people, simply because people have a need for a stable group from which they can derive their identity, or where they can get things off their chest, and which helps them to obtain a steady stream of assignments. Sometimes the closeness in such networks is so intense (something that, incidentally, also applies to some forms of network economies), that these innovations tend to put a brake on rather than boost things. The latter is often leveled against the hierarchical organization.

The explicit utilization of knowledge, separately, or in combination with the use of physical assets, brings with it different operational models than the classic M, U, or H types. That in its turn implies changes to the role of the Board of Management in relation to the management of operational organizations. In recent years, a predilection has emerged for management at *arms length*: a Board of Management restricts itself to a shareholders-plus relationship with the operational units. The financial world has previously made known that it does not accept that a Board of Management restricts itself to portfolio management; after all that is what the market of *investment capital* actually does itself. It is also not enough that the Board of Management restricts itself to playing an arbitrational role between operational managers and the financial world.

The latter has time and time again proven itself well able to consult operational managers directly. *Venture capitalists* are particularly skilful at that. The Board has to get much closer to the operation and, by active coordination or by creating conditions for it, has to enable units that use knowledge – both those with professional/technical knowledge and those with specific market knowledge – and physical operations to cooperate more effectively and more efficiently than the market mechanism does this.

Changing structures also imply different roles. The roles of Management Board members for those companies that want to operate on the basis of the new economy will be different to those in traditional companies. In the traditional company, the role of the

Management Board was heavily dictated by *management control*, the evaluation of people and the formulation of strategy. Now a situation is developing in which the cooperation between complementary units has to be more actively conditioned, certainly in the case where there are, or will be, *one-system-firms*. The general development is currently, as in the example of financial services, that from conglomerates with *self-contained entities* towards *one-system-firms*. Simultaneously, and that does not make it any easier, the same Board of Management should pay more attention to the company's external organization, because of alliances, certainly if the company is a *nexus of contracts* and not all activities are organized in one single company. But, as always with roles in society, change of roles is not only a problem for the person who has to perform the role, but equally so for the surroundings that have to recognize the changed role, understand it and particularly also have to confirm it.

The developments outlined have far-reaching significance for the issue of organizational change. Organizational change is the adjustment of the systems' aspect of the organization (therefore not of the people) to changing circumstances. As a consequence of the interrelation between the formal organization and the affective social organization, it is quite understandable that organizational change is perceived as an issue of how to persuade people to agree to an essential change and even persuade them to initiate and work on necessary changes themselves.

A reaction to this is the evolution of an extensive supply of methods and techniques for *management of change*. All of these techniques evolved in the context of the economy, of the second industrial revolution's society, and therefore reflect all the views, circumstances, institutional contexts, human views of society from that period. That then includes the separation between the substantial rationality and the procedural rationality. Despite the publication of, for instance, the *7-S framework* by McKinsey, in practice it seems that organizational change focuses on structural issues, human behavior and on culture; but underlying aspects, such as the *profit model*, for example, are paid insufficient attention.

Culture is not a change variable, certainly not the *pervasive culture* of a social system. The behavior of most people is determined by socially defined knowledge, i.e. by the structures in which they find themselves. In that sense, it is correct to take the structure of organizations as the pretext for organizational change and not the individual knowledge. But somebody has to realize that the structure has to be changed and make decisions to that end. However, for those who work in it, an organizational structure swiftly becomes a psychological scheme,<sup>72</sup> with the consequence that problems, new developments and also solutions are perceived via that scheme (or even not perceived, or incorrectly interpreted). This is one of the causes of the

problem with *internal governance* in the United States identified by Jensen: this actually fails in restructuring situations.

'Organizations change when their environments and the technologies they use change, and as they accumulate information and experience about what kinds of organizations work best for particular tasks.<sup>73</sup> However, the problem with organizational change in the current economic change, is that we do not have the knowledge of the working alternative types of organization. Working includes the meaning that the *management control* (also in the subjective sense, that the decision-makers have the perception that they are *in control* in the new situation) and *management processes* are elaborated. This situation has arisen because the determination of an organization for a company was not considered as a design problem, with the exception of the innovators, such as Sloan and Du Pont. After the Second World War, companies copied each other's applied organization models, especially if they were written about favorably.<sup>74</sup>

An organization is also a translation of the cause-effect diagram with which the businessman believes he can generate profit. If, for those involved – in a way worth following and, if possible, with direct involvement and contribution – it is clear how and why a causal model to make profit is translated into an organization model, that model does not become so much a compelling structure, but mainly a joint story about why and wherefore the mutual division of tasks is arranged in the way that it is. In that context, it is most important that the organization is not only delineated as a procedural rationality – or even worse, in terms of intentions ('we shall manage the operating companies at *arms length*') – but principally as a substantial rationality as well, i.e. that structure, *management control* and management processes are elaborated. Such an elaboration provides those involved with opportunity to create their own impression of why, in the new organization, they have what relationships with which colleagues, expressed as complimentary roles, contacts and mutual involvement. If the management processes are not first made more explicit, so that it is unclear who sits round the table with who, then the fear arises of being excluded from the decision-making process, which then subconsciously translates itself into fear of being expelled and for *loss of personhood*. This fear then results in 'resistance to change'. There are also a number of techniques available for how one should cope with this. Problems, including the problem of organizational change, have to be tackled at the roots, therefore with the issue of why the organization has to be changed and the new organization has to be elaborated so underlying invariable laws are satisfied.

This has a basic law that applies, that of *expectancy theory*: people do those things that they perceive will bring them the rewards that they strive for in life (and which they also feel that they are capable of doing). Organizational change therefore has to focus on the substantial rationality, not on the procedural rationality of the organization issue. In times of more fundamental changes in the economy, the issue of organizational change has to be located and used within the context of the fact that new companies, not by existing ones, will tackle the majority of new opportunities. This therefore means that change is mainly a stimulator for entrepreneurship in the free economy. Many people attach to this the conclusion that existing companies should not approach changes via culture or other indirect methods, but that *intrapreneurship* should be stimulated within the company. This *intrapreneurship* only works in a limited sense, because it is subject to the *dominant general management logic* and to a context focused on procedural rationality, whereas entrepreneurship has to have substantial rationality, certainly for new *ventures*. (A number of companies, IBM, SUN, Oracle, HP,<sup>75</sup> are working on a form somewhere between *intrapreneuring* and *entrepreneuring*, in which *new ventures* are formed with external capital and the *new venture* is partially owned by those people who lead the *new venture*. This also illustrates that companies need the market mechanism, including the reward mechanism of *residual claim*, to achieve modernization.)

Does this mean that we should therefore be highly concerned about new methods for *management of change* in the context of the new economy?<sup>76</sup>

Modernization also means saying goodbye to the old, summarized by Schumpeter in the expression *creative destruction*. *Creative destruction* is, of course, not a method for *management of change*, because at micro level it has a negative, threatening ring to it. In practice, *creative destruction* operates via acquisitions, mergers, *outsourcing* and disposal of subsidiaries of the company, only in a rare instance by means of liquidation. This enables the entrepreneur to concentrate on something entirely new, which is something different to changing something that exists. The dilemma that emerges in this context is that, if the *change process* is left to the market mechanism, it is usually accompanied by tough measures such as compulsory redundancies and destruction of *social capital*. On the other hand, it can be argued that if a considerable portion of the companies do not have the autonomous capacity to restructure themselves in good time, sometimes inspired by social arguments, the group that is initially protected from that market mechanism by the management, will still eventually finish up in the cold of the (labor) market. Therefore, it is worth the effort to determine whether a method can be found that, while concentrating on the new, builds on the *social capital* of

existing companies. This brings me to the university's role in relation to modernization of organizations.

*What does the new economy mean for education and research in the field of organizational studies and organizational change?*

In order to provide an answer to this question, we initially have to consider the changing role of the university in society, in this case concerning organizational issues. Since the end of the nineteenth century, when companies themselves set up their own laboratories, and in some cases also initiated fundamental research, universities no longer had the monopoly on the search for truth and development of understanding. This does not only apply to scientific and technical research: many companies were and are also laboratories for the development of new forms of organization. The development of the modern organization is much more a consequence of businessmen being able to find their own solution to the problems that faced them than academics providing solutions to problems reported by businessmen. Exceptions to this are, for example, selection psychology and the solutions to several social-psychological problems (from which the Human Relations School evolved) in which academics have played a decisive role. In later times, during the nineteen-fifties and afterwards, businessmen did not invent an organization for their own specific situations, but copied models that had already been successfully applied by others.

Take the example of the most commonly applied organizational form, the multi-divisional organization. Sloan, who has already been mentioned, conceived this. This form was described in appreciative words by Peter F. Drucker in his book *Concept of the Corporation*<sup>77</sup> and was promoted as an exemplary form of organization in this book. This organizational form was subsequently recommended to other companies by management consultants. Many companies accepted this form of organization because copying what worked elsewhere was, and is, considered less risky than devising an original solution for their own specific situation.<sup>78</sup> The result of this, in practice, is that a number of organization forms, the H, F, U and M forms, have become standard. These forms were subsequently studied by academics examining the circumstances in which they were applied, their effectiveness and their relationship to operating results. This exposed areas of friction, after all each company situation is unique relative to the standard forms of organization mentioned. Because, fifty years after the creation of these forms, the forms themselves are no longer discussed, other explanations are sought for

the areas of friction identified, rather than the possibility of a *mismatch* between these forms and specific company situations. The grounds for these explanations were found in terms such as organization culture, the utilization of synergy, being customer-oriented, *process management* and *total quality management*.

Of course, there are also academics and consultants who argue that organization structures have to be fundamentally different and have also formulated concepts for this. In doing so, however, they have fallen into the trap laid by postmodernism, specifically that the facts have been replaced by knowledge of the representative.<sup>79</sup>

The language that is used to talk about the practice in postmodernism, no longer corresponds with the empirical reality. Instead, the chosen language serves the purpose of professional self-justification. Research into organizations uses a terminology of argumentation and of models, which is not determined by what happens empirically, but which is widely used and accepted in the academic world. Now, that should be possible in itself if that academic terminology as well as views and ideas, which are some distance removed from the practice, helps the practical man to take a step back and consider the day-to-day problems from a new angle and, enriched by this, be able to go further once more in the practice.

However, that is not exactly how things work in the relationship between the social sciences and empiricism. Concepts formulated in the social sciences for the benefit of insight, are adopted by the society that was the object of study, certainly if that insight has practical significance or provides the individuals and groups a story with which they can better understand the world.<sup>80</sup> Research in the social sciences and the publications about it, transforms its own object of research.<sup>81</sup> If scholars do research into the factor of culture in organizations and publish about it, numerous organizations suddenly have a culture problem. If reference is made to the importance of communication, all at once all problems become communication problems. Publications about flexible organizations result in requests to make the organization more flexible.

This phenomenon can be explained by the fact that people have a need for stories, images and terms with which to speak to each other about their own situation. This fact does not change you. Nevertheless, the group of practitioners of organizational theory have lost their awareness about the following: (a) that a new generation of researchers adopt terms from empiricism, terms that were introduced by previous researchers; (b) that individuals in that empiricism have not allowed their thinking about that empiricism to be led by the problems in that empiricism, but by the images that others have created of it; (c) that the terms in which that empiricism is discussed by scholars are not the basic terms that refer to invariable

fundamental principles in sociology, economy and psychology, but contemporary modes of expression created by circumstances; ( d) that the descriptions of organizations only cover the procedural rationality of organizations, not the substantial rationality such as that embedded in management accounting, the legal organization and other supporting systems.

Thus it can occur that, in universities, education is provided about organizations using Mintzberg's and Morgan's images of organizations, as if these were realistic descriptions of the reality of existing organizations that the students could encounter later in their work. This effect is further amplified by the emphasis laid in the nineteen-seventies and eighties on issues such as informal organization, culture and communication. The result is managers who are asked to describe their organizations do this with terms that are expected by academics, journalists and even their own staff. Further research reveals the reality that, behind the *espoused theory* of informal organization, personal contacts and culture as expressed by managers and board members, the majority of Dutch companies are just managed with the aid of business plans and other formal tools.<sup>82</sup>

In the profession of management consultancy, the process outlined above has led to a method, a consultancy product being drawn up for virtually every *academic construct*. The consequence of this is then that the client, who usually describes the problem in socially common and accepted terms, receives the response that there is a solution to it, without the problem situation having been carefully diagnosed.<sup>83</sup>

Universities have to become much more aware that, unintentionally, they have a quasi-religious function when it comes to issues of organization and management. Perhaps this even applies to the entire field of behavioral sciences. People need a story, images and models with which they can explain and describe their life and their organization to themselves and to others. Behavioral sciences provide such models, certainly in the sphere of organization and management. These models do not have to be correct or true in more objective terms: the requirement for this cannot actually be suggested, because these models fulfil the same function as the sacraments in the church. Sacraments are not subject to testing, let alone falsification. As such, this phenomenon does not have to be bad. It only becomes bad if people and organization are cut off from the substantial rationality by these models, and thus become restricted in their adaptability.

This means that in education concerning organization, more attention has to be paid to: (a) the connection between invariable economic and other behavioral science laws, and contemporary forms of organization; (b) the institutional demands that organizations have to satisfy, in this case the connection between doing business, organizing, managing, management

accounting and the legal organization. Students have to understand not only what the role of culture is in an organization as a micro society, what are the various aspects of culture and their function, but also that culture, and being occupied with it, in many cases is an expression of what Argyris calls *soft reasoning*. That method does not provide a solution to problems.

What is discussed above implies that students must not only be taught which organization models occur in practice and how and why these work, but they must also understand what the building blocks are for an organization and the design principles that will enable them to find specific solutions to new situations. Education is inadequate if only a few of the existing models are taught. It would also be improper (something that the title of this address perhaps suggests) to teach or subsequently to do research into what *the* organization model is for *the* new economy. The creation of new organization models is a practical affair in which all factors have to be considered. That is only successful in situations where the incomes of those involved are directly dependent on the organization to be created. It would be equally improper only to tell students about organizations in terms of paradigms, *out-of-the-box thinking* and other contemplative methods: ultimately it is about solving problems, in the full knowledge that each solution also brings up its own problems of course, but that is what life is all about.

The Rector of this university once stated that the university's task is to be the conscience of society.<sup>84</sup> That is a remarkable pronouncement because in modern learning, with its rational explanation principles, morality has been banished.<sup>85</sup> I believe, however, that this outlook is appropriate, in view of the developing multi-ethnic society that we live in, and the accompanying increase in religious movements and their varying opinions, standards and values. Together with this, the internationalization of the economy also contributes to the further suppression of the role that government plays. This results in what is called the horizontal society. Castells' *informational society* with its new economy recognizes the primacy of the individual. It is the individuals who make the rules in the interaction with their peers.

Modern society is based on economic transactions in which each of the individuals, by exchanging time, knowledge, goods and services, minimizes their costs and maximizes their income. Consequently, social relationships are no longer regulated by suprapersonal, accepted and or imposed rules that are external to the individual. Social regulation has become a horizontal process based on principles internalized by the individual. Therefore, there is not only talk of a market economy, but also of a *market society*.<sup>86</sup> It is assumed in that market society - other than in the society of the second industrial revolution - that social justice is not

achieved by the state or by another suprapersonal concept such as science or church, but by a market mechanism. This would therefore justify society as a market in a social sense too.

The latter remains to be seen. Morality is not an economic quality; its nature is religious and philosophical.<sup>87</sup> Precisely because science has a highly analytical, rational nature, it is essential that students are confronted with moral issues. Naturally, the university has no monopoly on this. The concept of the horizontal society contains another aspect that, in my opinion, is significant to the role of the university. Individuals do not have their own rules for society, these are learned by experience and made one's own via study and upbringing, via socialization processes, some consciously, but many also subconsciously. Rules that individuals have internalized are usually not conscious rules.

One problem with organizational change is that those involved are often not conscious, or only partially aware of the rules under which they live and the principles that they use. Therefore, the paradox of the horizontal society is that those people who want to free themselves of the rules imposed by state, church and science, are prisoners of rules that they cannot identify, in contrast to the situation in the vertical society.<sup>88</sup> And what cannot be identified, cannot be studied and cannot be changed either.

The role of the university, particularly in a horizontal society, includes contributing that actors are aware of their motives, their assumptions, and the images that they use with respect to their decisions. People are never fully aware of their motives, their goals, and the reason behind their behavior. That is a fact. Academic research, which has no vested interest in what is studied, must contribute to the continuous process of what Castoriades designates as collective psychoanalysis.<sup>89</sup> The term collective psychoanalysis is badly chosen insofar as it suggests an internally focused reflection, which is equally true of the expression reflective action. These terms suggest (and also often mean in practice) that, in a closed context, those involved consciously attempt to be aware of the why and wherefore of their thinking and action.

The awareness development argued above, can only be achieved by an analytical attitude, by historical analysis, by endeavoring to distinguish contemporary manifestations from invariables, by examining known issues from the perspectives of other disciplines, by analysis and dissection, but principally also by disregarding the social mores. In journalism, in the world of management consultancy, and also in the academic world, there is a strong tendency to think and communicate in clichés. We live in a period of more and more information and less and less comprehension. That is because we communicate in short expressions, *sound bites*, and because there are cases of further subcultures forming, each with

their own language. Through this, a situation is developing in which it is easier to express an idea that is a variation on an exiting term or existing explanation, than to present a new insight.<sup>90</sup> The latter requires a more detailed explanation that is not suitable in an age of *sound bites*. The university's role is precisely that of exchanging new insights in the interests of a developing society.

For education and research in the field of organization and management, this means that the terminology and models such as those used in the business community, in journalism, in the commercial management books and in management consultancy, should not be taken as facts, but as empirical material. These must be seen as contemporary forms of expression that have to be tested for validity and universality in the light of insights draw from the various monodisciplines, in particular the deeper underlying invariable insights. Considering the social processes that also play a role in academic research, it is necessary for academics to keep their distance from what they are researching. It sometimes happens that an academic succumbs to the temptations of consultancy. On the other hand, that is not necessarily wrong. However, if the academic perceives the acceptance of his advice by the client as proof of his theory, this becomes dubious. At that moment he ceases to be someone without a vested interest. In advising a client, only the interest of the client should be considered. It should be added in this context that management consultants also sometimes succumb to the mentioned proclivity.

I have previously outlined modern ICT's effect on the management and organization of the company. Modern ICT also influences the way in which knowledge is generated in our society. Max Boisot describes the creation and application of knowledge as a continuous cycle in a three-dimensional space that is bounded by the axes of *diffusion*, *codification* and *abstraction*.<sup>91</sup> On the diffusion axis, practical knowledge is gathered via empirical surveys. In the codification process, this specific but unstructured knowledge is codified. In this manner, empirical knowledge is stripped of its ambiguity, so that less data is required to transfer it. Codification includes the formulation of systematic, quantitative correlations, rules and definitions.

This codification process is accompanied by both loss of knowledge and social conflicts. Each step in the codification process leaves behind a residue of knowledge, implicit knowledge that cannot be included in the next step of the codification process. Codification involves conflicts. Newly formulated knowledge clashes with existing formulations, also with social orders. In the process of abstraction, connections are found between phenomena. Whereas codification reduces the complexity of forms, abstraction reduces the complexity of the content. Abstraction also means that knowledge is stripped of time and place. But

abstraction is also, through its model formation, an interpretation of the world or parts of it. Each new interpretation means a conflict with what exists, a conflict about what is true and what is not true. That applies in science in general. Consider, for example, the conflict between Galileo and the Church that arose because Galileo's interpretation of the universe attacked the central position of the Church. However, the remarkable thing in organization theory is that newly published models do not arouse any discussion or conflicts. The reason for this can be found partly in the sacramental toll of models, partly in their commercial toll.

Abstract model formation can be subject to validation and falsification. This is just one of the values of abstraction. Abstraction is also a means of penetrating the heart of the issue, to obtain new insights. Abstraction was also important in the past: after all, a clearly formulated insight lends itself to transfer into practice, where decoding and application convert new models back into new practical knowledge. The current superabundance of communications capacity has diminished the economic need to codify, to abstract and to form models. The result in Boisot's model is that, on the diffusion axis, there is heated communication in both directions, but codification and model formation are omitted, at least in business administration. Insofar as any model formation is done, this is frequently for commercial reasons. These commercial models are not usually publicly validated according to academic norms (for each commercial model, there are a number of practical situations cited for substantiation; what is noticeable is that it is frequently the same companies cited as examples for different models and concepts).<sup>92</sup> The result of the development outlined above is that those who have to decide about a change in their organization have lost their way. They are interested in new models, but there is no valid evidence to show decision-makers that the models presented also work (very often, these models have no detailed *management control* and management processes, so that those who have to decide about the proposed models cannot properly assess how these models will actually work in practice). This now touches on a fundamental aspect of organizational change. Those involved only decide to change their organization once they are convinced of the necessity for it and if they are familiar with alternative models that, in their opinion, work and are reliable.

The issue now becomes how this development should be assessed and how the university world can or must cope with it. That many models can coexist, side by side, is useful for those situations in which tools are needed to get a process of organizational development started. Those involved can therefore obtain access to a report that they feel matches their own situation as closely as possible. That then helps them to arrange a number of issues and stimulates them to design and implement improvements. This would also explain

why published models about organization are never challenged. The models used in the process of organization development serve primarily to facilitate a discussion, not to provide a change in the substantial rationality of the organization. Nor do the models used for this need to be tested for empiricism or against invariable laws.

However, organization development as a method for organizational change assumes that there is not a case of fundamental development in the market and the technology. If the latter is the case, the organization to be designed has to be based on a model that has been tested for empiricism and laws. As outlined at the start, the multiple operation of modern ICT, the discussion about the new economy and the effects of these on management and organization, illustrate that an analytical attitude, conscientiousness, meticulous thinking through and common sense are required to prevent the wrong connections being concluded and consequently incorrect choices being made about how to organize. It is the university's task to ensure that Boisot's *social learning curve* remains as full as possible, in particular on the axes of codification and abstraction and therefore validation. The university has to study and test organization models that occur empirically on their principles, especially the subconscious assumptions, whatever their nature, for invariable laws.

At this point I should also explain my personal position in the relationship outlined between empiricism and university. I am a management consultant by profession and professor at this university one day a week, paid by a management consultancy firm. Such a position continues to raise questions, because, as they say in the vernacular, 'he who pays the piper calls the tune', and 'you don't bite the hand that feeds you'. The position of professor is a public office, in other words the person who occupies it has to bear in mind that their views, insights, research, etc. have to be explained by means of publications that are accessible to everyone. This has to include publication in academic journals, particularly because of the *review* procedure. An important role for someone in my position is to gather empirical material for education and academic research in order to scrutinize it, as outlined previously, not to present it as normative. This empirical material can also include methods and techniques that are used by management consultants. These have to be scrutinized as well. That is also in the interests of the management consultants themselves: they are also subject to *bounded rationality*, they also have their *dominant logics* that are out-of-date at a certain moment. If this means that a colleague's method or model is assessed as being too light, or obsolete, it is my duty to present that - substantiated - assessment, whether the person involved likes it or not. True professionals can be expected to be critical of their own work and subject themselves to their

colleagues' judgment. On the other hand, I also expect my academic colleagues and my fellow professionals to critically review my ideas and publications.

It is precisely in times when the economy is changing fundamentally that it is best to know the organization of a company in its entirety. Which is to say, the entirety of the changing context, the institutional environment, the invariable laws versus incidental manifestations, the various organizational structures such as the operational, the social, the *control*, the legal, the financing and the fiscal structures. In an increasing number of cases, all these structures will have to be adapted to changing conditions, concurrently, in their mutual relationship. The description that I have provided above, of both the new economy and what its consequences could be for management and organization, is a taste of how I propose to provide education and conduct further research in the field of *internal governance*. Education has to consist of three elements: (a) transfer of knowledge in 'technical' terms, how things are actually organized in practice and what institutional requirements an organization has to satisfy; (b) insight into the distinction between invariable laws (economic, psychological and social) and contemporary manifestations; (c) and particularly the development of an active attitude to the phenomenon of an organization as a social construction. The organization is there for the people and not the other way round. The result of this must be that the students will be able to achieve their ambitions in as free a manner as possible, whether that is as a businessman, as a professional or as a manager. By 'free' I also particularly mean the freedom from dominant views and manifestations, which is to say that one knows how to resist the socially determined *bounded rationality* without losing the awareness that an economic system cannot operate without being embedded in a system of standards and values. Free also means that one knows the social rules and knows them well enough for them to be creatively exceeded without being ignored. In addition, free means the development of a capacity to simultaneously work in an organization and with an organization, to have the ability to take a step back and be able to put the organization into perspective. That is the university's role in society with respect to change processes in companies and institutions.

Each generation has to solve its own organization problems itself, and that solution can only be found in practice. The role of education is to provide students with insights, terms, methods, concepts, and an attitude, which enable them to deal with organizational problems in their own specific situation. The words of the American professor Jacob Neusner apply in this context: 'Great teachers don 't teach. They help students learn.'

*Acknowledgements*

The university is also a social construction that operates thanks to flesh-and-blood people. This appointment is not a result of 'the system', but of people who have made efforts for it. In the first place my thanks go to Prof. S. Bergsma, who not only initiated my appointment, but also, as with everything that he undertakes, finished off the procedure. My opposite in thinking about organizational change, Prof. J. W. Ganzevoort, has, entirely in the tradition of postmodern *multi-voice* thought, certainly not remained aloof from this, in a positive sense you understand. To continue to follow the appointment procedure: I am grateful to the Dean of the Faculty for Economics and Econometrics for his decision to propose my appointment to the Board of Governors, and the latter for considering me so deserving of this honorable appointment that I did not first have to make a statement about whether this university really is well organized. That could mean two things: either the Board of Governors are convinced that the university is well organized, or the Board upholds a postmodernistic, metaparadigmatic, reflexive dynamic organizational view after it has been metaphorically codified in a management rule formulated according to the classical teaching of the administrative organization.

My thanks also go to those who helped to shape my views and insights. I mean Prof. H.J. van Dongen of the former Interuniversity Joint Faculty of Business Administration in Delft and Prof. J.B. Rijsman under whom I obtained my doctorate. I am also very grateful to my clients who, through their questions and engagements, have provided me with the opportunities to develop my insights. I particularly remember my old colleagues at Philips Electronics; such a complex company is not only a breeding ground for new products, but also for new organization forms, views and insights.

This appointment has been made possible by the stimulating mental and material support of my employer, KPMG Management Consulting, in particular Nolan, Norton & Co. and the Nolan Norton Institute. My colleagues there, through their recognition and response, through the dissemination of my views and the feedback of their experiences, constitute for me an essential factor in the continual process of the development of insights.

As stated, a person cannot do without affective relations, however fascinating his work is. At a time such as this one appreciates how important and valuable a good home is. My wife and two daughters, Nora, Roos and Anne, form that home, that security, in which they occasionally, justifiably, demand my attention, but primarily also enable me at the other times to completely concentrate on my work. Without that, I would not be here now, my gratitude to these three, especially Nora, cannot be expressed in words.

*I have said.*

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Notes

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<sup>1</sup> In the Dutch original: 'organisatieleer', see also note 52.

<sup>2</sup> Van der Schroeffer, 1961/1968

<sup>3</sup> Woestijne, 1962

<sup>4</sup> Groeneveld, 1962

<sup>5</sup> "Indeed, this move from a technological construction (the firm-as-production function) to an organizational construction (the firm-as-governance structure) is basic to the entire transaction cost economics enterprise. The former holds that the firm is a black box, according to which inputs are transformed into outputs according to the laws of technology; the latter is a comparative institutional construction according to which the mechanisms of governance differ among alternative modes of governance and have real consequences. Organization is ignored and is conceptually irrelevant under the former, organization matters crucially and is susceptible to analysis under the latter". Williamson, 1999.

<sup>6</sup> Sloan, 1963; Chandler, 1962

<sup>7</sup> Jensen, 2000.

<sup>8</sup> Strikwerda, 2000b.

<sup>9</sup> Hoskisson & Hitt, 1994

<sup>10</sup> Madrick, 1999

<sup>11</sup> Greenspan, 1998

<sup>12</sup> The period around 1765-1976, when the steam engine was introduced, is taken to be the first industrial revolution. Castells, 1996.

<sup>13</sup> Greenspan, 1988

<sup>14</sup> cf, for example: Scherer, 1999.

<sup>15</sup> Castells. 1996: 31-32

<sup>16</sup> Quoted by Leonard-Barton, 1995: 91.

<sup>17</sup> Sen, 1999: 262.

<sup>18</sup> Bloch, 1959.

<sup>19</sup> Strikwerda, 1994:19

<sup>20</sup> Thurow, 1999

<sup>21</sup> OECD, 1987

<sup>22</sup> See, for example, Deakin & Michie, 1997.

<sup>23</sup> Coase, 1937.

<sup>24</sup> Jacquemin & De Jong, 1977.

<sup>25</sup> Strikwerda, 1999.

<sup>26</sup> Jensen, 2000, Gates 1998.

<sup>27</sup> OECD, 1987.

<sup>28</sup> Coyle, 1999

<sup>29</sup> Castells, 1996:61.

<sup>30</sup> Shapiro & Varian, 1999

<sup>31</sup> Shapiro & Varian, 1999

<sup>32</sup> Pine & Gilmore, 1999.

<sup>33</sup> Wolf, 1999

<sup>34</sup> Evans & Wurster, 1999:15-17

<sup>35</sup> Unpublished thesis by Van Wijk and Van Amerongen, 2000.

<sup>36</sup> With thanks to Mr. Van Ogtrop, chairman of the board of BRD.

<sup>37</sup> Castells, 1966

<sup>38</sup> Thurow, 1999:117

<sup>39</sup> Collis & Montgomery, 1997:38-39

<sup>40</sup> For details of this see: Strikwerda, 2000.

<sup>41</sup> Smith & Deyer, 1996: 39.

<sup>42</sup> Meyer, Boli & Thomas, 1994: 135

<sup>43</sup> Smith & Dyer, 1996: chapter 2.

- <sup>44</sup> In contrast to markets, organizations generally do not delegate both decision rights and the alienability of those rights to the agent.” Jensen, 1998: 103-104.
- <sup>45</sup> Thurow, 1999:131-2
- <sup>46</sup> Prahalad & Bettis.
- <sup>47</sup> Jensen, 1998:131
- <sup>48</sup> Jensen, 1998:132; Meyer, 1994: 135.
- <sup>49</sup> Weihrich & Koontz.
- <sup>50</sup> Vromen, 1995: 121.
- <sup>51</sup> Meyer, 1994:135.
- <sup>52</sup> The original Dutch is ‘organisatieleer’ in which closest to ‘leer’ is doctrine, however ‘doctrine’ suggests a closed system or model, whereas the message of this address is that a number of *natural laws* exists, which can not be ignored, hence ‘leer’, these natural laws do not form a closed system.
- <sup>53</sup> See, for example: Maas, 1988; Van Dijk, 1989.
- <sup>54</sup> Chandler, 1962; Miles & Snow 1994.
- <sup>55</sup> Peters & Waterman, 1982.
- <sup>56</sup> Fayol, 1916.
- <sup>57</sup> Koontz & O’Donnell, 1955:291-297; Dale, 1967, hoofdstuk 1
- <sup>58</sup> Weihrich & Koontz, 1993, chapter 12.
- <sup>59</sup> Raaijmakers ,2000:34.
- <sup>60</sup> Blumber, 1993:100.
- <sup>61</sup> Theise, 1991:173.
- <sup>62</sup> Time, 27 december 1999: 60
- <sup>63</sup> Doz & Hamel, 1998
- <sup>64</sup> Zie ook Raaijmakers, 2000: 40
- <sup>65</sup> Raaijmakers, 1987
- <sup>66</sup> Gomes-Casseres, 1996.
- <sup>67</sup> Jensen, 1998: 103.
- <sup>68</sup> Jensen, 1998 :103-104.
- <sup>69</sup> “However, ownership of capital should not be confused with ownership of the firm. Each factor in a firm is owned by somebody. The firm is just the set of contracts covering the way inputs are joined to create outputs and the way receipts from outputs are shared among inputs. In this “nexus of contracts” perspective, ownership of the firm is an irrelevant concept.” Fama, 1980
- <sup>70</sup> “What typically is at issue is that, as market transaction costs are infinite for large-scale projects, the firm can do things that simply cannot be done by the market (Chandler 1990: part 1). ... It is that the firm overcomes residual risks which remains for those making the commitment to production even after they have decided to enter into some sort of relationship ... Were all risks capable of being presentiated, that is to say, were there fully contingent markets, there would be no residual risk.” Campbell, 1997:317.
- <sup>71</sup> Sennett, 1998
- <sup>72</sup> Prahalad & Bettis, 1996.
- <sup>73</sup> Milgrom & Roberts, 1992: 543.
- <sup>74</sup> Dimaggio & Powell, 1983.
- <sup>75</sup> Neue Züricher Zeitung, 8 March 2000
- <sup>76</sup> For a method for *change* based on entrepreneurship, see: Strikwerda, 2000.
- <sup>77</sup> Drucker, 1946/1993.
- <sup>78</sup> Dimaggio & Powell, 1983.
- <sup>79</sup> Hassard, 1993:127. In this context, it should be noted that what is, also in nature, is still described in language as human construction. See also my thesis (1994). Hansard refers here to the phenomenon that academics write about organisations in terms of *academic constructs*.
- <sup>80</sup> Giddens, 1984: 351.
- <sup>81</sup> Giddens, 1984: 348.
- <sup>82</sup> Strikwerda & Van Hest, 1998.
- <sup>83</sup> Strikwerda & Otten, 2000.
- <sup>84</sup> In his e-mail correspondence to the author, 3 february 2000.
- <sup>85</sup> Gergen, 1994:35; “The commitment to positivist philosophy of science, capitalism, and bourgeois liberalism (contemporary manifestations of the Enlightenment vision) lent itself to such evils as the erosion of community,

the derioration of moral values, the establishment of dominance relationships, the renunciation of pleasure, and the mutilation of nature.”

<sup>86</sup> Petrella, 1999.

<sup>87</sup> “Economic reasoning ... should not be taken to imply that morality is in fact nothing more than a manipulative device that survives because of its economics value. The nature of moral authority is ultimately a philosophical and religious issue, and not an economic one.” Campbell, 1997: 320.

<sup>88</sup> “Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist.” John Maynard Keynes (1883-1946), British economist. *The General Theory of Employment, Interest and Money*, chapter 24, ‘Concluding Notes’ (1936). The Columbia Dictionary of Quotations is licensed from Columbia University Press. Copyright © 1993, 1995 by Columbia University Press. All rights reserved.

<sup>89</sup> Castoriades, 1999.

<sup>90</sup> Davidson & Rees-Mog, 1997: 361.

<sup>91</sup> Boisot, 1995, 1998

<sup>92</sup> Examples of the models intended are:

- networked organization (Druker)
- learning organization (Senge)
- virtual corporation (Davidow and Malone)
- relational organization (Keene)
- boundaryless organization (Ashkenas)
- human networking (Savage)
- democratic corporation (Ackoff)
- centreless corporation (Pasternak & Viscio)
- intelligent enterprise (Quinn)
- reengineered corporation (Hammer & Champy)