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Editor's Introduction

This issue of JFS extends our regular staple of articles with a special section on the War in Iraq and Beyond. The eight essays examine the war discourse and the limits it sets.

The opening essay, by Wendell Bell, explores the impacts of 9/11 on the USA. Bell considers the effects on domestic policy-including less tolerance for dissent, threats to civil liberties, neglect of social problems, incompetence of America's critical infrastructure-and, in terms of America's approach to foreign policy, the rise of policies of pre-emption, a lack of regard for world opinion, the righteous and simplistic use of the rhetoric of evil to demonize others, the rise of a new American imperialism, American tolerance of state-initiated violence on the part of Israel, and the role of American fundamentalist Christians in welcoming violence in the Middle East. He also considers the undue influence of American corporations on government policies, the rising costs of American unilateral action, and an increase in hate crimes in America against people from the Middle East.

Bell argues that Americans must speak out, strongly and courageously, against these outrages: "I hope we Americans will give voice to our basic decency and stop the unilateral and unethical actions of our government; that we will demand that our American leaders learn to respect the opinions of other nations and to participate as equal partners in the multilateral negotiations and joint actions of the international community."

James Dator asks how this dystopia came about, discerning three factors. First, the political economy of the media, particularly the role of the American media in creating patriotic hysteria. Second, the combination of the obsolete nature of the nation-"with the belief that it is permissible, indeed right, for the sovereign state to use deadly force against, as well as in defense, of its citizens." And finally, the American educational system: the de facto pro-war status quo continues to dominate each and every university. Dator dreams of recreating the University of Hawaii as the University of Peace as part of a reconstruction of the USA.

Roar Bjonnes, too, dreams of a different future, a different world governance system and a different future for Iraq: "A 'free Iraq' must ... not only mean the political freedom to vote, but also freedom from poverty, and the freedom to choose the path of economic self-sufficiency. A truly liberated people should be able to exercise both political and economic democracy. Most of all they should feel secure that no foreign economic power can dictate their economic future-that they are not victims of the 'dictatorship' of foreign economic powers."

For him, securing Iraq's future requires challenging current practices of globalization. Quoting Ken Wilber, Bjonnes writes: "My own belief is that, in the coming century, we will see the present United Nations peacefully replaced by the first move toward a genuine World Federation, driven particularly by threats to the global commons that cannot be handled on a national level (such as terrorism, global monetary and economic policy, and environmental threats to the global commons)." Essentially Bjonnes calls for the dreaming of a future world-an alternative world.

It is of this alternative that Galtung wrote before the War on Iraq began. "[These conflicts] can all be solved by governments, building on successful governmental diplomacy after the Second World War. A Conference for Security and Cooperation in the Middle East, CSCME, modeled on the Helsinki Conference for Security and Cooperation in Europe, CSCE, 1973-75. The initiative was taken by a small country, Finland, the veto making the UN inadequate. Today Germany could take the initiative, or, even better, the EU. Participants would be Middle Eastern/West Asian countries, with Germany/EU as facilitators, and the dialogue/conference would last years. Iraq, Kurdistan and Israel-Palestine would be on the agenda."

Of course, his alternative peace solution was not the path taken. But along with Galtung's peace alternative there is a sting-Galtung calls for the boycott of USA products in response to its fascist behavior.

Tony Judge investigates USA imperialistic behavior, the behaviour Galtung calls fascist. In a stunning essay, Judge argues that Eve is ill and Adam has gone off to war.

He writes: "Not only has the feminine perspective been repressed, as long-analyzed by feminists, but through that repression 'Eve', in archetypal terms, has become 'ill'. The new, mono-polar geopolitical concept of 'America as Empire' can therefore be usefully understood as 'America as Eve-ill Empire', suggesting the existence of an 'Axis of Eve-ill' states-as psychodynamic counterparts to the 'Axis of Evil'.

rogue states. The 'illness' may be understood as a pathological inability to deal in a healthy manner with those of different values and ways of knowing-the archetypal 'other'-as exemplified for men by their relationship with women and for both by their relationship with their 'shadows'. From such a perspective, concerns with dissidence and terrorism can usefully be explored in terms of 'fear of one's own shadow'."

Dieter Fisher moves from a discussion on USA-Iraq to wars in general, and nuclear weapons in particular. Using a road traffic analogy, Fisher examines how rules and regulations in traffic have made cities safer. Even though there are still some accidents, anarchy has been reigned in. The same is not true for international relations. "Nuclear weapons have now made international anarchy far more dangerous and obsolete than motor vehicles made anarchy on the road obsolete. It is no longer adequate to wait until war breaks out and then to react with military force. This would be comparable to driving a car with closed eyes, waiting until we hit an obstacle, and then reacting by calling an ambulance. We need to pursue a more future-oriented approach, an active peace policy that seeks to foresee possible conflicts and avoid or resolve them long before they lead to war. What would a security policy based on principles analogous to traffic rules look like?" The bulk of his essay explores this alternative world security design.

Agreeing with Fisher, I question the nature of war itself, asking: Does war have a future? I argue that we need to go beyond the litany of personal and inter-state issues, and challenge the military-industrial system that feeds into war, as well as the worldview beneath war-patriarchy, plus evolution, and limited identity. I also offer four scenarios for the future of war: (1) War now, war forever; (2) War becomes contained, ritualized; (3) War disappears; and (4) War transforms, becoming more genitized and governmentalized. Given these probable futures, what should we do?

My conclusion is that we must remain idealistic about creating a future without war while we act in ways to contain war (peace within, mediation and conflict resolution in our institutions) and participate in the wider struggle against systems and worldviews that create war.

The section concludes with Jon Solomon's essay in which he furthers the arguments by challenging our categories for addressing conflict. Moving away from notions of sovereignty and identity, he explores ways in which to analyse the war in Iraq that do not reinscribe that which we seek to escape. For Solomon, the most worrisome trend is: "The institution of a permanent state of emergency and the rise of political regimes around the world that associate security with instrumentalized identity-the society of securidentity." Complicit in this is language that reinforces national identity and media that industrializes fear. Moving out of a war system, then, requires far more than better world policy based on categories of either 'state' or 'humanity', but a re-imagination of past, present and future, and the adoption of practices that resist the war/nation-security discourse. Solomon concludes his piece by comparing the War in Iraq with the SARS virus, arguing that both have raised basic issues about sovereignty, human rights, and the use of "wars-health and otherwise"-by government to expand state power, and to limit the possibilities of individuals.

What the essays have in common are the ways in which the war discourse has straitjacketed the future, and how crucial readings of the future that move us outside of this discourse are. Not only must Eve (Gaia) regain her health but Adam must find a way to language the world, and find a new purpose for being.

Sohail Inayatullah

A Challenging but Uncertain Future: Beliefs of the Dutch Population about the Future of Work, Work Relations, and ICT in the 21st Century.

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Abstract¹

The debate on the emergence of a new knowledge-based and technology-driven economy and its consequences for the individual has, remarkably enough excluded the public's views. Examining this hiatus, we conducted a large-scale survey (N=1,574) in the Netherlands on future beliefs and expectations of the Dutch in the domains of work, work relations, and Information Communication Technology (ICT): The OSA Future of Labor Survey (FLS). The Dutch are unanimous: computer influence will increase, creating new and interesting jobs, and the speed with which knowledge and skills of workers will become obsolete, resulting in obligatory life long learning, will augment in the next twenty-five years. They accept their responsibility in maintaining ICT skills but expect employers to facilitate training opportunities.

Keywords: ICT, labor market future, computer, skills, training, Dutch society.

1. Bringing men back in²: The knowledge economy and its assumptions on the new worker

There appears to be a global consensus regarding the vision that Information Communication Technology (ICT) is going to make our economies, jobs, and lifestyles more efficient but also more demanding. Governments world-wide are diligently redesigning policy, removing obstacles, and aiming at a fast and thorough penetration of ICT. ICT has, as a relative newcomer on the labor market, taken root and grown at an astounding rate. From a

global perspective, countries that have been keen enough to quickly invest in research and development as well as facilitating penetration of ICT, have economically leapt ahead, leaving stragglers behind (OECD, 2001). Europe has assessed its global position in the new technology sector. Although its efforts have increased, European economies still lag behind investments made by the United States. There, ICT investment in public and private sectors combined is three times more than what Europe is investing (OECD, 2001). The European Commission (EC) endorses policies designed to aid in the development of a knowledge-based economy, promot-

ing innovation, competitiveness and employment, sustainable economic growth and social cohesion. The aspect of social cohesion is of particular concern. A new division of have and have-nots is lurking on the horizon. Even within the European Union (EU), there are large regional differences in ICT penetration (OECD, 2000). The differences outside the EU are even greater, with candidate countries³ forming a new concern as to whether this social and economic hurdle can be taken. With an estimated 50% of Gross Domestic Product (GDP) in the major Organization for Economic Co-operation and Development (OECD) economies being knowledge based (EC, 2000), access to knowledge networks via the Internet is becoming an essential ingredient for a modern economy. If you're not *on-line*, you may as well go to the back of the line.

Where policy makers and politicians are embracing the new economy with open arms (often based on the fear of being left behind), social scientists are beginning to ask questions about the cultural and social implications that ICT will have on society. Social observers have previously sketched doomsday scenarios of man's alienation from labor through the introduction of machines while the industrial revolution brought all the horrors as well as the glory of a modern age. Castells (1996) warns for a segmentation of the world market where whole continents (Africa) and countries (among others Eastern European) are excluded from participating as economic partners. Western countries are scouting for ICT specialists in countries that are in desperate need of their own ICT development. Indian high tech specialists have been migrating to the Silicon Valley in the United States since the late seventies. Germany is currently recruiting high tech personnel from Hungary in order to fulfil the needs of its ICT market. ICT labor shortages in the Netherlands are now being filled by Indians and South Africans (CBS, 2000). What are the social and cultural implications? After having used third world nations for raw materials and cheap labor, are we now going to deprive them of the potential to booster their own economies through the process of *brain-drain*?

On a more positive note, Castells (1996)

also points out the unique way in which each technological invention in the digital revolution leads to new and surprising applications, which in their turn again lead to new technologies. This has consequences for not only the kind of skills required by workers to perform tasks, but also learning skills that will have to be developed in the educational system. How will this change the educational system and what kind of workers will our schools and universities need to produce in the future? Will they become ever more robotic in the sense that they can only march in the direction that they are pointed? This would support the case of technological determinism, i.e. human behavior is shaped by technology and not vice versa. Steijn (2001) rejects this vision saying, "the beauty of ICT technology is that it is for the most part in people's heads." This reasoning weakens any case for technological determinism because it sees the human factor taking the lead in determining the direction of technological change.

Planning, future scenario development and projections are essential for creating government policy for a modern welfare state. For decades, policy strategists in the Netherlands too, have been investigating and projecting likely future developments in many sectors. Although the political parties are often divided on many of these issues, Dutch public leaders and policy makers are unanimously agreed that ICT is definitely the right path to future economic development. The priority is to enhance the development and growth of the ICT sector. A number of assumptions have been incorporated about the new e-worker in this policy. He or she is flexible, capable of innovation, continual learning, and takes responsibility for his or her own employability (EZ, 2000). ICT job vacancy advertisements are clear in their requirements: young, eager to learn, independent yet a real team worker, no 9-5 attitude. The 24-hour economy is demanding more shift work as well as weekend work. The Dutch ICT labor market is already experiencing great difficulty finding sufficient qualified personnel.

Thus, it appears that in the case of ICT, policy makers have high and marked expectations about the role the average citizen should play in

advancing the knowledge economy. Politicians and policy makers call for a "new" flexible worker, willing to innovate and to invest in acquiring and maintaining the necessary skills to shape the new knowledge economy. This is a marked break with the traditional social welfare state, which had more the role of regulating and providing for the individual. The big switch is the amount of responsibility now placed in the hands of the individual. The government, together with business will provide certain conditions, but an active and assertive participation from the individual is expected in return. However, this new policy strategy will only be effective if the vast majority of the workforce is indeed overwhelmingly willing to seriously take on this new role. Without the support of the public, no policy, no matter how cleverly devised will succeed. From a social perspective, policy effectiveness depends on policy acceptance, and this is certainly true for a population - like the Dutch - that is generally well educated. Even though the Dutch were once characterized by Adam Smith as being the most commercial people in Europe, the move towards the new economy and its assumptions about basic work attitudes and orientations should be well explained and made transparent⁴. It is highly worth the effort for policy makers to clearly communicate why this movement towards the new economy and the new worker is the right one in order to facilitate understanding and acceptance within the public.

The digital revolution has initiated a new wave of modernization that has all the promise of affording the utmost in comfort and luxury. Nevertheless, there are two sides to every coin, and the drawback here seems to be the great demands made on organizations and their workers to keep up with the technological race. Dutch enterprises are making large investments in ICT materials⁵ to improve or retain their competitive position on the market (CBS, 2001a). Where the machines of the past had a much longer life cycle, computers and software are outdated almost immediately. The problem here is a composite of hardware and software further complicated by all the additional training required for personnel every time a system is

changed or updated. Is everyone capable of *life-long* learning when development is so fast that that computer programs are a generation behind the moment they are installed?

Also important in this respect is the role of the older worker. The present trend appears to be leaning towards a longer working career than the past. The share of workers 55 years and older in the total labor population rose from 5,5 % in 1995 to 7,4 % in 2000. According to the Dutch Central Bureau for Statistics (CBS) this can more than likely be attributed to government policy designed to keep older workers working longer (CBS, 2002). This period was also characterized by a shortage of labor, which made businesses less willing to stimulate or even co-operate with early retirement packages. An aging population is forcing policy makers to re-think the retirement age in order to keep up an affordable social system. Are the Dutch willing to retire later in order to bare the burden of social benefits? What will be the duration of a person's labor career? Will older workers be able to keep up with the quickening pace for even longer periods? Are they willing to play their role in an ICT-based new economy? Are people ready for the cultural change required of them? Are they capable of satisfying the demands made on the new e-worker and do they even want to? Do they see it as something that will create a better world in which to live?

Given the fact that ICT is definitely here to stay, something that is notably changing the way we work and live, is the average Dutch citizen ready? Persons above the age of 50 have not been socialized with ICT during their formative years. We can expect that younger persons are more willing to adapt to the demands made of them by the knowledge economy. We should see a difference in the attitudes and opinions of younger generations where it comes to ICT. Whereas an older generation might even experience it as something alien or threatening, younger people should, in general be more positive towards the demands that ICT makes on their work and lifestyles because they have, as it were, grown up with all the benefits of the modern digital world. The opinions and attitudes of older generations, however interesting, are less

crucial for shouldering the burden of the Dutch labor market through the first quarter of the twenty-first century. Of crucial importance, are the opinions and attitudes of the younger generations and whether they are willing and able to make the necessary adjustments in lifestyle to accommodate the knowledge economy.

In an attempt to get a better perspective on this cultural side of the new economy issue, we conducted a large-scale survey study (N=1574) on beliefs and expectations of the Dutch population about future developments in the domain of work, work relations, and ICT: *The OSA Future of Labor Survey* (FLS). OSA is the Dutch abbreviation of the Institute for Labor Studies where two of the three authors of this article are employed⁶. In this survey, respondents were asked about possible societal developments in the Netherlands over the course of the next twenty-five years, whether they saw these as desirable, and whether they saw these developments affecting them as individuals. The main goal of our survey is to capture whether the Dutch are mentally ready for the challenges of the new economy in terms of flexibility, employability, innovation, lifelong learning, and ICT-skills and whether they are willing to do their part in advancing the economy.

This article will present the findings of the OSA FLS along the following line. Section two is a description of the survey and its methodology. In section three, the perspectives and expectations with respect to general societal issues are presented. Section four goes into respondents' answers regarding general issues concerning the labor market in the next twenty-five years. Section five narrows in on specific ICT issues. The last section will summarize the most important findings and put them in perspective.

2. Data and methodology

Thanks to a generous offer from CentERdata, a division of the Center Group of Tilburg University, we were given the opportunity to submit a sizeable questionnaire to participants of the CentERdata panel: the OSA Future of Labor Survey (FLS). This panel consists of approximately 2000 households with a personal

computer at home. This computer is linked with the central computer of CentERdata. Once a week, participants fill in a questionnaire they receive via a modem linked to their computer. The completed questionnaire is then returned to CentERdata also by modem transmission. Each week respondents spend approximately one half hour answering questions on a diverse range of subjects. For the purpose of our research, a sample of almost 1600 respondents was surveyed in the weekend of October 22nd, October 29th and November 26th, 1999. The questionnaire is a combination of open and closed questions, a combination creating an optimum of informational possibilities. Closed questions allow for quick insight into the quantitative distribution of opinions, judgments, and expectations while open questions reveal a deeper image of ideas and motivations and allow respondents to further explain their answers. The usual interview time of one half hour turned out to be insufficient to complete the questionnaire and for this reason it was split into two parts, allowing respondents two weekends (and a back-up weekend) to complete the questionnaire. This extra burden met with little or no objection thanks to the great interest in the subject on the part of the panel participants. The survey sample (N=1574) is representative for the Dutch population for the key indicators age, educational level, and income. With sex, this is however not the case - the number of men is over represented for which the data have been re-weighted.

The advantages of computer-routed surveys based on a telepanel are the working speed, the vast possibilities for control and consistency, a reliable measure of changes and a relatively low non-response. Using the CentERdata panel has the advantage that multitudes of background variables of respondents are already known so that questions regarding these factors do not have to be repeated. This means that the questionnaires are fully focused on the subject at hand. The most important themes in the questionnaire for our research cover the following areas:

Future expectations concerning societal development. Under this broad heading the respondents were asked if they expected that a series of

societal phenomena and problems currently existing in the Netherlands, would in the coming twenty-five years increase, decrease or remain constant and whether this is desirable or undesirable.

Future expectations concerning trends on the labor market. Survey questions in this section inquired how respondents feel about a multitude of current trends and their possible developments on the Dutch labor market in the next decades and how they see ICT influencing those developments.

To ensure that respondents would bear in mind the very concept of future, it was repeatedly impressed upon them that the questions were to be answered with respect to the period between now and 2025, which is more or less a period of twenty-five years. To make this concept more vivid; respondents were asked at the

beginning of the survey what age they would be in the year 2025.

3. Not such great expectations

In order to get a better perspective on motivations for attitudes with regard to the labor market, and more specifically ICT, we will first give a general presentation of what kind of societal developments the Dutch expect in the future. This kind of background information will help to explain the optimistic or negative projections of the Dutch about working with ICT in the future. Some of the first questions in the FLS concern a number of classical themes for societal developments and problems such as poverty, war, and solidarity. Respondents were asked whether these would decrease, remain constant or increase over the next twenty-five years. Table 1

Table 1
Perceived societal developments and problems in the Netherlands between now and the year 2025

%	decreases (strongly) (1-2)	remains constant (3)	increases (strongly) (4-5)	M (1-5)	s	N
Population growth	18	25	57	3.5	1.0	1520
War	14	54	32	3.2	0.8	1438
Women's inequality	80	17	4	2.1	0.7	1465
Crime	4	25	71	3.9	0.8	1520
Genetic manipulation	5	6	89	4.0	0.7	1443
Pollution	24	25	51	3.4	1.0	1522
Poverty	24	34	42	3.2	0.9	1494
Economic growth	19	39	42	3.2	0.8	1486
Social security	68	21	11	2.3	0.9	1487
Solidarity	57	33	10	2.5	0.8	1455
Health care	39	31	30	2.9	1.0	1510
Affordability of social benefits	60	30	10	2.4	0.8	1483
Friction between religious groups	18	32	51	3.4	1.0	1471
Friction between ethnic groups	5	28	67	3.8	0.8	1480
Refugees	13	26	61	3.6	0.9	1510
Discrimination	10	37	52	3.5	0.9	1501
Respect for authority	75	20	5	3.9	0.7	1482
Traditions and customs	64	25	10	3.6	0.8	1479
Volunteer work	32	26	42	3.2	1.1	1465
Having friends	17	63	20	3.0	0.7	1491

m = mean, s = standard deviation, N = number of respondents

gives an overview of respondents' expectations with regard to these issues for the next quarter of a century.

Table 1 is divided into four distinct sections. The first section is on general societal issues, the second section is for questions related to economic factors, the third section concerns the multicultural aspects in Dutch society, and the last section is based for the most part on norms and values.

Population growth is seen as a factor that will strongly increase according to more than half of the Dutch population. This is in line with demographic projections made by the Netherlands Interdisciplinary Demographic Institute (NIDI). The Dutch camp with one of the highest population densities in the world (Nimwegen & Bates, 1997). The majority sees war as a constant, although of the 46 percent who did not, more expected an increase in the number of wars than a decrease. The greater majority believes that the inequality and disadvantages of women in Dutch society will further diminish. This was one of two issues that respondents were overwhelmingly positive about for the future. The participation of women on the labor market as well as the newly reached high levels of women in advanced levels of education (exceeding number of males in university enrolment), are more than likely responsible for this generally optimistic view on women's chances for the future. Crime is only going to increase stated 71 percent of the respondents. Almost 90 percent of the population foresees a strong increase in genetic manipulation over the next quarter century. Pollution will also increase. More than 40 percent fears for an increase in poverty in Dutch society.

The second section regarding economic indicators reflects a general belief in economic growth accompanied by somber expectations about sharing the wealth. The Dutch are generally optimistic about economic growth in the future. A large segment predicts that the currently high level of growth will remain constant or even increase over the next twenty-five years.⁷ The optimistic outlook on economic growth appears based on the same optimism mentioned earlier in the wave of technological innovation

throughout the world. Social security should strongly decrease along with solidarity, which explains the negative feelings towards the affordability of social benefits (strongly decreasing by 60 percent of respondents). Health care shows a more divided outlook although the tendency is towards a decrease in services. The numerous negative scenarios sketched by politicians using economic and demographic projections feed these fears. The affordability of social security for the elderly is a current *hot item* on the political agenda, not only in the Netherlands but in many other European countries as well.

The third section sketches a bleak outlook for the future of the multicultural aspects of Dutch society. A majority expects an increase in the friction between ethnic groups, as well as an increase in discrimination. Although the survey took place before the events of September 11, 2001, minority integration problems, often amongst groups coming from countries where Islamic religious traditions are prevalent, have been a recurring theme in Dutch media. Dutch law for processing refugee applications changed in early 2001, resulting in a reduction in the actual numbers of refugee applications (CBS, 2002b), but this is a very recent development. The Dutch do not seem convinced that this recent trend break will continue. Sixty-one percent thinks that refugee numbers will strongly increase in the next twenty-five years.

The modernization of Dutch society has brought with it certain changes linked to deeper norms and values. The last section of table 1 shows how respondents see changes further developing over the next quarter century. Seventy-five percent of the Dutch predicts a definite decline in respect of authority. Seventy-two percent predicts a decline in traditions and customs. The Dutch are less united on the issue of volunteer work, a good indicator for solidarity and civic engagement, with 42 percent foreseeing a decline in the future and 32 percent an increase. A majority sees the importance of having friends as a stable factor for the future.

Essentially, these results indicate that what is now good, will continue to be good and what is now considered to be a negative development in Dutch society, will only get worse over the next

twenty-five years. None of the projections on these issues was surprising or incongruous to current societal trends. It is important to keep this in mind as we go into the predictions of the Dutch population regarding the labor market. A positive feeling about the future of economic growth is one side, but how will that translate to the changes expected on the labor market? In the next section, we look at the hopes and fears of the Dutch worker into the first quarter of the 21st century.

4. Changing roles and actors on a new labor market

The Dutch labor market has changed quite dramatically over the past twenty years. In the beginning of the 1980s, the Netherlands faced a high unemployment rate during the recession caused by the energy crisis. During this time, many persons opted for early retirement packages to "make room" for younger generations on the labor market. Early retirement became common. The mid-eighties showed an upswing in economic growth and Dutch women, who traditionally did not participate on the labor market after the birth of their first child, started part-time jobs, usually averaging less than twenty hours a week, combining the role of motherhood with employee. This was the beginning of the so-called "one-and-one-half-earners-economy" (SCP, 2000). Since the mid-eighties the participation of women in the Dutch labor market has steadily increased, both in the numbers of participants as well as the number of hours worked per week. The Netherlands has the highest rate of part-time workers world-wide (OECD, 1999). This development has its historical roots in the great need to "re-populate" the Netherlands after the dramatically low birth rate during the period of the Second World War. After the war, women were encouraged to have large families by the government, with new stimulating premiums in the form of child allowances for each child born. This indeed resulted in a baby boom. At the same time, women were discouraged from participating in the labor market. In many positions women could be dismissed if married and cer-

tainly, if they became pregnant. Revisions in these discriminatory labor laws were passed in the late 1960s and 1970s. The second definitive characteristic is the aging population. The Dutch are facing a double demographic pressure caused by two separate developments and compounded by a third. The first is a lower birth rate since the introduction of the contraceptive pill in the 1960s. Aging causes the second force. Due to better living conditions, the average lifetime has been greatly extended. Compounding these two pressures, is the baby boom generation, a larger than average cohort born after the Second World War that is now entering the (pre) retirement stage. These factors combine to create a demographic pressure which will start being felt as these cohorts reach the (standard) retirement age of 65 in the year 2010 and onwards (NIDI, 2001).

These developments have various consequences for both the labor market and the ability to continue with the current level of social benefits. Policy experts predict that in order to ensure an affordable social system, the labor force participation rate of women will have to increase to match the level currently found in, for example, Sweden. Along with this, they are seriously considering raising the retirement age (CPB, 1992). The OECD (1999) plights for a not "too rapid tailing off" of training with age which could lead to skill obsolescence and create severe employment difficulties for some older workers, while also reducing the adaptive capacity of the economy as the workforce ages in coming decades. Variations in the age concentration of training calculated from the International Adult Literacy Survey (IALS) data on participation ranges from 0.93 for Sweden to 1.96 for Canada (ratios of the participation rates for younger to those for older workers. The greater the value of the age ratio, the more strongly continuing training is concentrated in the early stages of the early working years.). This variation suggests that countries differ significantly in the extent to which their training practices help to realize the goal of "life-long learning". The Netherlands rated 1.44, ranking fifth from the bottom out of the twelve countries⁸. Another discussion being waged is on labor migration and whether it

should be seen as a possible solution to labor shortages, particularly in the high-tech fields.

The next table presents the expectations of the Dutch concerning several future developments on the labor market in general. Respondents were asked whether they see the development as increasing, remaining constant or decreasing and whether they view this as desirable, feel neutral about it or see it as undesirable for the Dutch labor market. Table 2 is divided into three sections. The first section deals with general questions about the future of the Dutch labor market. The second section goes more into detail about job requirements, and the third section relates to work-oriented values and preferences.

Table2
The direction and desirability of changes on the labor market from now until the year 2025

	increasing			remains constant			decreasing			p	eta
	1	2	3	1	2	3	1	2	3		
Paid labor	60	24	15	30	60	10	22	17	61	11	*** .37
Number of trades	76	20	4	17	78	5	2	14	84	64	*** .74
Number of jobs in service sector	65	28	7	10	70	20	6	7	87	17	*** .67
Number of foreigners working in the Netherlands	16	46	38	12	83	5	43	43	14	5	*** .33
Number of Dutch working abroad	35	49	17	7	89	4	29	58	13	5	** .10
Value of diplomas in getting a job	51	32	16	15	81	4	15	33	52	14	*** .36
Value of work experience in getting a job	66	23	11	20	72	8	16	18	66	12	*** .50
Amount of work for persons with a lower education	60	25	18	12	74	14	7	17	77	56	*** .59
Amount of manual or unskilled labor	74	16	11	25	66	9	12	31	57	75	*** .50
Amount of dirty, dangerous and physically taxing work	6	19	75	5	70	26	85	9	6	49	*** .71
Amount of work requiring numerous multiple skills	70	21	9	10	87	3	3	9	87	31	*** .74
Amount of work physically, mentally and socially taxing	7	24	70	7	82	11	48	24	28	14	*** .49
Competition between colleagues	6	12	82	13	79	8	47	13	40	8	*** .55
Working in teams	82	15	3	21	75	4	1	15	85	24	*** .80
Solidarity among colleagues	89	8	2	29	63	8	2	2	97	60	*** .83
Solitary work	9	33	59	10	80	10	47	35	19	16	*** .44
Being able to fully utilize ones talents	92	6	2	16	66	18	2	6	92	16	*** .81

Note: 1=% a (very) desirable development, 2=% neither a desirable nor an undesirable development, 3=% a (very) undesirable development, t=total % (the % under t in the rows add up to 100), p=P value, *=<.05, **=<.01, ***=<.001; eta= measure for dependent variables on interval level where <.20=weak; eta-squared can be seen as the proportion of the explained variance in the dependent variable explained by the differences between groups.

The majority says that the amount of paid labor will increase in the next twenty-five years and that this is a positive development. They predict a decline in the number of trades, about which they are not so positive. More than 80 percent of this group finds this to be an undesirable development. The number of jobs in the service sector will grow which is experienced as positive. This too, is consistent to developments of current trends on the Dutch labor market. Labor migration, both of non-EU foreigners into the Netherlands as well as Dutch citizens working abroad is expected to increase. The feelings about this are mixed. Both issues show the largest percentages feeling neutral about the situation, but where the next largest percentage leans towards a negative feeling for foreigners coming into the Netherlands, the feeling is positive about the Dutch going abroad for work.

The second section shows an optimistic attitude towards developments in the type of labor that will increase but a somber outlook on the decline of jobs for persons with less education and fewer skills. The importance of diplomas for getting jobs in the future will become more prominent and this is felt to be a desirable development. Work experience will also become more important for procuring a job in the future. The importance of an education and good job skills has a down side, because the Dutch expect that the chances for people without these achievements will be rather slim in the future. A large majority predicts that the number of jobs for unskilled workers will further decline in the future. The amount of work available for persons with a lower educational level will also decline. The negative feeling about this can only be interpreted as a fear for those who will not benefit from the new chances on the labor market. There is a generally positive feeling about the expected decrease in dirty, dangerous, and physically taxing work. The attitudes toward new jobs requiring numerous multiple skills are positive. On the other hand, these positions are expected to be physically, mentally, and socially demanding which a large majority sees as a negative development.

The last section appears to reflect some apprehension about just where we are headed

on the labor market of the future. These apprehensions are based on increases in competition between colleagues as well as work that is more solitary. Solidarity among colleagues is expected to decline. These are not viewed as positive developments for labor in the future. The positive outlook on the future is based on being able to fully utilize one's talents. Balancing against the fear of having to work alone is that working in teams will be more common, something seen as a very desirable development. New and more plentiful possibilities for self-actualization on the labor market are the positive issues viewed by the Dutch population, more competition and less solidarity are the obvious and pressing fears for the future.

In the next section, we go into more specific subjects related to ICT and its impact on various features of the Dutch labor market in the next quarter of a century.

5. The hopes and fears concerning the influence of ICT on the Dutch labor market

The Netherlands has experienced increases in production of ICT goods and services. The table below gives a clear picture of the sector's growth in comparison to the Dutch economy as a whole. The production value of the ICT sector shows a growth of 70 percent. This figure alone shows enormous growth potential when one compares it to the growth for the whole economy, which was 18 percent.

Table 3
The ICT-sector compared with the Dutch economy, 1995-1999
volume index: 1995=100

	1996	1997	1998*	1999*
Production value				
ICT industry sector	106	118	124	129
ICT services sector	113	136	167	202
Total ICT sector	110	128	148	170
Netherlands	104	109	114	118
Gross added value				
ICT industry sector	99	98	110	114
ICT services sector	110	131	156	185
Total ICT sector	106	122	143	164
Netherlands	103	107	111	115
Volume of active labor				
ICT industry sector	101	104	100	100
ICT services sector	113	127	142	158
Total ICT sector	109	118	127	137
Netherlands	103	106	109	112

Source: CBS, 2001a

The share of the ICT sector in the total business sector in the Netherlands is a little more than five percent which is below average for the European Union and less than Belgium and Germany (CBS, 2001a). The Netherlands does have a higher than European average gross added value for the sector, which is attributed to the fact the Dutch ICT sector is, for the majority, comprised of services. The production value of the ICT services sector has more than doubled over the period 1995-1999. The value of the ICT sector for the labor market is growing. This new sector holds great promise for the creation of new jobs for the future. Certain groups in the Netherlands are at risk of not being able to enter the race, let alone keep up with the fast pace of the information society. According to a recent (2000) report by the Dutch Social and Cultural Planning Office (SCP), the groups with the greatest disadvantage are: persons in low-income households, (single) women, elderly persons above the age of 65, persons with a lower (secondary) educational level and the unemployed.

The conclusion in this report is that the information society is above all a *possession* socie-

ty, not a *knowledge* society. The SCP study was based on household surveys measuring among other things, possession of personal computers, mobile telephones, and access to the Internet. Results showed that possession was a crucial factor. Once persons have ICT products, background characteristics proved to be of very little influence to actual use. This is a particularly interesting point for the future of the Dutch ICT labor market. Access to and availability of ICT is imperative. Persons that are temporarily not able to participate in the labor force will need facilities to keep abreast of ICT developments. A survey done by the SCP in the spring of 1998 measured 36 percent of the population aged 19 years and older using the Internet. By the end of the year 2000 the Dutch Bureau for Statistics (CBS) reported that circa 60 percent of the Dutch population had access to the Internet either at home, school or work. Increasing number of Dutch people are participating in telework. The European Commission (EU, 2000) uses the following definition, dividing telework into four different categories:

1. home telework—employees that work from home with the help of telephone, computer, fax, etc. at least one day a week;
2. mobile telework—employees that carry out most of their work travelling to and from clients
3. freelance and independent telework—employees that do knowledge based work for more than one employer from home;
4. additional telework—work activities are carried out at home in addition to work at the office (overtime). Total number of hours less than one working day a week.

Research was recently done by the EU to benchmark e-commerce and telework in the European Union in 10 countries (Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Spain, Sweden, and the UK). The Netherlands proved to be one of the countries with a growing interest by both employers and employees for telework (CBS, 2001a). ICT has infiltrated our working environments, our

schools, and our homes. The next table gives an impression of how FLS respondents see that influence developing in respect to the Dutch labor market and whether they experience this as being a good or a bad thing for the future.

The overall impression of the Dutch population is that the emphasis on technology in society will strongly increase and feelings are reasonably positive towards such a future. ICT is believed to be something that will bring new and interesting jobs, which is also viewed as a positive development. Computers are only going to become more important for working and this is a good thing. According to the Dutch Bureau for Statistics (CBS, 2001b), working with computers has already reached its maximum numbers in the Netherlands. For the first time since the introduction of the computer on the work floor, the number of Dutch workers using a computer has decreased. 1999 was the top year registering 44 percent of the Dutch using a computer at work. The Dutch expect that the new jobs of the future are going to require more shift work, about which they are (surprisingly) neutral. A definite increase in the amount of telework

Table 4

The direction and desirability of the role of technology, knowledge and training on the labor market between now and the year 2025

	increase or decrease (1-5)	desirability (1-5)
emphasis on technology in society	1,7	2,4
the number of new jobs created by ICT	2,1	2,4
number of interesting jobs created by ICT	2,3	2,5
the importance of computers at work	1,6	2,5
number of jobs requiring shift work	2,2	3,1
amount of work for which people will be able to work from home (telework)	1,8	2,4
the importance of work experience for work	2,6	2,7
the importance of education for work	2,2	2,4
the need to continually learn on the job	2,0	2,3
the speed with which knowledge and skills of employees become obsolete	2,1	3,5
training in skills for work	2,3	2,5
the number of persons that will demand to be given opportunities for further education and training once employed	2,3	2,3
combining following courses with working	2,3	2,5

NB: for m = mean runs from 1 = will strongly increase until 5 = will strongly decrease, for column showing desirability: m= mean runs from 1 = (very desirable) until 5 = (very) undesirable.

is expected. This is seen as a desirable development. In a study done on telecommuting by Peters et al. (2001), it is stated that the actual amount of informal teleworking is even greater than amounts officially reported. In this study, the authors make a distinction between opportunities, preferences, and practices. Where 55 percent of the respondents prefers telecommuting, only 24 percent were given the opportunity. The most important factors influencing teleworking preferences were long commutes, need of a quiet place to work, and having a child under the age of four years. With more women continuing to work with children, it is indeed likely that telework is something we can expect to see increasing. ICT is viewed as a technology that creates new and stimulating opportunities on the labor market. An acute awareness that these new jobs will require a more flexible approach to working hours does not diminish the positive feelings about ICT in the future.

The FLS questions dealing with the expected educational and skills requirements needed to participate on the Dutch labor market between now and the next twenty-five years are also answered with a keen awareness. The impor-

tance of work experience and education are expected to increase and this is perceived as a positive development. The Dutch see their future involved in life-long learning, something that they are willing to invest in as long as they are given the opportunity and facilities. To be more specific, they are ready to demand these kinds of facilities. They are quite aware of the speed with which skills and education will become outdated and acknowledge the fact that this will require a constant effort on the part of the worker. Training and skills, continual or life-long learning, the need to combine following courses with one's work, there were no surprises for respondents in facing these facts for the future. More importantly, this reality is not in the least viewed as something negative. On the contrary, the Dutch *want* to keep learning and keep abreast of new developments in a modern working environment *but* require the facilities to do so.

Table 5 is used to highlight a number of noteworthy responses to the ICT related FLS questions. Important to note is the virtual unanimity of the Dutch on several of the ICT issues. More than 90 percent feels that the emphasis on technology in society will surely expand over the

Table 5
Direction and desirability of the role of ICT between now and 2025

	increases (strongly)				remains constant				decreases (strongly)				p	eta
	1	2	3	t	1	2	3	t	1	2	3	t		
Emphasis on technology in society	66	28	7	93	7	85	8	5	48	39	13	2	***	.23
The number of new jobs created by ICT	59	33	8	81	15	83	3	14	25	50	25	5	***	.50
Number of interesting jobs created by ICT	67	31	2	72	11	83	6	20	12	42	46	8	***	.68
The importance of computers at work	74	21	5	94	31	62	7	5	16	44	40	1	***	.25
Number of jobs requiring shift work	28	31	41	75	8	89	3	17	46	26	28	8	***	.14
Amount of work where people will be able to work from home (telework)	65	21	15	93	4	89	7	6	36	43	21	1	***	.21

Note: 1=% a (very) desirable development, 2=% neither a desirable nor an undesirable development, 3=% a (very) undesirable development, t=total % (the % under t in the rows add up to 100), p=P value, *=<.05, **=<.01, ***=<.001; eta= measure for dependent variables on interval level where <.20=weak; eta-squared can be seen as the proportion of the explained variance in the dependent variable explained by the differences between groups.

next twenty-five years, a large majority sees this as desirable. Economists and policy strategists are not unique in seeing technology as a greater good. The people, the workers are also supporting technological developments. Some 80 percent of the Dutch population anticipates that ICT will be a catalyst for new jobs, with again a good majority rallying behind this development. The number of interesting jobs created by ICT will also increase: more than 70 percent sees ICT creating not only new, but also interesting jobs for the future. More than 90 percent of the respondents think that the importance of working with computers will strongly increase during the coming years. A large majority sees this as a positive development. These new forms of labor are also expected to require a certain amount of flexibility and more shift work. This is, however, not regarded as a good development by some forty percent of this group, but there is still a good majority that feels neutral or positive about it. Again more than 90 percent expects a strong increase in the amount of work that can be done from home via telework, a development strongly favored by a solid majority. This finding reveals a definite message for the managers of the future. Employees are willing to be flexible but employers will have to give up their Tayloristic control. New management practices will require employee-employer relationships built on trust. The overwhelmingly positive attitude towards technology and its impact on the Dutch society gives evidence of a very positive basis upon which to build.

5. Conclusions

The Dutch OSA Future of Labor Survey (FLS) offered a unique opportunity to finally ask *the people* what kind of developments they see taking place in the Netherlands in the first quarter of the twenty-first century. After so much government planning and so many expert projections made on all levels of co-operative policy planning, it was time to "bring men back in". Their answers to questions concerning societal developments form the background from which they base their projections for the Dutch labor market in general and the influence of ICT in

particular. The Dutch see ICT as something that is going to create new and interesting jobs in which Dutch workers want to fully utilize their talents. They see the future labor market having fewer jobs requiring dirty, dangerous, and physically exhaustive labor. Individual autonomy within one's work is fine but there is a definite desire for more teamwork. The next twenty-five years are expected to bring more equality for women in a time when their contribution to the labor force is sorely needed. The aging baby boom cohort will more than likely have to work longer to ensure an affordable social security. This too will require flexible attitudes from management and a willingness to invest. Labor market shortages in the future may necessitate labor migration, something that is already occurring. Although the Dutch see no real problem with the idea of going abroad themselves, which is indeed something they have all been socialized with to one degree or another, they do have objections about increasing numbers of foreigners working in the Netherlands.

The Dutch are acutely aware that there is a shadow side to certain developments on the labor market. They are particularly negative about a future working environment where solidarity among colleagues is scarce or non-existent. They fear an increase in competition that will create a dog-eat-dog kind of labor force. Working alone without the support and comradeship of colleagues is not something the Dutch would call a comforting proposition for their future. They are also afraid that not all will share the opportunities on the labor market created by ICT. They fear that persons not capable of meeting the demands of the high-tech world will fall behind and eventually be left out. There will be little or no use on the future labor market for persons with lower levels of education or a lack of vocational skills. A new division of labor will leave weaker individuals empty-handed. That, combined with an unaffordable social security and greater numbers of immigrants, will result in an increase in poverty in the Netherlands. The inability of certain groups to reap the benefits of the modern world will result in a new group of dropouts. The Dutch foresee more tensions between ethnic and religious

groups as well as an increase in crime.

The matter-of-fact attitude with which the Dutch accept the number of additional investments that they will be required to make in order to participate on the labor market of the future is striking. They realize the vital importance of life-long learning, of innovation and technology, are aware of the speed with which training and skills will become obsolete, and expect the knowledge economy to expand. It is not a case of ignorance of the many investments they will need to make. On the contrary, they are quite aware that the working week will no longer have its traditional (late twentieth century) time boundaries. The necessity of continually combining educational training and work is something that the vast majority of the Dutch population acknowledges. They are more than willing to make these investments but at the same time, they demand the facilities to do so. Government and business will have to acknowledge their roles in providing the kind of labor environment necessary for life-long learning. Dutch workers are simply going to demand it. More women participating on the labor market requires better facilities for combining caring tasks and paid labor. Telework, one of the ICT developments seen as surely increasing in the future should be promoted as one option for relieving the pressures of combining these tasks. The Dutch economy lags behind in educational investments in older workers. This too will have to change drastically if older workers are expected to keep up with the speed and intensity inherent in the labor market of the future. Life-long learning requires investments by all parties; the government, business as well as the individual worker.

In the introduction we theorized that there are likely differences in attitudes towards ICT and related subjects between different generations or age groups. The idea that younger generations, socialized with ICT and all of its comforts and challenges will be more willing to shoulder any discomfort caused by longer working hours and even longer labor careers is not evident in our findings. In order to test for a structural generational effect we would need longitudinal data, though. Still, differences in ICT-related attitudes when controlling for age were not found in the

OSA Future of Labor Survey.⁹ In fact, the amazing thing about these attitudes is the great *uniformity* regardless of age, sex, and educational level. The Dutch all agree that ICT is here to stay, will definitely increase further, and that this is a very positive development. The main conclusion from our Future of Labor Survey therefore is that the Dutch are mentally ready for the ICT-era, are willing to do their share, but demand the facilities to expand and maintain their skills and competences.

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Notes

- 1 This article is a revised version of our paper "We, the workers. Beliefs of the Dutch population about the nature of work, work relations, and ICT in the 21st century" presented at the International Conference "The World, the Workplace and We the Workers". eWork in a Global World. Brussels, International Trade Union House, April 16-17, 2002. We would like to thank our colleague Ludo van Dun for his assistance in the data analysis as well as acknowledge the valuable comments made by two anonymous reviewers of this journal.
- 2 Although the use of "men" would seem in terms of modern emancipation a politically incorrect term, we use it in reference and admiration of the late George Caspar Homans and his classic essay, "Bringing Men Back In" (American Sociological Review 29, 1964: 809-818).
- 3 There are officially thirteen countries with the status of "candidate" to become a member of the European Union. These candidate countries must all pass strict economic, legislative and political reforms before they will be admitted as members of the European Union.
- 4 Smith, Adam (Report dated 1766) In Smith's lecture "The influence of commerce on manners", in the Lectures on Jurisprudence.
- 5 In 1998 the total ICT investment by Dutch businesses was 13.4 million euros (CBS,

- 2001a).
- 6 In Dutch: Organisatie voor Strategisch Arbeidsmarktonderzoek.
 - 7 After a decade of continuous economic growth, the Dutch economy is now facing stagnation.
 - 8 OECD (1999) Employment Outlook page 150.
 - 9 See Ester & Vinken (2001, Chapter 7) for a detailed analysis of FLS generational differences in assessing future developments in the domain of work, work relations, and ICT. Their main conclusion is that intergenerational similarities are greater than intergenerational discrepancies.
- ### References
- Bruins, A. (1996). *Ondernemerschap na de eeuwwisseling*. Zoetermeer: Econo-misch Instituut voor het Midden-en Kleinbedrijf.
- Castells, Manuel. (1996). *The Rise of the Network Society*. Oxford: Blackwell.
- Centraal Bureau voor de Statistiek (2000). *Sociaal economische maandstatistiek* (november). Voorburg/Heerlen.
- _____. (2001a). *De digitale economie*. Voorburg/Heerlen.
- _____. (2001b). *Werken en leren 2001-2002*, Alphen aan den Rijn: Kluwer.
- _____. (2002a). *Ruim half miljoen 55-plussers heeft baan*. Publicaties - webmagazine: www.cbs.nl/nl/publicaties/artikelen/.
- _____. (2002b). *Iets meer asielzoekers in EU, forse afname in Nederland*, Publications webmagazine: www.cbs.nl/nl/publicaties/artikelen/.
- Centraal Planbureau (1992). *Nederland in drievoud: een scenariostudie van de Nederlandse economie 1990-2015*. Den Haag: Sdu Uitgeverij.
- Ducatel, Ken and Ian Miles (1994). "Information technology and the quality of working life." In: Ducatel, Ken (ed.) *Employment and Technical Change in Europe: work organization, skills and training*, Hants, UK: Edward Elgar Publishing Limited.
- Dijk, Liset van, Jos de Haan, and Susanne Rijken (2000). *Digitalisering van de leefwereld: een onderzoek naar informatie- en communicatietechnologie en sociale ongelijkheid*, Den Haag: Sociaal Cultureel Planbureau.
- Ester, Peter and Henk Vinken (2001). *Een dubbel vooruitzicht: doembeelden en droombeelden van arbeid, zorg en vrije tijd in de 21e eeuw*, Bussum: Uitgeverij Coutinho.
- European Commission (2000). *Employment in Europe*.
- European Union. *Telework data report (population survey). Ten countries in comparison*, Bonn, 2000, <http://www.empirica.com/ecatt/index.html>.
- Langeweg, Fred. (1988). *Zorgen voor morgen*. Rijksinstituut voor Volksgezondheid en Milieuhygiene. Bilthoven/Alphen aan den Rijn: Samsom/Tjeenk Willink.
- Lans, J. van der, R. Stevers, P. Struik, and H. Vuijsje (1997). *Kompas in kwadranten: vier scenario's voor 2015*. Amsterdam/ Den Haag: Instituut voor Publiek en Politiek/Rijkswaterstaat.
- Ministerie van Economische Zaken (2000). *De economie van de 21e eeuw*, Den Haag.
- Naafs, Joost (1997). "Prognoses, modellen en scenario's in de ouderenzorg: de toekomst in zicht," In: Peter Ester, Jac Geurts, and Marc Vermeulen (Eds.), *De makers van de toekomst. Over nut en noodzaak van toekomstverkenningen voor beleidsonderzoek*. Tilburg: Tilburg University Press.
- NIDI/CBS (2001). *PopTrain*, Den Haag.
- Nimwegen, Nico van, and Gijs Beets (Red.) (1997). *Bevolkingsvraagstukken in Nederland anno 1997*. Den Haag: Nederlands Interdisciplinair Demografisch Instituut.
- OECD (1998). *Measuring the ICT sector*. Paris: OECD Publishers.
- _____. (1999). *Employment outlook*. Paris: OECD Publishers.
- _____. (2001). *The new economy beyond the hype: the OECD growth project*. Paris: OECD Publishers.
- Peters, Pascale, Kea Tijdens, and Cecile Wetzels (2001). *Factors in employees' telecommuting opportunities, preferences and practices*, paper presented at the 6th International ITF workshop, Amsterdam.
- RPD (1997). *Nederland 2030. Discussienota. Verkenning ruimtelijke perspectieven*. Den Haag: Ministerie van VROM.

- Sociaal en Cultureel Planbureau (SCP) (2000). *De kunst van het combineren; taakverdeling onder partners*. Den Haag.
- Smith, Adam Lectures on jurisprudence. In: R.L. Meek and P. Gonnville Stein (Eds.) Oxford: Clarendon Press (1978).
- Steijn, Bram (2001). *Werken in de informatiesamenleving*. Assen: Van Gorcum.
- Vinken, Henk, Peter Ester, and Cees de Bont (1997). "Westerse jongeren als culturele seismografen: een trendstudie." In: Peter Ester, Jac Geurts, and Marc Vermeulen (Eds.), *De makers van de toekomst. Over nut en noodzaak van toekomstverkenningen voor beleidsonderzoek*. Tilburg: Tilburg University Press.
- VROM (1997). *Woonverkenningen: wonen in 2030*. Den Haag: Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer.

