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Arab development and the politics of knowledge: What role for ICT?

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Abstract: This paper seeks to interrogate the concept of knowledge inherent in the *2003 Arab Human Development Report: Building a Knowledge Society*. It argues that the Report's "Arab knowledge model" is based on the understanding of knowledge as a commodity, thus disregarding the diversity of knowledge found in the Arab region. An investigation of the proposed role of information and communication technologies in the Report indicates that, because ICT is biased towards the transfer of commodified knowledge and not the cultivation of the diversity of indigenous cultures and traditions, ICT may intensify this neglect to the point of epistemic violence. The suppression of cognitive justice may eventually lead to the failure in building just and prosperous Arab societies.

1. Introduction

The first Arab Human Development Report was published in 2002 under the title *Creating Opportunities for Future Generations* (UNDP, 2002). The authors of the Report argued that the development challenges of the Arab region are the result of deficits in the area of knowledge, women's empowerment, and freedom. The 2003 Arab Human Development Report, published under the title *Building a Knowledge Society* (UNDP, 2003), focuses on the first of these deficits, knowledge.

The Reports have received wide spread media attention around the world because, although the reports were published by the UNDP, its authors are Arab intellectuals and policy analysts, writing primarily for an Arab audience.

The other, equally important audience is no doubt that of 'western' governments, such as the United States. The Greater Middle East Initiative, announced by the Bush administration during the G-8 summit in June 2004, promotes a model of liberal democracy that is very similar to the one promoted in the Arab Human Development Reports. This model is not very different from that of the post-war Marshall Plan in Europe, in which a fragmented Europe was shaped into a prosperous place through a combination of open markets and democracies.

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By focusing on the Arab world, the authors of the 2003 Report assume both an Arab identity as well as the influence of that identity on the development of the countries of the Middle East and Northern Africa (Lavergne, 2004). The 22 countries of the Arab League², most of the countries of the Middle East and Northern Africa, are the geopolitical representation of this identity.

In **Section 2** of this paper the 2003 Arab Human Development Report's conceptualisation of knowledge will be analysed in a brief socio-linguistic analysis.

Building forth on the findings presented in the previous section, **section 3** will explore the extent to which the Report's concept of contemporary Arab knowledge is constructed from the diverse ways of knowing found in the Arab world or whether it is another conceptualisation of the knowledge-as-commodity discourse found in knowledge-related development policy.

In **section 4** the conceptualisation of knowledge will be discussed in the context of the role of ICT in the building of the Arab knowledge society.

A discussion of cognitive justice as an alternative approach to the commodification of knowledge will be presented in **section 5**. This section will briefly discuss the Arab open source movement as a diverse, non-competitive, and self-organising system that may result in higher levels of creativity and problem-solving capacity than conventional systems. Lastly, four levels of intervention will be presented that can make ICT more flexible and responsive to the diversity of knowledge of its users.

2. A Socio-linguistic Approach to Knowledge-related Policy Discourse

Critical perspectives on knowledge-related public policy discourse often focus on the discussion of what is knowledge and how it is different from information. In this section I will follow the approach taken by Graham and Rooney (2001). Informed by an autopoietic perspective, they propose not to look at what knowledge is but how knowledge is socially produced and situated.

In autopoietic theory, "knowing is effective action, that is, operating effectively in the domain of existence of living beings", or in other words, "all doing is knowing and all knowing is doing" (Graham and Rooney, 2001: 4). As proposed by Maturana and Varela (1987), knowledge is defined as a projected evaluation by some observer. There is no knowledge without a knower.

In technocratic discourses, Graham and Rooney (2001) argue, complex socio-cultural systems are made to fit managerialist value systems. They tend to separate fact from value and knowledge from knower (p.7). Graham and Rooney propose a socio-linguistic approach to analysing public policy documents on what it means to know, with policy understood as modifying future behaviour (p.13).

Lemke (1998) showed that it is possible to identify generic semantic patterns in texts produced within a discourse community. Graham and Rooney (2001) use Lemke's semantic classes to look at knowledge-related public policy documents compiled from all levels of government in the industrialised world. They looked at semantic markers that argue for the necessity of certain

² Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Mauritania, Morocco, Occupied Palestinian territory, Oman, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, Yemen.

actions in knowledge-related public policy. They looked at structures that start with “it is [adjective] that ...” and “it is [adjective] to ...”. Only a small number of adjectives fit these structures and they all have an evaluative meaning (the opposite evaluative meaning is within brackets): wonderful (horrible); certain (unlikely); essential (inappropriate); normal (unusual); important (irrelevant); etc. They argue that these evaluative patterns can become condensed over time. For example, the negative value connected to “John is a terrorist” can be expanded to “It is horrible and inappropriate that John is a terrorist” (p.11).

Graham and Rooney (2001) discuss how these evaluative patterns are used in policy documents: the necessity of certain actions (A) to effect certain change (B), in order to reach certain utilitarian or instrumental outcomes (C), results in a metaphorical transfer between a proposal (A) and a proposition (B/C). Propositions are descriptions of some past, present, or future phenomenon that are, or can be, tested for truth. Proposals are requests for action, whose truth is not yet established (p.12). In the evaluative patterns described by Lemke (1995) and Graham and Rooney (2001), the truth-claim of the proposition (B/C) transfers to the proposal (A). For example, in the 2003 Arab Human Development Report:

Building a knowledge society across the Arab world is the only way (A) to lead the region into a renaissance (B) that can change its present course and help all Arab countries to position themselves on a new and much more hopeful curve of development in the region and contribute to a new world for humanity at large (C). (UNDP, 2003:178)

The reader of the Report is expected to infer the desirability of an Arab renaissance (B), resulting in a more hopeful curve of Arab development (C) with the necessity of building an Arab knowledge society (A).

What Graham and Rooney (2001) found in their analysis of knowledge-related public policy documents is that policy proposals ignored the non-instrumental aspects of human life and that crucial aspects of “human activity that define human social systems” thus become the focus of commodification. They conclude:

“The high levels of instrumentalism, anti-intellectualism, and the lack of desire to deal with ‘non instrumental’ human values on their own terms has left *unasked* and *invisible* the following questions: to what extent is commercialisation of epistemology possible without destroying social systems outright?; and, what is the wisdom in anti-intellectual knowledge-related public policy?” (Graham and Rooney 2001:25).

2.1 A first look at the 2003 Arab Human Development Report

In taking a similar, but simplified approach as Graham and Rooney (2001), the text of the 2003 Arab Human Development Report was scanned on four word clusters that referred to the semantic dimensions of Importance and Necessity (it is important to/that; it is necessary that/for; there is a need for/to; etc.). Not all word clusters in the examples below fit exactly in this format but they all fit the meaning of the format.

The following five examples are a sample of the findings. The following patterns will be highlighted as indicated, followed by some brief comments:

- the necessity and importance of certain action [**A - text in bold**]
- sociocognitive or third-order autopoietic processes that are the “objects” of policy [*B - text in italics*]

- references to utilitarian or instrumental outcomes [C - text underlined]

Examples:

(1) Further still, *Arabic* is the bulwark against fragmentation emanating from “Information Age Orientalists” who defend the multiplicity of Arabic dialects. Finally, the *Arabic language* has a **significant** role in linking Arabic culture to other Islamic countries’ cultures. It also has another **important** role to play in the international context in confronting cultural globalization and the move towards rejecting linguistic and cultural specificities. In other words, the Arabic language is disposed and able to be an effective party in cultural dialogue. Although there is no reason to believe that *the Arabic language* is threatened by extinction, **it is necessary** to work determinedly on strengthen its linguistic shields and enhancing its practical and subjective characteristics that confirm its international profile and receptivity and its ability to assimilate new informational and technological developments. (UNDP, 2003:126)

This fragment shows how the necessity for action is directed at language, the source of third-order autopoiesis in human societies (Graham and Rooney, 2001). In this text, a language ideology is proposed that ignores the linguistic diversity found in the Arab region. The use of the word “extinction”, while acknowledging that there is no such threat, gives the call for the strengthening of its linguistic shields extra urgency. The strengthening of Arabic’s linguistic shields domestically, against local Arabic dialects, is part of the construction of an Arabic language that is able to play a role on the international level. At the same time, the Arabic language has to open up, to modernise, in order to facilitate development. The Arabic language thus becomes an instrument for development: a tool that needs to be flexible and receptive, yet remains sealed against the influence of indigenous languages and dialects.

(2) Measuring *knowledge* capital and its characteristics and follow-up on their development and limitations are of special **importance** to Arab countries. The elements of knowledge capital are **key** in determining the ability to acquire knowledge and in thus building *human development* itself. (...). For reasons noted, the current attempt to measure Arab knowledge capital is neither complete nor complete adequate. Yet **it is important** to make a serious start in this direction and to explore approaches and measures that, if taken further, would significantly strengthen the measurement of this crucial phenomenon. (UNDP, 2003:86-87)

In this fragment, knowledge is the object of action. Knowledge is presented as knowledge capital (see box 1.). Describing knowledge using measurable units, such as books, ICT, patents, education, etc. assumes that non-literate and non-educated people don’t possess knowledge (see Lal, 2002), ignores knowledge that can not be patented, e.g. non-commercial and community-owned knowledge (Shiva, 1997), and ignores the knowledge people express in ways that can not be measured via formal indicators. For example, a widely published statistic in the Report is the number of published literary and artistic books in the Arab world. The total number of books published in 1996 is 1945. Although there is no doubt that the lack of intellectual freedoms also hamper literary production, this number does not represent the books published without ISBN number or published privately. Authors in many Arab countries have found ways to circumvent the censor or incompetent state publishers by informal publishing practices, yet the Report appears to have missed this important source of democratic and literary practice.

(3) In some less developed societies, rooted constructs, concepts and precepts may actively hinder human development. These *symbolic structures* **need to** be challenged by other knowledge structures that stimulate or enhance human development. (UNDP, 2003:38)

In this fragment the call for action is directed towards “symbolic structures”, the local languages and traditions that hinder development. Knowledge is stripped from its situatedness, separated from the knowers, and presented as replaceable units. The many failures of development show that people will not just change their customs when they receive some new information.

(4) Higher education institutions produce the knowledge workers in a society, notably its R&D scientists, technologists, and researchers. ... Two important considerations should govern the expansion of higher *education*: first, **it is necessary to end discrimination against weaker social groups, especially young women**. Next, account **must be taken** of the failures of uncalculated expansion in existing institutions, which have led to a tremendous drop in quality. Higher education institutions, old and new, **should** enjoy high quality, diversity, and flexibility, and **should** focus on the fields and institutional forms required for scientific and technological progress. (UNDP, 2003:169).

In this fragment the necessity for change is directed at education. A humanistic value, the end of the discrimination of women in education is connected with an instrumental and technocratic value, scientific and technological progress. As the Report rightly argued, change is needed in the educational systems of the Arab region. The question is why the proposed high quality, diversity, and flexibility is made an instrument of scientific and technological progress and not human progress in general. Do science and technology contribute more to society than the humanities and arts? Education has been redefined to become a production system for knowledge workers as opposed to an educational system that forms the basis for human development and citizenship.

(5) Three fundamental conditions need to be fulfilled so that religion can take its proper place in the Arab knowledge model and become an effective force for knowledge. The first is *a return to the moral, civilised and humane vision that stands behind the essential objectives of Islam*. The second is *to free religion from the sway of politics and to free religious institutions from political authorities, governments and radical religious movements*. The third is *to acknowledge intellectual freedom by reviving scholarship (ijtihad) and the protection of the right to differ*. (UNDP, 2003:121)

In this fragment it is religion that is the object for action. Religion is presented as a force of knowledge, not as a representation of knowledge. The call to de-politicise religion suggest that a neutral religion, not blamished by the interpretations of fallible people, is possible.

The overall impression of the 2003 Arab Human Development Report is that it presents a instrumental approach to human development³. The evaluative patterns in the text show how knowledge, language, religion, and education are the objects of policy intervention in order to generate a certain type of development. The knowledge that is not instrumental for this development and that can not be commodified or objectified in measurable units for policy manipulation, is ignored.

The Report’s conceptualisation of knowledge is based on a simplified construct of knowledge, ignoring the way in which knowledge is situated. The result is that large parts of the Arab

³ As Rima Khalaf Hunaidi, Regional Director of the UNDP Regional Bureau for Arab States writes in her Foreword to the 2003 Report, that of knowledge, freedom, and women’s empowerment, knowledge was chosen as the first topic for the thematic reports because it is *the most instrumental for development* (p.III).

societies will be ignored by, or excluded from, the proposed Arab knowledge society, if they are not willing or able to adapt their ways of knowing to the dominant paradigm.

3. The Politics of Building an Arab Knowledge Society

A knowledge-based society is one where knowledge diffusion, production and application become the organising principle in all aspects of human activity: culture, society, the economy, politics, and private life. Knowledge nowadays can provide the means to expand the scope of human freedoms, enhance the capacity to guarantee those freedoms through good governance and achieve the higher moral human goals of justice and human dignity. (UNDP, 2003:2-3)

The 2003 Arab Human Development Report's conceptualisation of knowledge as a commodity results in a particular construction of an Arab knowledge society. In the Report, the ideal of the knowledge society is contrasted with the state of knowledge in the countries of the Arab league. The Report's authors come to the conclusion that the Arab knowledge deficit is the result of defective economic, political and social structures. The Arab countries can overcome this knowledge deficit by moving towards the knowledge society, taking advantage of the knowledge, experience, and best practice already available worldwide (p.35).

In order to compare the knowledge capital of the Arab countries with that of the rest of the world, the Report applied a knowledge index, constructed from 10 knowledge indicators (see box 1.). The strategic vision to overcome the knowledge deficit, by establishing a knowledge society in the Arab world, is built on five pillars (p.163-178):

1. Guaranteeing the key freedoms of opinion, speech and assembly through good governance bounded by the law;
2. Disseminating high quality education for all;
3. Embedding and ingraining science, and building and broadening the capacity for research and development in all societal activities;
4. Shifting rapidly towards knowledge-based production in Arab socioeconomic structures;
5. Developing an authentic, broadminded and enlightened Arab knowledge model.

The authors argue that the challenge of the Arab countries is not that of catching up with other countries. Arab countries will not be able to create and maintain the necessary change on their own. The authors propose that only a concerted effort of building solid institutional structures supported by sufficient resources and political will, especially on the pan-Arab level (p.5) can lead to the necessary change, bring about an Arab "renaissance" (p.178).

Box 1. Values of knowledge capital indicators

1. Quality adjusted mean years of schooling 15+
2. Daily newspapers (per 1000 people)
3. Radios (per 1000 people)
4. Television sets (per 1000 people)
5. Scientists and engineers in R&D (per million people)
6. Patent applications filed (per million people)
7. Number of book titles (per million people)
8. Number of telephones mainline (per 1000 people)
9. Cellular mobile subscribers (per 1000 people)
10. Internet hosts (per 1000 people)

The main vehicle for change is “a Free Arab Citizenship Zone” (p.21;p.27;p.164;175;p.178), “a zone of Arab citizenship’ that guarantees the freedom of movement of factors of production, including labour, capital, goods and services” (UNDP, 2002:131). This equation of citizenship with free trade, or democracy with markets, is a clear indication that the Arab Human Development Reports assume (neo-) liberal economics to be the driver of civil, social, and economic change. Equating citizenship with free trade becomes possible when people are perceived as mere “vessels” (p.153) of knowledge and can be separated from their knowledge. Their knowledge can thus be commodified in order to become a factor of production that can be transferred freely.

3.1 “Pure” religion

The authors of the 2003 Report propose to build the future Arab knowledge society on the memories and remnants of the Arab knowledge society of the past. This knowledge society is described in terms of “pure” and “neutral” (p.166) in order to make a clear distinction between the ‘good’ knowledge of the past and the politicised knowledge of the present. On the other hand, knowledge is described as a positive power. The report mentions that Arab regimes do not respect the neutrality of knowledge, because they tend to “underestimate the positive power of knowledge, having grown accustomed to having their fears about its transformative effects calmed. Their view of knowledge is strictly expedient: knowledge is simply another means to consolidate their power and plans” (p.148).

In a rather contradictory manner, knowledge is conceptualised as both neutral and as a positive power. The “authentic, broadminded and enlightened Arab knowledge model” (see point 5 above) needs to undo itself from ‘negative powers’. One of those negative powers is knowledge diversity. The authors of the Report present a contemporary Arab knowledge model that is diverse, in conflict, and in crisis (p.42-45). The diversity in culture and knowledge found in the Arab region is acknowledged by pointing out the importance of this diversity for the enrichment of Arab society (p.175). It is, however, the same diversity, the authors argue, that results in conflict: “Such diversity of thought, though ostensibly a strength, also reflects a continuing crisis of identity and often results in conflicts” (p.44). Conflict arises when the crisis of identity leads to ideological conflicts between different political currents. The Report mentions one such cultural conflict, that of the Islamisation of knowledge.

The authors state that the conflict over the Islamisation of knowledge is “tied to the intellectual reluctance to discuss history and present-day reality together” (p.45). This position constricts knowledge production. “Pure” religion, on the other hand, urges people to seek knowledge and to build knowledge societies (p.12), while “certain fanatical political Islamic movements (...), Arab governments, societal forces and even certain traditional religious institutions” (p.173), exploit religion for political reasons, preventing the building of the Arab knowledge society.

By referring to “pure” religion, the authors are able to circumvent a discussion of Islamist movements. These movements are, however, the result of anti-democratic responses to popular movements in secular Arab states, such as Algeria, Egypt, Iran under the Shah, Turkey, and Syria. Lavergne (2004) argues that in the 1980s, alternative avenues to knowledge were blocked for progressive and reform-minded circles, resulting in a retreat in Islamism.

Islamism or political Islam represents an alternative response to the deplorable state of human development in the Arab world. The Report does not acknowledge alternative knowledge

systems, thus denying political Islam the status of a knowledge system that is providing answers - as a value system as well as an institution - to the social, religious, and educational needs of millions of Muslims in the Arab region. On the other hand, “pure” religion, is presented as a “force of knowledge” (121). The Report’s many quotes from religious texts and religious leaders are used to show that there is no contradiction between “pure” religion, in particular Islam, and the building of a modern Arab knowledge society.

Islam, as any other religion, is multi-faceted. In order to bolster their legitimacy, secular Arab states are using Islam to co-opt some of these Islamist movements. For example, during the first Gulf War, the phrase “Allahu akbar” (God is Great) was added in green Arabic script to the Iraqi flag. The Moroccan king uses his position as the ‘Commander of the Faithful’ to carry out core services to poor Moroccans, aimed at challenging Islamist organizations on their own territory (LeVine, 2002).

The authors of the Report, however, need to refer to an essentialist version of Islam in order to make the distinction between “pure” Islam and political Islam. As discussed in the previous section, this essentialist version of Islam is equated with an effective instrument in the building of a knowledge society. The Arab knowledge society is thus not only a prescription for liberal democracy, it is also a weapon in the struggle against political Islam.

3.2 Pure Arabic?

In the construction of an “authentic Arab knowledge model”, the authors also present an essentialist idea of Arabic as the language of the Arab knowledge society. Modern standard Arabic is written literary Arabic and is only spoken for official and educational purposes and is used for communication between Arab countries. Modern standard Arabic is not a mother tongue but is taught at schools. More than 30 Arabic dialects⁴ and several non-Arabic languages⁵ are the mother tongues of the peoples in the Arab region. Literacy in modern standard Arabic as a second language is very low (Ethnologue, 2004)

Local languages and dialects are the markers of local and regional history and customs and are the carriers of local and indigenous knowledge. The authors’ disregard for Arabic dialects and non-Arabic languages is indicative for the absence of any discussion of the non-Arab and/or non-Islamic minorities in the Arab region, such as the Kurds, Amazigh (Berbers), Druzes, Assyrians, Turkomans, and Armenians. Only in one of the last pages of the report it is mentioned that the “extraordinary cultural and knowledge mix”, found in each Arab country, can contribute to the enrichment of all Arab societies (p.175). How this can be achieved, is not mentioned. On the other hand, the importance of the Arabic language as the main pillar of Arab solidarity and cultural unity is stressed to the point that the defenders of Arabic dialects are accused to be modern-day Orientalists:

Arabic is the bulwark against fragmentation emanating from ‘Information Age Orientalists’ who defend the multiplicity of Arabic dialects” (p. 126).

It is not clear who these ‘Information Age Orientalists’ are and this statement contradicts other descriptions of contemporary Orientalists accounts in the Report. In those accounts, Orientalism

⁴ See Appendix A.

⁵ The script of some of these languages are based on Arabic, e.g. Farsi (Persian), Kurdish, Peshtu, and Tamazight, one of the languages of the Amazigh (Berbers).

is described as essentialist views on the Arab mentality, rather than “a dynamically evolving synthesis of the rich diversity of cultural and social influences” (p. 115) that form the Arab mentality.

Said (1979) has pointed out that the status of the Arabic language has been one of the basic themes of Orientalist discourse since the 19th century. Orientalism perceived the Arabic language as imprecise and incapable of expressing anything with real accuracy (Said, 2003). The Report’s insistence on a pure version of the Arabic language is, as argued in the previous section, motivated by the need to construct the Arabic language as a tool to facilitate the Arab knowledge society. In a kind of neo-Orientalist twist, the Arabic language has to reform itself, to undo itself from imprecise dialects, in order to fulfil the informational and technological demands of the knowledge society.

3.3 Arab identity and diversity

The insistence on pure versions of religion and language for the construction of a unified Arab identity thus creates an essentialist view on what is Islam and what is the Arabic language. It represents a perspective of the Arab identity that is presented as neutral, reasonable, and rational compared with the political and violent perspectives of the Islamists movements. Presenting one socio-political interpretation of Islam and the Arab language as the one needed for building the Arab knowledge society, hides the fact that the Arab world is rich in cultures and languages. This denial is the more curious as it was the diversity of knowledge that has enabled the Arab knowledge society in the past.

Diversity, although acknowledged as part of the essence of life, is presented as a source for conflict (p.44). But what the contemporary history of the Arab region shows is that not diversity but the denial of diversity, through the prosecution of cultural and religious minorities and bans on political and democratic freedom, has led to conflict. By mutating diversity into duality, as in the construction of the dichotomy of ‘pure’ religion and the ‘other’ religion, a culture of exclusion is fostered. This culture of exclusion will lead to the loss of knowledge and, eventually, may become another focal point for societal unrest in the Arab region.

4. The Role of ICT in Building the Arab Knowledge Society

What we are experiencing is less the permeation of industrial society by knowledge-based values and more the permeation of knowledge-based communities by industrial values” (Fuller, 1995:159).

The authors of the 2003 Arab Human Development Report describe the Arab “knowledge gap” (p.1) as the unequal distribution of knowledge because of “deep-seated social, institutional, economic and political impediments” in the Arab world (p.3). The term knowledge gap is not new in development discourse. It was first coined in 1970 by Tichenor et al (1970), who referred to the growing gap between people with a higher and lower socio-economic status in a social system infused with mass media information. Tichenor et al. argued that an increase in media-based information led to an increase in information inequities or the knowledge gap among the audiences.

The 2003 Arab Human Development Report discusses the knowledge gap as a knowledge deficit that can be overcome by increased knowledge acquisition and knowledge production

(p.40). ICT is presented as an important tool in the acquisition and production of knowledge by facilitating, for example:

- (i) education through “improved access to knowledge for students through ICT” (p.169);
- (ii) Arabisation as “ICT and the Internet can contribute significantly to modernising the teaching and learning of Arabic in both content and methodology” (p.125);
- (iii) research and development through “establishing and strengthening all forms of pan-Arab connectivity in all fields of R&D development, utilising ICT formats and channels for fast communication” (p.170);
- (iv) opening up to other cultures as “[expatriate Arabs] can be among the outriders of a networked Arab knowledge renaissance (...) through the use of ICT” and “Arab countries can also sponsor ICT virtual networks among expatriate Arabs and those desiring to benefit from their knowledge and expertise in Arab countries” (p.176);
- (v) life-long learning (p.171).

4.2 ICT is development?

With the introduction of ICT for development, the *knowledge gap theory* has gained new life as the *digital divide*. In fact, the digital divide is another way of describing an increasing knowledge gap, resulting in growing socio-economic inequities, as the consequence of the lack of access, or constraint access, to ICT. One of those constraints is the ability to process information on and with the Internet.

Castells (2000), for example, argues that “the use of the Internet, both in school and in professional life, could amplify the social differences rooted in class, education, gender and ethnicity”. Also globally, Castells asserts, the digital divide, and consequently the knowledge gap, is increasing because of the conditions under which the Internet is diffusing. “Key urban centers, globalized activities, and the higher-educated social groups are being included in the Internet-based global networks, while most regions and most people are switched off” (Castells, 2000:260-262).

In development policy, the role of ICT is to help fill the knowledge gap by facilitating knowledge sharing, education, research & development, production processes, financial services, and other activities that support the knowledge society. The dominant development discourse, based on theories of modernisation and evolution, views technology as central to economic growth. Most discourses on ICT and development are based on this technological rationality: development is not possible without the use of ICT. For example, Castells (2000:269) argues that “development without the Internet would be the equivalent of industrialization without electricity”. He refers to an Internet that is not only a technical tool, it is also a way of organising power and capacity.

The aspect of power is lacking in discussions of knowledge and ICT in the Arab Human Development Reports and similar reports (World Bank, 1999; UNDP, 2001). They base their ICT for development account on a conceptualisation of ICT as a neutral, facilitating tool. This understanding of ICT is widespread in the development sector. ICT is presented as a technology that acquires its meaning through use. In fact, ICT, as any other technology, is the result of

choices informed by social, economic, cultural, and political factors. It is even possible to establish a linkage between the design of certain technologies and the specific ways in which power and authority are organised in the social structures that created or selected these technologies (van der Velden, 2004; Winner, 1985). Menzies (1996) argues that ICT is biased towards supporting a globalising economy. It facilitates fast and long-distance communication between centres and margins and it supports centralised decision-making and control, while decentralising location.

ICT-based knowledge systems in a development setting are often non-responsive: not designed for or adapted to the specific information and communication needs of users; and inflexible: static and centralised systems that do not support the creative and democratic needs of users (van der Velden, 2004b). These ICT applications and solutions are biased towards the transfer of existing knowledge, for example the so-called *best practices* and *lessons learned* from other countries and situations, over the creation of new knowledge. Secondly, they favour the management of *explicit knowledge*, the information that fits databases, forms and other formats used to manage knowledge (van der Velden, 2002).

Because of ICT's bias towards centralised decision-making and control and its focus on knowledge, and not on the people who hold and use knowledge, it can easily become a political tool, strengthening the existing power balance. Combined with the fact that the socio-economic impact of differences in use of ICT can increase inequalities between people, ICT can thus become a tool of oppression.

5. Commodify or die?

“Arabs are always berated for their inability to deal with reality, to prefer rhetoric to facts, to wallow in self-pity and self-aggrandising rather than in sober recitals of the truth. The new fashion is to refer to the UNDP Report of last year as an “objective” account of Arab self-indictment. Never mind that the report, as I have pointed out, is a shallow and insufficient reflective social science graduate student paper designed to prove that Arabs can tell the truth about themselves, and it is pretty far below the level of centuries of Arab critical writing from the time of Ibn Khaldun to the present. All that is pushed aside, as is the imperial context which the UNDP authors blithely ignore, the better perhaps to prove that their thinking is in line with American pragmatism” (Said, 2003).

Edward Said may be right. A Report that equates citizenship with free trade can be accused of “shallowness” and “insufficient reflectiveness”. However, the authors of the Report seem to argue that if knowledge is not rescued from politics, by separating knowledge from its fallible knowers, there will be no future, no citizenship to write about. It is an argument for the commodification of knowledge as a means of survival or progress.

The problem with this *commodify or die* attitude is that it cultivates a culture of exclusion. Knowledge that can not be commodified or that is not instrumental for building a knowledge society, such as traditions, Arabic dialects, and non-pure religion, is relegated to the domain of diversity. Diversity is perceived as a cause for fragmentation and conflict, a loss of power, and maybe even death. Perhaps the authors succumb to the equation of citizenship and free trade to prove, as Said (2003) argues above, “that their thinking is in line with American pragmatism”. Perhaps also because, as explained in section 2, the construction of knowledge as commodity is how knowledge-related policy documents conceptualise knowledge. In a knowledge society

built on the commodification of culture, the distinction between citizenship and free trade becomes blurred.

Although the 2003 Arab Human Development Report is clear about why building a knowledge society is the only way forward, the Report doesn't 'speak' in one voice. So we can read that:

“lessons learned from the history of indigenous and acquired knowledge during the early Arab scientific and linguistic renaissance were not enlisted when the modernization of science became a central question in the Arab world. Attempts at scientific modernisation by Muhamad Ali and Gamal Abdel Nasser during the 19th and 20th centuries respectively neither drew nor built upon this legacy. Instead, leaders turned to imitating what the West offered” (UNDP, 2003:44).

Nevertheless, the 2003 Arab Human Development Report proposes an approach that will perpetuate this epistemic violence, the neglect of the heritage of the peoples of the Arab world. It offers an image of a knowledge society as natural step in the evolution of human progress (p.39). Development, through the building of a knowledge society, thus becomes infusing an industrial society with knowledge values.

Fuller (1995) has argued that it is in fact the other way around. Societies are always also knowledge societies. What is new is that these knowledge societies are permeated by industrial values. This is made possible by knowledge capitalism or the transition to the knowledge economy (Fuller, 1995) in which knowledge is conceptualised as a commodity and as knowledge capital. Knowledges that do not fit these values are thus not instrumental to development and are ignored or oppressed.

Fuller (2001:61) further argues that the commodification of knowledge is a result of the culture of knowledge management that is permeating society:

“Knowledge managers are mainly interested in exploiting existing knowledge more efficiently so as to capture a larger share of the markets in which they compete. Their interest in producing and distributing new knowledge extends only to what will enable them to realise that goal.”

The role of ICT in a knowledge management culture is mainly that of capturing, re-using, and distributing existing knowledge. Cultivating knowledge by creating new, profitable knowledge is an expensive proposition and, for most developing countries, not an affordable position because of the huge amount of financial and educational investment needed. A knowledge society based on the commodification of knowledge may thus well be a scenario in which developing countries restructure their economies to adapt to the needs of 'western' knowledge economies, while at the same time becoming more dependent on the import of 'western' scientific and technical knowledge.

The conceptualisation of knowledge as commodity is a limited and limiting perspective. It results in the Report's failure to notice a new development in the Arab world. The *Arab open source movement* is an important example of democratic representation in the Arab region. The open source movement is based on the idea that the code of software should be freely available for non-commercial purposes in order to stimulate technological development and innovation. More recently, also *open content* and *open hardware*, in which the interface and design of hardware is made freely available, have become part of the open source movement. Examples in the Arab region are:

- *Handasa Arabia* (www.handasarabia.org): an open-source engineering organisation involved in hardware development such as chips. Its founders have chosen for an open

hardware approach because “[poor developing] countries can’t afford the R&D expenses that are usual in the advanced world” (Mohamed Eldesoky quoted in Goering, 2003)

- *Linux user groups*: found in many of the Arab countries. These groups are formed by open source and Linux enthusiasts, who create online communities to collaborate on projects⁶.
- *Arabeyes* (www.arabeyes.org): a project to support the Arabic language in the Unix/Linux environment. All computer programmers and other professionals involved in Arabeyes volunteer their time and resources to create Arabic open source software programmes.⁷ One of the Arabeyes projects is the translation in Arabic of Open Office⁸, a licence-free suite of desktop applications comparable with MS Office.
- *Arabic Wikipedia* (ar.wikipedia.org/wiki/). Wikipedias are collaboratively developed online encyclopedias. The information found in a Wikipedia can be used freely. The Arabic Wikipedia was established in July 2003 and carries over a thousand articles.

The Arab open source movement is a positive example of how knowledge is shared and new knowledge is created in a non-competitive, decentralised, and diverse environment. Because of these roots, the new knowledge is community-owned, and the products can be shared freely with non-commercial licenses.

Pooling resources in an open, decentralised, and diverse environment is not only cheaper, it is also more creative. Johnson et al. (1998) have shown how a diverse, non-competitive human-technology system has a higher problem-solving capacity than a competitive system. De Landa (1997) has described how a diverse, self-organising system can create at least the same economies of scale as a hierarchy of uniform elements (see van der Velden, 2004b).

5.1 Concluding remarks

The authors’ decision to focus on a homogeneous Arab identity, built on the idea of pure religion and a standardised Arabic language, results in a disregard for Arab diversity in all its manifestations, including the diversity of knowledges found in the Arab region. This epistemic violence, through the silencing of other knowledges, will destabilise attempts to create a more peaceful future for the Arab region. The suppression of cognitive justice, in the homogenisation processes of development, will, as Shiva (1997) argues, mutate diversity into competing negative dualities, fighting over scarce economic and political resources. The rise of political Islam, as a result of the suppression of alternative knowledges by undemocratic Arab rulers, is proof of that.

Yet, a different conceptualisation of society is possible. For example, Arab societies could be strengthened with an infusion of humanistic and democratic values. These values come forth out of the different ways of knowing found in the Arab region, the region’s variety in cultures, religions, peoples, genders, and even politics. Instead of sacrificing this diversity, continuing the epistemic violence for the benefit of certain political and economic values, diversity can be

⁶ See <http://www.arabeyes.org/>

⁷ Unix and Linux are open source operating systems.

⁸ <http://ar.openoffice.org/>

strengthened by recognising and including local and indigenous knowledges. This idea of *cognitive justice*, the equal validity of all knowledges, could lead to the conceptualisation of a just and inclusive knowledge society.

In this way, Arab knowledge would not be defined by, or limited by, the concept of deficit – the lack of development, knowledge, or technology - but rather by the concept of diversity – what the peoples of the Arab region do have and can contribute to their societies. In the latter scenario, the role of ICT is not just transferring knowledge from where it is available to where it is needed. Its main role would be facilitating processes in which people are empowered to use their own knowledge and to create new knowledge.

In a scenario based on cognitive justice, in which people are considered as knowers, people become the agents of survival, prosperity, and change. ICT – from its standard-setting institutions, policies, and standards, to its hardware and software developers, networks and applications – needs to be flexible and responsive in order to fulfil the needs of these knowers. Four levels of intervention can be identified (van der Velden, 2004b):

1. Democratisation of technology
Human and democratic values, such as privacy, informed consent, freedom from bias, decentralised control, need to be written in the codes and standards that form the basis of the technologies used for communication and for accessing, archiving, and sharing information
2. Democratic representation
The democratisation of the organisations that own or control the institutions, networks, and software applications that regulate, standardise, and facilitate ICTs.
3. Cultivation of knowledge diversity
Communication tools that are flexible and responsive in order to facilitate cognitive justice (van der Velden, 2004a; 2004b) through dialogues of equally valid knowledges.
4. Autonomous self-organisation
The ‘meshworking’ of knowledges and communication in flexible and user-controlled network configurations.

There are networks and web sites in many of the languages of the Arab region. Islam has embraced the Internet. It is as easy to obtain a fatwa - an order or legal statement by an Islamic religious leader – as it is to find a suitable Muslim marriage partner. Also the Islamists movements are well presented on the Internet, using it as a space to organise, to recruit, and to undermine support for the country’s leadership (McLaughlin, 2003). The coming of the Arab *renaissance* will not be dependent on ICT, but a brief look at the Arab region *online* and it becomes clear that the people of the Arab region are displaying and using their diversity in ways that are ignored by the authors of the 2003 Arab Human Development Report.

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Appendix A. Full list of all varieties of colloquial Arabic (Ager, 2004)

| Variety of Arabic | Spoken in | No of speakers |
|----------------------------|---|--------------------|
| Egyptian | Egypt | 46,306,000 |
| Algerian Saharan | Algeria | 22,400,000 |
| Moroccan/Maghrebi | Morocco | 19,542,000 |
| Sudanese | Sudan | 19,000,000 |
| Saidi | Egypt | 18,900,000 |
| North Levantine | Syria, Lebanon | 15,000,000 |
| Mesopotamian | Iraq, Iran, Syria | 13,900,000 |
| Najdi | Saudi Arabia, Iraq, Jordan, Syria | 9,800,000 |
| Tunisian | Tunisia | 9,308,000 |
| Sanaani/North Yemeni | Yemen | 7,600,000 |
| Ta'izzi-Adeni/South Yemeni | Yemen, Djibouti | 6,840,000 |
| North Mesopotamian | Iraq, Syria, Turkey | 6,300,000 |
| South Levantine | Jordan, Palestinian West Bank & Gaza | 6,155,000 |
| Hijazi | Saudi Arabia, Eritrea | 6,000,000 |
| Libyan | Libya, Egypt, Niger | 4,505,000 |
| Hassaniyya | Mauritania, Mali, Morocco, Niger | 2,511,000 |
| Gulf | Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, UAE | 2,440,000 |
| Eastern Egyptian Bedawi | Egypt, Jordan, Palestinian West Bank & Gaza, Syria | 1,610,000 |
| Omani | Oman, Kenya, Tanzania | 1,010,000 |
| Chadian | Chad | 986,200 |
| Hadrami | Yemen | 410,000 |
| Baharna | Bahrain | 300,000 |
| Judeo-Moroccan | Israel, Morocco | 254,000 |
| Judeo-Iraqi | Iraq, Israel | 125,000 |
| Algerian Saharan | Algeria | 100,000 |
| Dhofari | Oman | 70,000 |
| Judeo-Yemeni | Israel, Yemen | 51,000 |
| Judeo-Tunisian | Israel, Tunisia | 45,500 |
| Judeo-Tripolitanian | Israel | 35,000 |
| Shihhi | UAE, Oman | 15,000 |
| Tajiki | Tajikistan, Afghanistan | 6,000 |
| Cypriot | Cyprus | 1,300 |
| Uzbeki | Uzbekistan | 700 |
| 33 | | 221,526,700 |