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Society, Culture and Education

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The main purpose of this article is to suggest what the content of future education should be based upon today's trends of social change. The article is divided into three parts. First, two studies are used as examples to demonstrate that society and culture provide the content from which people develop their epistemologies, and also influence the content of every person's thinking and cognition. Second, in view of globalization, localization and informational expansion as the three unfolding and interactive trends in society today, this article explores how these trends impact the learning process and emphasizes how they should be reflected in the content of education. Last, responding to the above social trends, I present my expectation of educational content from early childhood to university education levels, suggesting five areas that are in need of enhancement: multi-disciplinary knowledge, subject-by-subject literacy, character development within a value system, encouragement of life-long learning, and concentration on familial-religions ethics.

Key words: social change, globalization, localization, informational expansion, curriculum

Preface

Eight years ago, I took my 9-year-old son and 8-year-old daughter with me on sabbatical leave and went abroad for further study. One day after school, my son observed, "When I went to school in Taiwan, I was told not to raise my hand so frequently to ask questions in class. However, teachers here (U.S.A.) constantly ask me why I seldom talk. What should I do?" Through this question, I perceived personally the cultural dilemma revealed in my child's learning. Then two years ago, I went to Vancouver, Canada, to further my education. In Vancouver, there were many Chinese immigrants whose main reason for immigration was concern for their children's education. They said, "In Taiwan, children went to cram schools everyday and took tests everyday. Because of the high stress, they could not enjoy life or sleep well. After moving here, their stress has been less." At the same time, local Canadian parents complained to me, "Previously, there were not many Asian immigrants. Students who had an average grade of B to B+ could get admission to the top university in Vancouver. Now, even the average grade A students are sometimes rejected. Many of the immigrant families from Taiwan, Japan, and Korea hire 6 or 7 tutors for their children. Some of us have no choice but to follow them." The Asian immigrants' bodies are in Canada but their minds remain with their own original culture. Those experiences are the basis for formulating this paper.

Human epistemology develops in a rich social cultural context (Vygotsky, 1978). This theory is usually used in the educational field on instructional methods, such as group discussions (Christenson, 2004; Hong, 2004; Rex & McEachen, 1999), scaffolding students' learning (Dabbagh, 2003; Kermani & Brenner, 2000; Maloch, 2002), and collaborative learning (Mueller & Fleming, 2001; Wentzel & Watkins, 2002).

Besides applying to instructional methods, Vygotsky's socio-cultural theory is also beneficial for the content of instruction. Jones, Pang, and Rodriguez (2001) suggested that culture is a key aspect of how students think, learn, and define themselves. Students go to school with their own cultural background. They bring to school individual values, knowledge,

and understanding of things in the world inherited from their own culture. If their world views match those represented in the schools, they are more likely to "fit in"; they understand the language, values, and norms. If their world views differ, they are more likely to find themselves in conflict with the curriculum being taught, in conflict with the teachers who present the curriculum, and in conflict with the other children in the class. For example, children who grow up in a culture that emphasizes collectivism and interdependence might have to adjust themselves to a class that advocates individualism and self-government. Children whose culture has strict role expectations and regard for men and women might have difficulty in adapting to a co-educational school.

The goal of this paper is to analyze the trends of today's society and to point out how the educational content might need to accommodate social changes. Before analyzing the trends of the society, I cite two illustrative pieces of research demonstrating the cultural/social base of human epistemology.

Culture of Society: The Source of Human Epistemology

Bruner (1996, p. 3) said the culture of education shapes the human mind, and enables us to construct not only our worlds but also our very conceptions of ourselves and our abilities. Subbotsky & Quinteros (2002) and Nowak-Fabrykowski & Shkandrij (2004) consider the role of culture as the major factor in the cognitive differences measured in most cross-cultural studies. While there are no differences in the function and structure of the mind among the cultures or from one historical epoch to another, the materials that people use for thought and cognition are basically different. Every culture infuses its own values, norms and beliefs into the minds of human beings that live within it; the materials people use in the process of cognition and thinking are determined by their cultural surroundings. Consider these two examples illustrating how the culture of society affects the contents of human thought.

Example 1: Conceptions of Child Raising Under Different Cultures

In the process of child rearing, the family's beliefs and actions are influenced by social-cultural factors. In one case, researchers videotaped the interactive situations between mothers and their infants in two different cultural environments-Cameroon rural and German urban middle-class (Keller, 2003). The videos were played to other Cameroon and German women and research data was collected from the interviews. The research found Cameroon rural women affirming that breastfeeding, body contact and body stimulation represent the parenting systems that are considered to guarantee the successful socialization to Nsoness. Breastfeeding is regarded as necessary early maternal care. "A good mother puts the nipple immediately into the mouth of the baby, as soon as the baby opens it." This supports the idea of anticipatory responsiveness to infant needs. The close body contact between mother and infant is positively approved in this culture. Mother and child have to feel each other to be happy. In the Cameroon language, the term Koyti means feeling good through body contact. These results suggest that warmth is the essential interactive mechanism that supports interdependent developmental goals.

Given this background, Cameroon women had some evaluative reactions to the videotaped interactive situations between German mothers and their infants. First, they could not understand that the German women do not breastfeed a fussy baby but try to soothe it in a "funny" way. Second, they consider the body stimulation of infants, such as lifting babies up and down and letting them move their legs and feet freely, can accelerate the motor development of infants, and make infants grow stronger and healthier. As a result, they do not have any empathy for the practices of German women who keep their babies lying on their backs for any length of time. This is seen as a way to retard infants' development and to weaken the infants' legs and bones. Third, the Cameroon women have a stimulation and training view on cognitive development. They admire the German women's parenting practice of talking a lot with their babies. "The Germans are very good at talking to the babies, so the babies learn speaking faster and better than *Nso* children." However, there is no absolute expectation of infants' cognitive development in the Cameroon culture. The Cameroon women do not specially comment on the Cameroon language and objective stimulation.

Such parenting beliefs and styles in the Cameroon culture also appear in other African countries. For example, Cameroon women consider shaking infants up and down as stimulation to infants' motor development and make infants stronger and healthier; and, although they admire the Germans' practice of stimulating the infants' cognitive development by language and toys, this is not emphasized in their cultures. Senegalese immigrants in Paris even found toys unfavorable to child development, since toys introduce a child into a separated, non-social world.

The analysis of the behavior of the German women shows that they care for mutual satisfaction and enjoyment during the interactional process, where the infants' needs are taken seriously, but the emotional needs of the mother are equally important. The orientation of childcare is therefore more interactively emphasized.

The German women also evaluated the videotaped interactive situation between Cameroon mothers and infants. In their judgment, the situations too, reflect the cultural beliefs on parenting. First, although the German women admire Cameroon mothers who react warmly to their babies' smiles, they expect eye-contact between mother and infant. "She plays nicely with the baby, but they do not have eye-contact." Second, the German women also expect the caregiver's exclusive attention to the infant. They notice that, "the mother holds her baby nicely on her body, but is too often distracted by other things." Third, the German women view body contacts between Cameroon mothers and infants as very positive behavior, but not as necessary behavior in the parenting process. Besides, they admire the German mother in the videotapes for laying babies quietly on their backs, but they cannot understand the action of Cameroon mothers of lifting their babies up and down for body stimulation. "One should not shake a little baby like this." In brief, the results show us that, German women and Cameroon women have obviously different conceptions of child-raising in four aspects, as summed up in Table 1.

	Cameroon Women	German Women
Attentive interaction	Multi-task	Maintain eye contact
Response to babies' crying	Breast-feed immediately	Shifting babies' attention by funny actions
Stimulation of babies' motor development	Let babies move legs freely, stimulating their motor development by lifting	Value quiet, sleeping babies
Emphasis on babies' cognitive development	Stress social interaction but place no emphasis on stimulation with language and toys	Often talking to babies; emphasizing their cognitive development by toys and objectives

Table 1	Conceptions	of Child-raising
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As educators observing these different conceptions of child-raising between Cameroon and German women, we may find that, cultural and social differences between these two societies influence the contents of parenting education for each. The contents of German parenting education might focus more on how to stimulate babies' cognitive development by language and object. Conversely, the contents of Cameroon parenting education might focus on strengthening a baby's body, neck, and legs, and accelerate one's motor development in order to make the baby stronger and healthier.

Example 2: Conception of Intelligence Under Different Cultures

What abilities represent intelligence? Many studies (Grigorenko, Geissleret, et al., 2001; Grigorenko, Meier, et al., 2001; Sternberg & Kaufman, 1998; Sternberg et al., 2001) show that there are different answers from different cultures.

Sternberg & Kaufman (1998) reviewed the literature of the 1990s on human abilities. They gave some examples of the cultural difference in the conception of intelligence. Regarding intelligence, the Western emphasis

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on speed of mental processing was not shared by many other cultures. In other cultures, fast mental processing did not imply high-quality production; instead, deep mental processing was connected to intelligence. Chinese students placed importance on the memory of facts, but Australian students placed more emphasis on other forms of cognitive intelligence. In Western culture, silence was interpreted as a lack of knowledge. In contrast, the Wolof tribe in Africa viewed less speaking as a characteristic of those of higher social class and distinction. The ability valued by the society may have no special meaning in another.

Grigorenko, Geissler, et al. (2001) and Sternberg et al. (2001) also found that the conceptions of intelligence in Western cultures are oriented toward the abilities conducive to the development and improvement of technology. Western schools emphasize technological and academic intelligence. But the conceptions of intelligence in the cultures of the Kenyan villages in Africa stress the abilities to survive in the natural environment. They emphasize children's practical intelligence.

In one Kenyan village in Africa, most children suffered from various parasitic infections and they very often experienced stomachaches. Traditionally, people living in the village used herbal medicines to cure such infections. Some of the herbs indeed produced curative effects. Children who knew how to cure their parasitic infections with herbal medicines had advantages in life in the Kenyan village over those who did not have the skills to self-medicate. In other words, being able to self-medicate with herbal medicines was a valuable and significant intelligence for children in the Kenyan village (Grigorenko & Sternberg, 1997; Sternberg & Kaufman, 1998). Another case in a western Kenyan village (Sternberg et al., 2001) showed that people living there viewed farming practice as important work for children. Those who had better farming skills could adapt to their future life in the village as farmers. Although schools and teachers were influenced by the Western culture placing more importance on children's academic achievement, parents were still under the influence of their traditional culture and thought children must have practical skills and abilities in daily life.

Therefore, children were expected to spend quite a lot of time fostering practical abilities like fishing or farming, instead of gaining academic abilities that were contrarily thought to be of little significance. To most of the parents, schooling was teaching children how to adapt to the Western society instead of how to live in the local village. Few parents thought values in Western cultures reflected what they believed, and that academic performance in schools would provide students with a significantly better future. These children would leave the village and never live by farming when they grew up. The Kenyan village people's conception of intelligence was not appropriately reflected in the results of intelligence tests where children who had better practical intelligence got a lower score on academic intelligence tests, and vice versa.

Even in the same society, different ethnic groups can have different conception of intelligence due to their cultures. Okagaki and Sternberg (1993) found that in California, Latino parents of school children tended to emphasize the importance of social-competence skills in their conception of intelligence, whereas Anglo parents emphasized cognitive skills more and Asian parents tended to emphasize still more heavily the importance of cognitive skills. The teachers, who represented the dominant culture, emphasized cognitive rather than social-competence skills. As a result, the rank order of children of various groups' performance could be perfectly predicted by the extent to which their parents shared the teachers' conception of intelligence.

As can be seen from the above statements on human thought processes in the social-cultural context, cultural influence on the human mind does not change mental processing and cognitive structures, but provide the substance of people's thinking through the assimilation of the values, beliefs, and norms inherited from the culture. It is not difficult to realize that, among all cultures, people might share a common core of cognitive skills—cognitive processing, strategies, mental representation—that underlie intelligence, and these cognitive skills may have different manifestations across the cultures (Sternberg & Kaufman, 1998). But it is more important to recognize that

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culture influences people's conceptions and beliefs, so that people living in different cultures make different choices of the aims, content, and instruction of education. Grigorenko, Meier, et al. (2001) support this concept and they assessed the importance of academic and practical intelligence among 261 Yup'ik Eskimo children in grades 9-12 in rural and urban Alaskan communities. They measured Yup'ik children's academic intelligence with a conventional fluid and crystallized intelligence test, and measured their practical intelligence with a homemade test. This homemade test was based on tacit knowledge relevant to the environment in which most Yup'ik people live, focusing on five areas — herbs, fishing and fish preparation, survival, folklore, and hunting. As expected, urban children generally outperformed rural children on the measure of crystallized intelligence, but the rural children performed better on the measure of Yup'ik tacit knowledge. This result arose from the fact that rural Yup'ik Eskimos lived mainly in frigid Alaska, where there was a great distance between villages without convenient food supply. Traditionally, they lived by fishing and hunting and their children were taught survival and fishing skills from an early age. But to those Yup'ik people who moved to cities and lived in a Western way, fishing and hunting were no longer the essential life skills. Their learning emphasis changed from the ethnic tacit knowledge to the school's emphasis on academic knowledge.

These two examples of child-raising and concept of intelligence show that in general, people from different cultures all tend to develop abilities for adapting to their own culture and rather less, to developing those abilities for adapting to other cultures (Grigorenko, Geissler, et al., 2001; Grigorenko, Meier, et al., 2001; Grigorenko & Sternberg, 1997; Serpell, 2000; Sternberg et al., 2001). The conception of child-raising indicates people's beliefs and values in raising their children, and the conception of intelligence in a culture refers to the cognitive, social, and behavioral attributes that are adaptive to the specific requirements of living in the culture (Sternberg & Kaufman, 1998). Both conception differ with the different content of cultures. The culture of a society appears to determine what parents value in their children's education. Traditionally, cultures have been relatively stable and somewhat self-contained. But now as never before, cultures are subject to the challenges of fast-changing societies. Today's educators, curriculum developers, administrators, teachers and parents, need as never before to be conscious of the forces of societal change and their impact upon culture. These forces and the implications they carry for effective curriculum content in the future are now the focus of this article.

Developing Trends of the Current Society and Their Influences on Education

From my point of view, there are three developing trends of the current society: globalization, localization, and informational expansion. They are not independent; instead, they are interactive trends. Therefore, some of their characteristics overlap for they are the results of interaction. However, this article shows the characteristics of each trend individually, deliberately conscious of similarities existing within each differing trend.

Globalization

Ever-increasing numbers of students have expanded horizons of education. While one's education might once have been confined to a single institution, such is no longer the case. Education might now encompass summer study abroad, multi-institutional study, and an interactive program with foreign studies in the virtual world. Institutional confinement is no longer a primary characteristic of education. The globalization of education is an unfolding reality. What are the characteristics of this globalization process?

Definition of globalization

Globalization is not solely a product of the twentieth century (Edwards & Usher, 2000; Robertson, 1992), nor indeed of the twenty-first. However,

since global communication has accelerated greatly and progressed very fast, globalization has become more and more significant.

The definition, nature, and content of globalization are different in each field of study. Here I am not going to analyze or discuss the differences among them. Instead, I intend to explore the characteristics it forms and its effects on education in terms of time-space compression and global consciousness.

The concept of "time-space compression" has two meanings. First, it signals the shrinking of space in terms of the time taken to travel physically and electronically between places or locales. Also, it points to the increasing cross-space network connection and the complicated distant social relationships. Second, this concept implies the simultaneous presence or absence of people in specific locales. For example, through the technology of on-line video-conferencing, a business executive may sit in his office in Taiwan and exchange ideas with his subordinates all over the world. His figure seems to be present in all the places, but his body is actually present in merely one location. Local contexts are increasingly inhabited by the images, labor, ideas, or expertise of people who are not physically present in the locale.

While the time-space compression of globalization is relatively concrete, "global consciousness" is relatively abstract. People everywhere now talk about and are more and more concerned with world events, such as the international economy, World Cup sports games, global warming, and world peace. From these discursive processes, new subjectivities or identities are constituted. This kind of global talk is symptomatic of the perception that we live in rapidly changing and uncertain times and that the fate of local communities is connected to remote political, economic and cultural circumstances (Singh, 2004). That is to say, people who have constructed a global consciousness know not only well about their own country or society, but also about the history and current conditions of other countries. They are able to judge the consequences of globalization and are responsible for the future of human society (Lung, 2005).

Characteristics of the globalized society and their effects on education

Globalization, the conception of time-space compression and global consciousness, produce characteristics of significance to education: pluralism, polarization, the uncertainty of subjectivity and self-identity, unavoidable contradiction and dilemma:

1. Pluralism

Globalization with its worldwide time-space compression, increases contacts with different cultures and enables more frequent interactions of ideology. These interactions will promote the pluralism of values and beliefs, as well as the pluralism of educational aims, content and instruction. In future, people will have very limited material for thinking if they live in the monastic circumstance with little contact with other cultures. This isolation will influence their learning and development, and their communication with other people.

2. Polarization

Globalization started in the realm of economics. Economic globalization has led to distinct differences between rich and poor. The distinct differences of wealth challenge the ideal of educational equality. Rich families provide their children with all kinds of educational opportunities. However, children whose families are not so wealthy lack these opportunities. Under such inequality, the distinct differences of children's academic achievement have arisen. Now globalization has expanded its effect from the economic system to the social and cultural systems, and has caused educational problems. The problems stem from the dichotomy of cultural localization and cultural globalization. Selecting educational content capable of accommodating this dichotomy is the 21st century challenge.

3. Uncertainty of subjectivity and self-identity

Globalization compresses different cultures, gradually producing some shared values and behaviors. At the same time, globalization also accentuates cultural distinctions, forcing people to rely on symbolic systems like religion, customs, and national consciousness. Individuals

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wander in both the shared and distinctive symbolic systems, seeking self-identity (Ku, 1997). What community does one belong to? What distinguishes communities? How does one cross a boundary and get into another community? In globalization, individuals are uncertain of their place and group identities. The uncertainty is exacerbated by cultural colonization, frequently given the names of Americanization or westernization, which is promoted through the phenomena of informational expansion. The uncertainty has direct implications for the field of education. As Bartlett, Evans, & Rowan (1997) have said. generally, globalization is not merely a military affair among countries. it is the settlement of signs, symbols, languages, and cultures. Finally, it becomes a course of identity, which means people start to self-identify and connect to the global reality mainly by crossing traditional cultural boundaries (Bartlett, Evans, & Rowan, 1997; Edwards & Usher, 2000). These identity problems are a manifestation of localization. As Evans contends, nation-states fall into a dilemma: they want to enter the world. but the world will invade them (quoted from Edwards & Usher, 2000). When we apply this characteristic to education, we will find that the content of education is not as simple as before. We cannot simply tell a student about his or her orientation or identity. Along with pluralism, a consideration of student identity will be an important issue for educators to deliberate.

4. Unavoidable contradictions abound

a. Homogeneous but plural:

Globalization is a worldwide tendency to have shared concerns; localization is regional or have local plural concerns. They are coexisting social trends. This contradiction also exists in the computer network world in which everybody uses the same technological products but creates various and plural virtual worlds. And it exists in global business as well. When a global product is popular worldwide, the product with personalized features and functions is well sold in localities around the world. b. Universalized but particularized:

Globalization brings universal culture: localization carries particularly local culture. How to devise educational content and of balance between globalization and localization is a dilemma. Taking school instruction as an example, the school's standard knowledge system, swayed by pluralism, is beginning to emphasize multi-values and to encourage multicultural experiences. However, as teachers consider the school's standard knowledge system, how do they give the same consideration to students' individual cultural background, multiple requests, and personal differences? This dilemma is a challenge to teachers' professional knowledge. Students, too, face a learning dilemma. Students have problems of choice, adaptation, and identity among the emerging culture of the school and the traditional culture of the family. This is manifested especially among immigrant children. Newcomers in a country are immersed in a new culture. The young wish to adapt and to assimilate and for the most part do as easily and quickly. Their parents, however, adapt less easily being conditioned by the culture of origin. When these parents are resistant to the values and practices of the new, they frequently impose their wills upon their children, creating problems of identity and learning.

c. Open/liberating but restricted:

Globalization and informational expansion liberate all kinds of professions and bring them the sense of boundlessness. Trade barriers lessen; cross-cultural interaction increases. Instruction takes place outside the classroom; constraint breaks down as new knowledge crosses different fields and breaks down existing knowledge. However, at the same time, people still sense restriction. For example, virtual schools and virtual classrooms allow students to liberate themselves from a school's inflexible curriculum and to interact with people in other locations of the world; but actually, there are numerous impediments ranging from the lack of mutual understanding of one another's culture to efficient computer equipment and software. The absence of these essentials becomes a restriction.

d. Near but far/close but remote:

Under the influence of globalization and informational expansion, people interact more frequently in both the real and the virtual worlds, and people are much closer. However, the relationship between one another is also remote. It is the result of the knowledge explosion within which people seek new knowledge urgently but neglect the management of real relationships with others. Educators need to address this contradiction and to deliberate the ultimate goals of education. If education is a profession without passion and care, it could lead to an increase of knowledge at the cost of humanity.

Localization

According to Robertson (1992), "globalization is a relatively autonomous process. Its central dynamic involves the twofold process of the particularization of the universal and the universalization of the particular." The former is "defined as the global concretization of the problem of universality, which has become the occasion to search for the global fundamentals." And the latter "refers to the global universality of the search for the particular, for increasingly fine-grained modes of identity presentation." (Robertson, 1992, 177–178)

The universalization of the particular may simply be called "localization."

Characteristics of localization within society and their effects on education 1. The pursuit of individual identity in the face of globalization

Localization is a social trend that follows and interacts with globalization. If a society just aspires to be globalized, then it may end up being subsumed under the authority of Western thought, culture, and economic system. Yet, if a society seeks its individual identity and wakes up to self-examine, then it can spread its own and symbolic content through the process of pluralization, while the global homogenization is ongoing. For example, Google announced in December 2004 the creation of a global virtual library to digitize 15 million English-language books that are the collections of five American libraries. A few months after that, France allied with other Europeans in order to counter the American's cultural authority on the Internet. The French President Office announced: "The activity of knowledge digitization is flourishing around the world; France and Europe, for our enormous cultural heritage, have to play a critical role." Also, "this is a radical challenge to the protection of spreading knowledge and development of multi-cultures" (Wu, 2005). The battle of the projects of on-line libraries of Google and Europe is exactly the result of globalization-localization interaction.

This interaction exists elsewhere in the world. Taiwan society stresses the importance of Taiwan culture and communicative culture. Its educational curriculum includes multi-cultural education, provincial mother language, and local geography and history. These are all in pursuit of local identity in response to the globalization trend.

2. The orientation of identity and belonging

Only if the localizing and globalizing forces can be balanced could they facilitate the development of all human beings as individuals. In constructing identity and belonging, children who grow up in a multicultural community might construct a double consciousness or multiple identities with their sense of belonging fragmented, if their growing environment is one formed by localization and globalization.

It is a challenge for educators to maintain a respect for the multiple identity and fragmented belonging of students striving for local identity.

Informational Expansion

Technology has made the world's totality of information accessible. Communication of that totality has become fast and convenient without the restraint of distance. Through the Internet, information exchange and crosscultural interflow are effective and frequent. The influence on education of limitless information is enormous.

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Characteristics of informational expansion within society and their effects on education

1. Openness/liberation

The traditional society moved slowly and stably; by contrast, in the informational society, new concepts and thoughts emerge rapidly and continuously. Because the technological equipment is more and more popular, the confinement of learning in time and space diminishes. The linear text, authoritarian instruction, and the teacher's dominance in the traditional society all yield to non-linear and multiple approaches to learning. Our classrooms are no longer spaces for delivering information; instead, they are now the spaces for active exploration and creation. Teachers relinquish their roles of the top-down lecture giver to builders and providers of a student-centered learning network. Learners may actively and widely pursue their own goals to learn, and integrate, interpret, theorize, and create new knowledge, and therefore become their own knowledge providers. Easy information access liberates learners to be the drivers of rapid cultural change (Edwards & Usher, 2000; Weis, Benmayor, O'Leary, & Eynon, 2002).

2. Plurality

The informational society brings to the world a possibility of infinite virtual space and its own virtual reality. It also implies that the real world and the virtual space can co-exist plurally. The characteristic, plurality, gives rise to plural learning approaches, including "any time, any space learning", bringing diverse contents of educational curriculum and instruction.

3. Instantaneity

In the informational society surrounding by knowledge explosion, the characteristics of openness and plurality force the society to change every second. There is always new knowledge for learners to digest and then to create more knowledge instantly.

4. Innovation

In circumstances filled with openness, plurality and toleration, it is easy and desirable for innovation to emerge as a characteristic of the society.

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5. Lack of authority

As soon as information is available and free, the learners who previously studied under some kind of knowledge authority are now able to acquire anything they require or desire or restricted or shaped by any authority. It is the power, the theoretical quality of a statement that counts, instead of the idea-giver's status or the media he or she uses. In the virtual communities of cyberspace, the practice of self-guidance and self-examination will prove that reasonable and valuable knowledge shows up to be used in various ways. However, the boundaries and authorities of knowledge will break from information (Edwards & Usher, 2000; Lo, 1997).

6. Necessity of authority

As information grows too fast for people to assimilate, it is necessary to set up an authoritative index for learners to search more quickly for things they need. And as the informational society brings various views of the world and the co-existence of the virtual and the real world together, learners are not sure what is true, what is right, and what is good. There is a necessity to establish some kind of authoritative index. For example, when students of humanities and social sciences search for reference papers, they will firstly search among SSCI journals. SSCI, being authoritative in the liberal arts and social science field, will save scholars' time and give them reliable promise of quality material.

7. Competition

Informational society in the globalization era is characterized by immediacy and instantaneity, so relations among rival individuals, organizations, companies, and nations become more and more competitive. Under such competition, it is possible for competitors to become unscrupulous in order to win. Values and moral principles become major issues.

Conclusion—New Trends Produce New Expectations in Educational Content

In this article, globalization, localization and informational expansion, the interactive developing trends of the current society are discussed. I would like to suggest that these new realities dictate the necessity of emphases on five areas of educational content.

1. Knowledge diversification

In order to nurture learners and to mentor them effectively, teachers must not limit themselves to a single specialty. They must be multi-talented in handling the new technology and broadly knowledgeable of the impact of social change and the demands that it places on learners. It is hoped that understanding and tolerance will be the desirable benefits of knowledge diversification.

2. Subject literacies

Students must be equipped for a world of unfolding and expanding knowledge. We have long been familiar with the concept of literacy—the ability to read and write but we have more recently expanded that concept to include listening, speaking, viewing, presenting, and appreciating. And all other subjects have core concepts that constitute their "literacy": in science, literacy is inquiry, observation, description and documentation as well as the abilities to hypothesize and draw valid conclusions. Many countries (among them the United Kingdom, the Netherlands and the United States) are striving to articulate the new subject literacies for the new global society.

3. Values and character education

The values of equality and justice, rights and duties, protection of minorities, human dignity, and the importance of belonging (Executive Yuan, 2003, p. 107) are espoused by many nations of the world but lack a specific

place in the educational process. Countries must go beyond mere acknowledgement to active instruction. Similarly, countries around the world pay tribute to "those of good character" but have done little to educate for good character. But recently America has given emphasis to character education under three headings: moral education, civic education, and character development. Australia has asked schools to give civic education as much emphasis as English and mathematics. And a recent report on education in Japan stresses the importance of moral education in schools in order to imbue the 21st century with noble morality and creativity (Chou, 2005).

4. The life-long learning concept

The development of informational technology enables learners to study outside the traditional education environment and to study according to one's level. In addition, informational technology allows instant knowledge availability. Hence, the concept of life-long learning should be cultivated and developed positively. Educators should set up the pathways for all people, whether they are young or old, to learn the knowledge they need at anytime and in any place they choose to study.

5. The re-construction of family ethics and religious cultivation

For a tree to grow to its optimal size and glory, it must be well rooted, draining nourishment from earth and air. The family is the earth from which we all spring; religion is the air to which we aspire. It seems fitting that family ethics and religious beliefs should find a place in the gardens of learning. Respect and toleration are the highly desirable products of such teaching.

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社會、文化與教育

簡楚瑛

本文主要目的在關述現今社會的變遷及其對未來教育內涵的啟示。本文分 三部分論述,首先以兩個研究為例,說明社會與文化不僅提供了人們知識 發展的內涵,同時也影響每個人的思想與認知。第二部分提出當今社會發 展三大趨勢——全球化、在地化和資訊化,每一趨勢所形成之社會特性及 對教育內涵所可能產生之影響。最後,根據前文之分析提出未來各級教育 之課程內涵應加強或重視的五個重點:科際整合性知能、各學科之素養、 品格與價值觀教育、終生學習之知能,以及宗教與倫理教育。

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