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# The Socioeconomic Context of Home-Based Learning by Women in Malaysia

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A major goal of Asian distance education is the creation of effective formal and nonformal programs for the benefit of the poor and needy; and the primary place in which distance education usually takes place is the home. This article addresses issues fundamental to the spread of distance education in Asia—factors affecting domestic and social life in urban and rural settings, and the individual's ability to take advantage of ICT-based distance education and training opportunities. The analysis has been conducted in the context of a study of issues and challenges affecting impoverished, urban women homeworkers in Malaysia, Thailand, and Indonesia. This article discusses the study's findings for Malaysia only, based on data collected at three Malaysian sites—Klang Valley, Ipoh, and Penang. It illustrates the urgent need for urban and rural learners alike to be served by up-to-date, ICT-equipped learning centers (Latchem, 2001). It discusses the extent to which working and learning from home are currently supported by information and communication technologies (ICTs), and it examines deep social problems that impede this support. As a description of the context to which effective distance education methods must adapt, the article builds on the recent account of home schooling in rural Queensland, Australia (Green, 2006). For distance educators, the article indicates that ICT-based methods can only become a viable supplier of distance education and training to women learners in Malaysia when the social and gender-related challenges faced by this vulnerable sector of society have been overcome.

## Background

During the past decade, the relatively low rate of women's participation in Malaysia's labor force has become a serious concern. In this context the need for distance education and training based on information and communication technology (ICT) is pressing. The study reported in this article focuses on the enabling/disabling environment of Malaysian women homeworkers in areas of welfare (material wellbeing); level of awareness and ability to improve their situation; access to and control of resources including the extent to which ICTs are utilized

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to enhance their work; and activities related to gender equality in ICT usage. The article examines interrelated gender and technology relations issues, that is, the marginalization of women in the labor market (Standing, 1989) and the low levels of visibility of women's work, which result in their not being regarded as significant users of technology. This invisibility has hindered women from gaining access to knowledge about how to use technology (Wajcman, 1991). The challenges faced by women homeworkers are examined, especially gender-specific issues in the deployment of ICT to enhance their work; also discussed are the appropriateness of technology, and the barriers to facilitating the wider use of ICT in this sector of Malaysian society. Indirectly, the article gives a view of the circumstances leading to women's involvement in home-based education, and provides a glimpse into the complexity of their lives, as they balance the conflicting demands of productive work.

The population of Malaysia is approximately 25 million and its national income per capita is US$4,142. The poverty line for a family of five is US$135, with the percentage of poor households in Malaysia being 7.5%, and 3.4% in urban areas (Federal Treasury, 2005). Since 2001, the Government of Malaysia has allocated MYR 28.3 million to 235 agencies for 577 capacity-building programs for low-income families, with some emphasis on single mothers. These programs have included ICT training, and ICT literacy and skills (Federal Treasury, 2004). Reports on some of these projects (namely, *Yayasan Strategik Sosial*, *NCWO*, *Yayasan Salam Malaysia*) are not available, but it is clear that the assistance is not solely for independent, home-based workers, and that even less emphasis is given to the problems of poor, women home-based workers. The *Salaam Wanita* project (see http://www.ehomemakers.net) is the only project focusing on assistance to vulnerable groups of women working from home.

The problems faced by impoverished women homeworkers have been discussed by Singh and Viitanen (1987). Their conclusions, though primarily relating to homeworkers in India, are equally relevant to Malaysia, and have been provisionally confirmed in a study by Loh-Ludher (2002). Indian studies have noted the central issues of invisibility, and vulnerability to exploitation including self-exploitation due to marginalization. They have also examined how fear and avoidance of authority keep homeworkers on the periphery of society, entrenched in the nonformal sector. The studies also described the poor working conditions and lack of protection for homeworkers, due to the instability of jobs and income, long working hours, substandard working environment, and the little or no social and welfare protection for workers, for example, social security, and sickness and maternity leave. Additional problems for the rural poor relate to the deterioration of the agricultural industry by 0.2% from 1997 to 2004, as Malaysia's economy has moved towards industrialization (a 6.3% increase during the same period). The professional services sector, including ICT, has also undergone a sizeable growth (15%) between 1997 and 2004. With the advance of ICT, home-based work has increased and is regarded as a mega-trend for women (Aburdene & Naisbitt, 1993). This trend has yet to benefit the poorer strata of society,

however, because of the low levels of competency, capacity, and professionalism it requires.

## The Research Project

In 2005, the International Development Research Centre (IDRC) of Canada sponsored a 12-month study of the opportunities afforded by ICT for women homeworkers in three countries: Indonesia (conducted by the ASEAN Foundation's ICT4D Collaboratory, Jakarta); Malaysia (Ludher Consultancy on behalf of *eHomemakers*, Kuala Lumpur); and Thailand (Sukhothai Thammathirat Open University, Bangkok). The term *e-homeworkers* was used for the type of homeworking that makes use of the Internet and other ICTs in the home and community. These tools are appropriate as providers of access to nonformal training and formal distance education alike. This article deals with the Malaysian contribution to this study, directed by the author.

### Interviews and Discussion Sites

The following institutions were selected for the study: *e-homemakers' Salaam Wanita Project* (Kuala Lumpur, Klang Valley, and Ipoh); *Yayasan Strategik Sosial*'s community center (Petaling Jaya, Klang Valley); *e-Upcom* community computer center (Petaling Jaya, Klang Valley); *KUNITA* office and community center (Pulau Aman, Penang); *Stepping Stone* occupational therapy center (Ipoh); the *Daybreak Association* occupational and rehabilitation center (Ipoh), and *Asia Community Service* (Penang). The research team comprised experienced researchers and university graduate internship students, trained to facilitate the interviews and focus group discussions in the respondents' various languages. Three training sessions were conducted to develop the team's capacity for the study, and to achieve consensus on the interview methods to be used in order to ensure ethical consistency and validity.

### Methodology

The background research was conducted via analysis of records of oral history and observation, while the fieldwork was carried out in interviews and focus group discussions scheduled between May and August 2005. A team of interviewers met individually with 90 homeworkers and 40 stakeholders at the three sites: Ipoh, Klang Valley, and Penang. Of the homeworkers' group, 41 participated in eight focus group discussions: two in Klang Valley, and three at each of the other sites. Ten homeworkers were selected for further interviews, based on their different types of home-based work and vulnerability for oral history collection, so that they could provide a deeper understanding of their work experiences and their work uses of ICT. Two of these cases were selected for observation. The 40 sectoral stakeholders included government agencies, nongovernmental organizations, and private sector entities, and were interviewed to further understand their perceptions, policy, support, and assistance relating to homeworkers.

*The Sample*

*Race.*   The breakdown by nationality of the 90 homeworkers interviewed is shown in Table 1. It corresponds closely to the actual composition of Malaysia's population. The Asian Financial Crisis of 1996–97 saw many garment and electronics multinationals shift to countries including China, Cambodia, and Vietnam in search of lower-cost labor (White & Sharma, 1999). After the crisis, local entrepreneurs, having learnt from the multinational corporations, expanded their operations to meet increasing global demand. They encouraged more-experienced and skilled workers to be their home-based subcontractors. In this way they were able to externalize costs and casualize labor in order to stay competitive and flexible.

*Age and marital status.*   The distribution of age groups in the sample is shown in Table 2, and the breakdown by marital status in Table 3. Generally, fewer younger women take on home-based work. They prefer working in factories and organizations where they have opportunities to socialize. Employers usually prefer younger, unmarried workers who do not take maternity leave or have competing family responsibilities and can be paid less. As Islam permits men to have four wives, Muslim women feel insecure because of the fear of losing their husbands. In fact, half of the Muslim women in this study were separated or divorced, with little or no alimony or financial assistance from their husbands. All of the 15 single mothers (12 Muslims and 3 others) lived close to the poverty line. A third of the sample represented the primary earners of their households. Almost all had dependents and bore the main responsibilities for the physical care of elderly parents or young children. Thirteen of them had disabled children who needed a great deal of care and attention, particularly those who had to be taken for daily physiotherapy. Almost 10% of the homeworkers interviewed had disabilities or were chronically ill.

## Findings of the Project

### 1. Profile of Home-Based Work

Homeworkers gain their living from a wide range of products and services, including traditional handicrafts and food-processing cottage industries, involving

Table 1.   Breakdown of sample by nationality

| Nationality | Percentage |
| --- | --- |
| Malay | 38 |
| Chinese | 35 |
| Indian | 18 |
| Asli | 4 |
| Other | 5 |

*Note.* Number in sample = 90.

Table 2.   Breakdown of sample by age

| Age range | Percentage |
| --- | --- |
| 19 years or less | 1 |
| 20–29 | 9 |
| 30–39 | 29 |
| 40–49 | 32 |
| 50–59 | 16 |
| 60 or more | 13 |

*Note*. Number in sample = 90.

labor-intensive work subcontracted from factories and knowledge-based services. They are not registered as a separate category of workers in the labor force, but are generally grouped together with other independent workers or as unpaid family labor. Wage-earning homeworkers and home-based subcontractors are not formally regarded as workers at all and are not accorded the legal benefits of workers, such as medical and maternity benefits, paid leave or social security, and provident fund contributions. Women who work from home are sometimes harassed by local authority officials who tell them that residential premises cannot be used for production, and that they are operating without license or registration. Consequently, many homeworkers become invisible in the community. The value of their work is not assessed, and their contribution to the economy goes unrecorded.

The majority of the homeworkers have worked in labor-intensive factories, and entered into home-based work after childbirth. Many of them were confronted by a gender-insensitive environment unsupportive of mothers with small or disabled children and aged parents. This confirms the finding of earlier research by Loh-Ludher (2002) that home-based work offers women an opportunity to be gainfully employed when they are either unable to participate or have to withdraw from the formal labor force after childbirth. The invisibility of their work is also due to the fact that homeworkers flexibly intersperse their productive work with domestic duties. In homes where the gender division of labor is strong, homeworkers bear primary responsibilities for the home's care and maintenance. Their domestic tasks take the central role, and home-based work fills spare time and space only. Their family and community perceive these women as "housewives" rather than "workers" in their own right.

Table 3.   Breakdown of sample by marital status

| Marital status | Percentage |
| --- | --- |
| Married | 65 |
| Unmarried | 6 |
| Divorced/separated | 17 |
| Widowed/abandoned | 12 |

*Note*. Number in sample = 90.

Most of the homeworkers interviewed in this study work on an individual basis. Some 65% of them work alone, supplying products or services directly to wholesalers, retailers, or clients. Another 17% are subcontractors—mainly involved in packaging, garment sewing, and electronic assembly work. The remaining 18% generally work in informal or nonpermanent partnerships with relatives, neighbors, or friends. The homeworkers who negotiate individually with principals or factories remain isolated. Their reluctance to share information with others is compounded by their perception that, since they lack registration and local authority officials sometimes harass them for conducting business in residential areas, their home-based work is illegal. Consequently, they do not form work groups or organize themselves to strengthen their bargaining power. Factories take advantage of this tendency by externalizing costs and exploiting subcontractors.

Owing to the informal nature of the work and their isolation, most homeworkers have little access to assistance, training, and educational programs. As a result, the handicrafts and foodstuffs they produce are often of low quality and restricted to the local market. Other products which are exported, such as garments, shoes, gloves, and electronics, are produced by subcontractors for factories. Most homeworkers neither see the final product nor are aware of the destination of these goods. They are unfamiliar with fair trade practices as most have had little or no access to information or organizations promoting them.

## 2. Household and Socioeconomic Factors

Most of the sample's homeworkers live in low-cost housing areas or villages. All have access to electricity and piped water. Through the urban development efforts of the government to provide proper housing with amenities for the poor, 25% have been relocated from the squatter houses to low-cost flats, with MYR 130 (US$34) as the average monthly housing loan repayment. This is lower than most rented houses in the three sites covered by the research. The majority of the homeworkers (55%) belong to "nuclear family" households, with an average family size of six. One-third of the homeworkers have more than four dependents; 45% of them live in extended families or share their residence with other families; 60% have relatives occasionally living with them; 20% have other tenants sharing their homes; and a few live in rented rooms. Generally there is no spatial segregation for productive work in their homes, with the dining/living area being the most frequently used space—except for the kitchen for food-processing work. The workers' bedrooms become the usual workplace for those living in rented rooms.

When a homeworker is unable to carry out her household chores, the person most likely to assist her is another female. More than a third of the homemakers interviewed receive little or no help in their work from their husbands. In general, they are socialized to accept the virtue of being the "good wife and mother," and the concept that the husband or son is the "family's lord" even *in absentia*. Homeworkers, in their desire for their children to break out of poverty and to attain a better future, often prefer their children (particularly their sons) to focus on their studies rather than to help in

household chores and home-based work. Thirty-six percent of the sample cannot rely on support from in-laws, siblings, or parents even for babysitting and occasional childcare, owing to distance, estrangement, or unwillingness or inability to help. The general lack of facilities and support infrastructure for the physically disabled and the elderly create a heavy burden for these women. Most of them learned the responsibility and dignity of work from helping their mothers, many of whom worked alongside their fathers or supported the family as primary earners. Their fathers—or in their absence the male relatives—are the families' main decision makers. Most homeworkers defer to their husbands or other male relatives in decision making.

Most homeworkers stated that the decision to enter into home-based work was based on the available opportunities and the pressure of financial needs, and was primarily theirs. Initially, since home-based work is mainly undertaken during the time their husbands are not home, most of the husbands are unaware of the work. The women have to manage their time and resources strategically and creatively, to ensure that they do not neglect their domestic responsibilities. This is often achieved by buying labor-saving devices or prepared ingredients and cooked food to save time and energy. Forty-one percent of the sample work full time and 44% part time. The others have regular employment and work at home to supplement their income. The personal monthly income of the homeworkers interviewed is shown in Table 4. The poorest members of the sample are predominantly the single mothers and those whose husbands do not regularly and adequately provide for their families. Their primary means of sustaining the family are the income they generate from home-based work and the supplementary income they may generate from occasional odd jobs. One-third of the homeworkers interviewed are sole earners. Another 17% are primary earners with other household members contributing small amounts to the household expenses. Half of them are supplementary earners, though in some cases the amount contributed is significant. It is apparent that the personal earnings of most of the homeworkers are given as substantial additions to the household income and significantly uplift the families from their poverty. Increasing fuel prices have reinforced the decision for some women to pursue home-based work; and it is widely anticipated that bus and taxi fares will increase in the near future. Working at home avoids these transportation costs and the clothing, childcare, and lunch expenses associated with working outside the home, and allows the women to stretch their income considerably.

Table 4.   Breakdown of sample by monthly income

| Income (US$) | Percentage |
|---|---|
| Less than 25 | 4 |
| 26–50 | 29 |
| 51–150 | 27 |
| 151–250 | 31 |
| 251–500 | 9 |

*Note*. Number in sample = 90.

## 3. Skills and Training

The occupations of homeworkers in the sample are shown in Table 5. Almost all of the sample began their home-based occupations by utilizing their existing skills and previous work experience, and by using the materials and resources available in the home. Owing to inexperience and the lack of accounting and record-keeping skills, most homeworkers are unsure about the amount of setup capital they expended.

The educational level of the homeworkers interviewed was elementary 1–6 years (48%); secondary 7–10 years (39%); postsecondary (3%); and no formal education (10%). There was a consensus among the majority of the sample regarding the failure of schools to prepare them for employment. The main medium of instruction in government schools is Malay, resulting in weak English language skills and consequent difficulties in using either a computer or the Internet. Much of the sample's previous experience came from participating in family businesses, while other members gained useful skills from working as unpaid family labor in the agriculture or fishery sectors. Because this experience was generally unpaid, they did not perceive it as work. Other sample members had acquired skills and experience from working as low-paid, unskilled, secondary workers in factories; while those with a better education had been employed as support staff in burgeoning industries. Only three members of the sample had professional training such as classical dancing, designing, and translation, though many of them (notably those in the 30–49 age group) stated that, before working at home, they had gained some experience from the formal sector. They tended to enter home-based work because of the lack of opportunities to reenter the formal economy at that age. This problem is exacerbated by the preference of factory owners for hiring younger women.

## 4. ICT Facilities in the Community

The Government of Malaysia has invested heavily in providing ICT infrastructure, and in encouraging private sector investment. Initiatives include the

Table 5.   Breakdown of sample by occupation

| Occupation | Percentage |
| --- | --- |
| Tailoring and embroidery | 30 |
| Food processing | 20 |
| Handicrafts | 14 |
| Beauty and health | 10 |
| Industrial packaging | 9 |
| Babysitting | 8 |
| Secretarial/accounting | 4 |
| Private tutoring | 3 |
| Marketing | 2 |

*Note*. Number in sample = 90.

*Multimedia Super Corridor* linking Kuala Lumpur to Cyberjaya and Putrajaya, and recommendations to every major city to adopt an "e-city" policy (MSC.com.my, 2006). City and municipal councils have invested heavily in ICT infrastructure facilitating the payment of bills and license applications, and in providing public access points for the free use of the Internet. Dialup access (approx. US$5 per month) is available at all three of the study's sites, and broadband penetration (approx. US$15 per month) is expanding though still limited. Public libraries and community centers provide free use of computers and Internet services. Cybercafés and Internet cafés are easily accessible in most commercial centers in the vicinity of residential areas, and provide services at the low cost of US 50 cents per hour.

The pervasiveness of ICT tools and their diminishing cost has contributed to their greater accessibility for women homeworkers. The playing field is far from level, however. The "digital divide" is widening rapidly (Ng & Thambiah, 1999; Shariffadeen, 2001), and many gender-related issues and barriers to the use of ICT for home-based work have yet to be surmounted (Chong, 2004; Ng & Thambiah, 1999). While all members of the research sample have radio and television, for example, these are more commonly used for entertainment than for work. A choice of public and private stations is provided, and daily radio and TV community service announcements, though no educational programs. Few of the announcements are related to or benefit homeworkers' activities. Ninety percent of the sample uses the phone daily even though this may not be for their work. More than half (55%) own a mobile phone, and another 30% has access to mobile phones owned by other household members. This is the most widely used ICT tool in their work. The approximate average monthly call cost is US$4, though this is rapidly decreasing for both mobile phones and landlines as the technology improves and competition increases. About one-third of homeworkers have access to computers at home.

The use of computers and the Internet is taught at school, and the children of homeworkers are therefore often able to use these tools. Homeworkers, however, especially those with little education, usually cannot use them, even though 40% of them state that they have received some form of computer training. Only 27% of the sample use computers and the Internet daily. These individuals use ICT tools in general mainly for building personal relationships and business such as contacting customers or receiving orders. Few use them to advertise and promote sales. A few sample members surf the Internet for information to upgrade their skills and product quality, while others use it to search for materials for tuition classes. The major barrier for homeworkers using all these ICT tools is illiteracy. Although most homeworkers can read and write Malay, Tamil, or Chinese, their level of fluency and comprehension is low in terms of reading and writing skills. Most are not familiar with English. This presents a problem in acquiring knowledge or accessing information from the Internet. Interest is high among homeworkers, however, regarding opportunities to learn how ICT could help them maximize business opportunities.

The main reasons cited by homeworkers for their lack of use of the higher-end ICT tools are "lack of capital" and "lack of skills." Another reason is that their clientele are not Internet users. Ten percent of the sample have access to community computers or Internet centers operated by a nongovernmental agency or a community association, but Internet cafés are not popular among homeworkers as they are perceived as primarily patronized by the young for playing games. While communities such as Pulau Aman, Penang, have a community center with Internet facilities operated by a nongovernmental agency and the Government Fishery Board, the officers and volunteers make little effort to encourage or facilitate homeworkers to use these facilities or educate them on the potential for using ICT tools to enhance their business. Even those serving as informal community leaders, coordinating catering and other cooperative businesses, and office-bearers of *KUNITA (Wives of Fishermen)*, do not use these community facilities. It is similar in the case of the homeworkers of Petaling Utama, where *Yayasan Strategik Sosial* has established an *e-Upcom* computer center for the residents, and collaborated with Petaling Jaya Municipal Council to provide it as part of the urban poor community development program. Few homeworkers have used the center, typically because most of them do not possess their own computers, and they therefore cannot practice the skills that attendance at the center might teach them. It is therefore essential that, in addition to training and hardware, homeworkers should be provided with regular refresher courses in centers adequately equipped and maintained.

Key informants interviewed in the study, from companies that subcontract publication, translation, and ICT-related work to homeworkers, indicate that such companies do not usually have any provision to train or provide hardware for ICT work. They would generally take only homeworkers with existing skills and experience. Companies are also cautious to subcontract data-entry jobs to homeworkers, fearing leakage and theft of information. Only half of the homeworkers have derived benefit from some form of ICT assistance program or from capacity building offered by government or nongovernmental agencies. Even among programs with ICT components for women, none are specific to poor female home-based workers. Only *eHomemakers*, with the *Salaam Wanita* program, has focused on vulnerable women working from home (Chong, 2004). This program began in 2003 with Nestlé donating second-hand computers to disabled women. It has since evolved into a small business entity that helps to equip vulnerable women with ICT knowledge and skills for income generation.

Many of the ICT facilities that have been put in place are unreliable. While it is the policy of the government to provide ICT access, the lack of coordination between agencies results in apartment buildings such as those in Petaling Utama, Klang Valley to be without landlines for long periods. Community projects for computer and Internet centers such as *e-Upcom*, although sponsored by the Petaling Jaya Municipal Council, remained closed for months because they had no telephone connection. *Yayasan Strategik Sosial* tries to engage the providers in a dialogue to help applicants to gain priority for the acquisition of ICT tools for work as opposed to entertainment.

## 5. Gender and Exploitation Issues

The lack of ICT usage for work purposes in the home is not always a question of affordability, however. As explained by the research participants from Petaling Utama, it is often a matter of the women's obligation to submit to the family's preference for entertainment. This, the research team members surmised, is most likely to be determined by their husbands. Sometimes ICT tools that are helpful to the homeworkers are placed at the disposal of other members of the family giving them priority over the homeworkers' own ICT needs. The computer, which may be essential for the woman's work, is kept in her son's room, so that he will have ease of access to play games with friends. Many homeworking mothers indulge their sons in this way, sacrificing their own needs and wants because they feel guilty that he is without a father, and also in the hope that he will be her support in old age.

The study has also made it clear that most wage-earning homeworkers and home-based subcontractors suffer from the inequality of power relations with middlemen or contracting agencies. They have no provisions for medical benefits, paid maternity leave, social security, or employee provident fund contributions. It is a case of "no work, no pay." Factories externalize their costs by subcontracting to homeworkers. The shoe-making and garment manufacturing factories place machines in the homes of home-based subcontractors (e.g., for stitching slippers and shoes, and sewing garments), rent-free, thereby reducing their own requirements for space and rent. The subcontractors also have to pay for utilities, especially electricity, and sometimes other supplies such as thread, glue, and packing material. Often these are not costed into the payment to the subcontractors. There is no occupational health and safety provided for the worker and her family. The presence in the home of sewing machines, pins and needles, packaging materials like large plastic bags, glue, and soldering irons poses risks to infants and children. Accidents happen and, while homeworkers are keenly aware and concerned about such dangers, there is no compensation for injuries to themselves or family members.

The oral history of earnings of subcontractors carries numerous tales of homeworker exploitation. The piece rate for sewing shirt collars can be as low as US$0.48 per dozen, 4 cents per collar, and an average US$0.80 per dozen for more complicated designs. Subcontractors are often paid a fraction (approx. 10–20%) of the wholesale price. This is similarly reflected in the piece rate for shoe-making. The marked-up retail price may be 100% or more of the wholesale price, depending on the outlet: boutiques at the top end, and night markets at the lower, with department stores somewhere in between. The more up-market and high-fashion the product, the greater the disparity between the piece rates paid and the retail price. Isolated homeworkers involved in food processing, as those on the island of Pulau Aman, endure an additional imbalance of power in their dealings with middlemen. These women are unable to take their own boats to the mainland, and depend on the men who own boats to buy their goods and to take them to the mainland for sale. After deducting the costs of the ingredients, cooking gas and other variables, the women themselves make little or no profit. Owing to the seasonal and irregular nature of

their work, these homeworkers have to take on other jobs, such as selling newspapers, to supplement their income, which would otherwise be inadequate.

Few social agencies recognize the benefits of homeworking, even for the disabled. Going out to work presents the disabled with obvious obstacles, a problem common in the disabled-unfriendly environments of countries including Malaysia. The problem is particularly acute for those restricted by the island confines of locations such as Pulau Aman. For example, as the data gathered in Pulau Aman indicated, the Fishery Development Board in Pulau Aman does not assist the women to process better fishery products nor to organize and promote them through marketing agencies or at trade fairs. Rather than helping them to innovate and develop commercial cage fishing and value-added processing of food, it appears that cheating of homeworkers by unscrupulous traders is tolerated. Such traders take the homeworkers' products on consignment, and subsequently claim that the quality is too inferior to be marketable or that any money from sales was eaten up by administrative costs and commission.

On the positive side, the exploitative nature of subcontracting can be reduced by previous working relationships with the employer. Many homeworkers are ex-workers of the local factories and have a close prior relationship with the owners. This is notably the case in small enterprises and microenterprises. Subcontractors often address these owners as "brother" or "sister," and turn to them for advice and assistance beyond that of a working relationship, on such matters as the children's studies, and applications for documentation relating to passport and legal matters. Occasionally, owners give them gifts from their travels and during festive seasons, extending their friendship into a family-like relationship.

## Discussion and Conclusions

Distance education methods play a major role in supplying the formal educational needs of remote and marginalized members of society. They can play an equally vital role in providing nonformal vocational training. Such services are vital in the developing world as means to address poverty, to raise capacity, and to stimulate national and regional economies. For the sectors of society in the most serious need of this assistance, however, gaining access to training programs and materials is frustrated by socioeconomic and gender-related factors that completely undermine the viability of distance-based delivery at this time. In examining the profile of home-based work in Malaysia, this article has illustrated these factors in detail.

The article has described activities ranging from day-to-day wage earning to specialized training activities designed to increase earning potential. The findings from focus group discussions, records of oral history, and observation have provided insights regarding gender-specific obstacles to the effective deployment of ICT for home-based work and training. While Malaysian society supports numerous ICTs with educational potential (e.g., radio, television, the Internet, and the mobile phone), access to them by women in the disadvantaged sectors of society is

severely restricted by household and socioeconomic problems, and by gender and exploitation issues. These deny disadvantaged women in Malaysia the freedom to engage in every kind of distance education program, whether formal or nonformal, from home or in community centers; and the odds seem heavily stacked at present against a significant increase in the use of ICTs for formal education and training by this sector of society. Distance education programs offer homeworkers increased knowledge and skills for use in reducing their poverty, but programs dependent on access to the computer and Internet have limited viability. The mobile phone is widely accessible and could offer homeworkers numerous possibilities for convenient and inexpensive information gathering. Few efforts have been made to increase women's participation in the formal working sector of Malaysia, however, and little has been done by way of program development assisting the informal sector, especially homeworkers, who remain neither accounted for nor recognized.

Belonging to networks and organizations increases homeworkers' chances of breaking out of these constraints. Forty-nine percent of the sample's homeworkers belong to some form of formal or informal organization, including *Salaam Wanita*, *Stepping Stone Occupational Therapy Centre*, *Daybreak Association Occupational and Rehabilitation Centre*, *Asia Community Service*, various single-mothers' associations, and faith-based organizations. These support groups are instrumental in generating business opportunities for homeworkers in terms of marketing and product improvement. With a membership of 13,000, *eHomemakers* has succeeded in facilitating networking by homeworkers, and in raising the profile of unpaid and home-based work in Malaysia generally. Such organizations are better able to provide capacity building and training programs for homeworkers to utilize ICTs in their work. They are able to provide exposure to ICTs in order to increase access to information and strategies for expanding home-based business. It is organizations such as these, which can take a prominent role in coordinating nonformal and formal distance education opportunities.

Community centers and services need expert assistance and funding, however, in order to develop as learning centers. Latchem (2001) has demonstrated the roles they can play in providing a wide range of distance education and training, ranging from nonformal ICT training aimed at generating employment and business enterprise to formal courses leading to accreditation. He has also listed the numerous steps that need to be taken to develop and promote the centers' educational services, including public awareness raising, provision of counselling services and tutoring, and enrolment assistance. [Editor's note: A full range of these services is provided at community centers in rural Cambodia, from kindergarten to adult levels, assisted by the University of Education and Development (UniED) of which the current author is Vice-Chancellor.] Such developments are all too slow to evolve on a large scale, however, due in part to the gulf of understanding between the worlds of community development and mainstream distance education. This gulf has to be bridged before the evolution of learning centers can take place. Community developers need to be made aware of the ways in which the modern distance education technologies can be

used to create local training, and distance educators need to acquire a detailed understanding of the social and cultural problems that impede this process. Ultimately, the two types of specialist have to work together to provide the educational enhancements the community centers need.

This article, and the sociocultural perspective on which it is based, is an attempt to assist the discussion between community and academic educators, by providing a detailed current image of the Asian condition, especially that of women, which needs to be taken into account in the development of community-conscious programs and local access to them. An account by Green (2006) of the daily home schooling experience of a farming family in Queensland, Australia, provided material of this kind in a developed world context; and this article has provided similar background information about the daily working conditions of underdeveloped Asian communities.

The study has provided insights into the lives of homeworkers and the challenges they face. The lives of Asia's poor and needy could be greatly enhanced by the provision of ICT-based distance education and training. By using ICT methods in nonformal training contexts, such learners could acquire a mastery of the technologies, and a motivation which they could subsequently apply in formal educational activities. The revenue-generating activities of women homeworkers, disadvantaged with respect to many training opportunities, could be uplifted, and the growing community of "e-homeworkers" could be rapidly expanded. At present, however, such goals are idealistic and are never likely to be fulfilled; for so many hurdles to this dream exist. Socioeconomic factors in the home, community attitudes to home-based work, and the exploitation of women in the home and society are significant obstacles that must be addressed before the dream that distance education and training will play a significant role in eradicating poverty can become a reality.

## Notes on Contributor

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