



# **Networking Women in Rural Communities via Information Technologies**

**New England Women Linking in New Communities**

**(NEWLinC) Project Evaluation Report**

A Project Funded by

New South Wales Department for Women

Women's Grants Program 2000-2001

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## **Executive Summary**

### **Introduction**

The NEWLinC project funded by NSW Department of Women Grants 2000-2001 was designed to increase the number of rural and remote women in the New England Region who have an understanding of, and participate in, the development of an information technology economy. Through hands on workshops and the use of communications software New England women were encouraged to extend their networks to women outside their physical boundaries. The aim of NEWLinC was to build a 'virtual community' of rural and remote women, support their personal goals of learning and help them gain confidence in using the Internet effectively by:

1. Providing introductory training to understand and access the Internet
2. Providing website with chat and forum software for discussion /debate
3. Developing virtual communication strategies to build Internet confidence, networking, support and collaboration.

The anticipated outcomes of the project were to:

- (a) Improve understanding of the advantages of being connected to the Internet, and the potential for Internet technologies to impact upon, shape and provide opportunities to improve their lives.
- (b) Increase interest by women in ICT with a resulting interest in educational and business opportunities provided through the Internet
- (c) Increase motivation and confidence to undertake higher levels of IT training through local or online programs.
- (d) To establish virtual communities between rural and remote women and metropolitan counterparts providing support and networking structures.

## **Evaluation strategies**

The degree to which the goals of the project were met and the outcomes achieved were evaluated by focus group discussion involving participants, 53-in-depth phone interviews, an online questionnaire, and monitoring usage of online services. Participants involved in the evaluation included women who participated, workshop facilitators and other stakeholders. Analysis of data included workshop attendance; qualitative data obtained from interviews and Website usage statistics.

## **Evaluation questions**

The evaluation process was guided by the following questions:

1. Have women who participated in the NEWLinC project increased their understanding of the Internet, electronic communication tools, and e-commerce?
2. Have women who participated in the NEWLinC project changed their understanding of the use of the Internet for learning and business purposes, for accessing services, or for maintaining contact with family, friends and business associates or community groups?
3. Have women who participated in the NEWLinC project increased their level of confidence with Information Technologies?
4. Have women who participated in the NEWLinC project indicated an intention to pursue further study in computing or business development?
5. How effectively has a 'virtual community' involving rural and remote women been established as a result of the NEWLinC project?

Later sections of the report provide more detailed responses to these questions. The following sections respond to each of the major questions seeking to evaluate the project outcomes.

Responses to the five research questions are followed by a set of recommendations.

**Question 1: Increased understanding of the Internet**

Survey results showed that 45% of respondents' most valued developing email skills of those skills addressed in the project. Improving Internet search strategies took second place with 19% identifying this as the most valued skill; while still other respondents indicated that just gaining confidence (11%) to launch out on their own was worth their participating in the program. The following table identifies the skills included in the NEWLinC project that were new to participants.

Skill	# Respondents	% total
Email	24	45%
Discussion board	19	36%
Chat	39	74%
Internet search	27	51%
Connect to Internet	14	26%
Videoconference	11	21%
Internet banking	12	23%
Website (how to use)	10	19%
Conversations online	14	26%
Other (e-commerce)	5	9%

Table 1: New skills developed by NEWLinC participants

**Question 2: Changed understanding in use of the Internet**

The e-commerce component of the project did not attract as much interest and activity as had been projected. This is believe due to the lack of initial skills, as it became important to concentrate on connection, basic Internet, and browser skills, along with the development of Internet search skills. However, 32% of the respondents did indicate that they had gained an insight to the developments in e-commerce areas, while 47% indicated that they were not interested in e-commerce at this time although they would be interested in learning more in the future (73%).

### **Question 3: Increase confidence in usage of the Internet**

The majority (79%) of participants indicated that their level of confidence with computers and using the Internet has increased as a result of participating in the project. However, 11% did not feel that they had gained new information. Many of these women felt that they were using a computer confidently before they began the project. Similarly, the awareness raising activities of the NEWLinC project supported 75% of the women in gaining a new understanding of the power and utility of the Internet. Fifty-five percent of the women were pleased to have their knowledge extended and found that they developed useful new ideas and skills that they could apply to their daily working and social lives. Forty-nine percent of the participants believe that they use email more frequently with their family and friends as a result of participating in the NEWLinC project.

### **Question 4: Intention to pursue further study in computing or business development**

Many women (62%) have indicated that they have become more interested in undertaking additional study or learning opportunities, although few (11%) intend to use the Internet as a mode of delivery. Thirty-eight percent of the participants intend to study Internet programs through their local TAFE or Adult Learning Association. Of those interviewed, 25% have been inspired to enrol in other study activities, while 21% have applied the skills learnt to their business environment. These positive results showed that the project raised awareness of other learning opportunities.

### **Question 5: Establishment of a virtual community**

Few women (17%) participated in the online tutorials, and fewer still ventured out to use the tools without guidance and support (13%). Participants instead kept to familiar territory trying out their skills with family (55%), friends (45%) and work colleagues (25%). For many women new to online technology, the overall lack of skill with a computer meant that for many, logging onto the website was not easily achieved, as they had not acquired proficiency in using the basic tools. Few women reported the development of online community building or of maintaining close contact with other NEWLinC participants. Most felt that increasing fulfilled their needs computing skills and learning how to use email and basic Internet tools.

## **Future directions and recommendations**

The NEWLinC project was highly successful in educating rural women in the New England region in IT skills, but less successful in developing online community, fostering networking among rural women and increasing understanding of the scope of e-commerce ventures. Its greatest success was to provide a service at a more fundamental level. It reached a population of rural women who wanted an introduction to computing skills at a basic level, and who lacked confidence in using a computer. It also showed that there is an unmet need in the New England Region for IT skills among senior women, some of whom have only recently been introduced to the Internet. For the population who accessed the website and attended the workshops the project served an important role in opening up possible directions for future training, increasing awareness of the Internet and online education. For rural women already experienced with computers and the Internet the project offered fewer attractions, as most the workshops were oriented towards serving the needs of the primary group who need basic skills training. Nevertheless, 47% of attendees believed that the e-commerce skills would be valuable at a later date, when they had acquired basic skills.

The project was successful in establishing the need for skills training for a number of discrete groups of women: those in need of basic computing skills; those who sought advanced skills in e-commerce applications, and those more interested in the social and networking aspects of computing. The following recommendations are based on the findings of the evaluation.

## **Recommendations**

The present inequity in skills levels, access to IT services and training opportunities for rural women in the New England region is unacceptable. The response to the services was excellent and showed areas of unmet need with regard to e-commerce information dissemination, skills development and opportunities for teleworking among the population. This has far reaching consequences for women in the New England region who may be isolated due to distance and geographical location. The low level of IT skills in the population of rural women in the New England region is in integral component in cycle of rural disadvantage, which limits lifelong learning opportunities. Among older women in these communities there is a lack of awareness of IT related job opportunities, lack of basic IT skills and an expressed need to connect with other

women. In addition, women with children of school-going age who might have attended workshop were limited by the fact that creche facilities could not be provided. For rural women who desire to be involved in ongoing education and training, lack of IT skills limit their capacity to find out about and participate in ongoing education opportunities.

**Recommendation 1: Conduct an in-depth skills audit of potential participants**

The evaluation showed that levels of skill varied widely among the participants, some of who had no skills and others who had quite advanced skills. Future programs need to be tailored to the needs of the participants so that expectations can be met. Alternatively, workshops and services can be offered to groups with particular needs, for example advanced computer users who seek skills in e-commerce applications for setting up business, or introductory workshops for those without any skills in computing.

**Recommendation 2: Publicise the program and offer specific skills**

The programs offered need to be more widely publicised through local radio, newspapers and television, and funding should be provided to do so adequately. Future programs depend on astute and systematic marketing strategies so that a greater number of participants attend and that these participants cross all age boundaries.

**Recommendation 3: Build a program offering multiple levels of skill**

Participants who attend computing and Internet skills training often do not have clear idea of their needs. Programs should ensure diversity in offering a range of skills tailored to meet the needs of participants. These workshops may range from basic introductory skills in computer use, to more advanced networking skills using Internet, e-commerce applications and conferencing software.

**Recommendation 4: Provide more face-to-face workshops**

Participants showed great appreciation of the face-to-face hands-on workshops and found them useful and satisfactory. In addition, it was through the workshops that many participants began to make contacts and new friends. The results showed that these face-to-face events were the most valuable in terms of skills development for participants. Future planning and funding should

regard such events as the sore activity developing IT skills among rural women. Often, it is the initial contact between participants that spurs them on to establishing and maintaining online contact with others.

**Recommendation 5: For community building, ensure that local leadership combines with development of a strong skills base for participants.**

The project showed that community building and networking were not well developed outcomes of the project, through these were initial targets and desired outcomes. Future projects should consider the establishment of cohesive community networks with an element of leadership provided by participants in the community. For novice users of technology, online participation is needs driven and often daunting. This means that participants go online if there is a perceived need, such as ongoing learning, employment opportunities, or a social need. Several women mentioned the need to become more IT literate in order to participate in their children' education and assist with homework. Structured local level community groups online need to be established as a basis for networking at the local level. The need for training in community leadership online was another aspect of the project evaluation that is noteworthy.

**Recommendation 6: Provide more services online in a functional and accessible website.**

The NEWLinC website —located at [www.newlinc.com.au](http://www.newlinc.com.au) — aimed to provide a web presence where women felt comfortable to use email, chat and discussion boards to network with each other. Usage of the site for social chat was limited through there are indications that links to educational services and life long learning opportunities would have been a useful addition.

**Recommendation 7: Extend the networking through interactive workshop activities with women in other states.**

The evaluation showed that participants and workshop leaders wanted to extend networking possibilities by linking with rural groups in other states. There are community networks of women elsewhere who provide services in IT skills and training. The creation of a comprehensive online

directory of services for rural women seeking ongoing education, opportunities for regional community building, e-commerce development and tele-working is an area of need.

**Recommendation 8: Provide significant role models and provide ongoing opportunities for contact and interaction.**

Increase the mentoring role of senior women who have achieved success in e-business at a local and National level, and create a directory of rural women who can assume leadership roles to encourage younger women to engage in IT training and IT related work.

**Recommendation 9: Identify the skills gap in information literacy skills**

As part of rural and regional development, funding should be made available to fully document the information literacy skills of women in rural and remote areas of New South Wales. There is clearly a gap in this area of adult education, and a full-scale investigation could lead the way to provision of lifelong learning opportunities for women in the workforce seeking enhanced skills, and women who are educationally disadvantaged.

## **Project Overview**

The degree to which the goals of the project were met and the outcomes achieved were evaluated by focus group discussion involving participants from 4 geographic locations across New England where the NEWLinC project was conducted, 53-in-depth phone interviews, an online questionnaire, and monitoring usage of online services. Analysis of the data collected is reported below.

## **The beginnings**

The report, *Women and Computers* (ANTA 1998) found rural women were concerned that IT related employment requires long hours, lacks part-time opportunities, and was difficult to balance with family responsibilities. An extensive report concerning *Women and computer* (Salidu-Anderson, 1998) was funded by ANTA and recommended the establishment of women's networks and the development of web pages to facilitate remote contact between individuals and groups. Conducted in the New England Region of NSW, the project identified the barriers affecting women in their study of and employment in IT. The surveys highlighted that rural women do not feel confident with the new technologies.

They expressed concerns that involvement with IT meant long hours, full-time employment, leaving family responsibilities to others, and a great degree of personal stress. The New England Women Linking in New Communities (NEWLinC) project was a response to this need and was intended to provide collaborative places on the Internet for business, information literacy and social networking. A training program also available online, was the base for introducing women of the New England region to IT tools such as discussion boards, email, and chat. In addition these face-to-face events were supplemented by two videoconferences.

## **Community building online**

The project aimed to create communities of women linked by common interests in learning, online networking and e-commerce. Individuals join together to form communities, because they have common interests or needs. Preece (2001) defines community as having four elements:

1. people who interact to meet their own needs;

2. a shared purpose;
3. protocols that guide interaction; and
4. computer networks that enable communication.

NEWLinC comprised all of these elements, and other essential aspects emerged during the evaluation. Net communication tools offer rural women a means of linking for a common purpose, whether it is for education, socialisation or business. The New England Women linking in New Communities (NEWLinC) project aimed to provide collaborative places on the Internet for business and social networking.

This project also intended to identify success factors and strategies underpinning the effective use of communication tools in promoting life-long learning strategies while developing individual and economic opportunities of rural women.

### **IT Learning Spaces and online communities**

The online environment offers the possibility for many changes in personal relationships and communication. It may offer a sense of community, a public discursive space, and new opportunities for knowledge creation (Paloff and Pratt, 1999). One view holds that women were excluded from the process of knowledge-making when the printing press was invented (Spender, 1995:161), though these power relations are being redressed in online communities which are open to all (Preece, 2000).

Research and learning are transformed as activities when we compare online learning with other media, especially print (Spender, 1995:139). This form of learning will be a matter of relationships and learning as we go —‘just-in-time’ learning from experts, specialists and groups or individuals in the ‘know’. Cairncross (1977) maintains those common interests rather than proximity binds these communities together. Partnerships between individuals, who share their knowledge and experience is the basis of the new economy. Thus interpersonal communication and the skills to effectively use the communication tools of the new technologies are a must for individual and social survival.

The process of designing teaching and learning strategies for the dynamic, multi-levelled and networked communication environment remains a major challenge. Designing for interaction,

diversity and participation is a must, therefore one must not over-design up front and invest in a design paradigm or technology platform that can't be easily changed down the track (Rheingold, 2001). Kim (2000), a recognised expert in the field of online community design, suggests that there are nine essential issues for creating online communities. Online community development is built around:

1. Serving the particular needs of community members;
2. Providing infrastructure for bringing members together;
3. Recognising the diversity of membership and enabling strategies for getting to know each other;
4. Supporting services and interests provided for members by members;
5. Providing effective leadership and a plan for growth;
6. Implementing strategies to build trust, develop relationships, and handle conflict;
7. Incorporating many types of and frequency of 'events'
8. Implementing rituals and celebrations that bind members together; and
9. Ensuring a technology that allows members to build sub-groups for themselves.

Permeating each of these elements is the need for particular forms of leadership that recognizes and supports community. Each of these strategies is discussed below in relation to the NEWLinC project and website.

### **Serve the particular needs of community members**

Needs of community members was explored by referring to previous studies conducted in the region. An extensive report titled *Women and computers* (Salidu-Anderson, 1998) was funded by ANTA. Conducted in the New England Region of NSW, the project identified the barriers affecting women in their study of and employment in IT. The surveys conducted highlighted that rural women do not feel confident with the new technologies, but showed interest in developing skills for social purposes, to assist children and to keep abreast of current trends. The project therefore took these needs as a starting point. Fifty-three project participants were involved in a detailed

phone interview. The evaluation questionnaire (Appendix 1) asked about participants' needs in joining the online community. Table 2 shows responses obtained.

<b>Reason for joining NEWLinC</b>	<b>Raw score = 53</b>	<b>Percentage</b>
Use of communication tools	41	77%
Meet friends	12	23%
Videoconferences	8	15%
Gain new information	18	34%
Learn from others	9	17%
Connect to internet	4	8%
Buy computer	2	4%
Other (computing basics, &/or Internet	23	43%

Table 2: Reasons identified by survey respondents for joining NEWLinC

The majority of participants felt confident that their IT skills had improved through participation in the project.

### **Infrastructure for fostering IT skills**

The Internet has the capacity to change these perceptions and provide rural women with employment opportunities outside their local communities through Tele-commuting, contract work delivered via Internet, and e-business. The Women and Computers report recommended the establishment of women's networks and the development of a web page to facilitate remote contact between individuals and groups. NEWLinC is a website —([www.newlinc.com.au](http://www.newlinc.com.au)) —with the aim of providing a web presence where women feel comfortable to use email, chat and discussion boards to network with each other, thereby communicating and learning from each other.

The majority (79%) of participants indicated that their level of confidence with computers and using the Internet has increased as a result of participating in the project. However, 11% felt their skills were not improved by the program as they described themselves as experienced computer users.

Similarly, the awareness raising activities of the NEWLinC project supported 75% of the women in gaining a new understanding of the power and utility of the Internet. Fifty-five percent of the women were pleased to have their knowledge extended and found that they developed useful new ideas and skills that they could apply to their daily working and social lives. Forty-nine percent of the participants believe that they use email more frequently with their family and friends, however, extension to the business environment does not appear to have resulted from the project.

### **Diversity of membership and strategies for online initiation**

Rural women in the New England region were invited to join the project. Initially they were contacted via print through various women's groups in the region (Quota, Zonta, CWA and Adult Learning groups) as well as media and mail-outs. A series of two workshops and three videoconferences incorporating online communication made up the project. The first workshop focused on online communication tools where women connected with other women at other delivery locations in the region. (NEWLinC used the computing facilities at TAFE campuses in the New England region. Using these facilities meant that the workshops had to be scheduled on weekends or during TAFE holidays.) The initial web presence — [www.newlinc.com.au](http://www.newlinc.com.au) — was a registration site providing a facility for women with Internet connection and skills sufficient to enrol directly into the project. Registration information and capabilities were incorporated into the general site as the series of workshops were implemented. Workshops, seminars and videoconferences focusing on communication as a skill and the tools for communication (email, mailing lists, discussion boards and chat sessions) via WWW provided the basis for women to learn about IT, and thereby, to come to know each other. The videoconference more closely resembled face-to-face communication. It provided the participants with the opportunity to see the gestures and body language as well as hear the voice tone of the women they had been communicating with online. Table 3 shows the location of workshops and the percentage

attendance at each. The average attendance and strategies for online initiation were therefore moderately successful.

<b>Location</b>	<b>Registered</b>	<b>Attend</b>	<b>%</b>
Armidale	85	55	65%
Boggabilla	14	9	64%
Coonabarabran	21	16	76%
Glen Innes	8	3	38%
Gunnedah	17	15	88%
Inverell	24	17	71%
Moree	33	16	48%
Narrabri	6	0	Cancelled due to illness
Quirindi	8	7	88%
Tamworth	42	25	60%
Tenterfield	18	12	67%
Warialda	13	7	54%
<b>Total</b>	<b>289</b>	<b>182</b>	<b>63%</b>

Table 3: Comparison of women who expressed interest in the project and those who participated.

Several factors effected the ability for women to attend the workshops. Suitable times and dates were difficult to arrange for various centres. The Project Manager also identified that due to the ‘free’ nature of the workshops and videoconferences, the commitment to attend on the day was not always strong. Other activities often held higher priority. On one occasion, a registered participant rang to apologise, stating that she really wanted to come, but her husband did not wish her to attend. The large discrepancy between the initial interest of New England Women with those who eventually were able to participate in the project illustrates the problem often existing in the lives of women — organising one’s activities to fit in with defined schedules.

## **Services provided for members by members**

Initially, it was the responsibility of the project team and online tutors to facilitate the development of the skills to connect and feel confident online. A great deal has been written about the obstacles to building an online community, and in the circumstance where members are neophyte, insecure or intimidated the obstacles are much greater (Rheingold, 2000). Finding common ground, shared interests and developing the initial skills in connecting were the focus in the early weeks of the project. Member profiles helped to let others know personal details from which they build an image of the recipients of their messages. Another obstacle is time: social dynamics that take months and years to evolve in the physical world do not always emerge in a matter of days and weeks on the web. The evaluation showed that fewer than 10% of participants logged on to the site for social interaction, communication and sharing of interests following the initial period of training. Once the skills had been obtained, participants used them for purposes other than networking with other NEWLinC participants. :— to decide to by their own computers, to assist their school-aged children, to stay in contact with grown children who lived distantly (nationally and internationally), or to manage their business affairs (eg livestock reports); while others logged in only occasionally to the site for items of interest and news.

While participants did not initiate new conversations, or provide a great deal of news and input for others, most indicated that new skills were developed. Email skills were developed among 43% of participants, while Internet search strategies was the highest priority for 19% of the women. Others indicated that just gaining confidence (11%) to launch out on their own was worth their attending the workshops. Curiosity about chat and videoconferencing attracted 6% of the women. These were also identified as women who used computers for the more common purposes of word processing and spreadsheet management of finances. Table 4 identifies the priority of participants.

<b>Most useful skill</b>	<b># Respondents</b>	<b>Percentage</b>
Email	23	43%
Internet Search strategies	10	19%
Internet basics	7	13%
Gain confidence	6	11%
Communication tools	3	6%
Videoconferencing	3	6%
Internet banking	1	2%
Total	53	100%

Table 4: IT skills identified as being most important

Overall a variety of diverse skills were introduced to the NEWLinC women. Each taking from the project according to their needs. Table 1 lists the new skills identified by NEWLinC participants.

<b>Skill</b>	<b># Respondents</b>	<b>% total</b>
Email	24	45%
Discussion board	19	36%
Chat	39	74%
Internet search	27	51%
Connect to Internet	14	26%
Videoconference	11	21%
Internet banking	12	23%
Website (how to use)	10	19%
Conversations online	14	26%
Other (e-commerce/ web page design/ internet banking)	5	9%

Table 1: New skills developed by NEWLinC participants

### **Provision of effective leadership and a plan for growth**

Initially, NEWLinC tutors and workshop facilitators provided the leadership, but low levels of participation in online networking following the initial training period indicated that more local forms of leadership among participants should have been cultivated. Forty-nine percent of the women have continued their association with other NEWLinC participants. However, as 49% also came to the events with friends and work colleagues the researchers do not believe that the NEWLinC project has had any effect on the networking skills of the women involved. This is an area that requires a different leadership strategy, particularly where it is intended that the women network online rather than in their traditional formats which is what appears to have been supported. Eg. women who met at their local workshop have also maintained their contact by stopping when they meet in the street to discuss their progress and skills in computing. Networking has seldom extended beyond the local borders (23%).

### **Strategies use to build trust, develop relationships, and handle conflict**

Cooperation and trust are extremely important when linking via electronic communications. Networking with other women is often very exhilarating. Women frequently show immense good will to each other, and share their knowledge and experience with great generosity (Segerman-Peck, 1991:25). Although Segerman-Peck focused her research on face-to-face interaction the project team find this to be true in the electronic environment as well. NEWLinC ensured that the three conditions important for building online relationships, as identified by Preece (2000), were part of the project —(1) the likely chance of the two individuals meeting again in the future (videoconferences); (2) an ability to identify one another so that everyone knows who is responsible for a given message or comment (personal profiles); and (3) a definition of acceptable behaviour (NEWLinC policies). While people online may feel freer to disclose personal details, at the same time they lack actual contact that makes trusting online fragile. The face-to-face workshops and linking via videoconference were designed to assist in the development of trust between individuals. However, it was found that the time and number of interactions provided only a beginning to this process.

### **Type and frequency of 'events'**

In March 2001, the first series of workshops began, their purpose being to provide instruction about the requirements and procedures to become connected and to initiate the personal networking between NEWLinC community members. The workshops also provided the development team with feedback about the particular needs and motivations of community users. Using this feedback the development team made adjustments to the cyber community design. The workshop series was followed by a videoconference linking six of the eleven training sites together. Some of the NEWLinC participants travelled over 100 km to join others at the videoconference. Yet other women, (from the Glen Innes and Tenterfield area) felt that these facilities needed to be located in their own community. (There is an expectation that they will be available by 2003 through the joint project being developed by University of New England and New England Institute of TAFE.)

Participation in chat and discussion board during workshops, indicated that soon after the women experience the technology, they forget the means of communication and concentrate on the stuff of communications. Yet, the overall lack of skill with a computer meant that for many, logging onto the website frequently was not achieved. September to November 2001 saw another series of workshops and another videoconference; this time dealing with teleworking. Many of the 2001 NEWLinC participants have sought information on 2002 activities. Ninety-two percent have indicated their interest in continuation of the NEWLinC project on a fee-for-service basis.

Overall the participants in the workshops and videoconferences were satisfied with the organisation and delivery of events. However, most participants would like to have had more face-to-face workshops scheduled rather than use the Internet for tutorial activities. Rural women prefer coming together although the hardest part of the project was finding suitable times and dates when women in local areas could attend a common venue.

### **Rituals and celebrations that bind members together**

All new members were welcomed into the online community through face-to-face workshops , videoconferencing and a dedicated conferencing system. A personal response reaffirmed the newcomer's presence. Establishing and agreeing upon communication protocols was the first step to binding members together. Recognition of participation and contribution by members was

encouraged to enable beginners to feel more confident in linking across the WWW. However, very little activity developed in the online environment.

In the evaluation circulated, 83% of participants reported finding the NEWLinC website provided a user-friendly and supportive environment. Eight percent of the users however, felt that it could be improved, and suggested adding a FAQ section about computing and the Internet; a calendar of events which provides early warning for future activities. One participant would like to see job search links and ideas for generating business activities or employment in rural areas.

### **Technology that allows members to build sub-groups for themselves**

The website was equipped with discussion board and chat software so those individual members could start a new thread themselves. The use of this software was expected to grow as members gained confidence and become comfortable with others online. However, usage of this facility was limited and few participants initiated lengthy conversations online.

The evaluation sought participants views on valuable and memorable outcomes from the project. Many reported the following benefits:

- Increased confidence in using email and ICT tools
- Increased usage of the Internet to access information
- Meeting other women with similar interests
- Realisation of opportunities online

The novelty of linking up with other women via Internet chat and discussion boards created great interest and fun in the class situation, but did not continue into a daily or weekly activity.

Scheduled chat sessions were established with the Community Access Centre in Devonport, Tasmania. For those few women (11) who participated in the three sessions the experience was most regarding, however it was disappointing that more women did not take the opportunity to link up. Busy lives and work were given as reasons for being unable to participate. This has indicated that a well-planned and publicised schedule of sessions— held out of office hours is

necessary. Few women participated in the scheduled online tutorials or used the discussion board established on the NEWLinC website.

### **Building communities through leadership**

Leadership and its relationship to forming a learning community rather than a 'virtual or online community' emerged as a critical issue in the NEWLinC project. There is a need to use the online tools to help individuals in their quest for never-ending learning over their lifetime. One interesting finding to come out of the survey was the new awareness that participants had as a result of the project. Many wanted to 'know more' and indicated that they were willing to pay for the opportunity. This extract from one participant is an example:

*“Another NEWLinC participant and I had been friends but have hardly seen each other or spoken for 30 years. We just lost contact. That friendship has now been renewed and she has become a customer of my Internet business.”*

Another stated that the most valuable experience was:

*“being made aware that there are other women out there in exactly the same position/level of computer expertise.”*

To promote 'learning' communities the community needs to be guided by skilful moderators and mentors. What skills and knowledge do 'skilful community leaders need to have? Research on electronic conferencing in education indicates that moderating online is significantly different from moderating face-to-face discussions (Kerr, 1986).

Current theories of leadership identify the process where leaders are not seen as individuals in charge of followers, but as members of a community of practice (Applebaum et al, 1999). A community of practice is defined as people united in a common enterprise who share a history and thus certain values, beliefs, ways of talking and ways of doing things. The majority of leadership theories focus on dominance, motivation and influence as primary vehicles. For online communities, instead of focussing on a leader and followers, a more appropriate conception of leadership is that of a social process that happens with groups of people who are engaged in an activity together. In line with this definition, leadership is the process of coordinating group efforts and moving together as a group. People do not need to be motivated and dominated by a leader;

instead, in the online community, everyone is assumed to play an active role. This leadership is highly compelling and inclusive of participant interests. In the NEWLinC project, the leadership role was initially focussed on workshop leaders rather than community members. The evaluation showed that it needed to become coordination of group effort, while moving with community needs for educational opportunities and services that were not originally covered in the NEWLinC brief. Thus the way ahead involves attention to building leadership linked with the process of leading within local sub-groups.

## Conclusion

Emerging from the NEWLinC project and evaluation that has been conducted up to now; we have the beginnings of an approach or development model that can be used to support women in rural communities. Essentially, this model depicts the relationships that exist between an online learning community and several essential components that are necessary. These are:

1. Accessible, user friendly resources that provide skills and communication tools sought by participants;
2. An online support infrastructure (tutors and technical help)
3. Appropriate forms of community leadership that seeks input and resources from participants
4. An infrastructure that is sufficiently flexible to support communication needs and learning needs as they arise and develop in the online community.

In addition, these resources must be integrated and syntonised in ways that will lead to high levels of participating and lead to lifelong learning opportunities. We believe that the NEWLinC project has been the beginning of a new model of community building for rural women that can serve as the basis for improved lifelong learning opportunities.

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