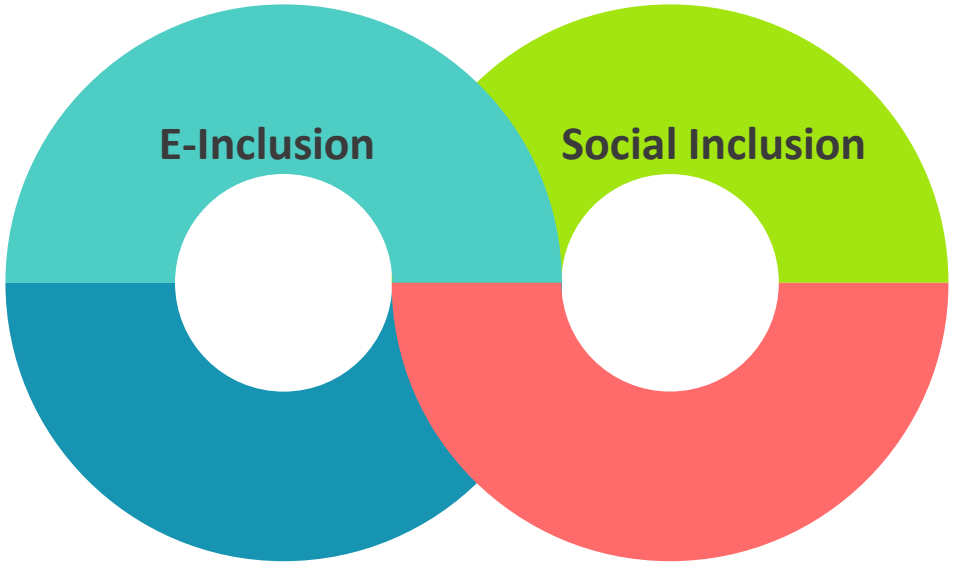
Prediction of Social Inclusion by E-Inclusion in Taiwan's Elderly



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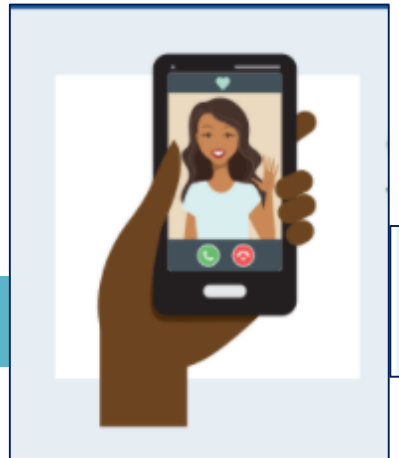
Ya-Ling Wang

Covid-19

Life-Changing

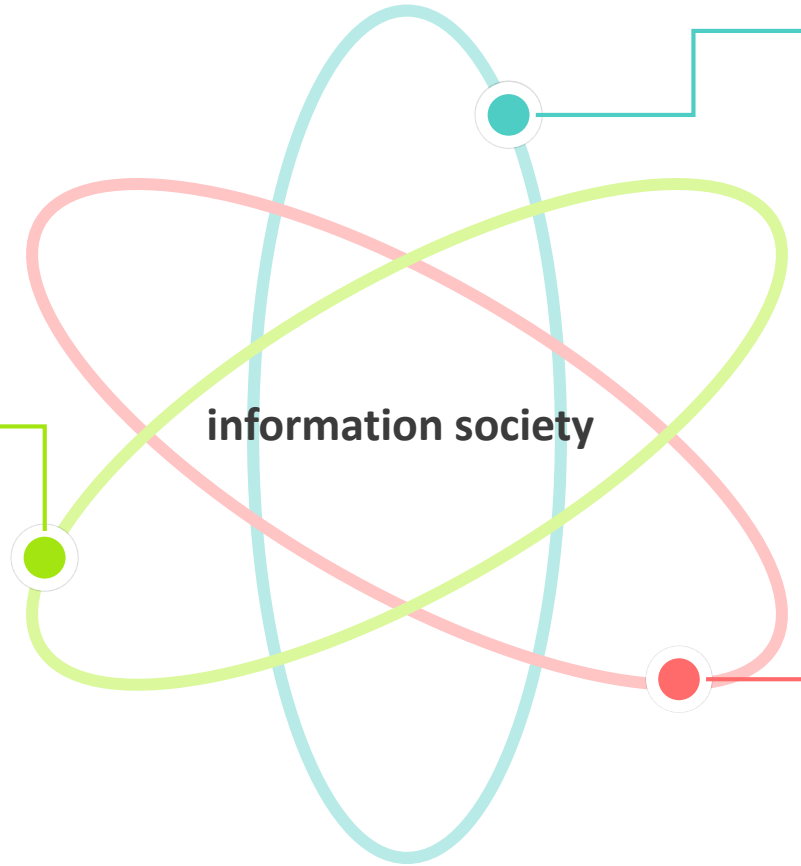
Social

Distancing



Call/Facetime/online chat with friends and family.

Taiwan’s Elderly



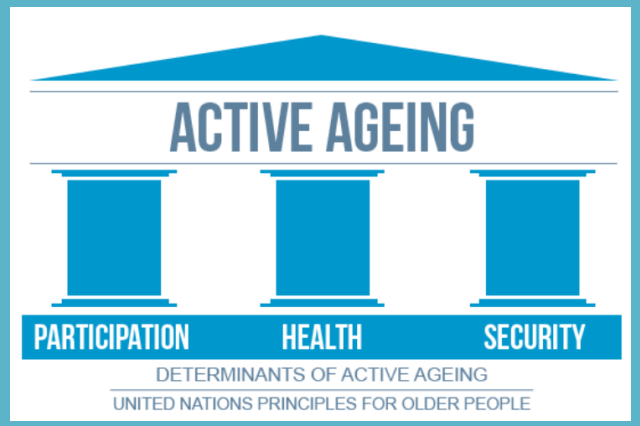
Social Inclusion

E-Inclusion

digital abilities

information society

Social inclusion VS Social participation



Social inclusion is the process of integrating communities into society. (Gurstein,1999)

Four types of social inclusion : civic, economic, social, and interpersonal inclusion.
(Chapman et al., 1998; Selwyn, 2002)

Active aging : as a process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age. (WHO, 2002, p. 12)

Strategy of Active aging : social participation
community-based services of Aging in Place

Social inclusion for the elderly

(1)Health ：

self-management of health conditions and improvement of health quality, etc.,

(2)social participation and interpersonal inclusion ：

Feeling valuable in meaningful relationships with family, friends and the community 、like to interact with people,

(3)engage in economic activities:

including online shopping, etc.,

(4)citizen participation:

participation in decisions that can affect life.

E-Inclusion

E-Inclusion or digital inclusion means that everyone in the society can participate in the information society.
(Eurostat ,2016)

Warschauer (2004) defines E inclusion :
Individuals and communities can effectively participate in all aspects of society and economy through the use of ICTs, such as social life, work, political participation, health, entertainment, etc.".
(Information and Communication Technologies , ICTs)

The elderly are one of the four groups most likely to be excluded in the digital society. (European Commission ,2007)

Research purposes

(1). To understand the digital integration status of the elderly in Taiwan ;

(2) Explore the relationship between E-Inclusion ability and social Inclusion of the elderly in Taiwan;

(3) From the perspective of the E-Inclusion and their relationship to the social Inclusion of the elderly, the ability of using ICTs is regarded as the facilitator of social Inclusion in daily life.

Design and method

- **Secondary data analysis**

- **Source of original data**:
  2019 Individual/Household Digital Opportunity Survey (AE010017) (National Development Council, 2020). ,
  Data from the Academic Survey and Research Database of the Research Center of the Humanities and Social Sciences Research Center of the Academia Sinica.

- To analyze the status of E-Inclusion of people over 65.
- To analyze the digital abilities and social Inclusion of people over 65 years old, and their relationship.

Measure of E-inclusion

- Personal level indicators

based on the skills to use ICT,
including knowledge and ability, which can also be called literacy (Sara and Paolo, 2010; Minds, 2007),
and an indicator of feeling trust and safety for the information when using it (Minds, 2007)

- the ability to use information planning
- the ability to identify information

sample

- Source of original data from
2019 Personal/Household Digital Opportunity Survey

1) 22 counties and cities in Taiwan / over 12 years old
2) the sampling population : residential telephone user lists
3) stratified random sampling
4) a total of 13,015

(National Development Council, 2019, 2020)|

- A total of 3,056 who meet the age of 65 and above from 22 counties and cities in Taiwan

Findings

Internet Access in the Elderly over 65

	No internet	Internet Access	n
young-old (age 65-74)	826 (41.7%)	1,156 (58.3%)	1,982 (100%)
middle-old (age75-84)	667 (75.4%)	218(24.6%)	885(100%)
old-old (age over85)	166(87.8%)	23(12.2%)	189(100%)
Total	**1,659 (54.3%)**	**1,397 (45.7%)**	**3,056 (100%)**

Findings

Education of the Elderly (N=1,397)

Education	n	%
not go to school/ illiterate	11	0.8%
Self-study / elementary school	221	16.0%
Middle School	562	40.6%
College/University	522	37.7%
graduate School	69	5.0%

Findings

Income of the Elderly (N=1,279)

Income (month/NT$)	n	%
0-23,000	642	50.2%
23,001 - 50,000	402	31.4%
50,001 - 90,000	177	13.8%
90,001 or more	58	4.5%

Findings

history of Internet use by the elderly (N=1,397)

The history of Internet use	n	%
Less than 5 years	878	62.8%
6-10 years	165	11.8%
11-15years	68	4.9%
16-20years	107	7.7%
21-25 years	48	3.4%
More than 26 years	131	9.4%

Findings

The first time on line used ICT equipment (N=1,383)

The first time on line used equipment	n	%
PC	765	55.3%
Laptop	40	2.9%
Tablet	77	5.6%
mobile phones	500	36.2%
TV	1	0.1%

Findings

The most commonly used Internet devices now (N=1,386)

commonly used Internet devices now	n	%
PC	213	15.4%
Laptop	43	3.1%
Tablet	128	9.2%
mobile phones	994	71.7%
TV	8	0.6%

Further analyses

Findings

relationship between the dimensions of E- inclusion and social inclusion

	M SD	1	2	3	4	5
1. ability to use information planning	4.96 2.39	-				
2. ability to identify information	2.48 0.87	.429**	-			
3. Health promotion	1.43 0.69	.278**	.216**	-		
4. Social Participation	3.85 1.16	.328**	.266**	.313**	-	
5. Economic digital business activities	1.50 0.74	.380**	.330**	.346**	.424**	-
6. Citizen Participation	1.39 0.47	.304**	.286**	.356**	.359**	.440**

*p<0.05 **p<0.01

Further analyses

E- inclusion

- We further Using the two indicators of **ability to use information planning** and **ability to identify information** of the elderly.
- Combined and divided **into 3 groups** for analysis through **Cluster Analysis (**k-means method).
- With small differences within groups and large differences between groups.

Findings

E-Inclusion can be divided into three groups: Master, Good , beginner

	E-Inclusion			
	Master	Good	beginner	F
N=1220	399	476	345	ANOVA
ability to use information planning	7.55	5.09	1.78	4570.50***
ability to identify information	2.95	2.61	1.97	149.00***

***p< 0.001

Further analyses

The relationship between E- Inclusion and social inclusion of the elderly

- Under the control of the interaction between the dependent variables,

  to understand the difference between the four dimensions of all dependent variables difference in E- inclusion .
- multivariate analysis of variance, MANOVA
- Comparison of the Mean scores of the four dimensions of social inclusion in health, social participation, economic participation, and citizen participation for E Inclusion .
- Post-comparison test

Findings

E- Inclusion	N	Social Inclusion							
		Health promotion		Social Participation		Economic digital business activities		Citizen Participation	
		M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
master	399	1.69	0.81	4.39	1.08	1.86	0.84	1.59	0.55
Good	476	1.50	0.72	3.94	1.11	1.56	0.76	1.41	0.47
beginner	345	1.18	0.42	3.46	1.04	1.18	0.41	1.24	0.29
Wilks' Lambda (λ)/F		0.81/34.07***							
ANOVA(*F*)		54.08***		69.6***		87.43***		57.14***	
post hoc test		maste>Good >beginner		maste>Good >beginner		maste>Good >beginner		maste>Good >beginner	

Eta ^{2} 0.10

Eta ^{2} 0.10

$^{***}p < 0.001$

Discussion 1

different levels of social inclusion in four aspects

Social inclusion of the elderly

1. social participation (M=3.95, SD=1.14),
2. Economic Participation (M=1.55, SD=0.76)
3. Health promotion (M=1.43, SD=0.69)
4. citizen participation (M=1.369 SD=0.47)

Discussion 2

E inclusion has positive prediction of the social inclusion of the elderly

- E inclusion has a positive predictions on the four aspects of social inclusion of the elderly.

  health promotion,

  social participation,

  economic participation ,

  citizen participation

- The higher the digital ability, the higher the degree of social inclusion

  master group> getting Good group> beginner group

Implications and conclusion

- Social participation in digital activities has a positive effect on the active aging of the elderly.
- Economic Participation , Health Promotion and Citizen Participation in digital activities compared with the social participation dimension, the elderly have greater possibilities for social inclusion and can be used as a policy direction.
- Use of the Internet as a basic human right during pandemic of the COVID-19 (Seifert & Xie, 2020)

  everyone has the right to use the Internet, having skills and technical support to access it effectively.

The End

Thank you for your attention!

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