

Facebook use and individual well-being: Like me to make me happier!

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Introduction

THE BIG 4 SOCIAL PLATFORMS: MEMBERS, VISITORS AND ACTIVE USERS

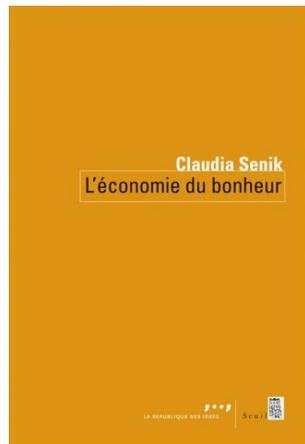
MEMBERS

VISITORS

ACTIVE USERS



+



Source : Global World Index (survey on 40,000 Internet users / 30 countries)

- Facebook "Gross National Happiness index" => use of positive and negative words in status updates to measure mood and happiness of Facebook users in 18 countries.
- **But Facebook use can influence our emotions and well-being!**
- Few studies analyze the relationship between Facebook use and happiness ...
- ... fewer studies using large and representative sample of Facebook users

- Important to deepen our understanding of online networks and their impact on time allocation, sociability, trust,...
- We argue that Facebook can influence life satisfaction directly and indirectly through its effects on social capital and self-esteem.
- We use a representative sample of 2,000 French Facebook users to investigate the relationships between usage patterns of Facebook, friendships, and life satisfaction.

Literature on the determinants of Happiness : What make people more satisfied with their life ?

- A large body of empirical studies (Blanchflower and Oswald, 2004 ; Dolan, Peasgood and White, 2008 ; Easterlin, 2001 ; Helliwell, 2006 ; Ferrer-i Carbonell and Frijters, 2004 ; Frey and Stutzer, 2002, 2010 ; Fritjers, Johnson and Shields, 2011 ; Oswald, 1997)
- Easterlin Paradox : adaptation and social comparison
- The main predictors of happiness are : health, employment status, marital status, sociability, social trust, income and education (i.e. poor health, unemployment and lack of sociability are strongly associated with low well-being.)
- **Can SNSs use be also predictor of subjective well-being ?**

Literature on the relationship between Internet use and Happiness

- **Ford and Ford (2009)** find that Internet use by elderly Americans leads to about a 20% reduction in depression (survey of 7,000 retired persons),
- **Sabatini (2011)** shows a positive relation between online shopping and subjective well-being (Italian survey data)
- **Kavestos and Koutroumpis. (2011)** find that having a cell phone, a PC or an Internet connection at home is associated with higher levels of well-being (European countries survey data)
- **Penard, Poussing and Suire (2013)** find evidence that non users are less satisfied in their life than Internet users => stronger benefits of Internet use for young adults and those with difficult living conditions : Internet use has a positive impact on well-being, especially for the younger generations (Luxembourgish survey data)

Most empirical studies agree that the relationship between Internet use and individual well-being is positive.

Literature on the relationship between SNS and Happiness : ambiguous effects

- Can too many friends and too much time spent on social networking sites like Facebook be detrimental to people's well-being?
- **Mukesh et al. (2013)** show that even though having more friends on Facebook makes people more satisfied with their lives, reading friends' ostentatious posts and updates reduces their well-being => social comparison, envy, ... (field experiments)
- **Kross et al. (2013)** show that Facebook use has a negative effect on the life satisfaction levels of young adults. The more they spend time on Facebook, the worse they feel the moment afterward (experiments on a group of selected users).

Literature on the relationship between Facebook and Happiness : ambiguous effects

- Other papers provide evidence of positive effects
- **Ellison et al. 2007** and **Steinfeld et al. (2008)** show that Facebook use enhances bridging social capital (weak ties), but with greater benefits for users who have lower self-esteem and lower life satisfaction (survey data and interviews of college students)
- **Valenzuela, Park and Lee (2009)** find positive, but weakly significant, relationships between intensity of Facebook use and college students' life satisfaction and social trust (survey data from Texas college students)
- **Sabatini et Sarracino (2014)** observe that SNSs use like Facebook and Twitter has a positive impact on face to face interactions but reduces social trust =>ambiguous effects on well-being (survey data from a large representative sample of the Italian population)

Research hypotheses

H1 : Offline sociability increases individual well-being.

H2 : Online sociability and social interactions on Facebook increases individual well-being.

H3 : By enhancing self-esteem, Facebook use increases individual well-being.

H4 : Positive social experiences (strengthening ties with friends and acquaintances) on Facebook increases individual well-being.

H5 : Negative social experiences (damaging some friendships) on Facebook decreases individual well-being.

- Survey conducted by Harris Interactive for M@rsouin in 2013 .
- A representative sample of 2,000 French Facebook users aged between 15 and 86, selected by quota sampling on gender, age, socioeconomic class, income.
- Questions about the motives to use Facebook, the nature and intensity of usage, the number of friends and the perceived impact of Facebook use on sociability and life satisfaction.

Dependent variable : LIFESATISFACTION

- We use the Diener's Satisfaction With Life Scale (*Do you agree with the statement "I am satisfied with my life?"* a 7-point Likert scale).
- Three-point scale variable = "1" if respondents "very disagreed", "disagreed" or "disagreed somewhat". "2" if they were "undecided" or "agreed somewhat"; "3" if they "agreed" or "strongly agreed".

Life satisfaction (7-point)	Percent	Cum.
1	4.30	4.30
2	7.30	11.60
3	10.08	22.40
4	18.35	40.75
5	19.75	60.50
6	33.60	94.10
7	5.90	100.00
TOTAL	100.00	

Variable (3 levels)	Percent	Cum.
1	22.40	22.40
2	38.10	60.50
3	39.50	100.00
TOTAL	100.00	

Description of the variables

Variables	Description	Mean and S.E.	Min	max
LIFESATISFACTION	"Do you agree with the fact that you are satisfied with your life?", 1="strongly disagree", "disagree", "somehow disagree"; 2="undecided", "somehow agree"; 3="agree" and "strongly agree"	2.171 (0.768)	1	3
GENDER	0=male; 1=female	0.502 (0.500)	0	1
AGE	Continuous variable	36.6945 (14.22)	15	86
HIGHSTATUS	"1" for upper occupational status or categories (managers, engineers, entrepreneurs,...); 0 if "not"	0.351 (0.478)	0	1
HOUSEHOLD	Number of persons in the household	2.593 (1.315)	1	10
LOWINCOME	"Do you think that your living conditions are "very difficult" or "difficult"?" (binary)	0.201 (0.401)	0	1
MEDIUMINCOME	"Do you think that your living conditions are just sufficient to support your lifestyle?" (binary)	.4365 (.496)	0	1
HIGHINCOME	"Do you think that your living conditions are "comfortable" or "very comfortable"?" (binary)	0.362 (0.481)	0	1
VOLUNTEER	Active participation in voluntary organizations (binary)	0.345 (0.475)	0	1
OFFLINESOCIABILITY	"How frequently do you meet friends, family etc?" : "1" if at least once a week; 0 if not	0.552 (0.497)	0	1
CULTURALOUTINGS	"How often do you have cultural outings?" : 1 if at least once a week; 0 if not	0.128 (0.334)	0	1

Description of the variables

Variables	Description	M. & S.E.	Min	max
SMALLFRIENDS	"How many friends have you on Facebook ?" : 1 if the number is <20 (very few friends)	0.194 (0.396)	0	1
MEDIUMFRIENDS	1 if the number of friends is [20 ;100]	0.3945 (.4888)	0	1
LARGEFRIENDS	1 if the number of friends is >100	0.411 (0.492)	0	1
INTERACTIONUSE	Score for the intensity of interactive uses on Facebook (Chat, online interactions with friends, etc.)	0.933 (1.061)	0	3
PASSIVEUSE	Passive use of Facebook (only "read" or view friends' wall)	.195 (0.396)	0	1
NOPHOTOS	No personal photos/videos posted on Facebook	0.153 (0.360)	0	1
PHOTOS1	Small number of personal photos/videos posted on Facebook [1 ;50]	.576 (0.494)	0	1
PHOTOS2	Large number of personal photos/videos posted on Facebook (>50)	0.271 (0.445)	0	1
FACEBOOKLIKES	1 if the individual receives a lot of "likes" or positive comments.	0.698 (0.459)	0	1
LIKESENVY	1 if the individual would like to obtain more "likes" or comments.	0.428 (0.495)	0	1

Description of the variables

Variables	Description	M. & S.E.	Min	max
POSITIVESTRONGTIES	score indicating to what extent Facebook has contributed to improve relations with close friends	0.630 (0.800)	0	3
NEGATIVESTRONGTIES	score indicating to what extent Facebook has damaged relations with close friends	0.132 (0.487)	0	3
POSITIVWEAKTIES	1 if the individual has made new acquaintances thanks to Facebook.	0.380 (0.486)	0	1
POSITIVEEXPERIENCES	1 if Facebook use has helped to strengthen some of your friendships	0.213 (0.409)	0	1
NEGATIVEEXPERIENCES	1 if Facebook use has damaged some of your friendships	0.123 (0.329)	0	1

Ordered logit models to test our hypotheses

$$LifeSatisfaction_i = \beta_0 + \beta_1 Sociodemographics + \beta_2 Offlinesociability + \beta_3 Onlinesociability + \beta_4 Selfesteem + \beta_5 Experiences + \varepsilon_i$$

Hypotheses	Used variables	Expected sign
H1 : Offline sociability increases individual well-being (Set 2)	VOLUNTEER OFFLINESOCIABILITY CULTURALOUTINGS	+ + +
H2 : Online sociability on social network sites (e.g. Facebook) increases individual well-being (Set 3)	FRIENDS INTERACTIONUSE PASSIVEUSE	+ + -
H3 : By enhancing self-esteem Facebook use increases individual well-being (Set 4)	PHOTOS FACEBOOKLIKES LIKESDESIRES	+ + -
H4 : Positive social experiences on Facebook increases individual well-being and H5 : Negative social experiences on Facebook decreases individual well-being (Set 5)	POSITIVEEXPERIENCES NEGATIVEEXPERIENCES POSITIVESTRONGTIES NEGATIVESTRONGTIES POSITIVEWEAKTIES	+ - + - +

The determinants of life satisfaction (Ordered Logit models)

	m1	m2	m3	m4	m5	m5 bis
GENDER	-0.040 (-0.45)	-0.065 (-0.73)	-0.080 (-0.88)	-0.111 (-1.21)	-0.117 (-1.28)	-0.114 (-1.25)
AGE	0.006* (1.92)	0.007** (2.18)	0.011*** (2.94)	0.011*** (2.92)	0.011*** (2.84)	0.011*** (2.81)
HIGHSTATUS	0.241*** (2.62)	0.257*** (2.77)	0.260*** (2.80)	0.241** (2.57)	0.244*** (2.59)	0.238** (2.54)
HOUSEHOLD	0.126*** (3.81)	0.129*** (3.88)	0.127*** (3.81)	0.128*** (3.82)	0.129*** (3.83)	0.128*** (3.83)
LOWINCOME	-1.353*** (-11.36)	-1.355*** (-11.34)	-1.377*** (-11.47)	-1.398*** (-11.58)	-1.390*** (-11.51)	-1.394*** (-11.55)
MEDIUMINCOME	REF.	REF.	REF.	REF.	REF.	REF.
HIGHINCOME	0.978*** (9.84)	0.950*** (9.50)	0.956*** (9.54)	0.961*** (9.55)	0.957*** (9.49)	0.962*** (9.55)
VOLUNTEER		0.163* (1.75)	0.147 (1.56)	0.148 (1.57)	0.149 (1.57)	0.149 (1.58)
OFFLINESOCIABILITY		0.363*** (4.03)	0.333*** (3.67)	0.319*** (3.50)	0.304*** (3.32)	0.319*** (3.50)
CULTURALOUTINGS		-0.082 (-0.62)	-0.123 (-0.92)	-0.101 (-0.75)	-0.109 (-0.81)	-0.103 (-0.76)
SMALLFRIENDS			-0.192 (-1.49)	-0.164 (-1.20)	-0.155 (-1.12)	-0.162 (-1.18)
MEDIUMFRIENDS				REF.	REF.	REF.
LARGEFRIENDS			0.032 (0.31)	0.022 (0.20)	0.013 (0.11)	0.020 (0.19)
INTERACTIONUSE			0.107** (2.17)	0.074 (1.40)	0.060 (1.09)	0.075 (1.39)
PASSIVEUSE			0.019 (0.15)	0.018 (0.14)	0.009 (0.07)	0.015 (0.12)
NOPHOTOS				0.201 (1.42)	0.209 (1.47)	0.201 (1.42)
PHOTOS2				0.127 (1.11)	0.123 (1.08)	0.133 (1.16)
FACEBOOKLIKES				0.431*** (3.88)	0.410*** (3.67)	0.433*** (3.90)
LIKESENVY				-0.254*** (-2.68)	-0.250*** (-2.59)	-0.253*** (-2.66)
POSITIVESTRONGTIES					0.069 (1.10)	
NEGATIVESTRONGTIES					-0.185** (-2.10)	
POSITIVEWEAKTIES					-0.038 (-0.36)	
POSITIVEEXPERIENCES						0.016 (0.14)
NEGATIVEEXPERIENCES						-0.110 (-0.81)
cons	-0.739*** (-3.98)	-0.479** (-2.42)	-0.302 (-1.35)	-0.111 (-0.47)	-0.159 (-0.67)	-0.131 (-0.55)
cons	1.223*** (6.57)	1.501*** (7.50)	1.685*** (7.46)	1.891*** (7.94)	1.849*** (7.71)	1.872*** (7.82)

The determinants of
life satisfaction
(Ordered Logit
models)

	m1	m2	m3	m4	m5	m5 bis
GENDER	-0.016 (-0.50)	-0.025 (-0.79)	-0.028 (-0.85)	-0.039 (-1.20)	-0.041 (-1.26)	-0.040 (-1.22)
AGE	0.002** (1.99)	0.003** (2.20)	0.004*** (3.03)	0.004*** (2.97)	0.004*** (2.90)	0.004*** (2.89)
HIGHSTATUS	0.087*** (2.63)	0.094*** (2.84)	0.095*** (2.87)	0.089*** (2.69)	0.089*** (2.68)	0.089*** (2.66)
HOUSEHOLD	0.049*** (4.09)	0.049*** (4.13)	0.049*** (4.07)	0.048*** (4.06)	0.049*** (4.08)	0.048*** (4.06)
LOWINCOME	-0.520*** (-12.32)	-0.514*** (-12.23)	-0.519*** (-12.34)	-0.522*** (-12.44)	-0.517*** (-12.31)	-0.521*** (-12.40)
MEDIUMINCOME	REF.	REF.	REF.	REF.	REF.	REF.
HIGHINCOME	0.348*** (9.88)	0.336*** (9.56)	0.338*** (9.60)	0.340*** (9.68)	0.338*** (9.63)	0.339*** (9.67)
VOLUNTEER		0.065* (1.94)	0.058* (1.73)	0.058* (1.75)	0.059* (1.76)	0.059* (1.76)
OFFLINESOCIABILITY		0.125*** (3.86)	0.114*** (3.49)	0.107*** (3.28)	0.100*** (3.07)	0.107*** (3.28)
CULTURALOUTINGS		-0.033 (-0.69)	-0.047 (-0.99)	-0.038 (-0.81)	-0.041 (-0.86)	-0.039 (-0.82)
SMALLFRIENDS			-0.071 (-1.55)	-0.062 (-1.27)	-0.059 (-1.21)	-0.061 (-1.25)
MEDIUMFRIENDS				REF.	REF.	REF.
LARGEFRIENDS			0.019 (0.49)	0.013 (0.33)	0.010 (0.26)	0.012 (0.31)
INTERACTIONUSE			0.033* (1.85)	0.020 (1.08)	0.016 (0.84)	0.020 (1.06)
PASSIVEUSE			0.003 (0.06)	0.003 (0.07)	0.000 (0.01)	0.002 (0.05)
NOPHOTOS				0.083 (1.63)	0.085* (1.66)	0.084 (1.64)
PHOTOS2				0.050 (1.24)	0.049 (1.23)	0.051 (1.27)
FACEBOOKLIKES				0.154*** (3.88)	0.146*** (3.66)	0.155*** (3.89)
LIKESENVY				-0.085** (-2.53)	-0.084** (-2.47)	-0.085** (-2.53)
POSITIVESTRONGTIES					0.022 (0.97)	
NEGATIVESTRONGTIES					-0.070** (-2.16)	
POSITIVWEAKTIES					-0.012 (-0.32)	
POSITIVEEXPERIENCES						0.010 (0.25)
NEGATIVEEXPERIENCES						-0.029 (-0.61)
cons	1.916*** (28.83)	1.822*** (25.77)	1.755*** (21.89)	1.682*** (20.05)	1.699*** (20.14)	1.687*** (20.01)

The determinants of
LIFECHANGE
(Ordered logit
models)

	m1	m2	m3	m4	m5	m5 bis
GENDER	0.052 (0.59)	0.040 (0.45)	0.039 (0.44)	0.032 (0.36)	0.022 (0.24)	0.023 (0.26)
AGE	0.004 (1.28)	0.005 (1.64)	0.007* (1.79)	0.006 (1.49)	0.006 (1.54)	(0.005) (1.24)
HIGHSTATUS	0.112 (1.24)	0.109 (1.21)	0.100 (1.11)	0.083 (0.91)	0.082 (0.90)	0.076 (0.83)
HOUSEHOLD	0.063** (1.97)	0.066** (2.06)	0.064** (1.98)	0.060* (1.85)	0.060* (1.87)	0.059* (1.84)
LOWINCOME	-0.721*** (-6.04)	-0.709*** (-5.93)	-0.710*** (-5.92)	-0.724*** (-6.02)	-0.722*** (-5.99)	-0.715*** (-5.93)
MEDIUMINCOME	REF.	REF.	REF.	REF.	REF.	REF.
HIGHINCOME	0.708*** (7.49)	0.685*** (7.22)	0.687*** (7.23)	0.697*** (7.31)	0.692*** (7.24)	0.699*** (7.31)
VOLUNTEER		0.117 (1.29)	0.115 (1.26)	0.112 (1.23)	0.114 (1.25)	0.118 (1.29)
OFFLINESOCIABILITY		0.247*** (2.81)	0.244*** (2.76)	0.232*** (2.61)	0.229** (2.57)	0.233*** (2.62)
CULTURALOUTINGS		0.223* (1.75)	0.225* (1.75)	0.247* (1.92)	0.252* (1.95)	0.237* (1.83)
SMALLFRIENDS			-0.222* (-1.76)	-0.181 (-1.35)	-0.189 (-1.41)	-0.177 (-1.32)
MEDIUMFRIENDS				REF.	REF.	REF.
LARGEFRIENDS			-0.083 (-0.82)	-0.029 (-0.27)	-0.017 (-0.16)	-0.032 (-0.30)
INTERACTIONUSE			0.007 (0.15)	0.005 (0.09)	0.013 (0.24)	0.004 (0.07)
PASSIVEUSE			0.008 (0.07)	-0.000 (-0.00)	-0.003 (-0.02)	-0.007 (-0.06)
NOPHOTOS				0.037 (0.27)	0.034 (0.24)	0.042 (0.30)
PHOTOS2				-0.176 (-1.59)	-0.179 (-1.62)	-0.163 (-1.47)
FACEBOOKLIKES				0.284*** (2.60)	0.290*** (2.64)	0.287*** (2.62)
LIKESENVY				-0.195** (-2.12)	-0.184* (-1.96)	-0.196** (-2.12)
POSITIVESTRONGTIES					0.053 (0.87)	
NEGATIVESTRONGTIES					0.044 (0.51)	
POSITIVWEAKTIES					-0.153 (-1.51)	
POSITIVEEXPERIENCE						0.097 (0.87)
NEGATIVEEXPERIENCE						-0.278** (-2.09)
cons	0.069 (0.39)	0.311 (1.62)	0.281 (1.29)	0.314 (1.37)	0.313 (1.36)	0.265 (1.15)
cons	1.586*** (8.64)	1.837*** (9.34)	1.809*** (8.16)	1.849*** (7.93)	1.850*** (7.87)	1.803*** (7.69)

* p<0.10, ** p<0.05, *** p<0.010

Summary of results

Hypotheses	Theoretical relationships	Results
H1 : Offline sociability increases individual well-being.	Positive	H1 confirmed
H2 : Online sociability on Facebook increases individual well-being.	Positive	H2 not confirmed
H3 : Receiving a lot of Likes and comments increases individual well-being.	Positive	H3 confirmed through FACEBOOKLIKES and LIKESENVY
H4 : Positive social experiences on Facebook increases individual well-being.	Positive	H4 Not confirmed
H5 : Negative social experiences on Facebook decreases individual well-being.	Positive	H5 confirmed through NEGATIVESTRONGTIES

Our study contributes to the literature about the effects of virtual sociability and social network sites

- Offline sociability appears to be the main predictor of life satisfaction.
- But individuals are very sensitive to the Facebook Likes and comments they receive => Facebook Likes are a form of social/peer approbation that reinforces self-esteem.
- Conversely, individuals that receive not enough Likes express lower life satisfaction => Facebook exacerbates envy and frustration and exposes people to an real-time measure of the strength of their social ties (friendship, social isolation).

Merci ... des questions ?