

iDISORDER:
**UNDERSTANDING OUR OBSESSION WITH TECHNOLOGY
AND OVERCOMING ITS HOLD ON US**

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Table 1.1: Percentage of People Who Check in with Their Technologies Often and Get Anxious When They Can't Check Them

PERCENTAGE WHO CHECK THEIR TECHNOLOGIES EVERY 15 MINUTES OR LESS

<i>Generations</i>	<i>Text Messages</i>	<i>Cell Phone Calls</i>	<i>Facebook</i>	<i>Personal E-Mail</i>	<i>Work E-Mail</i>	<i>Voice Mail</i>
iGeneration	62%	34%	32%	17%	NA	10%
Net Generation	64%	42%	36%	28%	22%	17%
Generation X	42%	36%	17%	21%	21%	16%
Baby Boomers	18%	20%	8%	12%	16%	18%

PERCENTAGE WHO GET MODERATELY OR HIGHLY ANXIOUS WHEN THEY CAN'T CHECK THEIR TECHNOLOGIES AS OFTEN AS THEY WOULD LIKE

<i>Generations</i>	<i>Text Messages</i>	<i>Cell Phone Calls</i>	<i>Facebook</i>	<i>Personal E-Mail</i>	<i>Work E-Mail</i>	<i>Voice Mail</i>
iGeneration	51%	33%	27%	10%	NA	13%
Net Generation	51%	41%	28%	20%	19%	19%
Generation X	27%	31%	10%	20%	17%	34%
Baby Boomers	15%	18%	6%	15%	19%	54%

* Rosen, L. D., Carrier, L. M., Cheever, N. A., Rab, S., Arikan, M., & Whaling, K. (unpublished manuscript). *iDisorder: The relationship between media use and signs and symptoms of psychiatric disorders*.

Figure 2.1: Narcissistic Personality Quiz^a

Below you will find a list of 40 statements, one in Column A, and the opposite in Column B. For each line, choose a statement from Column A or B that **best matches your typical attitudes and behaviors**. If neither one fits you perfectly just select the one that comes the closest to matching your typical attitudes and behaviors.

		<i>Column A</i>		<i>Column B</i>
1	<input type="checkbox"/>	I would prefer to be a leader.	<input type="checkbox"/>	It makes little difference to me whether I am a leader or not.
2	<input type="checkbox"/>	I see myself as a good leader	<input type="checkbox"/>	I am not sure if I would make a good leader.
3	<input type="checkbox"/>	I will be a success.	<input type="checkbox"/>	I am not too concerned about success.
4	<input type="checkbox"/>	People always seem to recognize my authority.	<input type="checkbox"/>	Being an authority doesn't mean that much to me.
5	<input type="checkbox"/>	I have a natural talent for influencing people.	<input type="checkbox"/>	I am not good at influencing people.
6	<input type="checkbox"/>	I am assertive.	<input type="checkbox"/>	I wish I were more assertive.
7	<input type="checkbox"/>	I like to have authority over other people.	<input type="checkbox"/>	I don't mind following orders.
8	<input type="checkbox"/>	I am a born leader.	<input type="checkbox"/>	Leadership is a quality that takes a long time to develop.
9	<input type="checkbox"/>	I rarely depend on anyone else to get things done.	<input type="checkbox"/>	I sometimes depend on people to get things done.
10	<input type="checkbox"/>	I like to take responsibility for making decisions.	<input type="checkbox"/>	If I feel competent I am willing to take responsibility for making decisions.
11	<input type="checkbox"/>	I am more capable than other people.	<input type="checkbox"/>	There is a lot that I can learn from other people.
12	<input type="checkbox"/>	I can live my life in any way I want to.	<input type="checkbox"/>	People can't always live their lives in terms of what they want.
13	<input type="checkbox"/>	I always know what I am doing.	<input type="checkbox"/>	Sometimes I am not sure of what I am doing.

14	<input type="checkbox"/>	I am going to be a great person.	<input type="checkbox"/>	I hope I am going to be successful.
15	<input type="checkbox"/>	I am an extraordinary person.	<input type="checkbox"/>	I am much like everybody else.
16	<input type="checkbox"/>	I know that I am good because everybody keeps telling me so.	<input type="checkbox"/>	When people compliment me I sometimes get embarrassed.
17	<input type="checkbox"/>	I like to be complimented.	<input type="checkbox"/>	Compliments embarrass me.
18	<input type="checkbox"/>	I think I am a special person.	<input type="checkbox"/>	I am no better or worse than most people.
19	<input type="checkbox"/>	I wish somebody would someday write my biography.	<input type="checkbox"/>	I don't like people to pry into my life for any reason.
20	<input type="checkbox"/>	I am apt to show off if I get the chance.	<input type="checkbox"/>	I try not to be a show off.
21	<input type="checkbox"/>	Modesty doesn't become me.	<input type="checkbox"/>	I am essentially a modest person.
22	<input type="checkbox"/>	I get upset when people don't notice how I look when I go out in public.	<input type="checkbox"/>	I don't mind blending into the crowd when I go out in public.
23	<input type="checkbox"/>	I like to be the center of attention.	<input type="checkbox"/>	I prefer to blend in with the crowd.
24	<input type="checkbox"/>	I would do almost anything on a dare.	<input type="checkbox"/>	I tend to be a fairly cautious person.
25	<input type="checkbox"/>	I really like to be the center of attention.	<input type="checkbox"/>	It makes me uncomfortable to be the center of attention.
26	<input type="checkbox"/>	I like to start new fads and fashions.	<input type="checkbox"/>	I don't care about new fads and fashions.
27	<input type="checkbox"/>	I can read people like a book.	<input type="checkbox"/>	People are sometimes hard to understand.
28	<input type="checkbox"/>	I can make anybody believe anything I want them to.	<input type="checkbox"/>	People sometimes believe what I tell them.
29	<input type="checkbox"/>	I find it easy to manipulate people.	<input type="checkbox"/>	I don't like it when I find myself manipulating people.
30	<input type="checkbox"/>	I can usually talk my way out of anything.	<input type="checkbox"/>	I try to accept the consequences of my behavior.

31	<input type="checkbox"/>	Everybody likes to hear my stories.	<input type="checkbox"/>	Sometimes I tell good stories.
32	<input type="checkbox"/>	I like to look at my body.	<input type="checkbox"/>	My body is nothing special.
33	<input type="checkbox"/>	I like to look at myself in the mirror.	<input type="checkbox"/>	I am not particularly interested in looking at myself in the mirror.
34	<input type="checkbox"/>	I like to display my body.	<input type="checkbox"/>	I don't particularly like to display my body.
35	<input type="checkbox"/>	I will never be satisfied until I get all that I deserve.	<input type="checkbox"/>	I take my satisfactions as they come.
36	<input type="checkbox"/>	I expect a great deal from other people.	<input type="checkbox"/>	I like to do things for other people.
37	<input type="checkbox"/>	I want to amount to something in the eyes of the world.	<input type="checkbox"/>	I just want to be reasonably happy.
38	<input type="checkbox"/>	I have a strong will to power.	<input type="checkbox"/>	Power for its own sake doesn't interest me.
39	<input type="checkbox"/>	I insist upon getting the respect that is due me.	<input type="checkbox"/>	I usually get the respect that I deserve.
40	<input type="checkbox"/>	If I ruled the world it would be a better place.	<input type="checkbox"/>	The thought of ruling the world frightens the hell out of me.

Scoring Instructions^b

For each of the pairs give yourself 1 point for each "A" answer and 0 points for each "B" answer.

The average score for the general population is 15.3

The average score for celebrities is 17.8

Narcissists score over 20^b

^aCopyright © 1988 by the American Psychological Association. Adapted with permission. The official citation that should be used in referencing this material is Table 1 (adapted), p. 894, from Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, 54(5), 890–902. doi:10.1037/0022-3514.54.5.890. No further reproduction or distribution is permitted without written permission from the American Psychological Association.

^bIf you are interested, there are also specific items on the NPI that match narcissistic traits according to the popular psychology website "PsychCentral" (<http://psychcentral.com/quizzes/narcissistic.htm>). Higher scores on any of the traits can indicate how the narcissism is exhibited.

Authority: Items 1 through 8

Authority refers to a person's leadership skills and power. People who score higher on authority like to be in charge and gain power, often for power's sake alone.

Self-sufficiency: Items 9 through 14

This trait refers to how self-sufficient a person is, that is, how much you rely on others versus your own abilities to meet your needs in life.

Superiority: Items 15 through 19

This trait refers to whether a person feels they are superior to those around them.

Exhibitionism: Items 20 through 26

This trait refers to a person's need to be the center of attention, and willingness to ensure they are the center of attention (even at the expense of others' needs).

Exploitativeness: Items 27 through 31

This trait refers to how willing you are to exploit others in order to meet your own needs or goals.

Vanity: Items 32, 33 and 34

This trait refers to a person's vanity, or their belief in their own superior abilities and attractiveness compared to others.

Entitlement: Items 35 through 40

This trait refers to the expectation and amount of entitlement a person has in their lives, that is, unreasonable expectations of especially favorable treatment or automatic compliance with one's expectations. People who score higher on this trait generally have a greater expectation of entitlement, while those who score lower expect little from others or life.

Figure 3.1: If You Can't Check in with the Following Technologies as Often as You'd Like, How Anxious Do You Feel?

<i>Technology</i>	<i>Level of Anxiety</i>			
	<i>Highly Anxious</i>	<i>Moderately Anxious</i>	<i>A Little Anxious</i>	<i>Not Anxious at All</i>
Text messages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cell phone calls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facebook/other social networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal e-mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work e-mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Voice mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 3.2: Percentage of Persons Who Become Highly Anxious or Moderately Anxious When They Cannot Check Their Devices

<i>Device</i>	<i>iGeneration</i>	<i>Net Generation</i>	<i>Generation X</i>	<i>Baby Boomers</i>
Text messages	51%	51%	29%	15%
Cell phone calls	34%	50%	31%	18%
Social networks	28%	29%	10%	6%
Personal e-mail	10%	21%	20%	15%
Work e-mail	14%	20%	17%	19%
Voice mail	11%	18%	14%	15%

Figure 3.3: Frequency of Checking Your Device

<i>Technology</i>	<i>How Often Do You Check Each of the Following?</i>							
	<i>Never</i>	<i>A Couple of Times a Month</i>	<i>A Couple of Times a Week</i>	<i>Once a Day</i>	<i>Every Few Hours</i>	<i>Every Hour</i>	<i>Every 15 Minutes</i>	<i>All the Time</i>
Text messages	○	○	○	○	○	○	○	○
Cell phone calls	○	○	○	○	○	○	○	○
Facebook/other social networks	○	○	○	○	○	○	○	○
Personal e-mail	○	○	○	○	○	○	○	○
Work e-mail	○	○	○	○	○	○	○	○
Voice mail	○	○	○	○	○	○	○	○

Figure 3.4: Percentages of Persons Who Check Their Devices All the Time

<i>Technology</i>	<i>iGeneration</i>	<i>Net Generation</i>	<i>Generation X</i>	<i>Baby Boomers</i>
Text messages	49%	56%	34%	17%
Cell phone calls	27%	36%	31%	18%
Facebook/other social networks	27%	32%	16%	8%
Personal e-mail	14%	25%	20%	11%
Work e-mail	10%	20%	20%	12%
Voice mail	9%	17%	14%	15%

Figure 3.5: Checklist for Anxiety Problems Connected to Technology and Media

<i>Problem or Concern</i>	<i>Yes</i>	<i>No</i>
I have thoughts that my use of technology is out of control.	<input type="checkbox"/>	<input type="checkbox"/>
I make attempts to control my use of technology but am not successful.	<input type="checkbox"/>	<input type="checkbox"/>
I am concerned about how often I use my technological devices.	<input type="checkbox"/>	<input type="checkbox"/>
My use of devices gets in the way of everyday tasks.	<input type="checkbox"/>	<input type="checkbox"/>
My use of devices gets in the way of my social interactions.	<input type="checkbox"/>	<input type="checkbox"/>
My family, friends, or co-workers tell me that I have a problem with my attachment to my devices.	<input type="checkbox"/>	<input type="checkbox"/>
I experience an intense “fear of missing out” when I am not around my devices.	<input type="checkbox"/>	<input type="checkbox"/>
I have experienced phantom vibrations from my phone.	<input type="checkbox"/>	<input type="checkbox"/>
I get irritable when I am not near my technological devices.	<input type="checkbox"/>	<input type="checkbox"/>
I cannot go on vacation without checking my cell phone or e-mail.	<input type="checkbox"/>	<input type="checkbox"/>
I have gotten into arguments with my family or friends when I cannot use my devices.	<input type="checkbox"/>	<input type="checkbox"/>
I become highly anxious when I can’t check my text messages, cell phone calls, or social networking account.	<input type="checkbox"/>	<input type="checkbox"/>
I feel tense and nervous when I am online or when I am using my cell phone.	<input type="checkbox"/>	<input type="checkbox"/>

Figure 4.1: Screening Instrument for Addictive Internet Use

<i>Question</i>	<i>Response</i>	
Do you feel preoccupied with the Internet (think about previous online activity or anticipate next online session)?	Yes	No
Do you feel the need to use the Internet with increasing amounts of time in order to achieve satisfaction?	Yes	No
Have you repeatedly made unsuccessful efforts to control, cut back, or stop Internet use?	Yes	No
Do you feel restless, moody, depressed, or irritable when attempting to cut down or stop Internet use?	Yes	No
Do you stay online longer than originally intended?	Yes	No
Have you jeopardized or risked the loss of a significant other, significant relationship, job, educational, or career opportunity because of the Internet?	Yes	No
Have you lied to family members, "a therapist," or others to conceal the extent of your involvement with the Internet?	Yes	No
Do you use the Internet as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)?	Yes	No

Figure 4.2: Examples of Statements from the Cell Phone Overuse Scale (COS)

<i>Question</i>	<i>Response</i>					
	<i>Never</i>	<i>Almost Never</i>	<i>Some- times</i>	<i>Often</i>	<i>Almost Always</i>	<i>Always</i>
Do you feel preoccupied about possible calls or messages on the mobile phone and do you think about it when your mobile is off?	(1)	(2)	(3)	(4)	(5)	(6)
How often do you anticipate your next use of the mobile phone?	(1)	(2)	(3)	(4)	(5)	(6)
Do you feel the need to invest more and more time using the mobile phone to feel satisfied?	(1)	(2)	(3)	(4)	(5)	(6)
How often do you try to reduce the importance of the time spent using the phone, even though it has been many hours?	(1)	(2)	(3)	(4)	(5)	(6)
Have you ever restricted your time spent using the phone due to previous overuse?	(1)	(2)	(3)	(4)	(5)	(6)
Have you ever tried to not use the mobile phone and failed?	(1)	(2)	(3)	(4)	(5)	(6)
How often do you get angry or do you shout if someone tries to interrupt you when you are using the mobile phone?	(1)	(2)	(3)	(4)	(5)	(6)
Do you use the mobile phone to escape from your problems?	(1)	(2)	(3)	(4)	(5)	(6)
Do you lie to your relatives and friends regarding the frequency and duration of your mobile phone use?	(1)	(2)	(3)	(4)	(5)	(6)
Have you risked an important relation, a job, an academic opportunity, or a career development opportunity due to the overuse of the mobile phone?	(1)	(2)	(3)	(4)	(5)	(6)
Do you refrain from going out with your friends in order to spend more time using the mobile phone?	(1)	(2)	(3)	(4)	(5)	(6)

Figure 5.1: Technology and Media Use, Technology Beliefs and Attitudes, and Technology Behaviors Related to Specific Mood Disorders

	<i>Disorder</i>		
	<i>Major Depression</i>	<i>Dysthymia</i>	<i>Mania</i>
Technology and Media Uses Most Associated with the Disorder	Engaging in excessive instant messaging	Engaging in excessive instant messaging	Using a lot of media and technology each day
	Texting constantly	Texting constantly	Being on Facebook often
	Playing video games often	Playing video games often	Spending lots of time online
	Watching a lot of television	Listening to music constantly	Engaging in excessive instant messaging
		Watching a lot of television	Texting constantly
			Playing video games often
			Listening to music constantly
			Watching a lot of television
Technology-Related Behaviors Most Associated with the Disorder	Getting anxious when can't check texts, cell calls, Facebook	Constantly checking voice mail and e-mail	Constantly checking texts/ cell calls/ Facebook
	Getting anxious when can't check voice mail or e-mail	Getting anxious when can't check voice mail or e-mail	Constantly checking voice mail and e-mail
	Preferring to multitask		Getting anxious when can't check texts, cell calls, Facebook
			Preferring to multitask
Technology-Related Beliefs and Attitudes Most Associated with the Disorder	Believing that technology is a negative societal influence	Believing that technology is a negative societal influence	Believing that technology is a negative societal influence
	Believing in getting emotional support online	Believing in getting emotional support online	Believing that technology is a positive societal influence

Figure 5.2: Patient Health Questionnaire to Measure Depression

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)^a

Over the *last 2 weeks*, how often have you been bothered by any of the following problems? (Circle one answer per row.)

<i>Problem</i>	<i>Not at All</i>	<i>Several Days</i>	<i>More than Half the Days</i>	<i>Nearly Every Day</i>
Little interest or pleasure in doing things	0	1	2	3
Feeling down, depressed, or hopeless	0	1	2	3
Trouble falling or staying asleep, or sleeping too much	0	1	2	3
Feeling tired or having little energy	0	1	2	3
Poor appetite or overeating	0	1	2	3
Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
Moving or speaking so slowly that other people could have noticed or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3
Scoring (add the total circled for each column)				
Total score (add the total of the 1s, 2s, and 3s)				

^aKroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*(9), 606-613.

Figure 5.3: PHQ-9 Assessment of Depression

<i>Score Range</i>	<i>Depression Severity</i>
1 to 4	Minimal depression
5 to 9	Mild depression
10 to 14	Moderate depression
15 to 19	Moderately severe depression
20 to 27	Severe depression

Figure 5.4: Sample Media and Technology Use Chart

<i>Technology/Media Use</i>	<i>Start Time</i>	<i>End Time</i>	<i>Total Time</i>	<i>Who Did You Communicate with During this Time?</i>
Cell phone	8:00 A.M.	11:00 P.M.	15 hours	Text: son, daughter, colleague E-Mail: 18 received, 3 sent
Laptop computer	9:00 A.M.	6:00 P.M.	9 hours	E-Mail: 53 received, 17 sent IM: son Facebook: 2 “likes,” 1 status update, posted comments on three walls, five posts on my wall
Tablet computer	10:00 P.M.	11:30 P.M.	1.5 hours	None—reading only
Television	10:00 P.M.	12:30 A.M.	2.5 hours	None—watching only

Figure 5.5: Chart to Assess How E-Communications Affect Your Mood

<i>Communication Partner</i>	<i>Modality</i>	<i>Relationship to You</i>	<i>How Did It Make You Feel?</i>	<i>How Did It Affect Your Mood? (+10 to -10)</i>
CW	IM	Son	Great! Nice to connect	+10
KW	Text—multiple	Daughter	Wonderful	+10
MC	Phone	Colleague	Good productive work time discussing a book chapter	+4
JS	Facebook	Friend of friend	Uncomfortable—somewhat snippy and nasty	-7
MM	E-mail	Colleague on East Coast	Felt positive—discussed my recent article and the feedback was fair and positive	+3

Figure 5.6: Example of Virtual Empathy

 Lauryn
Wish I could have the surgery tomorrow so my mom didn't have to. :/
screw you cancer. You suck. Your getting cut the hell outta my mom's
kidney tomorrow!!!!!! buh-bye! So long! Good riddance!

 8 hours ago via iPhone · Like · Comment

 Lauryn and 11 others like this.

 Marlene prayers her way ♥
8 hours ago · Like

 Jennah Send her my love pls, she is in my thoughts!!!:)
xoxo
8 hours ago · Like

 Adam cancer,
8 hours ago · Like · ↻ 1 person

 Nguyen *hugs* for you and your mama!
8 hours ago · Like

 Lauryn Xoxoxoxoxo!!!!!!
8 hours ago · Like

 Lauryn Thank uuuu!! ♥
8 hours ago · Like

 Mavel I hope all goes well :) be strong
8 hours ago · Like

Figure 6.1: Observational Study of Technology Used in the Classroom During a College or High School Lecture

<i>Technology Used</i>	<i>College Classroom</i>	<i>High School Classroom</i>
Laptops	11%	2%
Cell phone on desk	22%	7%
Cell phone in lap	10%	12%
Texting during class	24%	15%
iPod ear buds	2%	4%

Figure 6.2: Classroom Texting Behavior

<i>Question</i>	<i>Percent Who Strongly Agreed or Agreed</i>
It is OK to text during class lecture.	49%
Receiving text messages hurts my ability to learn lecture material.	77%
Sending text messages hurts my ability to learn lecture material.	72%
I get distracted when someone receives a text during class.	37%
I get distracted when someone sends a text during class.	31%

Figure 6.3: Personal Technologies Available to Children, Pre-Teens, Younger Teens, and Older Teens

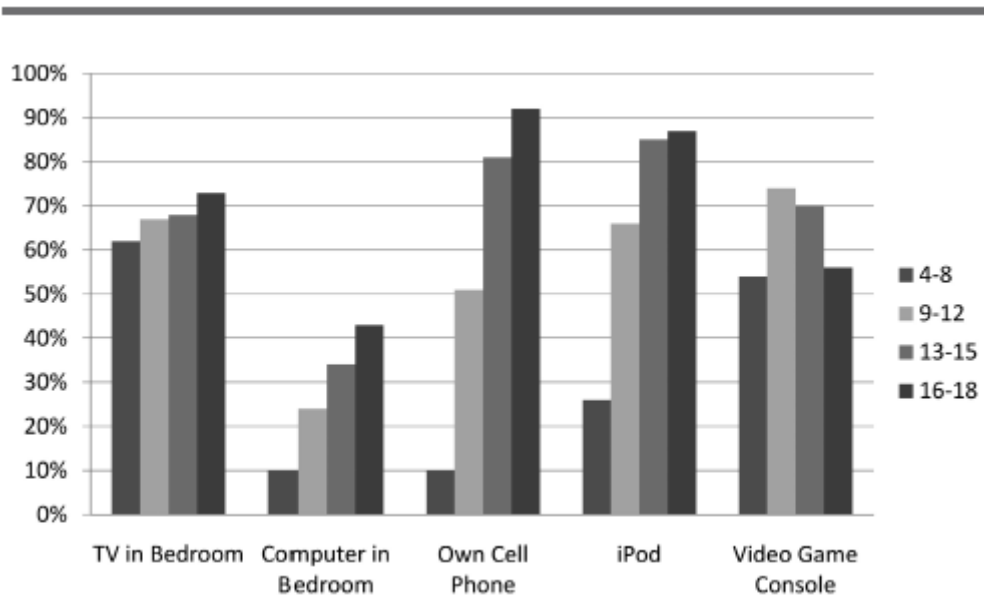
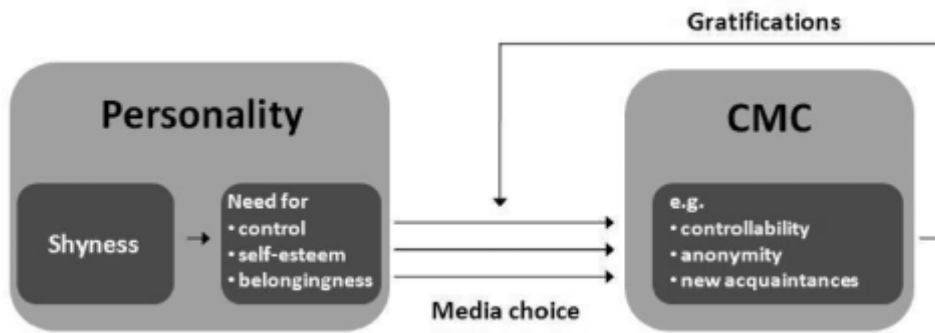


Figure 7.1: Model Showing How Personality Characteristics Impact the Choice of Computer-Mediated Communication (CMC) Through Psychological Gratifications



7.2: Two-Dimensional Model of Communication Modalities

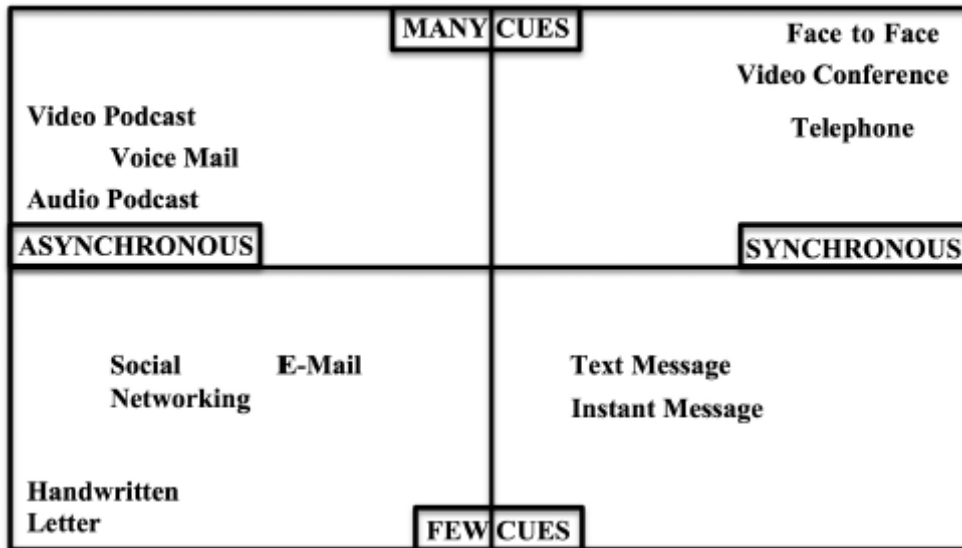


Figure 11.1: Personal Inclination Toward Voyeurism Scale

<i>How Would You React to These Situations?</i>	<i>Your Reaction</i>						
	<i>Immediately Stop Looking/Listening/ Reading (1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>	<i>Try to See/ Hear/Read All You Can (7)</i>
If you realized that you could see inside the bedroom of your neighbors because they forgot to close their curtains.	1	2	3	4	5	6	7
If you were to overhear your next door neighbors discussing their sexual lives.	1	2	3	4	5	6	7
If you were to read a message that was sent to somebody else.	1	2	3	4	5	6	7
If you were part of a conversation where your friends were gossiping about the sexual life of a person you're familiar with.	1	2	3	4	5	6	7
You realized that instead of giving you your own photograph prints, the photo lab gave you a set of photographs showing a couple skinny-dipping in a pool.	1	2	3	4	5	6	7
While shopping in a clothing store, you see a gap through which you can see inside a dressing room.	1	2	3	4	5	6	7
If you were to overhear a husband and wife discussing problems that they are having with their kids and/or other family members.	1	2	3	4	5	6	7
If you were to witness someone having an emotional breakdown and displaying extreme anger or sadness.	1	2	3	4	5	6	7

**Figure 11.2: Median Responses to “Personal Inclination
Toward Voyeurism Scale” Reaction Items**

<i>How Would You React to These Situations?</i>	<i>Typical (Median) Response</i>
If you realized that you could see inside the bedroom of your neighbors because they forgot to close their curtains.	2
If you were to overhear your next door neighbors discussing their sexual lives.	2
If you were to read a message that was sent to somebody else.	3
If you were part of a conversation where your friends were gossiping about the sexual life of a person you’re familiar with.	3
You realized that instead of giving you your own photograph prints, the photo lab gave you a set of photographs showing a couple skinny-dipping in a pool.	3
While shopping in a clothing store, you see a gap through which you can see inside a dressing room.	1
If you were to overhear a husband and wife discussing problems that they are having with their kids and/or other family members.	2
If you were to witness someone having an emotional breakdown and displaying extreme anger or sadness.	3

**Figure 12.1: Brain Scan of an Older Adult Reading a Book (left)
Compared with Surfing the Internet (right)**

