Web survey participation of Millennials

How does it differ from the one of older age cohorts and what could help increasing it?

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Why focusing on Millennials?

Why Companies Should Engage with Millennials

ECONOMICS › BEHAVIORAL ECONOMICS

The Importance of Millennial Consumers
—

Why the Millennials Are the Most Important Generation Yet
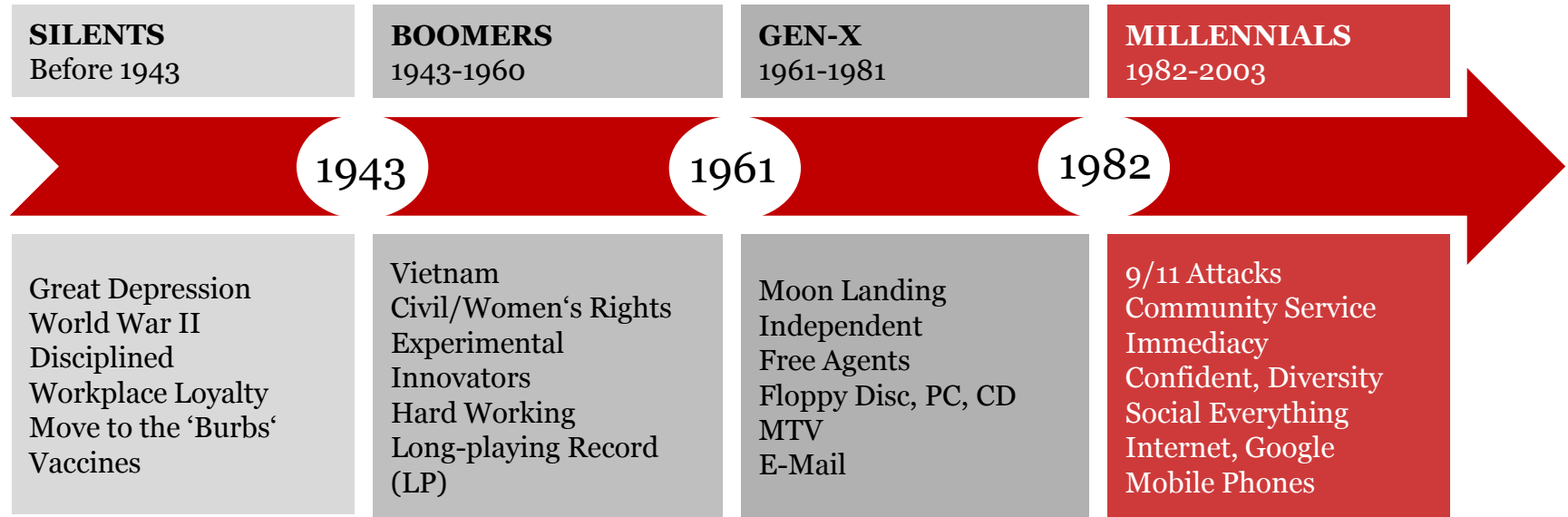
Millennials Are Changing the Game

No matter what Internet-related business you're in, millennials are your most important demographic. Understanding how they think is critical. It's an understatement to say that the world they've grown up in is dramatically different than Gen X (born 1965 – 1980) and Baby Boomers (born 1946 – 1964).

This year, they became the largest generation in the workforce.

Sources: https://www.investopedia.com/articles/personal-finance/060415/importance-millennial-consumers.asp
https://singularityhub.com/2015/06/02/millennials-important-generation-yet/
https://www.shrm.org/resourcesandtools/hr-topics/employee-relations/pages/why-should-companies-engage-with-millennials.aspx

Millennials *vs* older age cohorts

SILENTS Before 1943	BOOMERS 1943-1960	GEN-X 1961-1981	MILLENNIALS 1982-2003

1943 — 1961 — 1982

Great Depression World War II Disciplined Workplace Loyalty Move to the 'Burbs' Vaccines	Vietnam Civil/Women's Rights Experimental Innovators Hard Working Long-playing Record (LP)	Moon Landing Independent Free Agents Floppy Disc, PC, CD MTV E-Mail	9/11 Attacks Community Service Immediacy Confident, Diversity Social Everything Internet, Google Mobile Phones

Note: Age cohorts as defined by Strauss and Howe (1991)

One key difference: communication style

Millennials' communication skills are of lower quality than those of older age cohorts (Hartman & McCambridge, 2011)

Millennials have a **higher affinity towards computer-mediated communication tools** (Myers & Sadaghiani, 2010)

- o First with Internet access during their formative years (Pew Research Center, 2014)
- o Highest technology exposure (Hartman & McCambridge, 2011)

Millennials **process website information 5 times faster** than older age cohorts (Kim & Ammeter, 2008)

Expected differences in web survey participation

Millennials might be:

o Interested in different topics
o Less into sharing their opinions through surveys
o Differently affected by incentives
o Attracted to different kinds of layouts
o Quicker in processing web survey questions
o Etc.

This may affect:

o Their decision to participate in web surveys
o Their level of break-off
o Their data quality
o Their survey evaluation
o Etc.

Ample research on the effect of age

Previous research mainly looks at the effect of age on survey participation and break-off

Only a small portion focuses on web surveys

Even less focuses on web surveys after mobile completion became common

Most studies include age as a continuous variable instead of studying specific age cohorts

Bosch, Revilla & Paura (2018a)

Focus

Analyses

Data

Main findings

Compare Millennials vs older age cohorts + web surveys

Bosch, Revilla & Paura (2018a)

Focus

Compare Millennials vs older age cohorts + web surveys

Analyses

Participation rate, break-off rate, proportion of surveys answered with smartphones, and survey evaluation

Data

Main findings

Bosch, Revilla & Paura (2018a)

Focus	Compare Millennials vs older age cohorts + web surveys
Analyses	Participation rate, break-off rate, proportion of surveys answered with smartphones, and survey evaluation
Data	1,570,301 panelists (Netquest opt-in panels) from 8 countries
Main findings	

Bosch, Revilla & Paura (2018a)

Focus	Compare Millennials vs older age cohorts + web surveys
Analyses	Participation rate, break-off rate, proportion of surveys answered with smartphones, and survey evaluation
Data	1,570,301 panelists (Netquest opt-in panels) from 8 countries
Main findings	Significant **lower participation rates** + **higher proportions of surveys answered through smartphones** for Millennials
	Almost no differences for break-off rate and survey evaluation

Study by
Revilla & Höhne (2020)

Goals and contribution

Building on Bosch et al. (2018), but extending the research:

- o Data from **2 probability-based** panels (CRONOS and GIP)
- o Data from **other countries** (Estonia, Slovenia, UK and Germany)
- o Inclusion of the **Silent** cohort
- o Different aspects of survey evaluation (**difficulty** & **liked**)
- o **Data quality** (rate of non-substantive responses & primacy effects)
- o Regression analyses to **control for potential confounders**

Hypotheses

Compared to older age cohorts, we expect...

H1 ... **lower participation rate** for Millennials

H2 ... **higher break-off** rate for Millennials

H3 ... **higher** proportion of **smartphone** surveys for Millennials

H4a ... Millennials to consider web surveys to be **less difficult**

H4b ... Millennials to **like web surveys more**

H5 ... Millennials to produce survey data of **similar quality**

Data: 2 probability-based panels

CRONOS

Estonia, Slovenia, UK

Respondents (18+) invited at the end of ESS Round 8

Provided with tablet and Internet access when needed

Unconditional incentive

Data collection: 12-2016 to 02-2018

Welcome survey + 6 waves

Estonia: 806 panelists
(260 Millennials, 310 GenX, 198 Boomers, 38 Silents)

Slovenia: 705 panelists
(223 Millennials, 287 GenX, 165 Boomers, 30 Silents)

UK: 921 panelists
(213 Millennials, 357 GenX, 290 Boomers, 61 Silents)

GIP

Germany

2 probability-based samples of the German population (16 to 75) drawn in 2012/2014

Provided with PC-like devices and Internet access when needed

Conditional incentive

Data collection: 2017

6 successive waves (w27 to w32)

3,214 panelists
(771 Millennials, 1,318 GenX, 972 Boomers, 153 Silents)

Main indicators

For each panelist, we compute the following **individual** rates:

Participation rate	= no. started / no. invited

Break-off rate

Rate smartphone surveys

Rate difficult surveys

Rate liked surveys

Rate non-substantive resp.

Rate selecting 1ʳˢᵗ answer

Main indicators

For each panelist, we compute the following **individual** rates:

Participation *rate*	= no. started / no. invited
Break-off *rate*	= no. started but not finished / no. started
Rate **smartphone** *surveys*	
Rate **difficult** *surveys*	
Rate **liked** *surveys*	
Rate **non-substantive** *resp.*	
Rate **selecting 1ʳˢᵗ answer**	

Main indicators

For each panelist, we compute the following **individual** rates:

Participation *rate*	= no. started / no. invited
Break-off *rate*	= no. started but not finished / no. started
*Rate **smartphone** surveys*	= no. using a smartphone / no. started
*Rate **difficult** surveys*	
*Rate **liked** surveys*	
*Rate **non-substantive** resp.*	
*Rate **selecting** 1ʳˢᵗ **answer***	

Main indicators

For each panelist, we compute the following **individual** rates:

Participation *rate*	= no. started / no. invited
Break-off *rate*	= no. started but not finished / no. started
Rate ***smartphone*** *surveys*	= no. using a smartphone / no. started
Rate ***difficult*** *surveys*	= no. difficult / no. times answered this question
Rate ***liked*** *surveys*	
Rate ***non-substantive*** *resp.*	
Rate ***selecting 1ʳˢᵗ answer***	

Main indicators

For each panelist, we compute the following **individual** rates:

Participation *rate*	= no. started / no. invited
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*Rate **liked** surveys*	= no. liked / no. times answered this question
*Rate **non-substantive** resp.*	
*Rate **selecting 1ʳˢᵗ answer***	

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Rate ***difficult*** *surveys*	= no. difficult / no. times answered this question
Rate ***liked*** *surveys*	= no. liked / no. times answered this question
Rate ***non-substantive*** *resp.*	= no. non-substantive responses / no. questions asked
Rate ***selecting 1ʳˢᵗ answer***	

Main indicators

For each panelist, we compute the following **individual** rates:

Participation *rate*	= no. started / no. invited
Break-off *rate*	= no. started but not finished / no. started
Rate ***smartphone*** *surveys*	= no. using a smartphone / no. started
Rate ***difficult*** *surveys*	= no. difficult / no. times answered this question
Rate ***liked*** *surveys*	= no. liked / no. times answered this question
Rate ***non-substantive*** *resp.*	= no. non-substantive responses / no. questions asked
Rate ***selecting 1^{rst} answer***	= no. selecting 1st answer / no. questions asked

Analyses

Descriptive analyses	Regressions (OLS)
Comparing Millennials to older age cohorts on all 7 indicators Using the average of the individual rates, per age cohort, panel, and country Testing if differences between Millennials and older age cohorts are significant Considering the effect sizes	Investigating whether differences only depend on the age cohort DV: same indicators as in the descriptive analyses, except rate of smartphone surveys Main expected confounding effect: smartphone rate Other expected confounding effects: difficult and liked rates (for the other DV), gender, education, employment status, citizenship, and country

Results descriptive analyses

Compared to older age cohorts, we found...

H1	... **lower participation rate** for Millennials	Yes
H2	... **higher break-off** rate for Millennials	2 countries
H3	... **higher** proportion of **smartphone** surveys	Yes
H4a	... Millennials to consider web surveys to be **less difficult**	No
H4b	... Millennials to **like web surveys more**	No
H5	... Millennials to produce survey data of **similar quality**	Yes

Results regression analyses

CRONOS	*Participation*
GenX	**.15****
Boomers	**.20****
Silents	**.13****
No. obs.	2,299
Adjusted R²	.1134

Support **H1**

GIP	*Participation*
GenX	**.07****
Boomers	**.19****
Silents	**.10****
No. obs.	3,134
Adjusted R²	.0569

Note: Standardized beta coefficients. We control for smartphone rate, difficult & liked rates (except when they are the DV), female, university attendance, employment status, being a country's citizen, and country (for the CRONOS). *p <. 05, **p <. 01

Results regression analyses

CRONOS	*Participation*	*Break-off*
GenX	.15**	**-.10****
Boomers	.20**	**-.14****
Silents	.13**	**-.07****
No. obs.	*2,299*	*2,299*
Adjusted R²	.1134	.0337

Support *H2*

GIP	*Participation*	*Break-off*
GenX	.07**	**-.05***
Boomers	.19**	**-.09****
Silents	.10**	**-.04***
No. obs.	*3,134*	*3,134*
Adjusted R²	.0569	.0087

Note: Standardized beta coefficients. We control for smartphone rate, difficult & liked rates (except when they are the DV), female, university attendance, employment status, being a country's citizen, and country (for the CRONOS). *p <. 05, **p <. 01

Results regression analyses

CRONOS	*Participation*	*Break-off*	*Difficult*
GenX	.15**	-.10**	-.04
Boomers	.20**	-.14**	.01
Silents	.13**	-.07**	**.09****
No. obs.	*2,299*	*2,299*	*2,299*
Adjusted R²	.1134	.0337	.0441

GIP	*Participation*	*Break-off*	*Difficult*
GenX	.07**	-.05*	**-.07****
Boomers	.19**	-.09**	**-.14****
Silents	.10**	-.04*	-.03
No. obs.	*3,134*	*3,134*	*3,134*
Adjusted R²	.0569	.0087	.0443

No support **H4a**

Note: Standardized beta coefficients. We control for smartphone rate, difficult & liked rates (except when they are the DV), female, university attendance, employment status, being a country's citizen, and country (for the CRONOS). *p <. 05, **p <. 01

Results regression analyses

CRONOS	*Participation*	*Break-off*	*Difficult*	*Liked*
GenX	.15**	-.10**	-.04	.00
Boomers	.20**	-.14**	.01	.02
Silents	.13**	-.07**	.09**	-.03
No. obs.	*2,299*	*2,299*	*2,299*	*2,299*
Adjusted R²	.1134	.0337	.0441	.1010

GIP	*Participation*	*Break-off*	*Difficult*	*Liked*
GenX	.07**	-.05*	-.07**	**-.09****
Boomers	.19**	-.09**	-.14**	**-.09****
Silents	.10**	-.04*	-.03	-.02
No. obs.	*3,134*	*3,134*	*3,134*	*3,140*
Adjusted R²	.0569	.0087	.0443	.0257

Partial support *H4b* in GIP

Note: Standardized beta coefficients. We control for smartphone rate, difficult & liked rates (except when they are the DV), female, university attendance, employment status, being a country's citizen, and country (for the CRONOS). *p <. 05, **p <. 01

Results regression analyses

> Little support *H5*

CRONOS	*Participation*	*Break-off*	*Difficult*	*Liked*	*Non-subs.*	*Select 1st*
GenX	.15**	-.10**	-.04	.00	.14**	**.04**
Boomers	.20**	-.14**	.01	.02	.17**	.07*
Silents	.13**	-.07**	.09**	-.03	.16**	.09**
No. obs.	*2,299*	*2,299*	*2,299*	*2,299*	*1,867*	*1,867*
Adjusted R²	.1134	.0337	.0441	.1010	.0715	.0303

GIP	*Participation*	*Break-off*	*Difficult*	*Liked*	*Non-subs.*	*Select 1st*
GenX	.07**	-.05*	-.07**	-.09**	-.05*	**.03**
Boomers	.19**	-.09**	-.14**	-.09**	-.15**	.06*
Silents	.10**	-.04*	-.03	-.02	-.10**	**.03**
No. obs.	*3,134*	*3,134*	*3,134*	*3,140*	*2,827*	*2,827*
Adjusted R²	.0569	.0087	.0443	.0257	.0920	.0890

Note: Standardized beta coefficients. We control for smartphone rate, difficult & liked rates (except when they are the DV), female, university attendance, employment status, being a country's citizen, and country (for the CRONOS). *p <. 05, **p <. 01

Conclusions & practical implications

Compared to older age cohorts…

1. **Lower participation rate** for Millennials
2. **Higher break-off** rate for Millennials in 2 out of 4 countries
3. **Higher smartphone rate** for Millennials
4. Mixed results about survey evaluation and data quality

→ Millennials differ from older age cohorts

→ Important **to adapt surveys design to Millennials** to improve their participation and reduce their break-off rates

- Previous publications propose ideas that may help engage Millennials in surveys

- What are these ideas?

Web survey participation of Millennials:
What could help increasing it?

Three ideas to help engage Millennials in surveys

"To involve Millennials in survey participation, and obtain high-quality answers from them, survey designers may require new tools that better catch Millennials' interest and attention" (Bosch & Revilla, 2021)

Different tools have been proposed, in particular offering the option of:

😍 Aswering using **emojis** (Bosch & Revilla, 2021)

📷 Answering using **visual data** (Bosch, Revilla & Paura, 2018b)

🎤 Answering using **voice recordings** (Revilla et al., 2020)

⬇

Not expected to work for any question but could help make the overall surveys more enjoyable and less burdensome/boring for Millennials

Why?

🫨 Over 10 billion emojis are sent each day[1]

👍 92% of the online population uses emojis daily[1]

🤩 According to Swiftpage, an emoji in the subject line of an email increases the open rate by 29% and the click through rate by 28%

⬇️

❤️ Emojis are a natural friendly way of communicating

😎 Can improve respondents' survey experience

👱‍♀️ Especially expected for Millennials (see e.g., Appboy report[2])

[1] https://pipeline.zoominfo.com/marketing/emoji-statistics-for-businesses
[2] https://www.marketingdive.com/ex/mobilemarketer/cms/news/research/23233.html

Empirical evidence: Bosch & Revilla (2021)

Focus

Analyses

Data

Main findings

Millennials

Use emojis in surveys in answers to open questions or in response scales

Empirical evidence: Bosch & Revilla (2021)

Focus

Millennials

Use emojis in surveys in answers to open questions or in response scales

Analyses

Willingness to use emojis

Preference between emojis and verbal scales

Differences in data quality & survey evaluation when proposing to use emojis vs not

Data

Main findings

Empirical evidence: Bosch & Revilla (2021)

Focus	Millennials
	Use emojis in surveys in answers to open questions or in response scales
Analyses	Willingness to use emojis
	Preference between emojis and verbal scales
	Differences in data quality & survey evaluation when proposing to use emojis vs not
Data	Netquest opt-in online panels in Spain and Mexico
	Smartphone online survey of maximum 62 questions
	808 respondents in Spain; 806 in Mexico
Main findings	

Empirical evidence: Bosch & Revilla (2021)

Focus	Millennials Use emojis in surveys in answers to open questions or in response scales
Analyses	Willingness to use emojis Preference between emojis and verbal scales Differences in data quality & survey evaluation when proposing to use emojis vs not
Data	Netquest opt-in online panels in Spain and Mexico Smartphone online survey of maximum 62 questions 808 respondents in Spain; 806 in Mexico
Main findings	✅ **75.5%** of Millennials **would like to use emojis in Spain**; **88.1% in Mexico** ✅ A **majority prefer using emojis** instead of verbal scales ✅ **Positive impact** of encouraging Millennials to use emojis in open-ended questions **on data quality** (similar item non-response but more information conveyed) **& survey evaluation** (higher % like)

Conclusion and future research

Overall, Millennials show a clear interest for using emojis in surveys

However, much more research needed

o   Comparing Millennials to other age cohorts
o   Using different topics, scales, countries, etc.

Encouraging the use of emojis or proposing emojis scales has very
limited cost and can be done across countries and languages

So it could be a **promising option**, worth to investigate further

Why?

Images largely used outside surveys:

- **More pictures are now taken every 2min than during the entire 19th century**

Several benefits expected if proposing this tool in surveys (Revilla, 2022):

- On researchers' side (e.g., improved data quality)
- On respondents' side (reduced time/efforts & more enjoyable)

Especially for Millennials' respondents:

- More technology oriented → less time/efforts + more natural
- **Visual language very popular for Millennials**[1] → enjoy it more

[1] https://www.infographicdesignteam.com/blog/which-language-do-the-millennials-understand-the-one-that-starts-with-v/

Empirical evidence: Bosch, Revilla & Paura (2018b)

Focus

Analyses

Data

Main findings

Millennials in Spain and Mexico

Actual participation when asked to share images in a mobile web survey

Empirical evidence: Bosch, Revilla & Paura (2018b)

Focus	Millennials in Spain and Mexico Actual participation when asked to share images in a mobile web survey
Analyses	% answering in line, not in line, skipping & not understanding
Data	
Main findings	

Empirical evidence: Bosch, Revilla & Paura (2018b)

Focus	Millennials in Spain and Mexico Actual participation when asked to share images in a mobile web survey
Analyses	% answering in line, not in line, skipping & not understanding
Data	Same as for the emojis' study (Bosch & Revilla, 2021) Task 1 (T1): take and share photo of what they see right now Task 2 (T2): share already stored image that made them laugh
Main findings	

Empirical evidence: Bosch, Revilla & Paura (2018b)

Focus	Millennials in Spain and Mexico Actual participation when asked to share images in a mobile web survey
Analyses	% answering in line, not in line, skipping & not understanding
Data	Same as for the emojis' study (Bosch & Revilla, 2021) Task 1 (T1): take and share photo of what they see right now Task 2 (T2): share already stored image that made them laugh
Main findings	**41.0%** (T1) to **49.2%** (T2) **uploaded an image in line** 9.4% (T2) to 12.1% (T1) uploaded an image not in line **22.9%** (T2) to **26.5%** (T1) **had difficulties in understanding** how to do it 18.5% (T2) to 20.4% (T1) skipped the question

Empirical evidence: Bosch, Revilla & Paura (2018b)

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Analyses	% answering in line, not in line, skipping & not understanding
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Participation quite low and proportion stating difficulties quite high → does not seem to work so well

Empirical evidence: skills and willingness

Focus

Compare Millennials vs older age cohorts

Stated skills + willingness for different types of visual data

Analyses

Data*

Main findings (details on next slide)

* I use data from the Iglesias and Revilla's (2021) study

Empirical evidence: skills and willingness

Focus	Compare Millennials vs older age cohorts Stated skills + willingness for different types of visual data
Analyses	% stating they have the skills and stating they would be willing Z-tests significance of differences between Millennials and older age cohorts
Data*	
Main findings *(details on next slide)*	

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Empirical evidence: skills and willingness

Focus	Compare Millennials vs older age cohorts Stated skills + willingness for different types of visual data
Analyses	% stating they have the skills and stating they would be willing Z-tests significance of differences between Millennials and older age cohorts
Data*	Netquest opt-in online panel in Spain (May 2021) Online survey of maximum 71 questions 857 respondents analyzed
Main findings *(details on next slide)*	

* I use data from the Iglesias and Revilla's (2021) study

Empirical evidence: skills and willingness

Focus

Compare Millennials vs older age cohorts

Stated skills + willingness for different types of visual data

Analyses

% stating they have the skills and stating they would be willing

Z-tests significance of differences between Millennials and older age cohorts

Data*

Netquest opt-in online panel in Spain (May 2021)

Online survey of maximum 71 questions

857 respondents analyzed

Main findings (details on next slides)

Higher proportion of Millennials having the **skills**

Higher willingness of sharing different visual data types for Millennials

* I use data from the Iglesias and Revilla's (2021) study

Empirical evidence: skills

Proportions (%) of respondents stating they have the skills

	Screenshot PC	Screenshot smartphone	Photo smartphone	Video smartphone	Already stored PC	Already stored smartphone
Millennials	**84.0**	**99.0**	**99.3**	**98.9**	**93.7**	**97.2**
	(n=238)	*(n=284)*	*(n=284)*	*(n=284)*	*(n=238)*	*(n=284)*
GenX	57.2*	92.0*	99.0	98.5	86.4*	94.0
	(n=339)	*(n=401)*	*(n=401)*	*(n=401)*	*(n=339)*	*(n=401)*
Boomers	47.4*	73.0*	98.2	93.7*	73.7*	79.3*
	(n=114)	*(n=111)*	*(n=111)*	*(n=111)*	*(n=114)*	*(n=111)*

Note: * $p < .05$. n refers to the total number of observations.

Empirical evidence: willingness

Proportions (%) of respondents stating they would be willing ("yes" only)

	Screenshot PC	Screenshot smartphone	Photo smartphone	Video smartphone	Already stored image PC	Already stored image smartphone
Millennials	**60.1**	**71.8**	**72.2**	**63.7**	**56.7**	**51.8**
	(n=238)	*(n=284)*	*(n=284)*	*(n=284)*	*(n=238)*	*(n=284)*
GenX	42.8*	59.3*	58.3*	48.6*	43.9*	38.4*
	(n=339)	*(n=401)*	*(n=401)*	*(n=401)*	*(n=339)*	*(n=401)*
Boomers	41.2*	46.8*	48.6*	40.5*	48.2	41.4
	(n=114)	*(n=111)*	*(n=111)*	*(n=111)*	*(n=114)*	*(n=111)*

Note: * $p < .05$. n refers to the total number of observations.

Empirical evidence: like and easy

Focus

Analyses

Data*

Main findings
(details on next slide)

Compare Millennials vs older age cohorts

Whether respondents liked answering survey questions using images and whether they found it easy

* I use data from the Bosch et al. (2022) study

Empirical evidence: like and easy

Focus	Compare Millennials vs older age cohorts Whether respondents liked answering survey questions using images and whether they found it easy
Analyses	% like and % easy Z-tests significance of differences between Millennials and older age cohorts
Data*	
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Empirical evidence: like and easy

Focus	Compare Millennials vs older age cohorts Whether respondents liked answering survey questions using images and whether they found it easy
Analyses	% like and % easy Z-tests significance of differences between Millennials and older age cohorts
Data*	Respondi opt-in online panel in Germany (August 2019) Online survey of maximum 71 questions; 4 questions requesting visual data 1,906 respondents analyzed (956 PC and 950 smartphone)
Main findings *(details on next slide)*	

* I use data from the Bosch et al. (2022) study

Empirical evidence: like and easy

Focus	Compare Millennials vs older age cohorts
	Whether respondents liked answering survey questions using images and whether they found it easy
Analyses	% like and % easy
	Z-tests significance of differences between Millennials and older age cohorts
Data*	Respondi opt-in online panel in Germany (August 2019)
	Online survey of maximum 71 questions; 4 questions requesting visual data
	1,906 respondents analyzed (956 PC and 950 smartphone)
***Main findings** (details on next slide)*	**Low levels of like and easy** overall
	Lower proportion of Millennials liked + found it easy
	Not as expected!

* I use data from the Bosch et al. (2022) study

Empirical evidence: like and easy

Proportion (%) who liked answering with images and who found it easy

	Like	**Easy**
Millennials	**11.5**	**47.2**
	(n=670)	(n=670)
GenX	18.3*	52.6*
	(n=698)	(n=694)
Boomers	16.4*	47.4
	(n=537)	(n=536)

Note: * p < .05. n refers to the total number of observations.

Conclusion and future research

→ Some evidence to support the idea of higher skills for different types of visual data and higher willingness to produce and share visual data within the frame of web surveys for Millennials

→ However, actual participation quite low, and reported levels of like and easy low as well (even lower than GenX)

→ More research needed

- o Different samples, countries, types of visual data, topics, etc.

- o Might also depend on the exact tools used to collect the visual data

Available tools

SurveyImage
(Höhne, Qureshi & Gavras, 2020)
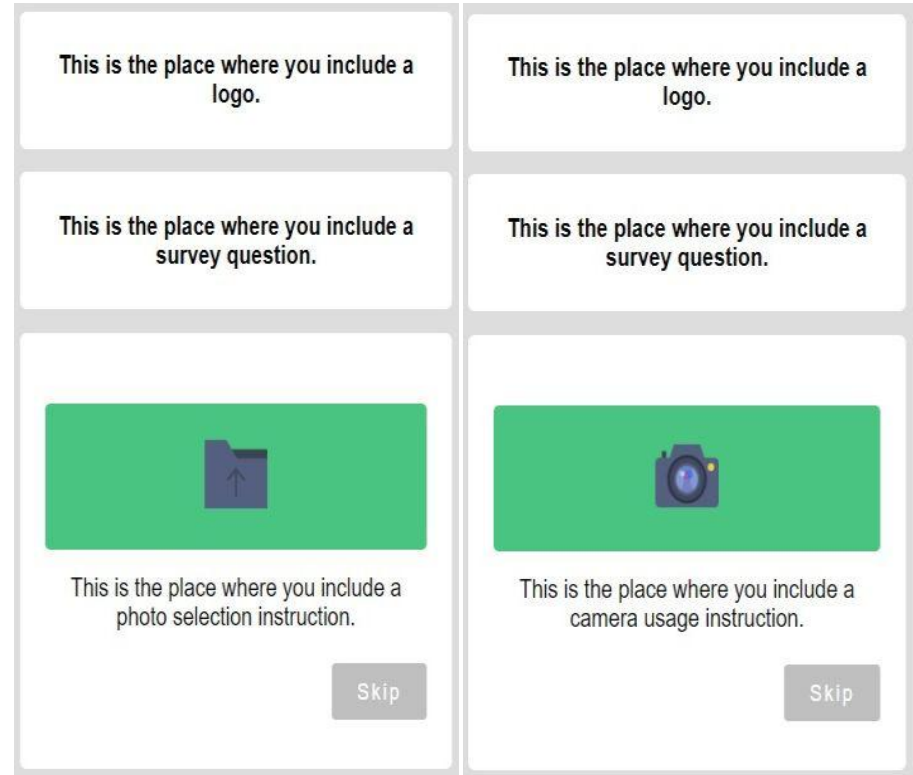
More information available at: https://zenodo.org/record/4280543#.Ykrj2FVByHs

Available tools

WebdataVisual
(Revilla et al., 2022)

More information available at: https://www.upf.edu/web/webdataopp/tools
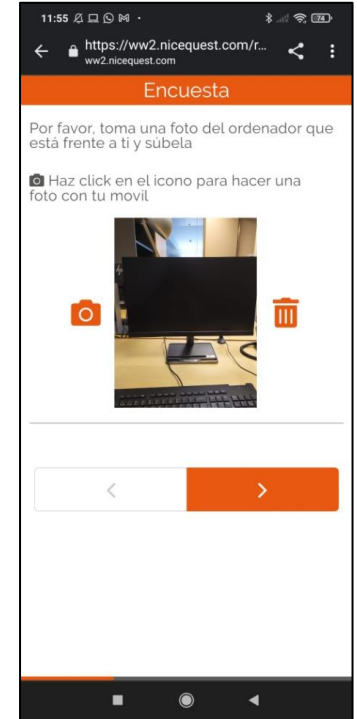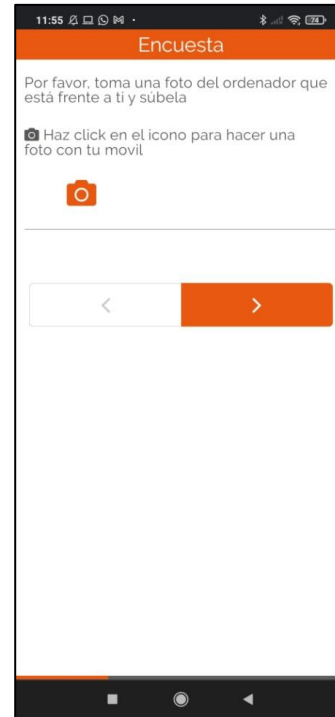
Why?

Voice messages largely used outside surveys:

- **7 billion voice messages** sent on WhatsApp **every day**[1]

As for visual data, several benefits expected if proposing this tool in surveys:

- In particular, on respondents' side
- Again expect reduced time/efforts & more enjoyable

Especially for Millennials:

- More technological skills and high use of smartphones

Expected to increase even further in future:

- "The Next Billion Mobile Users Will Rely on Video and Voice"[2]

[1] https://blog.whatsapp.com/making-voice-messages-better
[2] https://www.wsj.com/articles/the-end-of-typing-the-internets-next-billion-users-will-use-video-and-voice-1502116070

Empirical evidence: did not manage and like

Focus

Analyses

Data*

Main findings
(details on next slide)

Compare Millennials vs older age cohorts

Whether respondents managed to use the voice recording tool and for those who did, whether they liked it

* I use data from the Revilla et al. (2020) study

Empirical evidence: did not manage and like

Focus	Compare Millennials vs older age cohorts
	Whether respondents managed to use the voice recording tool and for those who did, whether they liked it

Analyses	% did not manage and % like (within those who managed)
	Z-tests significance of differences between Millennials and older age cohorts

Data*

Main findings *(details on next slide)*

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Empirical evidence: did not manage and like

Focus	Compare Millennials vs older age cohorts Whether respondents managed to use the voice recording tool and for those who did, whether they liked it
Analyses	% did not manage and % like (within those who managed) Z-tests significance of differences between Millennials and older age cohorts
Data*	Netquest opt-in online panel in Spain (January/February 2018) Online survey of maximum 37 questions; 6 questions requesting voice answers 403 respondents analyzed (all Android smartphone)
***Main findings** (details on next slide)*	

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Data*	Netquest opt-in online panel in Spain (January/February 2018)
	Online survey of maximum 37 questions; 6 questions requesting voice answers
	403 respondents analyzed (all Android smartphone)
Main findings *(details on next slide)*	Results in expected direction for Millennials vs genX
	But **no significant differences**
	Very few Boomers so cannot really conclude for this group
	Relatively low level of like overall

* I use data from the Revilla et al. (2020) study

Empirical evidence: did not manage and like

Proportion (%) who did not manage to use the voice recording and, for those who managed, who liked it

	Did not manage	Like
Millennials	**13.9**	**35.0**
	(n=166)	*(n=143)*
GenX	18.8	28.3
	(n=213)	*(n=173)*
Boomers	8.3	40.9
	(n=24)	*(n=22)*

Note: no significant differences. n refers to the total number of observations.

Empirical evidence: like and easy

Focus

Analyses

Data*

Main findings
(details on next slide)

Compare Millennials vs older age cohorts

Whether respondents liked using the tool and found it easy

* I use data from the Revilla & Couper (2021) study

Empirical evidence: like and easy

Focus

Compare Millennials vs older age cohorts

Whether respondents liked using the tool and found it easy

Analyses

% like and % easy

Z-tests significance of differences between Millennials and older age cohorts

Data*

Main findings *(details on next slide)*

* I use data from the Revilla & Couper (2021) study

Empirical evidence: like and easy

Focus	Compare Millennials vs older age cohorts Whether respondents liked using the tool and found it easy
Analyses	% like and % easy Z-tests significance of differences between Millennials and older age cohorts
Data*	Netquest opt-in online panel in Spain (March/Abril 2019) Online survey of maximum 33 questions; 3 questions requesting voice answers 1,622 respondents finished the survey (all Android smartphone)
***Main findings** (details on next slide)*	

* I use data from the Revilla & Couper (2021) study

Empirical evidence: like and easy

Focus	Compare Millennials vs older age cohorts Whether respondents liked using the tool and found it easy
Analyses	% like and % easy Z-tests significance of differences between Millennials and older age cohorts
Data*	Netquest opt-in online panel in Spain (March/Abril 2019) Online survey of maximum 33 questions; 3 questions requesting voice answers 1,622 respondents finished the survey (all Android smartphone)
Main findings *(details on next slide)*	No significant differences between Millennials and older age cohorts Low level of like overall High proportion found it easy

* I use data from the Revilla & Couper (2021) study

Empirical evidence: like and easy

Proportion (%) who liked using the voice tool and who found it easy

	Like	**Easy**
Millennials	**26.8**	**64.7**
	(n=541)	*(n=580)*
GenX	26.6	64.1
	(n=530)	*(n=579)*
Boomers	25.5	58.4
	(n=98)	*(n=101)*

Note: no significant differences. n refers to the total number of observations.

Conclusion and future research

→ No evidence to support the idea that answering through voice might be a way to better involve Millennials

→ Low proportion of respondents liking this even in this age cohort

→ More research needed

   o Different samples, countries, topics, etc.

   o Might also depend on the exact tools used to collect the voice data

Available tools

SurveyVoice (Höhne, Gavras & Qureshi, 2020)

This is the place where you include a logo.

This is the place where you include a survey question.

This is the place where you include a recording instruction.

Next

More information:
https://zenodo.org/record/4644590#.Ykrqu1VByHs
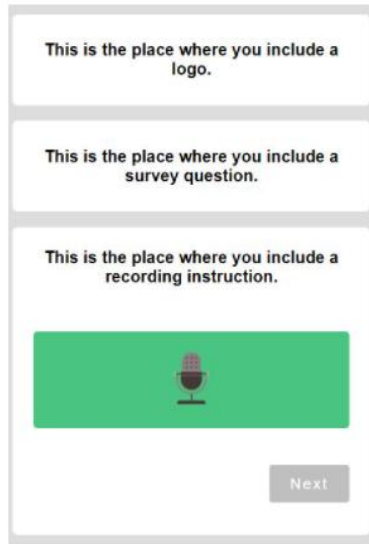
WebdataVoice (Revilla et al., 2022)

Ésta es la herramienta para grabar un audio. Pulsa el botón 'Grabar' y **di los días de la semana en castellano en voz alta**. Puedes grabar más de un audio y borrar alguno si así lo deseas.

Pulsa 'Stop' cuando lo termines

Grabar   Stop

Grabaciones

▶ 0:00   🔊   Borrar

More information: https://www.upf.edu/web/webdataopp/tools
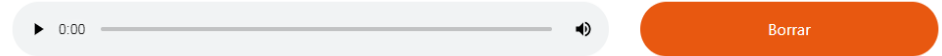
Summary

Revilla and Höhne (2020)
1. **Lower participation rate** for Millennials
2. **Higher break-off** rate for Millennials in 2 out of 4 countries
3. **Higher smartphone rate** for Millennials

Three ideas to help engage Millennials in survey
1. **Emojis**: promising results but no data to compare age cohorts
2. **Visual data**: mixed results with existing data, but more research needed
3. **Voice recordings**: no support with existing data, but more research needed

Role of the tools?

To see if those who do not participate would do so if proposed with these new tools

Thanks!

Questions?

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https://www.upf.edu/web/webdataopp

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