THE NEW SWISS NATIONAL READERSHIP SURVEY: FIT FOR THE FUTURE

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1 Introduction

In April 2012 a new era in Swiss audience measurement of print media commenced with the start of field work for MACH Basic, the National Readership Survey. WEMF, the jic organisation for industry audience research with a focus on print media and cinema in Switzerland, found it necessary to replace the surveys of the existing MACH Research System¹ with a new generation. The results of the first year were published in September 2013.

As in many other countries, Swiss readership research has been faced with changing conditions:

- A growing proportion of the population has stopped listing their telephone landlines in publicly accessible telephone directories
- 2) A growing proportion of the population can only be reached by mobile phones ("mobile-onlys")
- 3) There is a decreasing willingness of respondents to take part in any type of research activities
- 4) There is an increase in the differentiation and number of print titles
- 5) Print media houses have transformed into media houses with media brands distributing the content via different channels (e.g. e-papers, websites, apps).

As a consequence, solutions have had to be developed in order to improve the quality of the random sample with respect to completeness and response rates, as well as the quality of the answers given by the respondents in the interviews. Furthermore, since digital reading is becoming more and more important, it has become necessary to find ways of creating the preconditions for classical readership data to be combined with usage data of digital channels, which provides the option of estimating total audiences of (originally print based) media brands.

Taking all these changes and challenges into account, WEMF enhanced the sample and research design of the new MACH Basic by taking the following action:

- Thanks to a new sampling strategy, the starting sample comprises persons in households with unlisted telephone landlines and with only mobile telephone accessibility ("mobile-onlys"). In addition, incentives have been introduced; every randomly chosen respondent receives an incentive worth 10 CHF (8 euro) after recruitment and before the main interview in order to back up response rates. The new sampling strategy and the introduction of incentives has significantly improved the quality of the sample.
- 2) **Dual mode data collection** is implemented for methodological and economic reasons as well as in anticipation of media research in an increasingly digital world. In the first survey year (2012/2013), 40% of the main interviews are conducted as CAWI (online) interviews and 60% as CATIplus² interviews instead of the former 100% CATIonly interviews of the last generation.
- 3) By using either CATIplus or CAWI, questions in the main interviews are supported by showing answer categories or/and visual material (e.g. mastheads). As a result, the validity of the answers is improved.
- 4) The questionnaire had to be extended in order to cover not only the usage of printed editions of a media brand but also the usage of its **digital channels.** Also general questions concerning the usage of other media categories has been included. Information about the usage of digital channels is collected via questions in the main questionnaire (full sample) and in addition via technical tracking data in the CAWI subsample.

¹ MACH Research System consists of 8 coordinated mainly single source surveys:

MACH Basic, MACH Consumer, MACH Radar provide the audiences and structures of press media.

MACH Cinema Basic and MACH Cinema Consumer provide the audiences and structures of cinema pools.

MA Strategy Basic, MA Strategy Consumer, MA Strategy Radar serve as intermedia surveys with data concerning press media, TV and radio stations, out-door and digital offers (e.g. websites)

radio stations, out-door and digital offers (e.g. websites).

2 "CATIplus" means that the telephone interview is supported by a brochure with answer categories and visual material (e.g. mastheads), which is sent to the respondent in advance, i.e. before the main interview. The brochure is therefore available for use during the telephone interview

2 New sampling strategy

The new sample base is stratified with regard to geography and telephone number qualities. There are 3 telephone number strati:

listed landline numbers with a current share of 80%, unlisted landline numbers with a current share of 15%, and mobile-only numbers with a current share of 5% of the whole sample.

Unlisted telephone numbers (landline and mobile) are generated within the Swiss and Liechtenstein telephone number universe (about 60 million numbers) using a RDD (Rand Digit Dialing) approach.

Table 1 shows that there are considerable differences between the new parts of the sample (persons in households with unlisted landline numbers and mobile-onlys) and the "traditional" part of the sample (persons in households with listed landline numbers). Both new subsamples are younger, mostly male, employed full-time, highly educated and living in mostly urban areas

MACH Basic 2013-2: Sociodemographic structure			
Reference: listed landline sample	Not listed landlines	Mobile-onlys	
	n=2,435	n=953	
men	+	++	
women	-	-	
14-19 years	-	-	
20-29 years	++	+++	
30-39 years	++	++	
40-49 years	+	-	
50++ years	-	-	
education level low		-	
education level medium	-	=	
education level high	+	+	
employed full time/part time	++	++	
not employed		-	
residence community 20,000++	++	+++	
residence community <20,000	-	-	

Table 1: Structure of unlisted landline/mobile-only subsamples

The two new parts of the sample definitely improve the overall structure of the whole sample because groups of respondents who are usually hard to get into surveys are well represented.

But what does this mean in terms of readership levels? In general, the respondents of the two new subsamples read less print media, especially when it comes to magazines (see table 2). If we look at specific title groups, the free daily press or women's magazines, for example, can profit from these two new subsamples whereas more traditional titles, such as subscribed regional daily newspapers or consumer magazines, show considerably lower readership levels. Of course the lower readership levels are not only caused by the telephone number quality but also by the socio-demographic characteristics of these two subsamples.

	Not listed landlines	Mobile-onlys
Reference: listed landline sample = Index 100	Index	Index
	n=2,435	n=953
total newspapers	93	88
total magazines	82	69
title groups		
daily press I (large, excl. free dail press)	87	84
daily press I, free (large, excl. sold daily press)	125	142
daily press II (medium)	80	74
daily press III (small)	70	37
regional weeklys press I (large)	94	79
regional weeklys press II (medium)	84	53
regional weeklys press III (small)	64	68
Sunday press	93	90
general interest magazines	72	59
news magazines	95	86
TVguides	78	71
women's magazines	101	116
financial magazines	103	76
hobby magazines	89	86
health, beauty & education magazines	66	39
consumer magazines	78	52
special/professional magazines	84	81
total sample base: 19,058		

Table 2: Readership levels by subsamples

3 Dual mode data collection

For the new MACH Basic (NRS), 19,000 interviews (net) are conducted via a two-step approach:

In a first step, the RDD-generated telephone numbers of private households are contacted. At the beginning of the recruitment interview which is conducted exclusively by telephone (CATI), an inventory of all persons who live in this household is established. One out of all eligible persons ³ is then randomly chosen for the main interview. After the selection of the target person, the recruitment interview must be continued with him or her.

³ In households with more than 3 eligible persons, two target persons are randomly chosen for the main interview.

Towards the end of the second part of the recruitment interview, the respondent is asked if he or she uses the Internet; with this information, two groups of respondents are established for the main interview: offliners (do not use the Internet) and onliners (use the Internet). At the end of the recruitment interview, the target person is invited for the main interview.



Fig. 1: The research design of the new MACH Basic

Whereas all offliners (currently about 20%) are of course interviewed by the CATIplus method, onliners (currently about 80%) are randomly assigned for the main interview either to the CATIplus mode⁴ or CAWI mode.

This random assignment (instead of free choice) was implemented in order to guarantee relatively similar structures of the realised subsamples of the CATI onliners and the CAWI onliners. Tests showed that if the respondents could determine by themselves in what mode the main interview should be conducted, the structures of the two subsamples would be very dissimilar. As described below, each data collecting mode has its effects on the readership results. It is therefore essential for an NRS that titles are treated equally, also in terms of the relative proportions of the two modes, otherwise the readership results would be systematically biased.

As a consequence, the research design represents a perfect split-half test situation. Differences of results (e.g. readership levels) between the two subsamples (CATI and CAWI within the 80% onliners) can be interpreted as mode effects almost free from any structural effects of the sample.

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⁴ "CATIplus" means that the telephone interview is supported by a brochure with answer categories and visual material (e.g. mastheads) which is sent to the respondent in advance, i.e. before the main interview. The brochure is therefore available for use during the telephone interview.

In our context, it is important to note that overall readership levels (Broadest Readership as well as Average Issue Readership) are considerably lower if respondents are interviewed by CAWI. Respondents who are assigned randomly to the CATIplus mode produce significantly higher BRS and AIR levels as can be seen in table 3. We assume that the different result levels are due to a clear mode effect - even the content and the presentation of the questionnaires of the two versions (CATI and CAWI) were designed according to the maxim "as similar as possible and only dissimilar if necessary".

MACH Basic 2013-2: Readership levels (AIR)		
	CAWI onliner	
Reference: CATI onliner = Index 100	Index	
	n=8,016	
total newspapers	84	
total magazines	67	
title groups		
daily press I (large, excl. free dail press)	88	
daily press I, free (large, excl. sold daily press)	89	
daily press II (medium)	109	
daily press III (small)	88	
regional weeklys press I (large)	83	
regional weeklys press II (medium)	75	
regional weeklys press III (small)	76	
Sunday press	74	
general interest magazines	76	
news magazines	56	
TVguides	77	
women's magazines	60	
financial magazines	64	
hobby magazines	58	
health, beauty & education magazines	60	
consumer magazines	80	
special/professional magazines	46	
total sample base: 19,058		

Table 3: Readership levels (AIR) by mode

In general, readership levels are considerably lower in the CAWI than in the CATI subsample. Furthermore, this effect is more evident with magazines, especially news and professional magazines, than with newspapers. There may still be some effects of structure (as non-response and dropouts of the CAWI and CATI subsamples are not completely evenly distributed and are therefore different in structure), but overall the major differences are attributed to the mode.

Telephone interviews (CATI) are known for their tendency to generate high levels of results due to the presence of an interviewer which causes a social-desirability effect. Furthermore, one must not forget that a CATI interview is fully guided and under the control of an interviewer. In contrast, online interviews are not guided by an interviewer; thus the interview situation is characterised by a high degree of subjective anonymity and autonomy as well as by a low social desirability effect. In addition, the CAWI interview situation without an interviewer may result in less attentive, quicker responses. All these aspects help to explain the relatively high readership levels in CATI and the relatively low levels in CAWI interviews. These effects as well as their explanations are in line with several other findings.⁵

Thanks to the Swiss multi-language situation, one can learn even more about the mode effects of CAWI. Another split-half test scenario is available: The offer of press titles is very different in the 3 language groups (German, French and Italian) which make up different parts of Switzerland. Hence, the length of the title lists that are used for the MACH Basic interviews differ greatly between the 3 language groups as well. In German-speaking regions, the MACH Basic title list is composed of an average of about 100 titles; the average number of titles in French-speaking Switzerland is about 50, whereas in Italian-speaking Switzerland it is about 30. Except for the difference in length of the title lists, CAWI interviews⁶ are completely identical in the three language groups with regard to the content, order, functionality and presentation of the questions..

⁵ E.g. see Fred Bronner, Costa Tchaoussoglou and Raymond Ross: The virtual interviewer, WRRS 2003; and Monika Taddicken Methodeneffekte bei Web-Befragungen, 2008

⁶ The MACH Basic CAWI questionnaire exists in 3 language versions: German, French and Italian. The translations pay strong attention to the fact that all 3 versions communicate the same content.

MACH Basic 2013-2: Readership levels (AIR)			
Reference: CATI onliner = Index 100	CAWI onliner		
Reference: CATI offillier - flidex 100	Index		
German speaking region (list of ca. 100 titles)	n=5,755		
newspapers	86		
magazines	68		
French speaking region (list of ca. 50 titles)	n=1,862		
newspapers	90		
magazines	79		
Italian speaking region (list of ca. 30 titles)	n=399		
newspapers	101		
magazines	89		

Table 4: Mode effect of CAWI by language groups

An analysis of the AIR levels of the 3 language subsamples shows that the mode effect is firstly stronger when it comes to magazines and weaker when it comes to newspapers, and secondly it is stronger with a longer title list (German-speaking group), weaker with a title list of medium length (French-speaking group) and quite small with a short list of titles (Italian-speaking group).

In self-administered CAWI interviews, the compliance and attentiveness concerning the answers to the Broadest Readership Question seem to decrease according to the length of the title list. This fatigue effect results in less positive answers and in turn in lower readership levels. In CATI interviews, the interviewer can obviously compensate for most of the fatigue effect simply by being there or by motivating and guiding the respondent. Thus CATIs do not seem to be particularly sensitive to the length of title lists.

The different distinctness of the mode effect in the 3 different language groups will be the first issue to be corrected for the future. At the time of writing this paper, a life test with a reduced title list length for the German language group is being conducted by the WEMF. The hypotheses is that a reduced title list length will result in higher levels of media results for the German-speaking group. The reduction of the title list length is achieved by using the concept of title splits. If the test is successful, a title split will be implemented in the German-speaking version of the MACH Basic-interviews. In the long run, the CAWI interviews will also be the subject of tests and adaptations in order to optimise guidance and motivation within the CAWI-interview.

The two "split-half tests" (CATIplus vs. CAWI and long title lists vs. short title lists) which are inherent in the research design of the Swiss NRS clearly show that the levels of media results are dependent on the chosen mode. As each mode has its impact on the results, implementing a mixed mode approach seems to be a good way of balancing specific mode effects – leading to more valid readership levels, even if they are lower. Even so, as experience in using CAWI for readership research is growing, the CAWI interview will be continually optimized in order to alleviate fatigue effects, which now seems to be especially evident in CAWI interviews with the longest lists of titles.

4 Usage of digital channels

In the new MACH Basic, the usage of digital channels of press media brands is covered in two ways: On the one hand, all respondents that use the Internet (onliners) have to answer questions about the use of digital channels of media brands. For the wording of the questions, an offer and device orientated approach is used: website via PC/notebook, website via smartphone, website via tablet, app via smartphone, app via tablet, e-paper. These kinds of questions are used as well, for example, in the NRSs in France, Belgium and the Netherlands. On the other hand, in the subsample of CAWI onliners (about 40% of all main interviews) cookies are set when downloading the CAWI questionnaire. Thus tracking data that is measured by NET-Metrix (the Swiss jic for audience measurement of digital channels) is available for the browser which was used by the respondent to complete the NRS-interview.

Before talking about results from the questionnaire, there is one important preliminary remark to make: There is no doubt that digital reading (either via PC or via mobile devices) should be passively measured as much as possible. Survey data should mainly be used to bridge the time gap until adequate electronic measurement solutions are developed, implemented and available⁸ as well as to enrich them, if necessary.

⁷ Participation via tablet is possible but not - at least for the moment - via smartphones.

⁸ For 2012/13 NET-Metrix is only able to provide the market with user estimations with respect to the totality of digital channels of a media brand. At this moment, the differentiation of users between single channels is not yet possible. Currently several tests are in the field and if they are successful, NET-Metrix will be able to deliver not only global user but also individual user data for single digital channel by summer 2014.

As mentioned before, respondents of MACH Basic also answer questions about their usage of digital channels of press media brands. In order to decide if the respondents are capable of providing detailed information about their usage of digital channels, a plausibility check has to be carried out. As exhaustive passive electronic measurement data is missing, face validity plays an important role. At first glance, results of the first survey year of MACH Basic look consistent and generally plausible; for example, only a marginal proportion of people stated that they use e-papers, there are less tablet app users than smartphone app users, newspapers have more mobile users than magazine, etc. However, at second glance, the world appears much more complex: Some media brands call their "apps" "e-paper", some smartphone apps work on tablets as well and vice versa, some apps lead directly to the mobile site, some mobile sites can be accessed by a bookmark which looks like an app icon. If this is not enough, more and more sites have a responsive design that fuses mobile and stationary websites into one continuum. Consequently, there is sometimes only a slight chance that respondents know exactly what they are using. Under these conditions, it is evident that survey approaches have their limitations.

Another point to mention is the extent to which questionnaire information matches the technical tracking data can be analysed in the CAWI subsample. Figure 2 shows the relation between reach per day/per month of different media brands based on the questionnaire data for PC usage (vertical axis) and reach per day/month based on the technical tracking data (horizontal axis) of the same respondents. In general, survey data result in higher reach figures than tracking data and there is considerable variance. The higher levels of survey data cannot be surprising because the technical measurement via cookies can only take the *one* browser into account with which the respondent completed the CAWI questionnaire. All digital offers that may be used by the respondent via another browser are not covered in this comparison. Survey data may be less exact but it is more comprehensive.

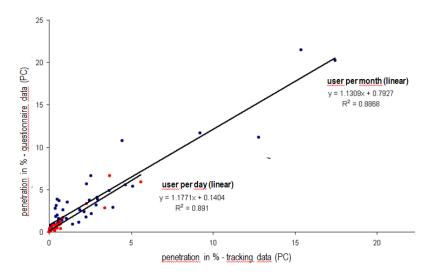


Fig. 2: Comparison of questionnaire and tracking data

If one decides that the technical tracking data is to be used to quantify the digital usage of the NRS respondents, a challenging aspect presents itself. Tracking data is only available for about 40% of the total sample (CAWI subsample) and it covers only the *one* browser and device used to complete the survey.

At the time of writing this paper (summer 2013), there is a lively discussion in Switzerland concerning whether or not the available NRS survey and/or technical tracking data of digital reading should be used. On the one hand, many are sceptical about the quality of asking people about their usage of digital channels. Furthermore, advertising in digital channels is not comparable with advertising in print media in terms of booking procedures or performance indicators. On the other hand, publishers are desperately asking for the quantification and integration of their digital readers into the NRS hoping to compensate for declining print readership figures. In this context, they very much welcomed the pilot intermedia survey "Total Audience", carried out by WEMF and NET-Metrix together since 2011, which issues the combined reach figures for printed and digital channels of a (press) media brand for mainly strategic purposes.

5 Summary and conclusion

To address the new needs of the media industry, the changes in society and media, as well as the new possibilities of data collection for media research projects, WEMF started a new generation of its media research system "MACH" in 2012. Part of this research system is MACH Basic, the Swiss National Readership Survey. The results of the first survey year 2012/2013 were published in September 2013.

The main methodological changes regarding MACH Basic are:

- New sample design in order to cover all persons living in private households in Switzerland and Lichtenstein including persons living in households with unlisted telephone landlines and persons who are only accessible by mobile phones.
- Introduction of a dual mode approach for data collection CATIplus and CAWI for the main interview allows main interview questions to be supported by visual material (e.g. mastheads)
- Coverage of the use of digital channels of press media brands within the NRS interviews in 2 ways: survey data for the whole sample as well as technical tracking data for the CAWI online subsample.

The inclusion of parts of the universe that were not taken into account in the former generation (persons in households with unlisted landlines and mobile-onlys) improves the structure and the representativeness of the sample. The use of mastheads enhances the answer quality of the media questions. All this together with the combined use of CATIplus and CAWI for the main interview leads to more valid media results.

The levels of media results – especially for magazines – are lower than in the last generation of MACH surveys. This is firstly due to the persons living in households with unlisted telephone landlines and the mobile-onlys who generally read less print media than the persons living in households with listed landlines. Secondly, the use of mastheads reduces the overclaimed usage of the past and thirdly, CAWI produces lower readership results than CATI – especially if long title lists are used.

The research design of MACH Basic includes 2 "split-half test" situations. As a result, profound insight into the strengths and weaknesses of the two data collection modes CATI and CAWI is available. It has become clear that every mode has a direct impact on the results; therefore, all changes to the mode of data collection should be carefully assessed in advance. As with all other modes, CAWI not only has advantages; it also has disadvantages that should not be ignored simply because CAWI interviews are generally cheaper than other forms of data collection. Combining two or more modes for the data collection (balancing specific mode effects) seems to be a smart but also demanding approach that will gain importance in the future.

The collection of data on the use of digital channels of (press) media brands within the MACH Basic interview creates the precondition that classical readership data can be combined with usage data of digital channels in order to have the option to estimate total audiences of (originally print based) media brands. For the time being, it is not yet clear how the available survey and/or technical tracking data from the NRS can be used in the field of combined print and digital reach figures.

However, data collection of general usage data of non press media within NRS should not be limited to digital channels of originally press media but also include other media such as outdoor or TV and radio stations in order to allow for the eventual use of existing intramedia industry audience surveys as the basis for an intermedia data set.

The new MACH Basic has taught us much about the focus of future research and development at WEMF: On the one hand, the CAWI version of the MACH Basic interview will have to be revised in order to shorten the title lists (e.g. by using a title split) and/or by implementing even more measures to motivate and guide the respondents. On the other hand, digital mobile reading will become more and more important making the integration or combination with print audience figures a necessity in the near future.

6 References

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