## Contents

	Preface					
	Acknowledgments About the Editors					
	Abou	t the Co	ntributors	xxiii		
1	Mario	Online panel research: History, concepts, applications and a look at the future Mario Callegaro, Reg Baker, Jelke Bethlehem, Anja S. Göritz, Jon A. Krosnick, and Paul J. Lavrakas				
	1.1	Introduc	ction	1		
	1.2	Internet	penetration and online panels			
	1.3		ons and terminology	2 2 3 3		
		1.3.1	Types of online panels	3		
		1.3.2	Panel composition	3		
	1.4	A brief	history of online panels	4		
		1.4.1	Early days of online panels	4		
		1.4.2	Consolidation of online panels	5		
		1.4.3	River sampling	5		
	1.5	Develop	oment and maintenance of online panels	6		
		1.5.1	Recruiting	6		
		1.5.2	Nonprobability panels	6		
		1.5.3	Probability-based panels	7		
		1.5.4	Invitation-only panels	8		
		1.5.5	Joining the panel	8		
		1.5.6	Profile stage	8		
		1.5.7	Incentives	9		
		1.5.8	Panel attrition, maintenance, and the concept of active panel			
			membership	10		
		1.5.9	Sampling for specific studies	11		
		1.5.10	Adjustments to improve representativeness	13		
	1.6	Types of	f studies for which online panels are used	15		
	1.7	Industry	v standards, professional associations' guidelines,			
		and adv	isory groups	15		
	1.8	Data qua	ality issues	17		
	1.9	Looking	g ahead to the future of online panels	17		
		Referen	ces	18		

## vi CONTENTS

2			v of studies investigating the quality of data obtained els based on probability and nonprobability samples	23		
			o, Ana Villar, David Yeager, and Jon A. Krosnick			
	2.1	Introduc		23		
	2.2		my of comparison studies	24		
	2.3		cy metrics	27		
	2.4		cale experiments on point estimates	28		
	2	2.4.1	The NOPVO project	28		
		2.4.2	The ARF study	29		
		2.4.3	The Burke study	30		
		2.4.4	The MRIA study	30		
		2.4.5	The Stanford studies	31		
		2.4.6	Summary of the largest-scale experiments	31		
		2.4.7	The Canadian Newspaper Audience Databank (NADbank)			
			experience	34		
		2.4.8	Conclusions for the largest comparison studies on point estimates	35		
	2.5		ng adjustments	35		
	2.6		ve relationship studies	36		
	2.0	2.6.1	The Harris-Interactive, Knowledge Networks study	36		
		2.6.2	The BES study	36		
		2.6.3	The ANES study	37		
		2.6.4	The US Census study	37		
	2.7		nent replicability studies	38		
	2.,	2.7.1	Theoretical issues in the replication of experiments across	50		
		2.7.1	sample types	39		
		2.7.2	Evidence and future research needed on the replication of	27		
		2.1.2	experiments in probability and nonprobability samples	41		
	2.8	The sne	cial case of pre-election polls	42		
	2.9		tion rates and accuracy	43		
	2.10		e panel membership	43		
	2.10	2.10.1	Effects of multiple panel membership on survey estimates and	75		
		2.10.1	data quality	45		
		2.10.2	Effects of number of surveys completed on survey estimates and	75		
		2.10.2	survey quality	45		
	2.11	Online (	panel studies when the offline population is less of a concern	46		
	2.12		an online panel member	47		
	2.12		ry and conclusion	48		
	2.15	Referen	•	50		
		Kereren	ees	50		
Pa	rt I	COVER	AGE	55		
	-					
		duction to l		56		
	mari	o Callegaro	o and Jon A. Krosnick			
3	Asse	ssing repre	sentativeness of a probability-based online panel in Germany	61		
	Bella	Bella Struminskaya, Lars Kaczmirek, Ines Schaurer, and Wolfgang Bandilla				
	3.1	Probabi	lity-based online panels	61		

	3.2	Descrip	otion of the GESIS Online Panel Pilot	62
		3.2.1	Goals and general information	62
		3.2.2	Telephone recruitment	63
		3.2.3	Online interviewing	65
	3.3	Assessi	ing recruitment of the Online Panel Pilot	66
	3.4		ing data quality: Comparison with external data	68
		3.4.1	Description of the benchmark surveys	69
		3.4.2	Measures and method of analyses	69
	3.5	Results		74
		3.5.1	Demographic variables	74
		3.5.2	Attitudinal variables	75
		3.5.3	Comparison of the GESIS Online Panel Pilot to ALLBUS with	
			post-stratification	76
		3.5.4	Additional analysis: Regression	77
		3.5.5	Replication with all observations with missing values dropped	80
	3.6	Discuss	sion and conclusion	80
		Referer	ices	82
		Append	lix 3.A	84
4	Online	e panels a	nd validity: Representativeness and attrition in the Finnish	
	-	ion panel		86
			nd and Kim Strandberg	
	4.1	Introdu		86
	4.2	Online	panels: Overview of methodological considerations	87
	4.3	Design	and research questions	88
	4.4		nd methods	90
		4.4.1	Sampling	90
		4.4.2	E-Panel data collection	91
	4.5	Finding	·	92
		4.5.1	Socio-demographics	94
		4.5.2	Attitudes and behavior	95
		4.5.3	Use of the Internet and media	98
	4.6	Conclus		100
		Referen	ices	102
5			y of multi-mode (online and mail) consumer panels:	
		-	ecruitment to retention and attrition	104
			cheon, Kumar Rao, and Olena Kaminska	
	5.1	Introdu		104
	5.2		ire review	107
	5.3	Method	-	108
		5.3.1	Gallup Panel recruitment experiment	108
		5.3.2	Panel survey mode assignment	110
		5.3.3	Covariate measures used in this study	111
	~ .	5.3.4	Sample composition	112
	5.4	Results		115
		5.4.1	Incidence of panel dropouts	115

		5.4.2	Attrition rates	118
		5.4.3	Survival analysis: Kaplan–Meier survival curves and Cox	120
		5 4 4	regression models for attrition	120
		5.4.4	Respondent attrition vs. data attrition: Cox regression	122
	<i></i>	Diama	model with shared frailty	122
	5.5	Referen	sion and conclusion	124
		Kelelel	lees	120
Pa	rt II	NONRE	ESPONSE	127
	Intro	duction to	Part II	128
	Jelke	Bethlehen	ı and Paul J. Lavrakas	
6	Nonr	esponse an	nd attrition in a probability-based online panel for the	
		ral populat		135
			arcel Das, and Annette Scherpenzeel	
	6.1	Introdu	•	135
	6.2	Attritio	n in online panels versus offline panels	137
	6.3	The LIS	SS panel	139
		6.3.1	Initial nonresponse	140
	6.4	Attritio	n modeling and results	142
	6.5	Compa	rison of attrition and nonresponse bias	148
	6.6	Discuss	sion and conclusion	150
		Referen	nces	151
7	Dete	rminants of	f the starting rate and the completion rate in online	
		l studies		154
	Anja	S. Göritz		
	7.1	Introdu	ction	154
	7.2	Depend	lent variables	155
	7.3	Indeper	ndent variables	156
	7.4	Hypoth		156
	7.5	Method		163
	7.6	Results		164
		7.6.1	Descriptives	164
		7.6.2	Starting rate	165
		7.6.3	Completion rate	166
	7.7		sion and conclusion	166
		7.7.1	Recommendations	168
		7.7.2	Limitations	168
		Referen	ices	169
8			ning nonprobability online panels and their association	
			ticipation behavior	171
			, Bernad Batinic, and Wolfgang Mayerhofer	_
	8.1	Introdu		171
	8.2		s for survey participation and panel enrollment	173
		8.2.1	Previous research on online panel enrollment	173
		8.2.2	Reasons for not joining online panels	175

		8.2.3	The role of monetary motives in online panel enrollment	175	
	8.3	Present	study	176	
		8.3.1	Sample	176	
		8.3.2	Questionnaire	176	
		8.3.3	Data on past panel behavior	178	
		8.3.4	Analysis plan	179	
	8.4	Results		179	
		8.4.1	Motives for joining the online panel	179	
		8.4.2	Materialism	180	
		8.4.3	Predicting survey participation behavior	180	
	8.5	Conclus	sion	185	
		8.5.1	Money as a leitmotif	185	
		8.5.2	Limitations and future work	186	
		Referen	ices	187	
		Append	ix 8.A	190	
9		<b>U</b> 1	members about study results: Effects of traditional and	100	
			s of feedback on participation	192	
		-	enzeel and Vera Toepoel	100	
	9.1	Introduc		192	
	9.2	Backgro		193	
		9.2.1	Survey participation	193	
		9.2.2	Methods for increasing participation	194 196	
	0.2	9.2.3	Nonresponse bias and tailored design	196	
	9.3	Method 9.3.1		190	
		9.3.1	Sample Experimental design	190	
	9.4			197	
	9.4	Results 9.4.1	Effects of information on response	199	
		9.4.1 9.4.2	"The perfect panel member" versus "the sleeper"	202	
		9.4.2 9.4.3	Information and nonresponse bias	202	
		9.4.3 9.4.4	Evaluation of the materials	202	
	9.5		ion and conclusion	203 207	
	9.5	Referen		210	
		Append		210	
Pa	rt III	MEASU	JREMENT ERROR	215	
		uction to ]		216	
	Reg Ba	aker and l	Mario Callegaro		
10			pondents in nonprobability online panels	219	
	D. Sunshine Hillygus, Natalie Jackson, and McKenzie Young				
	10.1	Introduc		219	
	10.2	Backgro		220 221	
	10.3		ional respondents and data quality	221	
	10.4	Approa	ches to handling professional respondents	223	

## x CONTENTS

	10.5 10.6 10.7 10.8	Data and Results	g behavior	224 225 226 229 232
	10.9	Reference Appendiz	es	232 233 236
11	recruit	ed probabi	eeding on data quality in nonprobability and freshly lity-based online panels Marco Meyer, and Harald Schoen	238
	11.1	Introduct		238
	11.2		cal framework	239
	11.3		methodology	242
	11.4		e time as indicator of data quality	243
	11.5		neasure "speeding"?	246
	11.6		eding matter?	251
	11.7	Conclusi	-	257
		Referenc	es	259
Pa	rt IV	WEIGHT	TING ADJUSTMENTS	263
		iction to Pa		264
	Jelke E	Sethlehem	and Mario Callegaro	
12	-	•	urvey quality: Potentials and constraints of propensity	273
		idjustment:	s etz, Annamaria Bianchi, Kea Tijdens, and Silvia Biffignandi	215
	12.1	Introduct		273
	12.1		uality and sources of error in nonprobability web surveys	274
	12.2		is description, and PSA	277
	14.5	12.3.1	Data	277
		12.3.2	Distribution comparison of core variables	278
		12.3.3	Propensity score adjustment and weight specification	280
	12.4	Results		284
		12.4.1	Applying PSA: The comparison of wages	284
		12.4.2	Applying PSA: The comparison of socio-demographic and wage-related covariates	285
	12.5	Potential	s and constraints of PSA to improve nonprobability web	205
	12.5		uality: Conclusion	286
		Reference	5	200
		Appendi		293
13		ting the ef <i>Zhang</i>	fects of nonresponses in online panels through imputation	299
	13.1	Introduct	tion	299
	13.2	Method		302

		13.2.1	The Dataset	302
		13.2.2	Imputation analyses	302
	13.3	Measurer	ments	303
		13.3.1	Demographics	303
		13.3.2	Response propensity	303
		13.3.3	Opinion items	303
	13.4	Findings		303
	13.5	Discussio	on and conclusion	308
		Acknowl	edgement	309
		Reference	es	309
Pa	rt V	NONRES	SPONSE AND MEASUREMENT ERROR	311
	Introdu	uction to Pa	art V	312
	Anja S	. Göritz an	d Jon A. Krosnick	
14			between nonresponse strategies and measurement error:	
	Compa	aring onlin	e panel surveys to traditional surveys	313
	Neil M	'alhotra, Jo	panne M. Miller, and Justin Wedeking	
	14.1	Introduct	ion	313
	14.2		research and theoretical overview	314
	14.3	Does inte	erview mode moderate the relationship between nonresponse	
		strategies	s and data quality?	317
	14.4	Data		318
		14.4.1	Study 1: 2002 GfK/Knowledge Networks study	318
		14.4.2	Study 2: 2012 GfK/KN study	319
		14.4.3	Study 3: American National Election Studies	319
	14.5	Measures		320
		14.5.1	Studies 1 and 2 dependent variables: Measures of satisficing	320
		14.5.2	Study 3 dependent variable: Measure of satisficing	322
		14.5.3	Studies 1 and 2 independent variables: Nonresponse strategies	323
		14.5.4	Study 3 independent variable	323
	14.6	Results		324
		14.6.1	Internet mode	324
		14.6.2	Internet vs. telephone	330
		14.6.3	Internet vs. face-to-face	331
	14.7	Discussio	on and conclusion	332
		Referenc	es	333
15	Nonre	sponse and	measurement error in an online panel: Does additional	
	effort	o recruit re	eluctant respondents result in poorer quality data?	337
	Caroli	ne Roberts	r, Nick Allum, and Patrick Sturgis	
	15.1	Introduct	tion	337
	15.2	Understa	nding the relation between nonresponse and measurement	
		error	-	338
	15.3	Response	e propensity and measurement error in panel surveys	341
	15.4	The pres		342
	15.5	Data		343

## xii CONTENTS

	15.6	Analytic	Analytical strategy			
		15.6.1	Measures and indicators of response quality	347		
		15.6.2	Taking shortcuts	348		
		15.6.3	Response effects in attitudinal variables	349		
	15.7	Results		350		
	1011	15.7.1	The relation between recruitment efforts and panel			
		101111	cooperation	350		
		15.7.2	The relation between panel cooperation and response			
		13.7.2	quality	353		
		15.7.3	Common causes of attrition propensity and response			
		101110	quality	355		
		15.7.4	Panel conditioning, cooperation and response propensity	356		
	15.8		ion and conclusion	357		
	15.0	Referen		359		
		Referen				
Pa	rt VI	SPECIA	L DOMAINS	363		
Iq		SI ECIA		500		
	Introd	uction to H	Part VI	364		
	Reg Ba	aker and A	Anja S. Göritz			
16	An empirical test of the impact of smartphones on panel-based					
		data colle		367		
	Frank	Drewes				
	16.1	Introduc	ction	367		
	16.2	Method		369		
	16.3	Results		371		
	10.5	16.3.1	Study 1: Observation of survey access	371		
		16.3.2	Study 2: Monitoring of mobile survey access	372		
		16.3.3	Study 3: Smartphone-related usage behavior and attitudes	372		
		16.3.4	Study 4: Experimental test of the impact of survey	51-		
		10.5.4	participation via smartphone on the quality of survey results	375		
	16.4	Discussi	ion and conclusion	385		
	10.4	Referen		385		
		Kelelen		385		
17	Intern	et and mol	bile ratings panels	387		
			i, Paul J. Lavrakas, and Mario Callegaro			
	17.1	Introduc	÷	387		
	17.2		and development of Internet ratings panels	388		
	17.3		nent and panel cooperation	390		
	17.5	17.3.1	Probability sampling for building a new online Internet	5,0		
		17.2.1	measurement panel	391		
		17.3.2	Nonprobability sampling for a new online Internet	571		
		11.5.4	measurement panel	392		
		17.3.3	Creating a new panel from an existing Internet	572		
		11.9.5	measurement panel	392		
			measurement patter	374		

		17.3.4	Screening for eligibility, privacy and confidentiality agreements, gaining cooperation, and installing			
			the measurement system	393		
		17.3.5	Motivating cooperation	393		
	17.4	Complia	ance and panel attrition	394		
	17.5	-	ement issues	396		
		17.5.1	Coverage of Internet access points	396		
		17.5.2	Confounding who is measured	397		
	17.6	Long tai	il and panel size	398		
	17.7		ey and validation studies	400		
	17.8		al adjustment and modeling	401		
	17.9		ntative research	402		
	17.10	-	are of Internet audience measurement	403		
		Referen	ces	404		
Pa	rt VII (	OPERA'	TIONAL ISSUES IN ONLINE PANELS	409		
	Introdu	ction to l	Part VII	410		
	Paul J.	Lavraka	s and Anja S. Göritz			
18	Online panel software Tim Macer					
	18.1					
	18.2		bes online panel software do?	413 414		
	18.3		of software providers	415		
	18.4		ogy of panel research software	416		
	10.1	18.4.1	Standalone panel software	416		
		18.4.2	Integrated panel research software	416		
		18.4.3	Online research community software	416		
	18.5		for the different panel software typologies	417		
		18.5.1	Mobile research	417		
	18.6		el database	418		
		18.6.1	Deployment models	418		
		18.6.2	Database architecture	418		
		18.6.3	Database limitations	419		
		18.6.4	Software deployment and data protection	420		
	18.7		cruitment and profile data	421		
		18.7.1	Panel recruitment methods	421		
		18.7.2		422		
		18.7.3	Verification	422		
		18.7.4	Profile data capture	423		
	18.8		Iministration	423		
		18.8.1	Member administration and opt-out requests	424		
		18.8.2	Incentive management	424		

	18.9	Member	portal	425	
		18.9.1	Custom portal page	425	
		18.9.2	Profile updating	426	
		18.9.3	Mobile apps	426	
		18.9.4	Panel and community research tools	426	
	18.10	Sample a	administration	428	
	18.11	Data cap	oture, data linkage and interoperability	430	
		18.11.1	Updating the panel history: Response data		
			and survey paradata	430	
		18.11.2	Email bounce-backs	431	
		18.11.3	Panel enrichment	431	
		18.11.4	Interoperability	432	
	18.12	Diagnos	tics and active panel management	433	
		18.12.1	Data required for monitoring panel health	434	
		18.12.2		434	
	18.13	Conclusi	ion and further work	436	
		18.13.1	Recent developments: Communities and mobiles	437	
		18.13.2	Demands for interoperability and data exchange	437	
		18.13.3	Panel health	437	
		18.13.4	Respondent quality	438	
		Reference	ces	438	
19	Validat	ing respo	ndents' identity in online samples: The impact of efforts		
	to elim	inate frau	dulent respondents	441	
	Reg Baker, Chuck Miller, Dinaz Kachhi, Keith Lange, Lisa Wilding-Brown,				
	and Jacob Tucker				
	19.1	Introduc		441	
	19.2	The 201	1 study	443	
	19.3	The 201	2 study	444	
	19.4	Results		446	
		19.4.1	Outcomes from the validation process	447	
		19.4.2	The impact of excluded respondents	448	
	19.5	Discussi		449	
	19.6	Conclus	ion	450	
		Reference		451	
		Appendi	ix 19.A	452	
	Index			457	