## **Table of Contents**

ce	
-	Introduction
,	What Is Data Journalism?
	Why Journalists Should Use Data
	Why Is Data Journalism Important?
	Filtering the Flow of Data
	New Approaches to Storytelling
	Like Photo Journalism with a Laptop
	Data Journalism Is the Future
	Number-Crunching Meets Word-Smithing
	Updating Your Skills Set
	A Remedy for Information Asymmetry
	An Answer to Data-Driven PR
	Providing Independent Interpretations of Official Information
	Dealing with the Data Deluge
	Our Lives Are Data
	A Way to Save Time
	An Essential Part of the Journalists' Toolkit
	Adapting to Changes in Our Information Environment
	A Way to See Things You Might Not Otherwise See
	A Way To Tell Richer Stories
	Some Favorite Examples
	Do No Harm in the Las Vegas Sun
	Government Employee Salary Database
	Full-Text Visualization of the Iraqi War Logs, Associated Press
	Murder Mysteries
	Message Machine
	Chartball
	Data Journalism in Perspective
	Computer-Assisted Reporting and Precision Journalism
	Data Journalism and Computer-Assisted Reporting

Mass Data Literacungleyed at an W world

	Data Journalism Is About Mass Data Literacy	2:
2.	In The Newsroom	23
	The ABC's Data Journalism Play	24
	Our Team	26
	Where Did We Get the Data From?	27
	What Did We Learn?	
	The Big Picture: Some Ideas	27
	Data Journalism at the BBC	27
	Make It Personal	28
	Simple Tools	29
		29
	Mining The Data	30
	Understanding An Issue	31
	Team Overview	31
	How the News Apps Team at the Chicago Tribune Works  Behind the Scenes at the Guardian Datables.	32
	belind the seelies at the Guardian Datablog	34
	Data Journalism at the Zelt Offille	37
	How to Hire a Hacker	41
	Harnessing External Expertise Through Hackathons	44
	Following the Money: Data Journalism and Cross-Border Collaboration	48
	Our Stories Come As Code quiga. I a mirw mailamuot otod quida.	51
	Kaas & Mulvad: Semi-Finished Content for Stakeholder Groups	54
	Processes: Innovative IT Plus Analysis	56
	Value Created: Personal and Firm Brands and Revenue	57
	Key Insights of This Example	57
	Business Models for Data Journalism	58
	Providing Independent Interpretations of Official Information	
3.	Case Studies Data Deluge	. 61
	The Opportunity Gap	62
	A Nine Month Investigation into European Structural Funds	64
	1. Identify who keeps the data and how it is kept	65
	2 Download and prepare the data	65
	3. Create a database	65
	4. Double-checking and analysis	66
	The Eurozone Meltdown	66
	Covering the Public Purse with OpenSpending.org	71
	Finnish Parliamentary Elections and Campaign Funding	
	1. Find data and developers	76
	2. Brainstorm for ideas	76
	3. Implement the idea on paper and on the Web	76
	4. Publish the data	77
	Electoral Hack in Realtime (Hacks/Hackers Buenos Aires)	78
	What Data Did We Use?	78
	What Data Did We Use;	79

	How Was It Developed?		79
	Pros maid a modry drive street as		80
	Cons Audience and What Are		80
	Implications		80
	Data in the News: WikiLeaks		81
	Mapa76 Hackathon		84
	The Guardian Datablog's Coverage of the	ne UK Riots	86
	Phase One: The Riots As They Happe	Crowdsourcing Data and bene	87
	Phase Two: Reading the Riots		88
	Illinois School Report Cards		88
	Hospital Billing		90
	Care Home Crisis		92
	The Tell-All Telephone		93
	Which Car Model? MOT Failure Rates		95
		2. What's in there to learn?	96
	Who Worked on the Project?	3. How reliable is the informa	100
	What Tools Did We Use?		100
	Citizen Data Reporters		101
	The Big Board for Election Results		104
	Crowdsourcing the Price of Water		106
4.	Getting Data		. 109
15	A Five Minute Field Guide		110
	Streamlining Your Search		110
	Browse Data Sites and Services		111
	Ask a Forum		113
	Ask a Mailing List		113
	Ioin Hacks/Hackers		114
	Ask an Expert Idiamo Dinomo II 200		114
	Learn About Government IT		114
	Search Again		115
	Write an FOI Request		115
	Your Right to Data		116
	Wobbing Works. Use It!		121
			121
	Case Study 2: Side Effects		122
	Case Study 3: Smuggling Death		123
	Getting Data from the Web		124
	What Is Machine-Readable Data?		125
	Scraping Websites: What For?		125
	What You Can and Cannot Scrape		126
			126
	How Does a Web Scraper Work?		127

	The Anatomy of a Web Page Shoop Shop	127
	An Example: Scraping Nuclear Incidents with Python	128
	The Web as a Data Source	132
	Web Tools	132
	Web Pages, Images, and Videos	134
	Emails we Get the Data From? godinadaH aVagaM	136
	The Guardian Datablog's Coverage of the UK Riotses Law La SheaT	136
	Crowdsourcing Data at the Guardian Datablog	137
	How the Datablog Used Crowdsourcing to Cover Olympic Ticketing	139
	Using and Sharing Data: the Black Letter, the Fine Print, and Reality	142
	Hospital Billing	1 12
5.	Understanding Data	. 147
	Become Data Literate in Three Simple Steps SmodgeleT IIA-lleT edT	148
	1. How was the data collected? Was Failure Tom SloboM and doin! W	149
	2. What's in there to learn?	150
	3. How reliable is the information? Support and no best of World	151
	Tips for Working with Numbers in the News Working with Numbers w	152
	Basic Steps in Working with Data	153
	Know the Questions You Want to Answer Manager of Brand and Brand a	153
	Cleaning Messy Data	154
	Data May Have Undocumented Features	155
	The £32 Loaf of Bread	157
	Start With the Data, Finish With a Story	158
	Data Stories Market Stories and Francisco domesting and English and Company of Stories	159
	Data Journalists Discuss Their Tools of Choice	161
	Using Data Visualization to Find Insights in Data	165
	Using Visualization to Discover Insights	165
	Which Tools to Use	170
	An Example: Making Sense of US Election Contribution Data	170
	What To Learn From This	176
	Get the Source Code	176
	Write an FOI Request and prepare the data stage of the ballward and prepare the data	
6.	Delivering Data	. 177
	Presenting Data to the Public	178
	To Visualize or Not to Visualize? whiedu? must a young season	178
	Using Motion Graphics	178
	Telling the World	178
	Publishing the Data Seeming Old Work mod and granted	179
	Opening Up Your Data  Sais Claids Sais Claimes Academic Marian Ma	179
	Starting an Open Data Platform	180
	Making Data Human	180
	Open Data, Open Source, Open News	181
	Add A Download Link	181

	127	Know Your Scope	182
	128	How to Build a News App	182
	132	Who Is My Audience and What Are Their Needs?	183
	132	How Much Time Should I Spend on This?	184
	134	How Can I Take Things to the Next Level?	184
	136	Wrapping Up	185
	136	News Apps at ProPublica	185
	137	Visualization as the Workhorse of Data Journalism	186
c Ticketing	139	Tip 1: Use small multiples to quickly orient yourself in a large dataset	187
nd Reality	142	Tip 2: Look at your data upside down and sideways	189
	20	Tip 3: Don't assume	189
	147	Tip 4: Avoid obsessing over precision	190
	148	Tip 5: Create chronologies of cases and events	190
	149	Tip 6: Meet with your graphics department early and often	190
	150	Tips For Publication	190
	151	Using Visualizations to Tell Stories	191
	152	Seeing the Familiar in a New Way	192
	153	Showing Change Over Time	193
	153	Comparing Values	194
	154	Showing Connections and Flows	195
	155	Designing With Data	196
	157	Showing Hierarchy	197
	158	Browsing Large Databases	198
	159	Envisioning Alternate Outcomes	199
	161	When Not To Use Data Visualization	200
	165	Different Charts Tell Different Tales	201
	165	Data Visualization DIY: Our Top Tools	206
	170	Google Fusion Tables	207
Data	170	Tableau Public	208
	176	Google Spreadsheet Charts	210
	176	Datamarket	210
	65	Many Eyes	211
	. 177	Color Brewer	212
	178	And Some More	212
	178	How We Serve Data at Verdens Gang	212
	178	Numbers	212
	178	Networks	213
	179	Maps	213
	179	Text Mining	215
	180	Concluding Notes	215
	180	Public Data Goes Social	216
	181	Engaging People Around Your Data	218
	181		