Data-driven journalism

Mar Cabra, ICIJ, Fund. Civio - @cabralens OSCE training, Chisinau, Moldavia

Have you done any data projects?

What is it? (I)

Data-driven journalism (DDJ), Computerassisted reporting (CAR)

"I am not talking here about statistics or numbers in general, because those are nothing new to journalists. When I talk about data, I mean information that can be processed by computers"

- Paul Bradshaw

What is it? (II)

Gather and analyze big amounts of information and detailed data to make them understandable to the audience through articles, visualizations or applications

*To know more: Data Journalism Handbook

The future of journalism

Richard Gingras, head of News Products at Google - <u>video</u>

"How do we rebuild **trust**? ... I want to know the reporter"

"The investigative report of tomorrow is not 15.000 words of narrative about a story, but it's actually a persistent investigative report that is written in query strings and fusion tables"

Not just the future... (I)

th end of Edge-hill. In its processe it knocked in several workness, one of whom was no sin-	DAY SCHOOLS.—Establishmen	Baye	Girls	Total.	Eq.	Remarks,	Notice. Tentimes and Bennell, The page
ly effected in the back of the head, that for pr-	Grammar School	155	_	155	bine		
he had recourse to bleeding; and a gid in a	Comment School	100		80		Tought, clothed and baseded.	LEE Jensthan, of Sunderland, in the county
few had bee area and dealer littled on he in order	Mur Cost detto	50	11.11				Durham, greeze, d. c.; May 15, 18, June 9
first it becaused for some time after. The	George Coat diens		****	-50		Yangta and chalest.	12, at Guiddeall, Loudon. Atts. Moure. Ga
cheman of Mr. Doff was struck on the arm	Collegiste Church ditte	****	50	50	40	and offensory money: do. do. (7	Headdon and tistly. Theseprophys. Street
let on the hor, but was merely stormed. A lady	Strangeways ditte	30	****	30	100		PAYN Thomas, and John Davied Payn, of Cal.
r believeton, who was sewing at the time, 6-th in		133	- 30			((Suppose)-Taught and clothed.	ton street, in the city of London, watchooses
former in contact with the profile a separation	St. Mary's ditto	12	12	21	44		d. c.; May 5, 14, Jane 9, at 1, at Guildi
notices so contact with the profile a semestion				-		Officiary.	Att. Mr. Hindrate, Resimpted street.
colding that of a clickt electric speek. The	St. John's disse			. 97		5 (Suppose)-Expenses saised by eq.	SMITH John, now or late of Paterington, in I
etric fluid rutered the house of Mrs. Class, in	St. Paul's ditte	99		-90	- 60	Shoutey Salardation.	content room, now or harr of Paternagnon, as I
Valv, where its procuos was not less alarming	No. a.mera dema little control control	-				Trught, ristlerd and bounded. by	deraces, in the recenty of York, grover, fix
e instales, then destructive to the record-re-	Ladics' Jubilee		30	30	930		droper, d. e., May 11, 12, Jone 9, at 13, at
ne have never bested of a more conscious						Productary Selectoption.	Day and Durk Torons, Kingdom upon Hell. 1
there exist already in the according to their most to						((Supprov)-Taught and partly	Mr. Walmder, Blaff.
bonner, of which abmost every rooms homes tenti-	Back King-most	21		100	40	Sciotised. This School is supported	TATE John, of Linerpool, in the county of E
of the excapes of the uncontrolable element.	since lead-under the second				-	My the benevelence of a digite	center, precision-merchant, d. e.; May 17,
ppears probable, from an extenionipa of the						Conficializat.	June 9, at 1, at the George Ins, Liverpool.
opposes processor, from an extensioning of the	Natural Science, Greeky-gov	294	119	3137	-	5 Voluntary Salocription, and Col-	Mr. Donison, Linespeed.
where which the fluid has made, and the direc-	Sultion street, National	300	170	400 4	606	hytime at Charches.	WARD Jescob, late of Residency, in the county
in which the bricks, timber, &c. have been	Committee Committee			,		E MEDICAL RECORDER	Coders, procedul case of treatment, to ope content.
ed, that, attracted by the iron railing in front		850	361	1202	45430		Orderd, (but now a princeer in the King's Re-
or bount, it entered the wall un one side the			-	1204	4.04.20		prison), herver, d. c.; May 5, 13, Jone 9,
, where if has shottered the bricks tore to			_	_			12, at Guldhall, London. Alla. Mracs. Fo.
on the would and brick work between the done.	Disarators.						and Monday, Bulleys.
or said the arch-way of the door; lifted the	Lessurrence Scuoos, Marshall-et.	400	295	817	400	Voluntary Subscription.	WHARTON Robert and Bloary Whaten, of Li
rds on the top; should the fam-light to pieces,	Uncounty, Mosley-storet	****	35	55	50	Dates date	Crowder, in the country of Landauter income
ing part of the frame, and leaving a black next	Caranat	176	121	319	104	Time date	house-corporators, late expansions in trade, 1
and heart on their frame, and binaries, a princip next		_	_	_	-		1, 19, June 9, at 11, at the George lan-
he point-weeks thence it passed up through the	SUNDAY SCHOOLS.	800	361	1971	£554		respect. Att. Mr. Hodgette, Liverpool.
h door, splitting the bricks and the stone at the	" Establishment.	-		-			Will I become the moderne, Liverpool.
tops of the middle window, the glass of which	Collegiste Church, Strude Hill	291	995	4063			STRENGTY Duniel, of Princessature, Box
shottered to pieces, and the whole frame dis-	St. Aug's, Back King-dreet		34	106			hithe, in the county of Surrey, master-mark
the factor and the same of the same parties of the latest the same of the same							
and said forced late the brane. Over the pie-	44 March Buck Knoth Barndy	0.000	0.00	20.00			merchant, d. c.; May 5, at 10, May 15, at
ed and forced into the house. Over the wis-	44 March Buck Knoth Barndy	120	110	240			June 9, at 10, at clubbind, Landon, J.
ed and forced into the house. Over the wis- it forced, is its way to the roof, a large hele, or which the next appears exactly as I demo-	St. Mary's, Suck South Parade St. Paul's, Green street.	120	183	838			Money, Polymen and Pully, Old Broad-street
ed and forced into the house. Over the win- it forced, in its way to the roof, a large hele, a which the nost appears exactly as if famor- isated from it. It comes more not be to	St. Nary's, Burk South Parade St. Paul's, Groom-street. Turner-street	130 130 68	71	5.53 139			Henen, Paterson and Pulle, Clid Broad-stree
nd and forced into the house. Over the win- it forced, is its way to the roof, a large hele, or which the nost appears exactly as if famor- izated from it. It reserves assess to be	St. Mary's, Surk South Potade St. Paul's, Gross-street. Turner-street.	130 130 68 314	183 71 281	555 139 595			Money, et 30, at Guidelall, Leudon. Money, Princeson and Prob., Clif Broad-stree DIVIDENDS. May 22. Marketin & Attinuou. Leudon. month
nd and forced into the house. Over the wis- in forced, is its way to the roof, a large hele, or which the soul appears exactly as if famous issued from it. Its owner appears next to have a towards the chimners; the same way showing	St. Mary's, Bark South Parade St. Paul's, Gross-street. Turses-street. Jettery-street. St. George's, St. George's.	130 170 68 314 141	281 281 119	505 139 505 953			Money, et 30, at Guidelall, Leudon. Money, Princeson and Prob., Clif Broad-stree DIVIDENDS. May 22. Marketin & Attinuou. Leudon. month
nd and forced into the house. Over the wise in forced, in its way to the roof, a large hole, or which the most appears exactly as if dames issued from it. Its events appears until to have a towards the chimney: the case were shartneed revers; the ridge storage dembered, more held- neyers; the ridge storage dembered, many held-	St. Mary's, Surk South Portale St. Paul's, Gross-street Terrors-street Jettery-street. St. George's, St. George's. No. Jube's, St. Juba's-street.	130 150 68 314 141 118	183 71 281 119 163	505 139 595 953 981			Money 9, at 19, at Guidelauf, Lambon. Money. Paterson and Polic, Clid Broad-stree ENVIDENCE. May 22. Maintain & Atlanton, Landon, moreha 29. J. Devine, Scherechery, San since.
of and forced into the house. Over the wis- in forced, is its may be the roof, a large hele, e which the nost appears exactly as if frames based from it. Its owner appears sent to have towards the chimney: the sum were shattened two; the ridge steams displaced; many being much research two from the wall; and the load	St. Mary's, Sark South Portale St. Paul's, Gross-street. Turners-street Junes Junes St. George's, St. George's, St. Junes's, St. Junes's-street. St. Junes's, St. Junes's-street.	120 120 68 314 141 141	281 281 119	505 139 505 953			Money P., et 10, at Guidelaff, Louise. Money. Peterson and Pulle, Old Broad-stree DIVED-ENDS. May 22. Maintain & Atlanton, Loudon, moreha 22. J. Devins, Shreenlaye, San-aplanas. 23. W. Erwicz, Manchastar, action.
nd and forced into the house. Over the wis- in fraced, in lin may be the root, a large hele, or which the nest appears exactly as if dames issued from; It is comes appears next to have the result of the community of the community of the root, the ridge stooms despined; many fracta- tions; the ridge stooms despined; many fracta- ments connect now from the wall; and the lead- ner planes fraced on. It combails one of the	St. Mary's, Bark South Parade St. Paul's, Gross-struct. Traver-street Jensey-street. St. George's, St. George's. St. Asher's, St. George's. St. Asher's, St. James's-street. St. Mishority, St. James's-street. St. Mishority, Milks-street.	120 120 68 314 141 141	183 71 281 119 163	505 139 595 953 981	Lives		June 9, at 30, at Guidrief, Landon. Homer. Patronia and Pulic, Gill Broad-dree DIVIDENDE. May 22. Marinet & Atlanton, Landon, morths 78. J. Urvin, Elevanbury, fan opinans. 29. W. Berbey, Manchester, teiner. 22. W. and A. Copp. Enfor. dancer.
not and forced into the house. Over the visi- in forced, in its way to the roof, a large hele, re which the and appears exactly as if finance issued from it. Its treated appears next to have a towards the chimney: the same way deather and force; the ridge atoms displaced; many belok. much consent them from the wall; and the head many places forced up. It periodicy remained the many places forced up. It periodicy remained the me below by the chimneys. In the lower com-	St. Mary's, Back South Patade St. Paul's, Gross attent. Turner-steet Josep attent. R. George's, St. George's. St. Jaha's, St. Jaha's attent. St. Maron's, St. Jaha's attent. St. Malaci's, St. Jaha's attent. St. Malaci's, Milling-street St. Malaci's, Milling-street St. Peter's, Jankana's now.	130 170 68 314 141 118 102 234	110 241 119 163 196 310	5,05 139 595 953 981 300 586	£1003		June 9, at 10, at Guidrich, Loudon, Homes, Patronian and Punic, Gid Broad-drie DYVIDENDS. Et J. Davins, Ehrenburg, Emolos, morphi F. J. Davins, Ehrenburg, fan opinans, 29. W. Erebry, Manchester, tellore, 22. W. and A. Copp, Endor, despore, 22. W. and A. Copp, Endor, despore, 22. W. Brane, Endert, despore and solito.
and and forced lates the house. Over the vis- e it thereof, in its way to the roof, a large hele, eve which the next appears exactly as if dame- ticand from it. Its events appears next to have in terms of the chimney; the rism were shattened areve; the ridge setoms desplaced; many bricks insuch connect tons from the wall; and the lead- tmap places forced up. It perchabily rended the man below by the chimneys. In the lower room connections of the connection of the con- tinger places thereof up. It perchabily rended the man below by the chimneys. In the lower room connections, also the contract of the con-	St. Nizy's, Back South Parade St. Paul's, Gross street. St. Paul's, Gross street. Justy street. Justy street. St. George's, St. George's. St. Jule's, St. Jule's street. St. Jule's, St. Jule's street. St. Mislock's, Million-treet. St. Mislock's, Million-treet. St. Peter's, Justines's row. Million's Core.	130 170 68 314 141 118 102 234	110 281 119 163 196 510 120	525 139 565 951 981 960 566 130	£1003		June 9, at 10, at Guidrief, Loudon, Momen Petroma and Punk, Golf Broad-dree DV1DENge, May 22. Marinair & Atlânem, London, morchs 29. J. Urrint, Bhravelouy, San opinana, 20. W. Brebry, Manchester, taine, 22. W. Serbey, Manchester, taine, 22. W. Burne, Easter, dreper and galler, 22. W. Burne, Easter, dreper and galler, 23. J. Dudie Stanishman Manches et al.
and and ferrod into the house. Over the vis- e it through, in its way to the roof, a large hele, we which the next appears exactly as if fining insued from it. Its resume appears sent to have a towards the chimney; the gain were shattened diver; the ridge stown displaced; many belok. much connect time from the will; and the lead many places favored up. It probably remained the many places favored up. It probably remained the many places favored up. It probably remained the many places favored up. It probably remained the stown, places and paper are in several places.	St. Nizy's, Back South Parade St. Paul's, Gross street. St. Paul's, Gross street. Justy street. Justy street. St. George's, St. George's. St. Jule's, St. Jule's street. St. Jule's, St. Jule's street. St. Mislock's, Million-treet. St. Mislock's, Million-treet. St. Peter's, Justines's row. Million's Core.	130 130 68 314 141 118 10g	110 241 119 163 196 310	5,05 139 595 953 981 300 586	£1023	(This is, perhaps, the largest School	June 9, at 10, at Guidraff, Loudon, Monte, Patronian and Punic, Gid Broad-drive DVVIDENDR. May 22. Maintain & Allianon, London, morphs 28. J. Devins, Shorenheye, fan opinant. 29. W. Brehry, Manchester, tajor. 22. W. and A. Copp, Endor, daspers. 29. W. Branz, Exstry, draper and palor. 29. J. Dubell, Stapleburd, Kant, draper & ta 29. J. Loy, London, with charges & ta 29. J. Loy, London, with charges & ta 29. J. Loy, London, with charges & ta
not seed forced into the house. Over the vis- in theored, in the way to the root, a large hele, or which the most appears exactly as if dame- issand from: It is convex appears must to have interest the chimney; the case were chattered except the ridge selected desplaced; must placific much connect tone from the wall; and the land may place forced up. It particular remode the ma below by the chimneys. In the lower room straces, placed and place are in several places who, and the field, as if searching its way out, related the children of the chimney to.	St. Nizy's, Bark South Penale St. Paul's, Gross-street St. Paul's, Gross-street James absect Jam	130 170 68 514 161 168 169 234 160 254	110 281 119 163 196 510 190	5,03 130 566 963 981 981 900 586 190 90	£1023	in the Kingdom. It cout about	June 9, at 10, at Guidraff, Laudon, Momen Patronian and Punk, Golf Broad-dree DYVDENDR. But 92. Marinair & Atlianon, London, moreha 29. J. Device, thereaftery, fine opinion. 29. W. Brethey, Nantherton, taior. 22. W. But J. Copp., Earlie, dangers. 22. W. But A. Copp., Earlie, dangers. 22. W. But and J. Copp., Earlie, dangers. 23. J. Dudol, Staphenst, Kant, depart 4 to 29. J. Lov., London, warehouseman. 24. T. Camidy, Lympost, feetings and a 21. T. Camidy, Lympost, feetings and a 21. T. Camidy.
and and ferrod into the house. Over the vis- in thereof, in the way to the roof, a large hole, we which the next appears exactly as if famous issued from it. Its source appears next to have insued to the chimney; the pass were teachers of seven; the ridge stemes displaced; many bricks, imuch connect to be from the wall; and the hol many places favord up. It probably reached the many places favord up. It probably reached the me below by the chimneys. In the lower room clances, planter and paper are in several places have, and the failt, as if serviding its way out, related the spiding of the chimney plane, and dot the two comments. In the district of these field the two comments. In the district of these	St. Nizy's, Back South Parado St. Paul's, Gross street. St. Paul's, Gross street. Justy stored. Justy stored. Justy stored. St. Georgy's, St. Georgy's. St. Jule's, St. Jule's stored. St. Jule's, St. Justy's stored. St. Nislone's, Nillian-street. St. Peter's, Justyna's row. Justy St. Justy's St. Jule's St. Clement's and St. Luke's. St. Clement's and St. Luke's.	30: 10: 10: 10: 10: 10: 10: 10: 10: 10: 1	110 281 110 163 196 310 190	503 139 505 903 981 980 586 190 99	£1023	in the Kingdom. It cout about	June 9, at 19, at Guidraff, Landon, Homes, Patronian and Punic, Cell Broad-drive DVVIDENDR. May 22. Maintain & Allianon, London, morphs 28. J. Devins, Shorenbury, fan opinans, 129. W. Berby, Manchester, testor. 29. W. and A. Copp, Endon, daspors, 22. W. form, Experty, drap on all palor, 29. J. Debid, Stapichard, Kent, dropes & L. 29. J. Loy, London, with Proceedings, 14. T. Candry, Liverpool, further-month 29. J. William.
nd and forced into the house. Over the vis- in fracted, in fin may be the root, a large hele, e which the most appears exactly as if dama- inand from; It is convex appears next to have threath the chimney; the case were shattened drive; the ridge steems despinent; many facita- ments connect tone from the wall; and the lead- my planes forced up. It probably remained the mach connect tone from the wall; and the lead- ner planes forced up. It probably remained the in below by the chimneys. In the lower room- timence, planes and page are in several planes are, and the fluid, as if assembling its way one, then the plating of the chimney along, and of the true oresments, but did not disturb the feed five joins, just below. She or disturb the	St. Mary's, Back South Patade St. Paulis, Gross attent Turners attent Jenny attent	130 68 314 161 118 102 234 162 163 163 163 163 163 163 163 163 163 163	180 71 281 119 163 196 310 190 190	555 139 565 951 961 961 966 130 96 76 478	£1003	in the Kingdom. It cout about £2,300, of which £322 0 105 was contributed in small range by	June 9, at 19, at Guidraff, Landon, Homes, Patronian and Punic, Cell Broad-drive DVVIDENDR. May 22. Maintain & Allianon, London, morphs 28. J. Devins, Shorenbury, fan opinans, 129. W. Berby, Manchester, testor. 29. W. and A. Copp, Endon, daspors, 22. W. form, Experty, drap on all palor, 29. J. Debid, Stapichard, Kent, dropes & L. 29. J. Loy, London, with Proceedings, 14. T. Candry, Liverpool, further-month 29. J. William.
not and forced into the house. Over the vis- in theored, is the way to the root, a large hele, or which the most appears exactly as if dame- issand from it. Its convex appears must be have a loverable the chimney; the cean were chattered error; the ridge stooms desplaced; must placife much connect tone from the wall; and the lead- my places forced up. It particular extended the much connect tone from the wall; and the lead- ner places forced up. It particular extended the an below by the chimneys. In the lower room strone, placed and place are in several places was, and the field, as if searching its way one, these the plating of the chimney alone, and led the top oresments, but did not disturb the cloud fire issue, just below. She we disturb the	St. Nizy's, Back South Parado St. Paul's, Gross street. St. Paul's, Gross street. Justy street. Justy street. Justy street. St. Georgy's, St. Georgy's. St. Justy's, St. Justy's street. St. Justy's, St. Justy's street. St. Mislock's, Millionators. St. Peter's, Justy's row. Migrat Torus. St. Chement's and St. Lake's. St. Stephen's, Micross street. St. Stephen's, Micross street.	130 150 68 314 161 118 102 254 161 163 161 161	110 111 119 119 163 196 310 190 190 190 904	500 900 900 900 900 500 500 190 90 190 678 560	£1003	in the Kingdom. It cout about	June 9, at 19, at Guidraff, Landon, Monte, Patronian and Punic, Cell Broad-drive May 22. Marinair & Allianon, London, morele 28. J. Devins, Shorenberg, fan opinane. 29. W. Berby, Manchener, tenor. 22. W. and A. Copp, Endon, daspors. 22. W. Broat, Copp, Endon, daspors. 29. J. Debell, Stapleburd, Kent, dropes & Ley. J. Ley, London, whether the part of the 19. J. Ley, London, whether control 29. J. T. Cancily, Liverpool, further-month 29. J. William, London, despite. 29. J. Debell, Stapleburd, Kent, dropes & L. T. Cancily, Liverpool, further-month 29. J. William, London, despite. 29. J. S. Schleininger London, indipenditual.
of and foreced into the house. Over the vis- in fractor, is its way to the root, a large hole, e which the nost appears exactly as if famous based from; it is conver appears next to have tweath the chimacy; the cum were shattered two; the ridge stones displaced; many brick much consent tors from the unit; and the head eary phiers forced up. It probably resulted the much exactly the chimacys. In the lower room throws, planter and paper are in several places on, and the field, as if amending its way out, thed the gibling of the chimacys, the ded for errors, just before. Six squares of plans and the top comments, but field and disturb the field for draws, just before. Six squares of plans drives not in this rows. In the rows of the	St. Mary's, Back South Patade St. Paulis, Gross street. Turners street Jenny street. Jenny s	130 68 314 161 118 102 234 161 161 161 161	110 111 281 119 163 196 310 190 190 191 207 207 207 207	100 100 100 100 100 100 100 100 100 100	£1003	in the Kingdom. It cout about £2,300, of which £322 0 105 was contributed in small range by	June 9, at 19, at Guidraff, Landon, Monte, Patronian and Punic, Cell Broad-drive May 22. Marinair & Allianon, London, morele 28. J. Devins, Shorenberg, fan opinane. 29. W. Berby, Manchener, tenor. 22. W. and A. Copp, Endon, daspors. 22. W. Broat, Copp, Endon, daspors. 29. J. Debell, Stapleburd, Kent, dropes & Ley. J. Ley, London, whether the part of the 19. J. Ley, London, whether control 29. J. T. Cancily, Liverpool, further-month 29. J. William, London, despite. 29. J. Debell, Stapleburd, Kent, dropes & L. T. Cancily, Liverpool, further-month 29. J. William, London, despite. 29. J. S. Schleininger London, indipenditual.
not and forced into the house. Over the vis- in fracerd, in the way to the root, a large hele, or which the most appears exactly as if dames issued from it. Its course appears next to have a loverable the chilement; the cean were chartwood force; the ridge stooms desplaced; many facility much connect tone from the wall; and the lead- ment between the forced up. It particular exempted the many plants favored up. It particular exempted the an below by the chilement,. In the lower room, whose, plants are and paper are in several places area, and the field, as if searching its way one, then the plants of the contract of the con- tract of the contract of the con- led free trans, just below. She upgress of glass obsided fare issue, just below. She upgress of glass of drives not in this room. In the room of glass of drives not in this room.	St. Nizy's, Back South Parade St. Paul's, Gross street. St. Paul's, Gross street. Janey street. Janey street. Janey street. St. George's, St. George's. St. John's, St. John's street. St. Almon's, St. Janes's street. St. Nichole's, Million-treet. St. Nichole's, Million-treet. St. Peter's, Jackson's row. Alport Torus. St. Clement's and St. Lake's. St. Stephen's, Millions street. St. Stephen's, Millions street. Oldfold-bland Trinity, King's Head Yand. Malon, Debountered.	130 68 314 161 118 102 234 161 120 161 120 290	110 111 281 119 163 196 310 190 190 190 190 190	500 900 900 900 900 500 500 190 90 190 678 560	£1003	in the Kingdom. It cout about £2,300, of which £322 0 105 was contributed in small range by	June 9, at 10, at Guidrich, Loudon, Monte, Patricesa and Punic, Col Broad-drive Monte, Delvinson, London, morphist. 22. Marinair & Allianon, London, morphists. 22. W. Brebey, Manchester, taisor. 22. W. and A. Copp, Endoy, dangers. 22. W. Broad, Capper, Endoy, dangers. 23. J. Dobol, Stapleburgh, Kani, dreper & t. 23. J. Lor, London, warnhousestan. 24. T. Canidry, Lhorpood, further-mounts. 24. J. Williams, London, dagas. 25. J. Williams, London, dagas. 27. J. S. Schleininger Landon, indigentials. Chart.
nd and forced into the house. Over the vis- in faceod, in the way to the root, a large hole, or which the most appears exactly as if dames issued from: It is exerce appears next to have issued from: It is exerce appears next to have a twenty the ridge stones displaced; many bricks much connect tone from the wall; and the host may places forced up. It probably resulted the me below by the cisimneys. In the lower room the places forced up. It is the root of the an below by the cisimneys. In the lower room can, and the fails, as if searching its way out, which the plating of the chimney plane, and to the top comments, but did not disable the shed for irons, just below. Not squares of plane of driven set in this room. In the room alone, we comer, stoned a bandle of rode, to which is	St. Mary's, Back South Patade St. Paul's, Gross street. Turner-street James street	130 68 314 161 118 102 234 161 120 161 120 290	110 111 281 119 163 196 310 190 190 191 207 207 207 207	100 100 100 100 100 100 100 100 100 100		in the Kingdom. It cout about £2,200, of which £227 0 103; was contributed in small name by the Tenchers and Scholars.	June 9, at 19, at Guidraff, Loudon, Moren, Patronia and Punic, Cell Brand-dree Mey 22. Marina's & DYVIDENDR. May 22. Marina's & Allianon, London, morels 28. J. Devins, Shorenbury, fan opinane. 29. W. Brebry, Manchester, tenor. 22. W. and A. Copp, Exelie, daspers. 22. W. finance, Exely, deposit, daspers. 29. J. Debid, Stapleburd, Kent, dropes & to 29. J. Lov, London, warshowness. 34. T. Cancier, Liverpool, further-morels 29. J. Williams, Loudon, despect. 27. J. Williams, Loudon, despect. 27. J. B. Schleininger Landon, indipendicate. June 5. Ryder & Nameyth, London, seque-only
of and furered into the house. Over the wis- th furered, is its way to the root, a large hele, e which the nost appears exactly as if flames insend from if. Its evenes appears next to have twearby the chimney: the cum were shattward twearby the chimney: the cum were shattward rows; the relays stoom desplaced; many briefs, much resmont term from the wall; and the lead- any places favored up. It purchasing remoted the interes, planter and paper are in several places on, and the field, as if assuring its way one, then the planter of the chimney thus, and of the true oresmonths, but did not disturb the field fire gibling of the chimney thus, and of the true oresmonths, but did not disturb the field free gibling of the chimney there, are driven set in this recum. In the recom species, we come in this recum. In the recom species, or a convert, moved a bounder of reads, to which it is its way, perhaps from the riskment, between	St. Nizy's, Back South Parade St. Paul's, Gross street. St. Paul's, Gross street. Janey street. Janey street. Janey street. St. George's, St. George's. St. John's, St. John's street. St. Almon's, St. Janes's street. St. Nichole's, Million-treet. St. Nichole's, Million-treet. St. Peter's, Jackson's row. Alport Torus. St. Clement's and St. Lake's. St. Stephen's, Millions street. St. Stephen's, Millions street. Oldfold-bland Trinity, King's Head Yand. Malon, Debountered.	130 68 314 161 118 102 234 161 120 161 120 290	110 111 281 119 163 196 310 190 190 190 190 190	100 100 100 100 100 100 100 100 100 100		in the Kingdom. It cout about £2,500, of which £252 0 104 was contributed in small same by the Teachers and Schelars.	June 9, at 10, at Guidrich, Loudon, Monte, Patricesa and Punic, Col Broad-drive Monte, Delarman delar DYVIDENDO, May 22. Marinair & Allianon, London, moreha 29. M. Bredey, Manchester, taliore, 29. W. Bredey, Manchester, taliore, 20. W. Broad, Catanhester, Salar, desport 20. M. Bodo Staphelmort, Keni, desport & talior, 20. J. Dodo Staphelmort, Keni, desport & talior, 20. J. Loudon, warehouseman, 24. T. Canadey, Livespoot, feetier-march 20. J. Williams, London, desport, 75. M. Schleimer, London, indipendical description of the Color, individual description of the Col
not and forced into the house. Over the vis- in fracted, in fin may be the root, a large hele, or which the most appears exactly as if dama- isand from it. Its course appears next to have a breach the chileney; the case were chattraced circus; the ridge stooms desplaced; many facility much connect tone from the wall; and the lead- my plans faced up. It particular extended the mach connect tone from the wall; and the lead- my plans faced up. It particular extended the an below by the chimney. In the lower room strone, planter and paper are in second places was, and the field, as if searching its way one, then the planter and paper are in second places was, and the field, as if searching its way one, then the planter and paper are in second places are, and the field, as if searching its way one, then the planter and paper. In the chimner glam, and of the top-orestorates, but did not disturb the decision net in this room. In the room of plans delives net in this room.	St. Mary's, Back South Parade St. Paul's, Gross street Turner-street James street	130 68 314 118 102 234 ::07 85 181 129 185 186	100 111 284 1119 169 169 169 169 167 167 167 167 167 167 167 167 167 167	100 100 100 100 100 100 100 100 100 100		lin the Kingdom. It cout about \$2,200, of which \$202.0 9 90g was contributed in small sums by the Teachers and Scholars.	June 9, at 19, at Guidraff, Loudon, Moren, Patronia and Punic, Cell Brand-dree Mey 22. Marina's & DYVIDENDR. May 22. Marina's & Allianon, London, morels 28. J. Devins, Shorenbury, fan opinane. 29. W. Brebry, Manchester, tenor. 22. W. and A. Copp, Exelie, daspers. 22. W. finance, Exely, deposit, daspers. 29. J. Debid, Stapleburd, Kent, dropes & to 29. J. Lov, London, warshowness. 34. T. Cancier, Liverpool, further-morels 29. J. Williams, Loudon, despect. 27. J. Williams, Loudon, despect. 27. J. B. Schleininger Landon, indipendicate. June 5. Ryder & Nameyth, London, seque-only

1821 - The Guardian

Manchester schools, students and cost

Not just the future... (II)

Detroit protests 1967 Philip Meyer



More <u>here</u> and also <u>here</u>.

Data Journalism Awards (I)

Let's look at the winners!

DATA-DRIVEN INVESTIGATIONS

National/international (about - court cases)



Data Journalism Awards (II)

Local/regional (about - crossing databases)



METHADONE AND THE POLITICS OF PAIN

PHOTO BY MIKE SEGGE / THE SEATTLE TI

Sara Taylor, mother of former King County 911 dispatcher Angeline Burrell, describes her daughter's battle with disabling chronic pain and her overdose death from methadone. At left is Taylor's husband, Dale.

Silent deaths

Politics of pain

A troubled clinic

State pushes prescription painkiller methadone, saving millions but costing lives

To cut costs, Washington steers Medicaid patients to a narcotic that costs less than a dollar a dose. The state insists methadone is safe. But hundreds die from it each year — and more than anyone else, it's the poor who pay the price.

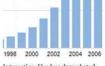
MORE IN THE SERIES:

- Update: 'Preferred' pain drug now called last resort
- Update: State plans emergency warning on risks of methadone
- Nideo: Methadone's toll

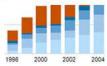
■ Timeline: State defends methadone as deaths rise

- Silent deaths: source documents
- How we did it: our analysis
- Seattle Times methadone investigation wins 2012 Pulitzer Prize
- Times awarded Selden Ring Award for Investigative Reporting

Methadone consumption and deaths: Numbers tell the story



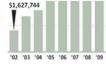
Interactive: Use has skyrocketed since state put drug on list



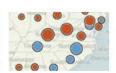
Interactive: More deaths from methadone than other drugs



Interactive: In Washington, victims are clustered in poorer



Graphic: The costs of hospital care linked to methadone have skyrocketed

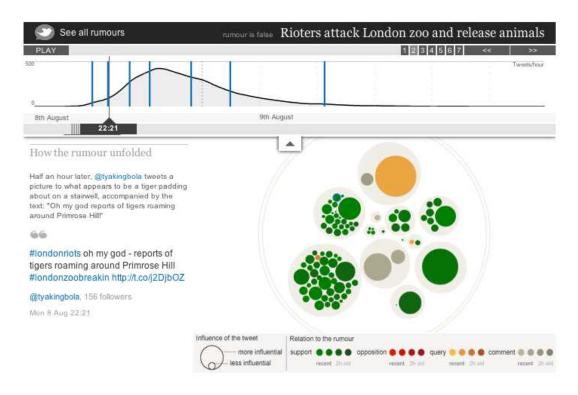


Interactive: Nationwide, Washington stands out as one of the worst states

Data Journalism Awards (III)

DATA VISUALIZATION AND STORYTELLING

National/international (*Twitter as a source*)



Data Journalism Awards (IV)

Local/regional (Russia - source & data - video)



Data Journalism Awards (V)

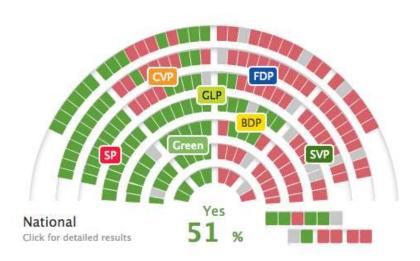
DATA-DRIVEN APPLICATIONS

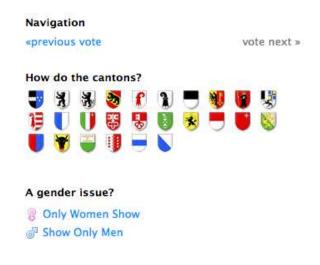
National/international

"Session Overview

General tax amnesty

Vote in the National from Friday 28th September





Data Journalism Awards (VI)

Local/regional

2011 Illinois school report cards

Test scores, class sizes, dis	trict finances and more			
reat acorea, class sizes, dis	trict illiances and more			
Find your school Search	Find schools near your address	1 mile	0	Search
		5		

Key findings in school report cards



How safe is your child's school? It's hard to find out June 15, 2011

New Data: Crimes Reported at Illinois Schools

To investigate this story, Tribune reporters obtained detailed school crime information which was reported to the state through the SIRS system. Visit individual school pages on this site to see which crimes were reported at that school.



f 530 people like this. Sign

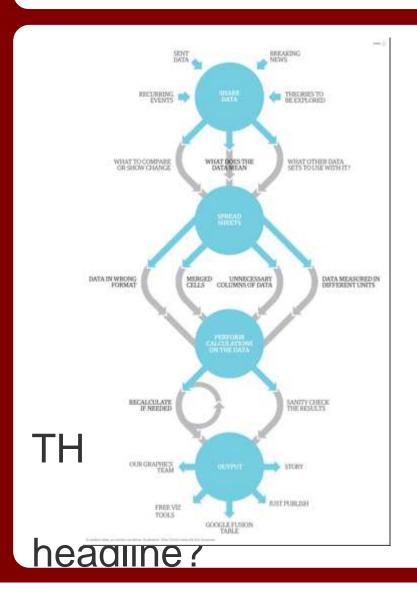
Things in common

- Analysis and interaction
- Multimedia not only as video
- Transparent about sources and method -TRUST
- Show data and documents
- Collaboration with computer engineers,
 "hackers" (<u>Hacks&Hackers</u>, <u>CRJI</u>, <u>OCCRP</u>)

Hands to the dough!



A "messy" process



"Comment is free, but facts are sacred"

The Guardian

*Spend time

*What's the

1. GETTING THE DATA (I)

- Data is everywhere!
- Structured v non structured (<u>life</u>, sentences)
- Does it already exist?
 - *proactive publication
 - *open data Moldova, Belarus blog + data (idea!)
 - *official gazette

1. GETTING THE DATA (II)

Use Freedom of Information!!

• In your country:

MOLDOVA

- Constitution art. 34 + 37 (environment, health and consumer)
- Law in force since August 2000
- 15 days

1. GETTING THE DATA (III)

UKRAINE

- FOI in January 2011
- Aarhus applies (environmental information)
- Difficult to get access to info on public spending, personal details about politicians, public procurement etc. (more info)
- Recommendations:
 - *push the limits!
 - *write about the process

1. GETTING THE DATA (IV)

BELARUS

- No FOI
- But... journalists have access through Media Law

Don't worry, in Spain we have even worse access! :)

1. GETTING THE DATA (V)

- Think creatively who may have information?
 (eg. European Union asktheeu.org)
- Globally: http://www.rti-rating.org/
- Importance of formats .xls .csv
- No news is good news

1. GETTING THE DATA (VI)

- Ultimate goal get it into a spreadsheet! They're beautiful!
- Different formats conversion
 - *cometdocs.com
 - *pdftoexcelonline.com
 - *zamzar.com
- Tables from web <u>Table2Clipboard</u> -<u>TableCapture</u> (example)

1. GETTING THE DATA (VII)

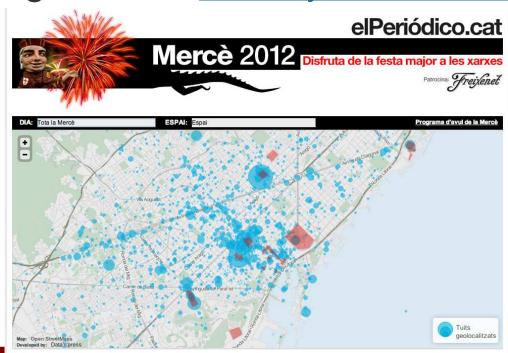
- Web scraping <u>Spanish contracts</u>
 - *Dapper
 - *ScraperWiki
- Work with local hackers
 - *Open Data movement
 - *Hacks and Hackers

1. GETTING THE DATA (VIII)

Real time data

*Spot patterns - and news

*Who's tweeting what? - holiday in Barcelona



1. GETTING THE DATA (IX)

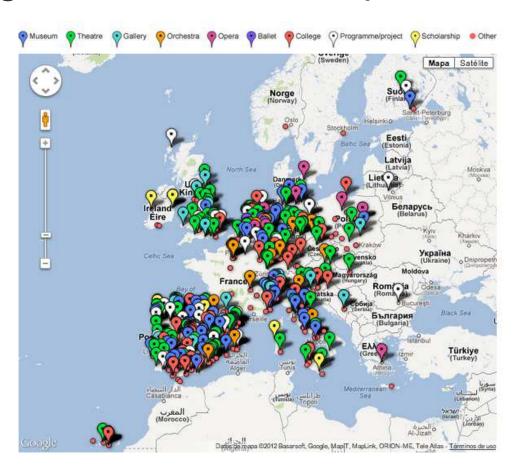
You (media) have data - eg. crime news





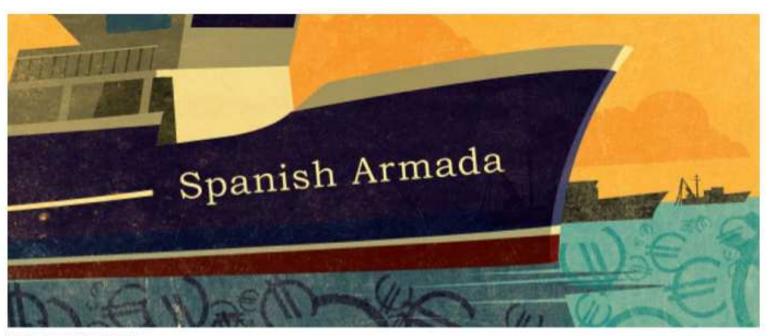
1. GETTING THE DATA (X)

Users generate data - <u>European culture cuts</u>



The "millionaire" fish

Nearly €6 billion in subsidies fuel Spain's ravenous fleet



Ajani Winston/iWatch News

As stocks crash, 1 in 3 fish paid for with public money

By Kate Willson, Mar Cabra and Marcos Garcia Rey 12:01 am, October 2, 2011 Updated: 5:23 pm, January 24, 2012

The "millionaire" fish II - Sources

 Subsidies at a beneficiary level (<u>fishsubsidy</u> and <u>Ministry</u>).
 But who gives what?

- Regions/BOE to fill in holes
- Licenses for foreign fishing
- Other reports

The "millionaire" fish III

KEY FINDINGS

- The Spanish fishing industry has received more than
 €5.8 billion (more than \$8 billion) in subsidies from the
 EU and Spain since 2000 far more than the industry of any other EU country.
- Subsidies account for a third of the sector's value.
 Simply put, nearly one-in-three fish caught on a hook or raised in a farm is paid for with public money.
- More than 80 percent of subsidized fishing companies that were fined in Spain for fishing infractions – and then lost subsequent court appeals – continued to receive subsidies.

2. ANALYZING THE DATA I

CLEANING - Google Refine

 Look for: names in different order, accents/other letters, SL v S.L. v S.L.

Example

2. ANALYZING THE DATA II

INTERVIEWING THE DATA

The tool:

- *Excel (PC 2010, Mac 2011)
- *Open Office
- *Google Docs
- *Manual I recommend

2. ANALYZING THE DATA III

- Freeze panes
- Order, count
- Filter
- Formulas:
 - =SUM(first cell:last cell)
 - =SUBTOTAL(9,A1:A30)
- Percentages

2. ANALYZING THE DATA IV

Average=AVERAGE(A1:A30)

Median=MEDIAN(A1:A30)

Pivot table

3. PUTTING DATA IN THE STORY (I)

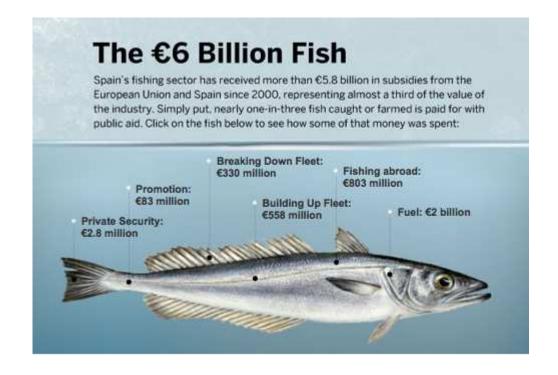
IN THE COPY

- Do not overload with facts
- Representative detail (WSJ example)
- Best summary

3. PUTTING DATA IN THE STORY (II)

VISUALIZING DATA

• Graphic (fish)



3. PUTTING DATA IN THE STORY (III)

VISUALIZING DATA

Timelines

*To analyze: <u>TimeFlow</u>

*To see: Dipity

3. PUTTING DATA IN THE STORY (IV

VISUALIZING DATA

Maps and charts - Google Fusion tables

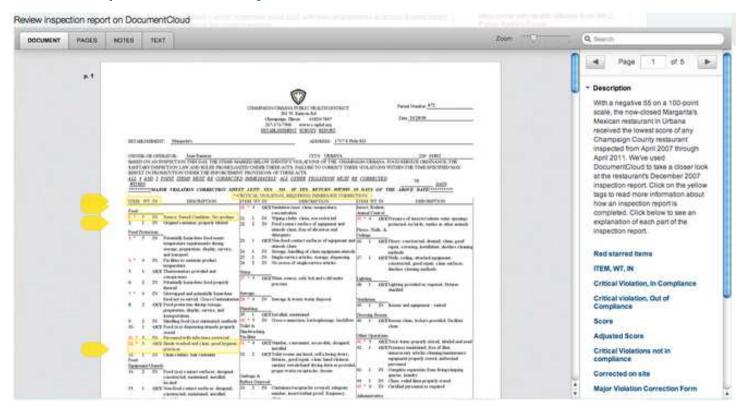
*Localize

*Show areas

Example

3. PUTTING DATA IN THE STORY V)

 Show the documents (<u>Document Cloud</u>, <u>Scribd</u>) - <u>example</u>



3. PUTTING DATA INTO THE STORY /I

Other examples

- dondevanmisimpuestos.es
- Congressmen assets:
 - *source
 - *crowd sourcing
 - *lainformacion.com

3.PUTTING DATA INTO THE STORY /II

- The importance of a <u>methodology</u>
- Just state the sources and how you got the facts

How to learn more?

- The Guardian Data Blog
- Data driven journalism
- Center of Investigative Journalism Summer School
- Investigative Reporters and Editors
- Reporters Lab

Thanks!

Mar Cabra

mar.cabra.valero@gmail.com

Twitter: @cabralens

Skype: mar.cabra