

# The Politics of Big Data, Migration, and Mobility

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# Definitions and Motivation

Big Data refers to “things one can do at a large scale that cannot be done at a smaller one, to **extract new insights** or **create new forms of value**, in ways that change markets, organizations, the relationship between citizens and governments”

(Mayer-Schönberger & Cukier, 2013: 6)

# THE END OF THEORY: THE DATA DELUGE MAKES THE SCIENTIFIC METHOD OBSOLETE



# Key Messages

Data do not speak for themselves.

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Data politics are central to many pressing and urgent issues—including global migration and mobility.

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Data politics are central to many pressing and urgent issues—including global migration and mobility.

Data politics are as much social, cultural, and affective as they are technological and practical.

# Roadmap

Data Politics: Subjects, Worlds, Rights

Migration and Mobility: Such a New Issue?

Collecting Data

Categorizing Data

Visualizing Data

Conclusion



# Roadmap

## Data Politics: Subjects, Worlds, Rights

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# Data Politics: Worlds, Subjects, Rights

Data has “potential force that can be realized in myriad ways through its uptake and deployments”

(Ruppert, Isin, & Bigo, 2017: 2)

# Data Politics: Worlds, Subjects, Rights

**Data worlds:** material objects, landscapes, and infrastructures associated with data and their transmission

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**Data subjects:** how data collection, filtering, and usage create new kinds of individuals that relate to each other in new ways

**Data rights:** how and to what extent subjects claim and struggle over ownership of their data

# Data Politics: Worlds, Subjects, Rights

Data politics arise in (at least) two forms:

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debates about the collection and use of data

how these data and their uses create new relations



# Data Politics: Worlds, Subjects, Rights

Why does an appreciation of data politics matter?

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Why does an appreciation of data politics matter?

moves debate beyond simple binaries of Big Data being 'good' or 'bad'

# Data Politics: Worlds, Subjects, Rights

Why does an appreciation of data politics matter?

moves debate beyond simple binaries of Big Data being 'good' or 'bad'

opens relational questions about 'effectiveness'

# Roadmap

Data Politics: Subjects, Worlds, Rights

## **Migration and Mobility: Such a New Issue?**

Collecting Data

Categorizing Data

Visualizing Data

Conclusion

Max Hirzel, *Migrant Bodies*

Shipwreck recovered by  
the Italian Navy, from 18  
April 2015





Diego Rivera (1947), Detail  
from *'Dream of a Sunday  
Afternoon in Alameda  
Central Park (Sueño de una  
tarde dominical en la  
Alameda Central)'*

# Migration and Mobility: Such a New Issue?

“...the notion that migration is a peculiarly contemporary issue actually sits at odds with global histories of trade, colonialism, transportation and vagrancy, **largely because such mobilities have not been understood as ‘migration’ in the first place.**”

(Allen et al., 2017: 218; see also Anderson, 2013)

# Roadmap

Data Politics: Subjects, Worlds, Rights

Migration and Mobility: Such a New Issue?

## **Collecting Data**

Categorizing Data

Visualizing Data

Conclusion



# Collecting Data

Data volume, variety, velocity, (and veracity)

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Practical challenges and questions

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Data volume, variety, velocity, (and veracity)

Practical challenges and questions

How do you know the data actually reflect what you think they do?



John Stanmeyer wins  
World Press Photo of  
the Year 2013

© John Stanmeyer/VII for National  
Geographic

# Collecting Data

Challenges for using mobile phone data as a measure

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ethical and privacy issues (including ‘mission creep’)

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specific situations (intentional and unintentional) related to the conditions of forced migration

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Migration and Mobility: Such a New Issue?

Collecting Data

**Categorizing Data**

Visualizing Data

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# Categorizing Data

Two senses of categorization

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defining subjects ('who counts as a migrant?')

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predicting future behaviors via flags, maps, scores

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UN definition: anyone who has lived outside their country of origin for more than 12 months

Limitations in terms of length and geography of journeys

# Categorizing Data

## Defining subjects

“Developing more detailed data on categories of migration is not without hazards. Simply because we have somewhat more sophisticated data does not mean that interpretations of the analysis will be sophisticated...”

(Sumption, in Allen et al., 2018: 227)

# Categorizing Data

Predicting future behaviors via flags, maps, scores

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# Categorizing Data

Predicting future behaviors via flags, maps, scores

“Data derivatives...what can be imagined and inferred about who we might be—on our very proclivities and potentialities”

(Amoore, 2001: 28)

# Categorizing Data

“The worry I think is we become a slave to a machine and we forget actually the data is only as good as the people who put it on there. [I]f you’ve got rubbish in you’re going to get rubbish out and actually some of the best catches we’ve had have been on what we would call ‘clean skins’. These are people who don’t come up on the computer but by talking to them and by interviewing them and by examining their baggage you can identify things that only a human being can really do.”

(Former senior management staff, UKBA; quoted in Allen and Vollmer 2018)

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# Visualizing Data

Data visualization is ‘the representation and presentation of data to facilitate understanding’

(Kirk, 2016: 19)



 **Pie I have eaten**


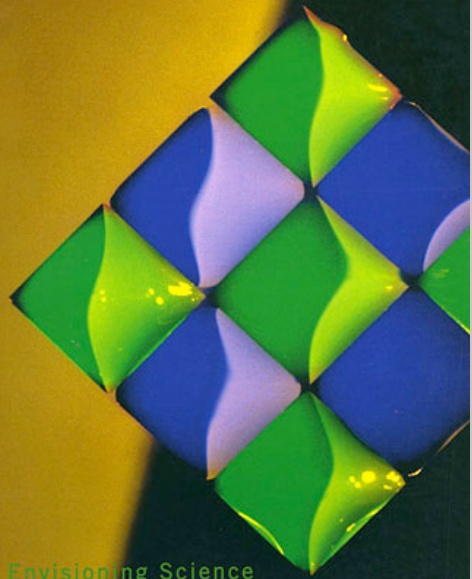
 **Pie I have not yet eaten**

Image credit:  
Buzzfeed  
(<https://www.buzzfeed.com/samir/worlds-most-accurate-pie-chart>)

"Open the book at random, and your eye will be dazzled."  
—SCIENTIFIC AMERICAN



### Envisioning Science

THE DESIGN AND CRAFT  
OF THE SCIENCE IMAGE

Felice Frankel



ANTARCTIC ADVENTURE  
Australia's Big Bird

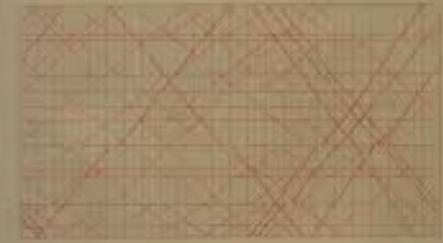
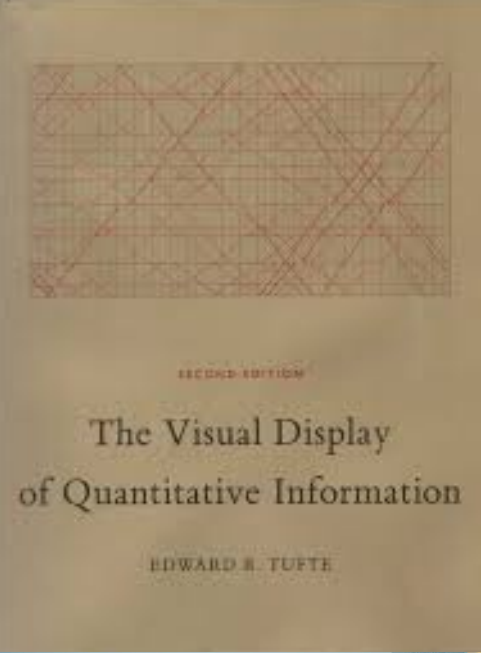
CELEBRATING 125 YEARS OF EXPLORATION  
NGM.COM SEPTEMBER 2013

# NATIONAL GEOGRAPHIC

HOW THEY ARE  
CHANGING OUR  
COASTLINE

## RISING SEAS

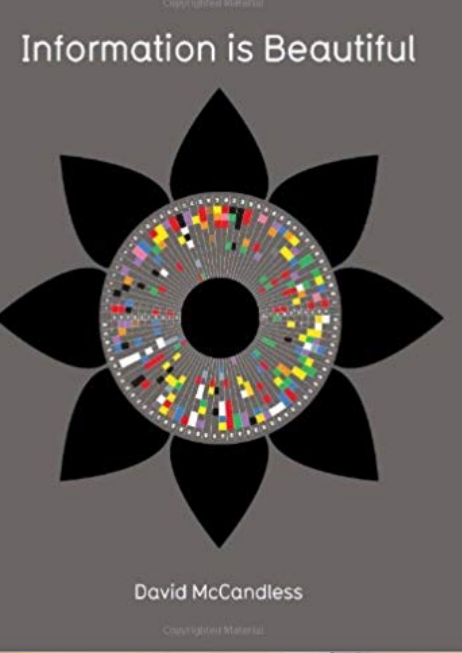
FREE POSTER  
Mapping a World  
Without Ice



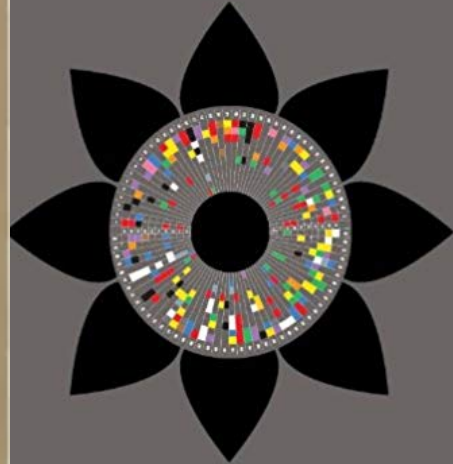
SECOND EDITION

## The Visual Display of Quantitative Information

EDWARD R. TUFT

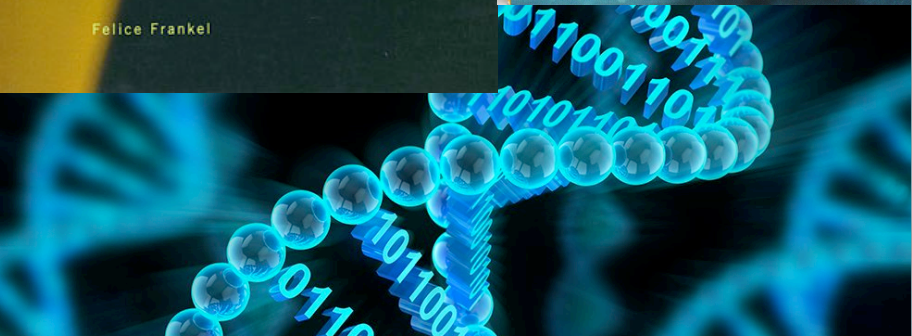


## Information is Beautiful



David McCandless

Copyrighted Material

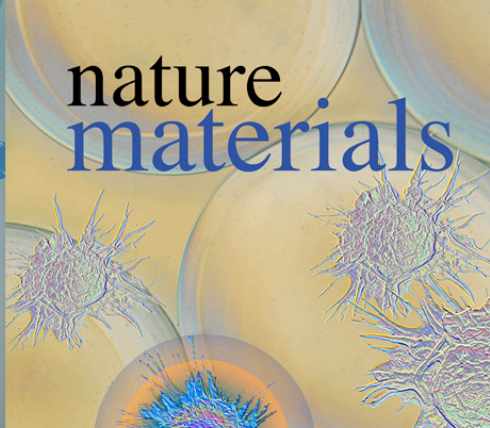


# nature

THE INTERNATIONAL WEEKLY JOURNAL OF SCIENCE

## FILM PRODUCER

Remote epitaxy with graphene  
turns substrate into copy  
machine PAGES 301 & 340



# nature materials



Tweet your views on In Focus to @McGuinnessRoss



As appears in: Kennedy and Hill. 2018. 'The Feeling of Numbers: Emotions in Everyday Engagements with Data and Their Visualisation'. *Sociology* 52 (4): 830–48.

# Visualizing Data

Data politics arise in two ways

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# Visualizing Data

Data politics arise in two ways

representations of concepts, populations, ideas

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conceiving, generating, and sharing visualizations

# Visualizing Data

Data 'do' ideological work through design conventions that tap into culture- and society-specific norms  
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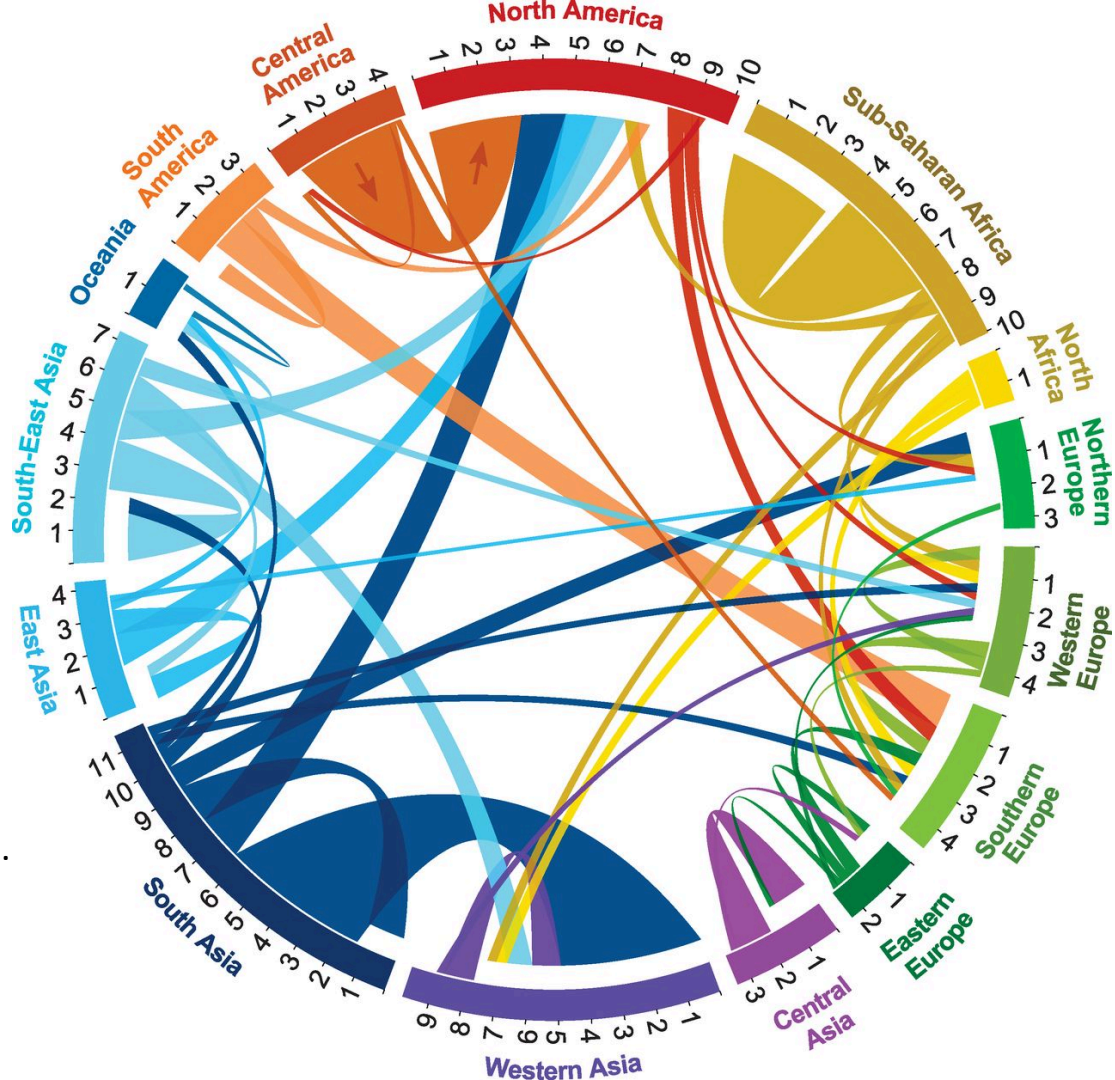
prioritize scientific objectivity over other purposes

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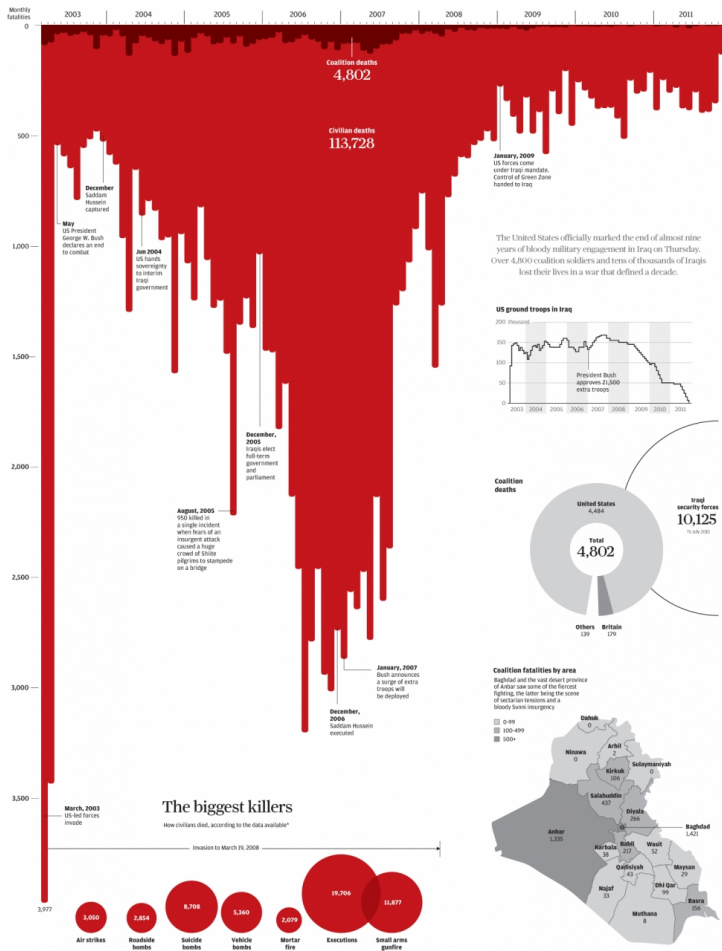
prioritize scientific objectivity over other purposes

communicate meanings (implied and explicit)



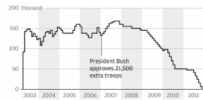
Abel and Sander (2014).  
 Quantifying Global  
 International Migration  
 Flows. *Science*,  
 343(6178): 1520-1522.

# Iraq's bloody toll



The United States officially marked the end of almost nine years of bloody military engagement in Iraq on Thursday. Over 4,800 coalition soldiers and tens of thousands of Iraqis lost their lives in a war that defined a decade.

## US ground troops in Iraq

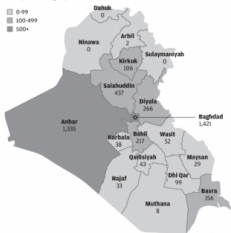


## Coalition deaths



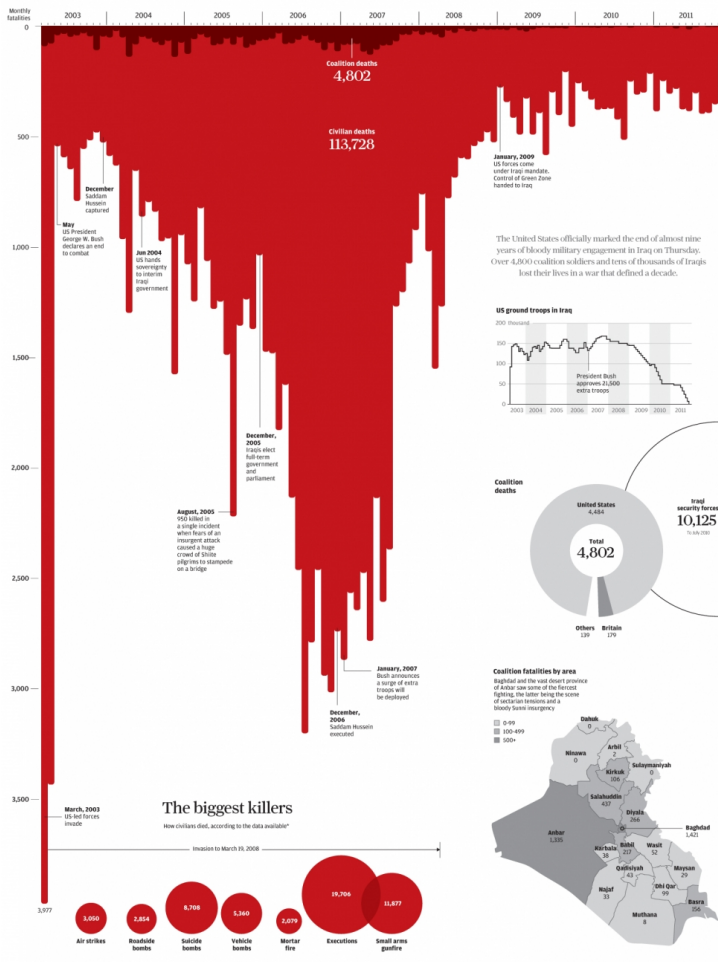
## Coalition fatalities by area

Baghdad and the surrounding province of Anbar saw some of the heaviest fighting, the latter being the scene of sectarian tensions and a bloody Sunni insurgency.



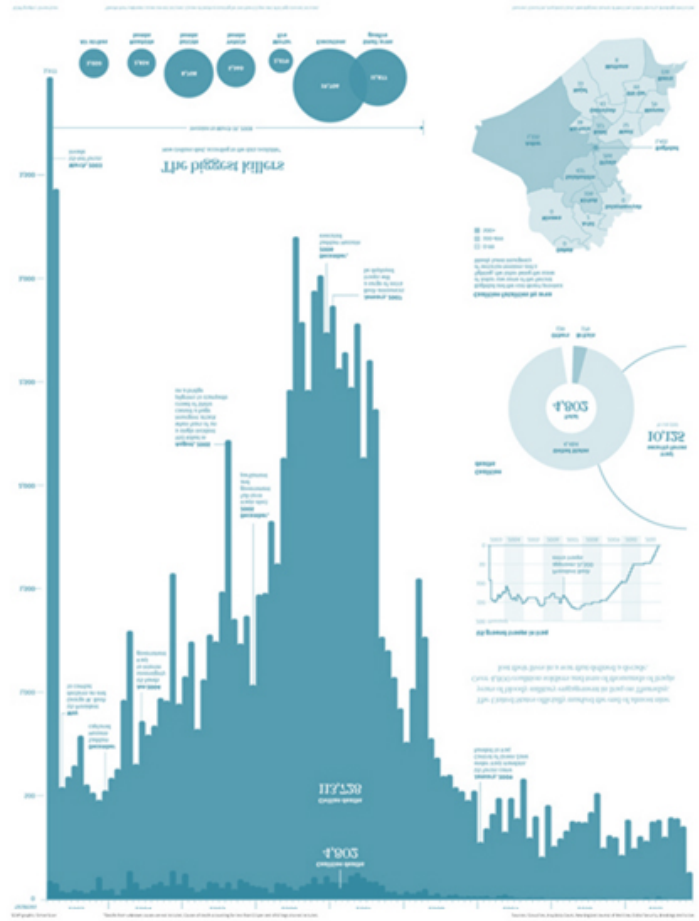
Simon Scarr  
(2011), in  
the South  
China  
Morning  
Post

# Iraq's bloody toll



Simon Scarr (2011), in the South China Morning Post

# Iraq: Deaths on the Decline



Andy Cotgreave (2016), on InfoWorld



# Visualizing Data

Visualizations are artifacts that are imagined, constructed, brokered, and shared

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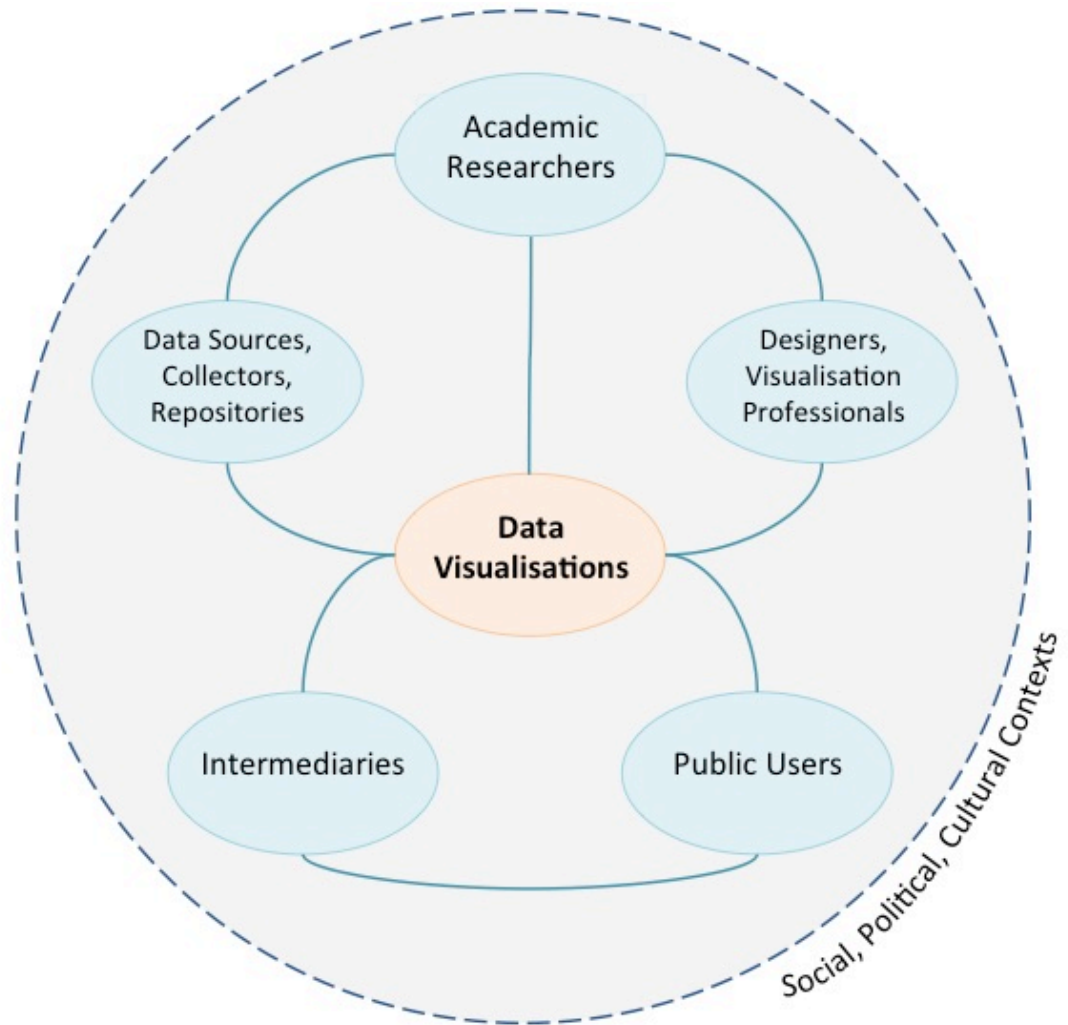
involving many hands and minds

# Visualizing Data

Visualizations are artifacts that are imagined,  
constructed, brokered, and shared

involving many hands and minds

with competing interests, agendas, motivations



Allen, William (2018).  
Visual Brokerage:  
Communicating Data and  
Research Through  
Visualisation. *Public  
Understanding of  
Science*. 27(8): 906-922

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# Conclusion

Data politics involves ‘worlds, subjects, and rights’

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# Conclusion

Data politics involves ‘worlds, subjects, and rights’

Data politics arise in the domain of migration and mobility through data collection, categorization, and visualization

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Data politics arise in the domain of migration and mobility through data collection, categorization, and visualization

Data politics are as much social, cultural, and affective as they are technological and practical



# Conclusion

An agenda for critical data politics:

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# Conclusion

An agenda for critical data politics:

how are data used,

# Conclusion

An agenda for critical data politics

how are data used,

for and by whom,

# Conclusion

An agenda for critical data politics:

how are data used,

for and by whom,

and under what kinds of circumstances?

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