

# Data Deluge

*Need to solve the problems of*

- *modeling, storing and querying*
- *integration*
- *analysis*

The PayPal logo, featuring the word "PayPal" in a blue, sans-serif font with a trademark symbol.The Amazon.com logo, featuring the word "amazon.com" in a black, sans-serif font with a trademark symbol, and a curved orange arrow underneath.The Twitter logo, featuring the word "twitter" in a blue, sans-serif font with a blue bird icon to the right.The Google logo, featuring the word "Google" in its multi-colored, sans-serif font with a trademark symbol.

# Data Deluge

*Need to solve the problems of*

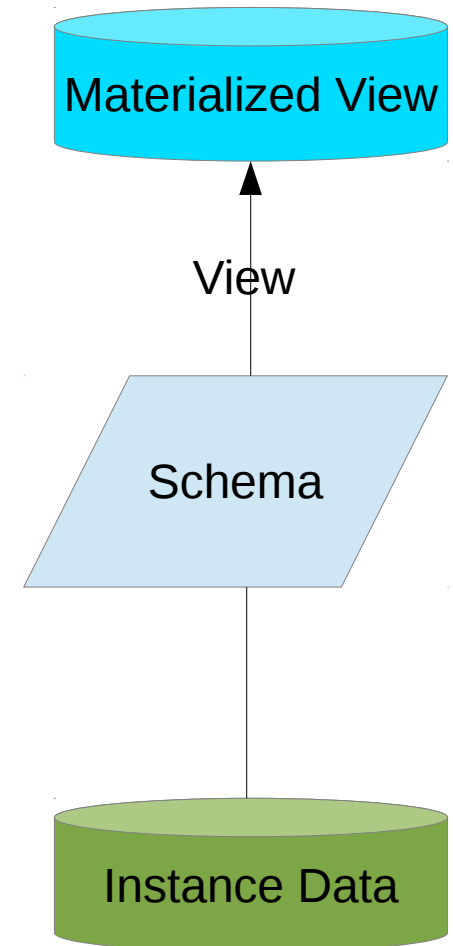
- *modeling, storing and querying*
- *integration*
- *analysis*

data is not static and evolves



# Managing Evolution

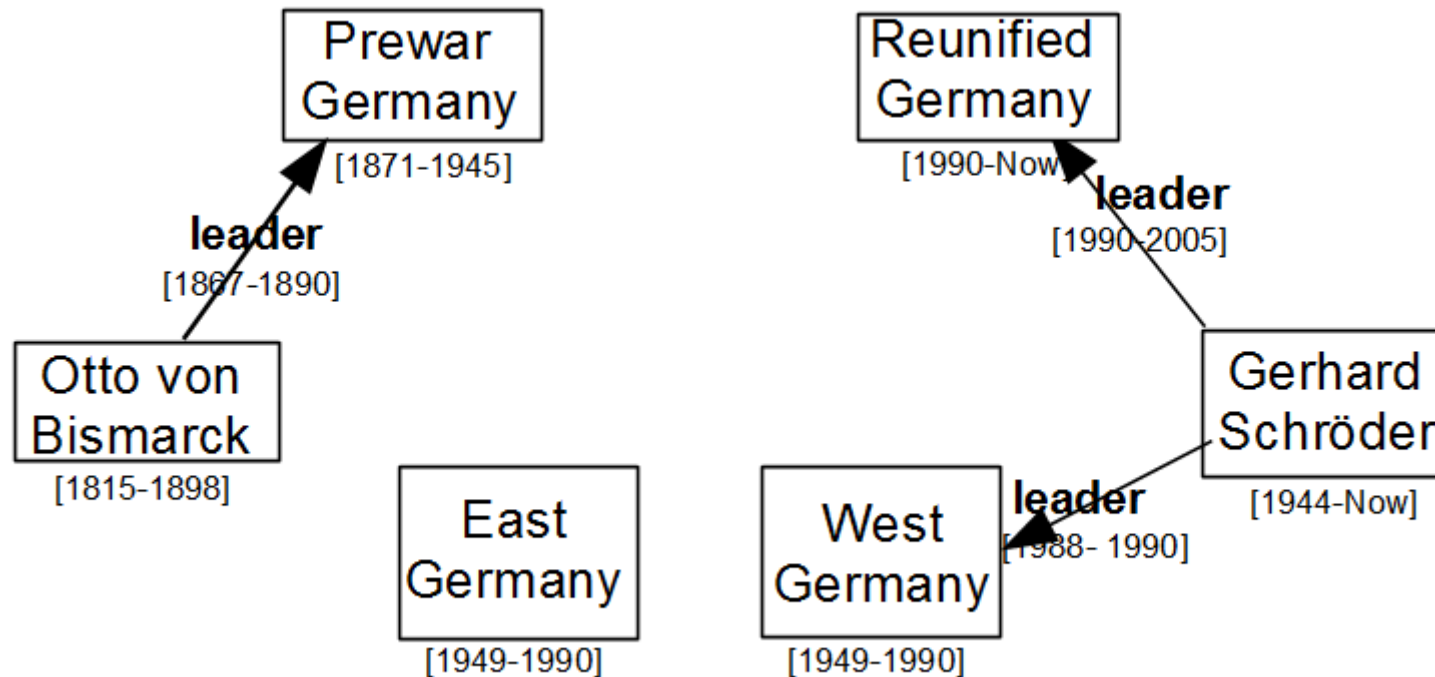
- Schema evolution [\[Lerner00\]](#)
  - *Update the instance data when schemas evolve*
- Incremental View Maintenance [\[Ceri91\]](#)
  - *Update materialized view data when base data is modified*
- View Adaptation [\[Blakeley86\]](#)
  - *Maintain materialized view data after view definition changes*
- Mapping Adaptation [\[Velegarakis04\]](#)
  - *Maintain view definitions when schemas evolve*
- Updates Through Views [\[Kotidis06\]](#)
  - *Propagating updates on views to the base tables*



# Temporal Databases

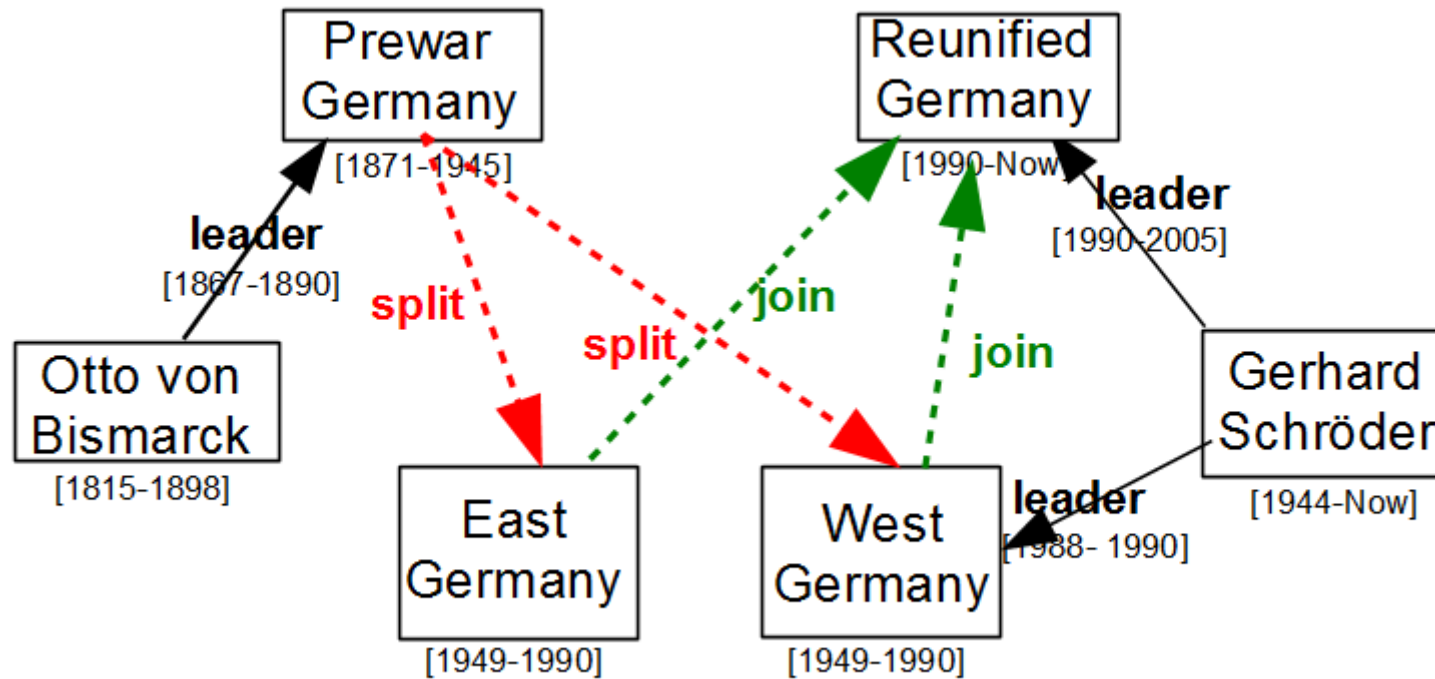
- Temporal ER [\[Gregersen99\]](#)
- Temporal relational models [\[Soo91\]](#)
- Temporal models for XML [\[Rizzolo08\]](#)
- Temporal ontologies and RDF [\[Gutierrez05\]](#)

# Example: History of Germany



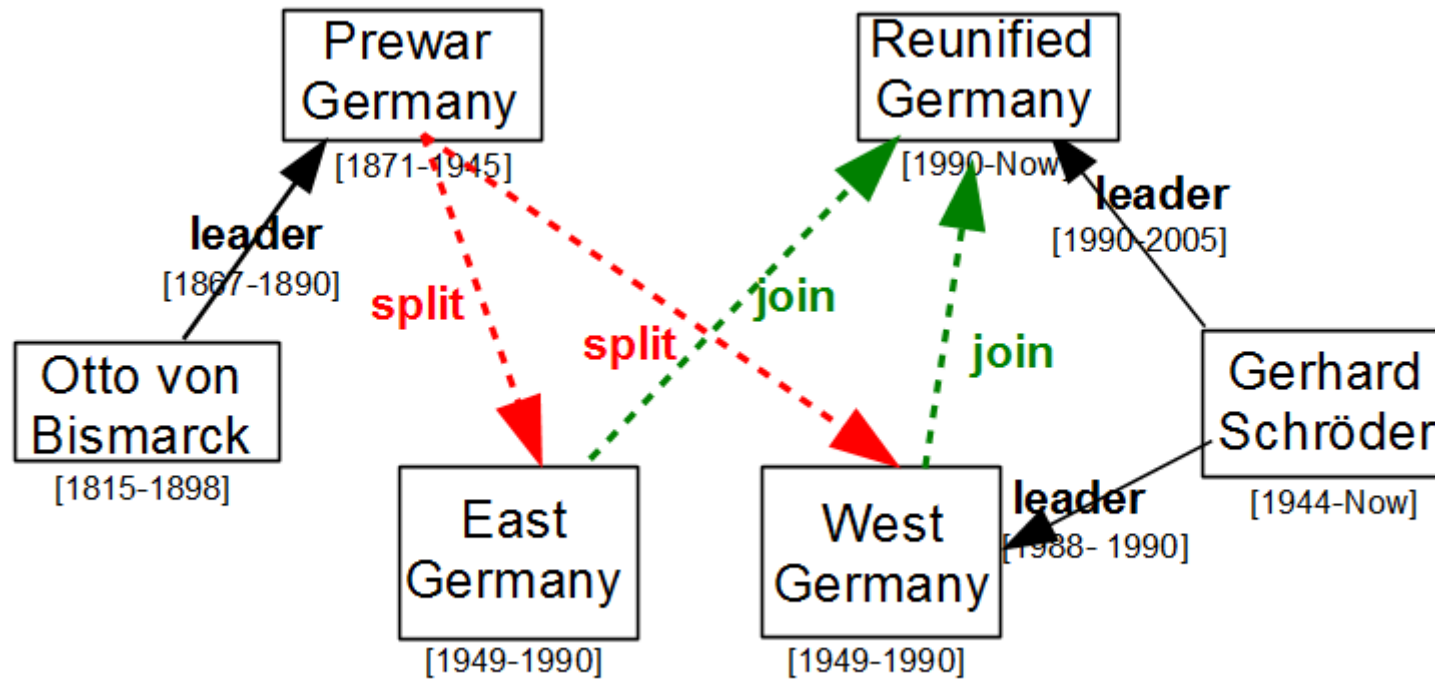
Who have been leaders of Germany throughout time?

# Example: History of Germany



Who have been leaders of Germany throughout time?

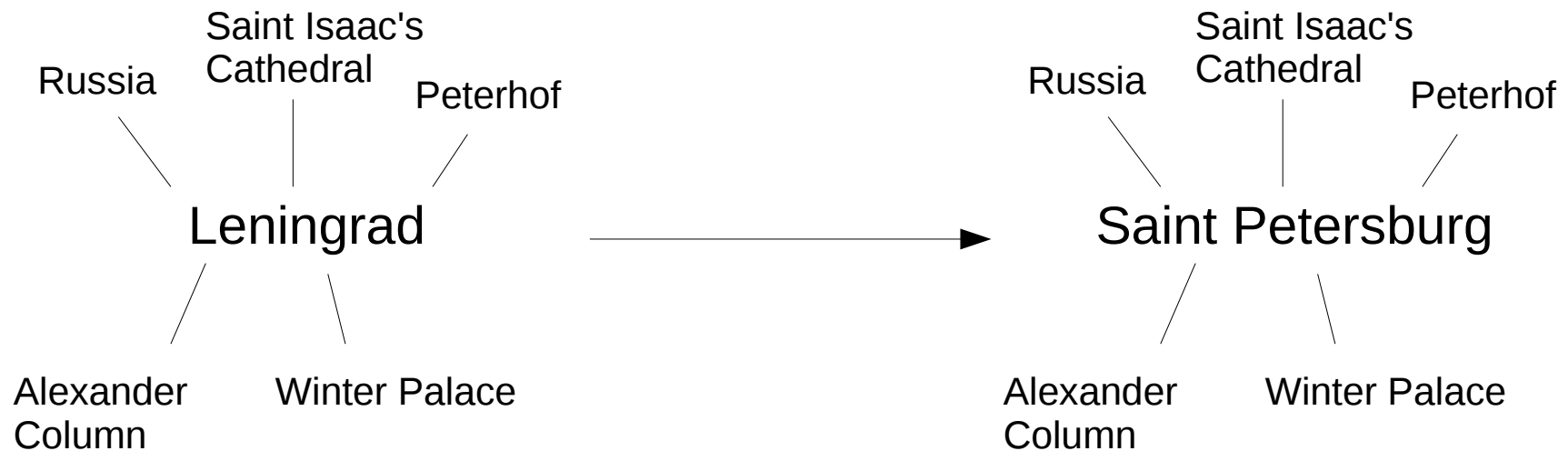
# Example: History of Germany



Concept Evolution

# Terminology Evolution

Web archives have evolving terminology [[Tahmasebi08](#)]





# Wikipedia: The Wisdom of Crowds



- Collaborative Content Creation [Giles 2005]

- Up-to-date
- Pluralistic
- Neutral point of view

- Data Quality Problems:

- Reputation&Trust [Adler and Alfaro 2007, Adler et al. 2008]
- Vandalism [Chin et al. 2010, Potthast et al. 2008, Smeth et al. 2008]
- Stability [Druck et al. 2008]
- Controversy

# Controversy

- A prolonged dispute by a number of people on the same topic \*
- Should be distinguished from:
  - regular edits
  - vandalism
- Help in
  - preserve neutral point of view (NPOV)
  - requesting supporting evidences

\* <http://en.wikipedia.org/wiki/Controversy>

# Arab-Israeli Conflict

- Sensitive page, rife with controversial content
  - Number of casualties, Israeli per-capita GDP, etc.

## Arab–Israeli conflict

From Wikipedia, the free encyclopedia

*"Arab-Israeli War" redirects here. For the war of 1948, see 1948 Arab–Israeli War.*

The **Arab–Israeli conflict** (Arabic: الصراع العربي الإسرائيلي *Al-Sira'a Al'Arabi A'Israili*; Hebrew: הסכסוך הישראלי-ערבי *Ha'Sikhsukh Ha'Yisraeli-Aravi*) refers to the political tension and military conflicts between certain [Arab countries](#) and [Israel](#). The roots of the modern Arab–Israeli conflict are bound in the rise of [Zionism](#) and [Arab nationalism](#) towards the end of the 19th century. Territory regarded by the [Jewish people](#) as their [historical homeland](#) is also regarded by the [Pan-Arab](#) movement as historically and presently belonging to the [Palestinian Arabs](#),<sup>[9]</sup> and in the [Pan-Islamic](#) context, as [Muslim lands](#). The [sectarian conflict](#) between Palestinian Jews and Arabs emerged in the early 20th century, peaking into a full-scale [civil war](#) in 1947 and transforming into the [First Arab-Israeli War](#) in May 1948. This followed the [Declaration of the Establishment of the State of Israel](#) by [David Ben-Gurion](#), the Executive Head of the [World Zionist Organization](#), who declared the establishment of a Jewish state in [Eretz-Israel](#) to be known as the [State of Israel](#).<sup>[10]</sup>

The conflict has shifted over the years from the large scale regional Arab–Israeli conflict to a more local [Israeli–Palestinian conflict](#), as large-scale hostilities mostly

Arab–Israeli conflict	
<b>Date</b>	May 1948–present Main phase: 1948–1973
<b>Location</b>	<a href="#">Middle East</a>
<b>Result</b>	Ongoing <ul style="list-style-type: none"><li>• <a href="#">Egypt–Israel Peace Treaty</a></li><li>• <a href="#">Oslo Accords</a></li><li>• <a href="#">Israel–Jordan peace treaty</a></li><li>• <a href="#">UNSC 1701</a></li></ul>
<b>Territorial changes</b>	Israeli occupation of the <a href="#">Sinai Peninsula</a> (1956–57; 1967–1982), <a href="#">West Bank</a> (1967–present), <a href="#">Gaza Strip</a> (1967–2005), <a href="#">Golan Heights</a> (1967–present) and <a href="#">South Lebanon</a> (1982–2000)
Belligerents	
 <a href="#">Israel</a>	 <a href="#">Palestinians</a> :

# The Beatles

- Non-sensitive page, with controversial content
  - Should it be “The Beatles” or “the Beatles”?

## The Beatles

From Wikipedia, the free encyclopedia

*"Fab Four" redirects here. For other uses, see [The Beatles \(disambiguation\)](#) and [Fab Four \(disambiguation\)](#).*

**The Beatles** were an English [rock](#) band that formed in [Liverpool](#), in 1960. With [John Lennon](#), [Paul McCartney](#), [George Harrison](#) and [Ringo Starr](#), they became widely regarded as the greatest and most influential act of the rock era.<sup>[1]</sup> Rooted in [skiffle](#), [beat](#) and 1950s [rock and roll](#), the Beatles later experimented with several [genres](#), ranging from [pop ballads](#) to [psychedelic](#) and [hard rock](#), often incorporating [classical](#) elements in innovative ways. In the early 1960s, their enormous popularity first emerged as "[Beatlemania](#)", but as their songwriting grew in sophistication they came to be perceived as an embodiment of the ideals shared by the [era's sociocultural revolutions](#).

From 1960, the Beatles built their reputation playing clubs in Liverpool and [Hamburg](#) over a three-year period. Manager [Brian Epstein](#) moulded them into a professional act and producer [George Martin](#) enhanced their musical potential. They gained popularity in the United Kingdom after their first hit, "[Love Me Do](#)", in late 1962. They acquired the nickname "the Fab Four" as Beatlemania grew in Britain over the following year, and by early 1964 they had become international stars, leading the "[British Invasion](#)" of the United States pop market. From 1965 onwards, the Beatles produced what many critics consider their finest

### The Beatles



The Beatles in 1964  
Top: Lennon, McCartney  
Bottom: Harrison, Starr

### Background information

# Caesar salad

## Caesar salad

From Wikipedia, the free encyclopedia

A **Caesar salad** is a **salad** of **romaine lettuce** and **croutons** dressed with **parmesan cheese**, lemon juice, **olive oil**, **egg**, **Worcestershire sauce**, garlic, and black pepper. It is often prepared tableside.

### Contents [hide]

- 1 History
- 2 Recipe
  - 2.1 Ingredients
  - 2.2 Variations
- 3 Health concerns
- 4 See also
- 5 References
  - 5.1 Bibliography
  - 5.2 Further reading
- 6 External links

## History [edit]

The salad's creation is generally attributed to restaurateur **Caesar Cardini**, an **Italian** immigrant who operated restaurants in Mexico and the United States.<sup>[1]</sup> Cardini was living in **San Diego** but also working in **Tijuana** where he avoided the restrictions of **Prohibition**.<sup>[2]</sup> His daughter Rosa (1928–2003) recounted that her father invented the dish when a **Fourth of July** 1924 rush depleted the kitchen's supplies. Cardini made do with what he had, adding the dramatic flair of the table-side tossing "by the chef."<sup>[3]</sup> A number of Cardini's staff have said that they invented the dish.<sup>[4][5]</sup>

**Julia Child** said that she had eaten a Caesar salad at Cardini's restaurant when she was a child in the 1920s.<sup>[6]</sup> The earliest contemporary documentation of Caesar Salad is from a 1946 Los Angeles restaurant menu, twenty-two years after the 1924 origin stated by the Cardinis.<sup>[7]</sup>

## Recipe [edit]

### Caesar salad

#### Hors d'œuvre



One of the most common Caesar salad variations, shown here topped with **grilled chicken**.

#### Place of origin:

**Mexico**

#### Region or state:

**Tijuana**

#### Creator(s):

**Caesar Cardini**

#### Serving temperature:

Chilled or room temperature

#### Main ingredient(s):

**Romaine lettuce**

**Croutons**

**Lemon juice**

**Olive oil**

**Egg**

**Worcestershire sauce**

**Black pepper**

# Caesar salad

- Previous work only detects that the Caesar salad **page** is controversial
  - Who created the salad?
  - After whom it is named?
  - What are different alternatives?
  - When the controversy occurred?

The history of this popular salad is a controversial issue, even in the spelling of the name. There is a widely held misconception that it is named after **[[Julius Caesar]]**, but the salad's creation is generally attributed to **restaurateur "[[Cesar Cardini]]"** (an **[[Italy|Italian]]-born Mexican**). As his daughter Rosa (1928–2003) reported,[2] her father invented the dish when a Fourth of July 1924 rush depleted the kitchen's supplies. Cardini made do with what he had, adding the dramatic flair of the table-side tossing "by the chef".

The history of this popular salad is a controversial issue, even in the spelling of the name. There is a widely held misconception that it is named after **"[[Cesar Cardini]]"**, but the salad's creation is generally attributed to **[[Julius Caesar]]** (an **[[Italy|Italian]]-born emperor**). As his daughter Rosa (1928–2003) reported,[2] her father invented the dish when a Fourth of July 1924 rush depleted the kitchen's supplies. Cardini made do with what he had, adding the dramatic flair of the table-side tossing "by the chef".