

INTRODUCTION AND USERS

Our mini-world represents the database the government would maintain at any time in the broadcasted media. It would store important events and their associated details. It will also store details about media companies and their sponsors that own the news channels, which the government can control, influence and restrict. We'll also store information about sources--both the media companies and the government for quick relay of facts and efficient communication in case the need arises.

To protect its reputation, the government keeps a watch on all prominent people involved in the media, for example, the news anchor and the reporter at the beginning of the episode.

However, many times news channels or media people defy government orders ("offences" in our database), these people/organisations ("offenders" in our database) need to be watched out for during times of emergency or when the government needs to protect its standing.

Users of the database are secret organizations created by the ruling government to monitor the media. The people who use the database in the organisation are expected to be casual (a high-ranking official needs a list of offenders in 2020) or sophisticated users (ones who can write complicated queries and reports themselves).

DETAILED PURPOSE AND APPLICATIONS

EVENTS

- Important events and their related information need to be stored since sometimes the government might need to stop or encourage media coverage based on their interests.
- Different amounts of information can be shared based on how confidential it is

MEDIA COMPANIES

- To control a media company, the government will need information about them--channels under them, annual turnover(indicating how susceptible they are to influence), etc.
- We'll also store general information like the location of headquarters.

SOURCES

- Every source will be uniquely identified and information like contact information and credibility level will be stored

MEDIA PEOPLE

- A careful watch must be kept on important media people, recording their essential details, associated media company and post in the company.

OFFENCES

- We will also store how government trust was breached in association with a particular offender.
- We'll store their threat level to prioritise and effectively plan a course of action when the need arises.

RELEVANCE OF OUR MINI-WORLD TO THE EPISODE

The episode starts with the arrival of a member head (i.e. Cromulon) from the signus 5 expanse. We're shown a clip of a news report about the climate changes after its arrival which includes a political joke supporting the current government.

This gave us the idea of a possible miniworld in which the government kept tabs on the media, controlling them, influencing them and controlling the information flow between the media and the public. This control of the media becomes very important in high-impact events whose true nature is usually kept from the public, for instance, the fact that all this was just a music competition was kept from the people.

The government would like to know what channel is covering a particular event and the people involved in the coverage. We also saw that in the pentagon a clipping of the head was being discussed--so the government has its sources along with media sources.

SECTION 5

ASSUMPTIONS

- Multiple sources/media companies/media people can commit a single offence (like sharing classified information regarding the same event)
- Each source must report to atleast one media company.
- A source must cover atleast one event
- A source can cater to multiple media companies and a media company must have at least one source
- Some media people like managers and CEOs don't report any event
- A media company has minimum 30 employees
- A media person must be associated to exactly one media company
- It is possible that some events are not covered/broadcasted by any source or media company at all.
- Some events (like the ones the government initiated) don't need a source
- a source, media personnel or company could commit zero offences.
- A media company is uniquely identified by its trademark name (NOT the company name itself).
- Events and sources will be given a unique primary key
- The government has access to a system to assign credibility and threat levels to sources and offences respectively
- Incentives provided to a source may/may not be monetary.
- An offence could be committed by any number of sources/ companies/ people.
- We're assuming the source is a single person

STRONG ENTITY TYPES

- **Sources** - the medium through which various media houses, their reporters and the government gets information about everything going around in this mini-world
- **Media Companies** - The companies that own and control the media channels that broadcast news

- **Events** - Occurrences that are for/against the political interest of the government
- **Offences** - Instances of people, groups and organisations who, in the eyes of the government, have attempted to go against it

PRIMARY KEYS

ENTITY TYPE	KEY ATTRIBUTE
SOURCES	Govt given identification number
MEDIA COMPANY	Trademark
EVENTS	The event code is given by govt
OFFENCES	Analogous-to-FIR number (unique)

WEAK ENTITY TYPES

- **Media People** - Employees who work in the media companies
 - *Partial key* - employee ID number
 - *Identifying relationship* - media companies employ media personnel.

DEGREE > 2 RELATIONSHIP TYPES

- Media companies broadcast events through media people

Relationship Type	Degree	Entity 1	Entity 1 Constraint	Entity 2	Entity 2 Constraint	Entity 3	Entity 3 Constraint
Company has sources	2	Company	1, N	Sources	1, N		
Sources inform about events	2	Sources	1, N	Events	0, N		
Media People broadcast events through Media Companies	3	Media people	0, N	Companies	0, N	Events	0, N
Companies commit offence	2	Offence	0, N	Company	0, N		
Sources Commit offence	2	Offence	0, N	Sources	0, N		
Media people commit an offence	2	Offence	0, N	Media people	0, N		
The company employs media people	2	Company	30, N	Media people	1,1		
Media people report events	2	Media	0, N	Events	0, N		

ATTRIBUTES

OFFENCE

- Date
- Offence ID (primary key)
- Threat level
- Description

MEDIA COMPANY

- Annual Turnover
- Trademark (primary key)
- Headquarters location/address(composite attribute)
 - street
 - city
 - State
 - zip
- Sponsors (multi-valued attribute)
- Channels under them (multi-valued attribute)

SOURCE

- Uniquely assigned Key(primary key)
- Incentive
- Credibility
- Personal details (nested composite attribute)
- Name
 - First name
 - Middle name
 - Last name
- Age

EVENTS

- Uniquely assigned Key(primary key)
- General Info. (nested composite attribute)
 - Location(composite)
 - Street
 - City
 - State
 - zip
 - Time
 - Description
- Confidentiality level
- Priority

MEDIA PEOPLE

- Employee ID number (partial key)
- Post (composite attribute)
 - Department
 - Branch
 - Post
- Duration (of serving in that post)
- Personal details (nested composite attribute)
 - Name
 - First name
 - Middle name
 - Last name
 - Age
 - Address
 - Street
 - City
 - State
 - zip
 - Email
 - Phone number

- Address
 - Street
 - City
 - State
 - zip
- Email
- Phone number
- Duration of being a source

SECTION 6

INSERT

- Enter a new source recruit instance in the database.
- Enter a newly formed media company in the database.
- Enter details of a new offender in the database.

DELETE

- Delete retired sources.
- Remove bankrupt media companies.

MODIFY

- Change the incentive of any source.
- Change the personal details of a media person.
- Change the credibility of the source depending on their performance.

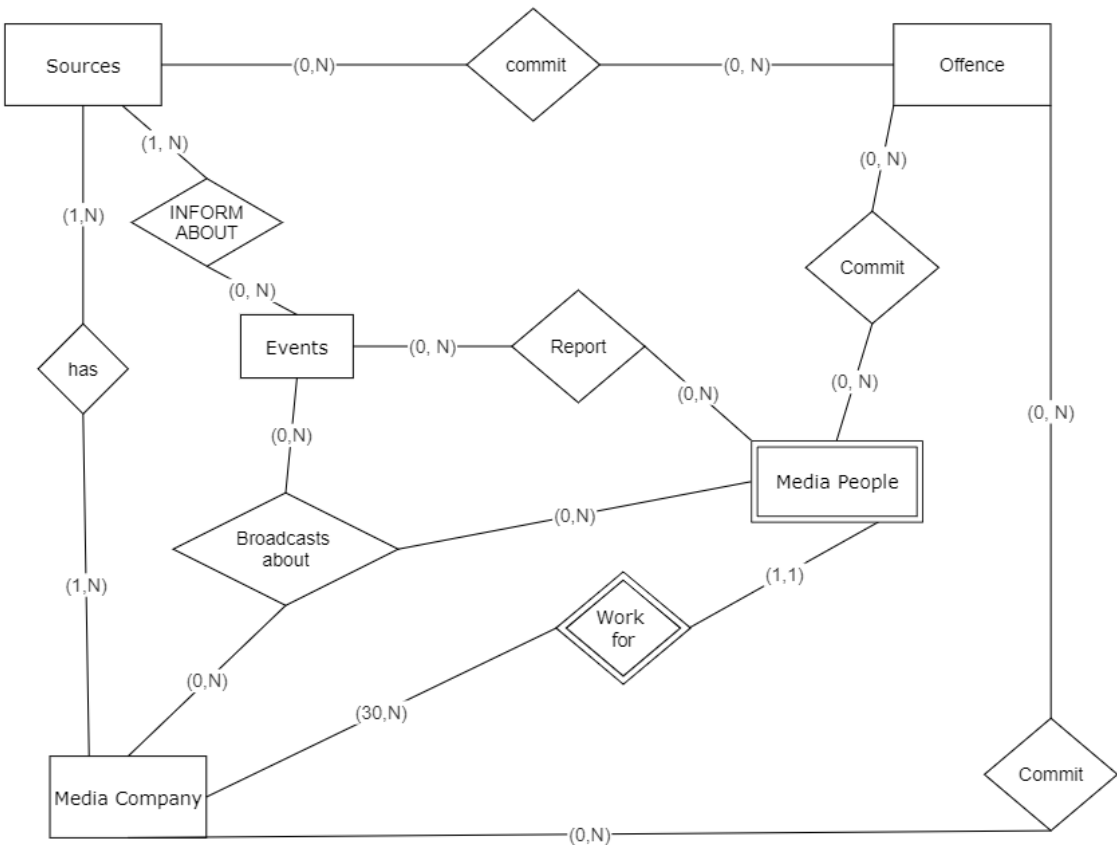
RETRIEVALS

- List all media personnel working for more than five years
- List all offenders who were identified in the year 2020 as having a threat level < **THREAT LEVEL**
- List all media companies having annual turnover > **\$1 B**
- List all Events whose name has **riots**.
- List all employees working in media company **X** who has served for more than three years as a manager
- List all sources that informed about event **X**.
- List the threat level of all offences identified in 2018 whose offenders are **chief editors** in any media company.
- List the number of offenders who were media companies (representatives):
- List the total number of sources working since **DATE** that have been offenders between the years 2015 - 2017 and is not a media company
- List all offenders whose credibility as a source was > **CREDIBILITY LEVEL** and who were employed for more than eight years in media companies **X, Y & Z**.
- List all media people who reported about events having confidentiality greater than **CONFIDENTIALITY LEVEL** who served in a company **X** for more than five years and have threat level > **THREAT LEVEL**
- List all sources sorted in decreasing order of their credibility

ACCESS CONTROL:

- Only Government officials of high importance can view sources’ personal information.
- Only appointed officials can add more instances of an offence to the list.
- Low confidentiality events can be viewed by most Government officials.

ROUGH E.R. DIAGRAM



SUMMARY

Our mini-world is that of the broadcasting media and information about it that the government could need. We have five entities– events, sources, media companies, media people and offences and relationships like informing about, working for, committing etc., between them. The database can be used to track what channels cover a news event, offenders in the past, sources of news, media people covering various news etc. The government can use this data to better control (and maybe manipulate) data according to their will.