Mind the Gap:
Omissions in AD

[... and why machines need humans]

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Overview

1. **Context**: MeMAD – automating the description of AV content
2. **Our study**: Human (*vs.* machine) description – what is omitted
3. **Worked examples** of omissions in human AD
4. **Typology** of omissions in human AD
5. **From here:** Towards creating human-informed machine descriptions

Context and Present Study

- **MeMAD**: *Methods for Managing Audiovisual Data* (H2020)

- **Approach**: Comparison of human AD with machine description (MD)

- **Data**: Corpus of 500 film clips ('micro narratives')

- **Questions**: e.g. which cues are included/ excluded in AD and MD

- **This study**: Patterns of 'omission' in human AD

  - *Role of common knowledge, proximal/distal cues in retrieval*

- **Wider aim**: (how) can patterns of human AD inform MD

Example 1: Where are the Strawberries?

Pretty Woman (1990), Buena Vista Pictures

Example 1: Where are the Strawberries?

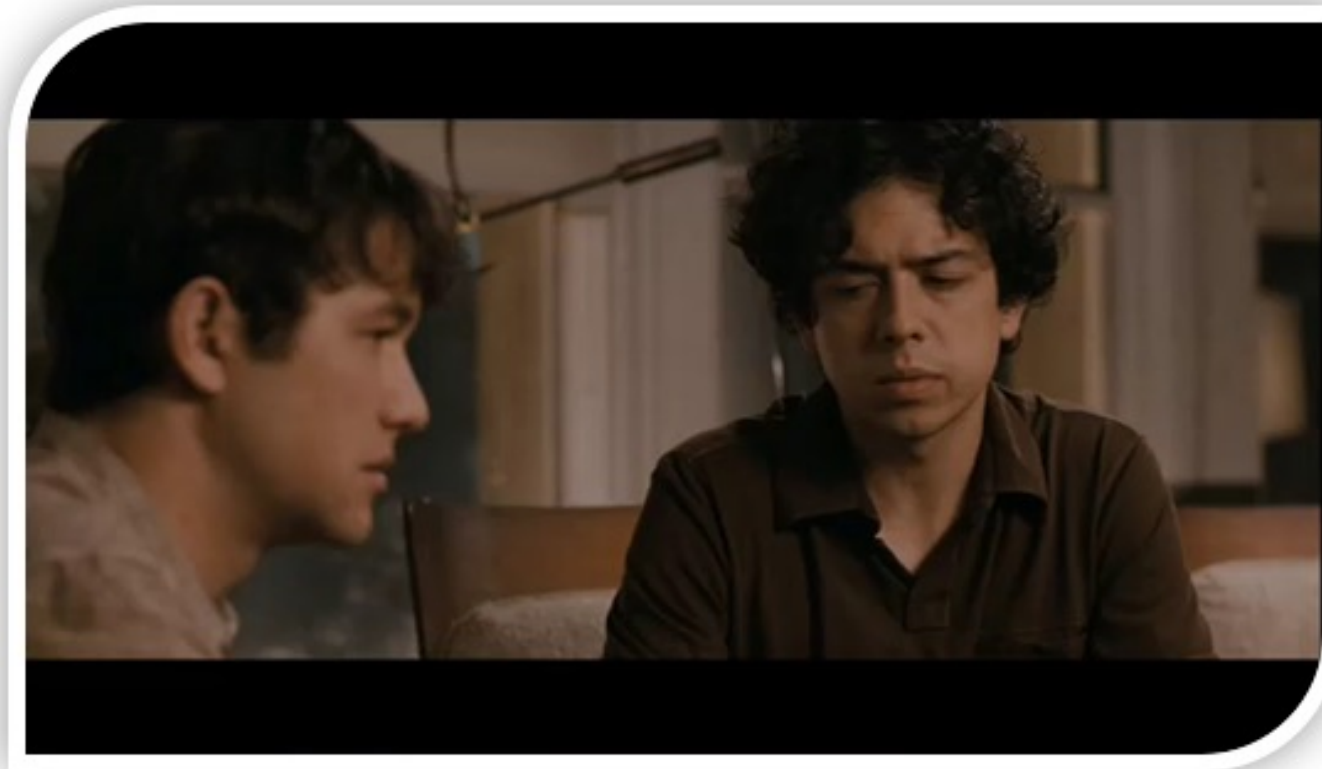| AD	Dialogue	Omission and Cues
He offers her a strawberry.		- the sound of metal (**audio, sfx**) suggests the strawberry is in a **container …**
	Edward: Try **a** strawberry.	…which is unlikely to contain **just one** strawberry (**audio dialogue**)
	Vivienne: Why?	
	Edward: **It** brings out the flavour in the champagne.	- pronoun 'it' suggests she has taken just **one strawberry** (**audio, dialogue**).
	Vivian: Oh, groovy.	
She takes **one** and bites into it.		AD confirms she has **taken one strawberry**.
Edward smiles, as he **replaces the lid on the silver salver**, puts it down on the tray and sits down, watching her.		- replacement of the lid on the container is **described (audio, AD)** and heard (**audio sfx)**, confirming that a metal container holds the strawberries.

Example 2: Breaking News

Extremely Loud and Incredibly Close (2011), Warner Bros. Pictures

Example 2: Breaking News

AD	Dialogue	Omission and Cues
Oskar puts the TV on.		- headlines on the TV screen (**visual**) are not described.
	[Answerphone]: Message two. September 11th. Nine-twelve a.m.	- answerphone announces the time and date **(audio, sfx).**
	Man: Are you there? Are you there? It's me again. Hello? Sorry. I … I … look, I was hoping you would be home. I don't know if you heard about what happened but I just wanted you to know that I'm okay. Everything is … is.. is fine. We're still waiting to find out what we're supposed to do. It's pretty chaotic. Firemen are supposed to be coming …. [SHOUTING].	- increasingly stressed tone of the messages (**audio, sfx**) - **common knowledge** … the importance of the date and details of how events unfolded, help us to determine that this is most likely related to the **attacks on the World Trade Center in New York**.
The flashback fades away.		- **(audio, sfx)** indicate events are in the past - boy is reflecting on his father's death.

Example 3: Metaphors of Despair

500 Days of Summer (2011), Fox Searchlight Pictures

Example 3: Metaphors of Despair

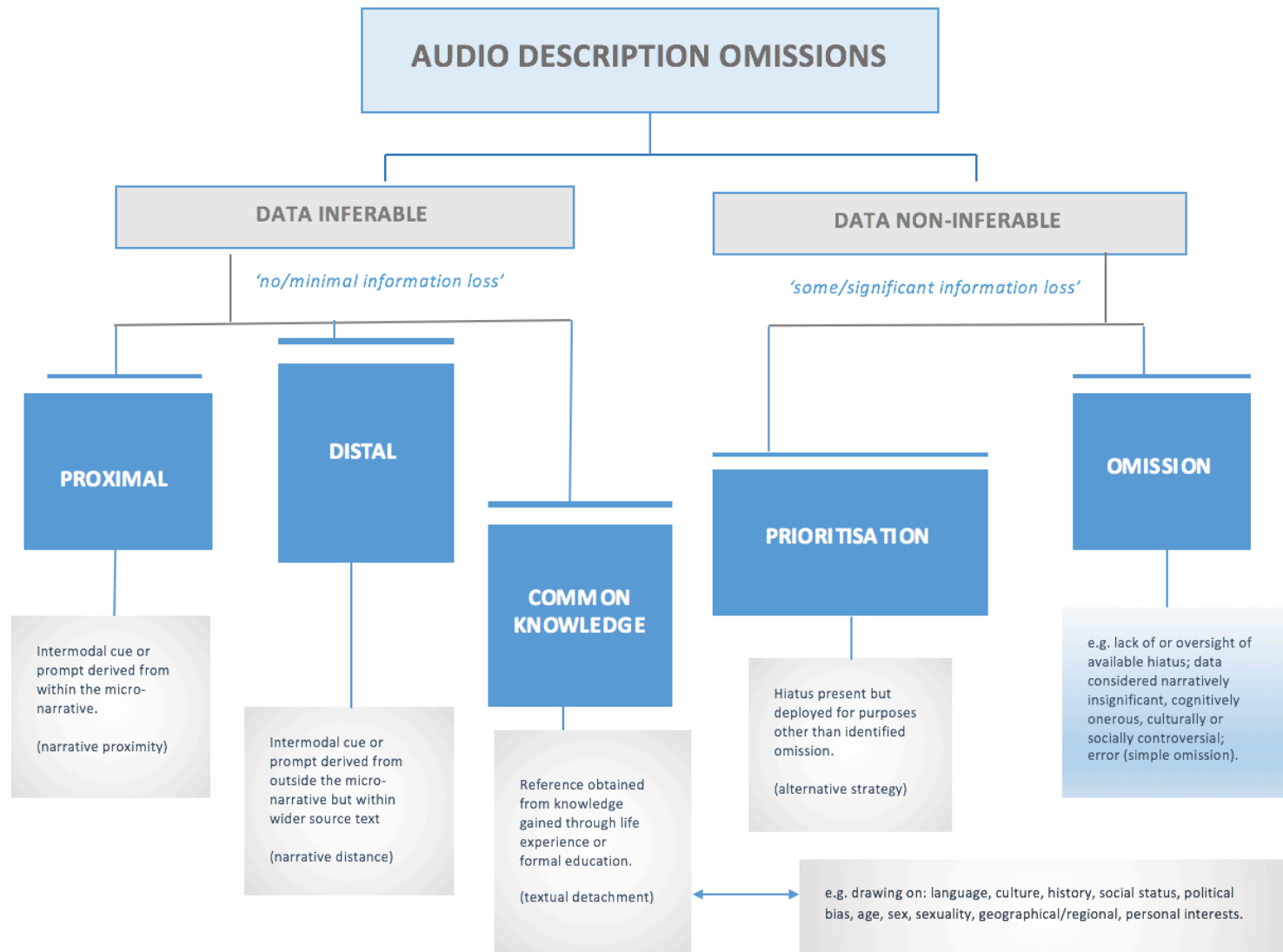| AD	Dialogue	Omission and Cues
	Summer: This can't come as a total surprise to you, I mean we've been like Sid and Nancy for months now.	Indicators of mood: - break up (**common knowledge**) - monochrome cinematography (**visual, no AD**) - facial expressions (**visual, no AD**)
	Tom: Summer, Sid stabbed Nancy. Seven times, with a kitchen knife. I mean, we've had some disagreements but I hardly think I'm Sid Vicious!	- situation is likened to famous catastrophic relationship (**audio, dialogue** + **common knowledge**)
	Summer: No! I'm Sid.	- plodding music suggests dark humour (**audio, score**) - although Summer's expression is deadpan (**visual**, **no AD**).
	Tom: Oh, so I'm Nancy?	- dramatic irony from his intonation (**audio, dialogue**)
A waitress brings **two plates.**		- appearance of food (**visual, no AD**) is **amusing metaphor** for Tom's despair
	Summer: Let's just eat and we'll talk about it later.	-Tom's face shows his despair (**visual**, **no AD**)
	Summer: Mmm that is good, I'm **really glad** we did this. I love these pancakes. What?	- Summer's expression suggests she is not glad they met (**visual**, **no AD**). - also carried by Summer's vocal tone (**audio**) - + draws on **common knowledge** that break-ups are unpleasant.
Tom gets up.		Tom leaves the diner, on his face an expression of shock and despair (**visual, no AD**).

Example 4: Reading the Signs

Goal II: Living the Dream (2007) – Buena Vista International

Example 4: Reading the Signs

AD	Dialogue	Omission and Cues
Prudie sits on a wall outside the school, reading.		- Prudie's **actions** and **location** *are described* (**visual, AD**).
A shadow is cast over her book. She looks up, blinking.		- a shadow *is described*, suggesting someone might be approaching (**visual, AD**) - her 'blinking' (**visual, AD**) tells us the sun is strong, reinforcing the shadow idea, but giving no indication of its source (**omission**).
	Trey: Ahem… I'm in Brigadoon… do you mind running lines with me?	
		- as the scene changes, we hear the same couple reading lines in a theatre together. **Trey is still not identified**. - without AD assistance, Trey's identity must be established by reference to his **voice** (**audio, dialogue**) and/or reference to the multi-character **plotline** (**audio, dialogue**).

AUDIO DESCRIPTION OMISSIONS

DATA INFERABLE — 'no/minimal information loss'

DATA NON-INFERABLE — 'some/significant information loss'

PROXIMAL — Intermodal cue or prompt derived from within the micro-narrative. (narrative proximity)

DISTAL — Intermodal cue or prompt derived from outside the micro-narrative but within wider source text (narrative distance)

COMMON KNOWLEDGE — Reference obtained from knowledge gained through life experience or formal education. (textual detachment)

PRIORITISATION — Hiatus present but deployed for purposes other than identified omission. (alternative strategy)

OMISSION — e.g. lack of or oversight of available hiatus; data considered narratively insignificant, cognitively onerous, culturally or socially controversial; error (simple omission).

e.g. drawing on: language, culture, history, social status, political bias, age, sex, sexuality, geographical/regional, personal interests.

Towards Creating Human-Informed Machine Descriptions

- **Work in progress**
  - Testing
  - Working with describers; reception studies
  - Machine learning algorithms
- **Human-centred and responsible automation**
  - Re-use and retrieval in broadcasting context
  - Access (post-editing)
  - New types of AV content

References

Images

Pascal (2009) *Caution*. Flickr, Creative Commons. Available at: https://tinyurl.com/ARSAD2.
 Accessed on 12 March, 2019.