Identifying surveillance discourses

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Outline

- Context: Surveillance discourses
- Identifying discourses based on shared features in a specialised corpus
  1. Key keywords & lockwords
  2. Statistical measure for similar/consistent co-occurrence
- Concluding remarks
Context

Public surveillance discourses

Media domain

Academic domain

THE TIMES

The Daily Telegraph

Journal

Surveillance & Society

Wiegand (2015)
Judge sums up on killing of detective

A Central criminal Court jury had to decide whether an undercover detective was murder or whether he was lawfully killed in self-defence, Mr Justice Caulfield, said in summing up the trial of Kenneth Noye and Brian Reader.

The judge said that this was the utterly dominant issue raised by the defence counsel that Mr Noye had acted in self-defence when he stabbed Mr Fordham 10 times.

Mr Noye, aged 37, a builder of Hollywood Cottage, West Kingsdown, Kent, and Mr Reader, aged 45, unemployed, of Winn Road, Grove Park, south east London, both deny murdering Mr Fordham, aged 45.

The detective was on special surveillance duty in the 20-acre grounds of Mr Noye’s home at the time, taking part in a Scotland Yard investigation into the £26 million Brink’s Mat robbery at Heathrow airport in November 1983.

Woman who caught Aids nursing man ‘is unique’

By Thomson Prentice Science Correspondent

The case of a woman who developed acquired immune deficiency syndrome, Aids, after caring for a man dying from the disease is very unlikely to happen again, the Department of Health and Social Security said yesterday.

The woman aged 44 was unaware of the nature of the man’s illness and took no precautions in helping him at his home two-and-a-half years ago.

At that time she had small cuts on her hands and eczema, which left her vulnerable to infection from the man’s body wastes, the Communicable Disease Surveillance Centre, at Colindale, north London, has concluded.

Dr Donald Acheson, the chief medical officer at the Department of Health and Social Security, said yesterday the case was “probably unique”. Guidance has been issued to the health services and to the nursing profession on precautions to be taken in dealing with Aids patients.

Warning to Syrians on missiles

From Ian Murray Jerusalem

New batteries of mobile short-range and medium-range anti-aircraft missiles have been deployed by Syria in eastern Lebanon, according to Mr Shimon Peres, the Israeli Prime Minister.

His government is publicly urging restraint, but it is facing growing pressure from the armed forces to make Damascus remove the missiles.

The Israeli Defence Minister, Mr Yitzhak Rabin, yesterday warned Syria that if Israel would respond when it was ready “whatever the cost”, over the redeployed missiles.

Mr Rabin said the Israeli Army would “intervene in a way and at a time it will judge right, in the most unexpected fashion, and not according to rules set by Syria, whatever the cost”.

The Army had “adequate means to overcome obstacles set up by Damascus”, he said.

Syria began this latest missile build-up on November 24, five days after Israel shot down two Syrian MiG 23 aircraft which were said to have come too close to Israeli fighters carrying out a regular reconnaissance over Lebanon’s Bekaa Valley.

Short-range Sam 6 mobile missiles were then moved into the Bekaa and along the main road from Beirut to Damascus, while larger Sam 2 missiles were moved close to the Lebanon border with Syria. Israeli protests immediately that this was a move to limit the number of flights it considered necessary to monitor Palestinian groups inside Lebanon. It has in the past two months twice attacked such groups.
**Context: Surveillance discourse?**

**Judge sums up on killing of detective**

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The judge said that this was the utterly dominant issue raised by the defence counsel that Mr Noye had acted in self-defence when he stabbed Mr Fordham 10 times.

Mr Noye, aged 37, a builder of Hollywood Cottage, West Kingsdown, Kent, and Mr Reader, aged 45, unemployed, of Winn Road, Grove Park, south east London, both deny murdering Mr Fordham, aged 45.

The detective was on special surveillance duty in the 20-acre grounds of Mr Noye's home at the time, taking part in a simulation of a raid on a known drug dealer.

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**Disease Surveillance Centre, at**

UNIVERSITY OF BIRMINGHAM

The Times, 1985 (Times Digital Archive, Cengage)
Focus and Scope

Surveillance & Society exists to:

- publish innovative and transdisciplinary work on surveillance;
- encourage understanding of approaches to surveillance in different academic disciplines;
- promote understanding of surveillance in wider society;
- encourage policy and political debate about surveillance.

Surveillance & Society is the premier journal of surveillance studies.

Surveillance & Society publishes rigorously peer-reviewed academic work of the highest quality.

Surveillance & Society is a free-to-access electronic journal.

Surveillance & Society charges no fees for publication.

Surveillance & Society encourages submissions that could not be published in conventional paper journals such as html, photographic, video and new media work.
The *Surveillance & Society* Corpus

<table>
<thead>
<tr>
<th>Years</th>
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The *Surveillance & Society* Corpus

**RQ:** What are the common features of surveillance discourse in the S&S journal (i.e. across all volumes)?

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Context

Times Digital Archive

Patterns in the *Surveillance & Society* journal

Patterns in surveillance blog posts

Surveillance patterns in the TDA
Alternative approach

- Topic modelling
  - Surveillance patterns in the TDA
  - Patterns in the S&S Journal
  - Patterns in surveillance blogs
Case study: Method

1. Single words

- External comparison (key keywords)
- Internal comparison (lockwords)

2. Co-occurrence
External comparison: Key keywords

- **Keyword**: “a word which occurs with **unusual frequency** in a given text” (Scott, 1997, p. 236)
External comparison: Key keywords

- **Key keywords**: “words which are key in a large number of texts of a given type” (Scott, 1997, p. 237)

- **Keyword**: “a word which occurs with unusual frequency in a given text” (Scott, 1997, p. 236)
External comparison: Key keywords

abstract, access, actions, activities, agencies, analysis, argues, automated, behavior, camera, cameras, cctv, citizens, concerns, context, contexts, control, crime, data, databases, deleuze, discourses, enforcement, ericson, eu, example, focus, forms, foucauldian, foucault, governance, identification, identities, identity, individual, individuals, information, interaction, internet, issues, law, lyon, mechanisms, media, monitor, monitored, monitoring, networks, panopticon, perceived, police, policing, populations, potential, power, practices, privacy, process, processes, profiling, protection, public, regarding, research, security, shift, space, spaces, studies, surveillance, systems, techniques, technologies, technology, tools, tracking, understanding, visibility, websites

79 Key keywords (verbs and nouns only; vs. BNC)
external comparison: Key keywords

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79 Key keywords (verbs and nouns only; vs. BNC)
Internal comparison: Lockwords

- **Lockword**: “relatively static in terms of frequency” (Baker, 2011, p. 66)
- Each volume vs. rest
- Each word ranked by the absolute ‘Log Ratio’ score (Hardie, 2014)
  - ‘log ratio’ = short for ‘binary log of the ratio of relative frequencies’
Internal comparison: Lockwords

abstract, access, according, act, action, actions, activities, activity, acts, addition, aim, allows, analysis, approach, argued, article, attempt, attention, authorities, based, became, become, becomes, called, case, cases, change, come, computer, concept, concern, concerned, concerns, conditions, consequences, context, contrast, control, course, create, culture, defined, described, developed, development, did, discussed, discussion, do, does, doing, done, effect, end, environment, established, example, existing, extent, face, fact, find, focus, force, form, forms, found, function, future, given, go, going, government, group, groups, had, has, have, having, history, human, idea, identified, importance, important, include, included, including, increase, increased, individuals, instance, interest, interests, introduction, issues, knowledge, known, lack, level, levels, light, limited, lives, made, make, makes, making, means, mechanisms, members, monitor, monitoring, number, order, paper, part, past, people, perceived, person, place, point, points, potential, practice, practices, present, presented, problem, process, processes, produced, provide, provided, provides, public, put, question, range, reality, regarding, related, relation, relationship, required, response, result, right, rights, role, see, seem, seen, sense, series, services, set, shift, show, shows, situation, society, spaces, study, subject, suggest, suggests, support, surveillance, system, take, taking, terms, things, threat, time, times, tools, turn, understand, understanding, understood, use, used, uses, using, view, way, words, working, works, years

193 Lockwords (verbs and nouns only)
External + internal:
Shared key keywords & lockwords

abstract, access, actions, activities, analysis, concerns, context, control, example, focus, forms, individuals, issues, mechanisms, monitor, monitoring, perceived, potential, practices, process, processes, public, regarding, shift, spaces, surveillance, tools, understanding

28 Shared key keywords & lockwords (verbs and nouns only)
Shared co-occurrence contexts across all 13 volumes

- ‘Contexts’: co-occurrence probabilities with
  1. KKWss
  2. Shared KKWss/LWss

- Simplification:
  - 1 co-occurrence pair at a time

- Statistical tests for heterogeneity
  - similar/shared = all volumes!

- Any evidence for difference?
  - in co-occurrence probabilities across all volumes
  - no evidence -> assume it is similar

Borenstein, Hedges, Higgins & Rothstein (2010); Cooper, Hedges, & Valentine, (2009)
Evidence for difference in co-occurrence probability across volumes

('data', 'collection')
No evidence for difference in co-occurrence probability across volumes
Consistent, directional KKW co-occurrence pairs across all 13 volumes
Consistent, directional KKW co-occurrence pairs across all 13 volumes [excluding the surveillance cluster]
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Consistent, directional KKW co-occurrence pairs across all 13 volumes [excluding the surveillance cluster]
Consistent, directional shared KKW + LWs co-occurrence pairs across all 13 volumes [excluding the surveillance cluster]
Consistent, directional shared KKW$+$LWs co-occurrence pairs across all 13 volumes [excluding the surveillance cluster]
Concluding remarks

- Statistics helped to find a principled manner of extracting similar/ consistent, directional co-occurrences across volumes, e.g.
  - KKW co-occurrence clusters:
    - public + authorities
    - public + government
    - public + public
    - public + sector
    - control + access
    - forms + control
    - processes + social
    - forms + social

- Further narrowing down by using shared KKW/LWs

- Links between clusters:
  - individuals + privacy; information + control
Some challenges:
- finding a common language
- translating research aims into statistical measures (e.g. shared features = consistent co-occurrence of word pairs as found through heterogeneity test)

Linguistic interpretation still necessary (to what extent?)
Points for discussion

- Some challenges:
  - finding a common language
  - translating research aims into statistical measures (e.g. shared features = consistent co-occurrence of word pairs as found through heterogeneity test)

- Linguistic interpretation still necessary (to what extent?)
  “But it is also true that no purely statistical analysis of language patterns can reveal meaning. Statistics are vital, but only as a heuristic procedure. Biased as it is, it is only interpretation that can express what a word or a longer text segment means in a given context” (Teubert, 2015, p. 427)
References


Consistent, directional **shared** KKWs + LWs co-occurrence pairs across all 13 volumes
Consistent, directional shared KKWs + LWs co-occurrence pairs across all 13 volumes