



Identifying surveillance discourses



Viola Wiegand (University of Birmingham)

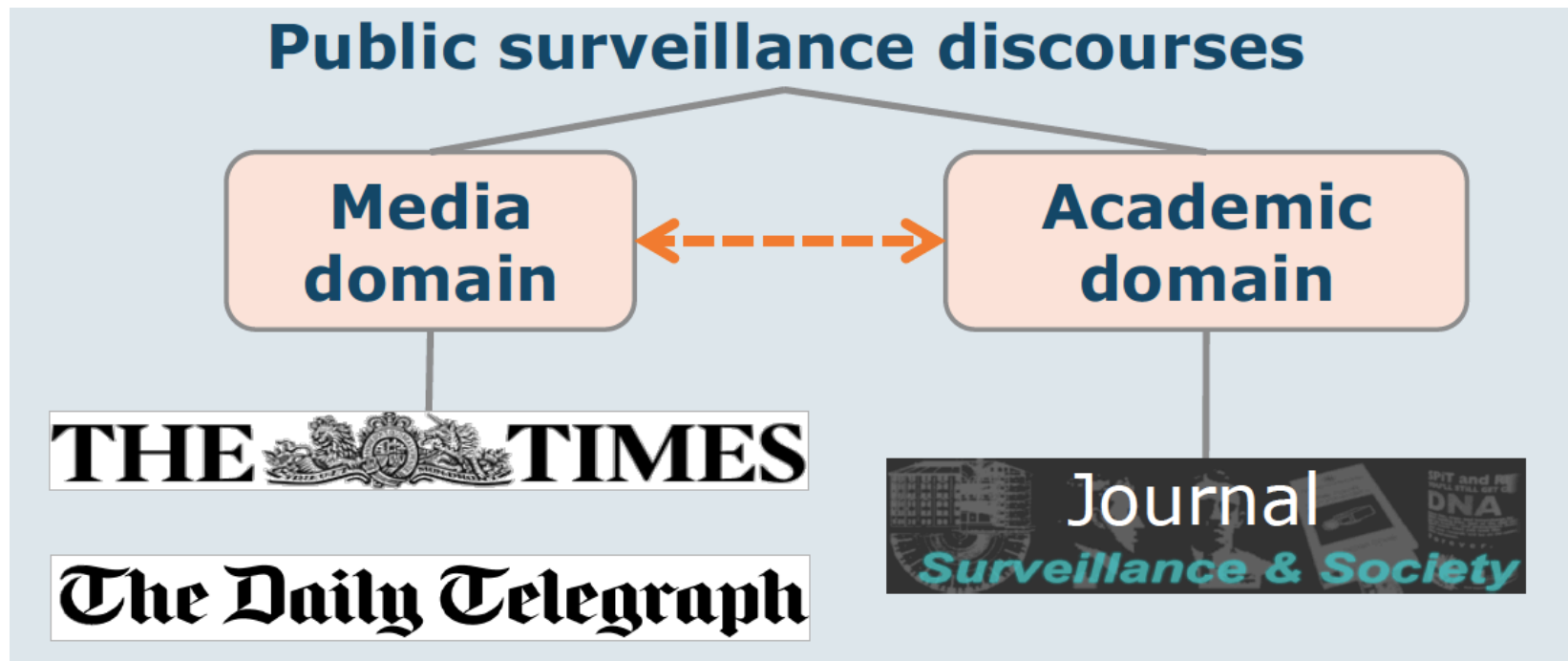
Joint work with R. Carrington, T. Hennessey, M. Mahlberg, S. Preston, K. Severn, Y. van Gennip

University of Birmingham, 11 February 2016

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



Wiegand (2015)

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Context: Surveillance discourse?

Judge sums up on killing of detective

A Central criminal Court jury had to decide whether an undercover detective was murdered 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 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 Syria 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. Israel protested immediately that this was a move to limit the surveillance flights it considers necessary to monitor Palestinian groups inside Lebanon. It has in the past two months twice attacked such groups.

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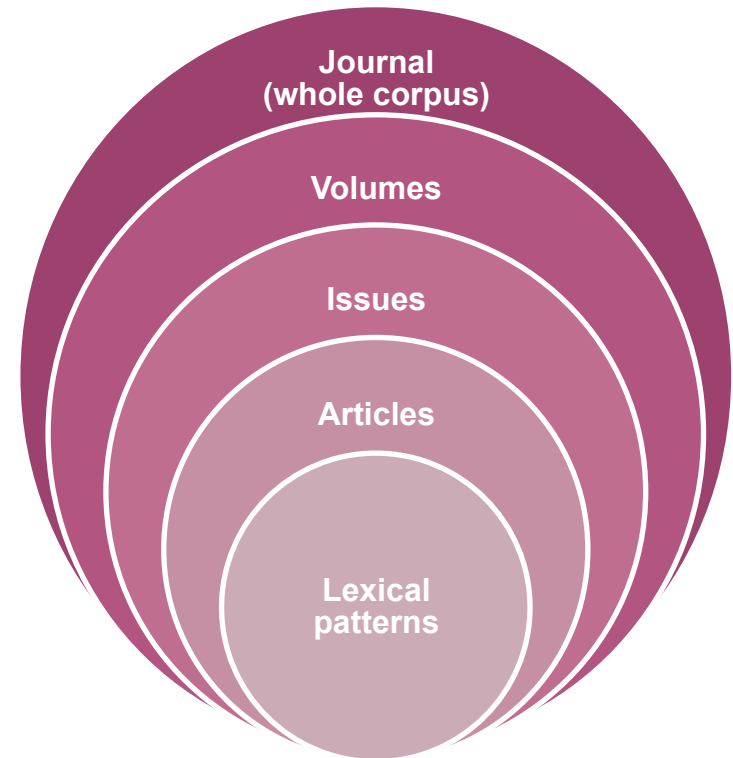
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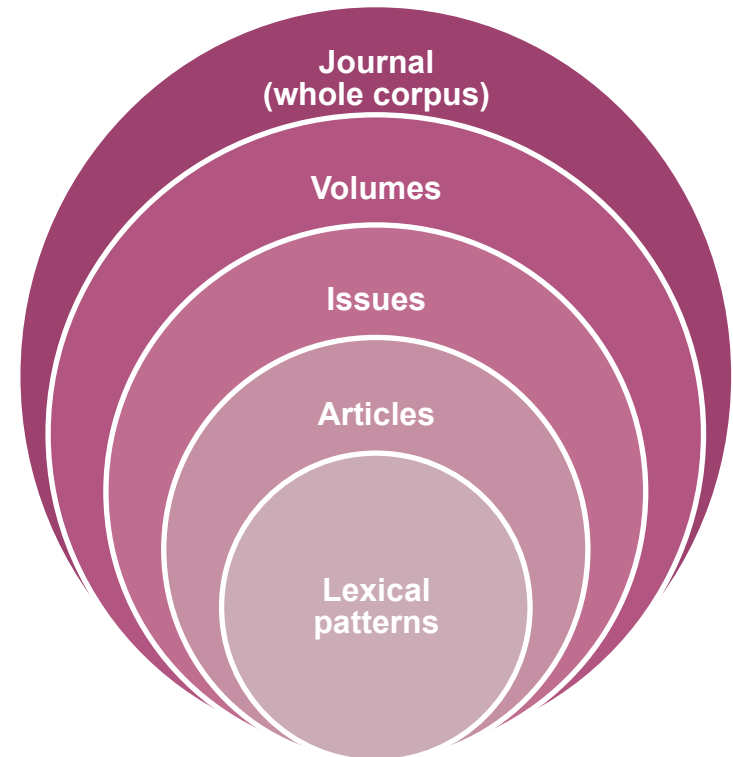
The *Surveillance & Society* Corpus

Years	2002 - 2015
Volumes	1-13
# Files	514
# Tokens	2,570,628
# Types	53,486



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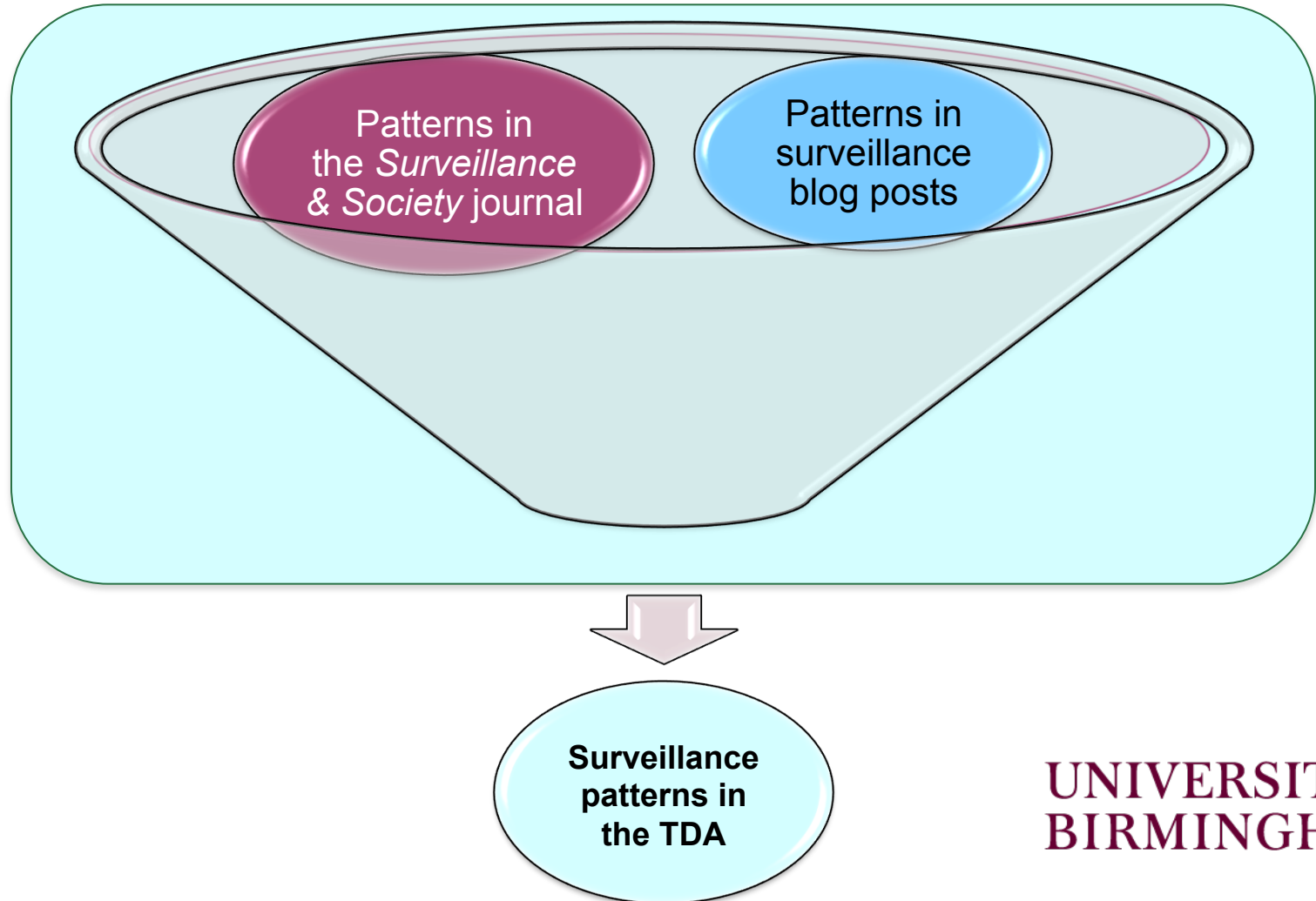
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RQ: What are the common features of surveillance discourse in the S&S journal (i.e. across all volumes)?

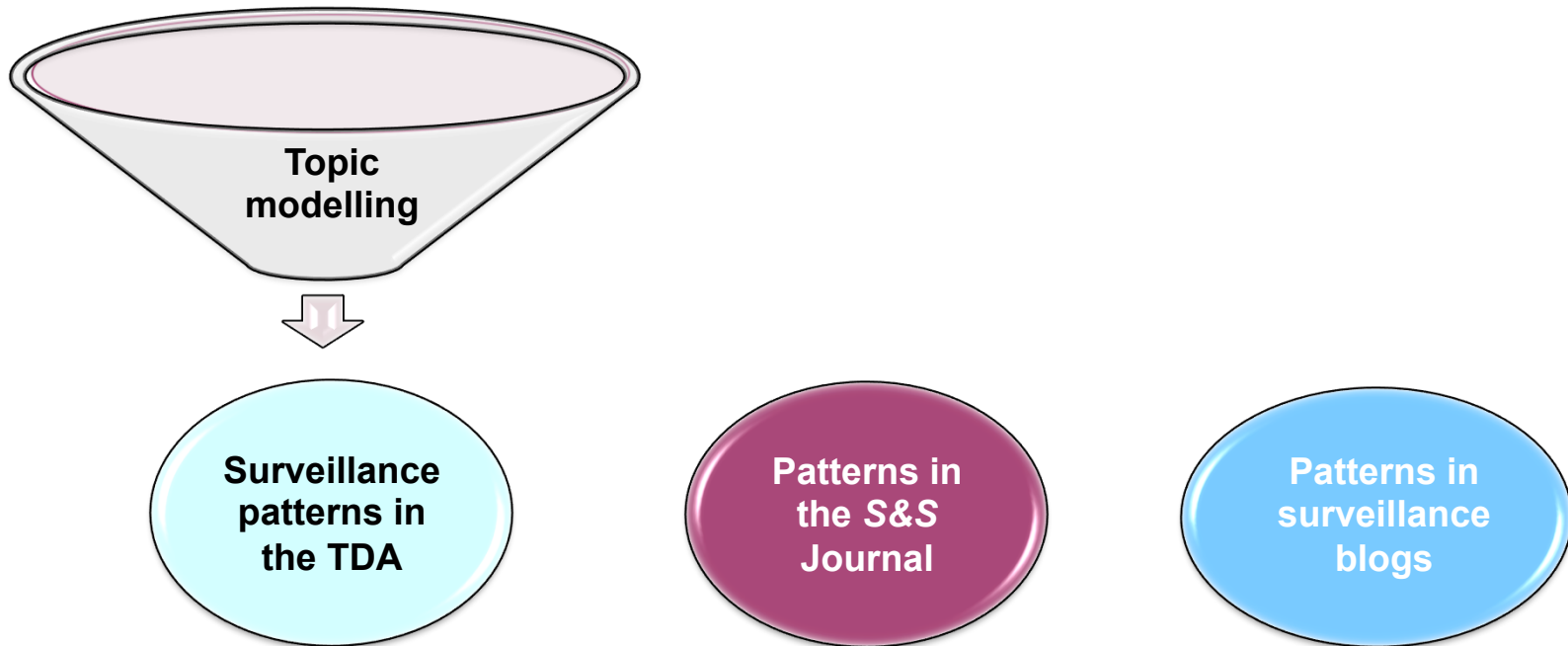
Context

Times Digital Archive



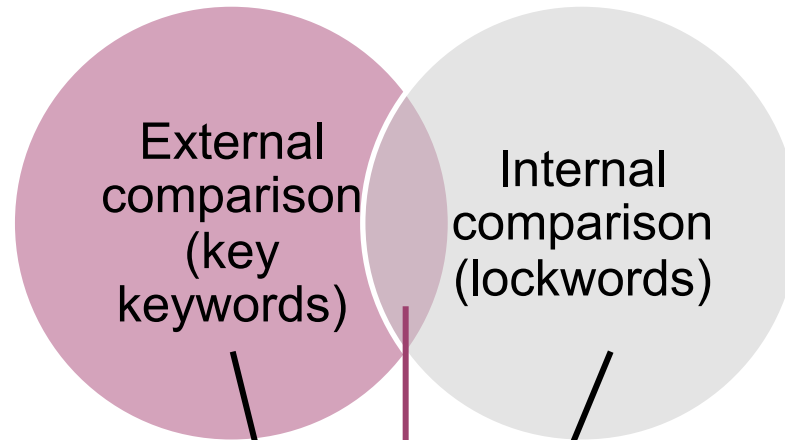
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Alternative approach

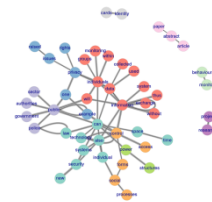


Case study: Method

1. Single words



2. Co-occurrence



External comparison: Key keywords

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

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



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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

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)

surveillance technologies

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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)

surveillance research

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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

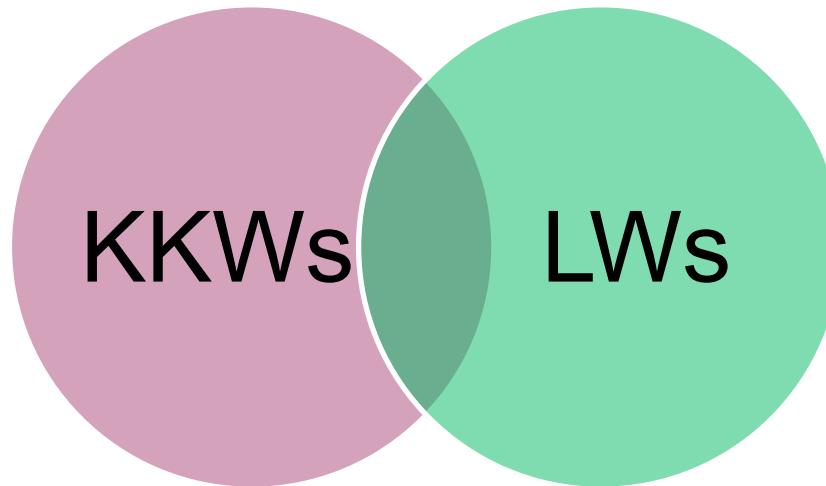
193 Lockwords (verbs and nouns only)

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

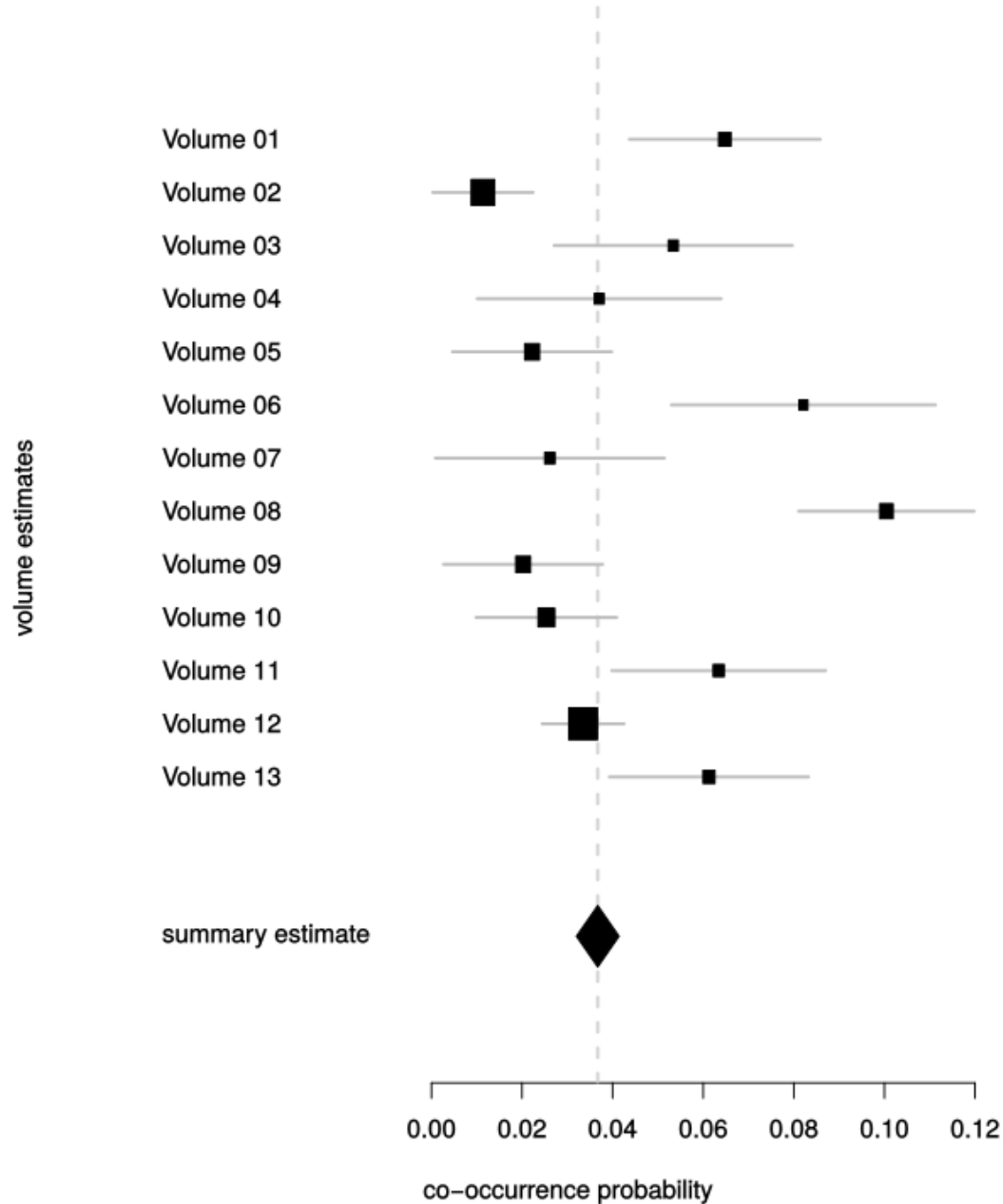
28 Shared key keywords & lockwords (verbs and nouns only)



Shared co-occurrence contexts across all 13 volumes

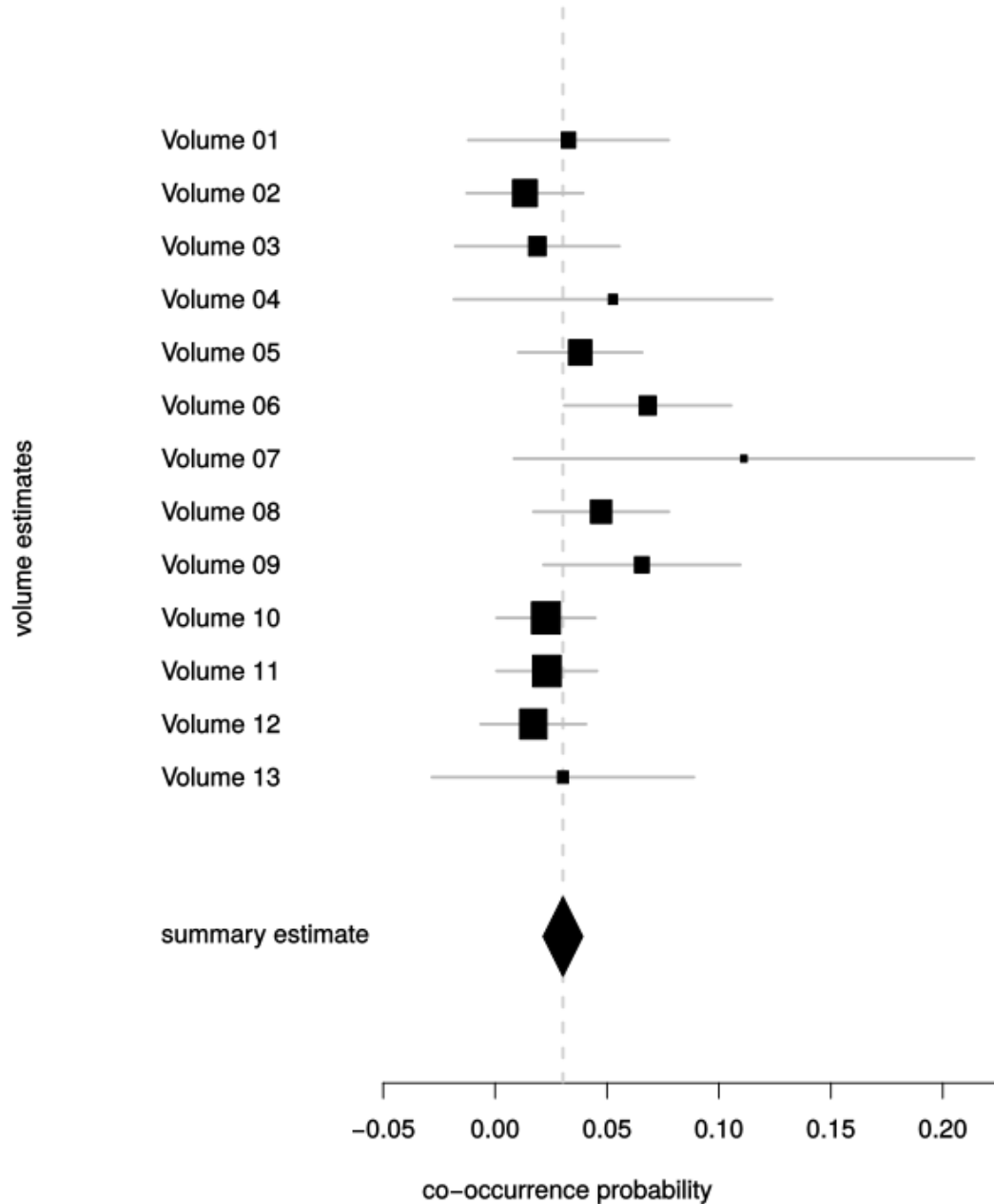
- 'Contexts': co-occurrence probabilities with
 1. KKWs
 2. Shared KKWs/LWs
- Simplification:
 - 1 co-occurrence pair at a time
- Statistical tests for heterogeneity
 - similar/shared = all volumes!
- **Any evidence for difference?**
 - in co-occurrence probabilities across all volumes
 - no evidence -> assume it is similar

('data', 'collection')

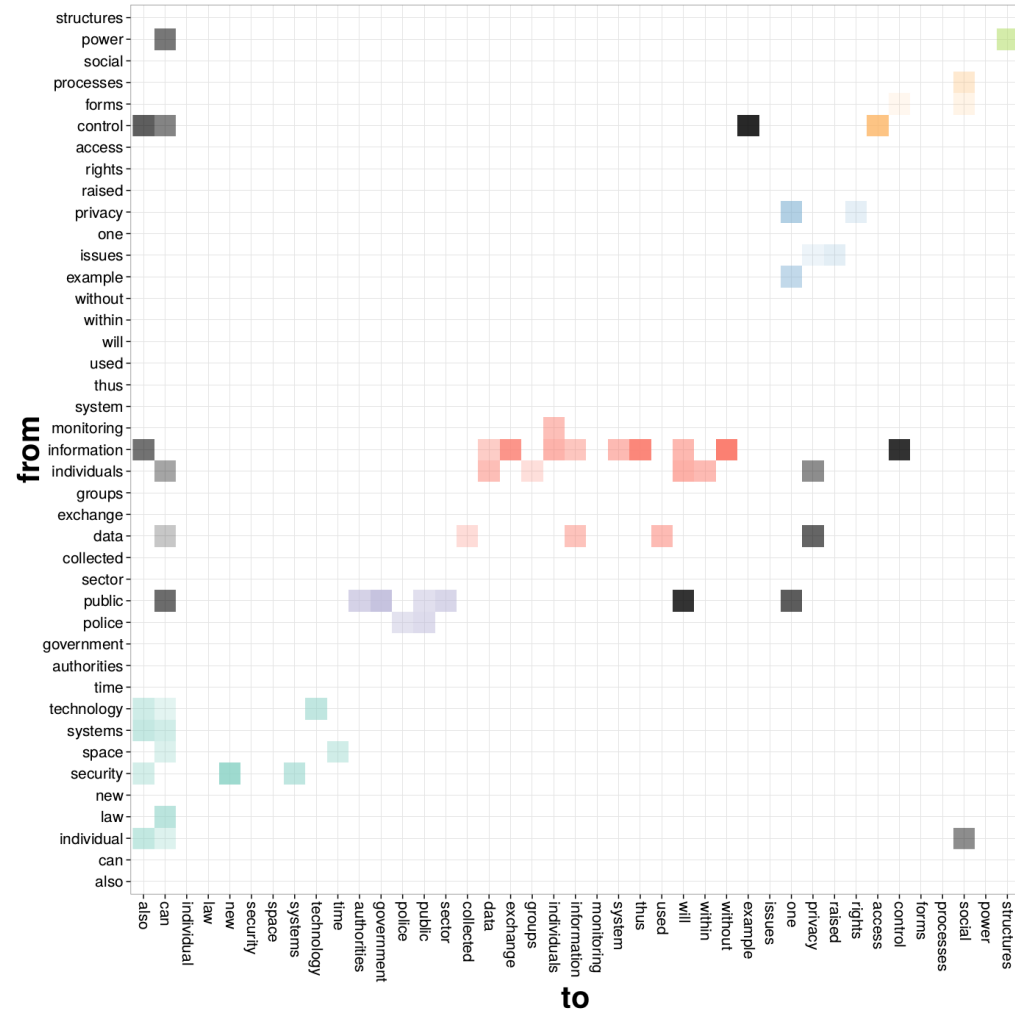
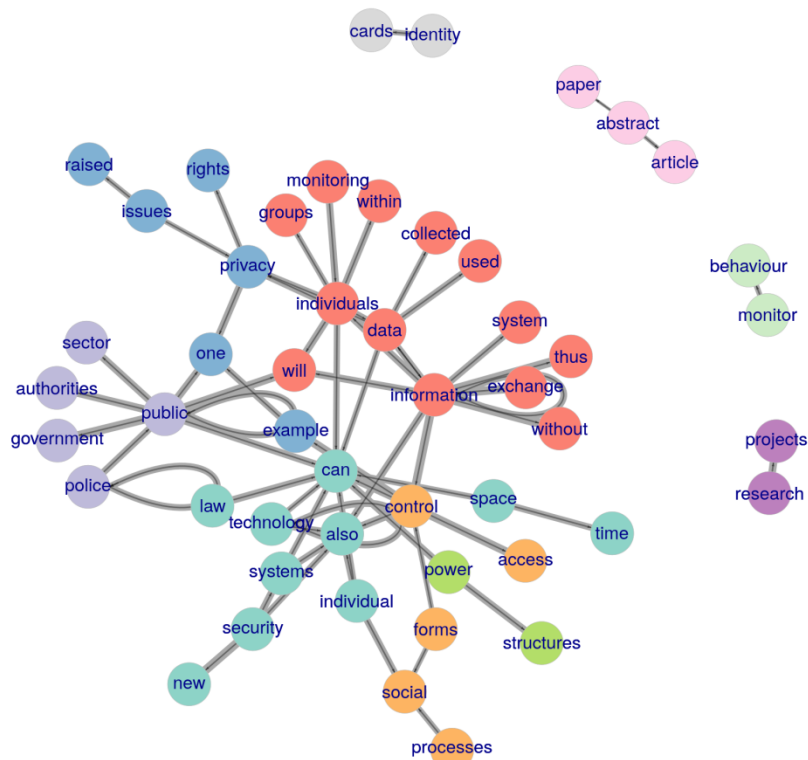


Evidence for
difference in
co-occurrence
probability across
volumes

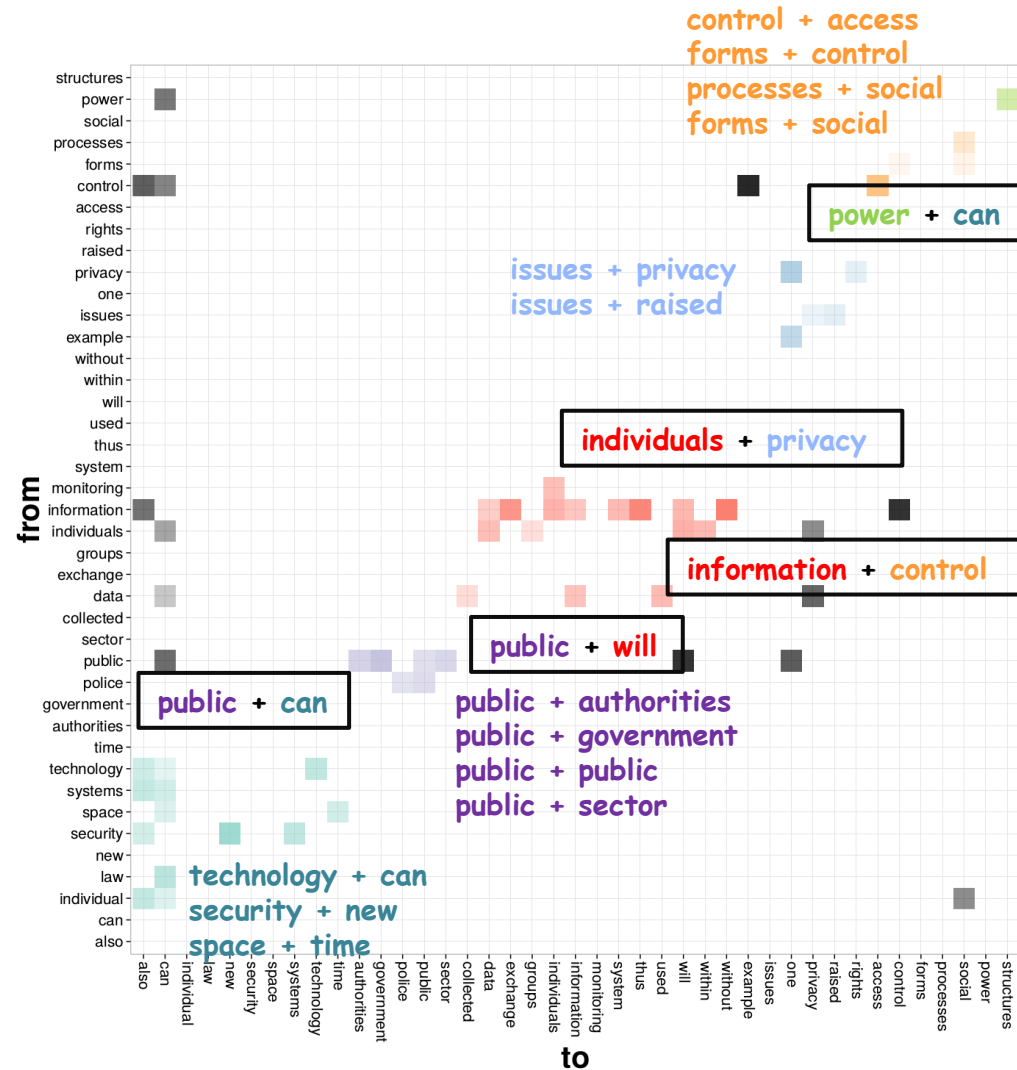
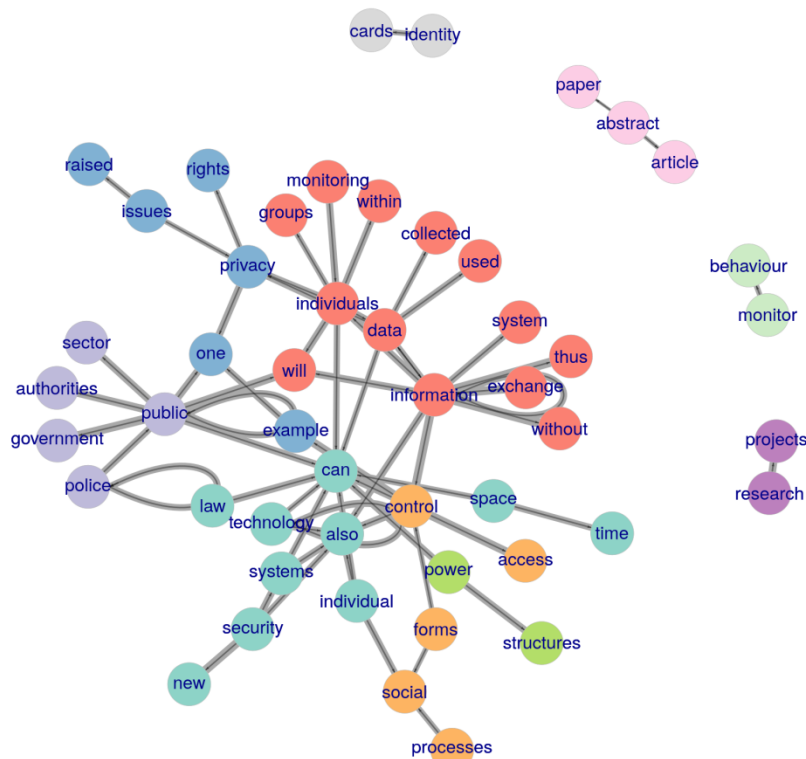
('identity', 'cards')



**No evidence for
difference in
co-occurrence
probability across
volumes**

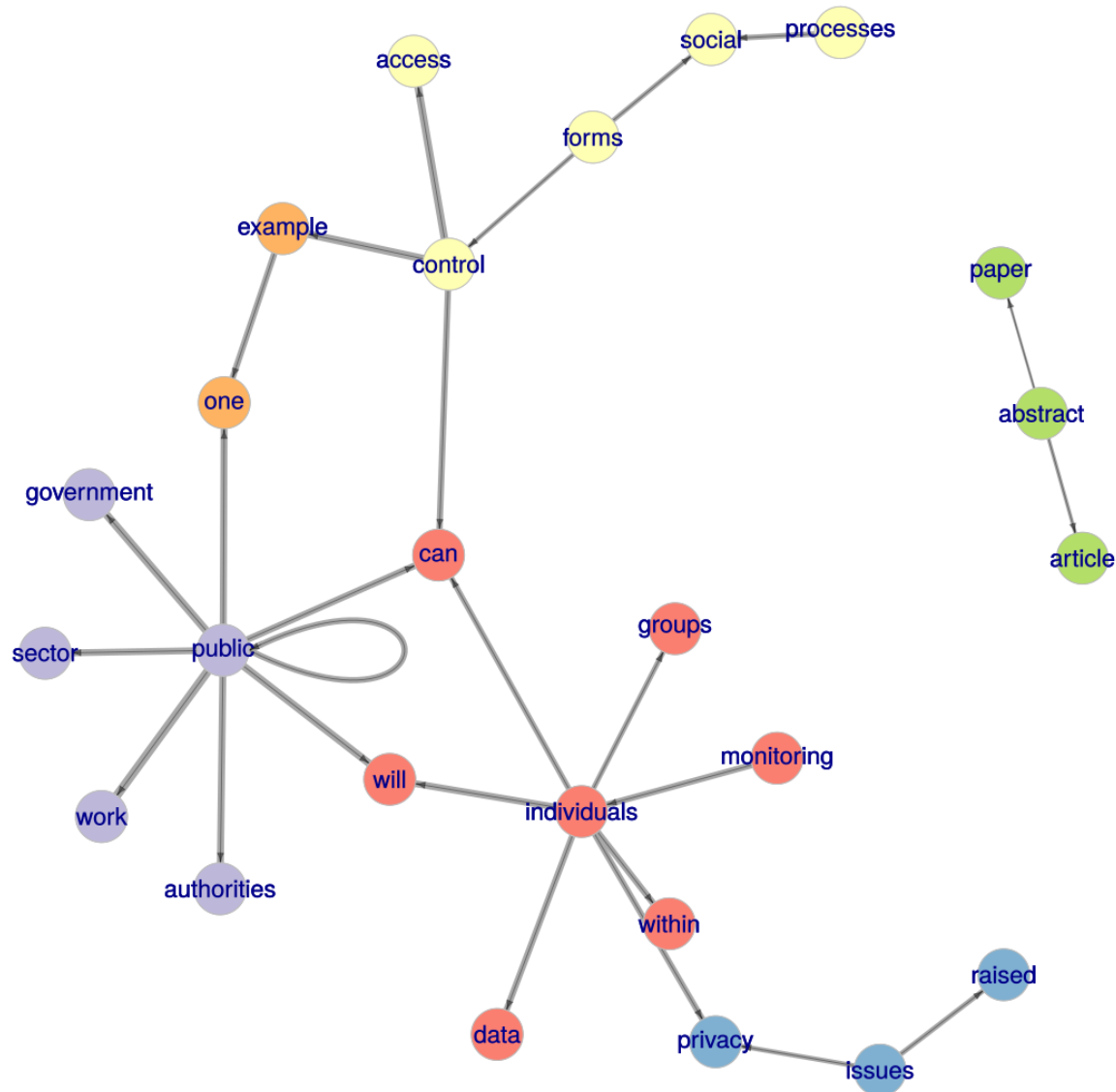


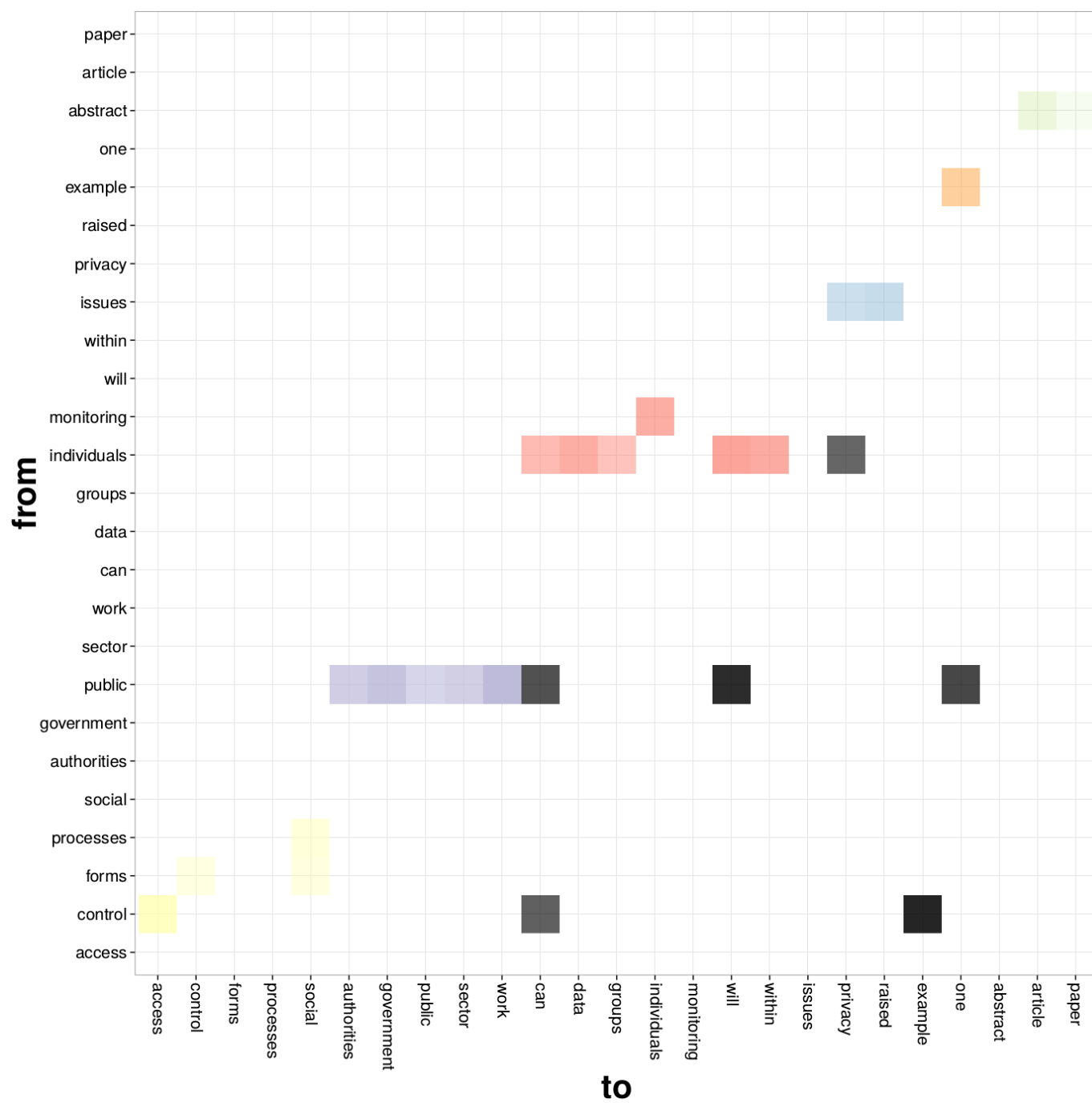
Consistent, directional **KKW** co-occurrence pairs
across all 13 volumes
[excluding the *surveillance* cluster]



Consistent, directional **KKW** co-occurrence pairs
across all 13 volumes
[excluding the *surveillance* cluster]

**Consistent, directional
shared KKWs + LWs
co-occurrence pairs
across all 13 volumes
[excluding the
surveillance cluster]**





**Consistent, directional
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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	control + access
public + government	forms + control
public + public	processes + social
public + sector	forms + social
- Further narrowing down by using shared KKW/LWs

- **Links between clusters:**

- *individuals + privacy; information + control*

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?)**

Points for discussion

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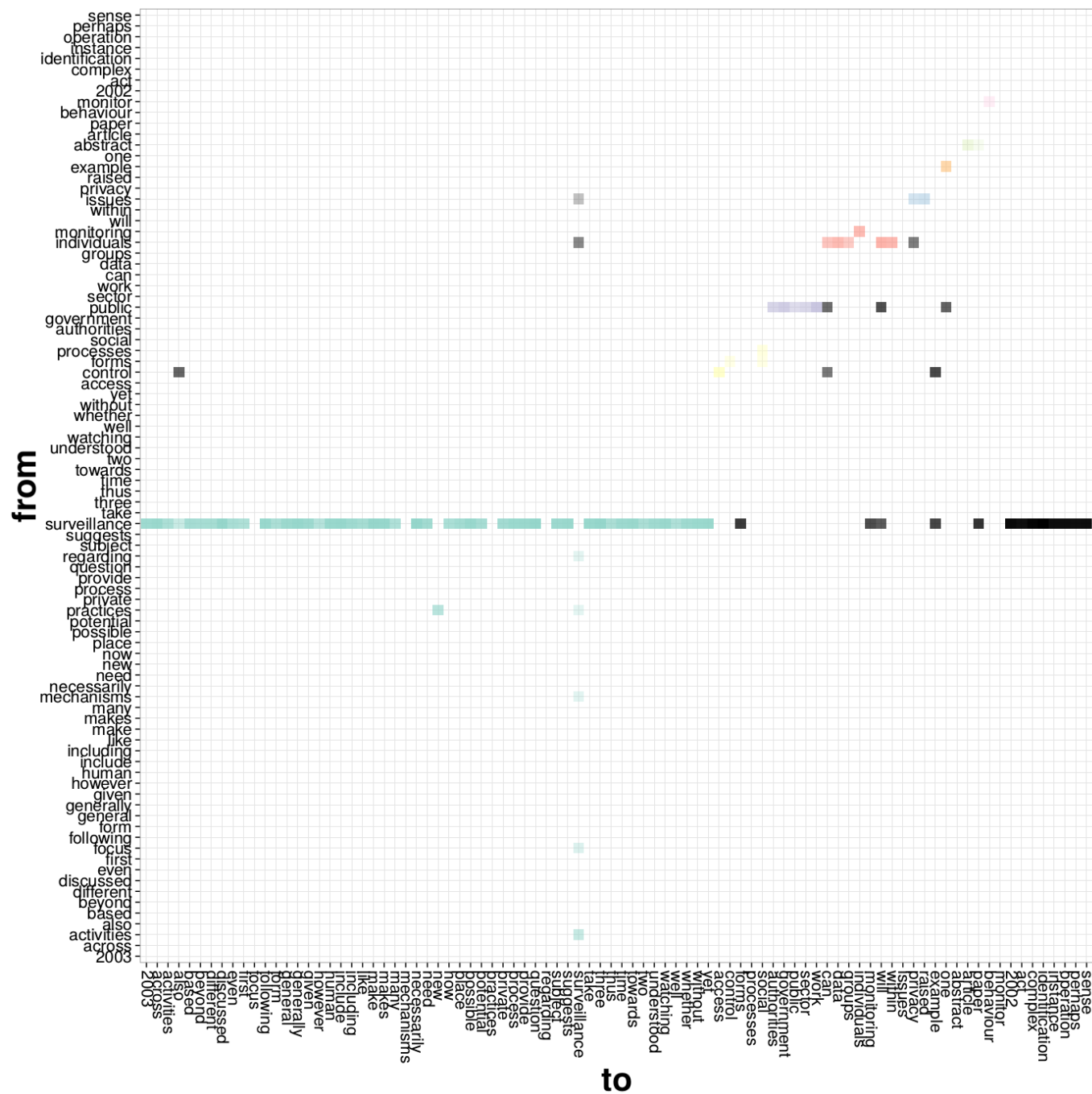
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“But it is also true that **no purely statistical analysis of language patterns can reveal meaning. Statistics are vital, but only as a heuristic procedure.** Biased as it is, it is **only interpretation that can express what a word or a longer text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

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