Semantic Content Enrichment: the promise and the practicalities

Sam Herbert

Overview

1. What semantic information can we add to book content?
2. How do we apply these enrichments?
3. Why are these of benefit to the book publisher?

The activity of antibodies against filoviruses is poorly understood but has important consequences for vaccine design and passive prophylaxis. To investigate this activity, a panel of recombinant human monoclonal antibodies to Ebola virus antigens was isolated from phage display libraries constructed from RNA from donors who recovered from infection in the 1995 Ebola virus outbreak in Kikwit Democratic Republic of Congo. Antibodies reactive with nucleoprotein (NP), envelope glycoprotein (GP), and secreted envelope glycoprotein (sGP) were characterized by immunofluorescence and radioimmunoprecipitation assays. Four antibodies reacting strongly with sGP and weakly with GP and two antibodies reacting with NP were not neutralizing. An antibody specific for GP neutralized Ebola virus to 50% at 0.4 µg/ml as the recombinant Fab fragment and to 50% at 0.1 µg/ml (90% at 2.6 µg/ml) as the corresponding whole immunoglobulin G1 molecule. These studies indicate that neutralizing antibodies are produced in infection by Ebola virus although probably at a relatively low frequency. The neutralizing antibody may be useful in vaccine design and as a prophylactic agent against Ebola virus infection.

Keywords

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Keywords (top scoring terms)

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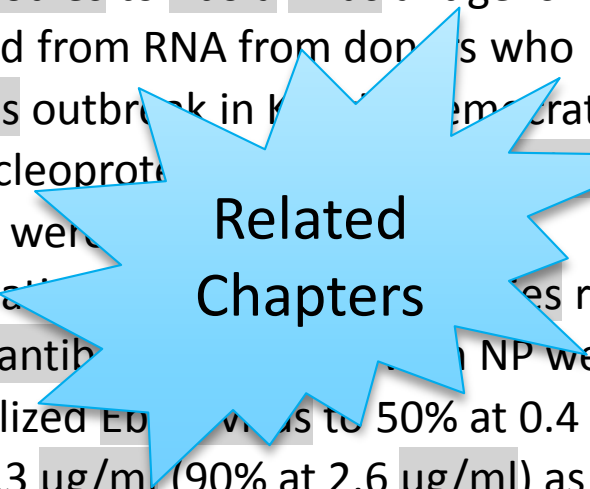

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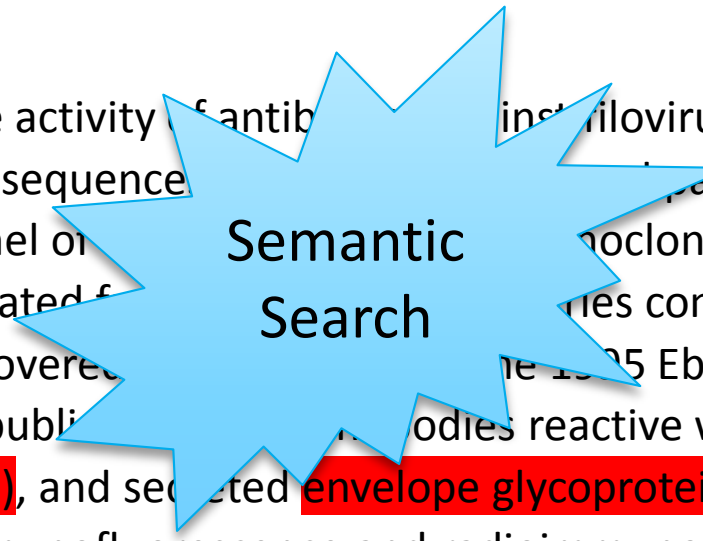
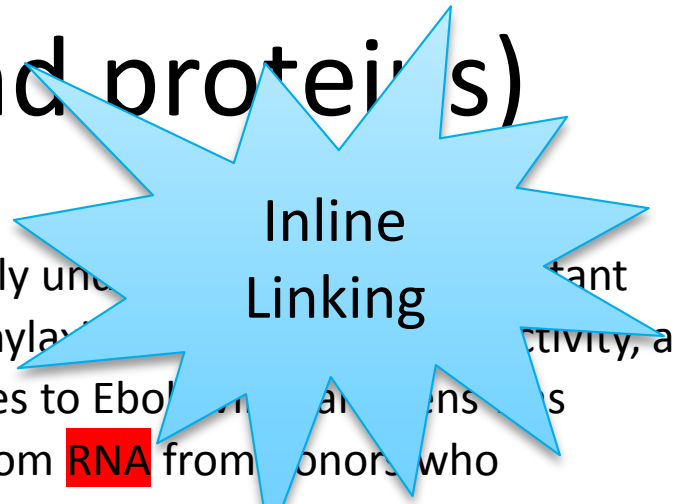
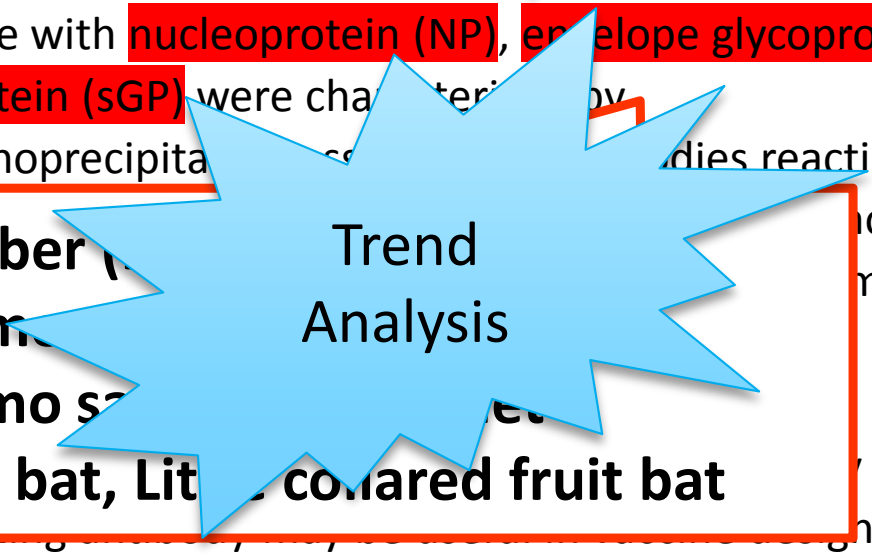
Accession number (ID): Q05320
Alternative names: GP1, GP2, GP2-delta
Virus host: Homo sapiens, Franquet's epauleted fruit bat, Little collared fruit bat

Entities (genes and proteins)







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MeSHID=D029043
Tree=Viruses/Vertebrate Viruses/RNA Viruses/Mononegavirales/Filoviridae
TreeNumber=B04.820.455.300.200

Entities (medical)

Entity Pages

Taxonomic Browsing

Faceted Search

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Tree=Viruses/Vertebrate Viruses/RNA
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The activity of [redacted]uses is poorly [redacted]t consequently [redacted]and passive prophylaxis, a panel of [redacted]onoclonal antibodies [redacted]as isolated from [redacted]s constructed from [redacted]no recovered [redacted]in the 1995 Ebola virus [redacted]Democratic Republic of Congo. Antibodies reactive with [redacted]leoprotein (NP), envelope glycoprotein (GP), and secreted envelope glycoprotein (sGP) [redacted]acterized by immunoblot [redacted]ies reacting strongly [redacted]e not neutralizing [redacted]g/ml as the recognition [redacted]he corresponding [redacted] neutralizing [redacted]ably at a relatively low frequency. The neutralizing antibody may be useful [redacted]in vaccine design and as a prophylactic agent against Ebola virus infection.

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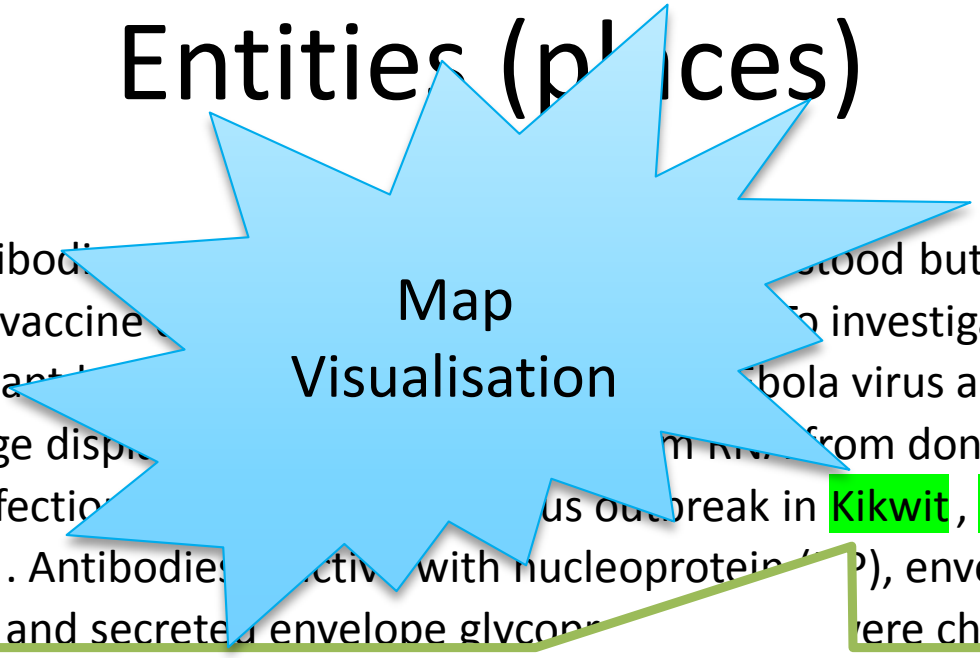
Population=186991
Geoid=2314705 (Identifier in Geonames DB)
Admindiv1=Bandundu
Longitude=18.818
Latitude=-5.039

Entities (places)



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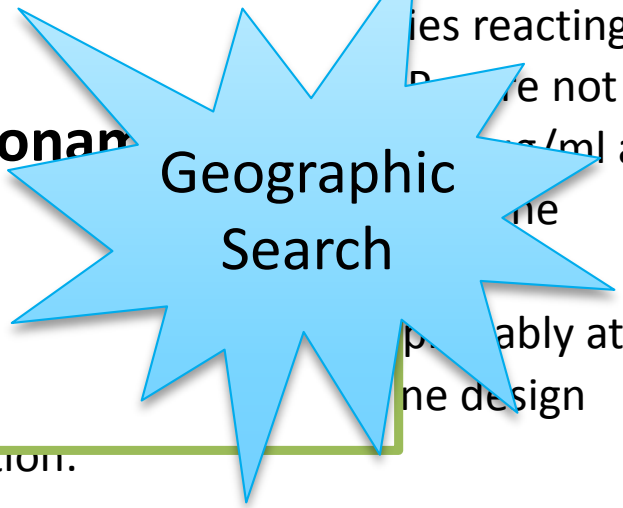

Relationships / connections

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Entity A: Envelope glycoprotein
Entity B: Ebola virus
Reaction type: Inhibition:Neutralise

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Workflow Integration

Advanced Search

Classification / categorisation

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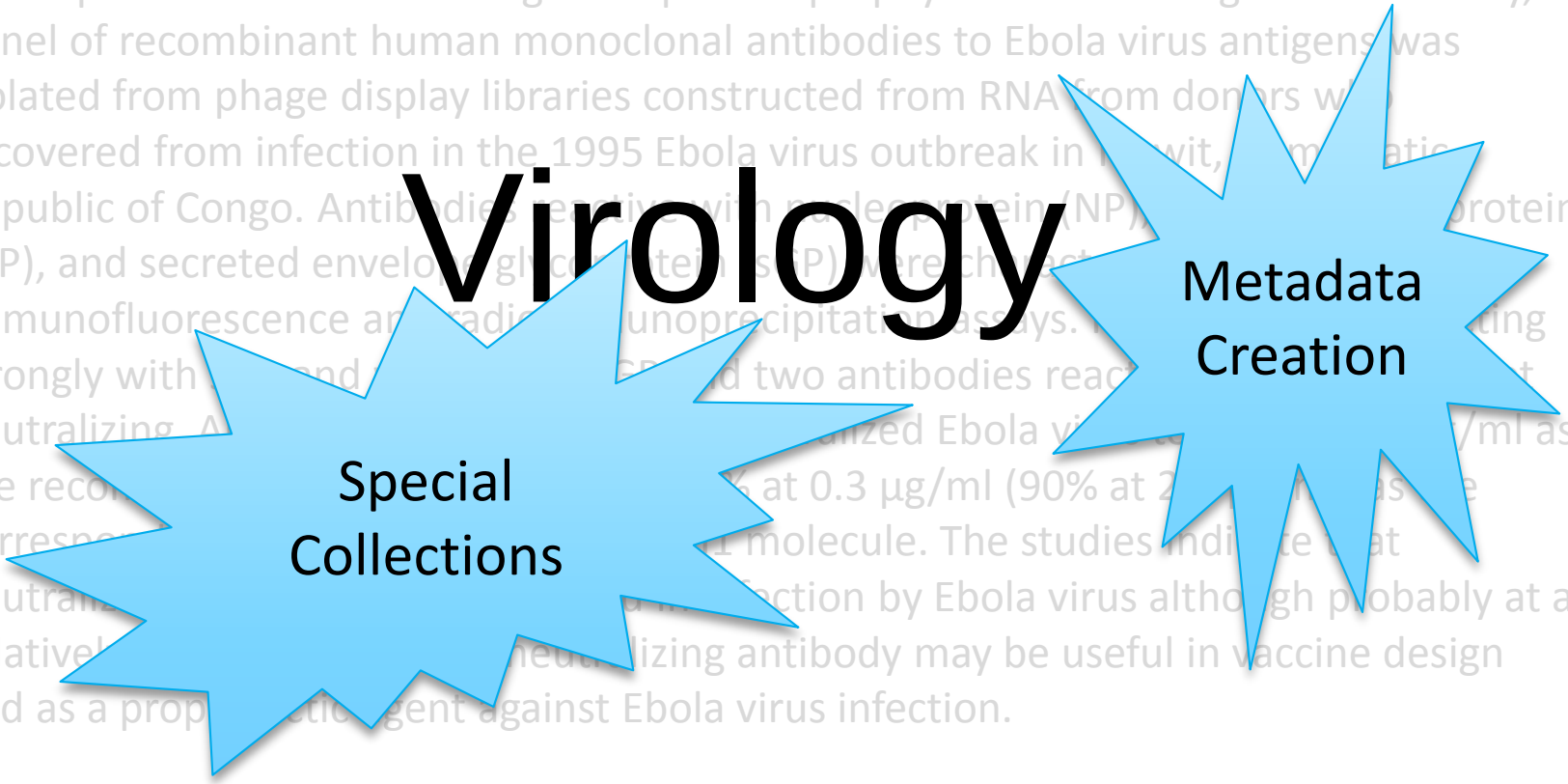
Virology

Classification / categorisation



Semantic fingerprint

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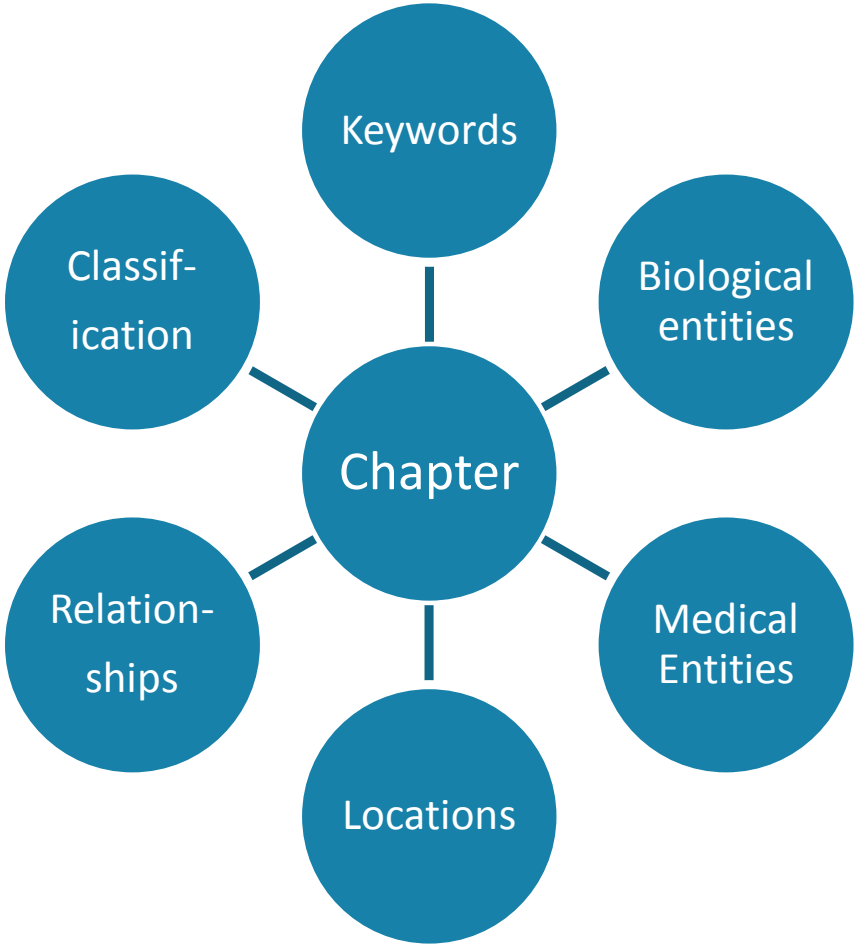
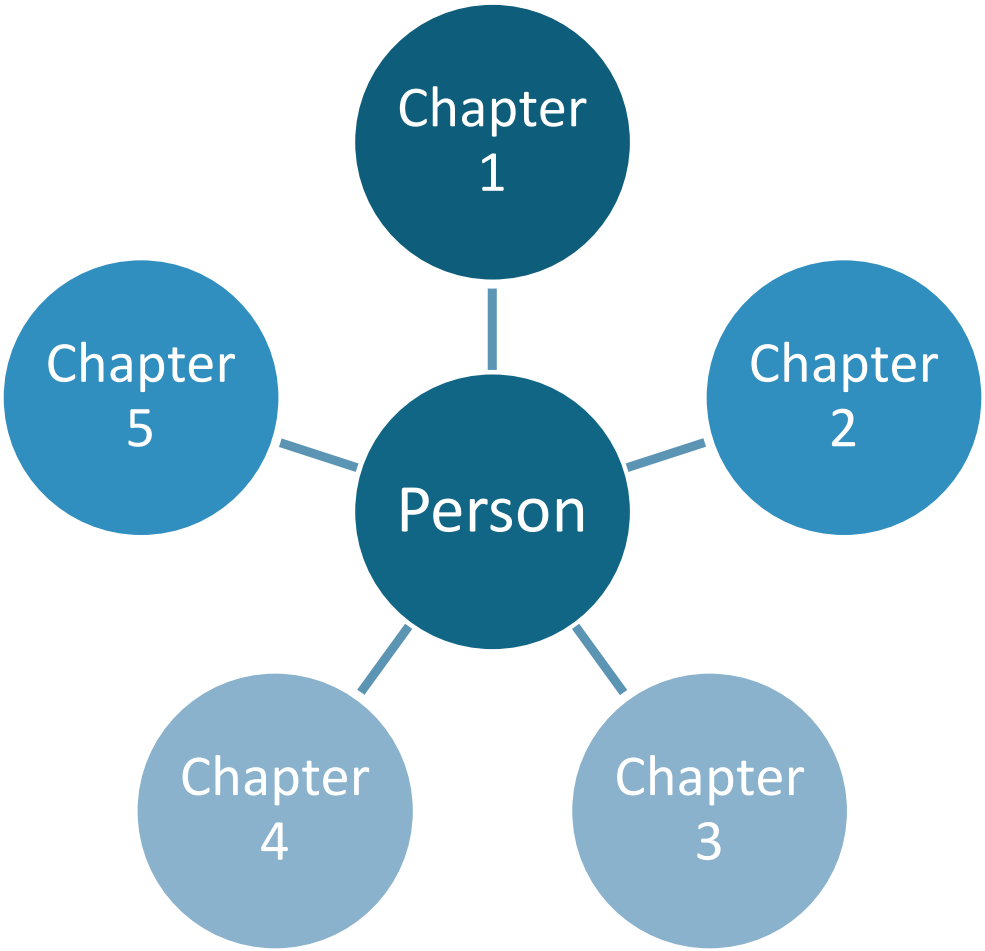
Virology

Semantic fingerprint

Semantic fingerprint (alternative view)



Person semantic fingerprint



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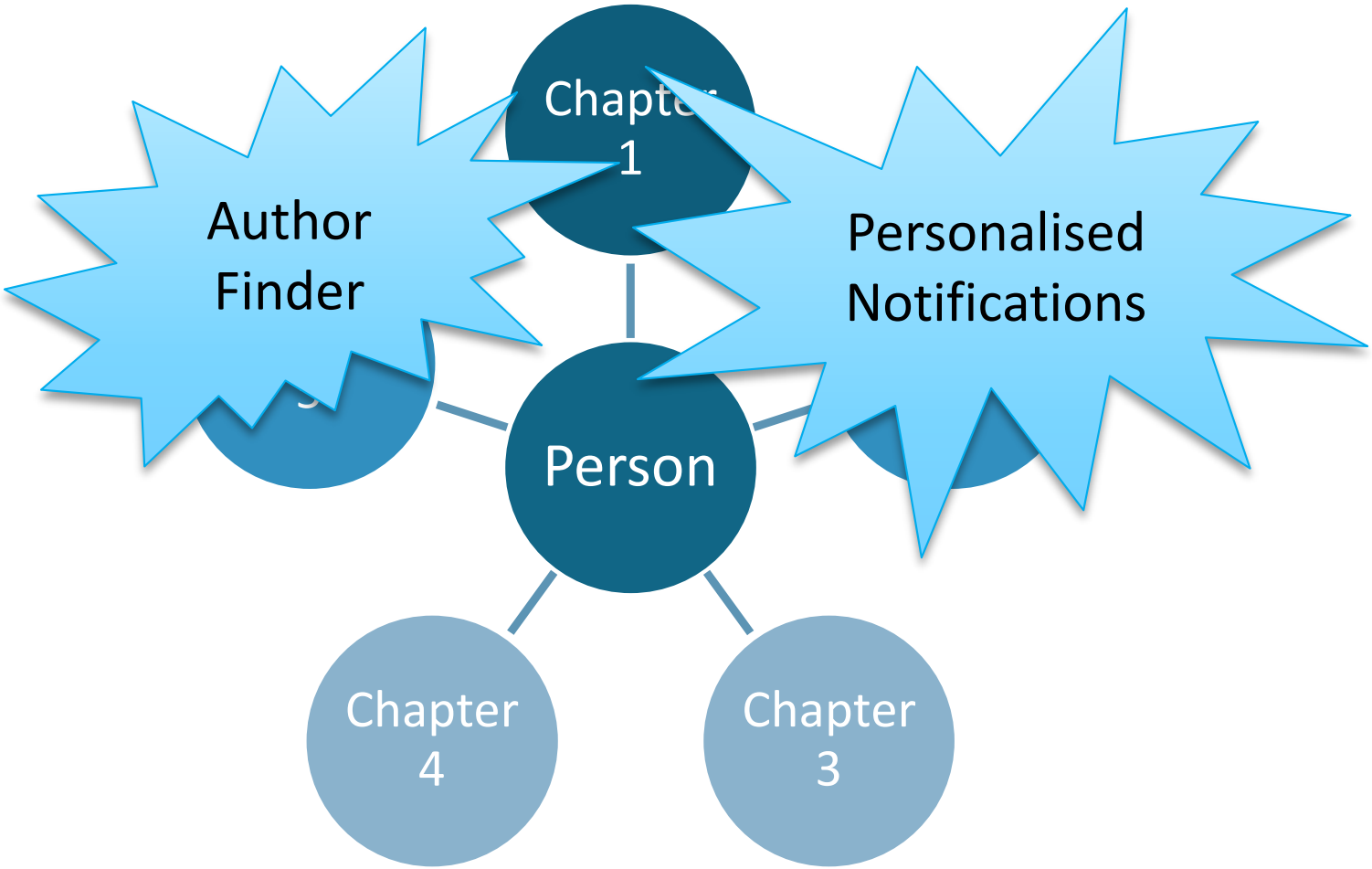

Use case: Event Marketing

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Semantic Content Enrichment

An important tool for publishers to aid content discovery, improve production processes and market content

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http://www.67bricks.com/

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