



Science & Technology
Facilities Council

Instability in Search Engine Results

Lessons learnt in the context of **horizon scanning**

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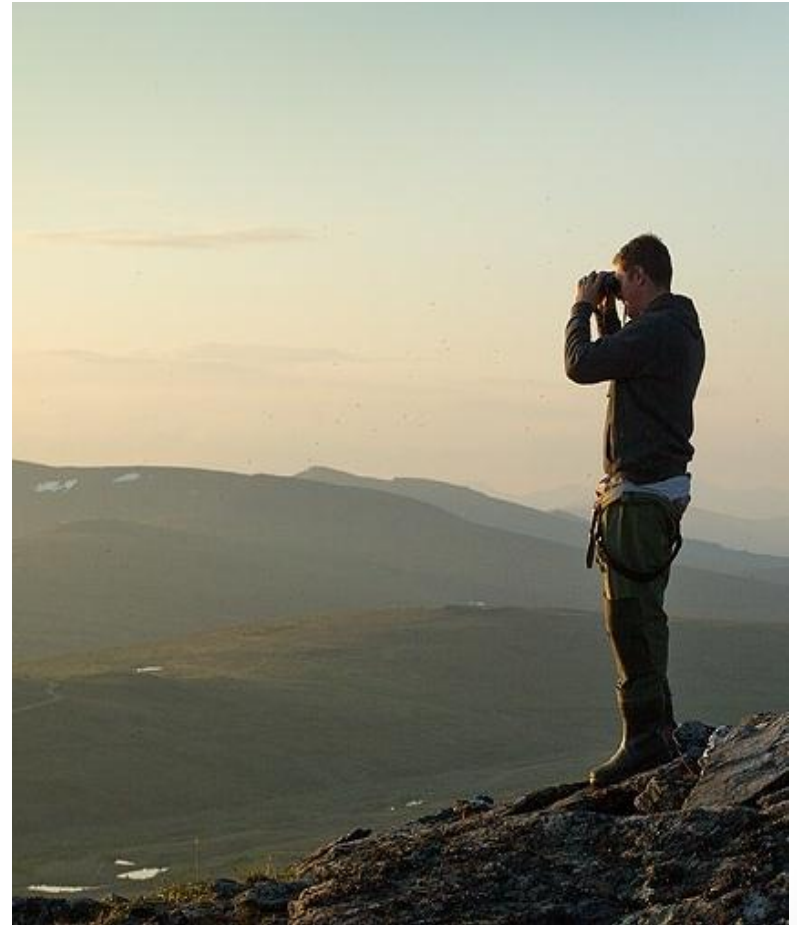
Outline

- What is **horizon scanning**?
- How do we scan the horizon?
 - **Web-based horizon scanning**
- Search engine usage
 - A day-by-day example
- **Google's results instability**
- Conclusions



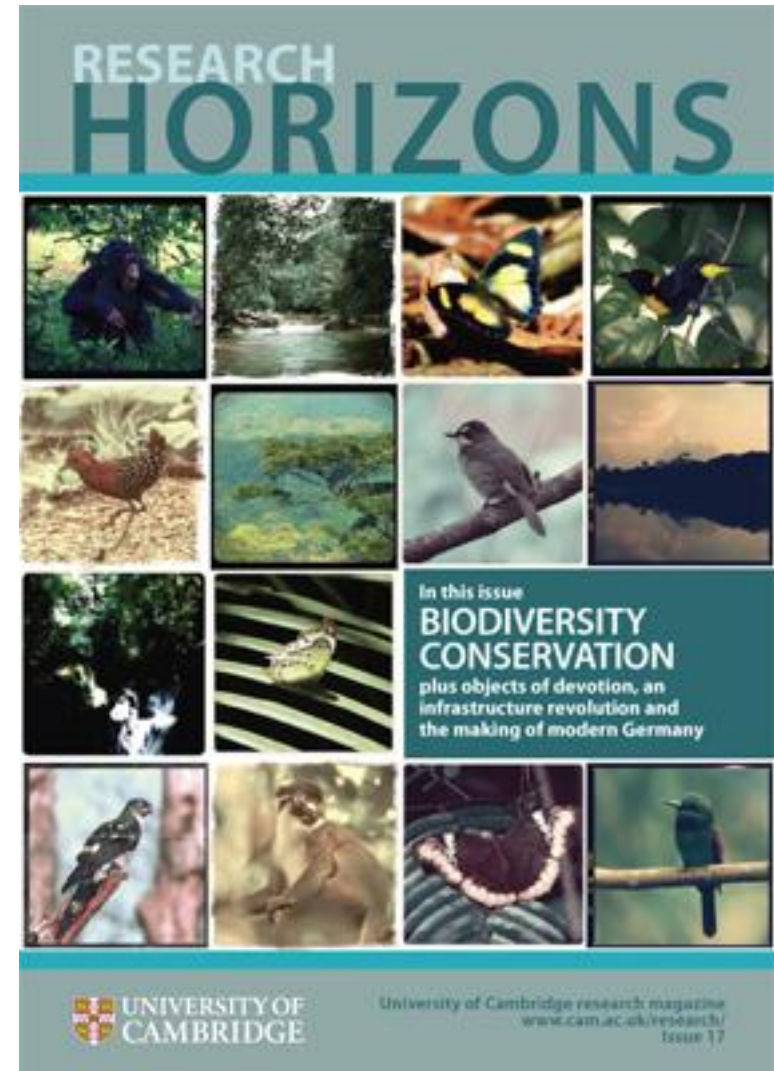
What is horizon scanning?

- **Horizon scanning** is the systematic search for information to identify early signs of new and emerging risks and opportunities that might become important in the future.
- It is the search for **anything new** that will be important.

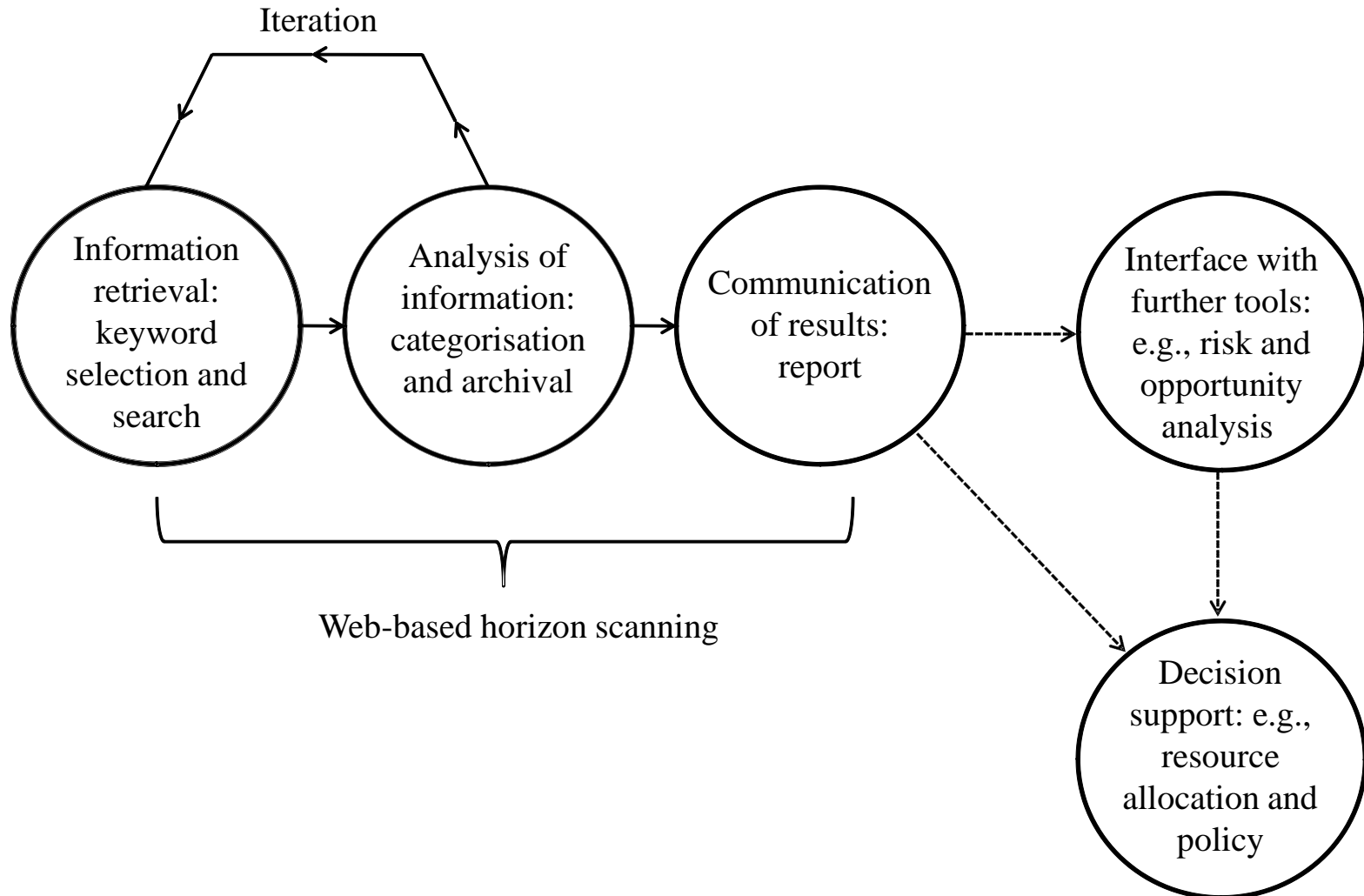


Approaches

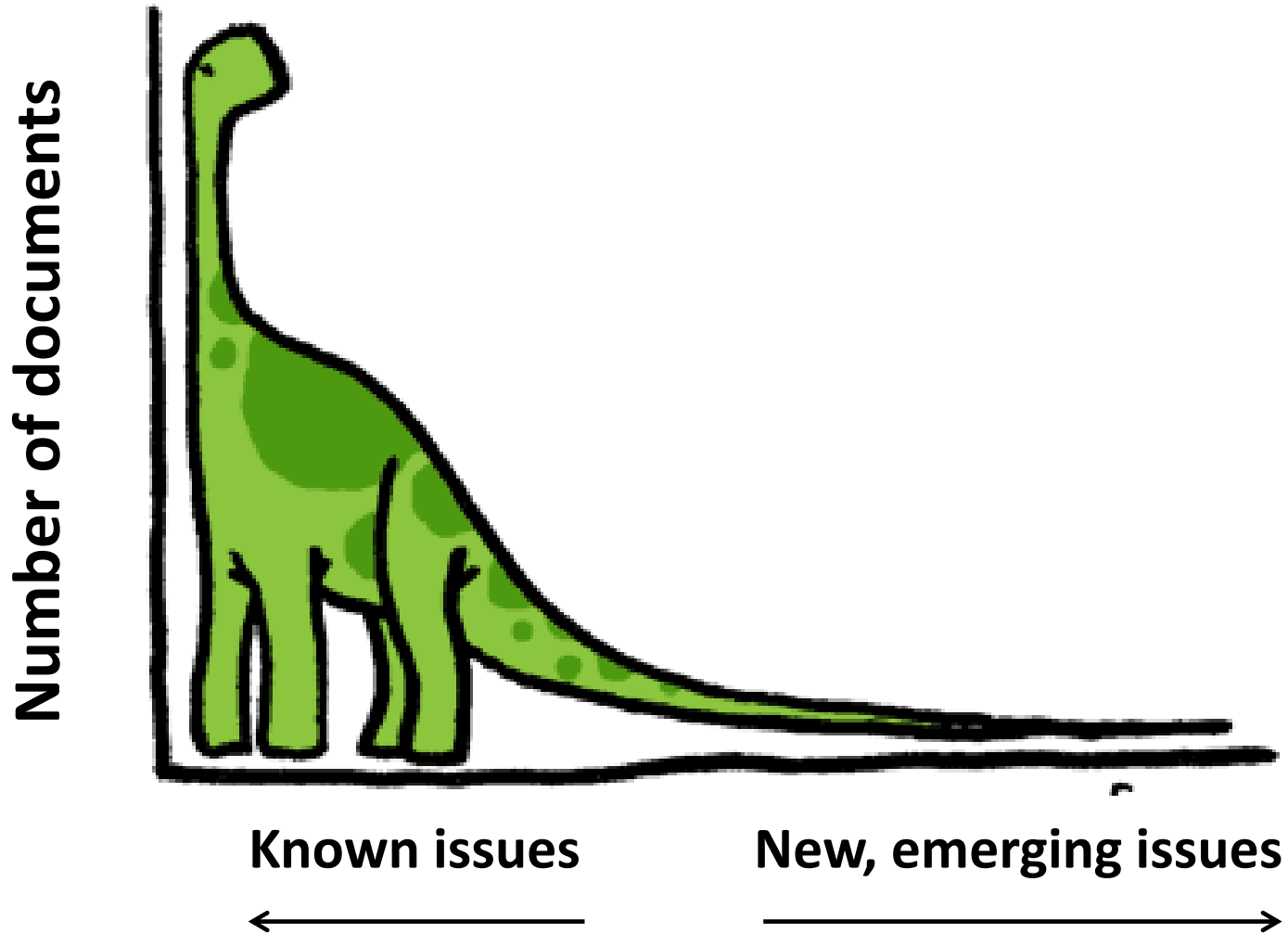
- **Traditional approach:**
Emerging issues are identified through “experts”.
- **Web-based approach:**
Emerging issues are identified through the **World Wide Web.**



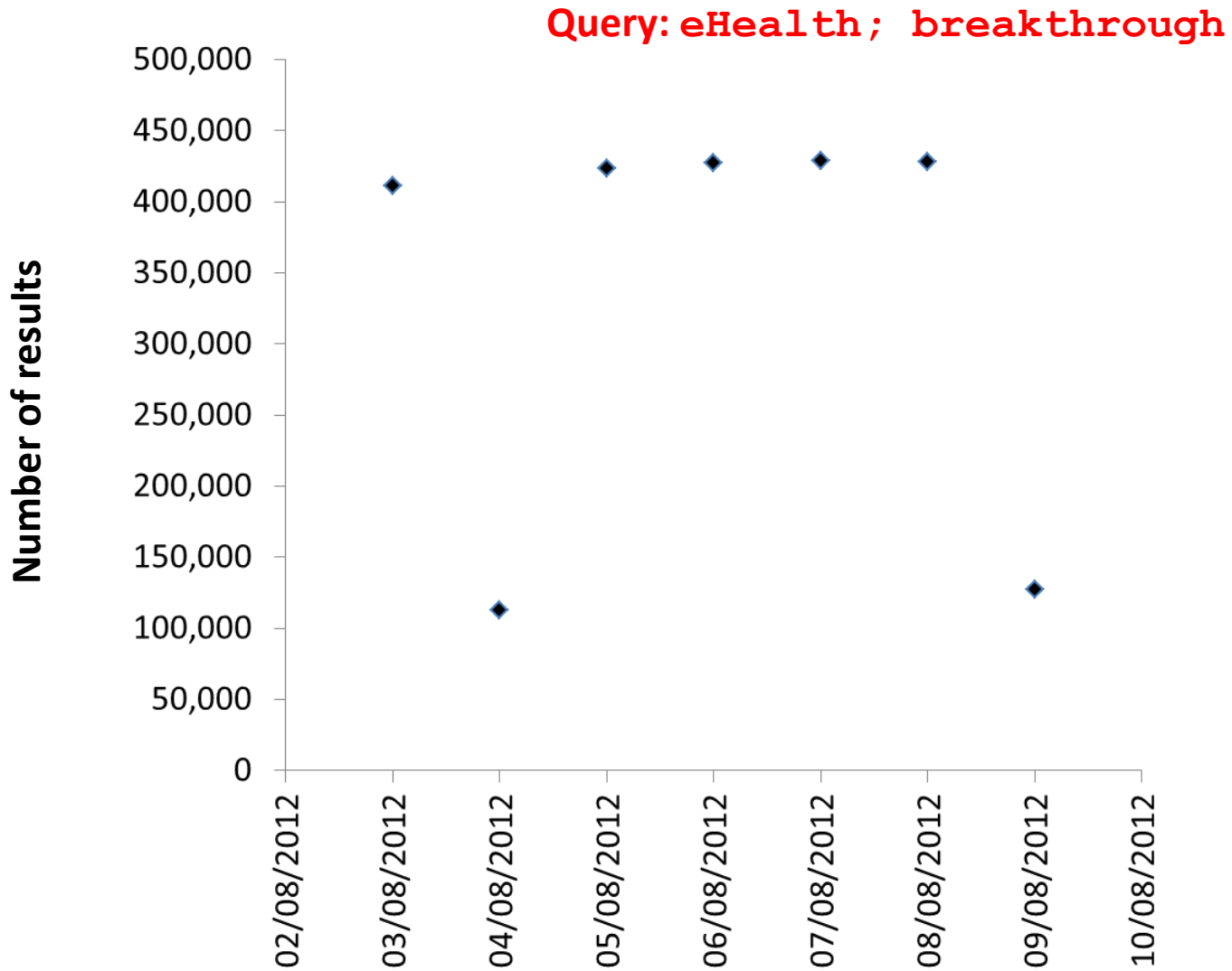
Web-based approach



Search results: weak signals

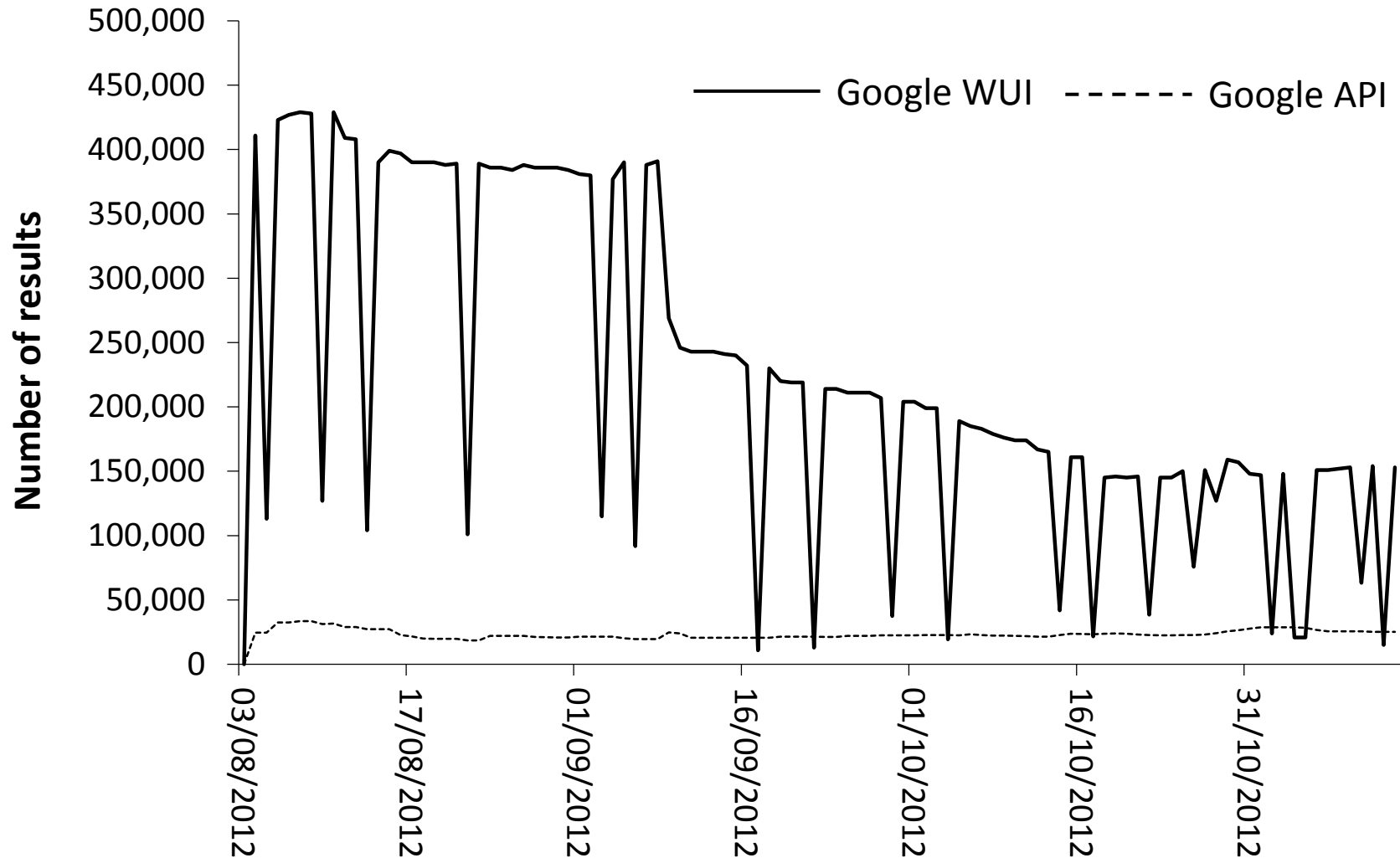


Google results



Google results

Query: eHealth; breakthrough



Same day instability

Query	Google's WUI	Google's WUI	Google's API	Google's API
	05/12/2012	05/12/2012	05/12/2012	05/12/2012
	09:45	17:45	09:40	17:40
ehealth; breakthrough	167,000	167,000	21,500	21,400
telemed; breakthrough	377	197	669	665
ehealth; "closer to reality"	3,340	3,470	470	469
telemed; "closer to reality"	12,300	12,300	457	457
ehealth; "paves the way"	9,350	8,830	1,460	1,460
telemed; "paves the way"	22,800	22,800	1,140	1,170
ehealth; "previously impossible"	82	82	103	103
telemed; "previously impossible"	61	603	501	502
ehealth; revolutionary	21,200	21,200	34,200	34,400
telemed; revolutionary	364	594	1,740	1,750
ehealth; unprecedented	12,100	54,200	9,650	9,650
telemed; unprecedented	589	585	621	623

Conclusions

- Google's API offers less documents than Google's WUI, but the documents are **more recent**.
- The same behaviour shown by Google's interfaces appears to be shown by **Bing's interfaces**.