

Theo JD Bothma

theo.bothma@up.ac.za

Department of Information Science
University of Pretoria, South Africa

Rethinking Lexicographic Information Behaviour in the Age of Generative AI

iSchools
Community Keynote
14 October 2026

Overview

- Background
 - Comments on information behaviour, information literacy, dictionary literacy and GenAI
- Characteristics of intermediaries, users and information sources
 - Context and contextualization
- Examples
 - Illustrative
- Correlations between information literacy, dictionary literacy and GenAI literacy
 - Potential theoretical implications
- Conclusion

Information behaviour

- Well-known research topic in information science
- Many models and frameworks
- Many reviews, proposing smaller or larger changes to models / frameworks
- Overarching similarities:
 - Context → Need → Engagement → Interaction → Evaluation → Use → Outcome
 - Three sets of variables operating across the entire process:
 - Cognitive + affective + social / environmental factors
 - With feedback / iteration
 - Not a linear process
- Currently, the addition and influence of GenAI
 - Prof. TD Wilson. 2026. "Editorial" *Information Research: Artificial Intelligence (AI) in Information Science* 31(2). <https://publicera.kb.se/ir/issue/view/5559>, + articles

Information literacy

- Also a well-known research topic, with many models and frameworks
- Big6
 - Process-oriented: Task definition → Information-seeking strategies → Location / access → Use → Synthesis → Evaluation
- Revised ACRL draft framework (April 2026, accepted September 2)
 - “The Framework is organized into six frames, each consisting of a concept central to information literacy, a set of knowledge practices, and a set of dispositions”
 - Each frame combines a concept with knowledge practices and disposition
 - Not sequential
- Different analytical dimensions of information literacy:
 - Big6 primarily represents the procedural / process-oriented dimension
 - ACRL primarily represents the conceptual, critical and dispositional dimensions

ACRL Information literacy framework

- “Authority Is Constructed and Contextual
- “Information Creation as a Process
- “Information Has Value
- “Research as Inquiry
- “Scholarship as Conversation
- “Searching as Strategic Exploration”

(2016 and 2026 versions; <https://api.draftable.com/compare/ENjVpgJxTnIP>)

Information behaviour and information literacy

- Information-behaviour models primarily describe or explain what people do in relation to information
 - Identify the behavioural processes
- Information-literacy frameworks are more concerned with the capabilities required to do it effectively, critically and ethically
 - Identify the competencies needed at different points in that process
 - Capabilities required to interact effectively, critically and ethically
- Does dictionary literacy comply with these descriptions?
- Does AI literacy comply with these descriptions?
- If yes –
 - As separate literacies?
 - Incorporated in current models / frameworks?

What next?

- Brief discussion of
 - Dictionary literacy
 - GenAI literacy
 - Further theoretical issues
- Discussion of examples to illustrate
 - Similarities
 - Differences
- Reconciliation at theoretical level?
 - “Information literacy ecosystem”?

Dictionary literacy

- Term much less established as a label than, e.g., “dictionary skills,” “reference skills,” “dictionary use,” and “dictionary culture”
- Many aspects correlate with standard search skills (cf. Lew 2013)
- Typically process-based, similar to the Big6:
 - Information need → select dictionary → formulate lookup → locate entry → identify relevant sense/data → interpret → apply information
- Relationship of dictionary literacy to information literacy and information behaviour is evident
 - Dictionary literacy should be understood within the wider e-information environment (cf. Bothma & Fourie 2025)
- Recently, importance of AI literacy as part of dictionary literacy is acknowledged (e.g., Lew 2026, Bothma & Gouws 2025, etc.)

AI and Generative AI (GenAI)

- Ubiquitous
 - Operating systems
 - Embedded to, e.g., automate daily tasks, optimize system performance, etc.
 - Software
 - Proprietary commercial off-the-shelf (COTS) software
 - Apps
 - Social media
 - AI-based search
- Embedded in conventional search engines
 - Google Chrome – Gemini
 - AI Overview, AI Mode
 - Google Scholar – Scholar Labs
 - Firefox

Bots

- Major consumer chatbots
 - ChatGPT
 - Google Gemini
 - Claude AI
 - Microsoft Copilot
 - Perplexity AI
- Custom and Companion Ecosystem
 - Platform features that allow everyday users to build their own niche bots without needing to code
 - Millions
- Enterprise & Customer Service Bots
 - Companies use internal or customer-facing chatbots
 - Hundreds of thousands

(Gen)AI literacy frameworks (Cox 2026)

- Generative AI Literacy Framework (Zhao, Cox and Cai, 2024)
 - Pragmatic, safety, reflective, socio-ethical, contextual understanding
- Educause Framework for AI Literacy (2024)
 - Understand, use and apply, analyse and evaluate, create AI
- UNESCO AI Competency Framework (2024)
- AILit framework (OECD, 2025)
 - Interdisciplinary nature, foundational, illustrative, global, practical, durable
- ACRL (2025)
 - Ethical, Knowledge and understanding, analysis and evaluation, use and application
- Seem to correlate largely to the principles, skills and procedures of the ACRL and Big6 information literacy frameworks

Function Theory of Lexicography

- Sven Tarp and Henning Bergenholtz, Aarhus, Denmark
- Communicative
 - Text reception (L1 or foreign language (L2/3...))
 - Text production (L1 or foreign language)
 - Translation (L1 → L2, L2 → L1)
- Cognitive
 - Acquire general or specialized knowledge (factual, encyclopedic, ...)
- Operative
 - Instructions on how to perform an action
- Interpretative
 - Non-linguistic signs, symbols, or icons

Lexicographic information sources in the Function Theory

- Criterion:
 - Not what a product is called
 - Designed to satisfy specific information needs of specific users in specific situations
- Dictionaries
- Encyclopaedias
- Encyclopaedic dictionaries
- Glossaries
- Integrated writing / reading / translation assistants
- Any structured document with similar characteristics
 - Travel guides, manuals...

Information intermediary

- In the information science literature, *intermediary* has been used to refer to a person or a system (Ingwersen and Järvelin, 2005) that interacts between a user and the information needed
- In this sense, a dictionary acts as an intermediary between the user (e.g., a reader) and the information source (e.g., a text) to help solve an information need when reading a text
- Also when producing or translating a text, e.g.,
 - Syntactic and semantic information
 - Collocations
 - Disambiguation
- Additional information, e.g., pronunciation, etymology, syllabification...
- Focus on text reception
 - Tangential reference to text production

Characteristics of a dictionary as intermediary

- Language
 - Monolingual, bilingual, multilingual
- Coverage
 - Comprehensive, e.g., Oxford English Dictionary (OED)
 - National dictionaries, e.g., *Algemeen Nederlands Woordenboek* (ANW)
 - Selective, e.g., *Shorter Oxford English Dictionary*
 - Contemporary, historical
- User group
 - General, school, domain / subject-specific...
- Complexity
 - General, or designed for predefined user group
- Data selection
 - Corpus-based, frequency, lexicographer defined...



- Dictionary
[+monolingual]
[+L1/first language]
[+metadata to interpret style, register,
region, etc.]
- Dictionary
[+bilingual]
[L2]
[+advanced]
- Encyclopaedia
[+introductory]

(From Bothma & Fourie
2024:187)

User characteristics

- Every user in terms of information behaviour is defined by specific characteristics, e.g.,
 - Information need – leisure, work task...
 - Discipline – expert, semi-expert, lay person...
 - Language – L1, L2...
 - + level of expertise in language...
 - Socio-demographic
 -
- The combination of these characteristics influences a user's information need and behaviour

- A reader who is reading a text in their first language, English

Reader

[+leisure]

[+first language]

[+L1/English]

- A reader who is reading an academic article for their work on astronomy in which they are an expert, in a foreign language (L2) of which they have a satisfactory reading knowledge:

Reader

[+work]

[+academic]

[discipline-specific]

[+astronomy]

[+expert-level article]

[+L2]

[+reading knowledge]

(From Bothma & Fourie
2024:187)



Information source characteristics

- Level of complexity
 - Leisure reading, e.g., fiction
 - Date
 - Geographic location
 - Discipline-specific, e.g., academic article
 - Introductory
 - Advanced
- Profile of intended user, e.g.,
 - Primary school, university, L2 learner
- Language
 - Home language (L1)
 - L2/3...

- A novel in English, set in the 17th century in the USA
[+leisure]
[+English]
[+USA]
[+17th century]
- An academic article aimed at an expert in
the first language of the reader
[+academic]
[+expert]
[+L1]

(From Bothma & Fourie
2024:187)

Successful interaction

- The reader has an information need, viz.,
 - Understand a text (the information source) fully
- When they come across a word they do not understand, a secondary information need is triggered, viz.,
 - Understand the specific word in its context
- A successful interaction of the reader with the information source is possible
 - When the context and attributes of the text being read map completely with the attributes of the reader, e.g.,
 - When a subject expert reads an expert-level article in their discipline in a language in which they have sufficient proficiency

User/reader	Information source	Secondary information need	Information intermediary	Success
User [+discipline expert]	Text [+discipline-specific]	None	No intermediary	Y
User [+discipline expert]	Text [+other discipline]	Needs to understand basics of other discipline	Secondary information sources, e.g. [+introductory article] [+encyclopaedia] [+subject-specific dictionary]	Y
User [+semi-specialist]	Text [+specialist]	Understand unknown terminology	Dictionary [+discipline specific]	Y
User [+lay person]	Text [+historical]	Understand historical meaning of words	Dictionary [+learner's dictionary]	N
User [+leisure] [+L2 limited]	Text (+contemporary novel) [+L2]	Understand uncommon words	Dictionary [+bilingual] [L2/L1]	Y

Context of a word

- A word has meaning in context, as part of a phrase, collocation or word pair
 - Typical dictionary consultations
- It is used in a sentence, a paragraph, set of paragraphs, a chapter, the full text
 - Dictionary cannot be aware of the context
 - Reader needs to evaluate all possibilities and apply their minds
- Automated linking of words in e-texts to dictionary entries
 - Mostly very successful
 - However
 - Links to first potentially relevant lemma
 - Limited grammatical analysis and no contextual disambiguation

Examples

- Purposive
- Random
- Not representative
- Illustrative
- Illustrate principles discussed thus far
- Illustrate correspondence between information literacy / dictionary literacy / GenAI literacy
- Hopefully interesting

Figure 1: “... do battle with some very fly people”

fly



Dictionary

fly¹ /flʌɪ/

I. verb — [no obj.]

- (of a bird, bat, or insect) move through the air using wings
 - close the door or the moths will fly in
 - the bird can fly enormous distances.
- (of an aircraft or its occupants) travel through the air
 - I fly back to London this evening.
- [with obj.] — control the flight of (an aircraft)
 - he flew Hurricanes in the war.
- [with obj. and adverbial of direction] — transport in an aircraft
 - helicopters flew the injured to hospital.
- [with obj.] — accomplish (a purpose) in

See in Dictionary >

English (UK)

Wikipedia

A **fly** (pl. flies) is an insect of the order **Diptera** (from Ancient Greek δι- *di-* 'two' and πτερόν *pteron* 'wing'),

BOOK: THE NUMBER ONE BESTSELLING SERIES THAT INSPIRED BBC ONE'...

llages around it, Cowdenbeath looked and felt depressed: rab chainstore clothes. But he knew that the people were tion might suggest. Hardship bred a bitter, quickfire hu- l but the most terminal of like to but inside he felt like he r Edin- s base for twenty years, but he was a fly there, some was ready to do battle with some very fly people indeed. e quietest of the week for pubs across the land. The pay l disappeared over the course of the weekend. Monday was a would know this from the scene that greeted Rebus as he he Midden. Its name belittled it; its interior was no worse urch and elsewhere. Basic, yes, with a red linoleum floor eds of cigarette dowps. The tables and chairs were func- was not large enough space had been found for a pool table darts was in progress when Rebus entered, and one young pool table, potting shot after shot as he squinted through

Highlight Note Copy Pin Share

What does “fly” mean in this context?

- Linked dictionary opens at “fly¹” as a verb
 - Part of speech knowledge required
 - Can “verb” be correct? No – preceded by “very”
 - Wikipedia entry: only “fly” as noun – very long article
 - Feasible? “cat / dog people”? Improbable
 - Go to dictionary
 - Information overload:
 - Page in dictionary; five screens later, “fly²” as noun
 - Three screens later, “fly³” as adjective
 - “fly³” adj.
 - Informal (British) “knowing and clever”
 - Informal (North America) “fashionably attractive and impressive”
 - Both options seem counterintuitive
 - Ignore information need?
 - Other dictionary – if available? GenAI as option?



Summary of results

- No clear answer – all options are dubious
- Information overload from dictionary
- Incorrect information from dictionary and Wikipedia
- Further exploration is required
 - More appropriate dictionary?
 - More context?
 - User must take context into account
 - GenAI to interpret broader context?
- Issues
 - Information overload
 - Better interface design
 - Selection of more appropriate dictionary as intermediary
 - GenAI prompt formulation to provide sufficient context



Results thus far

- A remarkable skills overlap between “standard” information literacy and dictionary literacy
 - Process/procedural level
 - Same steps
 - Conceptual level
 - Same concepts
- Important issues
 - Context
 - Information overload
 - Evaluation of results
- Additional knowledge required for dictionary literacy
 - Grammatical knowledge, e.g., part of speech, syntax, etc.
 - How to optimize dictionary selection and consultation

GenAI as intermediary

- Specifically, as substitute for dictionary
 - A lexicographic information need
 - No focus on it as general intermediary for resolving other information needs
- Interaction with GenAI
 - Prompt construction
 - Narrative response
 - Evaluate response
 - Refine prompt if response is insufficient / seemingly incorrect
 - Engage with bot in a discussion
 - Very similar to reference interview
- Bot selection
 - Not all bots are equal



Various GenAI options for “fly”

- Formulate a prompt that provides some context, viz., part of the sentence
 - “... do battle with some very fly people”
 - Chatbot replies that the sentence comes from a 1984 musical
 - Identifies the source incorrectly
- In a second prompt, the reader adds that the sentence comes from a book by Ian Rankin
 - Chatbot replies that the sentence does not occur in any book by Ian Rankin
 - And adds that the phrase “fly people” “relies heavily on 1980s American funk and African-American urban slang”
- Chatbot evidently wrong, and confirms the sentence at the end of most chatbots interactions:

AI can make mistakes, so double-check responses

Failed GenAI attempts

"do battle with some very fly people"

This is a famous line spoken by The Kid (played by Prince) in the iconic 1984 musical drama film *Purple Rain*.

He says this line to his bandmates in The Revolution when talking about competing against their rival group, **The Time** (led by Morris Day), for the headlining spot at the First Avenue nightclub.

Are you looking for the **full script/context** of this scene, or would you like to explore **more classic quotes** from *Purple Rain*?



Next try also not successful

Does the phrase occur in a novel by Ian Rankin?

No, the phrase does not occur in a novel by Ian Rankin.

The line remains exclusive to the script of the movie *Purple Rain*. It is highly unlikely to appear in the gritty, realistic setting of **Ian Rankin's** Scottish crime fiction novels (such as the *Inspector Rebus* series), as the phrase "fly people" relies heavily on 1980s American funk and African-American urban slang, which contrasts sharply with Rankin's distinctively Scottish dialogue.

Would you like to explore **other slang origins** from that era, or are you looking for a **particular quote or book** by Ian Rankin?



Multiple failures

- Three different information-literacy related failures simultaneously
 - Dictionary failure
 - Automatic lookup identifies the wrong lexical entry or sense because it fails to perform contextual word-sense disambiguation
 - Interface failure
 - Information overload
 - GenAI failure
 - Chatbot confidently supplies incorrect information about both the textual source and the lexical history instead of recognising uncertainty and checking an authoritative source
 - “Authoritative misinformation” or “confidently presented misinformation”
- Intersection of dictionary literacy, information literacy and AI literacy

Refining the search for the correct information

- Dictionary selection
 - Appropriate dictionary
 - Curated content
 - What would be a more appropriate dictionary?
 - Do I have access to it?
- Interface design
 - Limit information overload in dictionary consultation
- More efficient use of GenAI
 - Provide a more comprehensive / contextualized prompt
 - Verification of AI sources

AI can make mistakes, so double-check responses

More appropriate dictionary

- Importance of broad context of text
 - Novel is set in Edinburgh, Scotland
 - Possibly Scots slang?
 - *Dictionary of the Scots Language*:

Figure 2

IV. *adj.* Crafty, cunning; now Eng. but earlier in Sc.

GSW. 1923 [NEIL MUNRO](#) [Erichie & Jimmy Swan](#) (1993) 311:

He looked at her with admiration. 'By jings!' he exclaimed, 'Ye're gettin' awfu' fly. There's nae pullin' o' your leg at a' the noo.'

m.Sc. 1935 [GEORGE BLAKE](#) [The Shipbuilders](#) (1986) 45:

Pool Number 2 had returned 54 to 1 on two home and three away results, and that, begod, was not a long shot for the man who knew his stuff. But the bookies were getting fly, cunningly limiting to those of doubtful issue the number of games a chap could choose among.

GSW. 1969 [GEORGE FRIEL](#) [Grace and Miss Partridge](#) (1999) 378:

You always were a devious little prig. A fly wee bugger as your father called you. Sitting in a corner with your nose in a book but aye listening to whatever was said.

Shneiderman's "Visual Information-Seeking Mantra" (1996)

- Principles for designing interface for information access
 - "Overview first, zoom and filter, then details on demand"
 - "Overview: Gain an overview of the entire collection"
 - "Zoom: Zoom in on items of interest"
 - "Filter: Filter out uninteresting items"
 - "Details-on-demand: Select an item or group and get details when needed"
- As well as:
 - "Relate: View relationships among items"
 - "History: Keep a history of actions to support undo, replay, and progressive refinement"
 - "Extract: Allow extraction of sub-collections and of the query parameters"

Information on demand

- More appropriate interface design
- Provide information based on the user's information need
 - Function Theory of Lexicography
 - Text reception
 - Different meanings only, organized by sense
 - Text production
 - Add grammatical information, e.g., plural, declensions, collocations
 - Shneiderman's mantra
 - Overview, filter, details on demand
 - Easy selection
 - Drill down for more details of specific meaning
 - Example sentences
 - Possible link to corpora

Screenshot 1 from *elexiko*

- Figure 3 contains part of the opening screenshot of the comprehensive article of the lemma *Maschine* in the German dictionary *elexiko*
 - Does not present the full treatment of this lemma
 - An overview of different data types, including different senses, that can be easily navigated
 - With links to zoom into restricted articles that each deals with a part of the treatment of this lemma
- If the item of interest is that sense of *Maschine* indicating an airplane, a click on the element *weiter* (=further) next to the sense marker *Luftfahrzeug* (=airplane) will enable the user to zoom in on a restricted article

Figure 3

ellexiko

Maschine

Lesartenübergreifende Angaben

 **Orthografie**
Normgerechte Schreibung: Maschine
Worttrennung: Ma|schi|ne

 **Wortbildungsprodukte**
(automatisch ermittelt) [weiter »](#)

Lesartenbezogene Angaben

Lesart **'Luftfahrzeug'** [weiter »](#)
Mit *Maschine* bezeichnet man ein Luftfahrzeug, das im zivilen und militärischen Bereich vor allem für Personen- und Gütertransporte, beim Militär auch zum Waffentransport und als Waffe, eingesetzt wird.

Lesart **'Gerät'** [weiter »](#)
Mit *Maschine* bezeichnet man ein Gerät, das in einem Handlungs- bzw. Produktionsprozess vor allem bei handwerklichen und hauswirtschaftlichen Tätigkeiten (neben bzw. statt der menschlichen Kraft) eingesetzt wird.

Lesart **'Fahrzeug'** [weiter »](#)
Mit *Maschine* bezeichnet man ein mit einem Motor angetriebenes Fahrzeug, meist ein Motorrad.

 **Zum Zusammenhang der Lesarten**

Screenshot 2 from *elexiko*

- User clicked on the element *weiter* (=further) next to the sense marker *Luftfahrzeug* (=airplane)
- Zoom in on a restricted article containing the treatment of only that sense

Figure 4



Maschine

Lesart: 'Luftfahrzeug'

[zur Übersichtsseite](#)[Lesarten im Überblick](#)

Bedeutungs-
erläuterung

Kollo-
kationen

Konstruk-
tionen

Sinnverwandte
Wörter

Gebrauchs-
besonderheiten

Grammatik

 **Erläuterung der Bedeutung / Funktion**

Mit **Maschine** bezeichnet man ein Luftfahrzeug, das im zivilen und militärischen Bereich vor allem für Personen- und Gütertransporte, beim Militär auch zum Waffentransport und als Waffe, eingesetzt wird.

 [Belege anzeigen »](#)

 Wortklasse: Individuativum



ORIA
DRIA
YUNIBESITHI YA PRETORIA

Screenshot 3 from *elexiko*

- The interface of this restricted article allows access to different data types directed at the specific sense
- Six tabs are displayed:
 - *Erläuterung der Bedeutung / Funktion* (=Explanation of meaning / function)
 - *Kollokationen* (=Collocations)
 - Konstruktionen (=Constructions)
 - *Sinverwante Wörter* (=Synonyms)
 - *Gebrauchsbesonderheiten* (=Specific usage characteristics) (greyed out)
 - *Grammatik* (=Grammar)
- By clicking on the data-indicator *Konstruktionen* (=constructions) “non-relevant” items, in terms of the current information need, are filtered out
- Only details on demand, i.e., different constructions with the word *Maschine*, are shown, as seen in Figure 5

- Only details on demand, i.e., different constructions with the word *Maschine*, are shown
- With the option to “hide” (*verbergen*) potentially non-relevant details
- And always the option to navigate back to the previous screen – *zur Übersichtseite* (=to overview page)

Figure 5



Maschine

Lesart: 'Luftfahrzeug'

[zur Übersichtsseite](#) [Lesarten im Überblick](#)

[Bedeutungs-
erläuterung](#) [Kollo-
kationen](#) [Konstruk-
tionen](#) [Sinnverwandte
Wörter](#) [Gebrauchs-
besonderheiten](#) [Grammatik](#)

Konstruktionen: Typische Verwendungen

Verwendungen mit Attribut [verbergen x](#)

- eine von Passagieren und Besatzungsmitgliedern besetzte Maschine
- die Maschine vom Typ [Name: z. B. *McDonnell Douglas MD-82*]
- eine Maschine des gleichen Typs
- die Maschine der [Eigenschaft: z. B. *arabischen, spanischen*]
- Fluggesellschaft [Name: z. B. *Emirates, Spanair*]
- eine Maschine auf dem Flughafen [Name: z. B. *Köln-Bonn, Tempelhof*]
- die Maschine auf dem Rollfeld
- die Maschine am Boden
- die Maschine mit der Flugnummer [z. B. *OG269*]
- die Maschine im Luftraum

Verwendungen in Verbalphrasen und Sätzen [verbergen x](#)

- an Bord der Maschine befanden sich [zahl: z. B. *96*] Passagiere
- in der Maschine befanden sich [zahl: z. B. *115*] Passagiere und [zahl: z. B. *sechs*] Besatzungsmitglieder
- der Pilot konnte die Maschine nicht wieder hochziehen
- die Maschine stürzte in [ort: z. B. *Pennsylvania*] ab
- die Maschine fliegt [z. B. *nach, über*] Bangkok
- alle Passagiere konnten die Maschine verlassen



Figure 6

OED | Oxford English Dictionary

Entries (521,383)Meanings

SEARCH TERMS

☒ Headword

☐ Quotation text

☐ Definition

☐ Quotation author

☐ Etymology

☐ Quotation work

☐ Forms

☐ Exact match

Add term

Update

DATE OF USE

☒ Use

☐ First use

From

Year (YYYY)

To

Year (YYYY)

Update

PART OF SPEECH

☐ Noun (345,236)

☐ Adjective (138,269)

☐ Verb (38,342)

Further advanced filtering in the OED

- Filtering categories
 - 11 parts of speech
 - 16 types of information
 - 16 languages of origin
 - 13 usage categories
 - 2 obsolescence categories
 - 6 regional English options
 - 22 subjects categories
 - Many categories have additional subcategories
- AI-powered help:

Welcome to the OED AI Assistant

The AI Search Assistant is designed to construct complex queries and provide links to the results.

Compliance with Shneiderman's mantra

- An initial overview is provided
- The option to zoom in on any of the items in blue for more information
- Filter out any information not relevant to the current information need
- Details on demand
- History – return to previous screens
- As an aside:
 - Initial access by searching for lemma in lemma list filters out all non-relevant words / lemmata and provides access to the word / lemma of interest
 - Therefore, also in accordance with Shneiderman's mantra

GenAI and context

- Earlier attempt provided little context
 - Only part of a sentence
- Additional context
 - Section of paragraph
 - Geographic clues
- Prompt:

What does “fly” mean in the context “ Edinburgh might have been his base for twenty years, but he was a Fifer. ‘Fly Fifers’, some people called them. Rebus was ready to do battle with some very fly people indeed.”?



Google AI Mode answer

In this specific excerpt from Ian Rankin's Inspector Rebus series, "**fly**" is a Scottish slang adjective that means **shrewd, cunning, sharp, or crafty**.  Dictionaries of the... +1

While modern American or hip-hop slang uses "fly" to mean fashionable or cool, the traditional Scottish and British dialect usage implies that someone is highly astute, world-wise, or underhandedly clever.  Instagram +1

Context Breakdown:

- **The "Fly Fifer" Stereotype:** A "Fifer" is someone from Fife, a region in eastern Scotland. In Scottish culture, there is an old colloquial stereotype that people from Fife are exceptionally sharp, wary, and fiercely intelligent in business or negotiation.  Power Thesaurus +3
- **The Meaning in the Passage:** When the text says "*Rebus was ready to do battle with some very fly people indeed,*" it means Rebus (who is a Fifer himself) is preparing to face off against people who are **devious, street-smart, and hard to outsmart**. He is bracing for a battle of wits, not a physical fight or a fashion contest.  Dictionaries of the... +1

Verification of GenAI sources

- “Fly” as Scottish slang
 - *Dictionaries of the Scots language*
- American or hip-hop slang
 - Instagram – not reliable source
- “Fly Fifer stereotype”
 - Power Thesaurus – not typical thesaurus content?
- Meaning of the passage
 - *Dictionaries of the Scots Language*
- Reference to *Dictionaries of the Scots Language* verified
- However
 - Instagram?
 - Power Thesaurus?

Instagram and Power Thesaurus

- Instagram – not trustworthy source
- Power Thesaurus
 - Checked with AI Mode:

Yes, that specific reference format and text were completely fabricated.

I apologize for the confusion and the contradiction in my previous response. I have no record of providing that specific quote in our current thread, but the line you shared—particularly the inclusion of `I) Power Thesaurus +3`—is a textbook example of an AI "hallucination."

Here is what went wrong with that reference:

1. **The Format was Fake:** The notation `I) Power Thesaurus +3` looks like an internal search citation or database tag rather than a real citation.
2. **The Source Doesn't Match:** While [Power Thesaurus](#) does correctly list the literal definition of a *Fifer* as a person from Fife, it is a platform for crowdsourced synonyms and antonyms. It does not host long, culturally contextualized entries regarding regional Scottish literary stereotypes or Ian Rankin's character work.  Power Thesaurus



GPT-5.6 Sol, quoted in full

Prompt:

What does "fly" mean in the context "Edinburgh might have been his base for twenty years, but he was a Fifer. 'Fly Fifers', some people called them. Rebus was ready to do battle with some very fly people indeed."?

Answer:

In this passage, **fly** means **cunning, crafty, shrewd, astute, knowing**, with a suggestion that the person is difficult to outwit. It is a specifically well-attested **Scottish/Scots** usage, and that meaning is crucial to the wordplay in the passage.

The strongest evidence comes from the **Dictionary of the Scots Language (DSL)**, incorporating the *Scottish National Dictionary*. Its entry for adjectival **fly** gives the definition:

“Crafty, cunning”

and provides Scottish examples such as “*Ye're gettin' awfu' fly*” and “*the bookies were getting fly*.” It also records the expression “*fly to the game*” as “*knowing, clever, artful, having an ‘eye to the main chance’*.” Dictionary of the Scots Language: “fly”

There is an especially interesting additional piece of evidence. The DSL's entry for **Fife** documents a longstanding Scottish stereotype of Fifers as particularly shrewd or cunning. It quotes an 1897 source saying that Fifers were called “**canny Fifer,**” “**pawky Fifer,**” and “**Fifer with an eye to the main chance.**” Even more significantly, the dictionary cites Ian Rankin himself, from *Strip Jack* (1992): “**another fly Fifer, another famous son.**” Dictionaries of the Scots Language

This makes the structure of your passage quite precise:

“**He was a Fifer. ‘Fly Fifers’, some people called them.**”

→ *fly* = **cunning/shrewd/crafty**; “Fly Fifers” invokes the traditional characterization of people from Fife as canny, astute people who are not easily fooled.

“**Rebus was ready to do battle with some very fly people indeed.**”

→ Rankin then repeats *fly* and transfers the description from Fifers to the people Rebus is about to confront. These are **very shrewd/cunning/crafty people**—people Rebus expects to be formidable because they know how to look after their own interests.

There is some semantic flexibility in how negatively to interpret it. “**Cunning**” is probably the closest single-word gloss in this context, but *fly* need not mean outright *dishonest*. Depending on context it can range from **shrewd/known/astute** through **crafty/cunning/sly**. The Oxford Advanced Learner's Dictionary similarly gives British *fly* as clever and showing good judgement about people, particularly in order to gain an advantage. [Oxford Learner's Dictionaries](#)

So, for a dictionary definition intended specifically for this Rankin passage, I would formulate it as:

fly, adj. (Scots/Scottish): crafty, cunning, shrewd or knowing; astute in dealing with others, especially in a way that makes one difficult to deceive or outmanoeuvre.

Importantly, therefore, **this is not the modern American slang sense of *fly* meaning “fashionable, stylish, attractive.”** The Scottish lexical and contextual evidence points quite decisively to **“cunning/shrewd/crafty.”**

Updated results

- Appropriate dictionary can provide better results
- Intuitive interface, based on filtering and zooming, can provide easier access
- Better prompt constructions can provide useful narrative answer
- In all cases, especially Gen AI, the user has to evaluate the results and apply their mind to verify the results for the specific context
- Dictionary literacy overlaps with information literacy
- AI literacy overlaps with information literacy
- All these literacies are the practical applications of user information behaviour

Information behaviour		Information literacy
Need recognition	→	Ability to recognise / articulate an information need
Seeking / searching	→	Search and discovery literacy
Source selection	→	Source / type literacy, including dictionary literacy
Evaluation	→	Critical information literacy
Interaction with systems	→	Digital / AI literacy
Interpretation	→	Cognitive and metaliteracy dimensions
Use	→	Synthesis / Application
Communication	→	Creation and sharing
Feedback	→	Reflection / metacognition

Dictionary literacy and AI literacy

- Two distinct literacies?
 - Intersect with information literacy?
 - Within information literacy?
 - Intersect with each other?
- At many levels identical / very similar
 - Typical information behaviour processes
 - Typical information literacy processes and frames
- However, also distinct knowledge requirements
 - Dictionary literacy: grammatical knowledge and dictionary selection
 - GenAI literacy: prompt construction and bot selection
 - The same would apply to other literacies, e.g., media literacy
- Can / should different literacies be combined in an ecosystem?



Information ecosystem

- ACRL uses “information ecosystem”
 - 2016 version: “The dynamic and often uncertain information ecosystem in which all of us work and live, require new attention to be focused on foundational ideas about that ecosystem. Students have a greater role and responsibility in creating new knowledge, in understanding the contours and the changing dynamics of the world of information, and in using information, data, and scholarship ethically.”
 - 2026 version: “The Framework also draws significantly upon the concept of metaliteracy [...] which expands the scope of traditional information skills (determine, access, locate, understand, produce, and use information) to include the collaborative production and sharing of information in participatory digital environments. This approach requires an ongoing adaptation to emerging technologies such as AI. and an understanding of the critical thinking and reflection required to engage in these spaces as producers, collaborators, and distributors. Metaliteracy involves behavioural, affective, cognitive and metacognitive engagement with the information ecosystem.”

“Information literacy ecosystem”

- “In the context of information literacy, we can view the vast landscape of information as an ecosystem where various components – creators, consumers, technologies, and information itself – are interconnected and influence each other. This ecosystem is further complicated by the intricate ways in which writers and readers interact, creating a dynamic environment where meaning is constantly negotiated and evolving.”
- Moxley, JM. 2023. *Information Literacy Ecosystem – Core Concepts*.
<https://writingcommons.org/section/information-literacy/information-literacy-ecosystem-core-concepts>

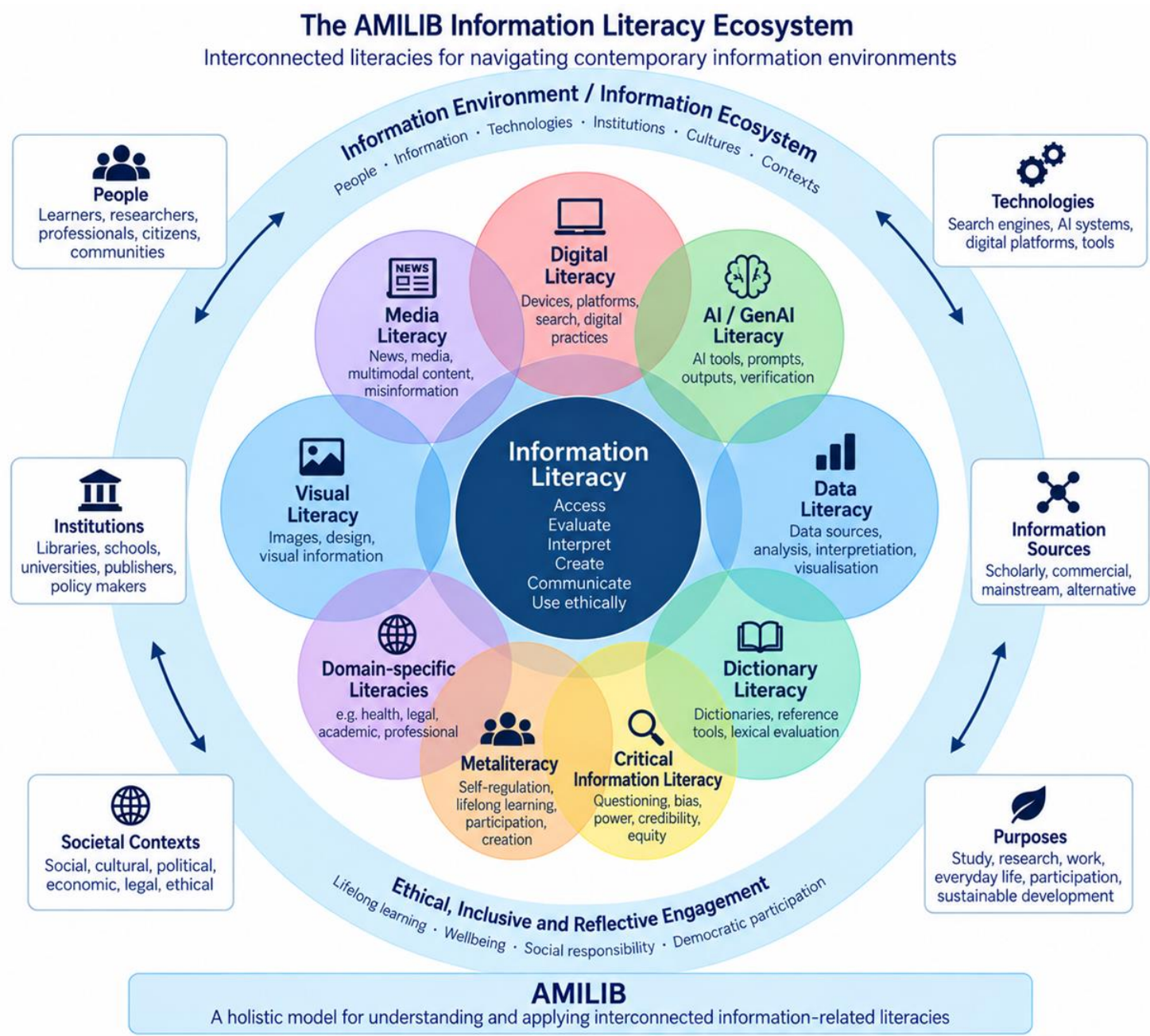
Information Literacy Ecosystem

- Comprises interconnected literacies, e.g.,
 - Information literacy ↔ Digital literacy ↔ Media literacy ↔ AI literacy ↔ Data literacy ↔ Dictionary literacy ↔ Critical literacy ↔ Metaliteracy
- A dynamically interacting set of literacies, competencies, practices, technologies, actors and contexts required for effective engagement with contemporary information environments

Diagrammatic representation of information literacy ecosystem

- AMILIB: AI-Mediated Information Literacy in Information Behaviour
- Information ecosystem
 - Information, people, institutions, technologies, platforms, algorithms, publishers, AI systems, social practices, etc.
- Information literacy ecosystem
 - The literacies, competencies, frameworks and practices that enable people to function effectively within that information ecosystem

Figure 7



Note: The literacies overlap and interact rather than function as discrete, independent sets of skills. Their relative importance varies across contexts and evolves with technological and social change.



Comments on model

- Conceptually:

INFORMATION ENVIRONMENT



INFORMATION ECOSYSTEM – the information world in which people operate



INFORMATION LITERACY ECOSYSTEM – the interacting literacies required to operate in that world



AMILIB – a model for understanding and navigating those interacting literacies



Context-specific application – research, education, dictionaries, GenAI, social media, workplace, everyday life, etc.

- Information Literacy should occupy the conceptual centre, surrounded by overlapping literacy domains
- At its core:
- Information Literacy, interacting with
 - Digital Literacy – Media Literacy – Data Literacy – AI Literacy – GenAI Literacy – Algorithmic Literacy – Critical Information Literacy – Visual Literacy – News Literacy – Health Information Literacy – Academic Literacy – Dictionary Literacy – Metaliteracy (and potentially several others)
- The crucial theoretical proposition would be that these are not independent literacies
- They share competencies and practices
 - Searching, evaluating, interpreting, contextualising, verifying, creating, communicating and ethically using information – but each introduces domain-specific knowledge, resources, technologies and evaluative criteria

- This makes dictionary literacy particularly interesting
 - It has traditionally developed largely within lexicography rather than information-literacy research, even though dictionary consultation is fundamentally an information-seeking and information-evaluation activity
 - The proposed AMILIB model can therefore demonstrate an interdisciplinary connection that most general information literacy models overlook
- AI literacy also changes the entire ecosystem rather than simply becoming one more circle within it
 - GenAI now participates in information searching, retrieval, synthesis, evaluation, creation, translation, dictionary consultation and knowledge production
- The relationships between literacies are dynamic rather than static

Working definition

An Information Literacy Ecosystem is the dynamic and interconnected system of information-related literacies, competencies, practices, technologies, actors and contexts through which individuals and communities discover, access, interpret, evaluate, create, communicate and ethically use information.

Individual literacies within the ecosystem overlap and interact rather than functioning as discrete sets of skills, and their relative importance changes in response to informational contexts and technological developments

In conclusion

What happens to information behaviour when we stop looking up information and start asking an AI to interpret it for us?

Which decisions should the system make,
and which should remain with the user?

Does any of this make any sense?

Thank you!

theo.bothma@up.ac.za