

Researchers' skills in the digital era: Insights from the GENCI 2.0 and DILAN projects

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Outline

1. A new research paradigm
2. New competences for researchers
3. New (digital) communicative landscape
4. Example 1. The Conversation
5. Example 2. Twitter

What you order...

vs. ... What you get



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Research Article

Structure of Research Article Introductions in Three Engineering Subdisciplines

—BUDSABA KANOKSILAPATHAM

Abstract—This study aims to provide scholars with insight into the task of writing research articles. **Research questions:** (1) What are the generic structures of research article introductions in three engineering subdisciplines? and (2) What are variations that distinguish the introductions of one subdiscipline from the others? **Literature review:** Suales's genre analysis method has proved to be an effective textual analysis to identify the structural organization of each section of research articles. Even though there seems to be a pattern in each section, previous genre-based studies also demonstrate that disciplinary variation is discernible. It thus remains to be determined whether research articles of different subdisciplines within a single discipline share the same organizational structure. **Methodology:** Based on journal impact factors, three datasets of English research article introductions representing three subdisciplines of engineering (civil, software, and biomedical) were compiled, consisting of 180 introductions with 60 from each subdiscipline. Then, the three datasets were analyzed using Suales's genre analysis technique to identify the structural patterns prevalent in the introductions of each subdiscipline. Units of textual analysis called moves and steps were quantified to capture variations among the introductions. **Results and discussion:** Analysis shows that these introductions generally adhere to a common rhetorical organization across subdisciplines. However, disciplinary variations are also captured, highlighting the unique characteristics and perspectives of each subdiscipline. The findings bear pedagogical implications, allowing English for Specific Purposes practitioners to prepare novice scholars to be able to publish successfully in their fields.

Index Terms—Biomedical, civil, engineering, introduction, research article, software, structural pattern.

English has acquired the status of a lingua franca for international communication [1], [2]. Its role is

lexical or grammatical, but also the structural pattern commonly followed and expected in academic writing in their focused disciplines [7].

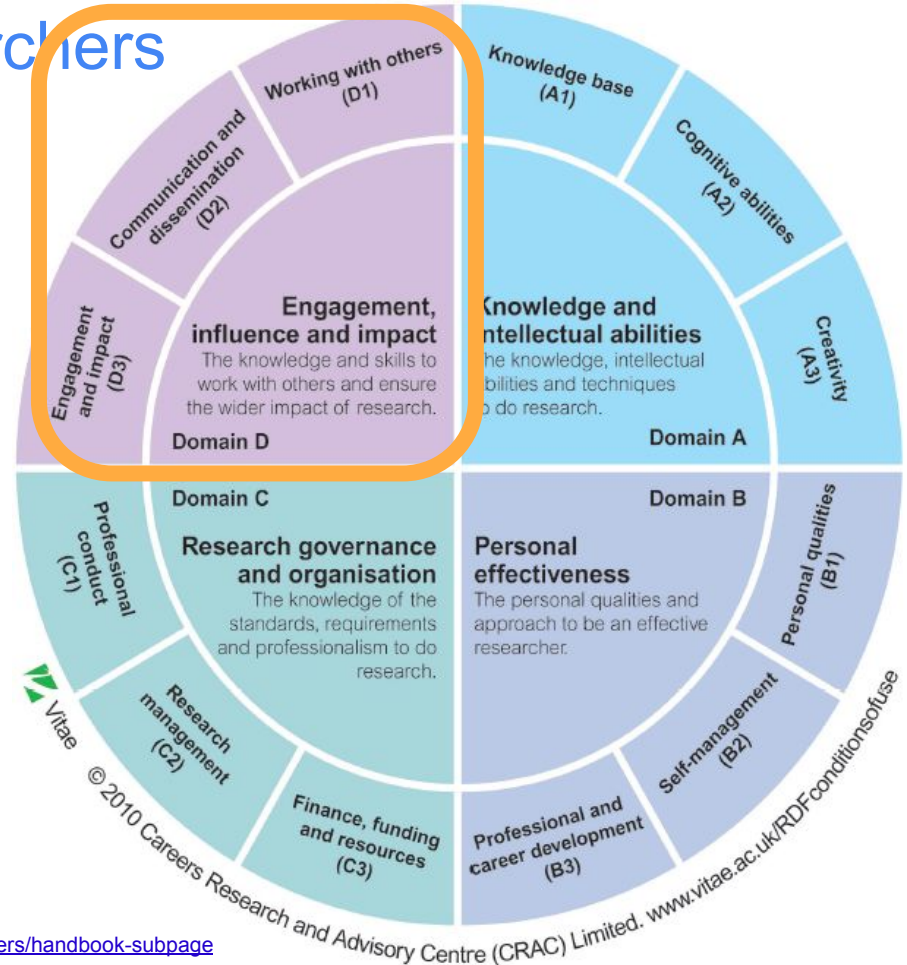


New competences for researchers

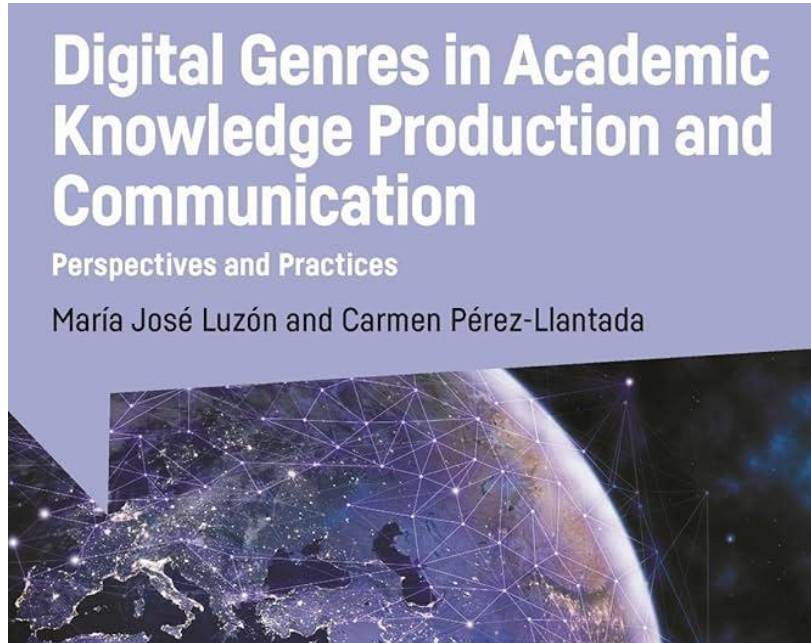
Science is now more:

- accessible
- open
- transparent
- diversified

Researchers develop research, communication, leadership, managerial skills...



New (digital) communicative landscape

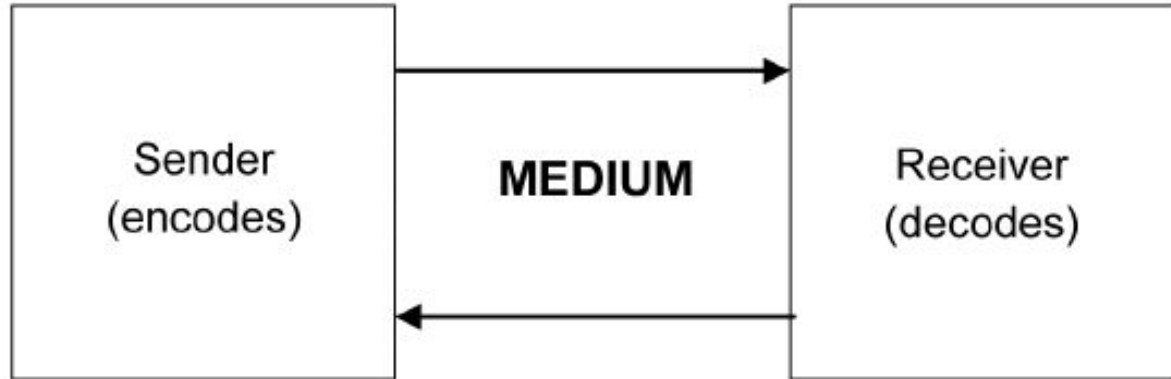


- ★ lay summaries
- ★ highlights
- ★ graphical/video abstracts
- ★ researcher websites/blogs
- ★ research group videos
- ★ video methods articles
- ★ dissemination events/talks/contests
- ★ three-minute thesis presentations...
- ★ crowdfunding proposals

How has this come about?

- hypermodality
 - context collapse
 - audience flattening
 - altmetrics
 - knowledge commodification
 - language ecologies
 - genre ecologies
- new literacies
 - democratisation of science
 - promotionalism
 - from logos to pathos and ethos
 - value of national and vernacular languages
 - genre networks

Remember this guy?



This is him now. Feel old yet?



Let's have a look at two examples!

THE CONVERSATION

Academic rigour, journalistic flair

EXAMPLE 1.

www.theconversation.com

What we know:

- Digital articles (Podcasts, newsletters, opinion, digests, discussion, discoveries, results, listicles, recommendations, evaluations...)
- Editions in English: *Global**, *Europe**, Africa, Australia, NZ, UK, US, Canada
- Other editions: Canada (Fr), France (Fr), España (Sp), Brasil (Pt), Indonesia (Id)
- Wide range of subjects: Arts+Culture, Business+Economy, Education, Environment, Health, Politics+Society, Science+Tech (UK: *Cities*, US: *Ethics+Religion*)
- Written by academics, no peer review, but there are editors
- Embeddings and hyperlinks

THE CONVERSATION

Academic rigour, journalistic flair

EXAMPLE 1.

www.theconversation.com

What we don't know:

- Audience / readership
- Communicative purpose, one genre or many (networks?)? Is it just a “medium”?
- Recognition, value, utility
- Linguistic features, functional moves
- Engagement in different languages
- Engagement in different sections / disciplines
- Rejections
- Who embeds what and why?
- Who creates hyperlinks and why?

EXAMPLE 1.

THE CONVERSATION

Academic rigour, journalistic flair

www.theconversation.com

These questions are relevant to understanding science communication and researchers' practices today.

- How do you train a researcher to be ready to write something like this?
- Is it even valuable/necessary to train them?
- Who should be training them?

EXAMPLE 2. Twitter

Research group's timeline:

- Advertise publications, blog posts, conference presentations...
- Multimodal, attention-getting, different genres, summarise, persuade...



TOPIC Research Group
@topic_group

🔊 A great @ECR_DevNetwork blog article from @ladyzoia about Mother's exhaustion in a pandemic world using the #CoSpace study findings that parents & carers' stress & depression were elevated during each lockdown 🗣️

sites.google.com/view/the-ecr-d...

ForsGroup @forsgroup · 26 feb. 2021

Department: Hey, could you make a video introducing your lab to prospective students?
What we heard: Hey, could you make a chemistry sea shanty?



ForsGroup
@forsgroup

For the future, renewables are key; so block copolymers we produced sustainably. Polyvinyl ethers our craft, made through cationic RAFT, and characterized them as TPEs! New paper in @PolymChem! 🍌
@noodlechemist @SmithSweetser @ReneeSifri @sirosenbloom93
doi.org/10.1039/D0PY01...

EXAMPLE 2. Twitter

Epidemiologists' tweets:

- Dissemination threads to inform about scientific topics.
- Context collapse
- Purposes:
 - React to an event 44.0%
 - Share scientific information 41.8%
 - Announce event, publication, appearance 9.9%
 - Share a story 9.9%

Formal Elements	HETs (%)
Image	50.5%
Hashtag	7.7%
Link	24.2%
Mention	16.5%
Emoji	13.2%


EXAMPLE 2. Twitter

Twitter conference presentations:

- Conference presentation > tweet format
 - T1 - introduction
 - T2 - data
 - T3 - data
 - T4 - methods & results
 - T5 - methods & results
 - T6 - conclusion

https://twitter.com/hilpert_martin/status/1599716570582122496

Villares (2023). <https://doi.org/10.1016/j.esp.2022.10.005>

 **Martin Hilpert** @hilpert_martin

Clippings are shortened words (fridge < refrigerator). Are there differences in meaning between clippings and their source words? If so, what kind of differences? Do you think there is a difference between 'fridge' and 'refrigerator'? #linguistweets #linguisTW1045 #clipping

No difference 26.7%

'Fridge' is less formal. 66.7%

Different (comment below) 6.7%

105 votes · Final results

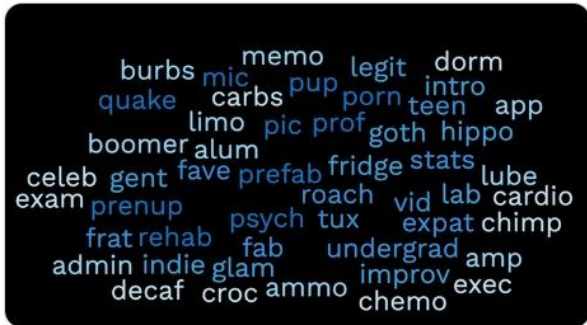
11:45 AM · Dec 5, 2022

3 8 38 4

Post your reply [Reply](#)

 **Martin Hilpert** @hilpert_martin · Dec 5, 2022

Our data: We selected 50 English clippings and their corresponding source words (cardio-cardiovascular, chemo-chemotherapy, intro-introduction, etc.). For each clipping and each source word, we retrieved 100 concordance lines from the COCA corpus.



burbs mic memo legit dorm
quake carbs pup porn teen app
limo pic prof goth hippo
boomer alum
celeb gent fave prefab fridge stats lube
exam preup psych tux vid lab cardio
frat rehab fab undergrad amp
admin indie glam improv exec
decaf croc ammo chemo



Understanding digital
science communication practices

Training researchers and
academics for the digital age

Thank you! Vă mulțumim!

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