How to Start Your Research from Nothing

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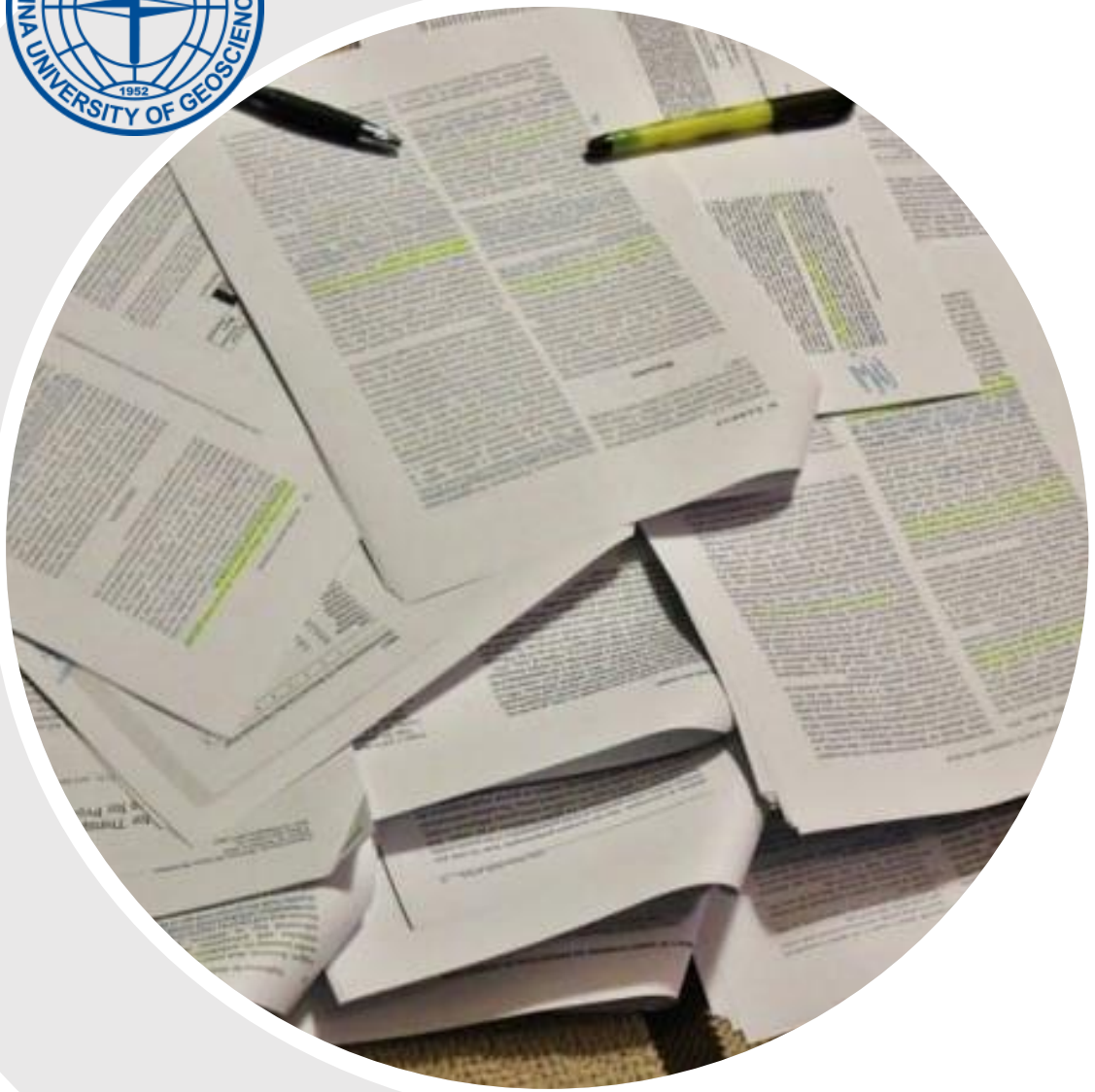
OUTLINE

- Paper and its benefits
- How to read a paper.
- How to summarize a journal article.
- Some points about the introduction.
- How to reply to the reviewers.
- How to start coding.
- The best programs for coding.
- Programs for writing.



Paper and its Benefits

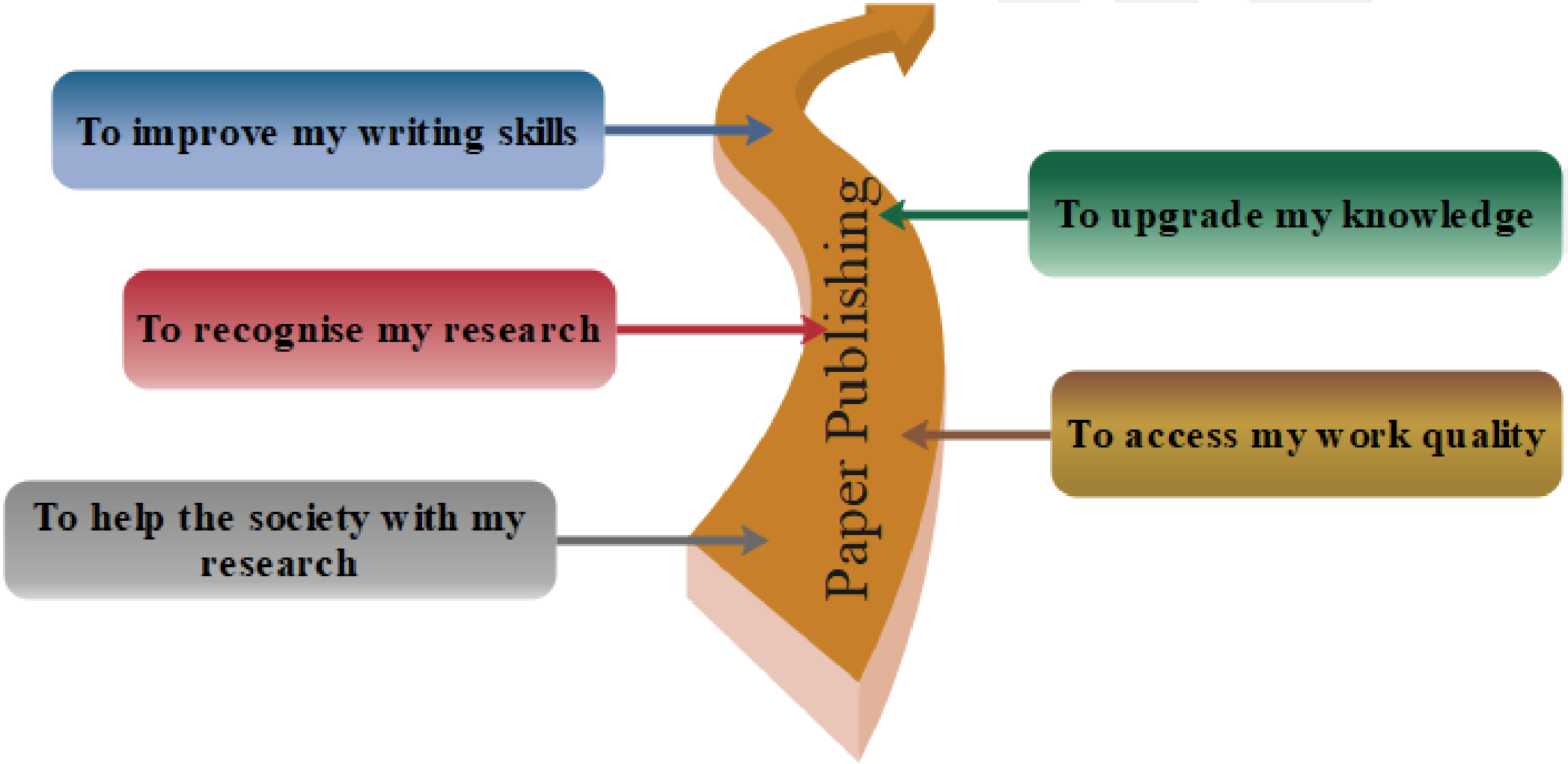
Paper and its Benefits

- **The paper** basically is a outcome of your research.

- **Benefits of paper publishing for students:**
  - ✓Nowadays, it is very common to publish a paper by students. In fact, many of the institutes are making it mandatory for the students to publish a paper. Of course, these papers are related to the project work of the student.
  - ✓Furthermore, students' projects will be worldwide, recognize by publishing a paper.
  - ✓Getting a certificate.
  - ✓Students will learn to write a paper.
  - ✓It helps in improving the writing skills of students.

https://journalnx.com/blog/benefits-of-paper-publishing/

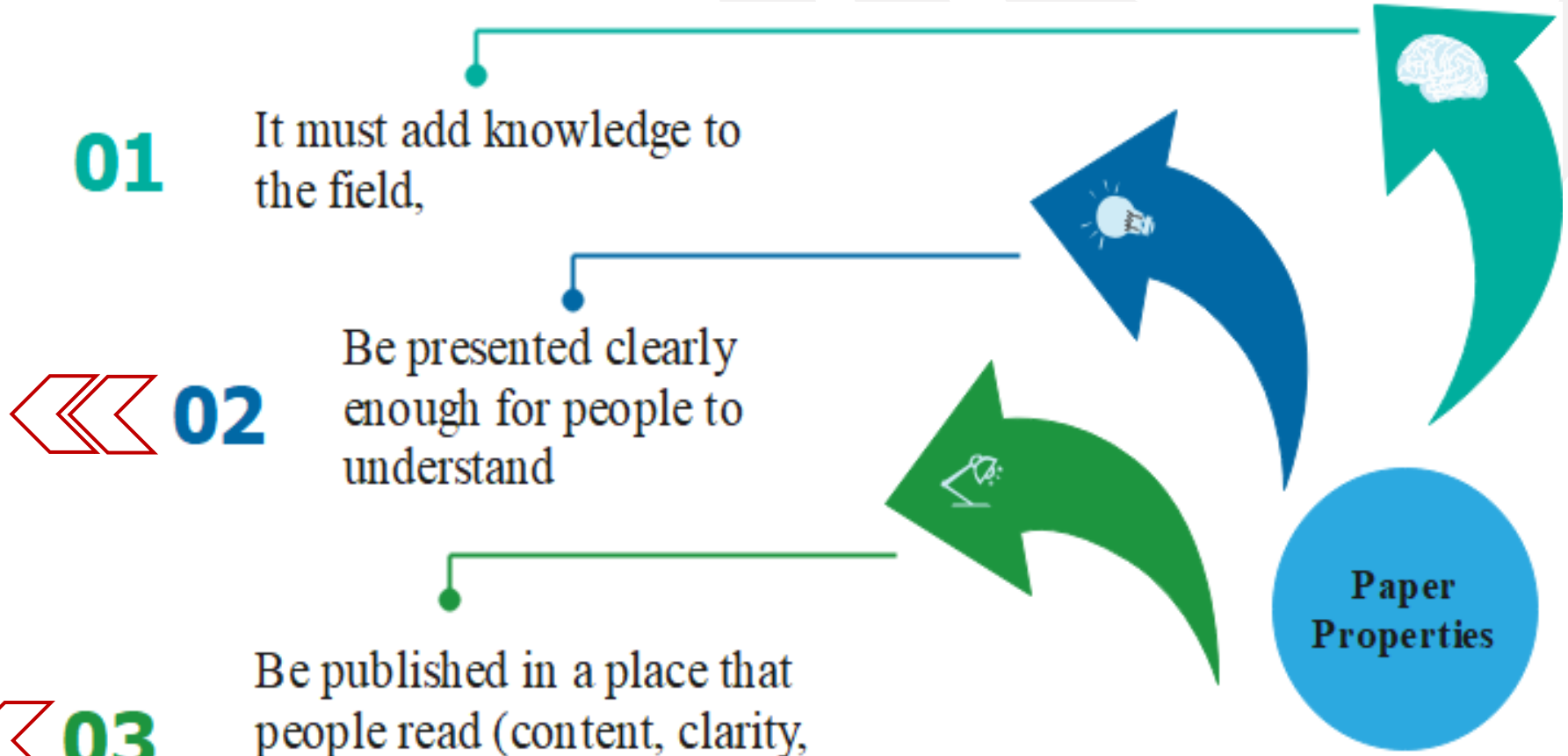
Benefits of Paper Publishing



The Paper Must Have Three Properties

Even a good paper (with content and clarity) that is published in obscure access will not influence the field or the industry.

Unfortunately, a paper with good results (content) but a poor presentation (no clarity) may never be understood.



HOW TO READ A SCIENTIFIC PAPER

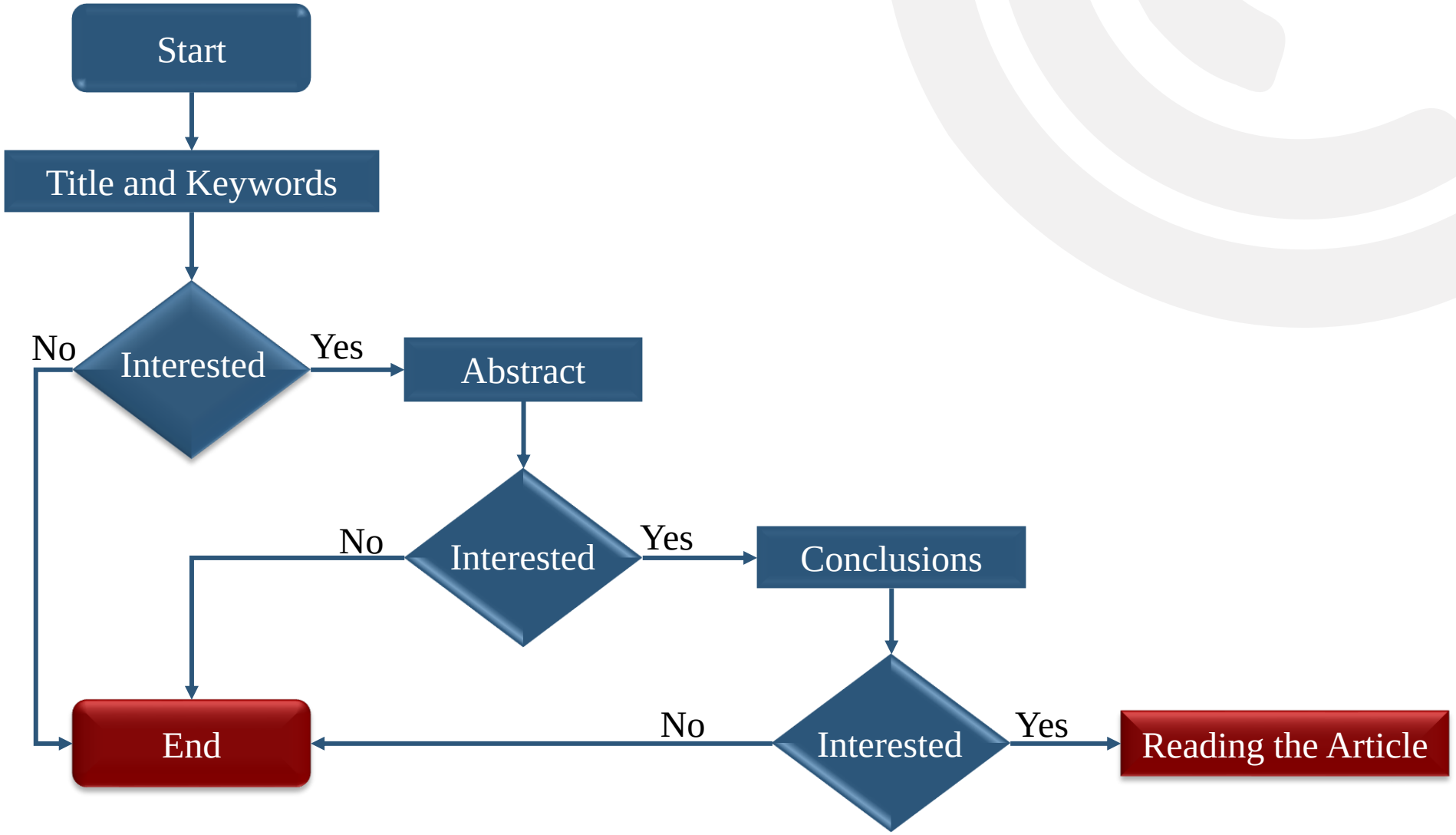
How To Read A Research Paper Efficiently?

➢First of all, do not waste your time:

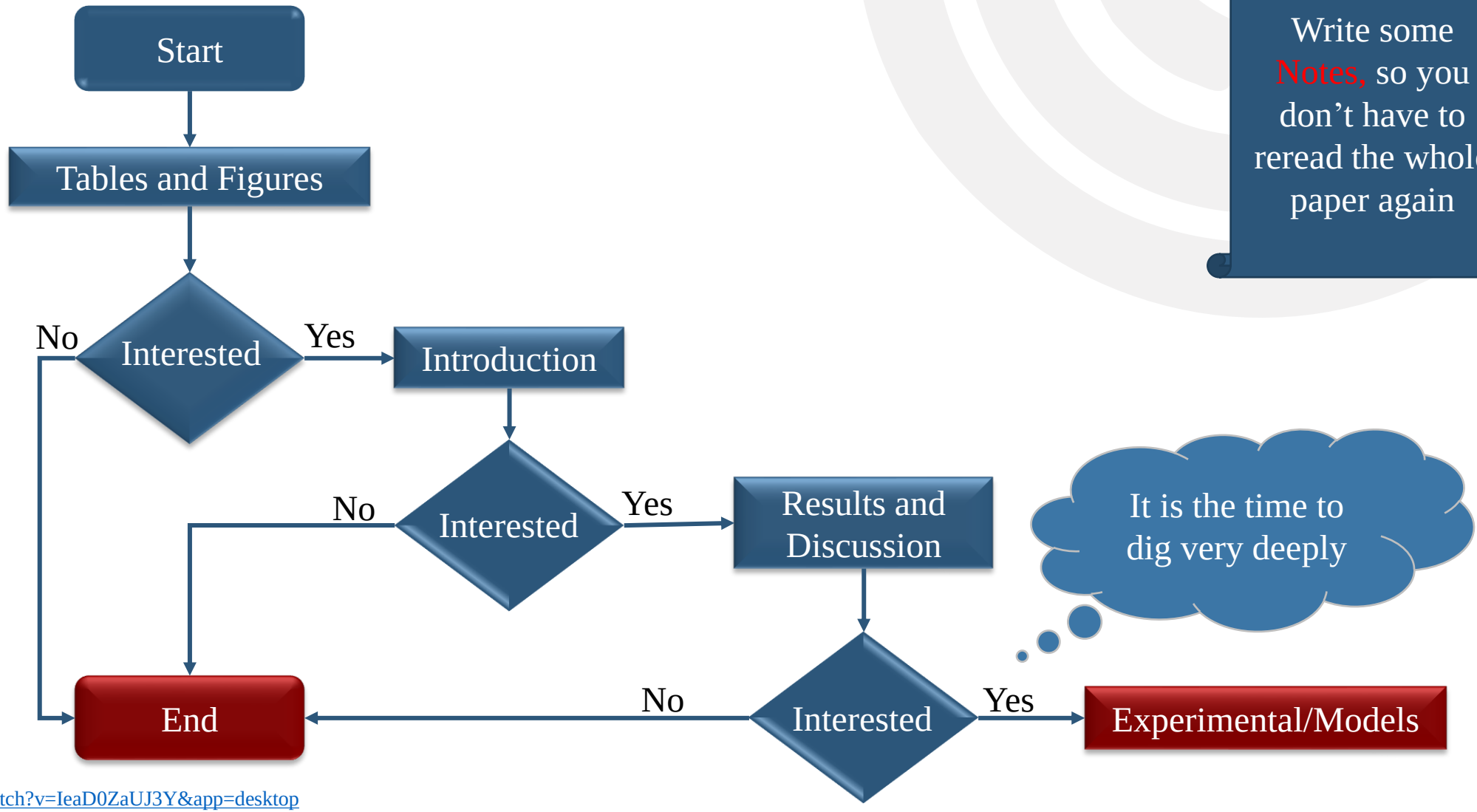
✓You need to see if the paper is suitable for you to continue or not**?**

1. So, the best way is that **skimming and scanning** through the Article before reading.
2. Then **Reading** the Article.

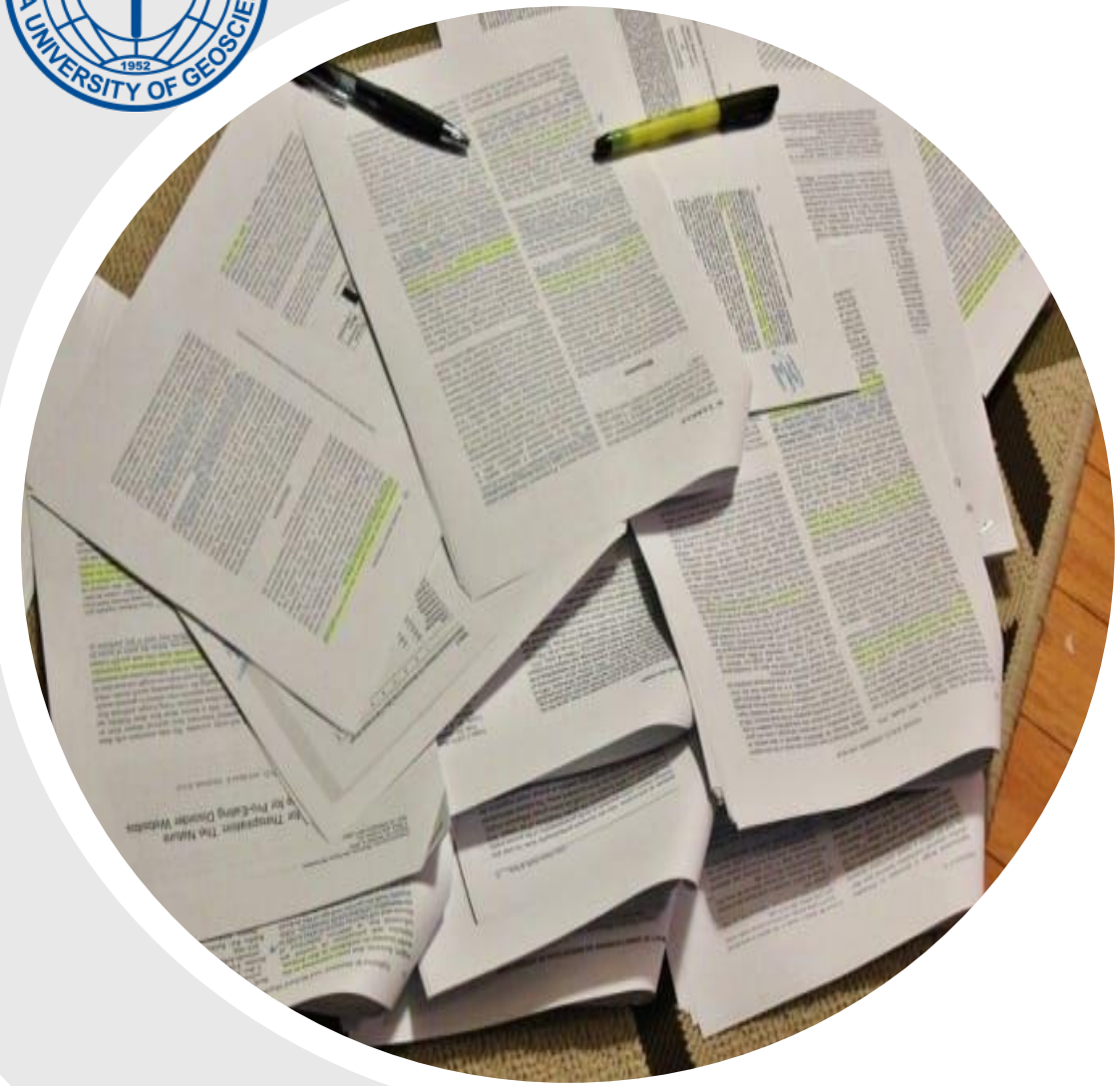
How To “Survey” the Paper



How to “Read” the Paper



https://www.youtube.com/watch?v=IeaD0ZaUJ3Y&app=desktop



HOW TO SUMMARIZE A JOURNAL ARTICLE

ACADEMIC WRITING

- **The main ways to use sources are:**
  - **Quoting** – uses the “exact words”.
  - **Paraphrasing** – uses your own words to give details info.
  - **Summarizing** – putting the main point into your own words.

ACADEMIC WRITING

- **The purpose of summarizing:**
  - ➢ Goal:
    - ✓ To give a short description or general overview of what is relevant to your own research area/study.
  - ➢ Summarizing is used to:
    - ✓ Justify a claim or position.
    - ✓ Provide background to your own work.
    - ✓ Demonstrate the breadth of research (or lack of it) on a topic.
    - ✓ To compare research conclusions or a range of opinions on a topic.

Steps in Summarizing

1. Read the article until you understand it- pay close attention to:
    - The purpose,
    - Research method, and
    - Conclusion.
2. Highlight or note important aspects or findings.
3. Write down your own summation in clear, concise language (2-5).
4. Use your own words, and do not write quotations.
5. Cite the article in the correct citation style.

➢ **Notes:**

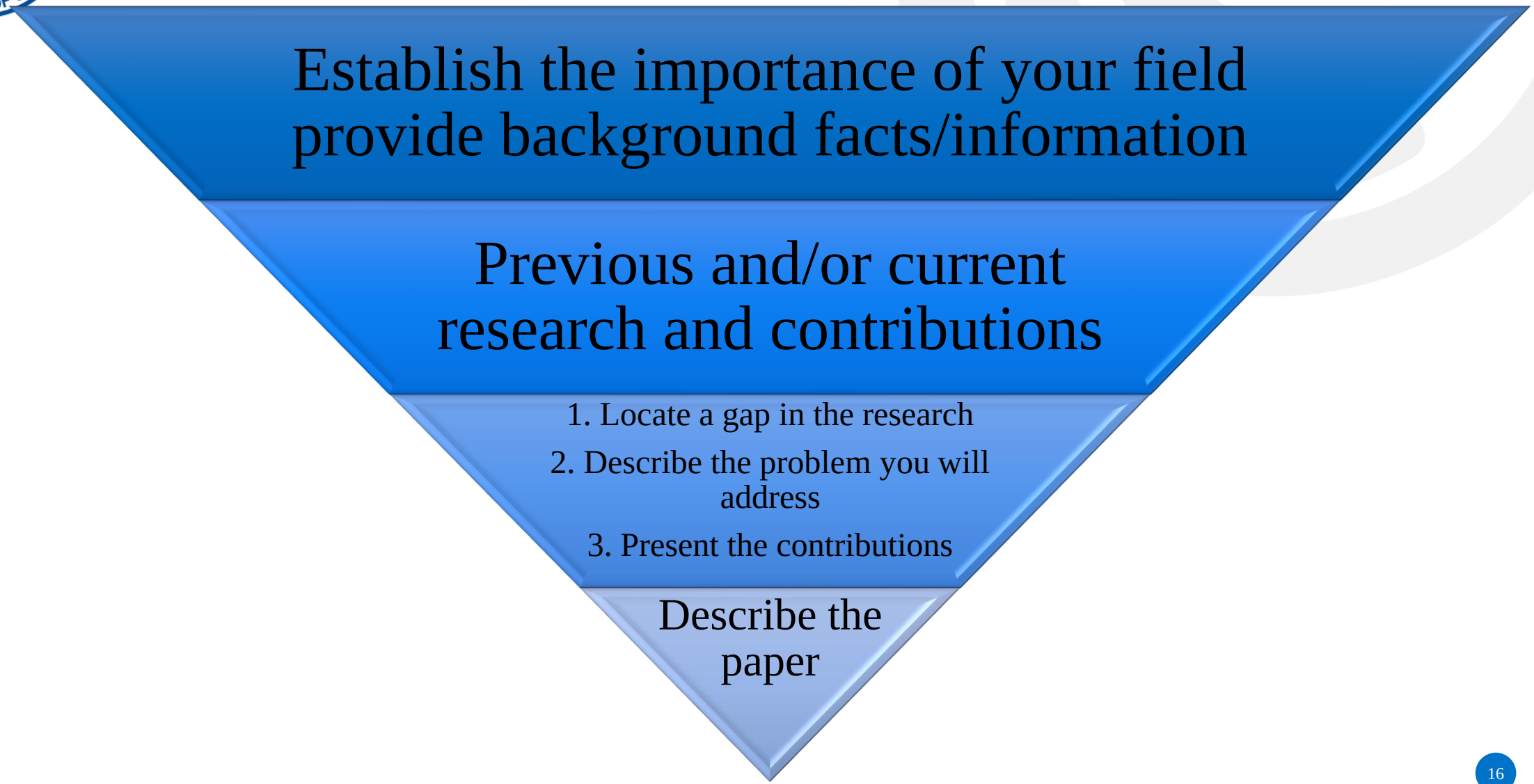
✓ If you figured out the answer of why, that will led you to get the answer of how.

✓ Be sure not to include your personal opinion about any aspect of research paper.

https://www.youtube.com/user/stkatesrefdesk/videos

Introduction

Simply, the INTRODUCTION has four basic components:



Some questions about Introduction

- **What if I don’t have the confidence to say that my research is important?**
  - ➢Most authors of research articles begin by establishing the significance of their research; if you don’t, it can look as though your research is **NOT** significant, so don’t be shy about stating why or how your field is important or useful.

Some questions about Introduction

- **So what kind of facts should I start with?**
  - This depends on how wide your subject — and therefore your readership is.

If the subject of your research is very specific,

then many of your readers will have a high level of background knowledge,

and you can start with **fairly specific information**.

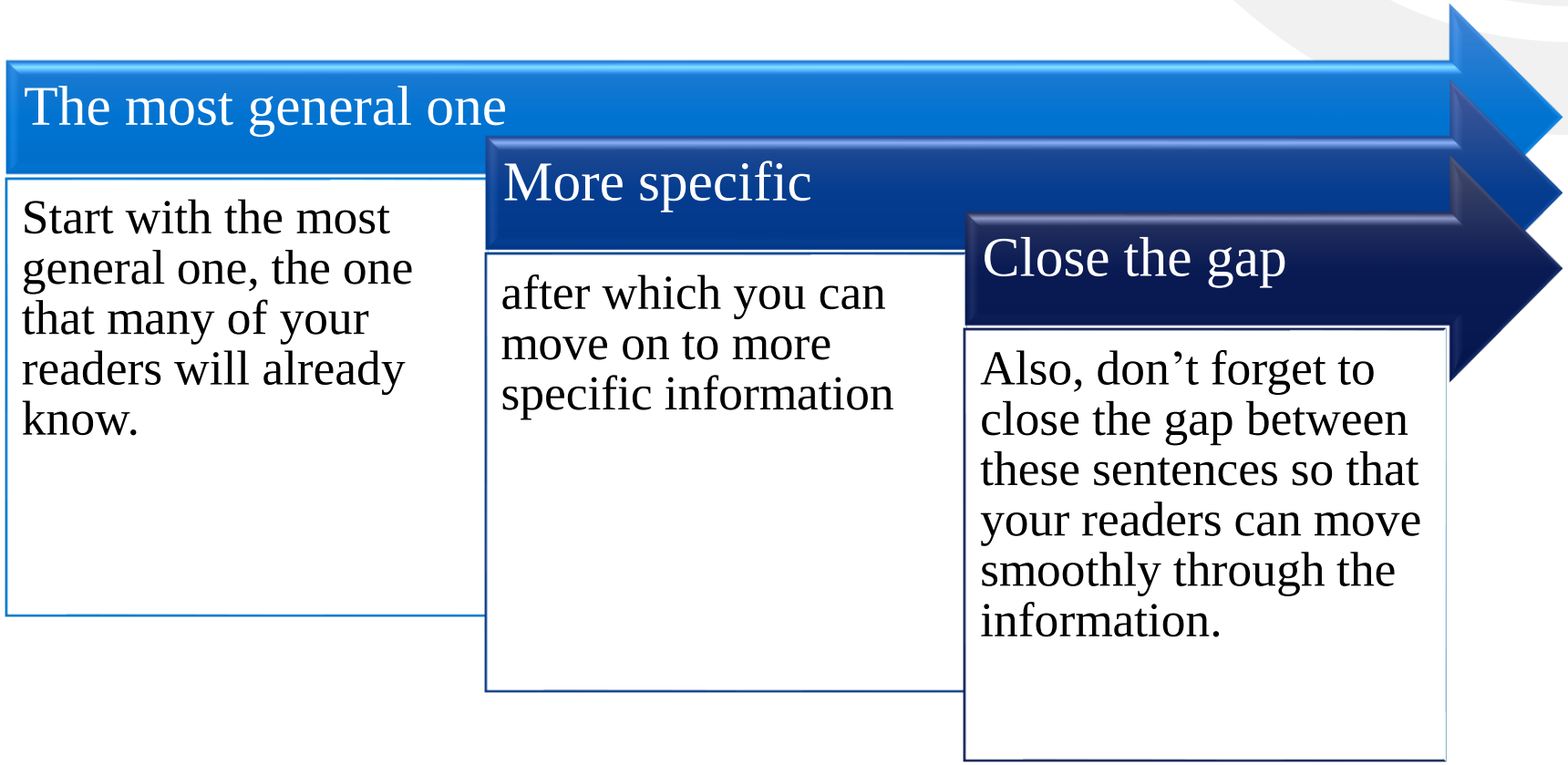
If your paper is likely to attract a wider audience,

then you should start with more general background information.

The Writer Should Provide General Background Information

- **What if there are several background facts I want to start with, not just one?**

  How do I know which one to begin with?



HOW TO CLOSE THE GAP

1. **Overlap**, meaning to repeat something from the previous sentence.
2. **A pronoun** (*it, they*) or **pro-form** (*this method, these systems*) to glue the sentences together.
3. Join it to the next sentence with a **semicolon** (;) or a **relative clause** (a 'which' clause).
4. Use a signalling sentence connector to indicate the relationship between one sentence and the next, like **therefore** or **however**.

Useful Books

2. VERBS USED IN THE LITERATURE REVIEW TO PRESENT PREVIOUS AND/OR CURRENT RESEARCH AND CONTRIBUTIONS

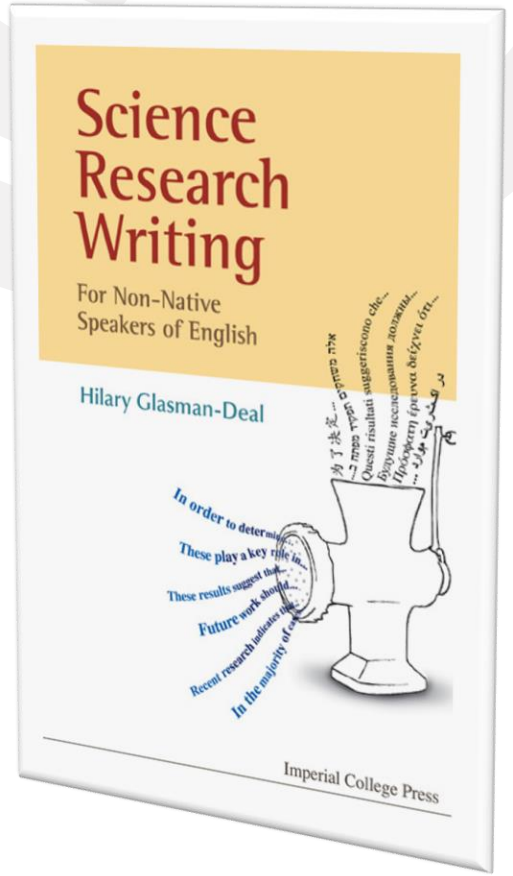
achieve	develop	obtain
address	discover	overcome
adopt	discuss	perform
analyse	enhance	point out
apply	establish	predict
argue	estimate	present
assume	evaluate	produce
attempt	examine	propose
calculate	explain	prove
categorise	explore	provide
carry out	extend	publish
choose	find	put forward
claim	focus on	realise
classify	formulate	recognise
collect	generate	recommend
compare	identify	record
concentrate (on)	illustrate	report
conclude	implement	reveal
conduct	imply	revise
confirm	improve	review
consider	incorporate	show
construct	indicate	simulate
correlate	interpret	solve
deal with	introduce	state
debate	investigate	study
define	measure	support
demonstrate	model	suggest
describe	monitor	test
design	note	undertake
detect	observe	use
determine	prefer	utilise

of the other researcher. The fact that you are so familiar with what you did means that your own contribution is obvious to you — but it may not be obvious to your reader.

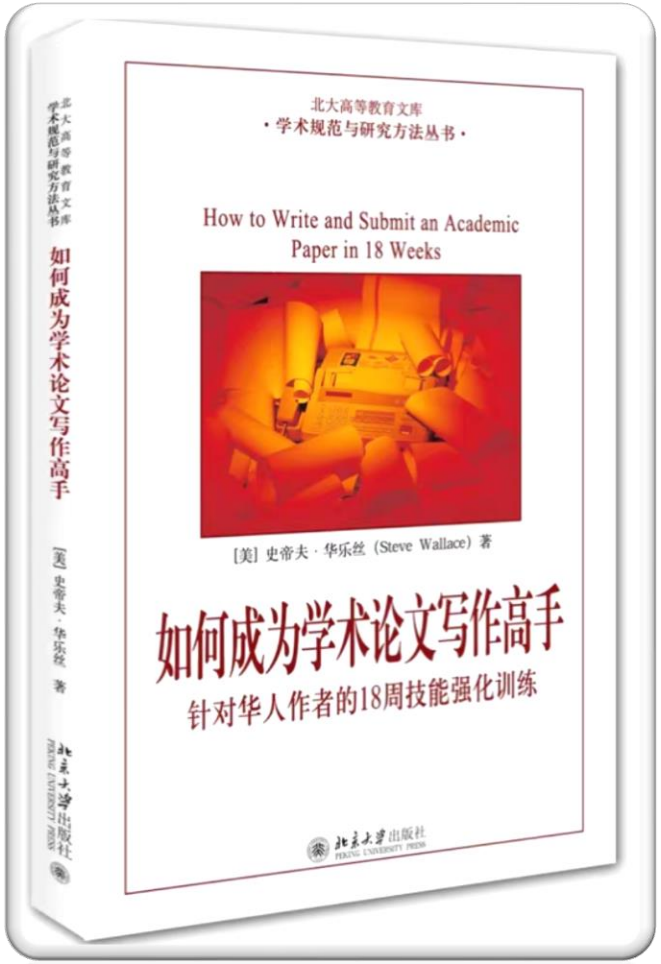
One way to make sure that your own contribution is clear and easy to identify is by marking it with words — perhaps by adding phrases like ***In this study**, the samples were collected using a suction tube* or ***In our experiments** the samples were collected using a suction tube*, and by identifying the procedure used by other researchers with careful references at the appropriate place in the sentence (*In Brown (1999) the samples **were collected** using a suction tube*).

There are five possible uses that you may need. Note the different tenses.

	What do you mean?	How can you make it clear?
1	*X was (collected/ substituted/ adjusted etc.)* by **me** in the procedure or work that **I** carried out	Either move to the active (*We collected/adjusted/ substituted etc.*) or add words or phrases such as *here/in this work/in our model* or use a 'dummy' subject such as *This experiment/The procedure*
2	*X was (collected/ substituted/ adjusted etc.)* by the person whose procedure or work I am using as a basis for, or comparing with, my own	Give a research reference and/ or add words/phrases such as *in their work/in that model*
3	*X is (collected/substituted/ adjusted etc.)* normally, *i.e.* as part of a standard procedure	You may need a research reference even if it is a standard procedure, depending on how well-known it is. Use phrases such as *as in* [5]



Useful Books



Useful websites

https://awelu.srv.lu.se/

Useful websites

Introduction

The Nature of Academic Writing

Writing in Academic Genres

- Research Articles (RAs)
- Textbooks
- Abstracts
- Reviews (review articles and book reviews)
- Undergraduate text types
- PhD Theses
- Popular science writing
- Posters
- Grant proposals
- The essay format

Writing for Publication

Writing for Administrative Purposes

References

Genres and Text Types

Print

Writing in Academic Genres

In this subsection, a number of widely used academic genres will be explained and discussed. Following Hyland (2007: 46) the term **genre** is here used as a means of "grouping texts together, representing how writers typically use language to respond to recurring situations".

The genres covered in this subsection are ones commonly used in the academic community. For some of them, a broad consensus may exist as to how texts and text types within these genres are structured and used. For others, a large variation can be observed across disciplines.

In some cases, the term genre coincides with the term **text type**. However, the former could be seen as a kind of umbrella term for a communicative event, for which one or several more specific text types can be employed as the preferred vehicle of communication.

- Research Articles (RAs)
- Textbooks
- Abstracts
- Reviews (review articles and book reviews)
- Undergraduate text types
- PhD Theses
- Popular science writing
- Posters
- Grant proposals
- The essay format

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https://awelu.srv.lu.se/

Useful websites

https://awelu.srv.lu.se/grammar-and-words/common-problems-and-how-to-avoid-them/

HOW TO REPLY TO THE REVIEWERS

Be Polite and Respectful of All Reviewers

Even if you are convinced that the reviewer lacks intellectual capacity, it is certainly not in your interest to convey this impression to the reviewer.

Keep in mind that if the reviewer failed to understand something, the fault likely lies, at least in part, with you for not making the point clear enough.

If the reviewer does not seem to be an expert in the area, remember that this level of expertise (or lack thereof) may be representative of many readers of the journal.

Your goal is to make the work clear and accessible to all readers, not just to experts.

Be Polite and Respectful of All Reviewers

- In rare cases, you may feel that a reviewer's critiques are simply discourteous. In such situations,

It is important to remember that miscommunications are possible.

Regardless, a rude critique does not justify a rude response from you, especially because your primary **Goal** is to publish your scientific results.

Accept The Blame

- **If the reviewer failed to understand something,**
  - ✓**Apologize** for not making it clear. Even if you are convinced that the text is already clear (i.e., the reviewer simply missed it),
  - ✓In general, even if the requested change seems unnecessary, it is usually better to go ahead and revise with the goal of showing the reviewer that they were **listened to and understood**.

https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1005730

Some sentences can use to respond to the reviewers

✓Thanks for your help. We feel really sorry for our carelessness.

✓We feel sorry that we did not provide enough information about XXXX.

✓Your suggestion really means a lot to us. Yes, it would be more understandable if we XXX.

✓Thanks for your correction. It was indeed a serious grammatical error. And we have corrected it according to your suggestion.

✓According to your suggestion, we have corrected the “XXX” into “XXX”.

https://www.youtube.com/watch?v=sWSNMzjooCY

Sample Cover Letter

Dear Dr. [Editor],

Thank you for encouraging me, at the [conference name], to submit the enclosed article, [article title], for possible publication in [journal name]. I believe this paper reflects the type of research that would interest your readers, because you regularly publish relevant scholarship on [your topic].

I am the sole author of this 8,000-word article, which has not been published before in any form and is not under submission to any other journal or publisher.

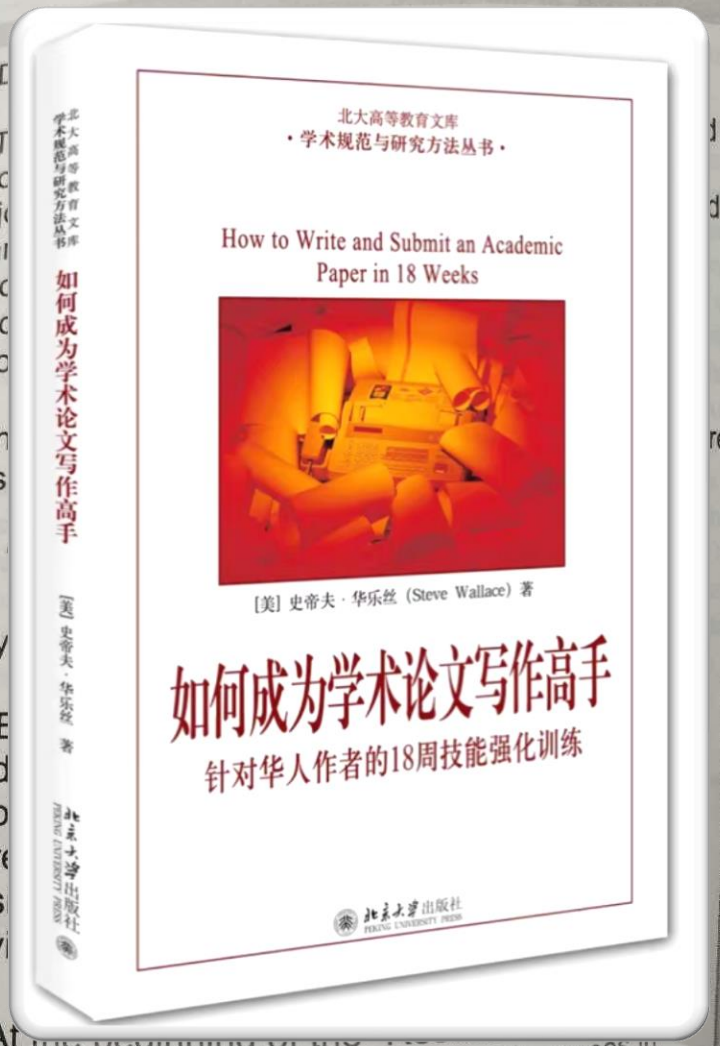
In this article, I argue that . . . (*objective*). While investigating . . . (*method*), I found that . . . (*results*). Based on . . . (*findings*), I identified . . . (*results*). After discussing these issues . . . (*implications*), I suggest how . . . (*applications*).

I have included a photocopy of a potential illustration, which is the only material for which I would need permission. I look forward to hearing from you.

Sincerely,
[Your Name]

(Referral Belcher)

Sample Revision Letter 2



- At the beginning of the ... a phrase that notes particular differences in responses across gender and socioeconomic status.

Sample Query Letter to an Editor

Dear Dr. [First Name, Last Name]:

I obtained your email address from Professor [name], and I hope you do not mind me emailing you. I am considering submitting my article titled [title] for possible publication in your journal, [name]. I notice that your journal has published articles on [your general topic] (I am thinking in particular of [title], published last year). Because there are few published studies on [your specific topic], my article may fill this gap and contribute to the understanding of [your argument].

My article argues that [abstract here].

My article is approximately [number] double-spaced pages long, including footnotes, references, and tables. I have never published this article, nor have I submitted it to any other journal. Grants from the [name of funders] funded the collection of data for this project.

Would such an article interest you? Please let me know if you feel that my broader focus on [your topic] would pose a problem for acceptance in your journal. As my section on [sub-topic] is quite strong, I could recast the article to focus entirely on this [sub-topic]. Thank you very much. I look forward to hearing from you.

[Name without any title]

[University, Department]

[City, State/Country]

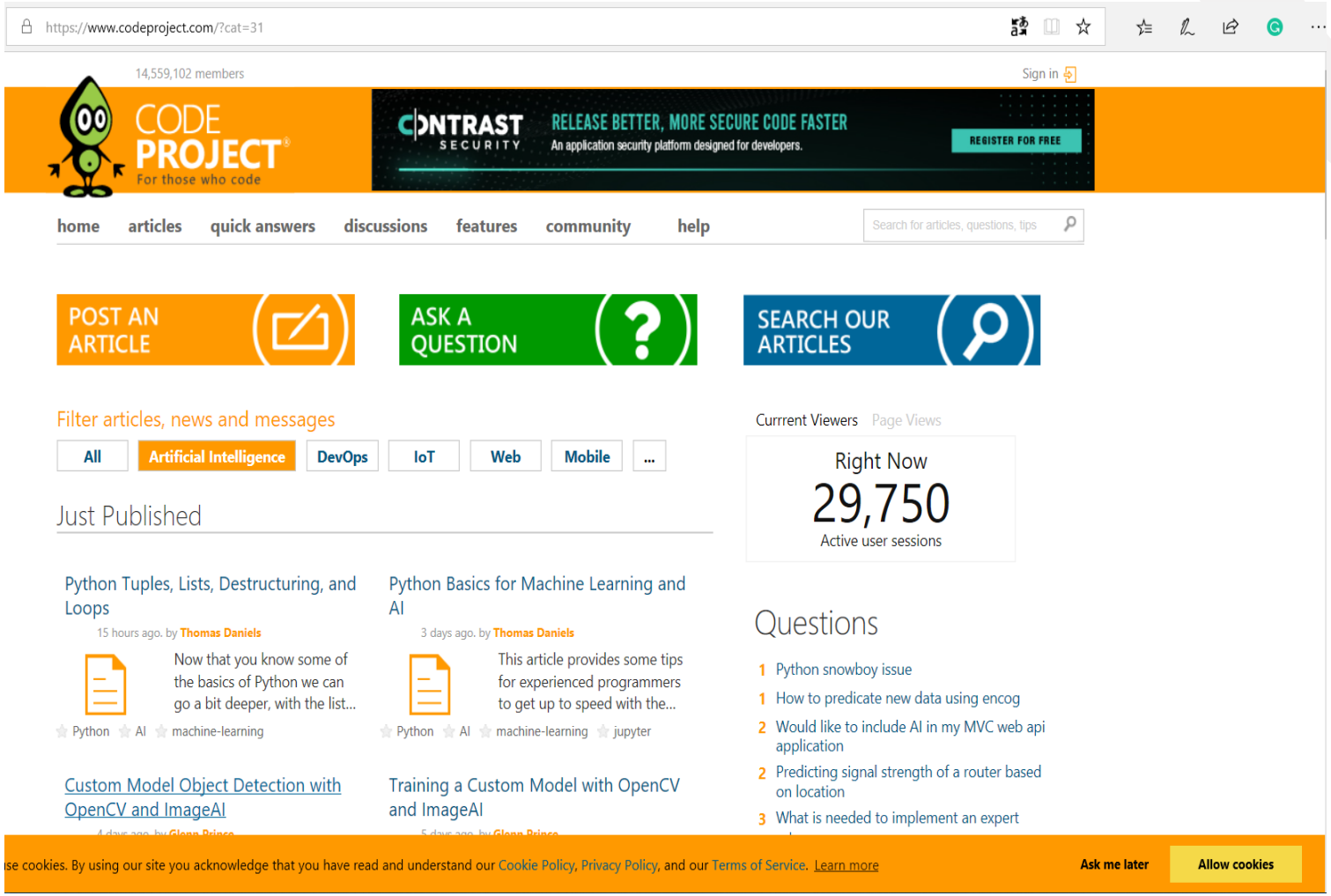
HOW TO START CODING

Steps to Help You with Coding

1. You need to decide first what your research area is and what kind of methodologies you will use.
2. Then, which kind of data will you use?
3. After that, start looking for suitable ready coding for your research:
   - Understand it very well,
   - Fix any error you get,
   - Run it and see it's output.
4. Then, run that code with your own data or modify the code to be suitable for your own data. (50%)
5. After that, improve the code to get higher accuracy of your results.

Useful websites

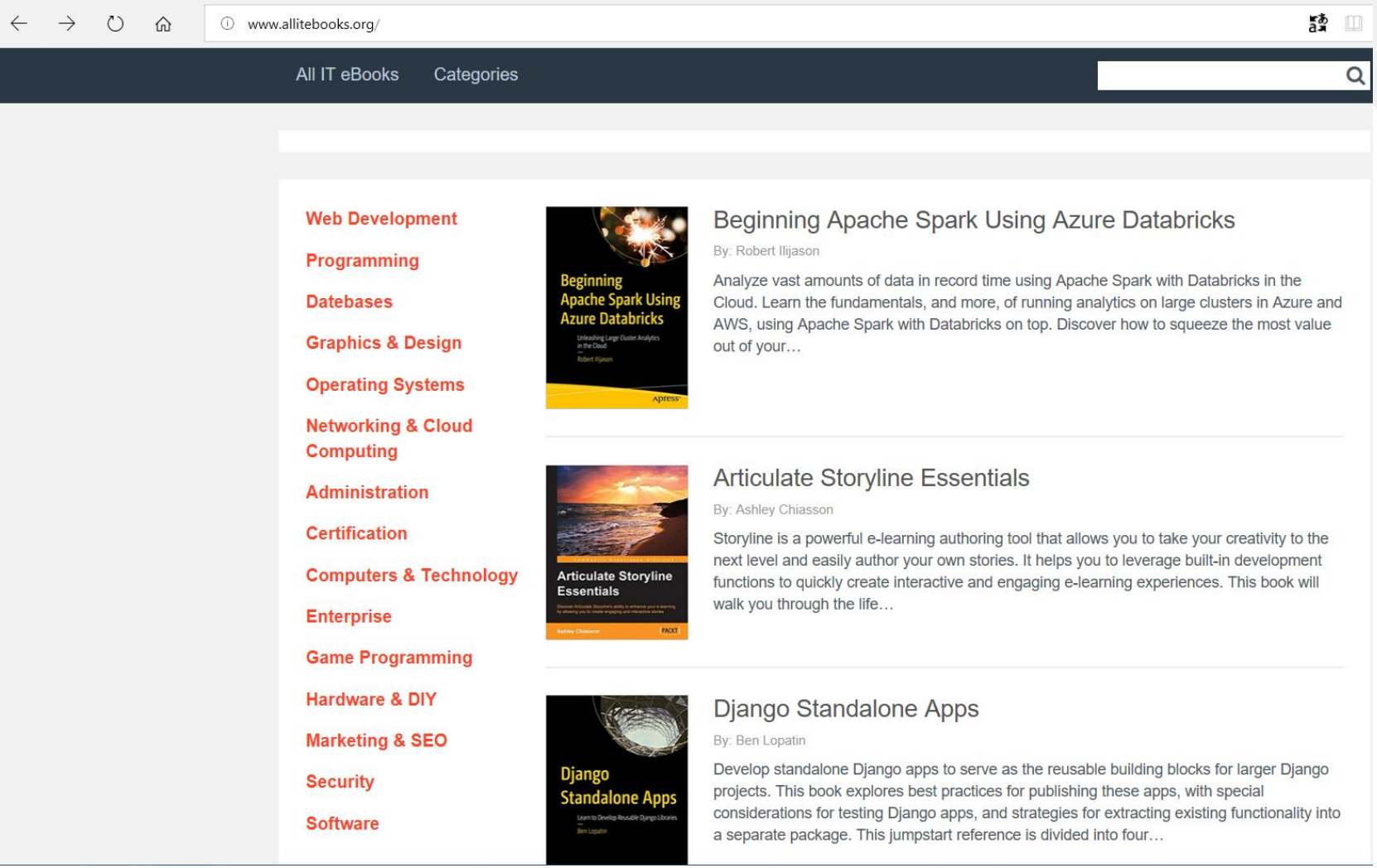
https://www.codeproject.com/?cat=31



Useful websites

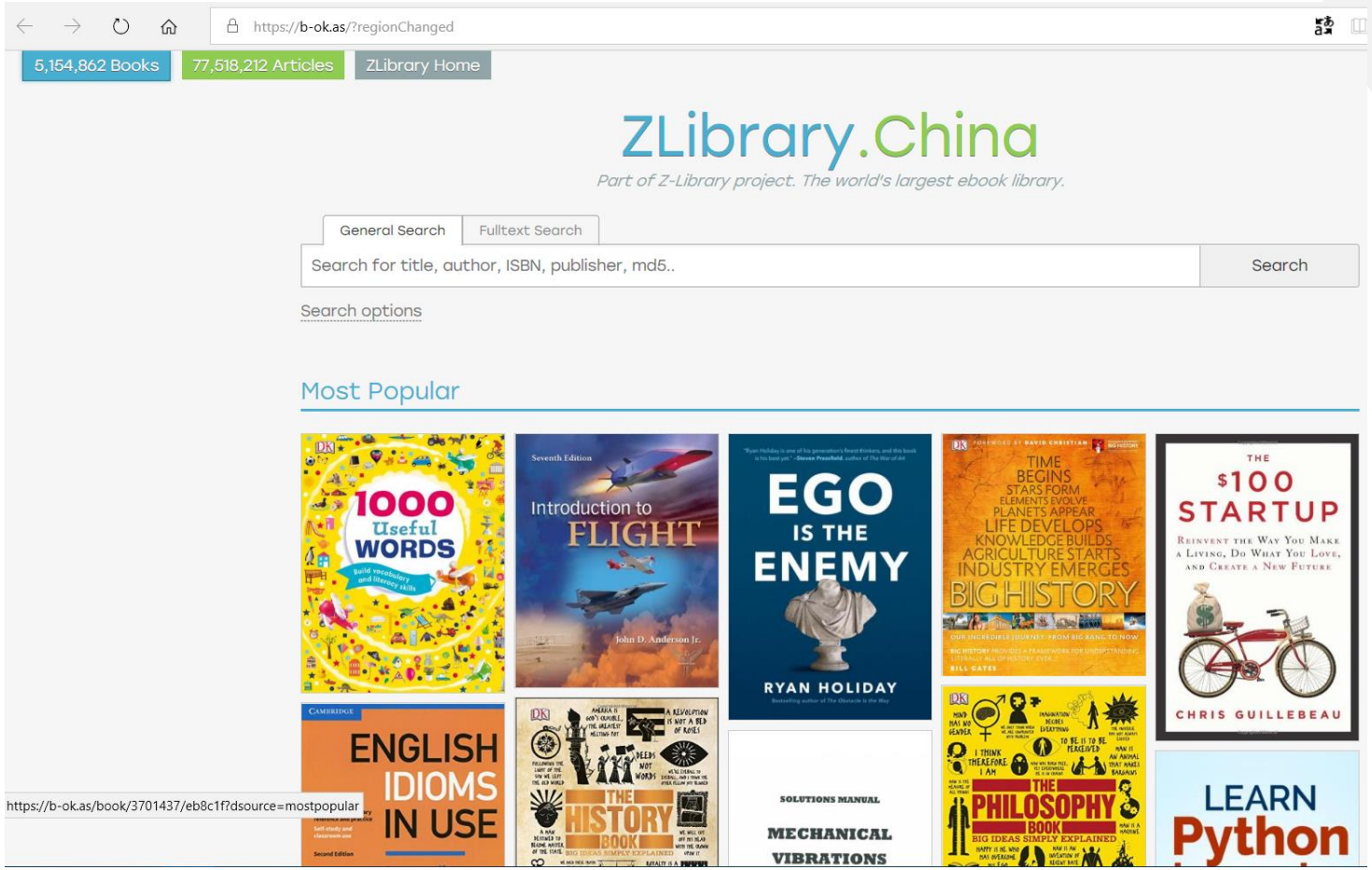
https://github.com

Useful websites



http://www.allitebooks.org/

Useful websites



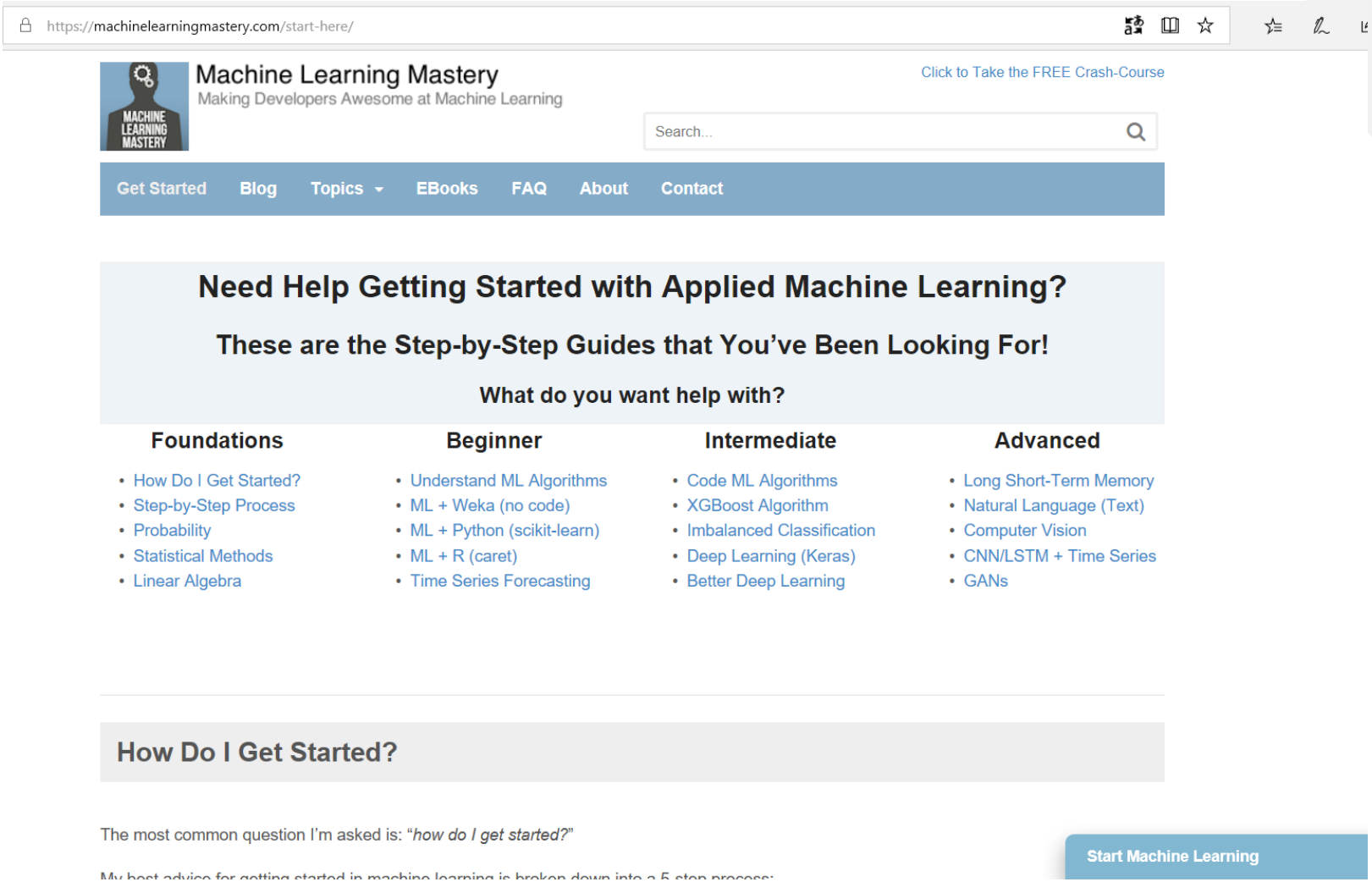
https://b-ok.cc/

Useful Chinese Programs

豆瓣

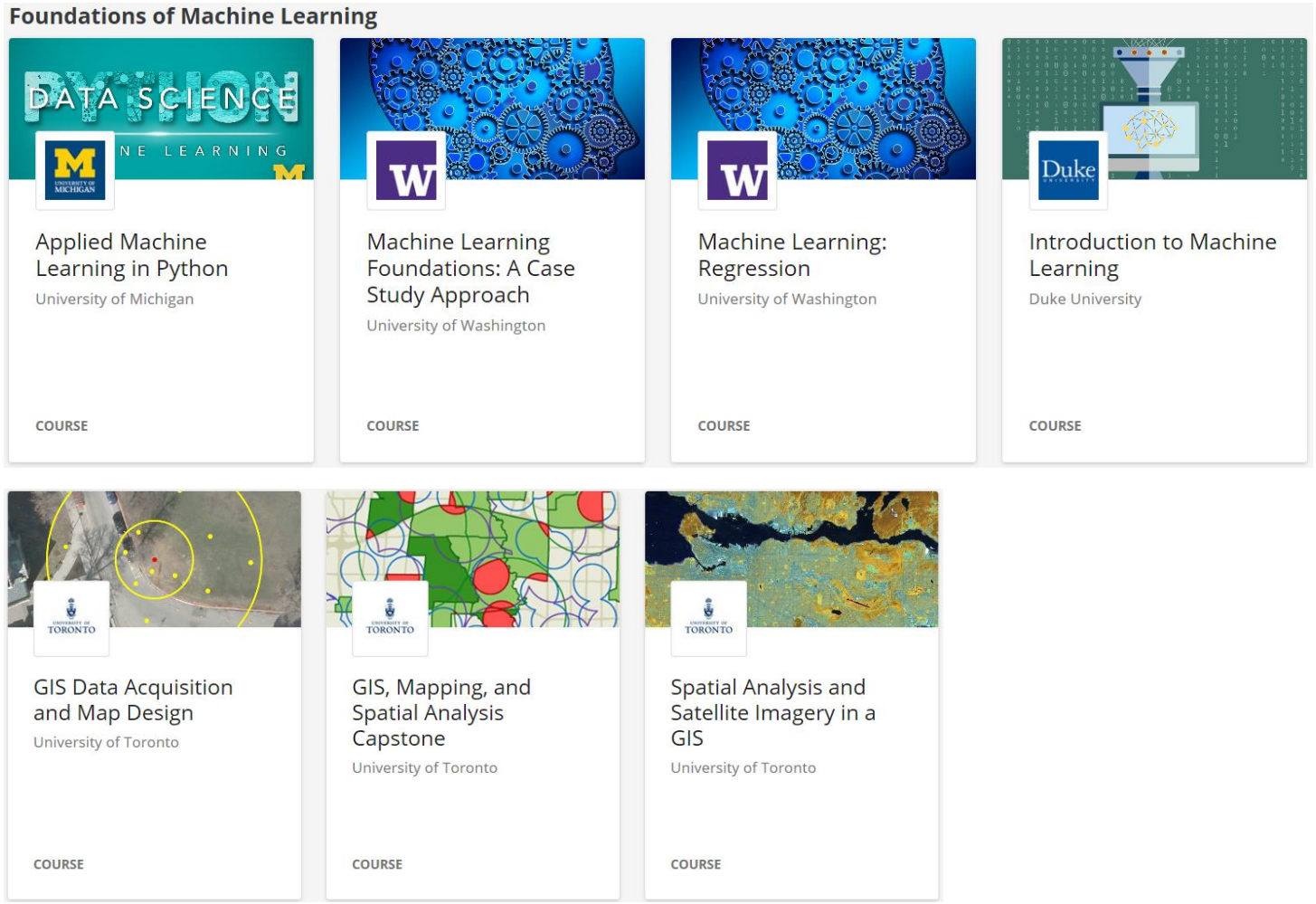
道客阅读

Useful websites



https://machinelearningmastery.com/start-here/

Useful websites



With university email:
https://www.coursera.org/for-university-and-college-students

Without university email:
https://www.coursera.org/promo/free-courses-college-students

Useful websites

1. Codeproject	→	Coding	www.codeproject.com
2. GitHub	→	Coding	https://github.com
3. Allitebooks	→	Books	http://www.allitebooks.org/
4. ZLibrary	→	Books	https://b-ok.cc/
5. Machine Learning Mastery	→	Tutorials	machinelearningmastery
6. Coursera	→	Tutorials	www.coursera.org

THE BEST PROGRAMS

AI PROGRAMS AND LANGUAGES

MATLAB is:

- ✓ not an open-source program (not free).
- ✓ a heavy program, so it slows down the system.

Python and R are:

- ✓ an open-source program (free).
- ✓ The very light program

Anaconda Distribution

- **Anaconda** is a free and open-source distribution of the Python and R programming languages for scientific computing (data science, machine learning applications, etc.),
  - that aims to simplify package management and deployment.
  - The distribution includes data-science packages suitable for Windows, Linux, and macOS.

The Differences of Python Programs

PROGRAMS FOR WRITING

Programs For Writing

- **TeXstudio** is an integrated writing environment for creating LaTeX documents.
  - ✓ LaTeX makes writing as easy and comfortable as possible.
  - ✓ Therefore TeXstudio has numerous features like syntax-highlighting, integrated viewer, reference checking and various assistants.
  - ✓ TeXstudio is open source and is available for all major operating systems.

https://www.texstudio.org/

- **Microsoft Word** or **MS-WORD** (often called **Word**) is a Graphical **word** processing program that users can type with.
  - ✓ It is made by the computer company **Microsoft**.
  - ✓ Its purpose is to allow users to type and save documents. Similar to other **word** processors,
  - ✓ it has helpful tools to make documents.

Programs to Add References

- **First, read the guideline of the journal.**
- **There are two types of citations.**

1. **In-text citations** appear throughout your paper at the end of a sentence you are citing. They tell your reader where you found the information used to come up with a particular idea.

In some cases, vaccinations have caused patients to become sick rather than preventing illness. Factors contributing to these cases include medication errors made by nurses and physiological difference among patients (Drees, 2013). Szabo (2013) states that these cases are rare, however, and healthcare professional agree that benefits of vaccination far outweigh potential risks. The percentage of pregnant women receiving flu vaccinations "has risen since 2000 and remains above 60%" (Drees, 2013, p. 366).

Programs to Add References

2. **Works cited page or reference list citations** give all of the information your reader would need to find your source. They appear at the end of your paper as a separate page listing all of the sources you used.

References

Drees, M. M., Tambourelli, B. B., & Ehrenthal, D. B. (2013). Sustained high influenza vaccination rates and decreased safety concerns among pregnant women during the 2010–2011 influenza season. *Vaccine*, *31*(2), 362-366. doi:10.1016/j.vaccine.2012.10.112

Szabo, L. (2013, January 17). Vaccine schedule safe for kids, panel says. *USA Today*. Retrieved January 9, 2013, from www.usatoday.com/search/Vaccine%20schedule%20safe%20for%20kids/

https://libguides.nvcc.edu/c.php?g=361391&p=2440254

Programs to Add References

EndNote is a commercial reference management software package,

- ✓ used to manage bibliographies and references when writing essays and articles.
- ✓ It is produced by Clarivate Analytics (previously by Thomson Reuters).

https://endnote.com/

Mendeley is a company based in London, UK, which provides products and services for academic researchers.

- ✓ It is most known for its reference manager which is used to manage and share research papers and generate bibliographies for scholarly articles.

https://www.mendeley.com/download-desktop-new/

MS Word

Thank you