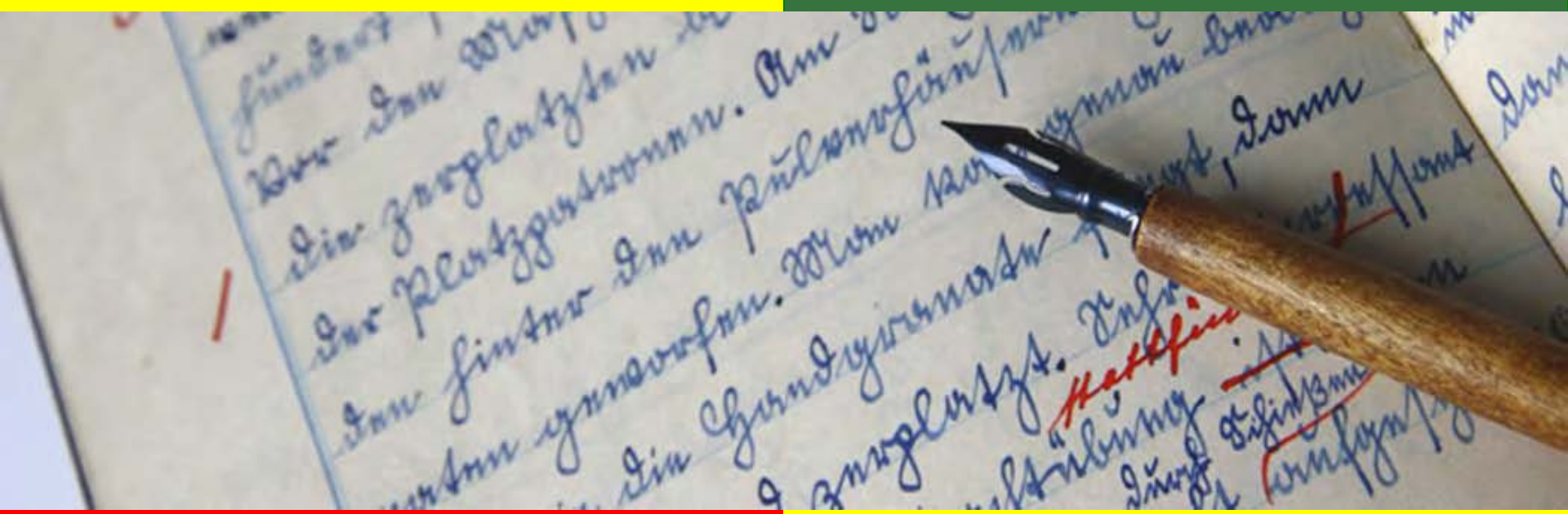

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Associate Professor
Department of Civil Engineering
atmaja_sri@umy.ac.id

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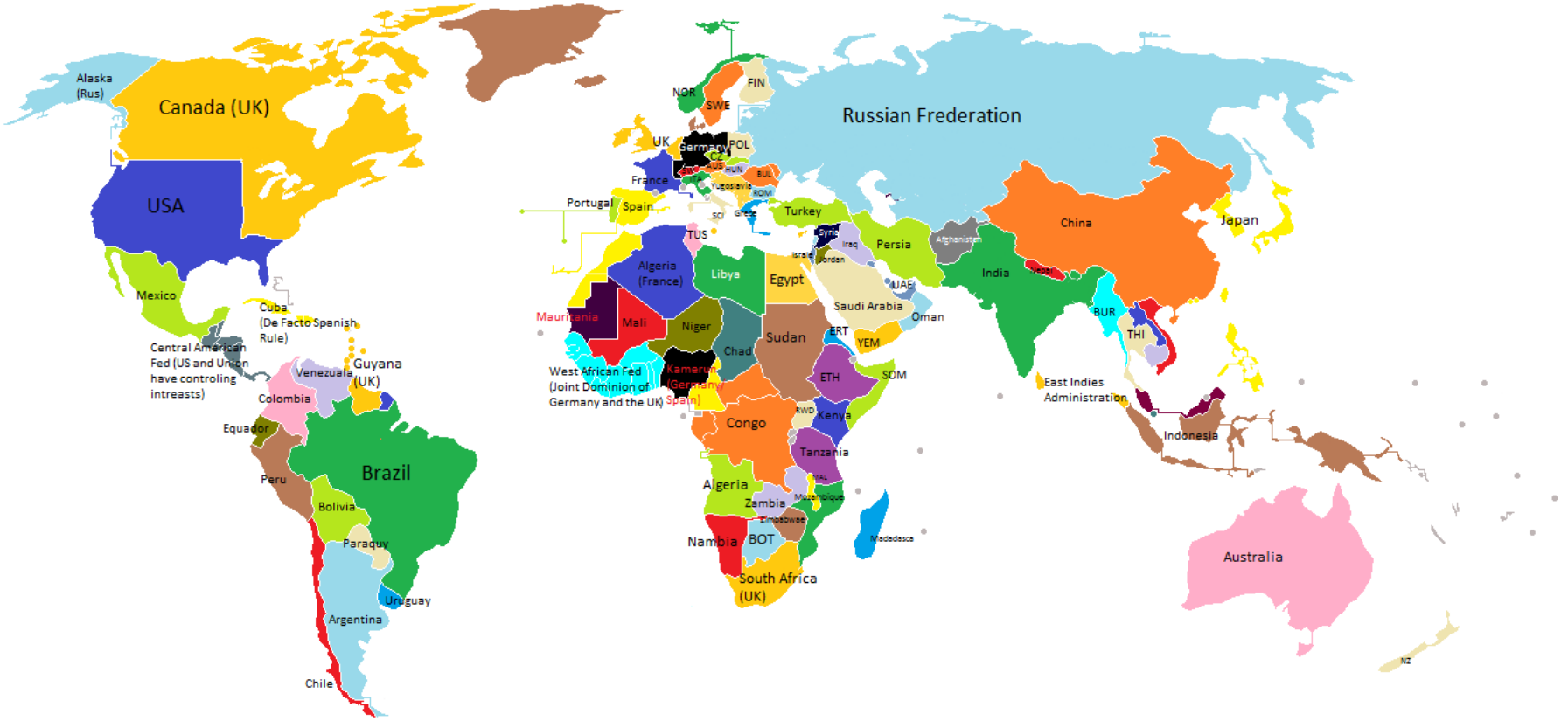

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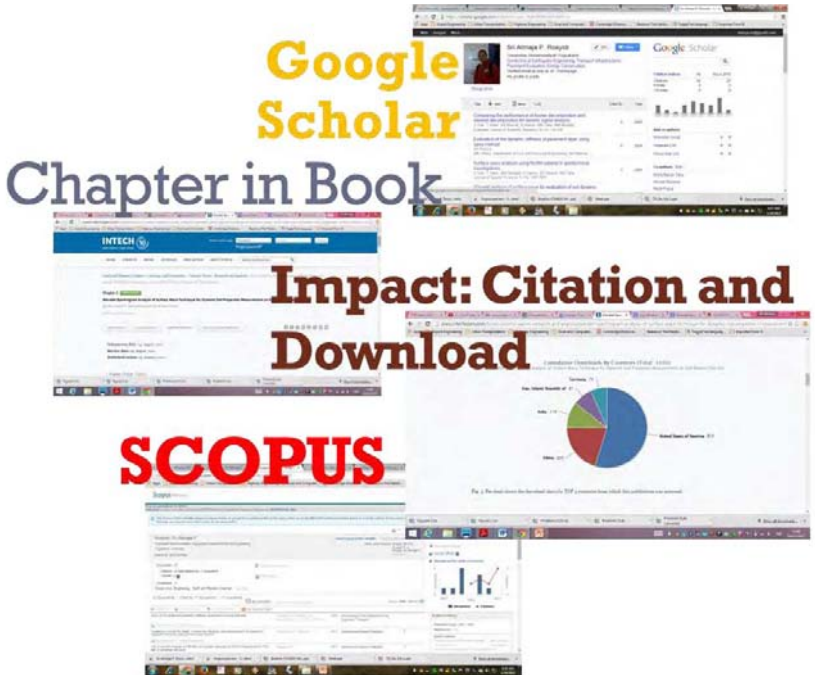

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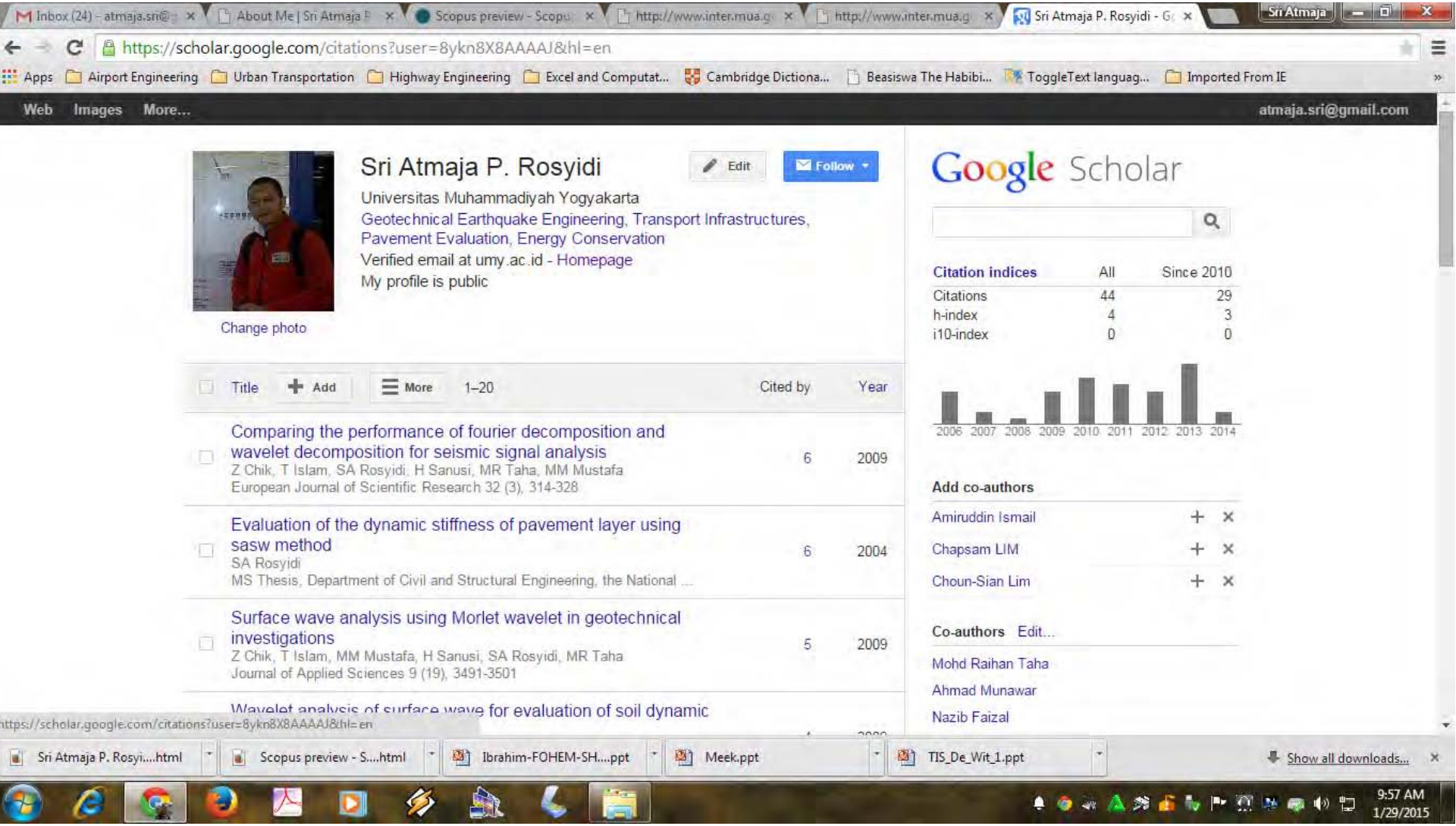

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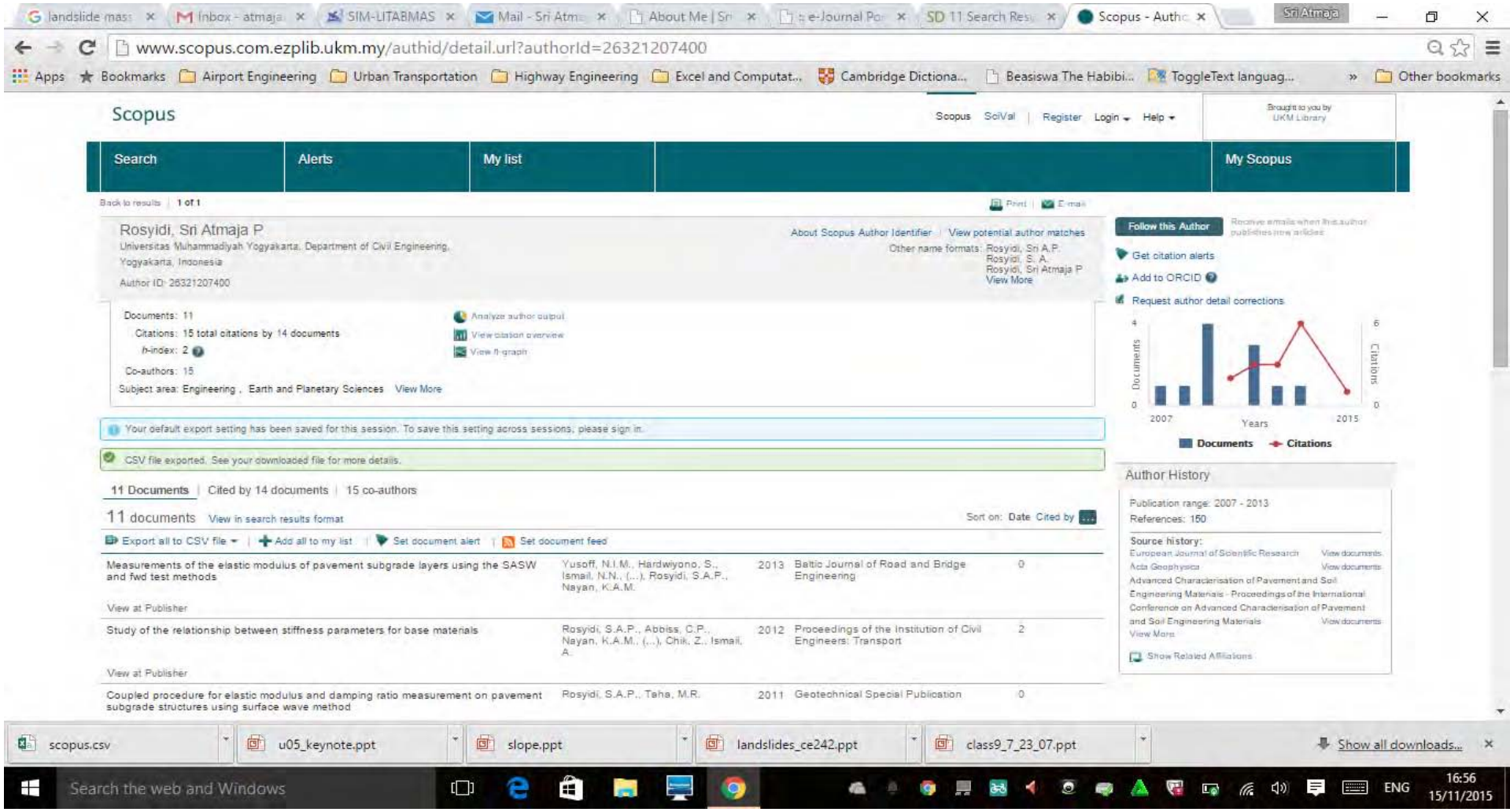
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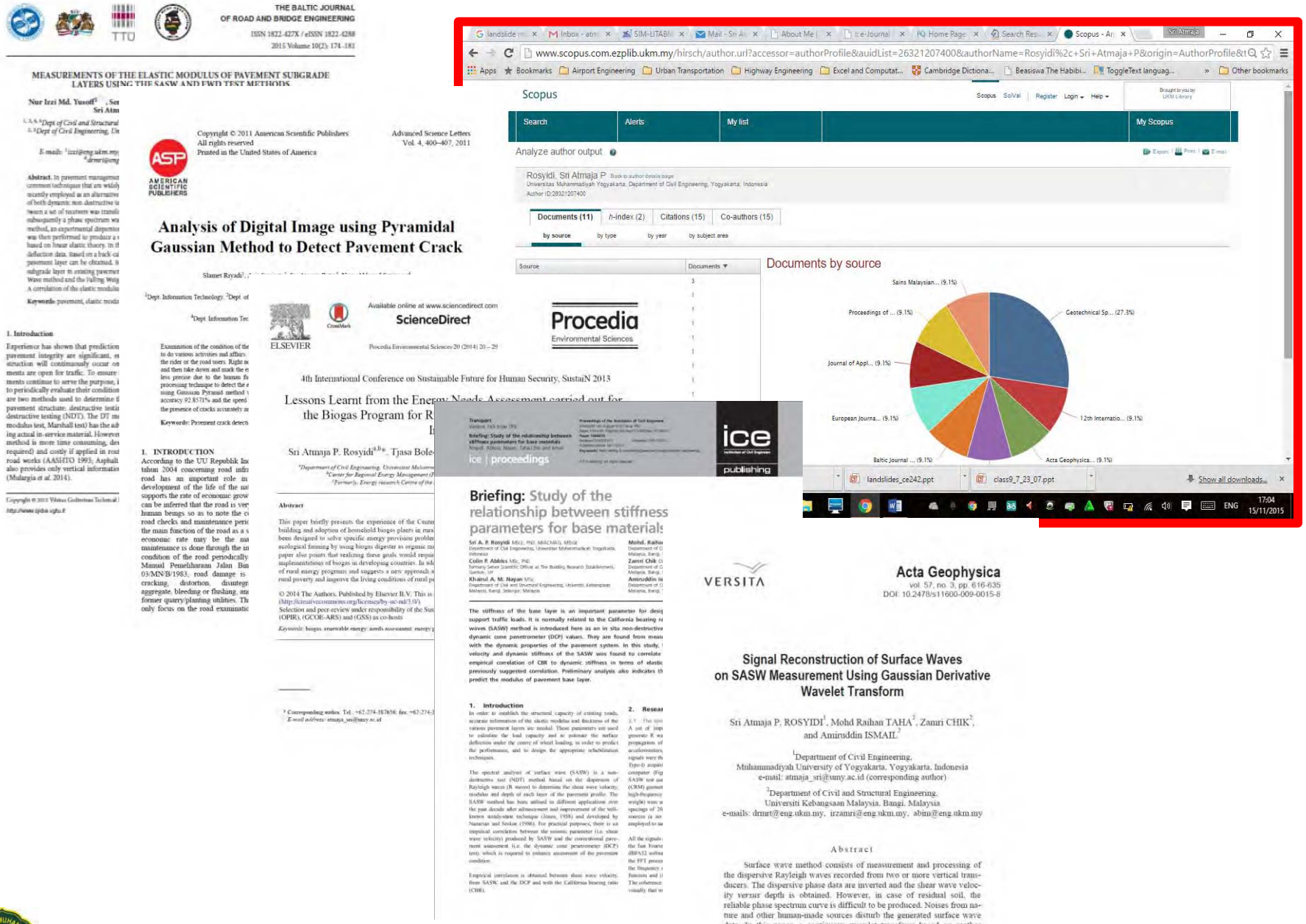

THE BALTIC JOURNAL OF ROAD AND BRIDGE ENGINEERING

ISSN 1822-427X / eISSN 1822-4288
2015 Volume 10(2): 174–181

MEASUREMENTS OF THE ELASTIC MODULUS OF PAVEMENT SUBGRADE LAYERS USING THE SASW AND FWD TEST METHODS

Nur Izzi Md. Yusoff[2] , Ser
Sri Atm

[1, 3, 4, 5]Dept of Civil and Structural
[2, 5]Dept of Civil Engineering, Un

E-mails: [1]izzi@eng.ukm.my;
[4]drnur@eng

Abstract. In pavement management
common techniques that are widely
recently employed as an alternative
of both dynamic non-destructive te
wears a set of receivers was transfo
subsequently a phase spectrum was
method, an experimental dispersion
was then performed to produce a
based on linear elastic theory. In th
deflection data. Based on a back-ca
pavement layer can be obtained. T
subgrade layer to existing pavement
Wave method and the Tulling Weig
A correlation of the elastic modulu

Keywords: pavement, elastic modu

1. Introduction

Experience has shown that prediction
pavement integrity are significant, as
struction will continuously occur on
ments are open for traffic. To ensure
ments continue to serve the purpose, i
to periodically evaluate their condition
are two methods used to determine t
pavement structure: destructive testi
destructive testing (NDT). The DT me
modulus test, Marshall test) has the adv
ing actual in-service material. However
method is more time consuming, des
required) and costly if applied in roa
road works (AASHTO 1993; Asphalt
also provides only vertical information
(Mulargia et al. 2014).

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Advanced Science Letters
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Analysis of Digital Image using Pyramidal Gaussian Method to Detect Pavement Crack

Slamet Riyadi[1], ...

[1]Dept. Information Technology, [2]Dept. of

[1]Dept. Information Tec

Examination of the condition of the
to do various activities and affairs
the rider or the road users. Right n
and then take down and mark the e
less precise due to the human fa
processing technique to detect the e
using Gaussian Pyramid method
accuracy 92.8571% and the speed
the presence of cracks accurately a

Keywords: Pavement crack detecti

1. INTRODUCTION

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road has an important role in
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only focus on the road examinatio

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Lessons Learnt from the Energy Needs Assessment carried out for the Biogas Program for R

Sri Atmaja P. Rosyidi[a,b,]*, Tjasa Bole-

[a]Department of Civil Engineering, Universitas Muham
[b]Center for Regional Energy Management (P
[c]Formerly, Energy research Centre of the

Abstract

This paper briefly presents the experience of the Center
building and adoption of household biogas plants in rura
been designed to solve specific energy provision problem
ecological farming by using biogas digester as organic m
paper also points that realizing these goals would requir
implementations of biogas in developing countries. In sid
of rural energy programs and suggests a new approach a
rural poverty and improve the living conditions of rural p

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Selection and peer-review under responsibility of the Sus
(OPIR), (GCOE-ARS) and (GSS) as co-hosts

Keywords: biogas, renewable energy; needs assessment; energy

* Corresponding author. Tel.: +62-274-387656; fax: +62-274-3
E-mail address: atmaja_sri@umy.ac.id

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Briefing: Study of the relationship between stiffness parameters for base materials

Sri A. P. Rosyidi MSc, PhD, MIACM&G, MRSE
Department of Civil Engineering, Universitas Muhammadiyah Yogyakarta, Indonesia
Colin P. Abbiss MSc, PhD
Formerly Senior Scientific Officer at The Building Research Establishment, Garston, UK
Khairul A. M. Nayan MSc
Department of Civil and Structural Engineering, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia
Mohd. Raihan
Department of C
Malaysia, Bangi,
Zamri Chik
Department of C
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Amiruddin Is
Department of C
Malaysia, Bangi,

The stiffness of the base layer is an important parameter for desig
support traffic loads. It is normally related to the California bearing ra
waves (SASW) method is introduced here as an in situ non-destructive
dynamic cone penetrometer (DCP) values. They are found from measu
with the dynamic properties of the pavement system. In this study,
velocity and dynamic stiffness of the SASW was found to correlate
empirical correlation of CBR to dynamic stiffness in terms of elastic
previously suggested correlation. Preliminary analysis also indicates th
predict the modulus of pavement base layer.

1. Introduction

In order to establish the structural capacity of existing roads,
accurate information of the elastic modulus and thickness of the
various pavement layers are needed. These parameters are used
to calculate the load capacity and to estimate the surface
deflection under the centre of wheel loading in order to predict
the performance, and to design the appropriate rehabilitation
techniques.

The spectral analysis of surface wave (SASW) is a non-
destructive test (NDT) method based on the dispersion of
Rayleigh waves (R waves) to determine the shear wave velocity,
modulus and depth of each layer of the pavement profile. The
SASW method has been utilised in different applications over
the past decade after advancement and improvement of the well-
known steady-state technique (Jones, 1958) and developed by
Nazarian and Stokoe (1986). For practical purposes, there is an
empirical correlation between the seismic parameter (i.e. shear
wave velocity) produced by SASW and the conventional pave-
ment assessment (i.e. the dynamic cone penetrometer (DCP)
test), which is required to enhance assessment of the pavement
condition.

Empirical correlation is obtained between shear wave velocity,
from SASW, and the DCP and with the California bearing ratio
(CBR).

2. Resear

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Acta Geophysica
vol. 57, no. 3, pp. 616-635
DOI: 10.2478/s11600-009-0015-8

Signal Reconstruction of Surface Waves on SASW Measurement Using Gaussian Derivative Wavelet Transform

Sri Atmaja P. ROSYIDI[1], Mohd Raihan TAHA[2], Zamri CHIK[2], and Amiruddin ISMAIL[2]

[1]Department of Civil Engineering,
Muhammadiyah University of Yogyakarta, Yogyakarta, Indonesia
e-mail: atmaja_sri@umy.ac.id (corresponding author)

[2]Department of Civil and Structural Engineering,
Universiti Kebangsaan Malaysia, Bangi, Malaysia
e-mails: drnur@eng.ukm.my, irzamri@eng.ukm.my, abim@eng.ukm.my

Abstract

Surface wave method consists of measurement and processing of the dispersive Rayleigh waves recorded from two or more vertical transducers. The dispersive phase data are inverted and the shear wave velocity *versus* depth is obtained. However, in case of residual soil, the reliable phase spectrum curve is difficult to be produced. Noises from nature and other human-made sources disturb the generated surface wave data. In this paper, a continuous wavelet transform based on mother

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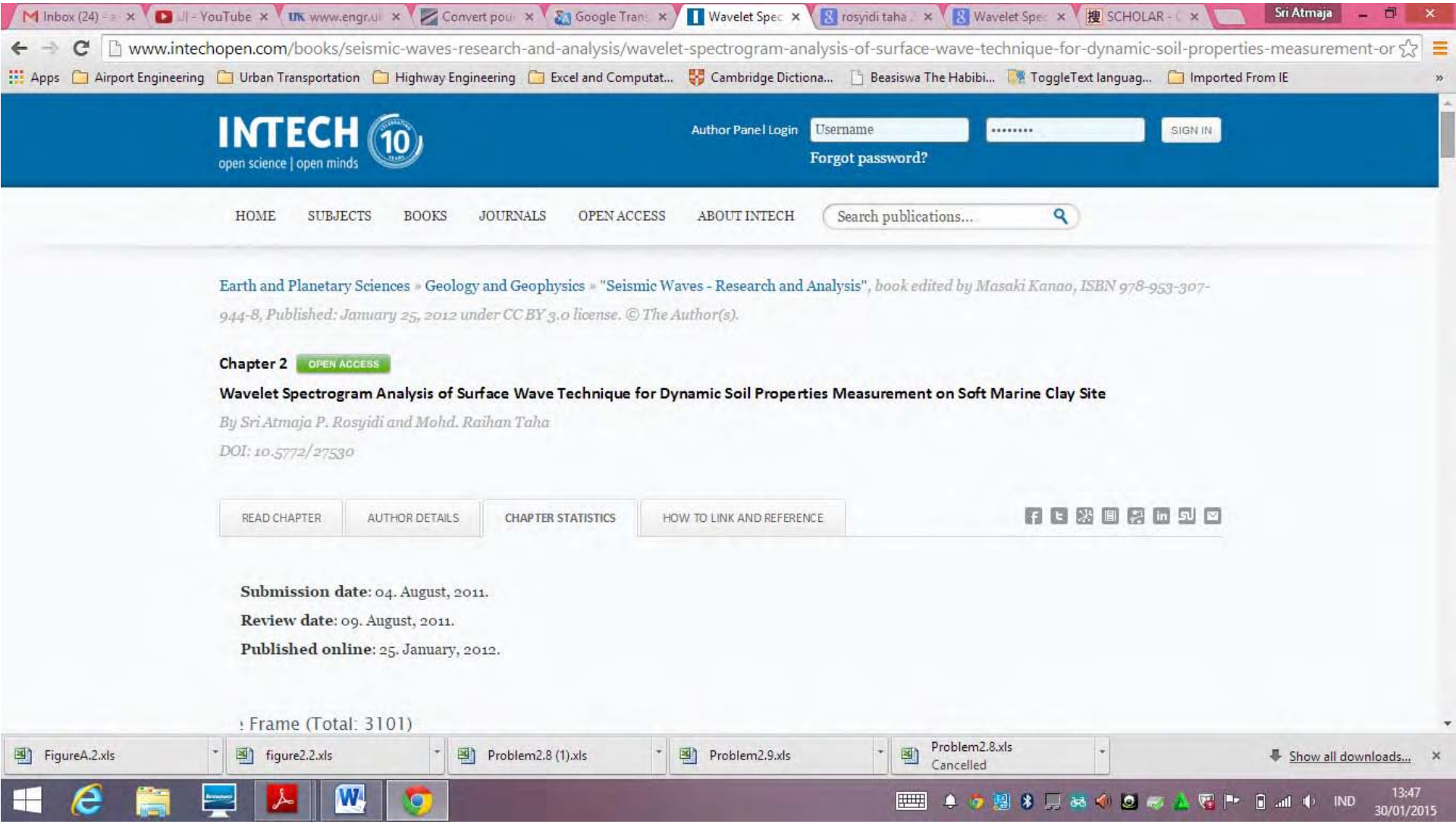

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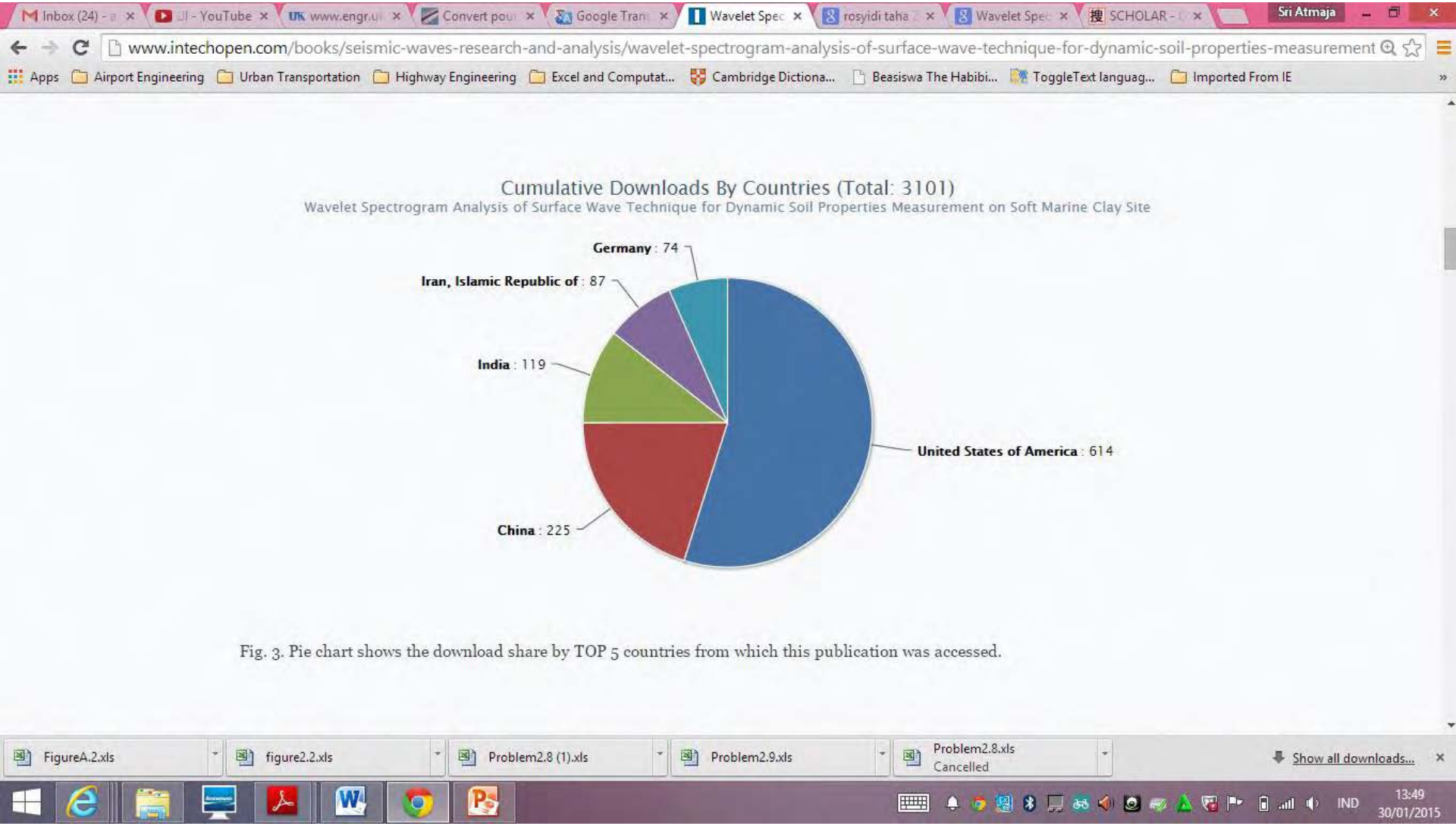

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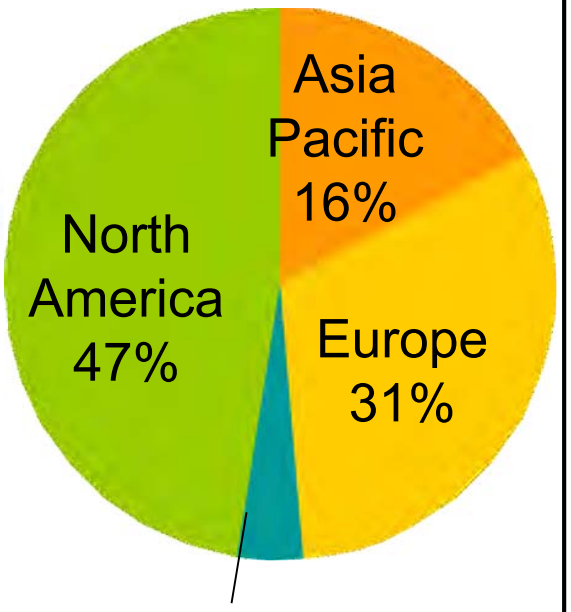

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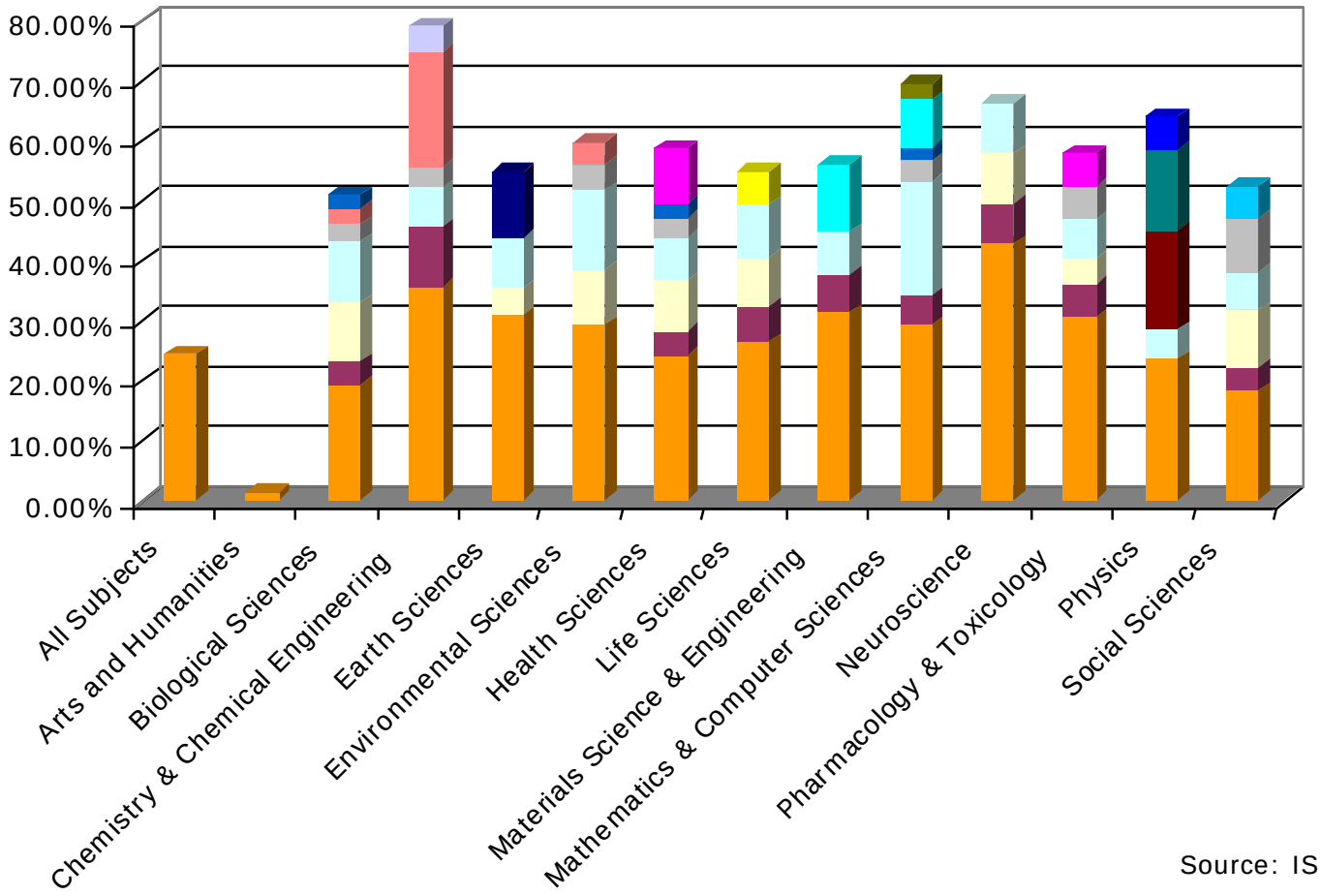

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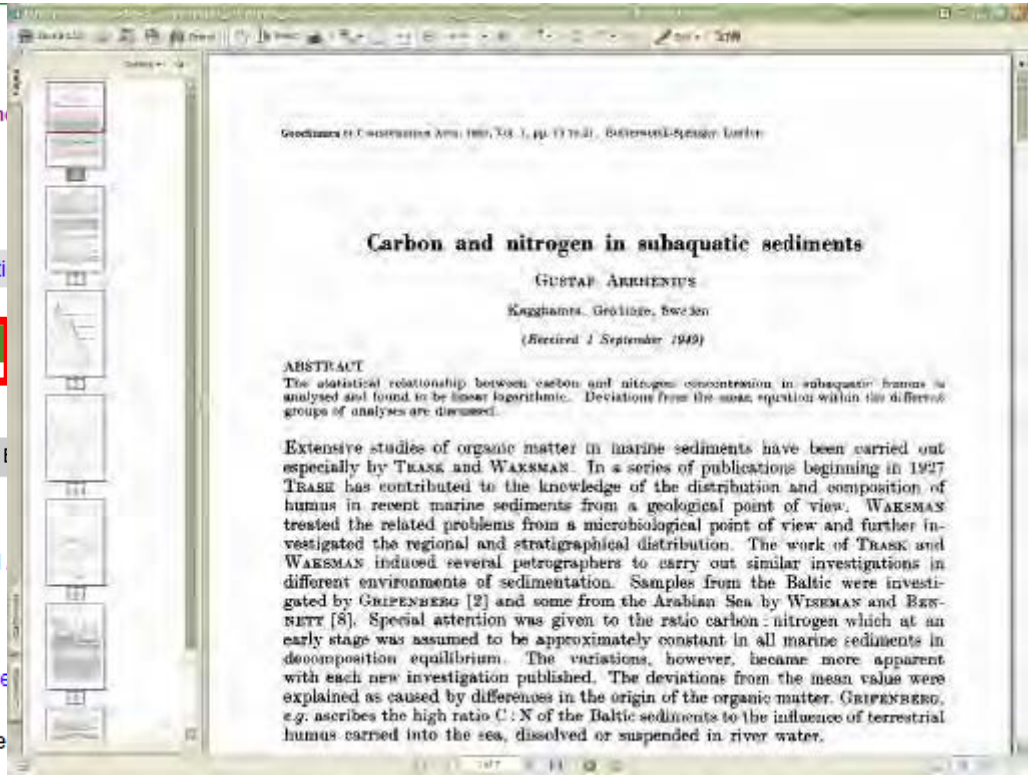

Carbon and nitrogen in subaquatic sediments

GUSTAF ARRHENIUS

Kaggbamra, Grolinde, Sweden

(Received 1 September 1949)

ABSTRACT

The statistical relationship between carbon and nitrogen concentration in subaquatic humus is analysed and found to be linear logarithmic. Deviations from the mean equation within the different groups of analyses are discussed.

Extensive studies of organic matter in marine sediments have been carried out especially by TRASK and WAKSMAN. In a series of publications beginning in 1927 TRASK has contributed to the knowledge of the distribution and composition of humus in recent marine sediments from a geological point of view. WAKSMAN treated the related problems from a microbiological point of view and further investigated the regional and stratigraphical distribution. The work of TRASK and WAKSMAN induced several petrographers to carry out similar investigations in different environments of sedimentation. Samples from the Baltic were investigated by GRIPENBERG [2] and some from the Arabian Sea by WISEMAN and BENNETT [8]. Special attention was given to the ratio carbon : nitrogen which at an early stage was assumed to be approximately constant in all marine sediments in decomposition equilibrium. The variations, however, became more apparent with each new investigation published. The deviations from the mean value were explained as caused by differences in the origin of the organic matter. GRIPENBERG, e.g. ascribes the high ratio C : N of the Baltic sediments to the influence of terrestrial humus carried into the sea, dissolved or suspended in river water.

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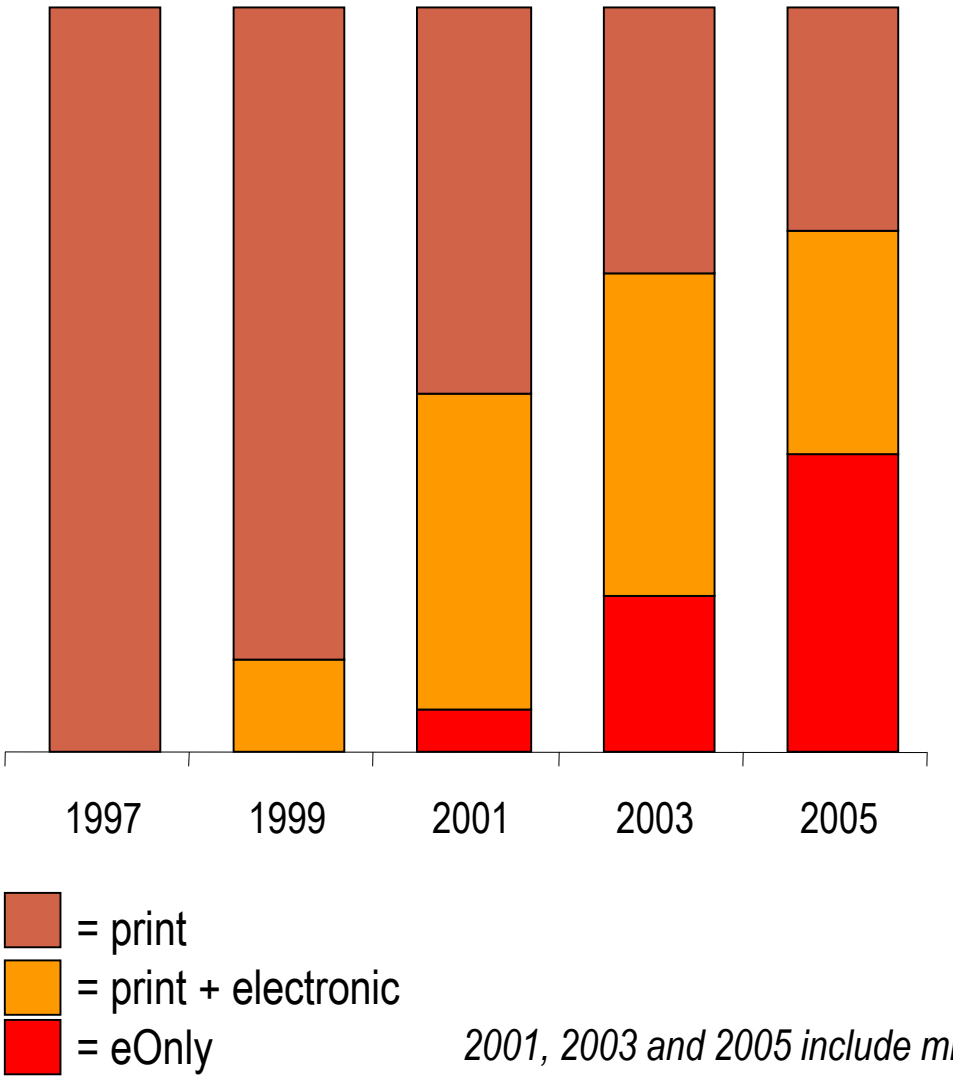

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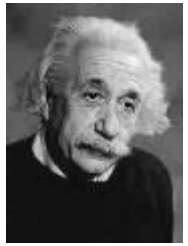

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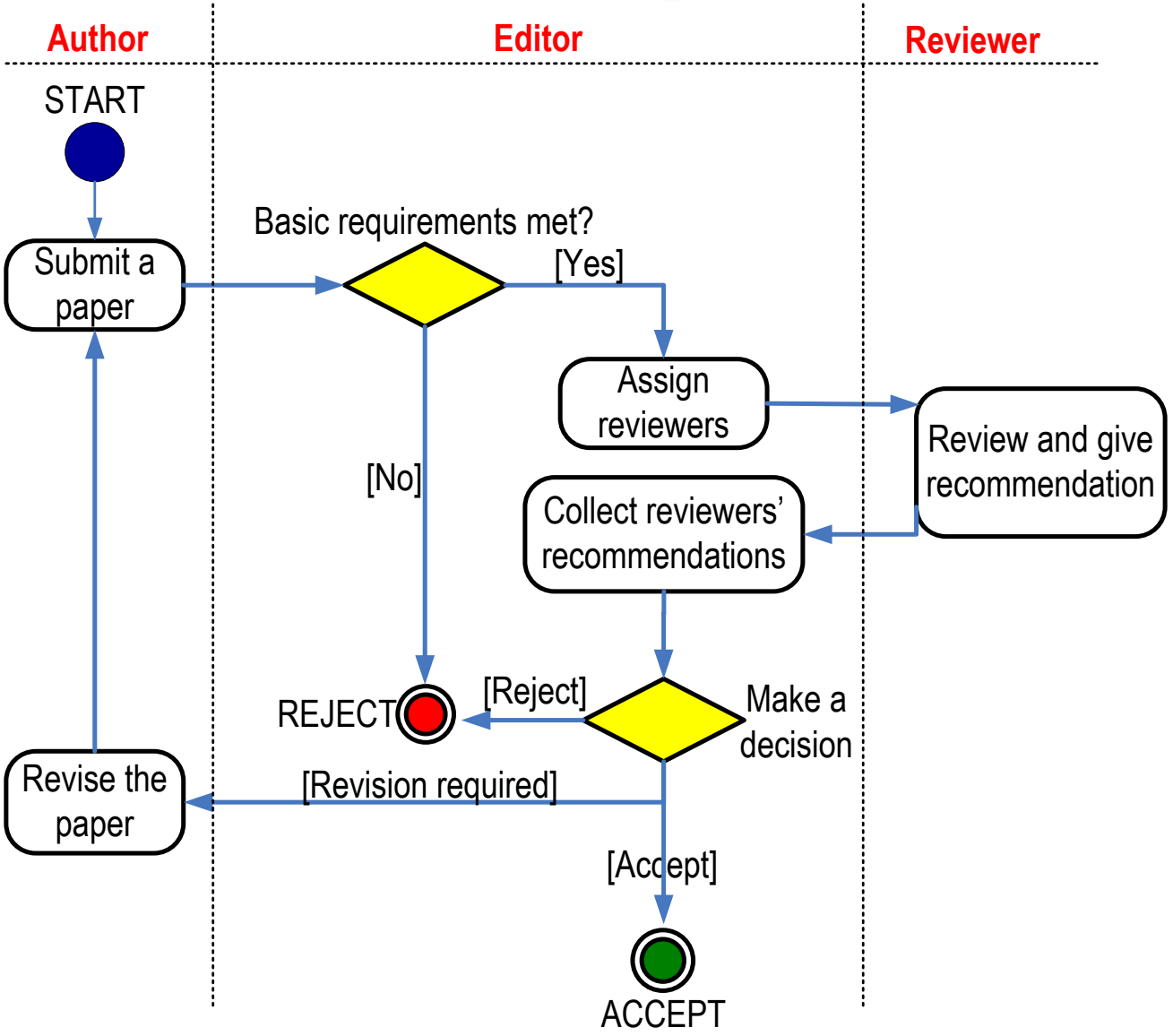

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- Decides on journal policy (together with board and publisher): aims & scope, article types, reader- and authorship
- Public face of the journal
- Active member of the research community (visits conferences, solicits papers from best labs)
- Not an employee of the publisher!

Role of the editorial board

- Board members are chosen for their large network and experience in important subjects within a research field
- Advise the chief editor on specialized areas
- Arrange for review of papers
- Occasionally review papers
- Act as ambassadors for the journal, and attract high-quality content

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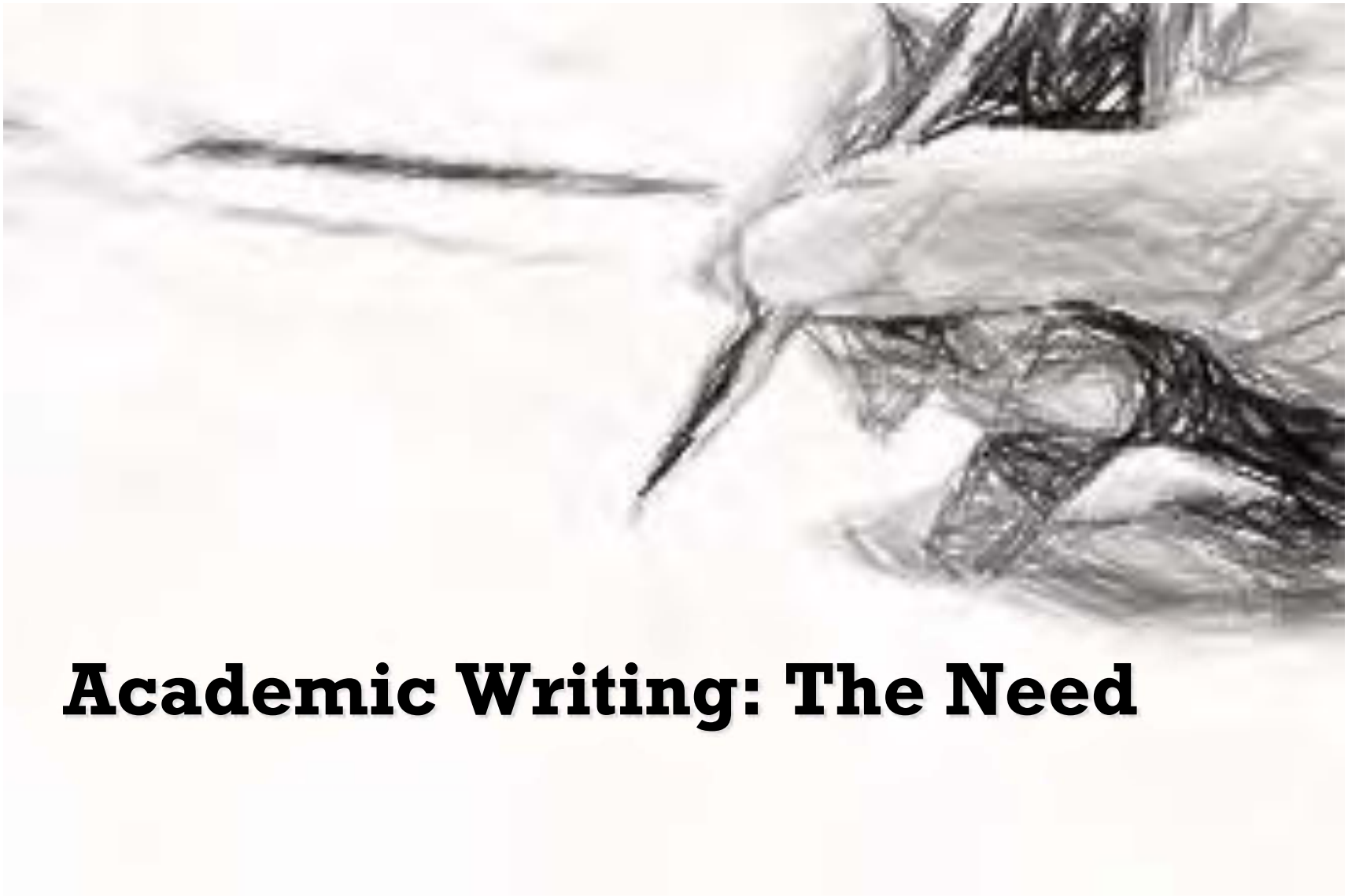

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Academi Writing

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"… kerjakan karya akademik yang pantut untuk dituliskan…"

Academic writing

- Writing is an essential part of much academic work, including assessed work.
- The product of other study activities like research, note-making, reflection, goal setting.
- There are different purposes and types of writing but …

  all academic writing shares some features and writing processes.

What is academic writing?

- Academic writing is formal and follows some standard conventions

- Each academic discipline has its own specialist vocabulary which you will be expected to learn and use in your own writing

Note: The following conventions are general guidelines for academic writing. Be sure to follow the specific requirements for each assignment.

What is the point of academic writing?

- The substance of academic writing must be based on solid evidence and logical analysis, and presented as a concise, accurate argument.

- Academic writing can allow you to present your argument and analysis accurately and concisely.

How to write a technical paper and publish it

Before you write a paper…

1. Originality of your Idea
2. Type of Manuscript
3. Who is your audience
4. Choose the right journal
5. Author Guides

1. Check the originality of your idea at the very beginning of your research.

- Have you done something new and interesting?
- Is there anything challenging in your work?
- Is the work directly related to a current hot topic?
- Have you provided solutions to any difficult problems?

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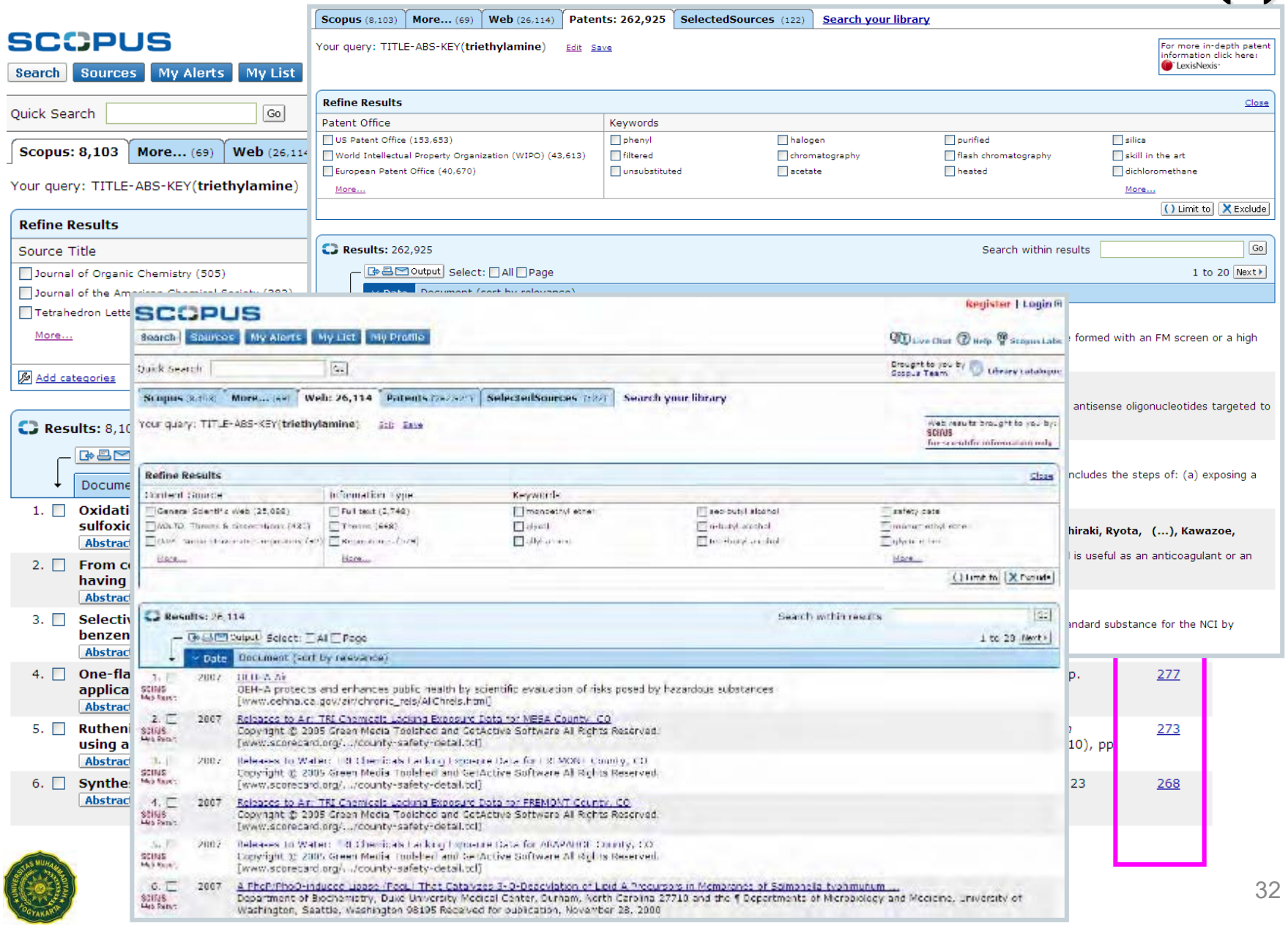

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12	☐	1986	Practical synthesis of (R)- or (...	28	14	16	15	14	9	28	15	15	9	9	144		172
13	☐	1995	Synthesis of ethyne-linked or bu...	19	18	15	17	20	12	7	10	13	12	14	138		157
14	☐	1983	Nucleic acid related compounds. ...	14	7	6	17	9	10	16	14	10	12	15	116		130
15	☐	1996	Synthesis, characterization, and...	4	12	9	15	15	10	10	9	22	12	8	122	1	127
16	☐	1995	Utility of organic bases for imp...	34	15	11	9	12	8	11	9	10	2	2	89		123
17	☐	2000	Heck reactions of iodobenzene an...				2	14	14	10	18	23	19	22	122		122
18	☐	1999	Precise synthesis of monosubstit...				3	10	19	14	19	16	23	17	121		121
19	☐	1993	A new synthesis of highly functi...	12	16	5	11	14	8	10	13	14	9	8	108		120
20	☐	1986	The odorant-sensitive adenylate ...	36	14	8	12	10	11	11	2	10		3	81		117

2. Decide the type of your manuscript

- Full articles/Original articles: the most important papers; often substantial, **completed** pieces of research that are of significance.

- Letters/Rapid Communications/Short communications: usually published for **quick and early** communication of significant and original advances; **much shorter** than full articles (usually strictly limited).

- Review papers/perspectives: **summarize** recent developments **on a specific topic**; highlight important points that have been **previously reported** and introduce no new information; often submitted **on invitation**.

3. Who is your Audience?

Topics of *local or national* relevance are sometimes not interesting for an *international audience*.

	Document (sort by relevance)	Author(s)	Date	Source Title	Cited B
1.	Estimated surface-wave contributions to radar Doppler velocity measurements of the ocean surface Abstract + Refs | View at Publisher	Gelpi, C.G., Norris, K.E.	2003	*Remote Sensing of Environment* 87 (1), pp. 99-110	0
2.	Structure and under… Great Barrier Reef: A… airborne sea surface…	Burrage, D.M., Heron, M.L., Hacker, J.M., Miller, J.L., Stieglitz, T.C., Steinberg, C.R., Prytz, A.	2003	*Remote Sensing of Environment* 85 (2), pp. 204-220	0
3.	Linescan camera evaluation of SSM/I 85.5 GHz sea ice retrieval Abstract + Refs | View at Publisher | Full Text	Garrity, C., Lubin, D., Kern, S., Pedersen, L.T.	2002	*Remote Sensing of Environment* 83 (3), pp. 472-487	0
4.	Airborne remote sensing of breaking waves Abstract + Refs | View at Publisher | Full Text	Hwang, P.A., Wright, W., Krabill, W.B., Swift, R.N.	2002	*Remote Sensing of Environment* 80 (1), pp. 65-75	0
5.	Sa… volution of Ty… Herb near Taiwan	Chen, K.S., Wang, J.T., Mitnik, L.M.	2001	*Remote Sensing of Environment* 75 (3), pp. 397-411	0
6.	A simple physical model of vegetation reflectance for standardising optical satellite imagery Abstract + Refs | View at Publisher | Full Text	Dymond, J.R., Shepherd, J.D., Qi, J.	2001	*Remote Sensing of Environment* 75 (3), pp. 350-359	0
7.	Educational outreach activities for Landsat-7 Abstract + Refs | View at Publisher | Full Text	Merry, C.J., Stockman, S.	2001	*Remote Sensing of Environment* 78 (1-2), pp. 217-220	0
8.	OCTS-derived chlorophyll-a concentration and oceanic structure… the Joban/K… coast of Japan Abstract	Yokouchi, K., Takeshi, K., Matsumoto, I., Fujiwara, G., Kawamura, H., Okuda, K.	2000	*Remote Sensing of Environment* 73 (2), pp. 188-197	0
9.	GOES-8 imagery as a new source of data to conduct ocean feature tracking	Breaker, L.C., Krasnopolsky, V.M.,	2000	*Remote Sensing of Environment* 73 (2), pp.	0

4. Choose the right journal

- **Investigate all candidate journals to find out:**
  - Aims and scope
  - Types of articles
  - Readership
  - Current hot topics (go through recent abstracts)

http://www.sciencedirect.com/science/journal/10465928

sevier.com/wps/find/journaldescription.cws_home/622935/description#description

PROTEIN EXPRESSION AND PURIFICATION

Editor-in-Chief:
R.R. Burgess
See editorial board for all editors information

Example

Description

The power of modern molecular genetics to provide large quantities of proteins that were previously difficult to obtain has sparked an explosion of interest in both practical and theoretical aspects of protein purification.

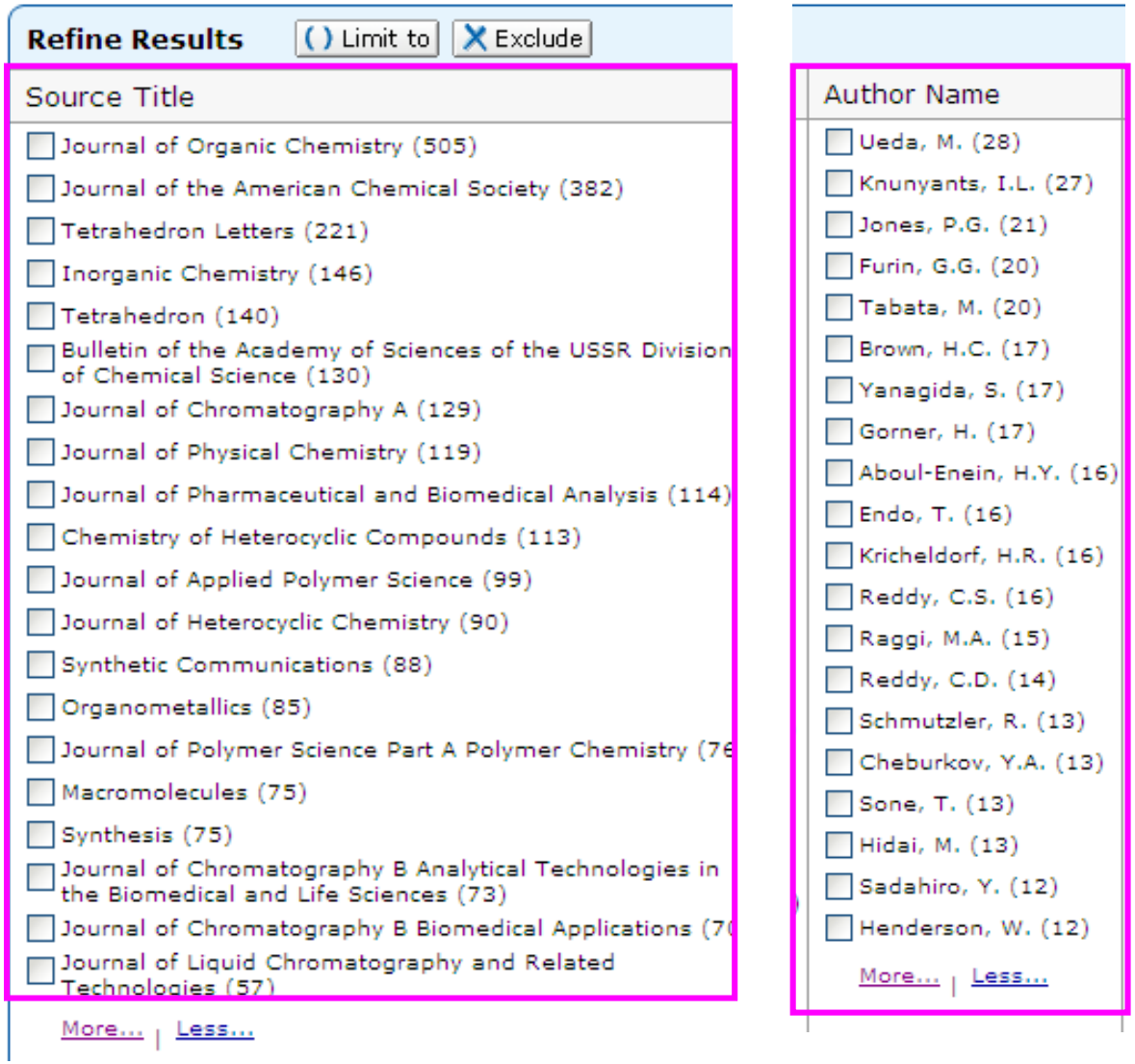
Protein Expression and Purification is dedicated to providing a forum for information about protein isolation based on conventional fractionation as well as techniques employing various molecular biological procedures to increase protein expression.

The following types of articles are published:

- Original articles reporting novel or significantly improved isolations of highly purified proteins
- Procedures for expressing and isolating proteins from genetically engineered sources
- Novel or improved molecular biological methods for overexpression of specific proteins
- Review articles that describe an to the expression and purification

Audience
Biochemists, biophysicists

Choose the Right Journal/ Know your Competitors



Journal of Organic Chemistry published the most work in Triethylamine

Ueda, M. has published the most work in Triethylamine

Know Your Competitors

Ueda, Mitsuru

Find unmatched authors | Feedback | Print | E-mail

Personal

Name	Ueda, Mitsuru		
Other formats	Ueda, Mitsuru UEDA, MITSURU Ueda, M.		
Author ID	7403944416		
Affiliation	University of Shizuoka, Department of Synthetic Organic and Medicinal Chemistry	Shizuoka	Japan

Research

Documents	423 Add to list	
References	2327	
Cited By	1702 Citation tracker	
h Index	20 *h*-graph	The *h* Index considers Scopus articles published after 1995.
Co-authors	150 (maximum 150 co-authors can be displayed)	
Web Search	6	
Subject Area	Materials Science Chemical Engineering Physics and Astronomy More...	

⊞ Find unmatched authors

History

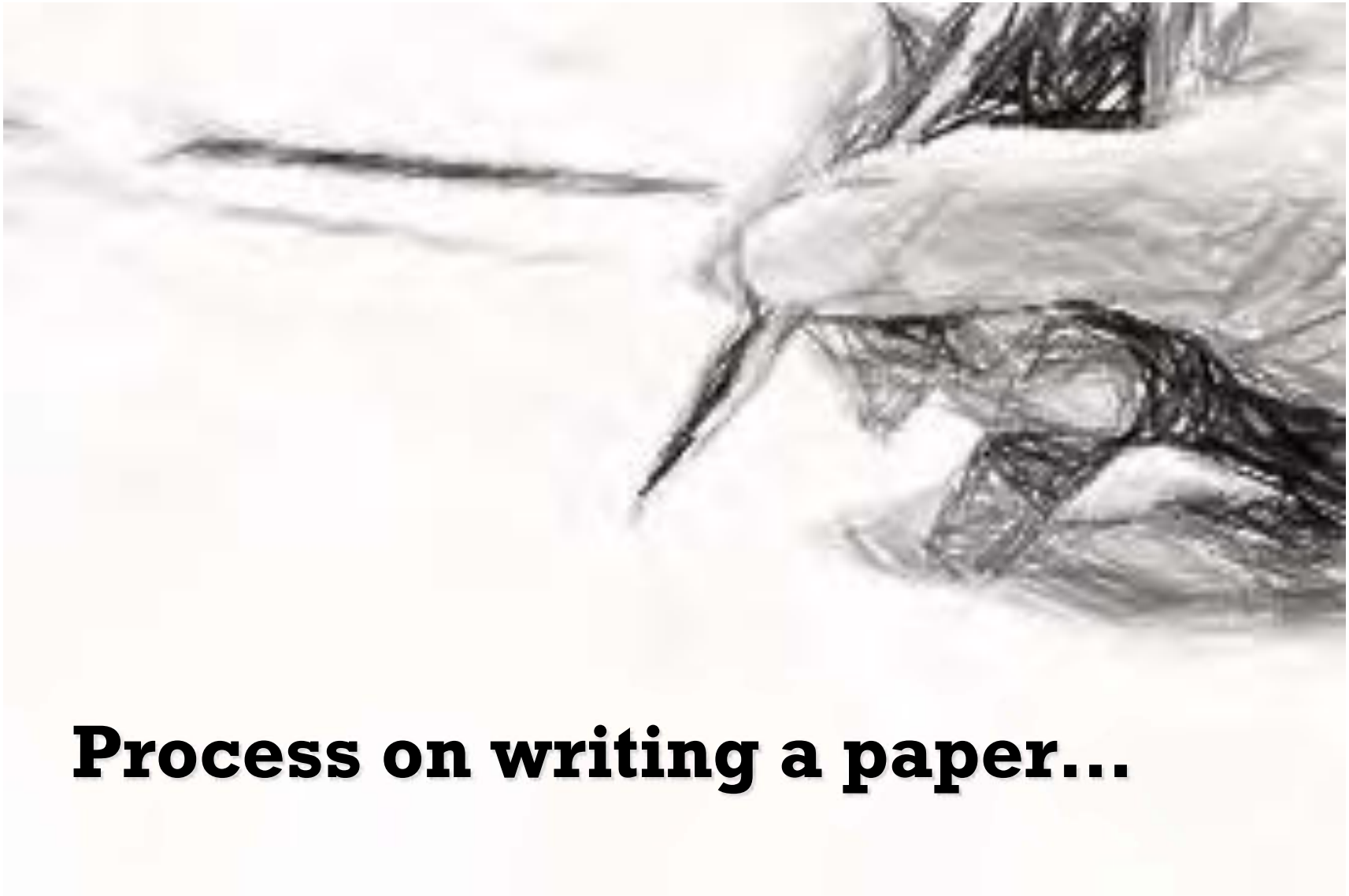
Publication range	1974-2007			
Source history	Macromolecules	documents		
	Organic Letters	documents		
	Journal of Physical Organic Chemistry	documents		
	More...			
Affiliation history	Tokyo Institute of Technology, Department of Organic and Polymeric Materials		Tokyo	Japan
	Matsushita Electric Industrial Co., Ltd, ULSI Process Technology Development Center		Kyoto	Japan
	National Institute of Advanced Industrial Science and Technology		Tokyo	Japan
	Hokkaido University, Division of Biological Sciences		Sapporo	Japan
	Jt. Res. Ctr. Prec. P.		Tsukuba	Japan
	Japan Chemical Innovation Institute, Jt. Res. Ctr. Prec. Polymerization		Tsukuba	Japan
	Yamagata University, Department of Materials Science		Yamagata	Japan
	National Institute of Materials and Chemical Research		Tsukuba	Japan

5. Read the 'Guide for Authors'! Again and again!

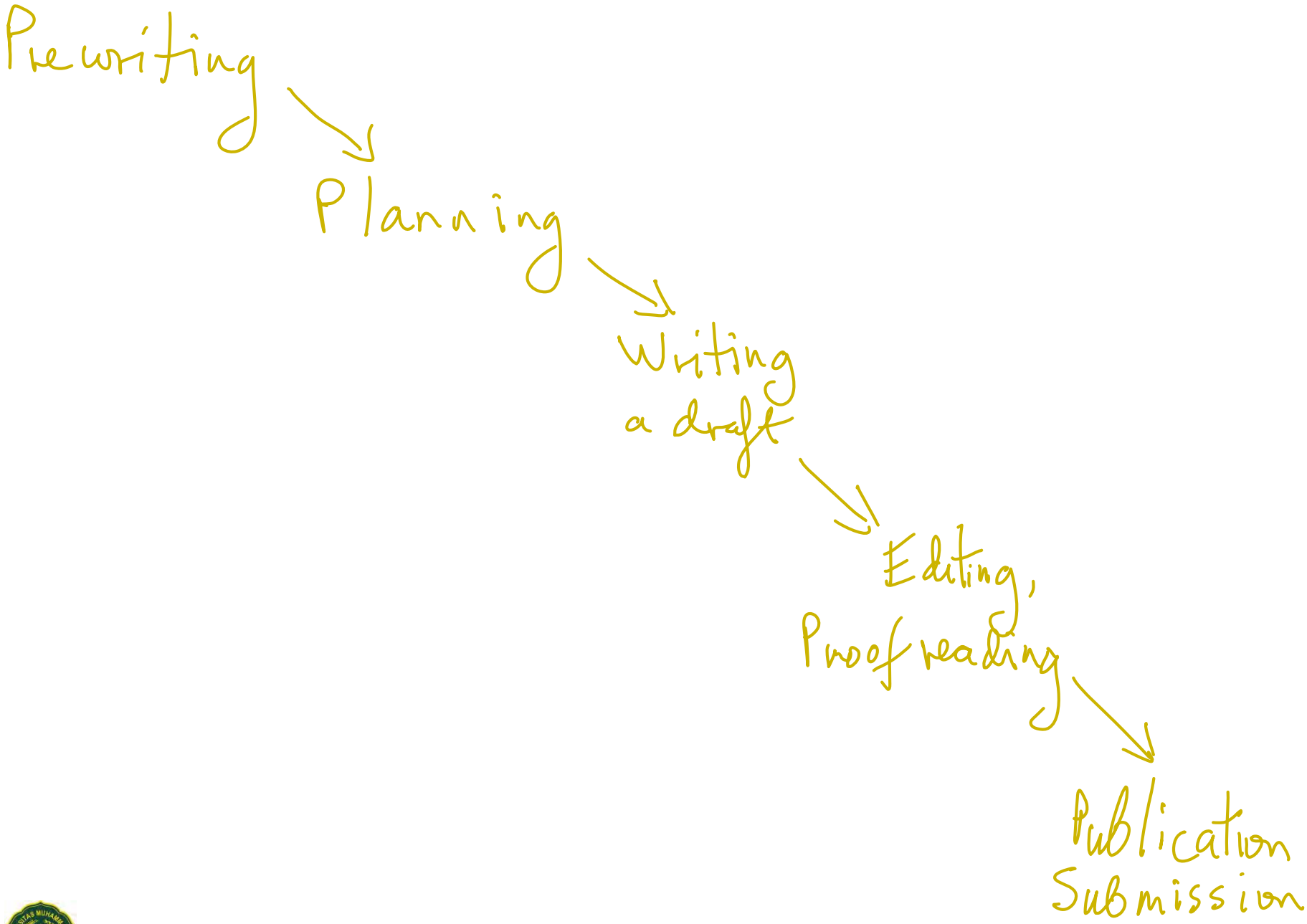
- Apply the Guide for Authors to your manuscript, even to the first draft (text layout, paper citation, nomenclature, figures and table, etc.). It will save your time, and the editor's.
- All editors hate wasting time on poorly prepared manuscripts.

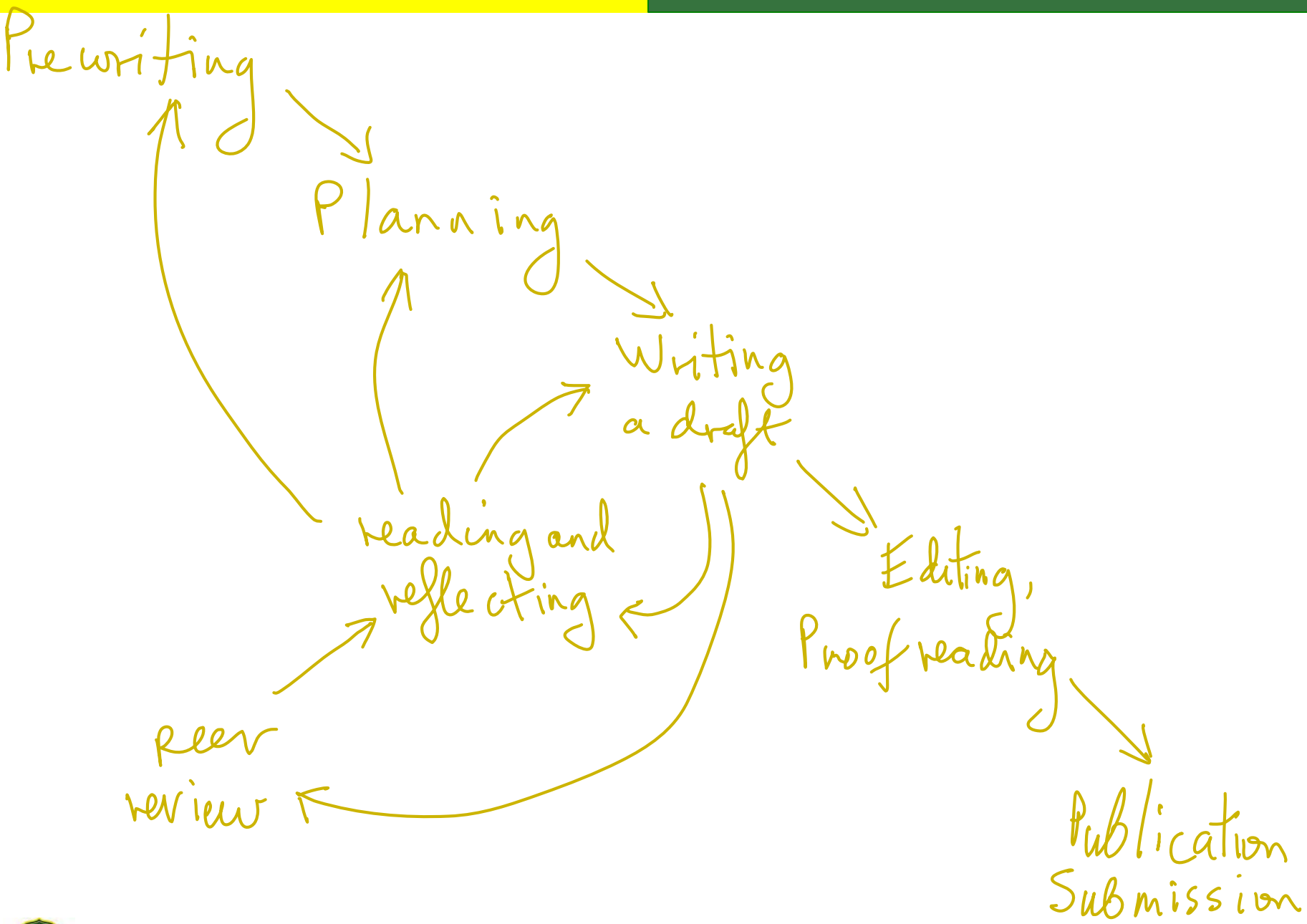
Language Editing Services

- Publisher (e.g. Elsevier) has negotiated competitive rates with the following service providers for our authors:
  - American Journal Experts (www.journalexperts.com)
  - Asia Science Editing (www.asiascienceediting.com)
  - Diacritech Language Editing Services (www.languageedit.com)
  - Edanz Editing (www.edanzediting.nl)
  - International Science Editing (www.internationalscienceediting.com)
  - ScienceDocs Editing Services (www.sciencedocs.com)
  - SPI Publisher Services (www.prof-editing.com)
- provide language and copy editing services globally to authors
- will not guarantee acceptance or preference for publication in an journal.

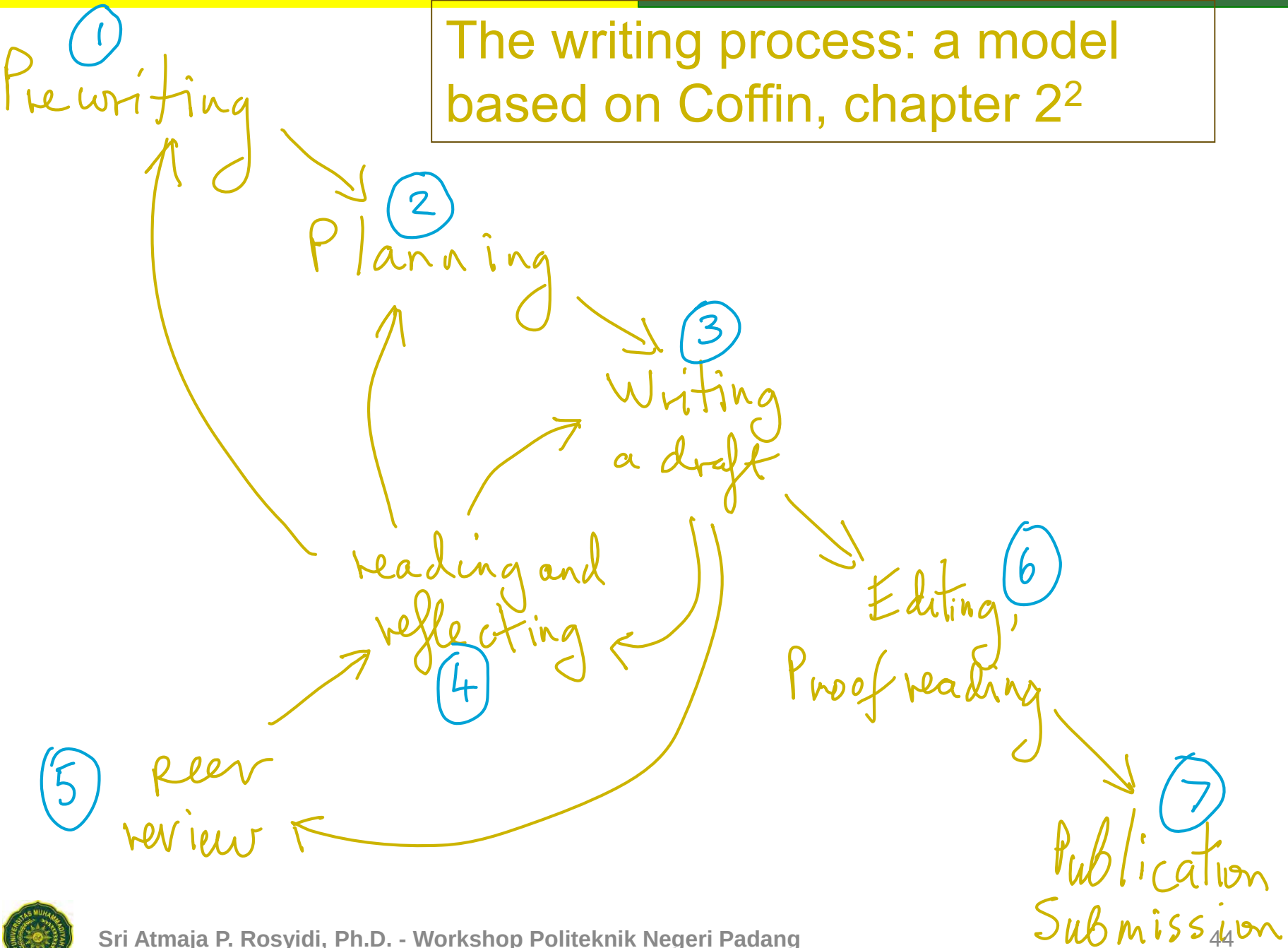


Process on writing a paper…


Prewriting
Planning
Writing a draft
Editing, Proofreading
Publication Submission


Prewriting
Planning
Writing a draft
Reading and reflecting
Peer review
Editing, Proofreading
Publication Submission

The writing process: a model based on Coffin, chapter 2[2]



1. Prewriting[1]

- To find something to write about
- Understand, generate ideas
- Research, read, discuss

Methods:

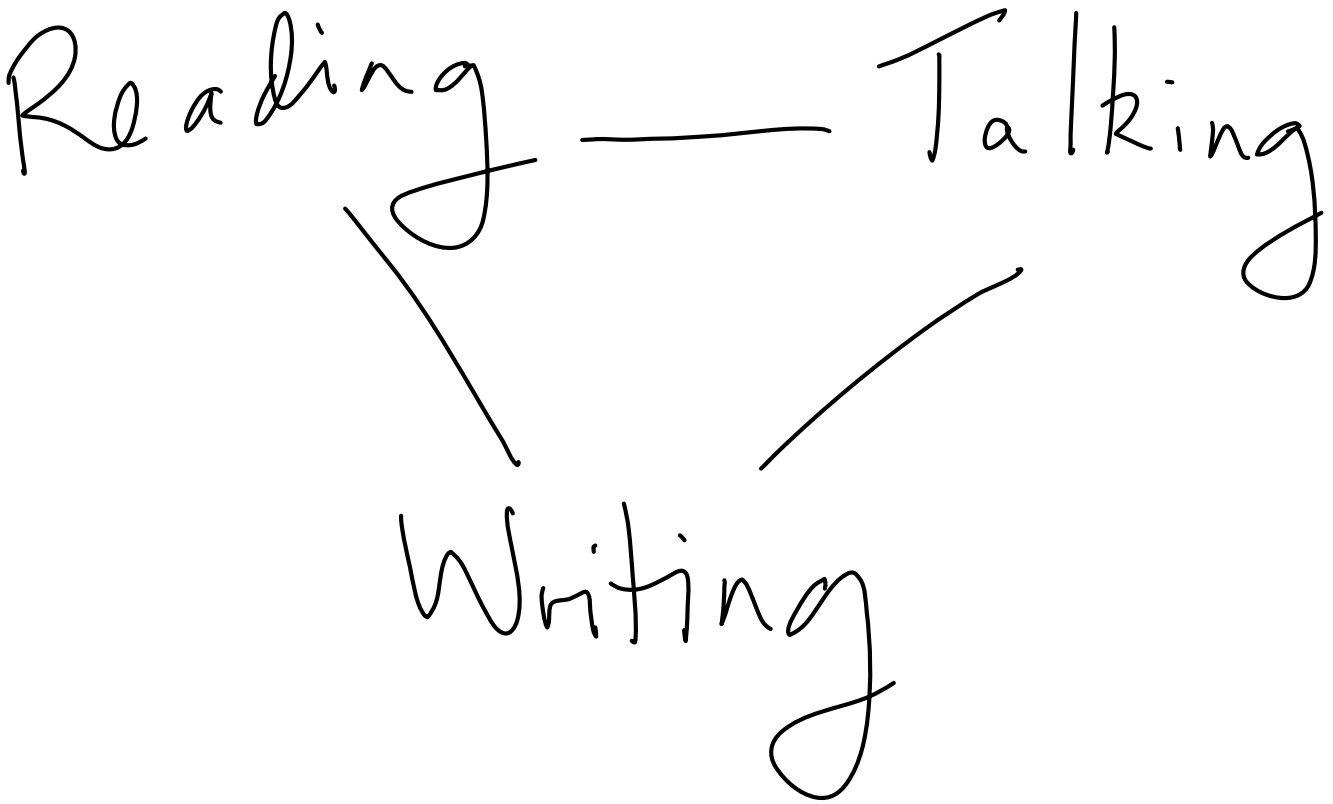
1. Brainstorming
2. Freewriting
3. Personal journal writing

The academic essay
Research the topic

Read the right

- Books
- Periodicals
- Internet

Writing is not isolated



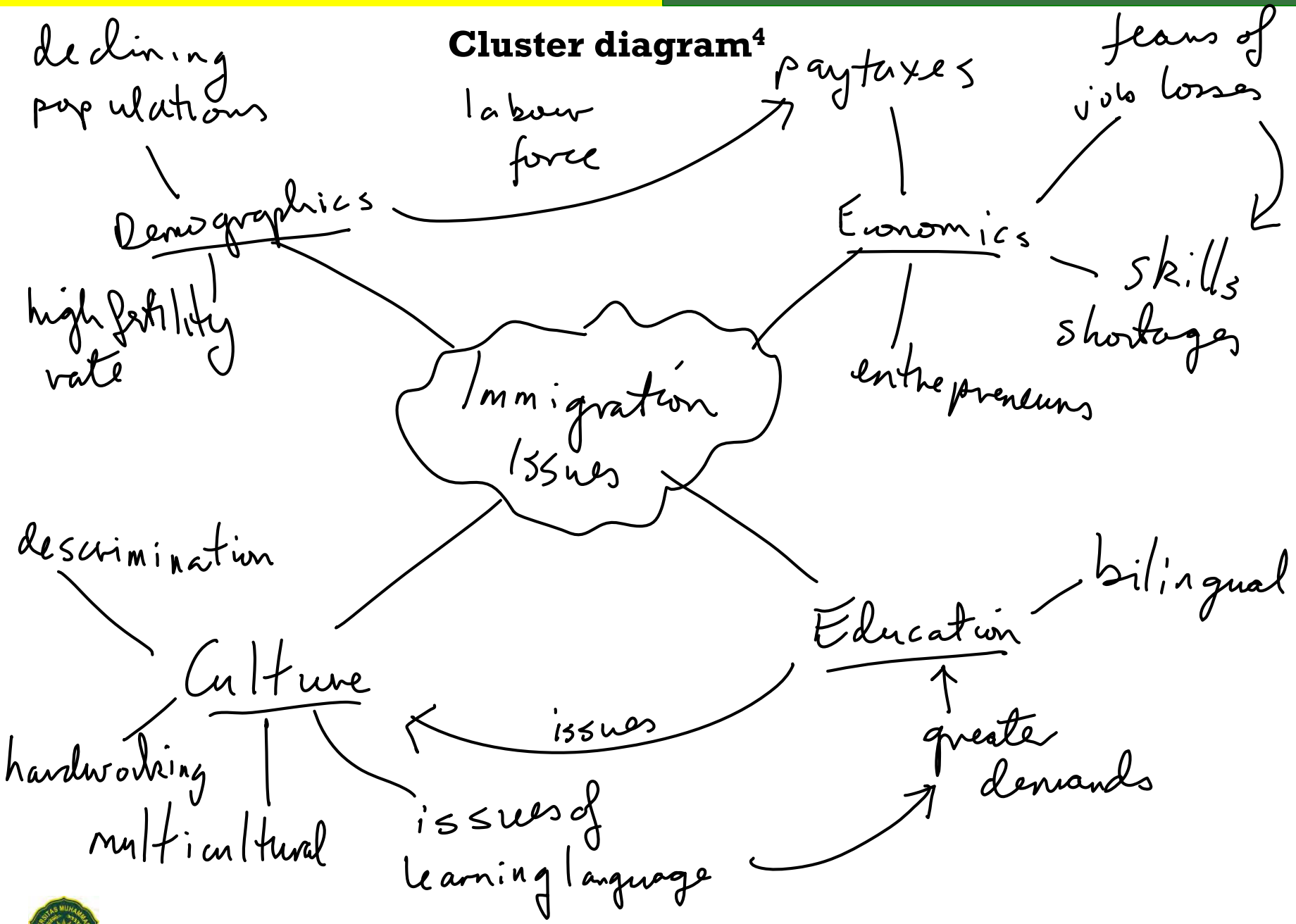
2. Planning

- To clarify, focus, organize

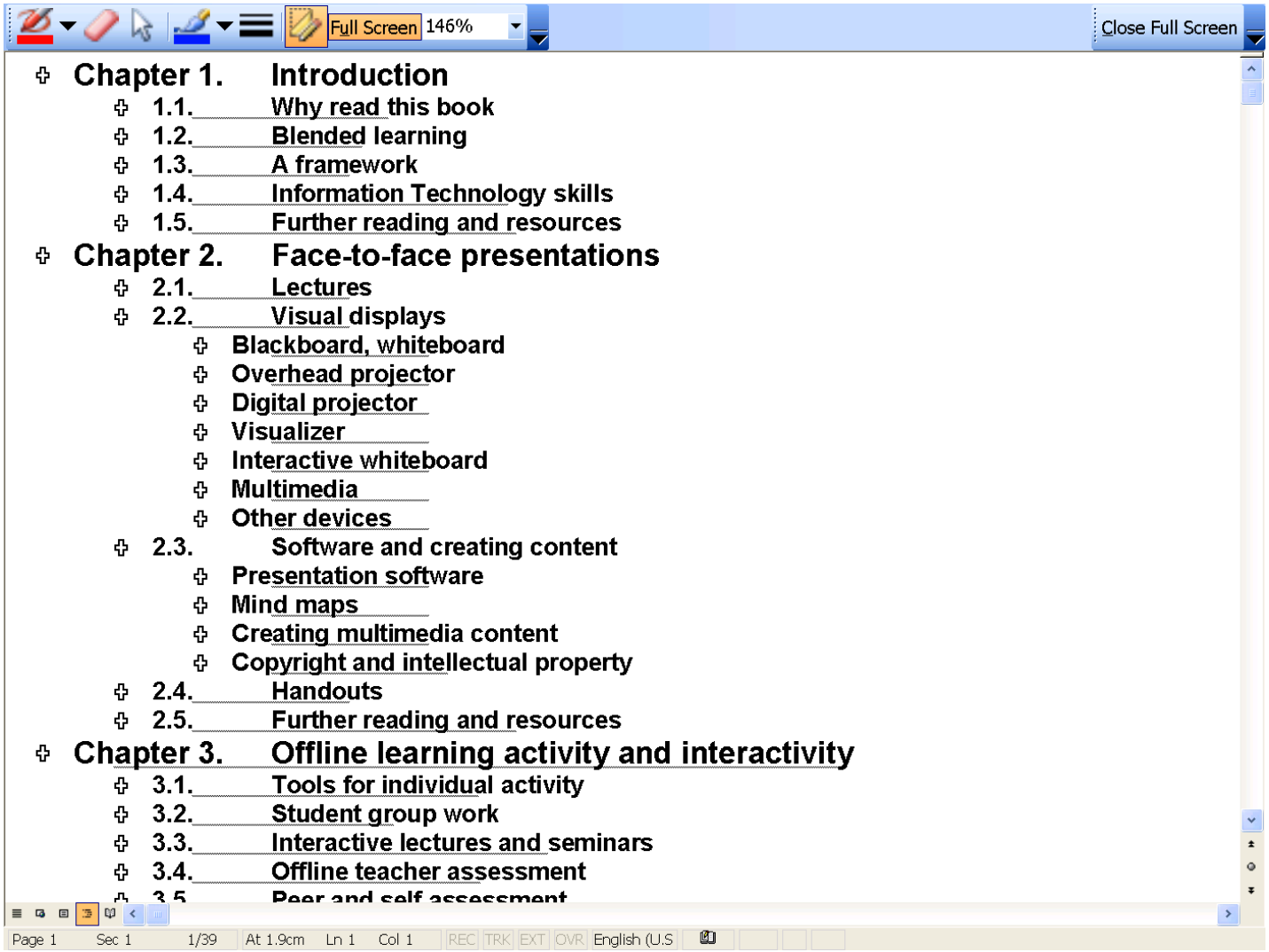
Methods include:

1. List
2. Graphic organizers: mind map, clustering
3. Outline view (essay plan).

Cluster diagram[4]



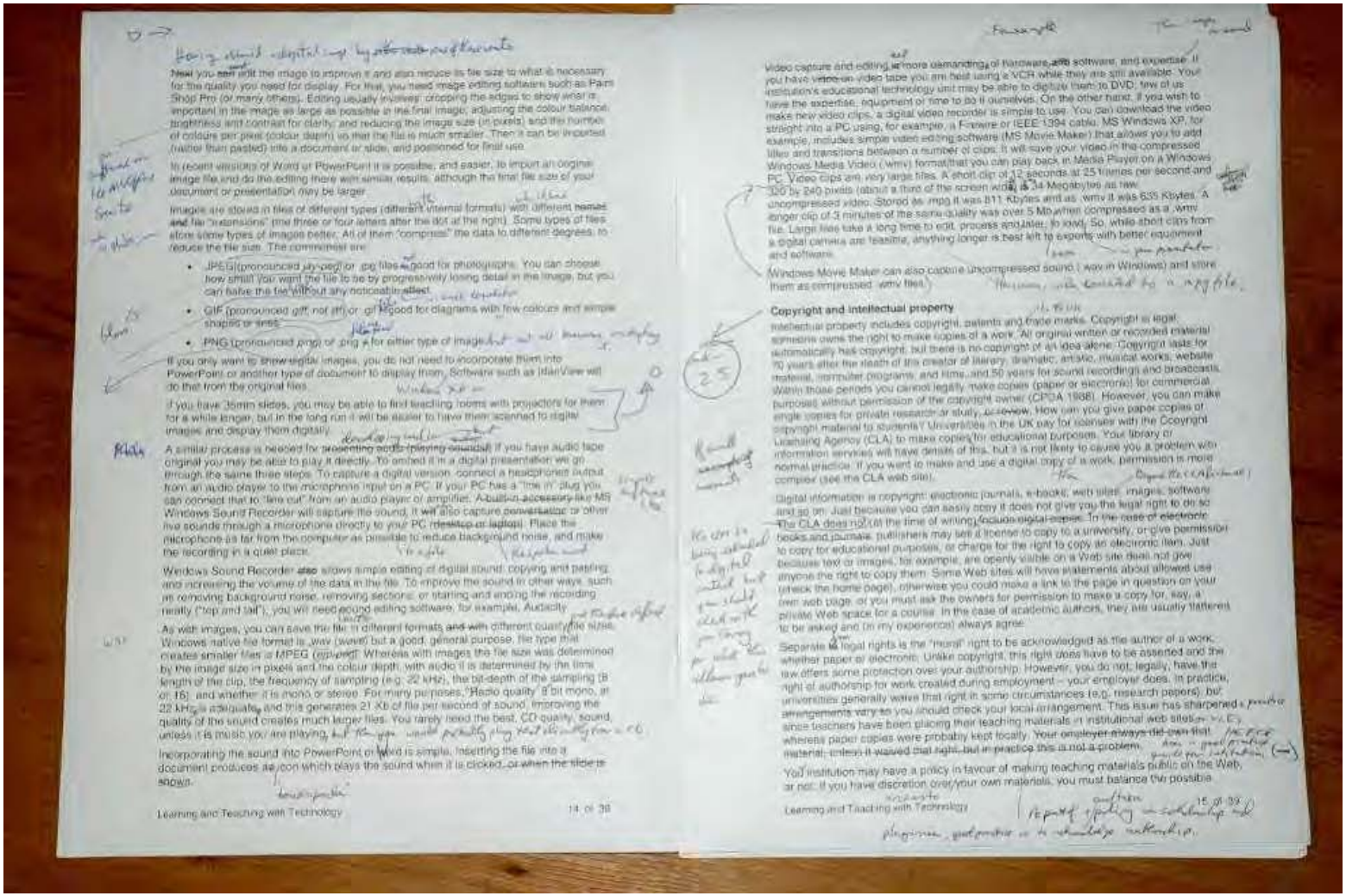
Outline


Full Screen
146%
Close Full Screen
Chapter 1. Introduction
1.1. Why read this book
1.2. Blended learning
1.3. A framework
1.4. Information Technology skills
1.5. Further reading and resources
Chapter 2. Face-to-face presentations
2.1. Lectures
2.2. Visual displays
Blackboard, whiteboard
Overhead projector
Digital projector
Visualizer
Interactive whiteboard
Multimedia
Other devices
2.3. Software and creating content
Presentation software
Mind maps
Creating multimedia content
Copyright and intellectual property
2.4. Handouts
2.5. Further reading and resources
Chapter 3. Offline learning activity and interactivity
3.1. Tools for individual activity
3.2. Student group work
3.3. Interactive lectures and seminars
3.4. Offline teacher assessment
Page 1 Sec 1 1/39 At 1.9cm Ln 1 Col 1 REC TRK EXT OVR English (U.S

3. and 4. Drafting and revision

- Whatever your process, good writing takes
  - Time
  - Work
  - Revisions.
- Revisions can be made on the word processor screen or on paper.
- Leave time for revisions.

Revision example



Next you can edit the image to improve it and also reduce its file size to what is necessary for the quality you need for display. For that, you need image editing software such as Paint Shop Pro (or many others). Editing usually involves: cropping the edges to show what is important in the image as large as possible in the final image; adjusting the colour balance, brightness and contrast for clarity; and reducing the image size (in pixels) and the number of colours per pixel (colour depth) so that the file is much smaller. Then it can be imported (rather than pasted) into a document or slide, and positioned for final use.

In recent versions of Word or PowerPoint it is possible, and easier, to import an original image file and do the editing there with similar results, although the final file size of your document or presentation may be larger.

Images are stored in files of different types (different internal formats) with different names and file "extensions" (the three or four letters after the dot at the right). Some types of files store some types of images better. All of them "compress" the data to different degrees, to reduce the file size. The commonest are:

- JPEG (pronounced jay-peg) or .jpg files are good for photographs. You can choose how small you want the file to be by progressively losing detail in the image, but you can halve the file without any noticeable effect.
- GIF (pronounced giff, not jiff) or .gif files good for diagrams with few colours and simple shapes or lines.
- PNG (pronounced ping) or .png is for either type of image.

If you only want to show digital images, you do not need to incorporate them into PowerPoint or another type of document to display them. Software such as IrfanView will do that from the original files.

If you have 35mm slides, you may be able to find teaching rooms with projectors for them for a while longer, but in the long run it will be easier to have them scanned to digital images and display them digitally.

A similar process is needed for presenting audio (playing sounds). If you have audio tape original you may be able to play it directly. To embed it in a digital presentation we go through the same three steps. To capture a digital version, connect a headphones output from an audio player to the microphone input on a PC. If your PC has a "line in" plug you can connect that to "line out" from an audio player or amplifier. A built-in accessory like MS Windows Sound Recorder will capture the sound. It will also capture conversation or other live sounds through a microphone directly to your PC (desktop or laptop). Place the microphone as far from the computer as possible to reduce background noise, and make the recording in a quiet place.

Windows Sound Recorder also allows simple editing of digital sound: copying and pasting, and increasing the volume of the data in the file. To improve the sound in other ways, such as removing background noise, removing sections, or starting and ending the recording neatly ("top and tail"), you will need sound editing software, for example, Audacity.

As with images, you can save the file in different formats and with different quality/file size. Windows native file format is .wav (wave) but a good, general purpose, file type that creates smaller files is MPEG (.mp3 or .mp4). Whereas with images the file size was determined by the image size in pixels and the colour depth, with audio it is determined by the time length of the clip, the frequency of sampling (e.g. 22 kHz), the bit-depth of the sampling (8 or 16), and whether it is mono or stereo. For many purposes, "Radio quality" 8 bit mono, at 22 kHz is adequate, and this generates 21 Kb of file per second of sound. Improving the quality of the sound creates much larger files. You rarely need the best, CD quality, sound, unless it is music you are playing.

Incorporating the sound into PowerPoint or Word is simple. Inserting the file into a document produces an icon which plays the sound when it is clicked, or when the slide is shown.

Video capture and editing is more demanding of hardware and software, and expertise. If you have video on video tape you are best using a VCR while they are still available. Your institution's educational technology unit may be able to digitize them to DVD; few of us have the expertise, equipment or time to do it ourselves. On the other hand, if you wish to make new video clips, a digital video recorder is simple to use. You can download the video straight into a PC using, for example, a Firewire or IEEE 1394 cable. MS Windows XP, for example, includes simple video editing software (MS Movie Maker) that allows you to add titles and transitions between a number of clips. It will save your video in the compressed Windows Media Video (.wmv) format that you can play back in Media Player on a Windows PC. Video clips are very large files. A short clip of 12 seconds at 25 frames per second and 320 by 240 pixels (about a third of the screen width) is 34 Megabytes as raw, uncompressed video. Stored as .mpg it was 811 Kbytes and as .wmv it was 655 Kbytes. A longer clip of 3 minutes of the same quality was over 5 Mb when compressed as a .wmv file. Large files take a long time to edit, process and/or to load. So, while short clips from a digital camera are feasible, anything longer is best left to experts with better equipment and software.

Windows Movie Maker can also capture uncompressed sound (.wav in Windows) and store them as compressed .wmv files.)

Copyright and intellectual property

Intellectual property includes copyright, patents and trade marks. Copyright is legal: someone owns the right to make copies of a work. All original written or recorded material automatically has copyright, but there is no copyright of an idea alone. Copyright lasts for 70 years after the death of the creator of literary, dramatic, artistic, musical works, website material, computer programs, and films, and 50 years for sound recordings and broadcasts. Within those periods you cannot legally make copies (paper or electronic) for commercial purposes without permission of the copyright owner (CPDA 1988). However, you can make single copies for private research or study, or review. How can you give paper copies of copyright material to students? Universities in the UK pay for licenses with the Copyright Licensing Agency (CLA) to make copies for educational purposes. Your library or information services will have details of this, but it is not likely to cause you a problem with normal practice. If you want to make and use a digital copy of a work, permission is more complex (see the CLA web site).

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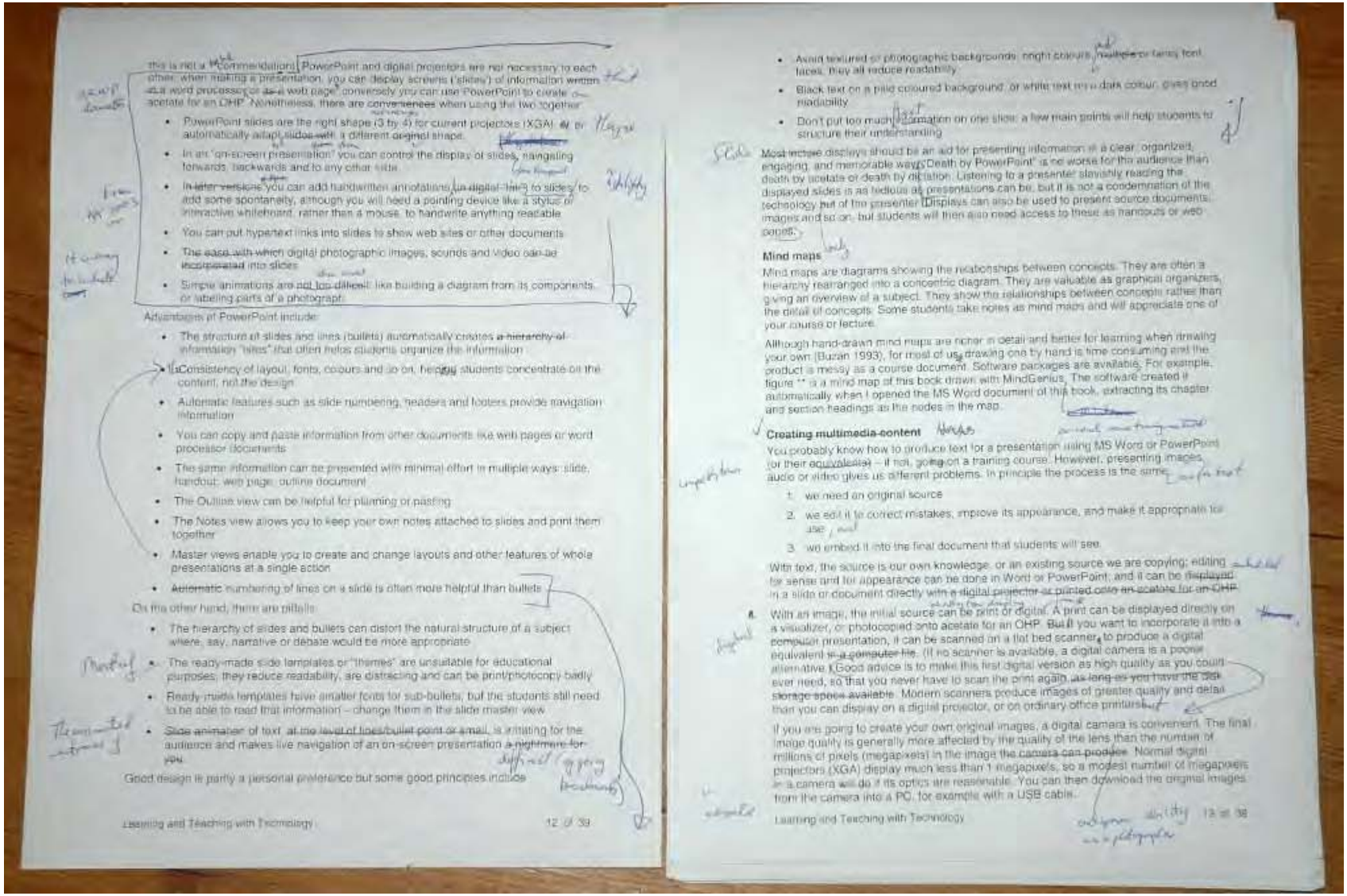
Separate is legal rights is the "moral" right to be acknowledged as the author of a work, whether paper or electronic. Unlike copyright, this right does have to be asserted and the law offers some protection over your authorship. However, you do not, legally, have the right of authorship for work created during employment – your employer does. In practice, universities generally waive that right in some circumstances (e.g. research papers), but arrangements vary so you should check your local arrangement. This issue has sharpened since teachers have been placing their teaching materials in institutional web sites, whereas paper copies were probably kept locally. Your employer always did own that material, unless it waived that right, but in practice this is not a problem.

Your institution may have a policy in favour of making teaching materials public on the Web, or not. If you have discretion over your own materials, you must balance the possible



this is not a recommendation). PowerPoint and digital projectors are not necessary to each other: when making a presentation, you can display screens ("slides") of information written as a word processor or as a web page; conversely you can use PowerPoint to create acetate for an OHP. Nonetheless, there are conveniences when using the two together:

- PowerPoint slides are the right shape (3 by 4) for current projectors (XGA) so they automatically adapt slides with a different original shape.
- In an "on-screen presentation" you can control the display of slides, navigating forwards, backwards and to any other slide.
- In later versions you can add handwritten annotations (a digital 'ink') to slides, to add some spontaneity, although you will need a pointing device like a stylus or interactive whiteboard, rather than a mouse, to handwrite anything readable.
- You can put hypertext links into slides to show web sites or other documents.
- The ease with which digital photographic images, sounds and video can be incorporated into slides.
- Simple animations are not too difficult, like building a diagram from its components or labelling parts of a photograph.

Advantages of PowerPoint include:

- The structure of slides and lines (bullets) automatically creates a hierarchy of information "skins" that often helps students organize the information.
- Consistency of layout, fonts, colours and so on, helps students concentrate on the content, not the design.
- Automatic features such as slide numbering, headers and footers provide navigation information.
- You can copy and paste information from other documents like web pages or word processor documents.
- The same information can be presented with minimal effort in multiple ways: slide, handout, web page, outline document.
- The Outline view can be helpful for planning or pasting.
- The Notes view allows you to keep your own notes attached to slides and print them together.
- Master views enable you to create and change layouts and other features of whole presentations at a single action.
- Automatic numbering of lines on a slide is often more helpful than bullets.

On the other hand, there are pitfalls:

- The hierarchy of slides and bullets can distort the natural structure of a subject where, say, narrative or debate would be more appropriate.
- The ready-made slide templates or "themes" are unsuitable for educational purposes: they reduce readability, are distracting and can be print/photocopy badly.
- Ready-made templates have smaller fonts for sub-bullets, but the students still need to be able to read that information – change them in the slide master view.
- Slide animation of text, at the level of lines/bullet point or small, is irritating for the audience and makes live navigation of an on-screen presentation a nightmare for you.

Good design is partly a personal preference but some good principles include:

- Avoid textured or photographic backgrounds, bright colours, multiple or fancy font faces: they all reduce readability.
- Black text on a pale coloured background, or white text on a dark colour, gives good readability.
- Don't put too much information on one slide: a few main points will help students to structure their understanding.

Most lecture displays should be an aid for presenting information in a clear, organized, engaging, and memorable way. "Death by PowerPoint" is no worse for the audience than death by acetate or death by dictation. Listening to a presenter slavishly reading the displayed slides is as tedious as presentations can be, but it is not a condemnation of the technology but of the presenter. Displays can also be used to present source documents, images and so on, but students will then also need access to these as handouts or web pages.

Mind maps

Mind maps are diagrams showing the relationships between concepts. They are often a hierarchy rearranged into a concentric diagram. They are valuable as graphical organizers, giving an overview of a subject. They show the relationships between concepts rather than the detail of concepts. Some students take notes as mind maps and will appreciate one of your course or lecture.

Although hand-drawn mind maps are richer in detail and better for learning when drawing your own (Buzan 1993), for most of us drawing one by hand is time consuming and the product is messy as a course document. Software packages are available. For example, figure ** is a mind map of this book drawn with MindGenius. The software created it automatically when I opened the MS Word document of this book, extracting its chapter and section headings as the nodes in the map.

Creating multimedia content

You probably know how to produce text for a presentation using MS Word or PowerPoint (or their equivalents) – if not, go on a training course. However, presenting images, audio or video gives us different problems. In principle the process is the same:

1. we need an original source
2. we edit it to correct mistakes, improve its appearance, and make it appropriate for use
3. we embed it into the final document that students will see.

With text, the source is our own knowledge, or an existing source we are copying; editing for sense and for appearance can be done in Word or PowerPoint; and it can be displayed in a slide or document directly with a digital projector or printed onto an acetate for an OHP.

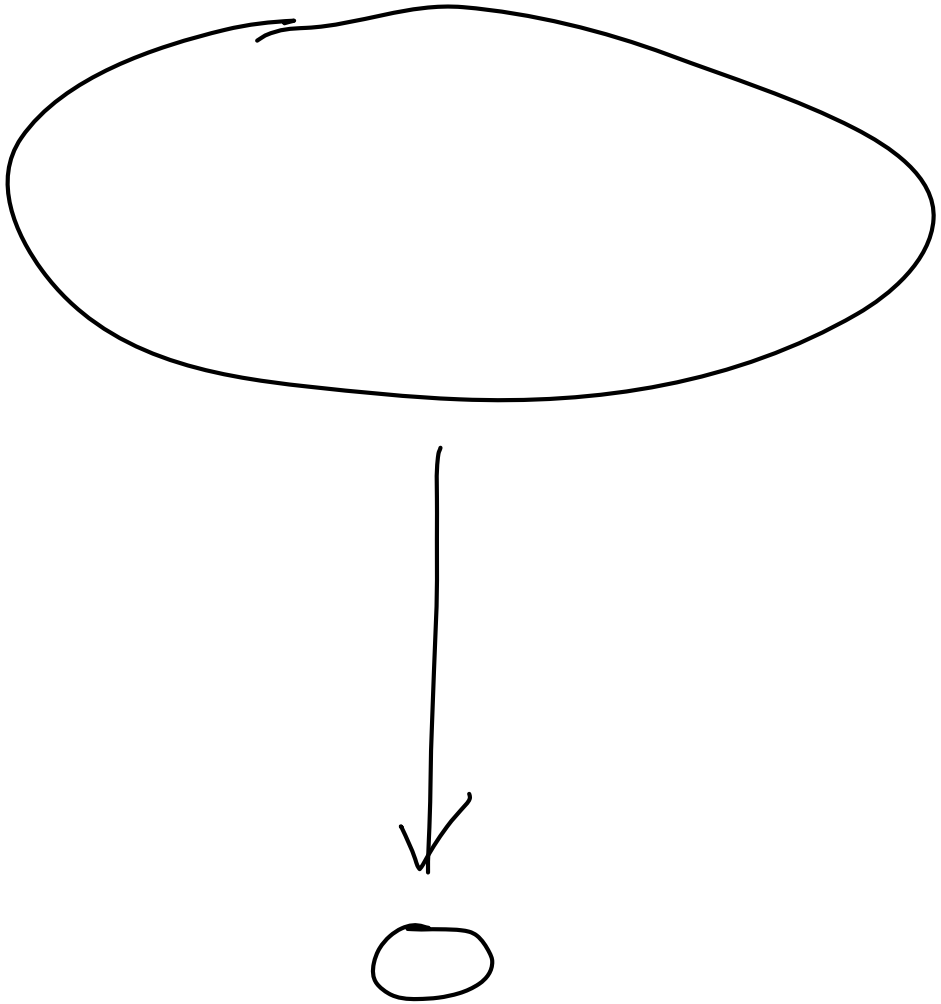
With an image, the initial source can be print or digital. A print can be displayed directly on a visualizer, or photocopied onto acetate for an OHP. But if you want to incorporate it into a computer presentation, it can be scanned on a flat bed scanner to produce a digital equivalent in a computer file. (If no scanner is available, a digital camera is a poorer alternative.) Good advice is to make this first digital version as high quality as you could ever need, so that you never have to scan the print again, as long as you have the disk storage space available. Modern scanners produce images of greater quality and detail than you can display on a digital projector, or on ordinary office printers.

If you are going to create your own original images, a digital camera is convenient. The final image quality is generally more affected by the quality of the lens than the number of millions of pixels (megapixels) in the image the camera can produce. Normal digital projectors (XGA) display much less than 1 megapixels, so a modest number of megapixels in a camera will do if its optics are reasonable. You can then download the original images from the camera into a PC, for example with a USB cable.

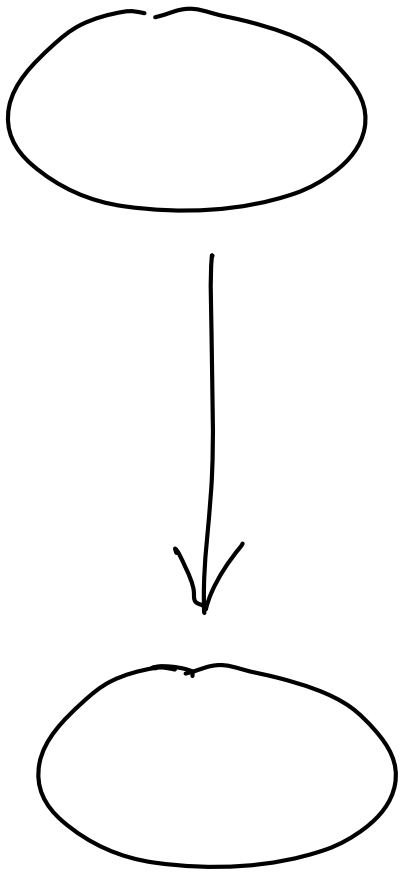
Elements of writing

- Summarize
- Paraphrase
- Synthesize
- Analyze
- Evaluate

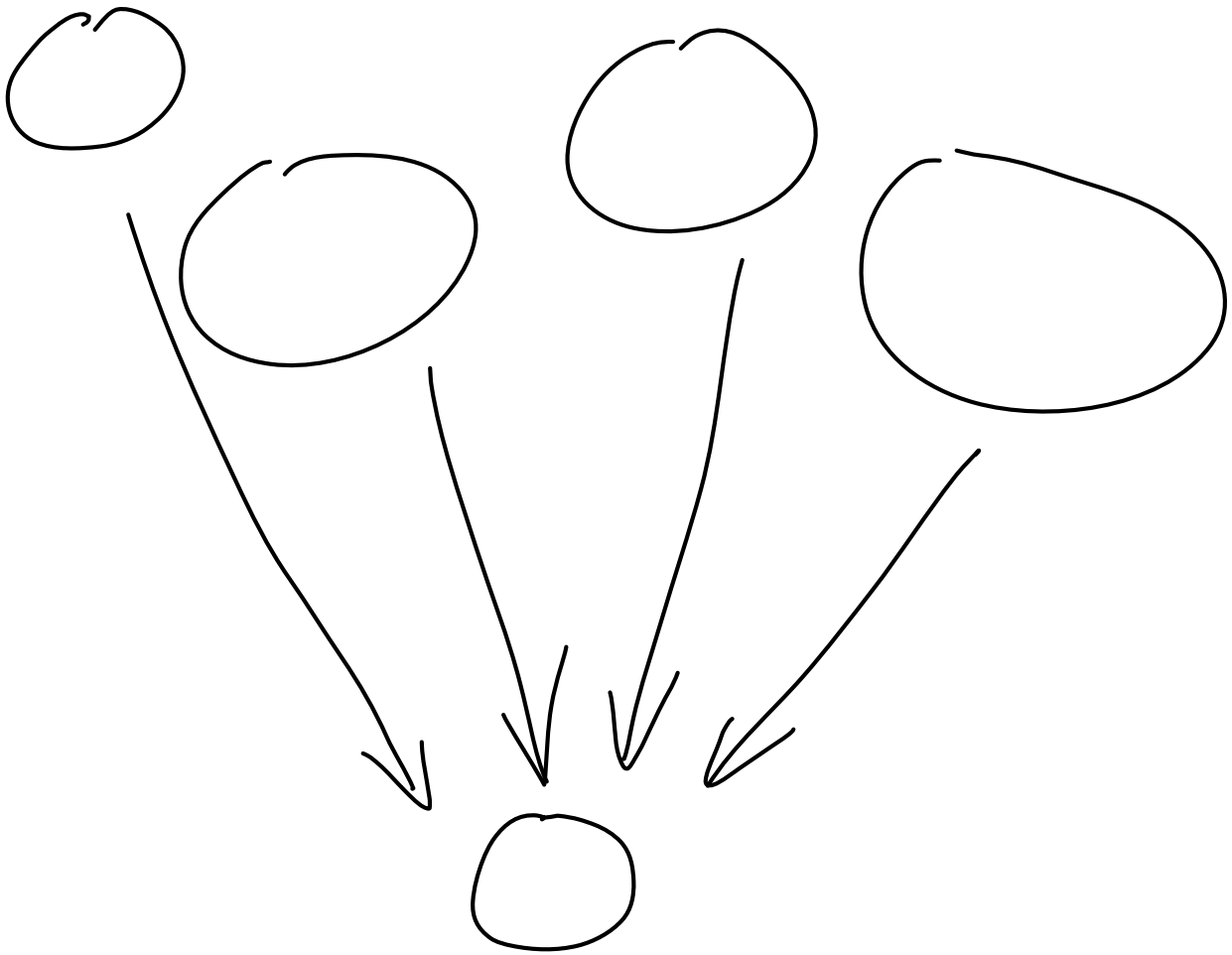
Summarize



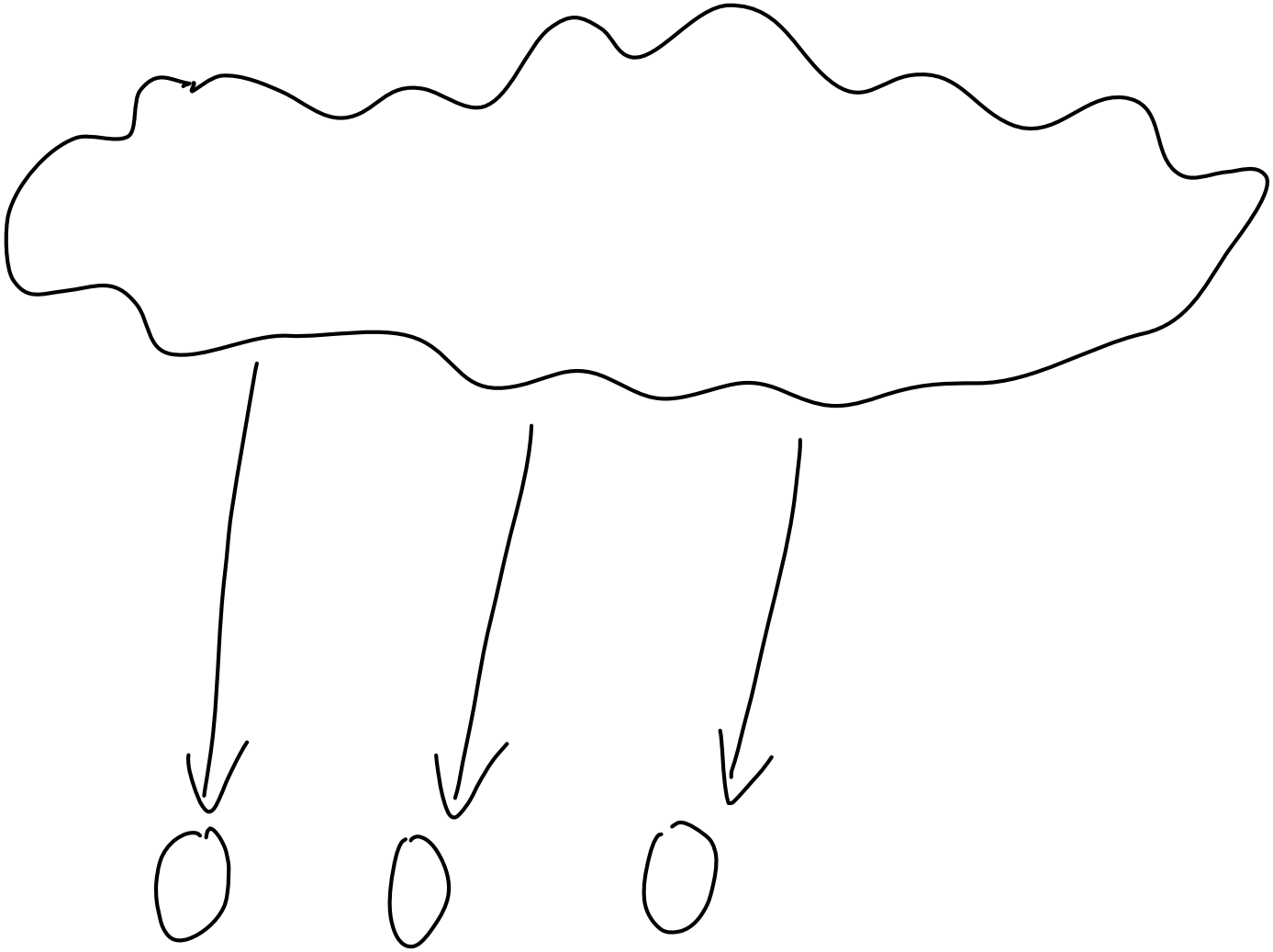
Paraphrase



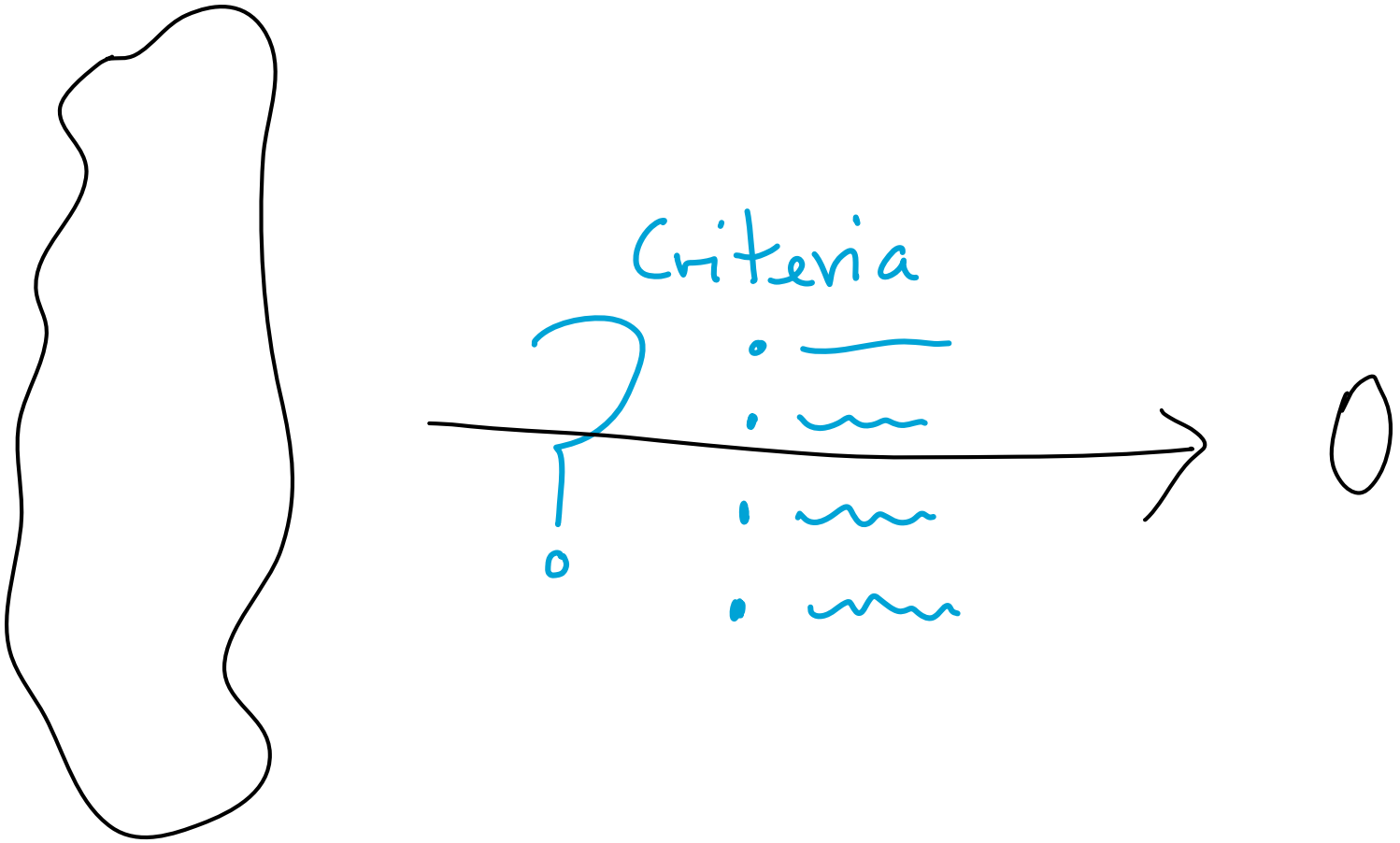
Synthesize



Analyze



Evaluate



Paraphrase or summary?

- Paraphrase:
  "To express the meaning … in other words"
- Summary or Abstract:
  "Containing the chief points or sum or substance of a matter" … "with implication of brevity"
  (Shorter Oxford English Dictionary)

5. Peer review

- Peer review is an essential part of professional academic life.
- Anonymous peer reviews are necessary for journal publication and some books.
- Review by “critical friends” is common.

Support the revision

- Swap pieces of writing in pairs.
- Write on the review form to give helpful advice to the author on their summary.
- Hand back the writing with the review form.

Revise your summary

- Read the review form.
- Take note of its comments and address each one.
- Rewrite your summary on a new sheet
- Add your name at the top and hand it in at the end of the session.

6. Editing

Editing, proofreading & polishing are to correct the surface features of the text.

1. Appearance
   - Formatting, fonts, footnotes, footers
2. Linguistic accuracy
   - Spelling, punctuation
3. Sources, references, acknowledgements
   - Citations correct, references complete

GENERAL REMARKS

- Master the basics of organized writing
  - Paragraph=ordered set of topically-related sentences
  - Lead sentence: sets context for paragraph and might tie to previous paragraph
  - Sentences in paragraph should have logical narrative flow, relating to theme/topic
  - Don't mix tenses in descriptive text
  - One sentence paragraph!

REMEMBER THIS TOO:

WRITE FOR READERS, NOT FOR YOURSELF!

- DON'T OVERSTATE/UNDERSTATE YOUR RESULTS
- STUDY THE ART OF WRITING

How to publish in prestigious and reputable international journal

What gets you accepted?

- **A**ttention to details
- **C**heck and double check your work
- **C**onsider the reviews
- **E**nglish must be as good as possible
- **P**resentation is important
- **T**ake your time with revision
- **A**cknowledge those who have helped you
- **N**ew, original and previously unpublished
- **C**ritically evaluate your own manuscript
- **E**thical rules must be obeyed

– Nigel John Cook, Editor-in-Chief, *Ore Geology Reviews*

Why Papers get Early Rejection (Part 1)

Aims and scope

- Paper is of limited interest or covers local issues only (sample type, geography, specific product, etc.).
- Paper is a routine application of well-known methods
- Paper presents an incremental advance or is limited in scope
- Novelty and significance are not immediately evident or sufficiently well-justified

Why Papers get Early Rejection (Part 2)

Preparation

- Failure to meet submission requirements
- Incomplete coverage of literature
- Unacceptably poor English

Rejection: not the end of the world

- Everyone has papers rejected – do not take it personally.
- Try to understand why the paper was rejected.
- Note that you have received the benefit of the editors and reviewers' time; take their advice seriously
- Re-evaluate your work and decide whether it is appropriate to submit the paper elsewhere.
- If so, begin as if you are going to write a new article. Read the Guide for Authors of the new journal, again and again.

Never treat publication as a lottery by resubmitting a rejected manuscript directly to another journal without any significant revision!!! It won't save any of your time and energy…

- The original reviewers (even editors) may eventually find it, which can lead to animosity towards the author.
- **A suggested strategy**
  - In your cover letter, declare that the paper was rejected and name the journal.
  - Include the referees' reports and a detailed letter of response, showing how each comment has been addressed.
  - Explain why you are resubmitting the paper to this journal, e.g., this journal is a more appropriate journal; the manuscript has been improved as a result of its previous review; etc.

Publish AND Perish! – if you break ethical rules

- International scientific ethics have evolved over centuries and are commonly held throughout the world.

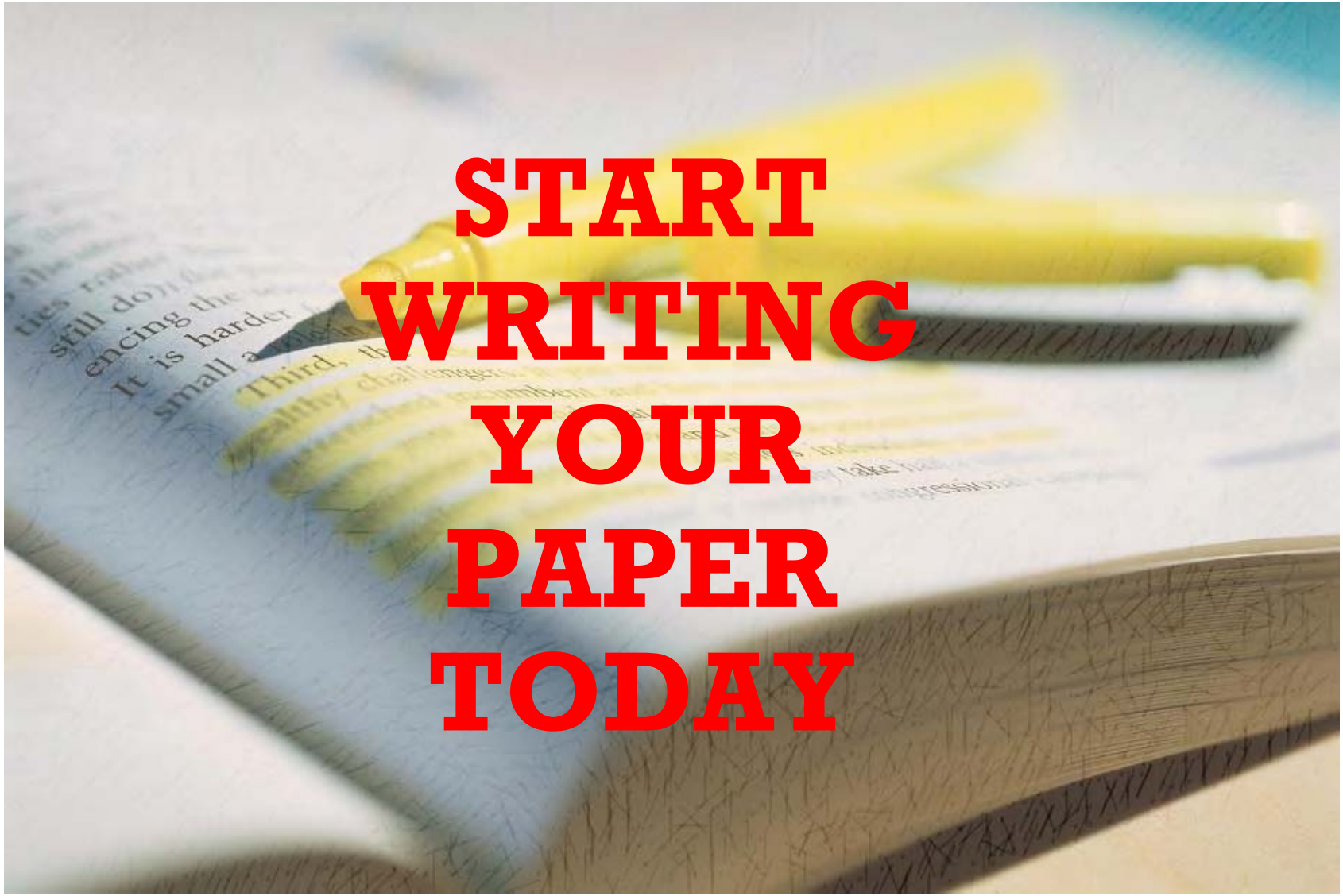
- Scientific ethics are not considered to have national variants or characteristics – there is a single ethical standard for science.

- Ethics problems with scientific articles are on the rise globally.

Deadly Sins – Unethical behavior "can earn rejection and even a ban from publishing in the journal"

– Terry M. Phillips, Editor, *Journal of Chromatography B*

- Multiple submissions
- Redundant publications
- Plagiarism
- Data fabrication and falsification
- Improper use of human subjects and animals in research
- Improper author contribution


START
WRITING
YOUR
PAPER
TODAY

CHECK LIST

	1st draft	Edited draft
Make concept sheet	☐	☐
Title	☐	☐
Abstract	☐	☐
Introduction	☐	☐
Methodology	☐	☐
Discussion	☐	☐
Conclusions	☐	☐
Acknowledgements	☐	☐
References	☐	☐
Figures and captions	☐	☐
Appendices	☐	☐


THANK YOU