INTRODUCTION TO CRITICAL THINKING

THE SCIENCE OF BEING RIGHT

MACAT

Macat International Limited

This presentation will cover

CRITICAL THINKING

What is CT? Academic Definitions
Development & significance
CT applications & icons

MACAT

Who we are & what drives us
PACIER & how it works
The PACIER solution

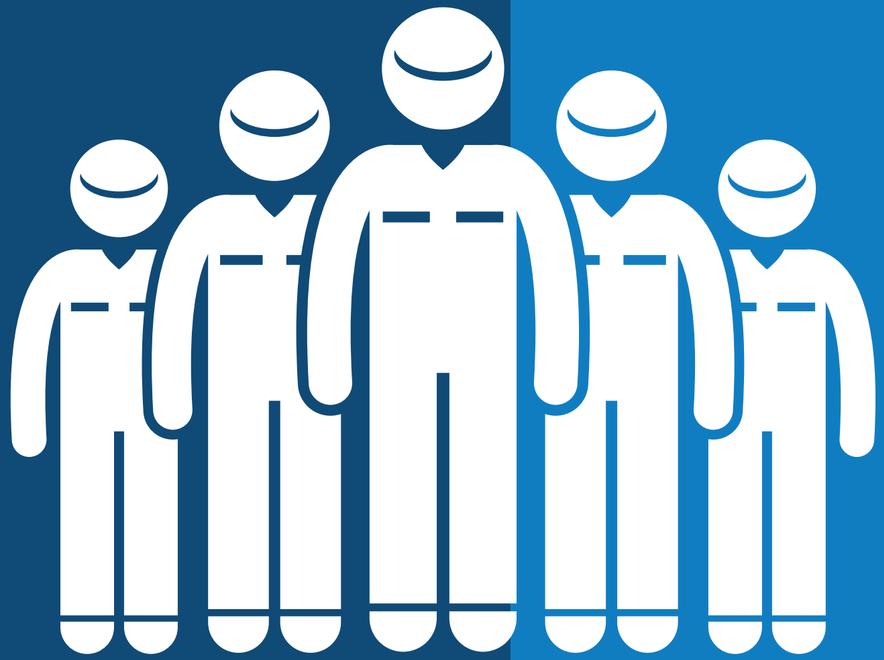
The Skills Gap Crisis

Talented pivotal person

Major trends

From talent and pivotal people to skilled workforce. The future will be about buying skills as and when you need them.

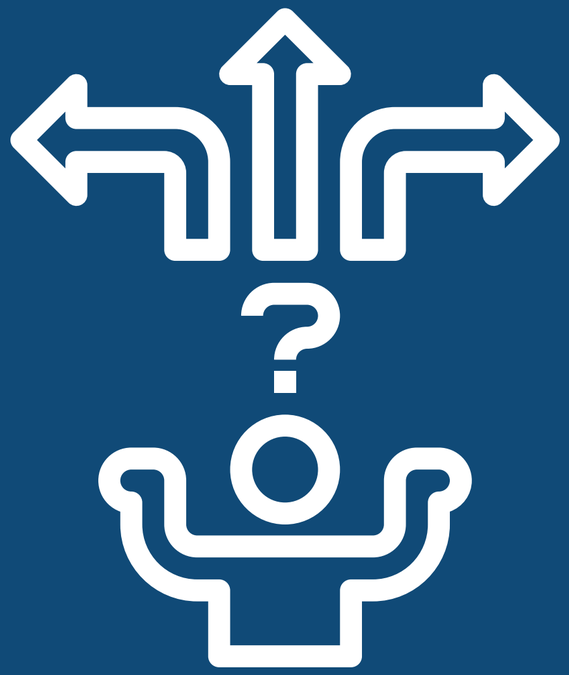
Skilled workforce



The Skills Gap Crisis

Major trends

Individual decision maker



From specialist individual decision making by functional demarcation to project based teams with diversified squads and tribes.

Squads & tribes

The Skills Gap Crisis

Major trends

From skills gap to a skills race.

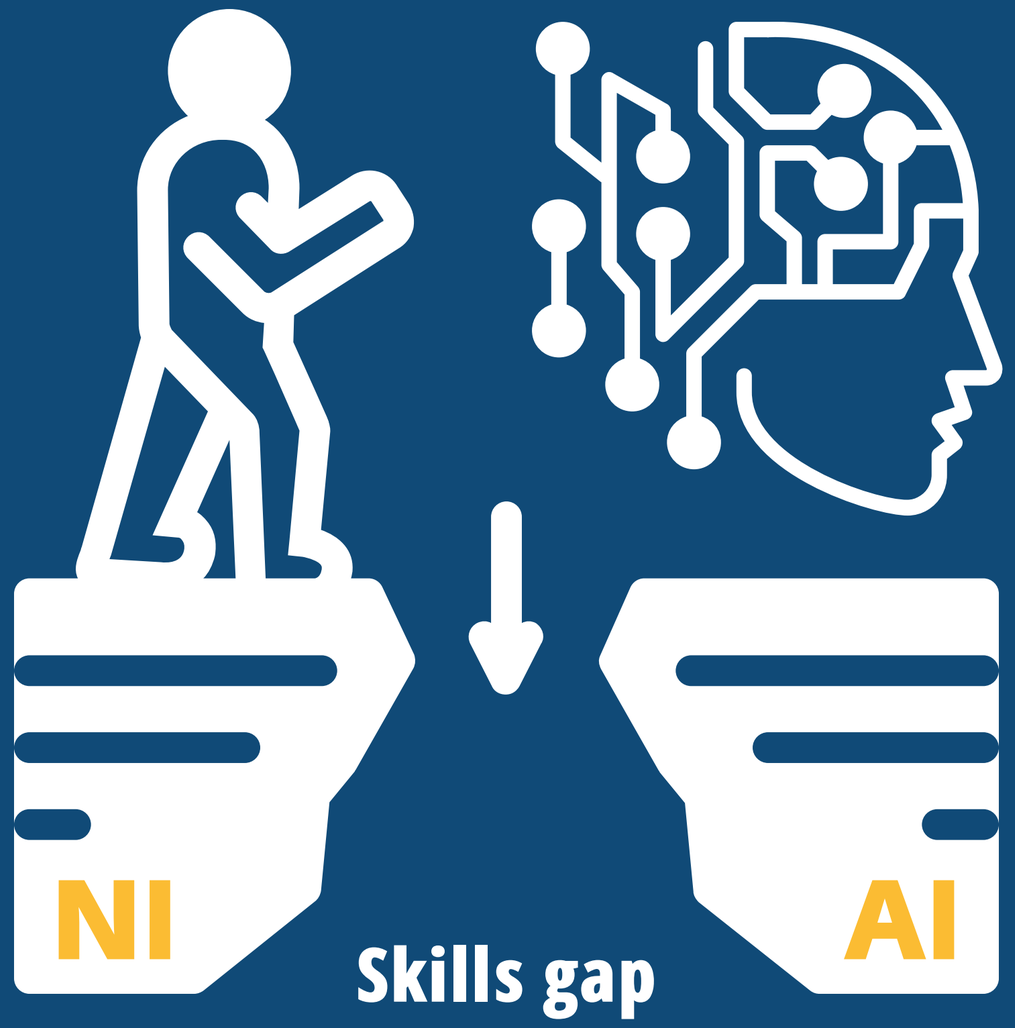
Skills gap

Skills race

The Skills Gap Crisis

Major trends

The intersection of natural and artificial intelligence will take us into an age of augmented intelligence and ultimately will lead us to autonomous artificial intelligence.



Future skills?

AAI

Eric Schmidt, Executive Chairman
Alphabet Inc (Google's parent company)

"We need critical thinking now more than ever. By 2020, most human beings will have access to the internet. When you have everyone harnessed with this information, the world gets more interconnected. It gets stronger. There's more knowledge sharing. There's more freedom and there's more openness. I've come to believe that science and Critical Thinking really do matter. Even more so now in the political world that we have in the United States and in other areas of the world."

Julie Bisson, Executive Director, Assurance and People Leader
EY Channel Islands

"In today's competitive market, hard skills such as technical ability and business insight define a person and are crucial for career success. However, what is often overlooked is just how vital a person's soft skills can be in securing, maintaining and progressing a successful career. In a business environment, soft skills include an aptitude in communication, presentation, professionalism, time management, team-work and Critical Thinking."

Reid Hoffman, Founder
Linkedin

"The analytical thinking skills I learned have made me a better investor and entrepreneur. My unusual educational background has proven quite helpful throughout my career. My favorite philosophers are Aristotle, Friedrich Nietzsche, and Ludwig Wittgenstein, and studying them has proven useful in two ways. It honed my Critical Thinking & gave me a deeper insight into human nature"

Andreas Schleicher, Director for Education and Skills,
Organisation for Economic Co-operation and Development

"Macat offers an amazing first-of-its-kind tool for interdisciplinary learning and research. Its focus on works that transformed their disciplines and its rigorous approach, drawing on the world's leading experts and educational institutions, opens up a world-class education to anyone."

A brief introduction to CT

WHAT IS CRITICAL THINKING?

Dispositions and Skills

Philosophy

The philosophical approach views the critical thinker as an ideal type, focusing on what people are capable of doing under the best of circumstances. In this view a critical thinker manifests “perfections of thought” by being inquisitive in nature, open-minded, flexible, fair-minded, has a desire to be well-informed, understands diverse viewpoints, and is willing to both suspend judgment and to consider other perspectives.

Education

The educational approach focuses on a hierarchy of information processing skills, with comprehension at the bottom and the three higher-order thinking skills (analysis, synthesis and evaluation) representing critical thinking.

Psychology

The psychological approach focuses on how people actually think versus how they could or should think under ideal conditions. They define critical thinking by the types of actions and behaviors critical thinkers do.

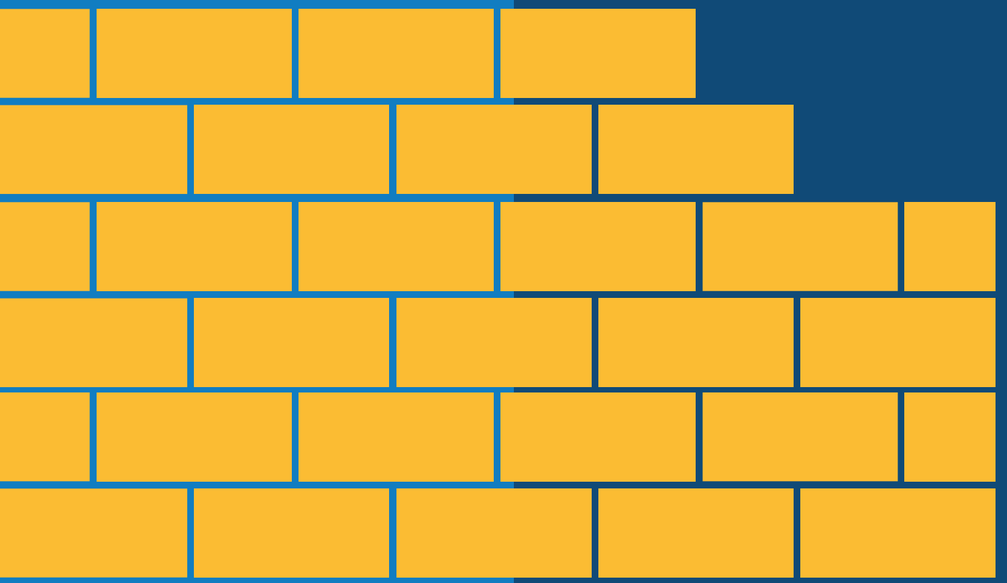
Critical thinking definition

The component skills of **analyzing arguments, making inferences using inductive or deductive reasoning, judging or evaluating, and making decisions or solving problems.**

Not innate as it

can be taught and can be improved as a tool that helps us to draw effective conclusions and make better decisions

Why is critical thinking important



It matters because

It is the foundation of all real-life skills with many practical applications in a world that is rapidly changing with no jobs for life

Critical thinking applications

It helps us

learn and work better as we minimise errors and maximise success by being adaptable and capable of tackling new challenges.

Who we are

Macat is **a world leader in critical thinking solutions that transform the way people learn, work and live.**

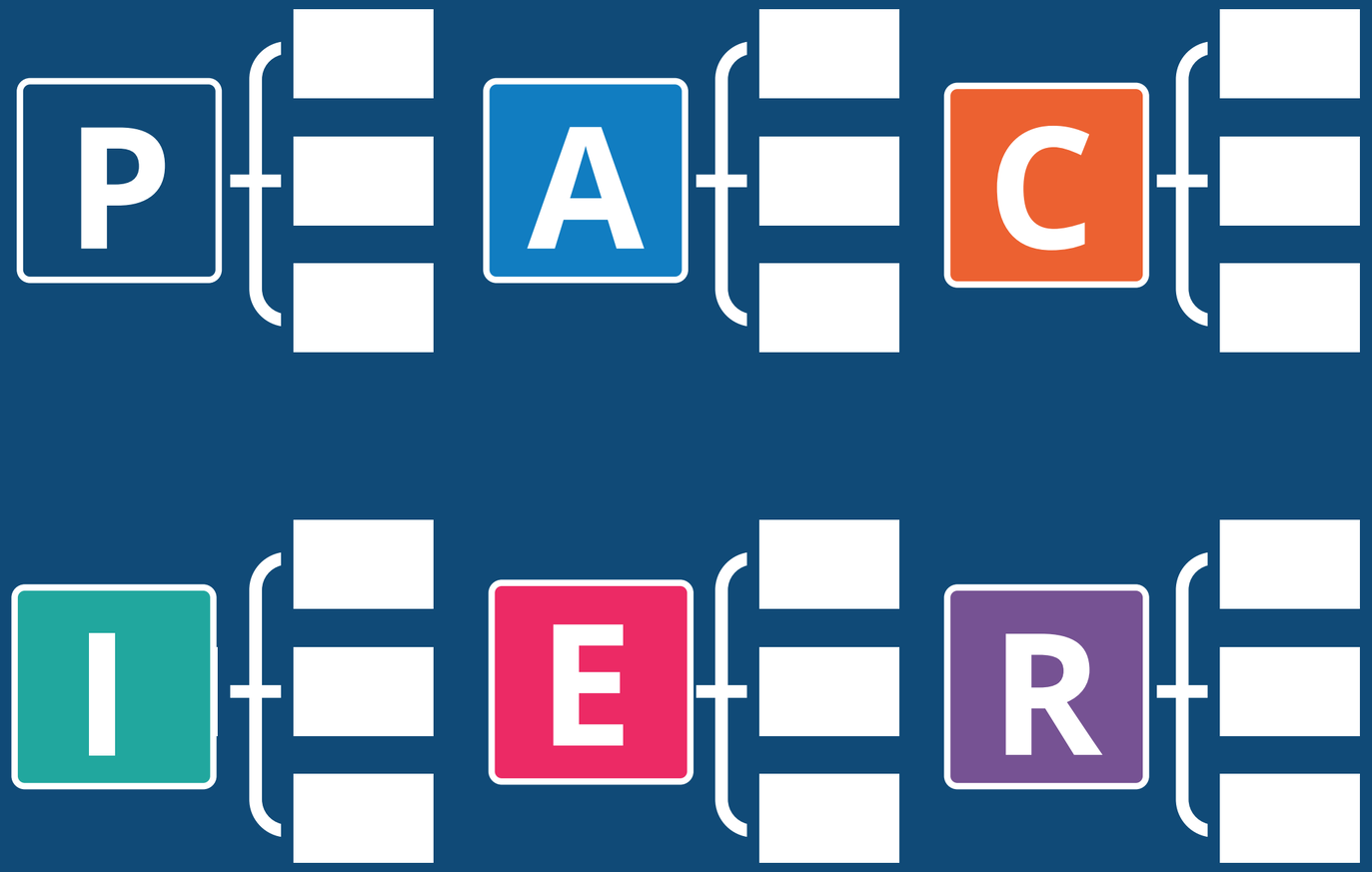
What we believe

We believe **that better thinking creates better and more equitable societies**

Macat's definition of critical thinking

The component skills of **problem-solving, analysis, creative thinking, interpretation, evaluation and reasoning, a 21st century skills definition**

How it works

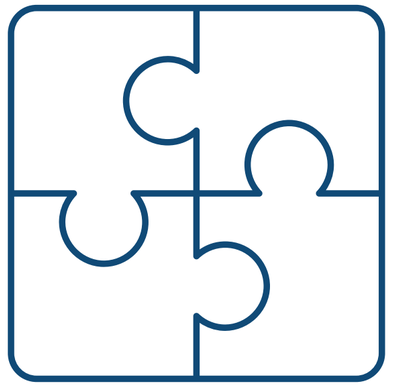


The PACIER Model is

a group of 6 skills and a number of sub-skills that could be used in combinations and sequence to create, develop and track critical thinking

P

Problem Solving
Producing strong solutions



Asking productive questions

Generating alternative possibilities

Generating solutions

Making sound decisions

A

Analysis
Understanding how an argument is built

Working out the functions of each part of an argument

Understanding the relationships between parts of an argument

Showing the structure of an argument

Looking for assumptions in an argument

C

Creative Thinking
Creating new connections and unexpected solutions

Connecting things together in a new way

Producing novel explanations for existing evidence

Generating new hypotheses

Redefining an issue so as to see it in a new way

I

Interpretation
Looking at issues of meaning

Seeking to clarify meaning where necessary

Grasping the meaning of technical terms

Understanding the meaning of available evidence

Highlighting problems of a definition

Evaluation
Exploring strengths and weaknesses of an argument

Judging the acceptability of the reason(s) used in terms of readability

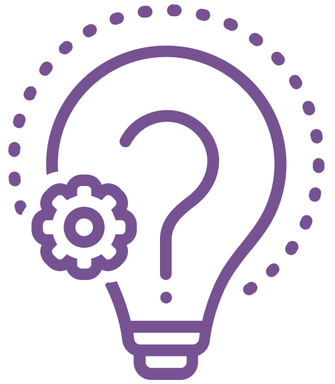
Judging the relevance of the reason(s) used

Judging the adequacy of the reason(s) used

Judging what would strengthen or weaken an argument

R

Reasoning
Creating strong and persuasive arguments



Producing well structured arguments

Dealing with counter-arguments

Evaluating the reasoning of arguments

Looking at the need to persuade

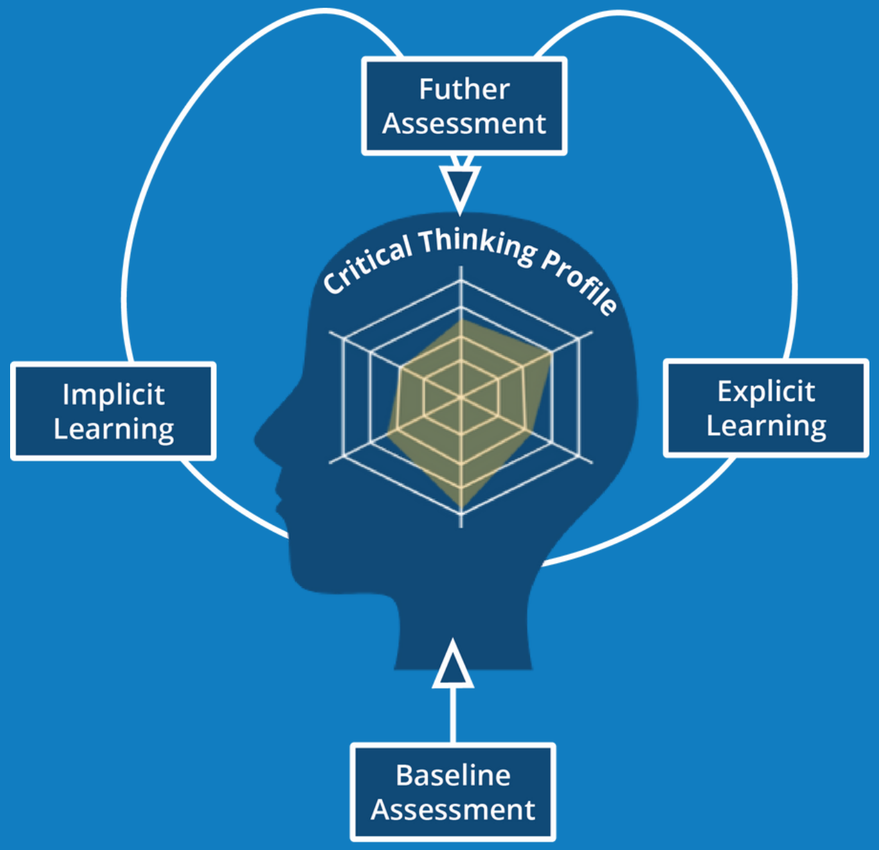
Problem-solving Producing strong solutions	**Analysis** Understanding how an argument is built	**Creative Thinking** Creating new connections and unexpected solutions	**Interpretation** Looking at issues of meaning	**Evaluation** Exploring strengths and weaknesses of an argument	**Reasoning** Creating strong and persuasive arguments
Asking productive questions	Working out the functions of each part of an argument	Connecting things together in a new way	Seeking to clarify meaning where necessary	Judging the acceptability of the reason(s) used in terms of readability	Producing well-structured arguments
Generating alternative possibilities	Understanding the relationships between parts of an argument	Producing novel explanations for existing evidence	Grasping the meaning of technical terms	Judging the relevance of the reason(s) used	Dealing with counter-arguments
Generating solutions	Showing the structure of an argument	Generating new hypotheses	Understanding the meaning of the available evidence	Judging the adequacy of the reason(s) used	Evaluating the reasoning
Making sound decisions	Looking for assumptions in an argument	Redefining an issue so as to see it in a new way	Highlighting problems of a definition	Judging what would strengthen or weaken an argument	Looking at the need to persuade

Our unique selling proposition (USP)

It is different because our model is academically rigorous with a decade of research most notably with the university of Cambridge and most recently with LSE

Our solution

PACIER



The PACIER solution uses the PACIER model to help individuals assess their CT skills, build a baseline CT profile, choose one or two development tracks (implicit and explicit), take further assessment and make improvements to your skills and profile.

How are you going to develop your critical thinking skills

1

CRITICAL THINKING ASSESSMENT

The Macat critical thinking assessments have been designed to test each one of the PACIER skills

2

BUILD A BASELINE CT PROFILE

The Macat CT profile uses your assessment scores in the six PACIER skills to create a baseline CT profile that get you going

3

IMPLICIT + EXPLICIT DEVELOPMENT

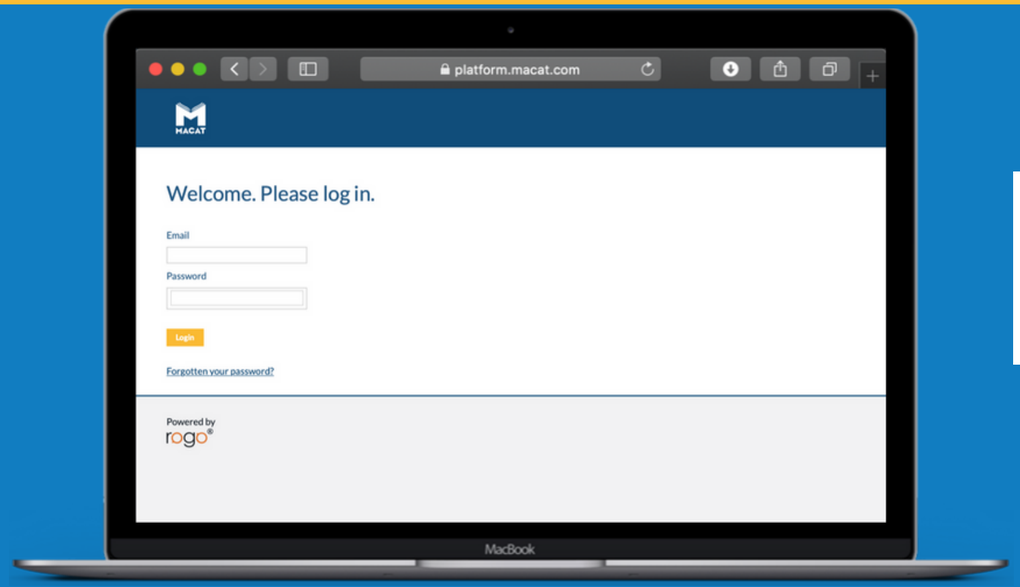
AN unlimited access to the Macat iLibrary which comprises 220 analyses of great works and CT learning resources

4

ASSESS AGAIN & DEVELOP CT PROFILE

If you want to be a great critical thinker you need to assess skill retention, improvement and decay, which will help you develop your CT profile

PACIER multi-skill and single-skill assessments

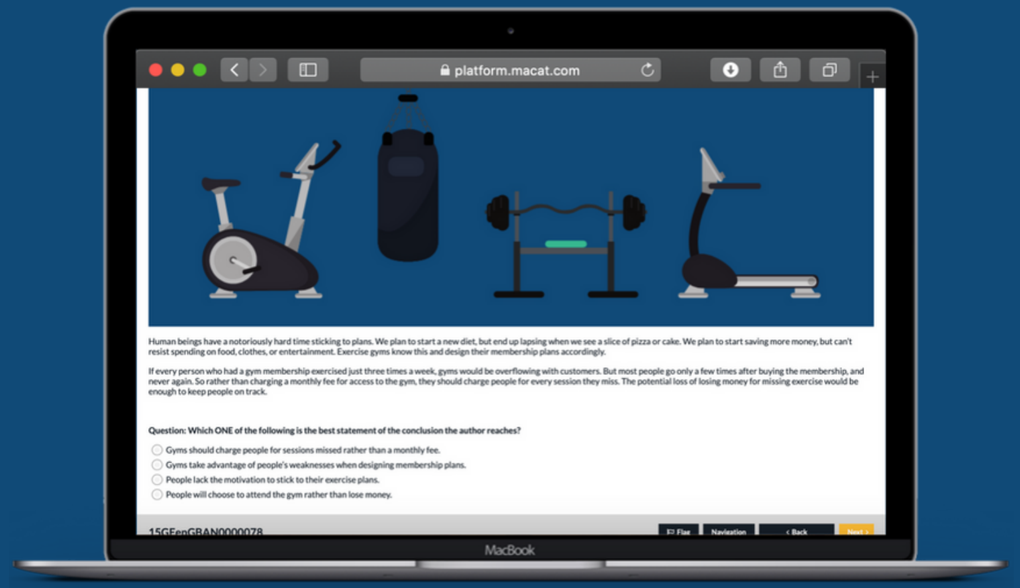


Multi-skill assessment

PACIER

Single-skill assessment

P C



1. This gives you your over all critical thinking score according to the last test taken
2. This clearly allows you to compare your results between different skills
3. The skills map is our users' favourite analytic and allows users to look at how they think .
4. Current Activity shows you how far through your CT course you are
5. This bar graph allows you to compare yourself to your class, cohort, or function and Macat's entire CT network.
6. You are able to look at where you rank among your peers
7. You are easily guided on to your next activity for further CTdevelopment.

OVERVIEW OF THE MACAT iLIBRARY
Implicit CT development

Written by academics

The analyses have all be written by post-doctortal students specialised in that field from the world's top universities.

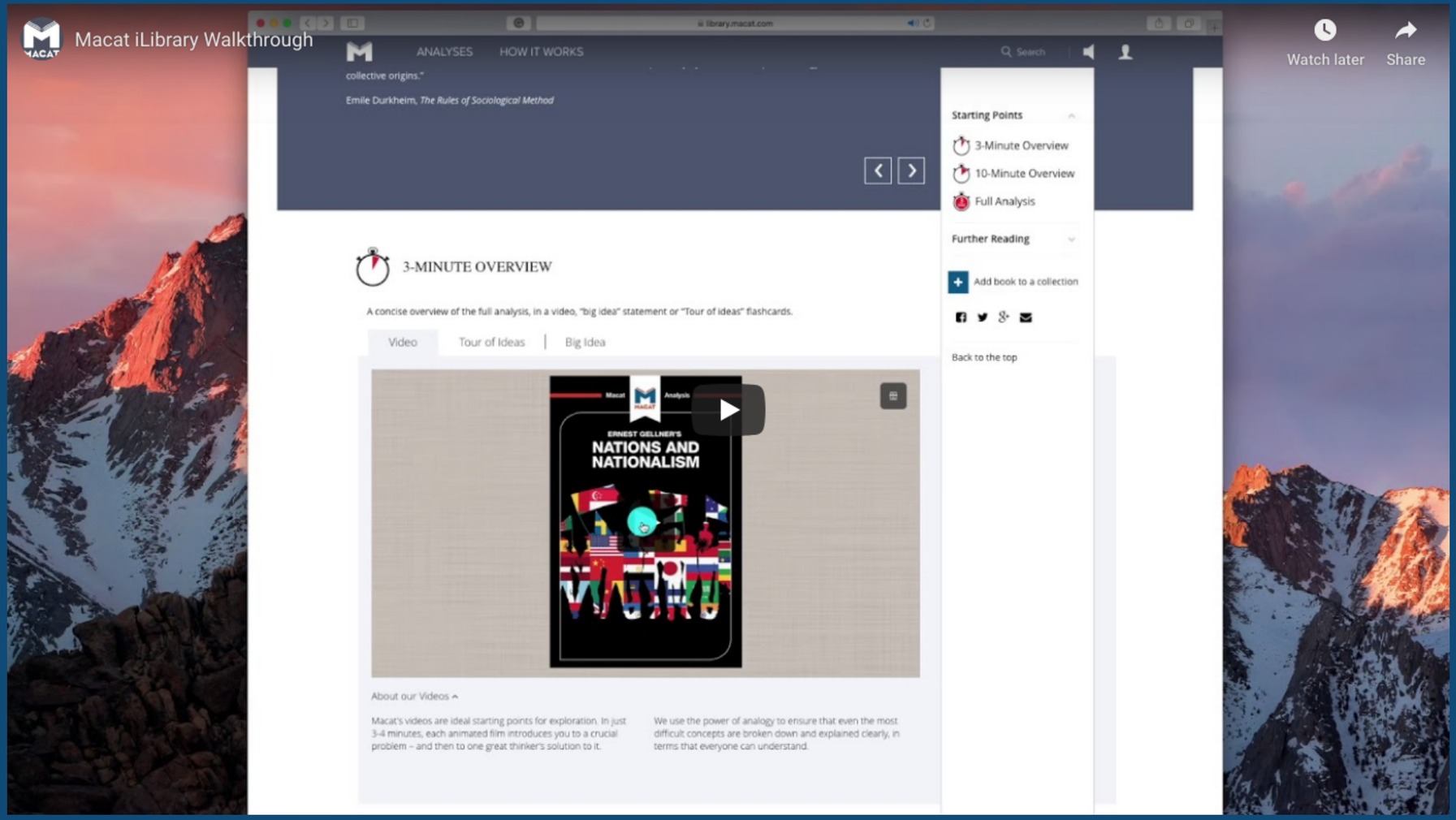
Breadth and depth

The iLibrary covers 220 titles across 15 different disciplines

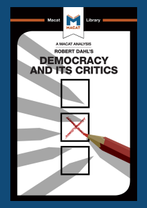
Flexibility

The iLibrary allows you to engage with the works in a variety of ways including video, audio and ibook.

The next video will talk you through how you can make the most of the Macat iLibrary...


Macat iLibrary Walkthrough
Watch later
Share
ANALYSES
HOW IT WORKS
collective origins."
Emile Durkheim, The Rules of Sociological Method
Starting Points
3-Minute Overview
10-Minute Overview
Full Analysis
Further Reading
Add book to a collection
Back to the top
3-MINUTE OVERVIEW
A concise overview of the full analysis, in a video, "big idea" statement or "Tour of ideas" flashcards.
Video
Tour of Ideas
Big Idea
ERNEST GELLNER'S
NATIONS AND NATIONALISM
About our Videos
Macat's videos are ideal starting points for exploration. In just 3-4 minutes, each animated film introduces you to a crucial problem – and then to one great thinker's solution to it.
We use the power of analogy to ensure that even the most difficult concepts are broken down and explained clearly, in terms that everyone can understand.

iLibrary Disciplines



Politics

Geography

Postcolonial studies

Theology

History of Art

History

Literature

Business

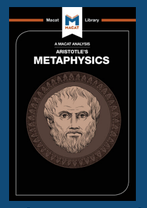
Gender Studies

Anthropology

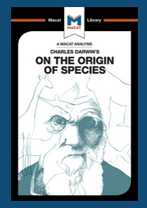
Psychology

Sociology

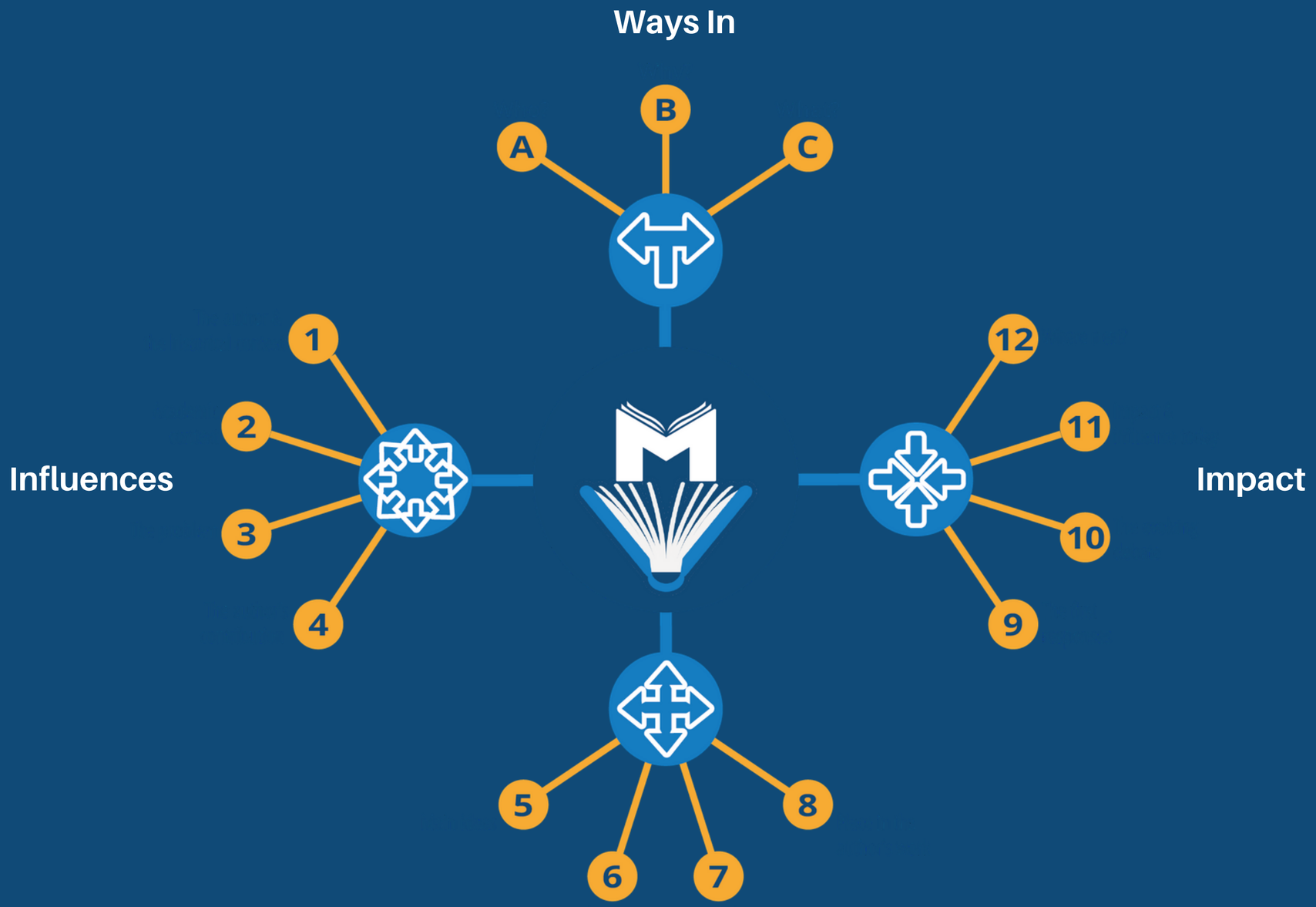
Economics



Philosophy



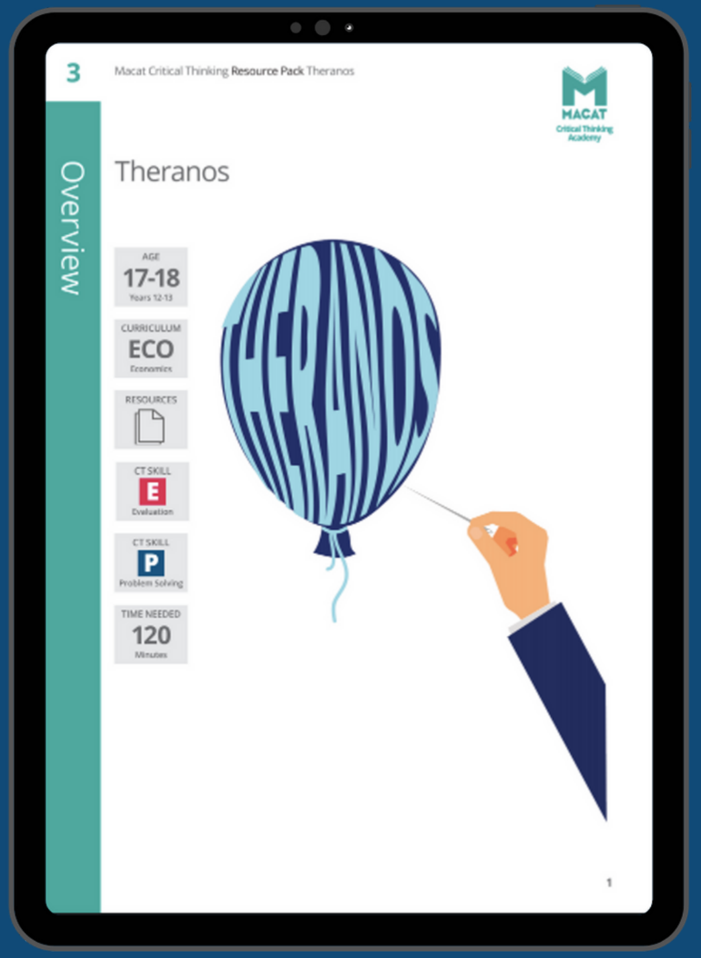
Science

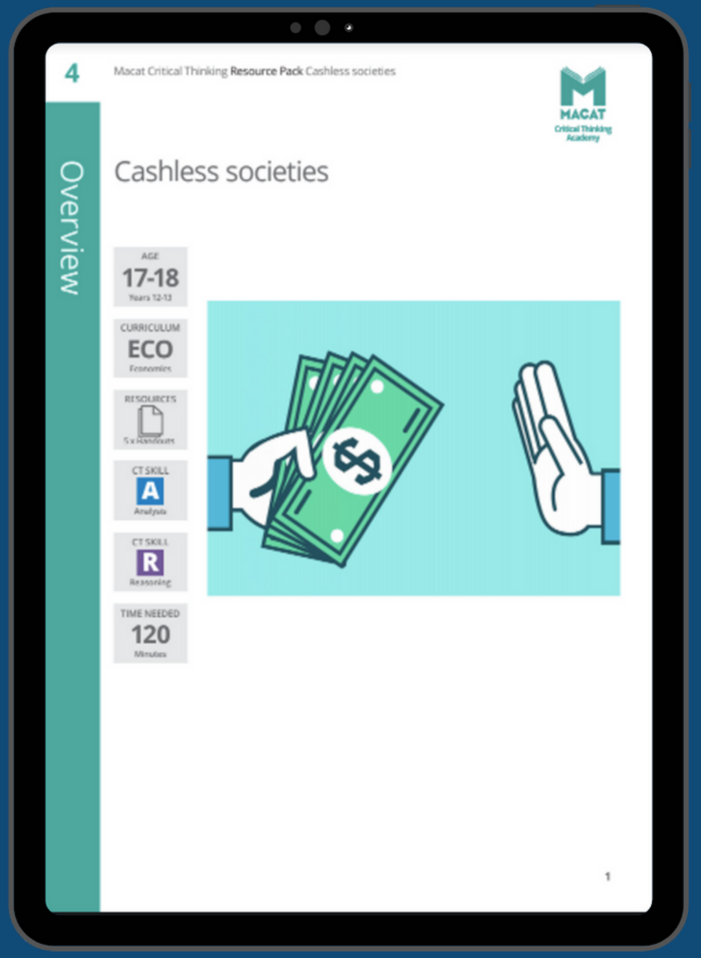


Analysis Structure

Macat Library
A MACAT ANALYSIS
JOHN LOCKE'S
TWO TREATISES OF GOVERNMENT
LUDWIG WITTGENSTEIN'S
PHILOSOPHICAL INVESTIGATIONS
IMMANUEL KANT'S
CRITIQUE OF PURE REASON
KARL MARX'S
CAPITAL
SØREN KIERKEGAARD'S
FEAR AND TREMBLING
JOHN STUART MILL'S
UTILITARIANISM
MICHEL FOUCAULT'S
THE HISTORY OF SEXUALITY
JOHN MAYNARD KEYNES'S
THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY
GEORG WILHELM FRIEDRICH HEGEL'S
THE PHENOMENOLOGY OF SPIRIT
ARISTOTLE'S
METAPHYSICS
ALEXIS DE TOCQUEVILLE'S
DEMOCRACY IN AMERICA
FRIEDRICH WILHELM NIETZSCHE'S
ON THE GENEALOGY OF MORALITY
MAX WEBER'S
POLITICS AS A VOCATION
THOMAS PIKETTY'S
CAPITAL IN THE TWENTY-FIRST CENTURY
RENÉ DESCARTES'S
MEDITATIONS ON FIRST PHILOSOPHY
CHRISTOPHER BROWNING'S
ORDINARY MEN
FERDINAND DE SAUSSURE'S
COURSE IN GENERAL LINGUISTICS
ÉMILE DURKHEIM'S
ON SUICIDE
CLIFFORD GEERTZ'S
THE INTERPRETATION OF CULTURES
SELECTED ESSAYS
HENRY DAVID THOREAU'S
CIVIL DISOBEDIENCE
BARUCH SPINOZA'S
ETHICS
PIERRE BOURDIEU'S
OUTLINE OF A THEORY OF PRACTICE
WILLIAM H. WHYTE'S
THE ORGANIZATION MAN
JAMES SUROWIECKI'S
THE WISDOM OF CROWDS
WHY THE MANY ARE SMARTER THAN THE FEW
DAVID TEECE'S
DYNAMIC CAPABILITIES AND STRATEGIC MANAGEMENT
ORGANIZING FOR INNOVATION AND GROWTH
JACQUES DERRIDA'S
STRUCTURE, SIGN, AND PLAY IN THE DISCOURSE OF HUMAN SCIENCE
MOSES MAIMONIDES'S
GUIDE OF THE PERPLEXED
MARTIN BUBER'S
I AND THOU
AUGUSTINE'S
CITY OF GOD AGAINST THE PAGANS
CARL VON CLAUSEWITZ'S
ON WAR

OVERVIEW OF THE MACAT LEARNING RESOURCES
Explicit CT development





Thank you

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