

SAVOIR  DEVENIR

ALGO-LITERACY FOR ALL



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CONTENT

Introduction

Algo-literacy in 10 points

1 – The Keyboard Fighters

Ranking and recommendation algorithms

2 – Dangerous Liaisons

Recommendation algorithms and state propaganda

3 – How Data Changed my Job as a Journalist

Algo-journalism and conspiracy theories

4 – Algorithm Watchers

Digital fact-checking, prediction algorithms and disinformation



CROSSOVER



INTRODUCTION

Algorithms influence our relationships, our consumption, our culture and especially the way we inform ourselves and perceive the world. But do we really know what they are, what they do, what economic or ideological logic underlies them and how to master them rather than suffer from them?

Understanding algorithms, being able to analyze them critically, grasping them and learning how to use them, these are the objectives of Algo-literacy, the field explored by the CrossOver project in its informational dimension.

Algo-literacy covers the following skills:

- Understand algorithms
- Being able to analyze and criticize them
- Know how to use them wisely
- Modify our behaviors and uses with full knowledge of the facts
- React to them on social and mass media

This manual is intended for all those who wish to explore the main impacts of algorithms on information and especially disinformation, and in particular for educational mediators and trainers wishing to conduct media education workshops with children aged 15 and over.

It proposes to explore the main impacts of algorithms on information and disinformation through four modules of Media and Information Literacy based on the realization of podcasts about computer analysis, journalistic investigations, interactive quizzes testing the presentations and knowledge of major issues and workshop proposals.

Each module includes:

- An original 20-minute podcast and its transcript
- Supporting articles
- A quiz to deepen and assimilate the themes covered in the podcast
- MIL-BASICS: a quick presentation of the theme and its MIL issues
- MIL-LAB: proposed workshop schedule

According to the principles of Media and Information Literacy (MIL), this production is based on authentic documents (a newspaper article) and professional tools (the algorithmic Dashboard). Documents and tools are integrated in an intervention where critical reflection on the role of algorithms in information and disinformation and the means to make a citizen and enlightened use of them are paramount.

About CrossOver

This handbook was produced within the framework of the European project Crossover, which relies on the analysis of fine data around algorithms to detect fake news, analyze them, and conduct field investigations that allow to launch campaigns exposing specific cases of misinformation.

These actions are based on the development of an innovative tool (the Dashboard), which makes it possible to know in real time the recommendations of the main social media platforms for selected keywords, and thus to reveal possible informational drifts.

Project partners: EU DisinfoLab (Belgium), Check First (Finland), Apache (Belgium), Savoir Devenir (France)

Algo-literacy in 10 points

Since algorithms, and in particular, those of search engines and social media, influence our information, our consumption, our relationships, and politics, citizens should know how they work and what their effects are.

This document presents synthetically the key points developed in Algo-literacy, a field part of Media and Information Literacy, essential to understand our media and our cultural universe and to try to regain control over our digital lives.



1 Algorithms are also created by humans

They are not elusive and mysterious forces coming out of nowhere
Even if some escape their creator, I try to understand their logic to master their impact

2 Not all algorithms are the same

On the information side, there are sorting, recommendation and prediction algorithms
Knowing them is part of my culture

3 We are all under algorithmic influence!

On social media, for example, recommendation algorithms highlight content that guides our information fare
I multiply my sources and also consult the radio, the written media, TV...

4 Not everything that is recommended is true

The first search results or suggested content are not always the most relevant
I don't stop at the first results, I diversify my search locations. Curiosity is the worst enemy of algorithms

5 Algorithms and fake news sometimes form dangerous relationships

By putting forward fakes and conspiracies that make the buzz, for example!
I warn the members of my community

6 Infowar can destabilize democracies

Online propaganda by foreign powers taking advantage of the properties of algorithms is increasingly common
A hot news topic? I'm wary of news that upset me

7 Algorithms are very smart at making profits

Their first objective is to capture our attention and make us stay online as long as possible
I only click on suggestions that really interest me

8 A bubble is comfortable. But it lacks air

Recommendation algorithms tend to narrow our horizons by offering us content that matches our tastes and opinions
I consult various sources of opinion and cultivate my critical thinking skills

9 Algorithms are also valuable for journalists!

Used properly, they are interesting tools for testing the temperature of public opinion, spotting trends and reporting about «online life»
Technology can be useful. I don't demonize algorithms!

10 It's possible to act rather than cope

States, civil society and individual citizens can reduce the influence of algorithms on their information. And use them to fight against disinformation
Let's take action!

1

« The Keyboard Fighters »

Ranking and recommendation
algorithms



THE PODCAST

If we believed social media, protesters were to invade the Parliament of Brussels. In reality, as good «slacktivists» they only fought on the Internet. At the crossroads of algorithmic investigation and field reporting and through the story of the Freedom Convoy, our guests will tell us about the considerable gap between the virtual and the real worlds...

For this first episode, we are pleased to talk to Hind Fraihi, a reporter at Apache (Belgium), and Guillaume Kuster, an expert in algorithms and director of Check First (Finland). With them and Divina Frau-Meigs from the association Savoir Devenir (France), you will enter the incredible world of the production of information in the hands of artificial intelligence. By mixing data journalism and field investigation and using the “Dashboard”, a monitoring tool of the popular search engines and social media developed within the European project Crossover, our speakers will try to unveil the mystery around the recommendation algorithms modifying media agendas and our vision of the news.

How do they work?

What are their objectives?

How can they be controlled? That’s what this podcast is all about.

- > [Listen to the podcast](#)
- > [Transcript in English](#)
- > [Support article](#)

THE INTERACTIVE QUIZ

In addition to the podcast, the quiz was designed to help your audience deepen their knowledge of the algorithms used by search engines and social media and to provide them with key concepts and practical tips to manage their information.

- > [Access the quiz](#)

2

« Dangerous Liaisons »

Recommendation algorithms and
state propaganda



THE PODCAST

On March 1, 2022, at the very beginning of Russia's invasion of Ukraine, the European Union banned the media Russia Today and Sputnik in order to cut the ground from under the feet of Kremlin propaganda. A few months later, on YouTube the information about Ukraine in Belgium was dominated by media from China. And the voice of the national media was hardly audible. What happened?

The investigation sheds light on the links between algorithms and disinformation by certain states on social media and in the background raises the question: «how can states and citizens fight against this form of cyber-threat?»

As part of this Belgian project, the podcast was produced in Dutch. For the French audience, a translation of its description is available.

> Podcast link

> Transcription in English

> Support Article 1

> Support Article 2

THE INTERACTIVE QUIZ

As a complement to the podcast, the quiz was designed to help your audience deepen their knowledge of the algorithmic mechanisms that can foster disinformation and propaganda from rogue states.

Following the principles of Media and Information Literacy (MIL), this production is based on authentic documents (a newspaper article) and professional tools (the algorithmic Dashboard).

> Access the quiz

3

**« How Data Changed my Job
as a Journalist »**

Algo-journalism
and conspiracy theories



THE PODCAST

This podcast is about algo-journalism, i.e. how new investigative techniques based on algorithms are changing the journalistic profession and helping to fight disinformation. This type of journalism is illustrated by an investigation on conspiracy theories on the very controversial platform Odysee, considered as a nest of disinformation.

> Podcast link

> Support Article

THE INTERACTIVE QUIZ

In addition to the podcast, the quiz was designed to help your audience deepen their knowledge of how some journalists use data and algorithms to produce and verify information. The quiz is based on key concepts and practical tips to master information better in the context of these new media modalities.

And this, in particular in the case of conspiracy theories.

> Access the quiz

4

« Algorithm Watchers »

Digital fact-checking, prediction
algorithms and disinformation



THE PODCAST

This module focuses on new information technology tools, such as CrossOver's Dashboard. The podcast gives the floor to those who work at CrossOver at the technical to highlight the impact of algorithms on information and disinformation, in particular through its dashboard. This role is illustrated through an investigation of the role of predictive algorithms in Google's «autocomplete» search.

How do developers work with journalists, fact-checkers and MIL experts? What are the benefits and challenges of this complex approach? How can technical tools such as the one developed in this project be useful to all citizens - information professionals as well as ordinary citizens - to avoid disinformation?

> Podcast link

> Support article

THE INTERACTIVE QUIZ

In addition to the podcast, the quiz was designed to help your audience deepen their knowledge of fact-checking and prediction algorithms that influence our information consumption. The quiz is based on key concepts and practical tips to better manage information in the context of these new media modalities.

And this, in particular in the case of Google's autocompletion.

> Access the quiz



www.crossover.social

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