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Author

PROMOTION OF ECO-RESPONSIBLE COMPUTING: PARTNERSHIP

OFFER



The book "Principles of eco-friendly and modern computer programming - Examples in C#, Java, PHP, Python, and many others" is a response to the challenges of our generation to reduce our ecological footprint, combat climate change, and promote environmental preservation, sustainable development, and the efficient use of our planet's energy resources. It is intended for everyone involved in computer programming, from beginners to intermediates to seniors. Indeed, computing, software, mobile applications, web applications, embedded systems, and all kinds of computer programs are now part of the daily lives of billions of people and are ubiquitous in the activities of many businesses, municipal,

governmental or state institutions, organizations, shops, educational establishments, hospitals, and many other organizations. All the computer programs executed on various devices or hardware equipment generate a digital carbon footprint. Using a search engine, browsing a web page, submitting forms, or sending an email can involve many servers or

data processing units, whose power, operation, and cooling consume energy. A digital data (email, download, video, web query, etc.) traveled an average of 15,000 km in 2021¹, which results in energy consumption. Additionally, Wholegrain Digital reports that a web page produces an average of 1.76 grams of CO₂ per view² for the tested pages, and for a website receiving 10,000 page views monthly, this amounts to 211 kilograms of CO₂ generated per year, which is equivalent to 8.8 propane cylinders used for home barbecues or 89.9 liters of gasoline³.

Since programmers and development teams are the main people at the heart of programming these applications, they are the first concerned with making their contribution to reduce the digital carbon footprint of the applications they develop (software, web, mobile, etc.).

In a practical and educational style, our book guides programmers in choosing programming methods that align with the real-world challenges humanity faces in reducing our ecological footprint. Considering the need for our societies to train a large number of graduates in various fields within computer science, artificial intelligence, and engineering, we believe that making our book accessible to as many people as possible in these specialized areas, and even in related fields, would significantly contribute to fostering or developing ecological thinking within the context of their daily programming and system automation activities.

The challenge we currently face is precisely to make this book accessible to a wide range of people: students, engineers, managers, program managers, libraries, universities

¹ Ademe. La face cachée du numérique. <https://www.ademe.fr/sites/default/files/assets/documents/guide-pratique-face-cachee-numerique.pdf>

² Wholegrain Digital. Website Carbon Calculator | How is your website impacting the planet? <https://www.websitecarbon.com>.

³ Natural Resources Canada. Greenhouse Gas Equivalencies Calculator. <https://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/calculator/ghg-calculator.cfm>

and colleges, businesses, government departments, stakeholders in environmental preservation, sustainable development, and efficient use of energy resources, among others. To achieve this, we propose a partnership and grant program, the details of which are presented in the following sections.

1) Presentation of the grant program

Currently, the book is published on Amazon platforms in different countries. On Amazon Canada, the address to access the book is as follows:

<https://www.amazon.ca/gp/product/B09VJ33C7Q>

On Amazon.ca, the paperback version of this book costs **\$50** before taxes while the hardcover version costs **\$65** before taxes. To facilitate the dissemination of this book, we are offering a **subsidy plan** to various potential partners to **reduce the purchasing costs of the book for many beneficiaries**. Ultimately, we would like this book to be simply **free** for everyone, but that will depend on the subsidies we have gathered over time. Currently, our subsidy plan aims to allow interested individuals to purchase the book with a **\$50 discount** after taxes through contributions from various partners.

Concretely, we would like to obtain **grants in units of \$50 each**. For example, a partner may choose to offer a grant of 10 units for a total amount of $10 \times \$50 = \500 . When we receive this grant, the idea is to distribute it over 10 book orders to allow 10 people to purchase the book with a \$50 discount after taxes. Note that each buyer in this way is a potential future agent of change favorable to the environmental cause.

In the case of **underdeveloped countries**, coming from Cameroon myself, I am aware of the financial difficulties that many people may face who would have been very interested in accessing the technical and practical know-how conveyed in the book if they

had the means to purchase it. Because of this, our plan involves using a portion of the grants received to provide **free copies of the book to some educational institutions or libraries** in such countries. This would be a way to enable disadvantaged individuals or those with low incomes, who are working or wanting to work in sectors related to technology and computer programming, to access the knowledge and insights conveyed in these books, so that they too can learn to develop and enrich their ecological awareness practically as part of their education or livelihood activities. This widespread eco-consciousness propagated by those who have had the privilege of acquiring it will only be beneficial for these underdeveloped countries, and by extension, for the world at large.

2) Opportunities offered by the grant program

Participation in our grant program offers several opportunities to our partners:

- Practical implications in fostering and implementing ecological consciousness among computer programmers and developers, engineers, and many other specialists who would be involved in computer programming for the development of software, websites, mobile applications or automated systems.
- Commitment or recommitment to the preservation of the environment, sustainable development, and efficient consumption of the planet's energy resources.
- Display on our websites of the partner's name and logo, with reference to the partner's website, for partners who give us their consent to publish this information.
- Visibility worldwide, through our website, as a driver of change for environmental preservation, sustainable development, and efficient consumption of our energy

resources, which could generate interest from many, particularly among the younger generation who are more sensitive to environmental issues.

Here are the addresses of our websites:

- <http://www.ecologicalprogramming.com> (english version)
 - <http://www.programmationecologique.com> (french version)
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- Contribution to the training of financially limited people in underdeveloped countries.

3) How to become a partner for the grant program?

To become a partner with us, the easiest way is to register by completing the form available on **our secure website** at the following address:

<https://www.ecologicalprogramming.com/partnership>

By completing this form, you will also have the opportunity to give your contribution securely either by Paypal or by credit card or debit card. Please note that we do not collect your banking or credit card details, as we use Paypal services for all financial transactions. Depending on your choice, you can either make a one-off grant or make monthly grants that you can stop at any time.

As part of our partnership program, please note that **grants are non-refundable**.

4) Updates of our achievements

We have already provided a section on our websites to present our achievements relating to the use of subsidies for reducing the cost of purchasing books and for donations to educational institutions or libraries in underdeveloped countries. Our

intention is that these pages will be updated as often as new actions are taken, so that grant partners know and see that their grants are useful and impact people concretely.

5) Questions or comments

If you have any questions or comments about our grant offering, please contact us using one of the following methods:

Email : partnership@ecologicalprogramming.com

Web form : <https://www.ecologicalprogramming.com/contact>

Phone : 587 284-7755