

## MINISTÉRIO DA EDUCAÇÃO FUNDAÇÃO UNIVERSIDADE FEDERAL DO ABC

RESOLUÇÃO Nº 83 / 2021 - CPG (11.01.06.62)

Nº do Protocolo: 23006.018099/2021-84

Santo André-SP, 17 de setembro de 2021.

Apresenta referência para estrutura de dissertação de Mestrado ou tese de Doutorado a ser apresentada como parte dos requisitos para obtenção de título na Pós-Graduação stricto sensu da UFABC

A COMISSÃO DA PÓS-GRADUAÇÃO (CPG) DA FUNDAÇÃO UNIVERSIDADE FEDERAL DO ABC (UFABC), no uso de suas atribuições, considerando as deliberações de sua VII sessão ordinária de 2021 realizada em 16 de setembro e

A possibilidade de ser adotado um formato de dissertação e tese que incorpore artigos científicos ou capítulos de livros como capítulos;

O regimento da Pós-Graduação stricto sensu da Universidade Federal do ABC.

#### **RESOLVE:**

Art. 1º As dissertações e teses resultantes das atividades de pesquisa dos Programas de Pós-Graduação (PPGs) da UFABC poderão ter seu conteúdo apresentado em formato alternativo ao modelo tradicional, desde que contenha os seguintes elementos obrigatórios, conforme modelo disponibilizado na página eletrônica da Pró-Reitoria de Pós-Graduação (http://propg.ufabc.edu.br) e no Anexo I desta resolução, a saber:

- I. Capa;
- II. Folha de Rosto;
- III. Ficha catalográfica;
- IV. Agradecimentos (contendo, obrigatoriamente, citação à CAPES, ainda que o mestrando ou doutorando não tenha sido bolsista da agência);
- V. Sumário;
- VI. Resumo (em português) e abstract (em inglês) a critério do pós-graduando e do orientador, resumo em outro idioma pode ser acrescentado;
- VII. Introdução Geral, descrevendo o tema, a questão central, justificativas, objetivos e a estrutura da dissertação ou tese, na qual sejam apresentados os capítulos e a relação entre eles e a questão central da dissertação ou tese;
- VIII. Capítulos que desenvolvem o tema da dissertação ou tese;
- IX. Considerações Finais ou Conclusões Gerais;
- X. Referências Bibliográficas.
- Art. 2º Os capítulos da dissertação ou tese com o desenvolvimento do tema da pesquisa podem ser constituídos de artigos para periódicos ou eventos científicos (em preparação, submetidos, aceitos ou publicados), em português, inglês ou outro idioma que tenha sido normatizado em portaria específica do PPG.
- Art. 3º Os artigos e capítulos de livro que comporão a tese deverão ter, preferencialmente, o discente como primeiro autor, sendo que todos os demais coautores deverão autorizar expressamente o uso do artigo na referida tese.

Parágrafo único. Os artigos e capítulos de livro devem ser utilizados, preferencialmente, em uma única dissertação ou tese.

- Art. 4º Os artigos e capítulos de livro que comporão a dissertação ou tese deverão estar diretamente relacionados com os seus objetivos e tema central.
- Art. 5º. No capítulo introdutório da dissertação ou tese deverá ser explicitada qual foi a contribuição do discente em cada um dos artigos e capítulos anexados.
- Art. 6º Dependendo da política de direitos autorais do veículo de divulgação dos documentos publicados e utilizados na dissertação ou tese, o discente pode, se necessário:
- I. Apresentar a autorização da editora para sua inclusão na tese, caso já tenha sido publicado;
- II. Vincular a disponibilização do conteúdo completo da tese ao período de embargo da produção exigido pela editora através da opção de disponibilização da tese;
- III. Apresentar o documento no formato em que foi submetido à Editora, não como publicado, caso essa permita a livre divulgação do documento neste formato.
- Art. 7º Cada capítulo da dissertação ou tese constituído de artigo ou capítulo de livro deve ser precedido de uma página de identificação em que devem constar sua situação em relação ao veículo de divulgação (em preparação, submetido, aceito ou publicado) e as seguintes informações:
- I. Título do artigo ou capítulo;
- II. Autor(es);
- III. Nome do periódico ou evento para o qual o artigo foi submetido ou, no caso de capítulo de livro, título do livro e nome do(s) editor(es) ou organizador(es);
- IV. Data em que o manuscrito do artigo ou capítulo de livro foi submetido ou aceito (mês e ano).
- Art. 8º A referência geral apresentada nesta resolução não invalida outros modelos de dissertação e tese que possam vir a ser definidos pelos PPGs ou que já venham sendo utilizados.
- Art. 9º Os casos omissos serão resolvidos pela Comissão de Pós-Graduação (CPG).
- Art. 10. Esta Resolução entrará em vigor a partir da sua publicação no Boletim de Serviços da UFABC.

(Assinado digitalmente em 17/09/2021 15:20 )
CHARLES MORPHY DIAS DOS SANTOS
PRO-REITOR(A) - TITULAR
CHEFE DE UNIDADE (Titular)
PROPG (11.01.06)
Matrícula: 1676326

## ANEXO I

# UNIVERSIDADE FEDERAL DO ABC PROGRAMA DE PÓS-GRADUAÇÃO EM CIÊNCIAS HUMANAS E SOCIAIS

## Alan Mathison Turing

Tschernobyl, Harrisburgh, Sellafield, Hiroshima: Stop radioactivity, is in the air for you and me

## Alan Mathison Turing

# Tschernobyl, Harrisburgh, Sellafield, Hiroshima: Stop radioactivity, is in the air for you and me

Tese apresentada ao Programa de Pós-Graduação em Ciências Humanas e Sociais da Universidade Federal do ABC como requisito à obtenção do título de Doutor em Ciências Humanas e Sociais.

Orientadora: Profa. Dra. Marie Skłodowska-Curie

Sistema de Bibliotecas da Universidade Federal do ABC Elaborada pelo Sistema de Geração de Ficha Catalográfica da UFABC com os dados fornecidos pelo(a) autor(a).

Turing, Alan M.
Tschernobyl, Harrisburgh, Sellafield, Hiroshima:
Stop radioactivity, is in the air for you and me / Alan Mathison
Turing. — 2021.

350 fls.: il.

Orientadora: Marie Skłodowska-Curie

Tese (Doutorado) — Universidade Federal do ABC, Programa de Pós-Graduação em Ciências Humanas e Sociais, São Bernardo do Campo, 2021.

1. Kraftwerk. 2. The Robots. 3. Spacelab. 4. Metropolis. 5. The Model. I. Skłodowska-Curie, Marie. II. Programa de Pós-Graduação em Ciências Humanas e Sociais, 2021. III. Título, doutorado.

## **Agradecimentos**

(contendo, obrigatoriamente, citação à CAPES, ainda que o mestrando ou doutorando não tenha sido bolsista da agência)

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## **Acknowledgments**

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# Summary

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#### Resumo

(em português)

Radio-Activity, originalmente lançado nas versões em alemão (como Radio-Aktivität) e em inglês em 1975 e 1976, respectivamente, deu um passo para trás em relação ao pop-up incipiente de Autobahn. Apesar desse recuo parcial para a eletrônica de vanguarda, no entanto, na faixa título magistral e 'Antenna' contém dois protótipos das entidades minimalistas cativantes - canções-ideias reduzidas a suas essências mais básicas - que, a partir de seu próximo álbum, veio para caracterizar o som clássico do Kraftwerk. Uma ponte entre o experimentalismo eletrônico e a unificação poderosa e inovadora da forma vanguardista e função comercial cativante que estava ao virar da esquina, Radio-Activity é o som do Kraftwerk encontrando seu caminho em uma nova paisagem estranha em que estavam processo de criação. Em pouco mais de um ano, com a confiança reforçada por esta incursão no cenário digital, os quatro de Düsseldorf estavam prestes a inaugurar um mundo totalmente novo.

Palavras-chave:

## **Abstract**

(em inglês)

Radio-Activity, originally released in both German (as Radio-Aktivität) and English-language versions in 1975 and 1976 respectively, took a step backwards from the incipient poppiness of Autobahn. Despite this partial retreat into avant-garde electronics, however, in the magisterial title track and 'Antenna' it contains two prototypes of the catchy minimalist entities – idea-songs boiled down to their barest essences – that would, from their next album on, come to characterise the classic Kraftwerk sound. A bridge between electronic experimentalism and the powerful, groundbreaking unification of avant-garde form and catchy, commercial function that was just around the corner, Radio-Activity is the sound of Kraftwerk finding their way in a strange new landscape that they were in the very process of creating. In a little over a year, their confidence bolstered by this foray into the digital landscape, the Düsseldorf four were about to usher in a whole new world.

Keyword:

#### **General Introduction**

Descrever o tema, a questão central, justificativas, objetivos e a estrutura da dissertação ou tese, na qual sejam apresentados os capítulos e a relação entre eles e a questão central da dissertação ou tese. Considerando que artigos podem ser de autoria compartilhada, deve-se destacar também quais foram as contribuições em cada trabalho publicado.

Forty years ago the position of scientific studies was not so firmly established as it is today, and a conflict was necessary to secure their general recognition. The forces of obscurantism and of free and easy dogmatism were arrayed against them; and, just as in former centuries astronomy, and in more recent times geology, so in our own lifetime biology, has had to offer a harsh and fighting front, lest its progress be impeded by the hostility born of preconceived opinions, and by the bigotry of self-appointed guardians of conservative views.

The man who probably did as much as any to fight the battle of science in the nineteenth century, and secure the victory for free enquiry and progressive knowledge, is Thomas Henry Huxley; and it is an interesting fact that already the lapse of time is making it possible to bring his writings in cheap form to the notice of a multitude of interested readers. The pugnacious attitude, however, which, forty years ago, was appropriate, has become a little antique now; the conflict is not indeed over, but it has either totally shifted its ground, or is continued on the old battlefield chiefly by survivors, and by a few of a younger generation who have been brought up in the old spirit.

The truths of materialism now run but little risk of being denied or ignored, they run perhaps some danger of being exaggerated. Brilliantly true and successful in their own territory, they are occasionally pushed by enthusiastic disciples over the frontier line into regions where they can do nothing but break down. As if enthusiastic worshippers of motorcars, proud of their performance on the good roads of France, should take them over into the Sahara or essay them on a Polar expedition.

That represents the mistake which, in modern times, by[Pg ix] careless thinkers, is being made. They tend to press the materialistic statements and scientific doctrines of a great man like Huxley, as if they were co-extensive with all existence. This is not really a widening of the materialistic aspect of things, it is a cramping of everything else; it is an attempt to limit the universe to one of its aspects.

But the mistake is not made solely, nor even chiefly, by those eager disciples who are pursuing the delusive gleam of a materialistic philosophy—for these there is hope,—to attempt is a healthy exercise, and they will find out their mistake in time; but the mistake is also made by those who are specially impressed with the spiritual side of things, who so delight to see guidance and management everywhere, that they wish to blind their eyes to the very mechanism whereby it is accomplished. They think that those who point out and earnestly study the mechanism are undermining the foundations of faith. Nothing of the kind. A traveller in the deck-cabin of an Atlantic liner may prefer to ignore the engines and the firemen, and all the machinery and toil which is urging him luxuriously forward over the waves in the sunshine; he may try to imagine that he is on a sailing vessel propelled by the free air of heaven alone; but there is just as much utilization of natural forces to a desired end in one case of navigation as in the other, and every detail of the steamship, down to the last drop of sweat from a fireman's grimy body, is an undeniable reality.

# Chapter 1

## THE PRESENT CONDITION OF ORGANIC NATURE

Autores: Alan M. Turin & Marie Skłodowska-Curie

Periódico: International Journal of Science, vol 3224, 112-134

Data de publicação: julho de 2020.

#### Introduction

Forty years ago the position of scientific studies was not so firmly established as it is to-day, and a conflict was necessary to secure their general recognition. The forces of obscurantism and of free and easy dogmatism were arrayed against them; and, just as in former centuries astronomy, and in more recent times geology, so in our own lifetime biology, has had to offer a harsh and fighting front, lest its progress be impeded by the hostility born of preconceived opinions, and by the bigotry of self-appointed guardians of conservative views.

The man who probably did as much as any to fight the battle of science in the nineteenth century, and secure the victory for free enquiry and progressive knowledge, is Thomas Henry Huxley; and it is an interesting fact that already the lapse of time is making it possible to bring his writings in cheap form to the notice of a multitude of interested readers. The pugnacious attitude, however, which, forty years ago, was appropriate, has become a little antique now; the conflict is not indeed over, but it has either totally shifted its ground, or is continued on the old battlefield chiefly by survivors, and by a few of a younger generation who have been brought up in the old spirit.

#### **Material and methods**

There are people who still resent the conclusions of biology as to man's place in nature, and try to counteract them; but, as the late Professor Ritchie said ("Philosophical Studies," page 24)—

"It is a mistake, which has constantly been made in the past by those who are anxious for the spiritual interests of man, to interfere with the changes which are going on in scientific conceptions. Such interference has always ended in the defeat of the supporters of the quasi-scientific doctrines which the growing science of the time has discarded. Theology interfered with Galileo, and gained nothing in the end by its interference. Astronomy, geology, biology, anthropology, historical criticism, have at different periods raised alarm in

#### [Pg x]

the minds of those who dread a materialistic view of man's nature; and with the very best intentions they have tried to fight the supposed enemy on his own ground, eagerly welcoming, for instance, every sign of disagreement between Darwinians and Lamarckians, or every dispute between different schools of historical critics, as if the spiritual well-being of mankind were bound up with the scientific beliefs of the seventeenth, or even earlier, century, as if e.g. it made all the difference in man's spiritual nature whether he was made directly out of inorganic dust or slowly ascended from lower organic forms. These are questions that must be settled by specialists. On the other hand, philosophic criticism is in place when the scientific specialist begins to dogmatize about the universe as a whole, when he speaks for example as if an accurate narrative of the various steps by which the lower forms of life have passed into the higher was a sufficient explanation to us of the mystery of existence."

#### Results

Let it be understood, therefore, that science is one thing, and philosophy another: that science most properly concerns itself with matter and motion, and reduces phenomena, as far as it can, to mechanism. The more successfully it does that, the more it fulfils its end and aim; but when, on the strength of that achievement, it seeks to blossom into a philosophy, when it endeavours to conclude that its scope is complete and all-inclusive, that nothing exists in the universe but mechanism, and that the aspect of things from a scientific point of view is their only aspect,—then it is becoming narrow and bigoted and deserving of rebuke. Such rebuke it received from Huxley, such rebuke it will always receive from scientific men who realize properly the magnitude of existence and the vast potentialities of the universe.

Our opportunities of exploration are good as far as they go, but they are not extensive; we live as it were in the mortar of one of the stones of St. Paul's Cathedral; and yet so assiduously have we cultivated our faculties that we can trace something of the outline of the whole design and have begun to realize the plan of the building—a surprising feat for insects of limited faculty. And—continuing the parable—two schools of thought have arisen: one saying that it was

#### Discussion

The objection which it is necessary to express concerning Materialism as a complete system is based not on its assertions but on its negations. In so far as it makes positive assertions, embodying the result of scientific discovery and even of scientific speculation based thereupon, there is no fault to find with it; but when, on the strength of that, it sets up to be a philosophy of the universe—all inclusive, therefore, and shutting out a number of truths otherwise perceived, or which appeal to other faculties, or which are equally true and are not really contradictory of legitimately materialistic statements—then it is that its insufficiency and narrowness have to be displayed. As Professor Ritchie said:—"The 'legitimate materialism of the sciences' simply means temporary and convenient abstraction from the cognitive conditions under which there are 'facts' or 'objects' for us at all; it is 'dogmatic materialism' which is metaphysics of the bad sort."

#### Final remarks

well aware of much that could be said positively on the materialistic side, and very willing to admit or even to extend the province of science or exact knowledge to the uttermost, yet were very far from being philosophic materialists or from imagining that other modes of regarding the universe were thereby excluded.

Great leaders of thought, in fact, are not accustomed to take a narrow view of existence, or to suppose that one mode of regarding it, or one set of formulæ expressing it, can possibly be sufficient and complete. Even a sheet of paper has two sides: a terrestrial globe presents different aspects from different points of view; a crystal has a variety of facets; and the totality of existence is not likely to be more simple than any of these—is

## Chapter 2

A CRITICAL EXAMINATION OF THE POSITION OF MR. DARWIN'S WORK, "ON THE ORIGIN OF SPECIES," IN RELATION TO THE COMPLETE THEORY OF THE CAUSES OF THE PHENOMENA OF ORGANIC NATURE

Autores: Alan M. Turin & Marie Skłodowska-Curie Periódico: Journal of Sciences, vol 22224, 182-311

Data de publicação: dezembro de 2020.

# **Chapter 3**

## ON THE EDUCATIONAL VALUE OF THE NATURAL HISTORY SCIENCES

Autores: Alan M. Turin & Marie Skłodowska-Curie Periódico: Journal of Computational Literature.

Data da submissão: julho de 2021.

### **General conclusion**

Forty years ago the position of scientific studies was not so firmly established as it is today, and a conflict was necessary to secure their general recognition. The forces of obscurantism and of free and easy dogmatism were arrayed against them; and, just as in former centuries astronomy, and in more recent times geology, so in our own lifetime biology, has had to offer a harsh and fighting front, lest its progress be impeded by the hostility born of preconceived opinions, and by the bigotry of self-appointed guardians of conservative views.

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