



DEPARTAMENTO ...:TECHNOLOGY AND DATA SCIENCE (TDS)
CURSO:MESTRADO E DOUTORADO EM ADMINISTRAÇÃO DE EMPRESAS
:MESTRADO E DOUTORADO EM ADMINISTRAÇÃO PÚBLICA E GOVERNO
 MESTRADO PROFISSIONAL EM ADMINISTRAÇÃO PÚBLICA
DISCIPLINA:INFORMATION TECHNOLOGY & SUSTAINABILITY
PROFESSORES: EDUARDO HENRIQUE DINIZ (TDS)
DURAÇÃO: 2022-2

SYLLABUS

INTRODUCTION

The relationship between technology and sustainability has been increasingly paradoxical in our century. If on one hand the technological development has brought great advances in the quality of life and productivity in many regions of the world, on the other hand its omnipresence in all spheres of human life and the different levels of penetration in different areas has also been a source of tensions and criticism. Recent research in ICT - information and communication technologies - point to a positive contribution of these technologies for sustainable development, in particular its necessary alignment with the Sustainable Development Goals (SDGs) of the United Nations, in various areas of activities, such as fighting poverty and inequalities, improving health, education, employment and many other topics. The positive effect is mainly through increased access to information and reduction of communication costs. Internet and mobile phones have great potential for improving health and education systems and in fighting regional and social inequalities, as well as protecting the environment. However these benefits are not being fully realized for a number of reasons of a different nature, which can be analyzed from different perspectives. In this interdisciplinary course we discuss the different roles that ICT can play to sustainable development. The focus is the Brazilian scenario, but during the course will be extensively discussed examples of other cultures and territories. This theme, which has already been internationally known as ICT for Good (alignment of Information and Communication Technologies with the Sustainable Development Goals), has produced extensive bibliography that will be widely used during the course.

OBJECTIVES

| Objectives of CMCDAPG | Objectives of the course | Degree of contribution |
|---|--|------------------------|
| Qualitative research methods | --- | ○ ○ ○ |
| Quantitative research methods | --- | ○ ○ ○ |
| Knowledge of the subject of research/theory | To discuss the different roles that ICT can play to sustainable development | ● ● ● |
| Procedures of research | To define and propose a research related to ICT & Sustainability | ● ● ○ |
| Relevance and innovation in research | To understand the role of ICT beyond the traditional organizational aspects | ● ○ ○ |
| Elaboration of papers | To design and propose a publishable paper covering a topic related to ICT & Sustainability | ● ● ● |
| <u>Other objectives of the course:</u> to develop useful concepts to understand the process of sustainable economic development and the role of information and ICT for the sustainable development process and new knowledge and skills to assist in the effective planning, development, implementation and management of ICT for Good initiatives and policies | | |

METHODOLOGY



The course will be taught through lectures, case discussions, seminars presented by the students and readings to promote discussions on the adopted literature. The course is structured in 7 meetings covering different topics related to the subject of ICT4D.

GRADING

| | |
|----------------|-----|
| Participation | 20% |
| Seminar: | 20% |
| Pre-Project | 20% |
| Final Project: | 40% |

Participation will be based on frequency and contribution of each student to discussions performed during sessions. Previous reading of the papers related to each session is essential for promoting a higher level discussion expected during the course.

Seminar will happen in every class on the topic of the day, starting from the second class. Students must present one case related to the subject of the session in a given date. Students must bring a case of her/his choice related to the subject of the session. Basic literature will be provided but it is expected that students bring new sources to enrich the discussion on the subject being covered.

Final Project is expected to be a literature review (paper format, in English) of one topic related to the main subject of the course. Students must propose their Project at the end of the first month in a format of pre-project. Final Project is expected to be delivered one week after the last session. Projects can be presented by one single student (or more, depending on the number of students enrolled)

CONTENT

Each of the classes of the course will cover the subjects related to the main topic of the course. Below the list of subjects proposed:

1. ICT and SDGs: overview of the field
2. Theory in ICT & Sustainability
3. Researching ICT & Sustainability
4. ICTs, SDGs & Grand Challenges
5. Reverse & Frugal ICT Innovation
6. Hacker Ethics
7. ICT & Covid-19

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*Other papers can be included in this list of readings