ICT FOR DEVELOPMENT AND SOCIAL GOOD: BUILDING THE NEW GENERATION OF YOUNG PROFESSIONALS IN THE FIELD OF ICT4DEV

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Abstract

This article summaries the work of the first-level Master programme "ICT for Development and Social Good" co-designed and launched by the University of Turin (Department for Culture, Politics, and Society) and ImpactSkills. The first of its own in Italy, the Master tries to build the new generational of young professionals in the field of ICT for development and international cooperation. Ultimately, the article provides also brief rationale about why this Master programme has been initiated, and what are some of the key features and outcomes of the programme.

Keywords

ICT for Development, International cooperation, Technology for development

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In a world where some of the most pressing problems are problems of the commons, such as hunger and poverty, climate change, financial inequality, sustainable cities, inaccessible healthcare, peace, etc.—the questions we should ask is: can technology be an *enabler* of positive social change that tackles the problems of commons, or technology itself may be used as an *intensifier* of reproduction of the social power relations, inequalities, and injustices?

This ambiguous question should be situated within today's society which is the society of acceleration. It produces more than it can consume, whether it is material goods (i.e. objects for everyday use) or immaterial goods (i.e. information, code, apps, platforms, etc.). It is also the society of 'semiotic inflation' (Berardi: 2014) where more and more signs are buying less and less meaning. Semiotic inflation is, interestingly, also accompanied by high economic inflation rates. Semiotic inflation is one symptom of today's society. The other symptom is hyper-information. So, on one hand, we have a large amount of information which can be considered as mere 'noise' in the infosphere, and, on the other hand, we have an excess of (digital) information, namely, there is more information produced than we can consume.

A recent article in online magazine "The Conversation" provides some data that illustrate the world of hyper-information. Each day on Earth we generate 500 million tweets, 294 billion emails, 4 million gigabytes of Facebook data, 65 billion WhatsApp messages and 720,000 hours of new content added daily on YouTube[1]. In 2018, the total amount of data created, captured, copied and consumed in the world was 33 zettabytes (ZB) – the equivalent of 33 trillion gigabytes. This grew to 59ZB in 2020 and is predicted to reach a mind-boggling 175ZB by 2025. One zettabyte is 8,000,000,000,000,000,000,000 bits[2]. Taking into consideration these data, the path to the 'digital sustainability' within the society of acceleration seems more a discursive operation rather than a will of all actors to seriously engage with digital sustainability.

However, more information does not mean better information, nor information for all. Despite the increased connectivity its effect was limited in reducing information inequality, for example: there are more contributions to Wikipedia from Hong Kong SAR, China, than from all of Africa combined, despite the fact that Africa has 50 times more internet users[3]. On the other hand,   digital technologies have dramatically expanded the information base, lowered information costs, and created information goods[4]. This has facilitated searching, matching, and sharing of information and contributed to greater organisation and collaboration among economic agents—influencing how firms operate, people seek opportunities, and citizens inter- act with their governments[5].

When it comes to Information and Communications Technologies (ICTs) there is no correct answer or position. Even less in an ever-more complex and polarising world with problems that require a transdisciplinary and holistic approach as well as multi-stakeholder groups to engage with. Indeed, ICTs have produced even more ambiguity and complexity in the domains of international cooperation and development. Despite this, fueled by the narrative of digital innovation, ICTs have become the new frontier for development agencies and institutions. ICTs were not anymore only tools to be outsourced externally, but agencies like UNICEF already in 2010 launched its network of Innovations Lab[6], followed by the Global Pulse[7] of UN, Amnesty's Tech[8] hub, etc..

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[1] The world's data explained: how much we're producing and where it's all stored: https://theconversation.com/the-worlds-data-explained-how-much-were-producing-and-where-its-all-stored-159964

[2] Idem.

[3] World Bank, World Development Report 2016 "Digital Dividends", pg. 8

[4] Idem.

[5] Idem.

[6] https://www.unicef.org/innovation/topics/innovation-labs

[7] https://www.unglobalpulse.org/

[8] https://www.amnesty.org/en/tech/

This 'wind of change' did arrive in Italy too. For example, in 2014 The Italian Government launched its open data portal called Open Aid Italia[9]. In the same domain of open cooperation, transparency and accountability, the online data-aggregator portal Open Cooperazione[10] was launched by a number of organisations to foster the cooperation, transparency and mapping of organisations and entities who operate in international development. To support these efforts and contribute further in the growing community of practitioners of ICT4D in Italy, the organisation Ong2.0 (today known as ImpactSkills) published a mapping study "ICT4D: An introductory guide for the use of ICT for Development"[11] which provides the essentials of the ICT4D, as well as a collection of best practices in the field of ICT4D.

After the study, a new need was identified by the Ong 2.0, that is, creating an educational space which can equip younger generations of development workers, both in Italy and beyond, with competencies in their field of ICT4D. Therefore, in 2015 and 2016 Ong2.0 launched two editions of the online pilot long-term training course on "ICT for Development" which aimed to support the theoretical and practical development of participants in the field of Information and Communications Technologies for Development. The course, over two editions, received great attention not only at national level in Italy, but at international level too. Over 450 applications were received for 25 seats. During 9 months of the course, 53 participants from different parts of the world graduated from the course.

Drawing from the experiences of previous two iterations of the course, in 2018, the University of Turin (Department for Culture, Politics, and Society) and ImpactSkills launched the first edition of the Master programme "ICT for Development and Social Good"[12] with the support of AICS (Agenzia Italiana per Cooperazione e Sviluppo) and Cariplo and San Paolo Foundation.

Master's main aim is to support the theoretical and practical development of students in the field of Information and Communications Technologies for Development, as well as support their critical thinking towards existing initiatives, methods and tools; and enhance their ability to develop, adopt

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[9] http://openaid.esteri.it/it/
[10] https://www.open-cooperazione.it/web/default.aspx
[11] http://bit.ly/guidaICT4D
[12] https://www.ictforsocialgoodmaster.eu/

and re-appropriate various technologies and social innovation methodologies for local, national or international development.

The first of its type in Italy, the Master's didactic curriculum was built around three main characteristics:

1. It brings a *transdisciplinary and holistic approach* to ICT4D, as one of the Master's ethos is that to address highly complex issues, we need to dissolve the boundaries between conventional disciplines. This is why we think that ICTs should not be studied alone but always situated into the complexity of Development and International Cooperation. This means that ICTs such as: Data Visualisation platforms, Human-Centred Design methods, Artificial Intelligence techniques are always explored transdisciplinary—and critically—by analysing their impact in Agriculture, Human Rights and Democracy, Civic Engagement, Health, and other disciplines. Only in this way can we approach highly complex issues as solutionary thinkers and creators.

2. The second characteristic of the Master programme is the dedication to build *practical skills* among students. We believe that theory is important, but without practical skills it remains sterile. Therefore, whether in online lectures or residential Crash Courses, practical and experiential learning lie at the core of the Master's didactic curriculum.

3. Lastly, while theory without practical skills may remain sterile, we also believe that the practical skills without *theoretical critical learning* can be de-orienting. Thus, the curriculum of the Master's draws from a wide range of theoretical disciplines that aim to de-construct and then re-build some of the myths around ICTs and Development. This is done through dialogical learning where the lecturer and students enter into critical dialogue about some of today's most pressing issues.

In the last four academic years the interest to enrol in the Master has been exceptional. Over 700 students have applied, among them 80 students from 15 countries, covering all continents of the world, have graduated successfully. Approximately 95% of students have received job placement during their studies in Italian and international organisations, social enterprises and university-led research projects, during which they produced tangible projects and research work. This great diversity of students, not only at the cultural level but also at the professional level, has brought great depth of content which has helped students and lecturers to reflect and question more deeply about the role of ICT in development and international cooperation.

To paraphrase french philosopher Alain Badiou, perhaps, it is this rich multicultural environment and professional diversity one of the unique features of the Master which fosters the combination of intellectual constructs, which are always global and universal, with experiments of fragments of truths, which are local and singular, yet universally transmittable. Only like this can we usher in the new era of ICT for Development where the pledge "Leave No One Behind" does not remain as yet another slogan, but it is rather operationalised concretely locally and universally for all.

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Acronyms

ICT4D ICT for Development

ICTs   Information and Communication Technologies

SAR   Special administrative regions of China

UNICEF United Nations Children's Fund

UN   United Nations

ZB   Zettabyte