

# **The Women Observatory for eHealth (WeObservatory) Develops an Intelligence MOOCs Commons for Women and eHealth**

Dr. Lilia Perez-Chavolla<sup>1</sup>, Dr. Véronique Inès Thouvenot<sup>2</sup>

<sup>1</sup>Foundation Millennia2025 Women and Innovation, [perez-chavolla.2@osu.edu](mailto:perez-chavolla.2@osu.edu), 1859 Hobbes Dr. Hilliard, OH 43026 USA

<sup>2</sup>Foundation Millennia2025 Women and Innovation, [thouvenot.veronique@millennia2025-foundation.org](mailto:thouvenot.veronique@millennia2025-foundation.org), 9 rue Baron Huart, Namur, Walonia 5000 Belgium

## Background

The Foundation Millennia2025 “Women and Innovation”, PuF, is the pursuance of the Millennia2015 “Women actors of development for the global challenges”, a foresight research process implemented in 2007 by the Destree Institute [1]. The Foundation is committed to implement the Action Plans for women's empowerment and gender equality. The Women Observatory for eHealth (WeObservatory), one of these Action Plans, seeks to highlight the crucial role of women in global health, eHealth and telemedicine, as well as their recognized capacity as builders of alternative futures.

## Introduction

Capacity building has been identified as a key factor for socio-economic development and women's empowerment. Yet, in many countries, women's access to tertiary education remains extremely low, due to inequitable access to lower levels of education, cost, distance, cultural restrictions, and language barriers, among other factors [2]. Increased penetration of Information and Communication Technologies (ICTs) and access to more affordable mobile and broadband services worldwide can help overcome some of these barriers, by providing women new ways to access free educational resources using the Internet.

Offered by an ever-growing number of platforms and in a great variety of topics, Massive Open Online Courses (MOOCs) provide anyone with an Internet connection, open access, for free, to online educational content developed by higher education institutions. MOOCs are also characterized by their scalability, as their design allows for an indefinite number of people to participate from anywhere in the world [3].

To raise awareness and help women and health professionals take advantage of this valuable resource, the WeObservatory launched in 2014 its *Intelligence MOOCs Commons for Women and eHealth* (WeMOOCs hereafter) [4]. The WeMOOCs provides access to a selection of online courses addressing the areas of global health, women, and ICTs. In this way, the WeObservatory aims to serve as a unique Resource Center on eHealth and telemedicine, promoting the use of ICT by women and healthcare professionals for improved health outcomes.

### The Intelligence MOOCs Commons for Women and eHealth

The WeMOOCs seeks to strengthen a corpus of specialized advisors to improve the selection and number of MOOCs on women and eHealth. The goal is to facilitate the access of women around the globe to online education in those areas. To this end, twice a year, specialized advisors and members of the Foundation scan online course offerings from some of the largest and most widely recognized MOOC platforms—such as Coursera, edX, Alison, FutureLearn, and MiriadaX—, educational institutions and research centers from around the world (e.g. FUN and MITOpenCourseWare), as well as development organizations (USAID).

The selection of courses listed in the Commons is based on three criteria: (1) they should be accessible for free, either on demand or at a regular schedule specified by the educational platform; (2) cover one or more of the three areas of interest to the WeObservatory: Health, women, and ICT (excluding programming courses), and (3) be offered in English, Spanish, and/or French—three of the six UN official languages.

### Trends in MOOC Offerings in the Areas of Women, Health and ICT

In 2014, the WeObservatory advisors identified and selected 72 MOOCs in English and a handful of courses in the other two languages, covering various topics of interest to women, such as nutrition, nanotechnology, diabetes, AIDS, and nursing. In February 2015, the list of course offerings for 2014 was revised, extending the number of MOOC platforms included in the search from 10 to 21. As a result, the total number of courses selected increased almost five-fold to 340, incorporating courses from 18 countries in America (6), Europe (8), Asia (2), the Middle East (1), and Oceania (1).

#### *Course Language*

Given that most of the academic institutions partnering with the largest MOOC platforms are located in the United States and the United Kingdom, is not surprising that, like in 2014, most of courses selected for the

Commons are offered in English (276), some times with subtitles in other languages (Fig. 1). Even so, the number of courses offered in French and Spanish has grown steadily, thanks to an increasing number of universities in Spain, Latin America and France providing MOOCs, and to the creation of MOOC platforms specifically for courses in those languages, such as mooc.es and Solerni. The updated list for early 2015 includes 36 courses in Spanish and 28 in French (Fig. 1).

*Topical Areas of Interest*

In terms of the areas of interest to the WeObservatory, a trend continuing from 2014 is the prevalence of courses covering diverse health topics. As illustrated in Fig.1, 70% of the courses selected for the WeMOOCs refer to health, 28% to ICTs, and only 2% to women and gender issues. Of the 340 courses selected for the Commons, only 39 (12%) referred to women’s health issues, including reproductive health, antenatal and postnatal care, family planning, cervical cancer, HIV, and human trafficking. Nine per cent (29 courses) focused on the use of ICT for health, covering topics such as eHealth, mHealth, bioinformatics, nanotechnology, communities of practice and the Cloud, Big Data, and data visualization. Finally, two courses (1%) referred to the analysis of gender implications on the use of technology, such as videogames.

Interestingly, none of the 21 platforms searched offered courses that focused on the use of ICTs for health by women or for women’s health. This is an important gap that, although covered by diverse organizations, such as GSMA Connected Women, through projects and research, it is just starting to be addressed as a topic for online course offerings by organizations like the Millennia2025 Foundation.

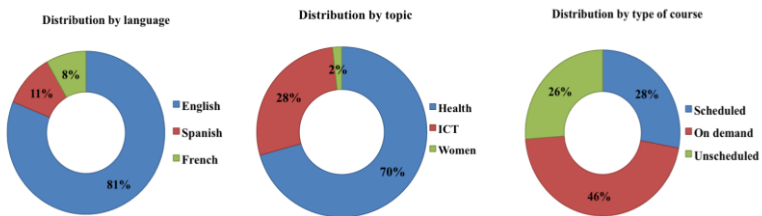


Fig. 1. Distribution of courses selected for the WeMOOCs by language, topic and type of course (%), as of February 2015

### *Ease of Access*

Compared to the 2014 selection, there has been a significant increase in the number of MOOCs offered on demand. In 2015, 156 of all the selected courses (46%) were offered on an ongoing basis (Fig. 1). Although missing the interactive component of regularly scheduled online courses, self-paced courses provide greater flexibility in terms of access, allowing students to cover the material on their own time, instead of during specific windows of availability.

### *The Mobile Component*

The ubiquity of mobile technology and its health applications are already permeating the selection of MOOCs offerings. Of the 94 selected courses focusing on ICT and ICT for health, 19 had a mobile component, of which eight referred specifically to mHealth. These courses are clearly indicated in the lists of selected MOOCs offered in the WeMOOCs.

### *Online Courses at the Millennium2025 Foundation*

The Foundation is currently working towards two goals: First, developing a digital platform in collaboration with WePromis, the European Commission initiative for digital jobs [5]; and secondly, developing a closed online course to educate professional midwives and healthcare professionals on the use of ICT for maternal health and midwifery. To advance this latter goal, in September 2014, the WeObservatory worked with CASA, a nonprofit organization in rural Mexico, to develop the closed online course with funds from the Foundation Sanofi Espoir [6]. The course, composed of 7 modules—including two modules focused on ICT for health and ICT for maternal health and midwifery—also covered content on midwifery practices, gender equality issues and adult education. This year, the Foundation plans to expand the reach of this online course to other Latin American countries by developing specialized modules on ICTs for midwifery and nursing.

### Conclusion

The analysis of MOOCs offerings in the areas of health, women, and ICT highlights the broad range of topics currently covered in the three languages, and the important role that such courses can play as means for building capacity among women and health professionals worldwide. Identified gaps in the areas of multilinguism and courses focusing on gender issues, as well as the lack of course offerings on women's health

and ICT indicate that there is still work to be done to facilitate the access of non-English speakers to higher education courses, and move towards a more in depth coverage of gender equity issues. With a combination of projects, applications, and the Intelligence MOOCs Commons for Women and eHealth, the WeObservatory seeks to provide an innovative e-platform at the service of women and health professionals in the Post-2015 framework and the Sustainable Development Goals to be defined later this year.

## References

- [1] The Destree Institute is a European pluralist research center, NGO official partner of UNESCO (consultative status), and in special consultative status with the United Nations Economic and Social Council since August 2012.
- [2] H. Dunder, and J. Haworth. *Improving Women's Access to Higher Education: A Review of World Bank Project Experience*. Policy Research Working Paper No. WPS 1106, Women in Development. Washington, DC: World Bank, 1993, pp. 40-43.
- [3] B. Grainger. *Introduction to MOOCs: Avalanche, Illusion or Augmentation?* Policy Brief. Paris: UNESCO Institute for Information Technologies in Education, July 2013, pp. 2, 9.
- [4] The WeMOOCs and the lists of selected MOOCs for 2015 can be accessed at: <http://www.millennia2015.org/moocs>
- [5] See: WePROMIS® - Millennia2025, PROMIS@Service, ECWT, available at: <http://www.linkedpolicies.eu/pledge/policy/36>
- [6] See: Center for Adolescents of San Miguel de Allende (CASA), Programa de Partería en Línea (Online Midwifery Program), available at: <http://www.casa.org.mx/programa-de-parteria-en-linea/>

	<p>Dr. Lilia Pérez Chavolla has specialized in the analysis of telecom policies and the application of ICTs for development. She acts as Senior Advisor in ICT Applications for the Millennia2025 Foundation's WeHealth International Working Group, promoting the empowerment of women through innovation in health services.</p>
	<p>Dr. Veronique Inès Thouvenot is Co-founder and Scientific Director at the Millennia2025 Foundation, where she heads the "Women and eHealth" International Working Group (WeHealth), the Global Network of Women in Telemedicine (WeTeled), the WeObservatory, and the Zero Mothers Die Initiative. She has worked for the International Telecommunication Union as eHealth Advisor, and for the World Health Organization as scientist in the eHealth unit.</p>