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Advancing MOOCs for Development Initiative

Final Report

January 2015 – July 2016

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Acronyms & Abbreviations

AMDI	Advancing MOOCs for Development Initiative
IIC	Inter-American Investment Corporation
MOOC	Massive Open Online Course
RFP	Request for Proposal
SME	Small-Medium Enterprises
TASCHA	Technology and Social Change Group, University of Washington
UMB	Manuela Beltran University (Colombia)
USAID	United States Agency for International Development

Program Highlights

Over the course of 18 months, IREX and its partners:

- Generated data-based insights into MOOC use in the developing world through three original research reports based on surveys of over 3,600 MOOC users and non-users globally, nearly 90,000 MOOC user reviews and a case study:
 - *An Examination of MOOC Usage for Professional Workforce Development Outcomes in Colombia, the Philippines & South Africa*
 - *CourseTalk Website Data Analytics Report*
 - *Testing Prototypes to Increase Usage and Certification Rates of MOOCs in Colombia*
- Shared those insights directly with approximately 80,000 people and organizations around the world through dissemination of the research (including *CourseTalk* subscribers and individuals who downloaded the first report from AMDI partners' websites).
- Raised awareness of the potential of MOOCs to improve workforce development outcomes through multiple social media campaigns with approximately 2,100,000 impressions
- Developed two practical guides for global infomediaries – educators and librarians – ideally positioned to encourage MOOC use
- Inspired public libraries in Medellin and Bogota to develop MOOC user support as a regular library service as a result of MOOC user feedback during the AMDI case study in Colombia
- Created a multi-sectoral MOOCs Expert Committee to expand and continue awareness raising of the potential of MOOCs for educational and workforce development beyond AMDI

Program Summary

The Advancing MOOCs for Development Initiative (AMDI) was launched in January of 2015 through GDA funding from the United States Agency for International Development (USAID) and CourseTalk in partnership with IREX, the Technology & Social Change Group (TASCHA) at the University of Washington and MAKAI. The goals of AMDI were threefold¹:

(1) collect data on the use of Massive Open Online Courses (MOOCs) in three transitioning countries on three continents to better understand their potential for improving employment opportunities;

(2) promote and raise awareness of MOOCs among policy makers, employers and the general public for educational and workforce development purposes; and

(3) increase MOOC usage and completion rates by investigating variables that influence MOOC users.

These three goals were achieved through research, promotion, engagement and partnerships.

Research: Three original research publications provide insight on factors affecting MOOC usage and completion in the developing world, including perspectives from government, academics and employers: 1) *An Examination of MOOC Usage for Professional Workforce Development Outcomes in Colombia, the Philippines & South Africa*; 2) *CourseTalk Website Data Analytics Report*; and 3) *Testing Prototypes to Increase Usage and Certification Rates of MOOCs in Colombia*.

¹ Goals and activities were amended in Year 2 after CourseTalk was unable to honor its commitment to support AMDI with cash and in-kind support, and the program was reduced from 24 to 17 months.

Outreach and promotion: AMDI raised awareness of MOOCs for educational and workforce development through targeted outreach to key stakeholders, public events, social media outreach and online communications pieces. Events included international conferences such as USAID's Global Education Summit and other symposia for diverse audiences in Austin, Bangkok, Bogota, Kyiv, Luzon, Valencia and Vancouver. Social media campaigns highlighted research findings for a global audience of educators, practitioners, policymakers, journalists and entrepreneurs.

Engagement: Together with local research partners, including NGOs (MAKAIA and *Ideacorp*) and academic institutions (Rhodes University and Universidad Manuela Beltran), IREX directly engaged diverse government, NGO, academic and private sector partners as champions of MOOCs for educational and workforce development. In Colombia, such champions included Trust for Americas, Telefonica, the Global Apprenticeship Network, the National Association of Businesses of Colombia, and Global Libraries Colombia. In the Philippines, they included the Technical Education and Skills Development Authority (TESDA), E-Eskwela for out-of-school learners, and the University of the Philippines. And in South Africa, IREX worked with Rhodes University and the Young African Leadership Initiative of the US State Department and USAID.

Partnerships: IREX established the MOOC Expert Committee (MEC), a rallying platform of professionals from different industries, organizations and countries working to advance the development of social learning through MOOCs. Committee members include IREX, TASCHA, CourseTalk, Telefonica, the Inter-American Investment Corporation, and the United States Agency for International Development. The World Bank, the Fullbridge Group and edX also expressed interest in participating. IREX will continue to moderate the MEC beyond AMDI.

Activities and Results

The Advancing MOOCs for Development Initiative (AMDI) consisted of activities in four areas: (1) research to increase understanding of MOOCs; (2) promotional campaigns to raise awareness; (3) engagement of stakeholders in academic, NGO, government and business sectors to increase MOOCs use; and 4) strategic partnerships to highlight best practices.

Research

To redress the lack of data on the potential of MOOCs for education and workforce development in the developing world, the AMDI program conducted original research that culminated in three publications: 1) *An Examination of MOOC Usage for Professional Workforce Development Outcomes in Colombia, the Philippines & South Africa*; 2) *CourseTalk Website Baseline Analytics Report*; and 3) *Testing Prototypes to Increase Usage and Certification Rates of MOOCs in Colombia*. The purpose and main findings of each are described below.

1. The AMDI Research Report - *An Examination of MOOC Usage for Professional Workforce Development Outcomes in Colombia, the Philippines & South Africa*

The primary AMDI deliverable, the research report utilized in-person and online surveys, focus groups and key informant interviews to gather data on awareness and use of MOOCs in three target countries.

IREX and TASCHA worked closely to identify local research vendors. After a competitive bidding process, the following teams were selected to conduct in-country research activities:

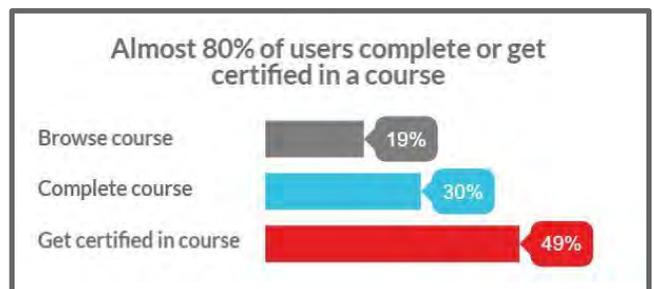
- **Colombia** - Universidad Manuela Beltrán in Bogotá and the School of Virtual Learning, through a subgrant to MAKAlA. (Project leader: Andrés Felipe Mena)
- **Philippines** – Ideacorp, an independent, non-profit organization in Manila devoted to research, training and advocacy in ICT for development. (Project leader: Mayette Macapagal)
- **South Africa** - Rhodes University's Department of Journalism and Media Studies in Grahamstown, South Africa in collaboration with the Departments of Education and Computer Science at Rhodes University. (Project leader: Professor Lorenzo Dalvit)



Researcher interviews a MOOC user in Colombia

In collaboration with the local research partners, IREX and TASCHA developed sampling strategies for online surveys of MOOC users and non-users in each country, questionnaires and key informant interview guides. TASCHA then mapped potential online and offline dissemination channels for survey instruments, integrated feedback, translated survey instruments into Spanish, programmed and tested an Open Data Kit in both English and Spanish. Data was collected from over 3,654 respondents between September – December 2015, analyzed and published in April 2016 in *An Examination of MOOC Usage for Professional Workforce Development Outcomes in Colombia, the Philippines & South Africa*. The report is available in English (see Attachment 1) and Spanish (see Attachment 2).

The AMDI research showed that the low completion rates and homogenous demographics found among users in the United States and similar nations did not hold true worldwide. However, developing countries had their own barriers to overcome. For example, less than half of the MOOC users surveyed had completed college, compared to the 71% found in a study of edX² users (in which nearly a third of respondents were US-based). Among AMDI respondents in the developing world, a quarter of MOOC users reported high school as their highest level of education finished.

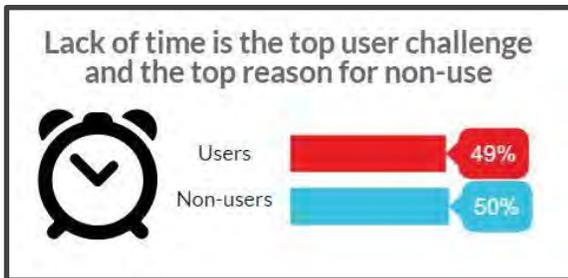


MOOC completion and certification rates in the three countries in the study also differed significantly from earlier research³, as 49% of MOOC users surveyed had received certification for at least one course. The rate was even higher — 70% — when limited to employed respondents. Likewise, nearly 80% of all MOOC users said they had completed at least one course. The high completion and certification rates found may be tied to the fact that users in the three countries take MOOCs primarily to advance their

² <http://news.harvard.edu/gazette/story/2015/04/massive-study-on-moocs/>

³ <https://www.timeshighereducation.com/news/mooc-completion-rates-below-7/2003710.article>

education or career, rather than for enjoyment. The top three motivations users cited were: gaining skills to perform better in their job (61%), preparing for additional education (39%), and obtaining professional certification (37%). Users in more economically-advanced countries have tended to report higher levels of learning for personal fulfillment,



The research also identified barriers inhibiting MOOC use in Colombia, the Philippines and South Africa. The most significant barrier is awareness — 79% of non-users surveyed had never heard of a MOOC.

Interestingly, researchers did not discover any key demographic differences between that group and non-users who were familiar with MOOCs.

Half of respondents cited time constraints as a reason for not taking MOOCs, making it the number one answer

in all three countries. This upended a widely-held assumption that technology was the main hurdle facing MOOC adoption in developing countries. In actuality, technical reasons for non-use were rarely cited. Factors such as high Internet cost (6%), low computer skills (2%), and lack of computer access (4%) were some of the least-frequently mentioned.

For a summary booklet of the AMDI Research Report's main findings, see Attachment 3.

2. The CourseTalk Report – *CourseTalk Website Baseline Analytics*

This report was originally proposed as a means of analyzing baseline data on MOOCs users globally and from the three target countries in particular. However, the available data on all CourseTalk users lacked necessary demographic and geographic information due to reliance on optional self-identification (for example, among reviews with self-identified country of origin, only 14 total were from the 3 AMDI target countries). Instead, the report provides a comprehensive look at CourseTalk's registered users as gleaned from website analytics, narratives they shared through course reviews, and the behavior they exhibited when browsing on the CourseTalk website. Analyzing CourseTalk's database of nearly 90,000 total course reviews, TASCHA mapped the geographic and demographic sphere of CourseTalk users and conducted a content analysis of word searches and reviews to reveal workforce-related motivations. The report also provides a succinct list of recommendations (see Attachment 4).

3. The AMDI Case Study - *Testing Prototypes to Increase Usage and Certification Rates of MOOCs in Colombia*

The AMDI Case Study addressed the pressing topic of how MOOC providers might improve upon often single digit MOOC completion and certification rates. Through prototypes conducted at 20 telecenters and libraries in urban Colombia offering public access to the internet, IREX and MAKAlA tested variables influencing completion and certification rates. Specifically, the case study examined how MOOC awareness, support, and financial incentives altered MOOC usage. The target group was individuals between 18 to 35 years of age who were interested in completing a MOOC and obtaining certification.

Following trainings for 24 telecenter facilitators and librarians on the basics of MOOCs, these infomediaries then promoted MOOCs for workforce development purposes among end users in their respective institutions. Informational support was coupled with financial incentives for MOOC certification. In total, 634 people received information about MOOCs, 10% of whom enrolled in a MOOC. Among those who enrolled, 35% completed and obtained certification. Although the small sample size precludes broad

conclusions, an analysis of findings related to participants' demographics, motivation, awareness, ICT accessibility, and financial incentives offers some insight into variables that influence MOOC enrollment, completion and certification rates in Colombia. The results provided a snapshot in time of the rapidly developing field of online learning that may be of interest to academic institutions, workforce development practitioners, international education specialists and MOOC providers (see Attachment 5).

Outreach and promotion

IREX raised awareness of MOOCs for educational and workforce development among policy makers, educators, employers, and the general public through **public events, social media outreach and online communications pieces**. In addition, CourseTalk provided in-kind assistance for the AMDI landing page and help with materials dissemination and press releases.

AMDI staff presented on MOOCs in general and the AMDI research findings in particular to diverse audiences at the following **public events**:

- SxSWedu Conference, *Austin, Texas* (March 2015 and March 2016);
- National Library Conference of the Philippines, *Luzon* (March 2015);
- Young African Leaders Initiative Regional Conference, *Johannesburg* (May 2015);
- 'How Can Technology Improve Education in Asia?' Technology Salon, *Bangkok* (August 2015)
- America House, *Kyiv* (September 2015)
- mEducation Alliance Symposium, *Washington DC* (October 2015)
- USAID Global Education Summit, *Washington DC* (November 2015)
- 'Accessible America' ICT and Disabilities Conference, *Medellin* (November 2015)
- UNESCO Asia Summit on Flexible Learning Strategies for Out-of-School Children, *Bangkok* (February 2016)
- Comparative and International Education Society Annual Conference, *Vancouver* (March 2016)
- International Technology, Education and Development Conference, *Valencia* (March 2016)

AMDI social media campaigns highlighted research findings for a global audience of educators, infomediaries, practitioners, policymakers, technologists, journalists and entrepreneurs. In Year 1, prior to the availability of AMDI publications, IREX utilized Google Ads to raise awareness in the three program countries about MOOCs and attract respondents for the AMDI surveys. Each Google ad campaign included keywords that were carefully selected in coordination with AMDI local research partners to ensure cultural relevance. For example, in Colombia campaigns were optimized by using Spanish keywords for virtual education, online courses and distant learning. When the Google ad campaign ended in December 2015, over 22,000 people had clicked on the ads promoting use of MOOCs and the campaigns left close to 2,000,000 impressions.

In Year 2, IREX and AMDI partners actively promoted all project publications via their social media channels. In April 2016, IREX, TASCHA, CourseTalk and the MOOC Expert Committee widely promoted *An Examination of MOOC Usage for Professional Workforce Development Outcomes in Colombia, the Philippines & South Africa*. In May 2016, MAKAI A and IREX launched a social media campaign to promote the Spanish version of report which was disseminated to 118 institutions throughout Central and South America. This social media push attracted significant buzz, with 2 tweets from IREX logging over 2,376 impressions and 15 engagements and the #AMDI hashtag (associated with #GanColombia) a trending topic for one day. The report presentation was also shared by Gan Network and Telefonica. In July 2016, IREX conducted a second wave, week-long social media campaign to promote AMDI research findings. In just two weeks, the campaign logged 3,500+ impressions on LinkedIn and 2,000+ on Twitter.

MAIN RESULTS OF SOCIAL MEDIA OUTREACH



In total, IREX and its partners directly shared the report with more than **650 different organizations and individuals** (including .pdf downloads) and **79,843 Coursetalk subscribers**. In addition, IREX and partners together logged more than **1,600 clicks** on their website pages hosting the report.

The social media campaigns conducted in April and May for the launch of the AMDI report in English and Spanish are summarized in a Storify report available here: <https://storify.com/lauragosta/amdioutreach>



In total, AMDI campaigns generated over 2,100,000 impressions:

- Google Ad campaign (Oct-Dec): 2 million impressions
- Launch of AMDI Report in English (April) and Spanish (May): 20,345
- Launch of new hashtag #AMDI⁴ for Colombia campaign (May 2016): 85,000

Real-time Tracker: #amdi

MAY 17 - MAY 21

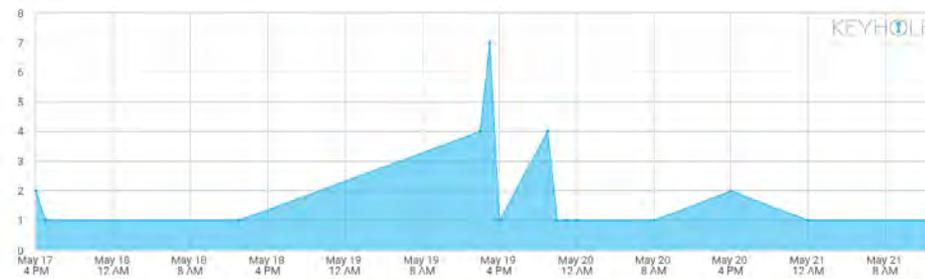
28
POSTS

9
USERS

24,890
REACH

87,620
IMPRESSIONS

Timeline



Finally, AMDI generated several **online communications pieces**. Following the official program launch in March 2015, DEVEX published an online article entitled “MOOCs to the Rescue?” As a result of the social media campaigns detailed above, the AMDI research report was covered by the Brookings Institute, Politico, ictology, and the European Association of Distance Teaching Universities (see Storify referenced in box above). IREX staff authored several articles on irex.org covering the potential of MOOCs to address educational and workforce development issues in Colombia, the Philippines and Colombia.⁵ Links to all media coverage were promoted by IREX and GDA partner CourseTalk, which provided in-kind support for the AMDI landing page as well as social media campaigns.

⁴ Estimated attributable to AMDI program (and not other uses of #AMDI).

⁵ <https://www.irex.org/insight/how-online-learning-helps-persons-disabilities>

<https://www.irex.org/insight/how-are-farmers-philippines-embracing-online-learning>

<https://www.irex.org/news/two-african-perspectives-moocs-amdi-project-director-interview-mandela-washington-fellows>

IREX's worldwide network of 4,000+ educational professionals and nearly 3,000 ICT4D and infomediaries (such as librarians and telecenter staff) as well as through partners' extensive global networks.

Partnerships

IREX created two significant strategic partnerships during the course of AMDI: a formal partnership called the MOOC Expert Committee, and an informal network of libraries and telecenters committed to promoting MOOC use in Colombia, coordinated by AMDI partner MAKAI.

The MOOCs Expert Committee (MEC) – MEC served as a rallying platform of professionals of different industries, organizations and countries working to advance the development of MOOCs. The purpose was to provide a space for dialogue and an exchange of ideas about innovative practices, technologies, market drivers and pedagogical aspects around the world regarding online social learning. The members of the Committee were IREX, TASCHA, Telefonica, the Inter-American Investment Corporation (IIC), the Onward Group, CourseTalk and USAID. MEC has worked diligently to promote relevant work products and to conceptualize potential joint projects. MEC will continue to be moderated by IREX following closure of AMDI, including outreach to potential new members to enrich the exchange. For example, edX and Fullbridge Group had expressed interest in joining the MEC at some point in the near future.

Libraries & Telecenters in Colombia - An interesting byproduct of the AMDI Case Study was the process through which public libraries and telecenter networks started to take ownership of MOOC promotional materials and tested ideas as to how infomediaries could encourage visitors to take MOOCs for professional development. In total, 13 public libraries, 7 Trust for the Americas' telecenters and a local program known as Antioquia Territorio Inteligente participated in the case study. Participating libraries expressed their interest in continuing to offer MOOCs as a library service on an ongoing basis in several locations in both Medellin and Bogota. The AMDI Case Study provides these institutions with concrete strategies to promote MOOCs among their visitors.

Using its own resources, the library network in Medellin developed [this video](#) to promote MOOCs among its members. The video was viewed 70 times by the end of June 2016.

Implementation Challenges

The AMDI research timeline experienced some **delays** due to lengthy approvals processes related to use of proprietary data from the private sector GDA partner, and later due to student protests in South Africa.

However, the single greatest challenge to the success of AMDI was the lack of transparency on the part of CourseTalk and its parent company, AcademixDirect, regarding **available data and funding**. Data and financial commitments explicitly mentioned in the RFA, Cooperative Agreement, Donation Letter and during three separate day-long work planning meetings with the CEO and CFO were subsequently unavailable, which necessitated substantial and time-consuming changes to the program's scope. For example, baseline data including demographic information on users' gender, age and location was unavailable for technical reasons, and data on CourseTalk users' actual MOOCs enrollment and completion behavior was unavailable due to CourseTalk's business model. These issues completely changed the content of the baseline analytics report deliverable, grossly reduced the sample size and caused additional delays.

At the end of Year 1, IREX received a written communication from CourseTalk's parent company indicating that their \$300,000 cash contribution to the AMDI project would not be forthcoming due to financial difficulties. In agreement with USAID, IREX and CourseTalk approached several potential sources of replacement funds to avoid the downscaling of AMDI, including Arizona State University, edX, and the Fullbridge Group. All parties expressed interest in AMDI on some level, but none were willing to commit funding for the Initiative with only a limited timeline remaining and reduced scope of activities.

As a result of lengthy consultations with USAID and AMDI partners, Objective 2 was dropped and Year 2 activities (the bulk of Objective 3) were reduced from 3 countries to 1. The program's timeline was also curtailed from 24 months to 17. These changes reduced but did not eliminate AMDI's impact.

Results Framework

The AMDI Performance Management Plan details program objectives, indicators, targets and results (see Attachment 9).

Lessons Learned and Best Practices

Research Findings

Many AMDI research findings challenged commonly held beliefs about MOOCs - defying typical characterizations of how people in resource-constrained environments use technology for learning and employment purposes. Some of the key program findings as a result of the Advancing MOOCs for Development Initiative were:

Demographics: MOOC usage was far broader anticipated, appealing to those without formal college education or financial means to cover the cost of continuing education. Low- and middle-income populations made up 80% of MOOC users in the three countries studied in contrast to wealthier populations reported elsewhere. Women were more likely than men to complete a MOOC or obtain certification. Over 80% of MOOC users had only basic or intermediate ICT skills. Forty-nine% of MOOC users received certification and another 30% completed a course. These figures were far above the single-digit rates reported in North American studies.

Motivation: The main motivations of MOOC users were found to be in gaining specific job skills (61%), preparing for additional education (39%), and obtaining professional certification (37%). Among non-users, lack of time (50%) was by far the largest barrier to MOOC participation. Lack of computer access (4%) or skills (2%) was not found to be the barrier and policy makers assumed it would be. Certification is important, but it is a nuanced picture. Most young people were using MOOCs as a means to prepare for professional certification for academic and employment opportunities.

Institutions: At varying levels of government there was general awareness of the potential of utilizing MOOCs to advance workforce development goals. Nevertheless, government initiatives to promote MOOCs were highly compartmentalized and not embedded in any national strategy in the countries examined. MOOCs offered by government institutions, more than academic institutions, however; increasingly of importance for most promise of workforce development outcomes due to government sanctioned certification of courses taken. Employers generally had positive perceptions about MOOCs for advancing or starting careers, but as a rule it was found that applicants listing MOOCs course on a

resume did make a significant difference in hiring decisions.

ICT Accessibility and Infrastructure: In developing economies mobile devices are overwhelmingly the preferred method of accessing the internet, yet a majority of MOOC users continue to rely on desktop computers. Slow internet speeds and quality of access to technology are obstacles for youth when engaging with MOOCs, which even when free, can incur data and time costs. Government respondents, however, identified ICT infrastructure and skills as the major barrier to MOOC usage in contrast to the views of both MOOC users and non-users in the AMDI study.

Financial & Personal Incentives for Taking MOOCs: Employers were generally positive about MOOCs, although they mentioned barriers including the predisposition that in-person or blended learning offered more opportunities to learn practical skills. As a rule, employers maintained a bias against considering a candidate who only has only been certified through MOOCs. MOOCs were found to represent a viable channel to expand training opportunities for women to gain skills; however, and improve their competitiveness in the labor market, especially in jobs and industries where women are underrepresented. Programs that reduced or eliminate certification costs particularly for first-time MOOCs users should be critically assessed as an option by the business community and MOOC providers to boost certification rates and workforce development skills.

Research Implementation

IRES used a competitive selection process to contract experienced local research partners. During implementation, it was noted that NGOs proved more capable of capturing data and conducting key informant interviews than the university partners. Likewise, they were far more effective at disseminating the resultant AMDI research report and general awareness raising. While TASCHA's experience and resources as an educational institution clearly enhanced their ability to coordinate the design and delivery of the research according to rigorous academic standards, with regards to local operations on the ground, the AMDi team found that NGOs with practical project implementation experience made for partners who understood project management beyond data collection and analysis.

List of Attachments

1. *An Examination of MOOC Usage for Professional Workforce Development Outcomes in Colombia, the Philippines & South Africa*
2. *Un estudio del uso de MOOC para el desarrollo de la fuerza laboral y profesional en Colombia, Filipinas y Sudáfrica*
3. Massive Open Online Courses as a Tool for Workforce Development in Colombia, the Philippines & South Africa: Summary of Findings
4. *CourseTalk Website Data Analytics Report*
5. *Testing Prototypes to Increase Usage and Certification Rates of MOOCs in Colombia*
6. Year 2 Stakeholder Engagement in Colombia
7. MOOCs: A Guide for Librarians
8. MOOCs: A Guide for Educators
9. AMDI Performance Management Plan

Cover page, Attachment 3:



Massive Open Online Courses as a Tool for Workforce Development in Colombia, the Philippines, and South Africa

Findings from the report "An Examination of MOOC Usage for Professional Workforce Development Outcomes in Colombia, the Philippines, and South Africa" available for download at www.irex.org/amdireport.

