As part of the Technology Salon on "<u>How is ICT Impacting Education in Rwanda?</u>" in Washington, DC, we've compiled a list of resources around the topic to serve as a reference and a primer for Salon participants to answer these key questions:

- How are these initiatives increasing teacher capacity?
- Are the changes visible in the classroom?
- When will students leap ahead of their East African peers?
- And most of all, what is the real impact of ICT in education for Rwanda?

News, Discussions, and Blog Posts

Schools Adopt ICT-Based Learning

http://www.newtimes.co.rw/news/index.php?i=14767&a=45790

EdQual: Use of ICT

http://www.edgual.org/research/ict

Ubwenge: ICT for Education in Rwanda

http://www.ubwenge.com/index.php/2012/01/ict-for-education-in-rwanda/

A Networking Night Out with Girls in ICT Rwanda

http://community.telecentre.org/profiles/blogs/a-networking-night-out-with-girls-in-ict-rwanda

Rwanda develops an ICT teacher education roadmap

http://www.gesci.org/rwanda-ministry-of-education-creates-ict-teacher-professional-development-road-map.html

ICT Education in Rwanda and the InterActive Education Project

http://tulaneict4d.wordpress.com/2011/10/19/ict-education-rwanda/

Opening Education in Central Africa: Jacques Murinda Introduces OLE Rwanda http://education-portal.com/articles/Opening Education in Central Africa Jacques Murinda Introduces OLE Rwanda.html

OLE Rwanda is Tripling Literacy Test Scores with Teachermates

https://edutechdebate.org/reading-skills-in-primary-schools/ole-rwanda-is-tripling-literacy-test-scores-with-teachermates/

Rwanda Scaling Up ICT in Schools

http://ng.pctechmag.com/2012/09/rwanda-scaling-up-ict-in-schools/

Happy Holidays with an Uplifting Video of iPods in Education in Rwanda http://www.ictworks.org/2012/12/24/happy-holidays-uplifting-video-ipods-education/

Contemporary Education System of Rwanda

http://blogs.miis.edu/rwanda/files/2013/04/Nichol.Rwandas-Contemporary-Education-System.pd f

Analyzing Indicators of Two Countries Seriously Tackling the ICT Market: Keya & Rwanda http://brel54.blogspot.com/2013/03/analyzing-indicators-of-two-countries.html

Rwanda's ICT Ambitions Bearing Fruit http://allafrica.com/stories/201303250225.html

The 4 Key ICT Sector Changes for Rwandan Socio-Economic Transformation http://www.ictworks.org/2013/02/17/the-5-key-ict-sector-challenges-for-rwandan-socio-economic-transformation/

GSIWatch: Rwanda

http://www.giswatch.org/country-report/20/rwanda

Information Technology Supercharging Rwanda's Economy
http://www.un.org/africarenewal/magazine/april-2011/information-technology-super-charging-rwandas-economy

Freedom on the Net: Rwanda

http://www.freedomhouse.org/report/freedom-net/2012/rwanda

Children's laptop project extends to 400 schools http://www.newtimes.co.rw/news/index.php?i=15426&a=68857

Papers and Academic Articles

 2011 Rwanda TeacherMate Report - Open Learning Exchange http://www.innovationsforlearning.org/pdf/Rwanda TeacherMate Report.pdf

OLE Rwanda conducted a pilot study of the handheld TeacherMate Differentiated Learning System with 620 primary school students in Kigali. The project included setting

up control groups and administering pre and post tests to students using the USAID/RTI standardized

English literacy test for Rwanda. Students using the TeacherMate had nearly triple the increases in literacy test scores compared with two different control groups (an average 36% increase in scores compared with 14% in each of the control groups).

 Designing Effective Education Programs Using ICT: USAID ICT4E Report http://www.equip123.net/docs/E1-FP_ICT_Compendium.pdf

The First Principles series are intended to help USAID education officers specifically, as well as other stakeholders to take advantage of good practices and lessons learned to improve projects that involve the use of education technology. This guide provides important overview guidance for designing and implementing education programs that use technology.

 Survey of ICT and Education in Africa: Rwanda Country Report http://www.infodev.org/infodev-files/resource/InfodevDocuments 423.pdf

This short country report, a result of larger Information for Development Program (infoDev) - supported survey of the Information and Communication Technologies (ICT) in education in Africa, provides a general overview of current activities and issues related to ICT use in education in the country.

There are evident tensions between the objectives of achieving the EFA targets, and the 'vision' of where the GoR wants the country to be, namely a hub of ICT and the service industry. Achieving that vision is problematic in the face of resource constraints and the low starting point, which leads to a disconnect between the desire for a knowledge-based economy and the reality that most children will not continue beyond primary or basic education and that this will be the real skills base of the country for many years to come – indeed, the nine-year basic education policy is oriented towards building up this low skills base. The evidence would suggest that those coming out of basic education, at least in its current form, are not going to transform Rwanda into a knowledge-economy and competitive environment to attract foreign direct investment.

 Rwanda's 2010-2015 Strategic Plan http://www.reb.rw/IMG/pdf/education_sector_strategic_plan.pdf

The publication of the Education Sector Strategic Plan (ESSP) 2010-2015 marks the update of ESSP 2008-2012 and a further step on the road towards developing Rwanda's

education sector in line with our Economic Development and Poverty Reduction Strategy (EDPRS). As such, it will inform development of the education sector during the next five years. In addition to the continuing priority of effective nine-year basic education for all our children, this revised plan reflects our new priority of making post-basic education more accessible and more relevant to our national needs.

Comparison of Rwandan and Russian ICT Educational Policies
 http://cit.mak.ac.ug/iccir/downloads/ICCIR_08/Irina%20Zlotnikova%20and%20Voronezh
 %20State%20University%20of%20Education_08.pdf

The paper contains results of the comparison between African (namely Rwandan) and Russian ICT educational policies. The author has an experience of 17 years of working in Voronezh State University of Education (Voronezh, Russia) and 1 year of working in Kigali Institute of Science and Technology (Kigali, Rwanda, 2/2006 – 2/2007).

 Introducing ICT into schools in Rwanda: Educational challenges and opportunities http://www.sciencedirect.com/science/article/pii/S0738059310000866

Within this paper we draw on the research of EdQual, a DFID funded project in order to examine issues related to the use of ICTs in schools in Rwanda. We argue that the potential of ICT will not be realised by the mere introduction of computers and ICT infrastructure in schools. We show that current policy initiatives appear to be disadvantaging particular groups, such as girls and those living in rural communities.

• Coping with change in ICT-based learning environments: newly qualified Rwandan teachers' reflections

http://onlinelibrary.wiley.com.proxygw.wrlc.org/doi/10.1111/j.1365-2729.2007.00249.x/abs tract

http://www.gesci.org/assets/files/Article1-Coping%20with%20change.pdf

The overarching aim of this study is to investigate how newly qualified Rwandan teachers can contribute to the creation of theoretical and practical knowledge for professional development with information and communication technology (ICT). Questionnaires, focus groups and interviews were used for data collection. The findings show that novice teachers are motivated to acquire ICT and that they succeed in situations where school administrators grant easy access to computers. The novice teachers expressed a strong desire to be trusted and be allowed time to use computers and related skills in their learning and teaching. These views are discussed in terms of learning conditions created in schools so that participants become active, responsible and committed practitioners. We assume that such attitudes can be a model for their future roles in fostering change in social practice.

 Multimedia as a Means to Enhance Teaching Technical Vocabulary to Physics Undergraduates in Rwanda

http://www.sciencedirect.com/science/article/pii/S0889490612000439

This study investigates whether the integration of ICT in education can facilitate teaching and learning. An example of such integration is computer assisted language learning (CALL) of English technical vocabulary by undergraduate physics students in Rwanda. The study draws on theories of cognitive load and multimedia learning to explore learning in a one-computer classroom in an environment where textbooks and multiple computers are not available.

 One Laptop Per Child Technology, Education and Development in Rwanda http://search.proguest.com.proxygw.wrlc.org/docview/1033345741

This thesis critically examines the One Laptop Per Child (OLPC) organization in the context of Rwanda's socioeconomic development plans for the year 2020. OLPC is a relatively new, large scale development organization dedicated to the improvement of education in the world's poorest countries through the distribution of laptops specially designed for children. Rwanda is one of the poorest countries to have signed on the program since its founding in 2005, and ranks in the top five subscribers, having purchased 110,000 laptops for distribution among primary school students.

 The interplay between learning and the use of ICT in Rwandan student teachers' everyday practice http://onlinelibrary.wiley.com.proxygw.wrlc.org/doi/10.1111/j.1365-2729.2009.00326.x/abstract

The paper describes a study conducted in Rwanda involving 12 participants selected from a larger cohort of 24 final-year university students who were part of a group-based training programme. The programme was about how to search, retrieve, and use web-based literature. Empirical data were collected through interviews and focus group discussions. The purpose was to explore ways of using information and communication technology (ICT) in student teachers' everyday learning practice. The study draws from a sociocultural perspective and emphasis is put on a literature review involving ICT in teacher education. The findings reveal that utilization of ICT pertains to three major types of variation among student teachers who use ICT: passive, reluctant, and active users

Organizations & Programs

Rwanda Education NGO Coordination Platform (RENCP)

http://www.rencp.org/

OLE Rwanda

http://olerwanda.org/

http://www.ole.org/tags/rwanda

http://www.olerwanda.org/sites/olerwanda.org/files/OLE_Rwanda-ICTs_in_Basic_Education_Magazine.pdf

OLPC Rwanda:

http://wiki.laptop.org/go/OLPC Rwanda

http://blog.laptop.org/tag/rwanda/

http://rwandaolpc.wordpress.com/

http://www.olpcnews.com/countries/rwanda/

Rwanda Education Commons

http://www.educationcommons.rw/

http://www.infodev.org/articles/using-technology-train-teachers

Rwanda Education Board

http://www.reb.rw/?rubrique1

http://www.reb.rw/spip.php?article126

VVOB Rwanda

http://www.vvobrwanda.org/content/about-us

http://www.vvob.be/vvob/en/programmes/rwanda-coaching-school-leadership-achieve-high-level-learning-outcomes

Rwandan Ministry of Education

http://mineduc.gov.rw/spip.php?article2

http://www.mineduc.gov.rw/spip.php?article399

Rwandan MInistry of Youth & ICT

http://www.myict.gov.rw/about-us/mission-vision/

http://minict.gov.rw/ict/flagship-programmes/

http://www.dotrust.org/blogs/news/dotpartnerswithrwandanministryofyouthandicttodeliveremploy mentampent

Edify

http://www.edify.org/

http://www.edify.org/teachermate-2-0/



The <u>Technology Salon</u>™ is an intimate, informal, and in person, discussion between information and communication technology experts and international development professionals, with a focus on both:

- technology's impact on donor-sponsored technical assistance delivery, and
- private enterprise driven economic development, facilitated by technology.

Our meetings are lively conversations, not boring presentations. Attendance is capped at 30 people - and frank participation with ideas, opinions, and predictions is actively encouraged. It's also a great opportunity to meet others motivated to employ technology to solve vexing development problems. Join us today!