



South Sudan's Open Knowledge and Innovation Hub OPEN LEARNING GUIDE

OPEN HARDWARE + ELECTRONICS

AFRIMAKERS
afrimakers.org
Empowers makers in Africa to develop sustainable projects using rapid prototyping to solve local challenges.

APPROEDIA
[**INSTRUCTABLES**
\[instructables.com\]\(http://instructables.com\)
Share what you make with the world, and tap into an ever-growing community of creative experts. Participate in make-a-thons through the platform. Add your own instructables.](http://approedia.org>Welcome_to_Approedia
Sharing knowledge to build rich, sustainable lives.</p>
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OPEN SOURCE ECOLOGY
opensourceecology.org
Open source industrial machines that can be made for a fraction of commercial costs, designs shared online for free. The goal is to create an open source economy – an efficient economy which increases innovation by open collaboration.

WIKI-HOW
wikihow.com
"We're trying to help everyone on the planet learn how to do anything. Join us."



USER EXPERIENCE DESIGN

GOOGLE DESIGN
design.google.com
A cooperative effort between the Material Design Team, Developer Relations, and Marketing to champion and produce content about the great design happening at Google.

UX DESIGN RESOURCES
uxdesign.com
"Information architecture defines the structure of information. Interaction design enables people to manipulate and contribute to that information. Visual design communicates these possibilities to people and creates affinity to them. User experience is the summation of these considerations." Luke Wroblewski

UX CHECKLIST
uxchecklist.github.io
Competitive Analysis, Data Analysis, User Stories, User Flows, Brainstorm & Sketch, Wireframe, Prototype, Gestures, Responsiveness, Images & Icons, Transitions.

W3C ACCESSIBILITY TUTORIALS
w3.org/WAI/tutorials
Develop web content that is accessible to people with disabilities, and offer a better user experience for everyone. Provide accessible images, content & tables with web authoring tools & technologies, including HTML4, HTML5, CSS3, WAI-ARIA, MathML & SVG.

OPEN LANGUAGE RESOURCES

DUOLINGO
duolingo.com
Learn a language for free, for ever. Learn anytime, anywhere. Each lesson includes a variety of speaking, listening, translation, and multiple choice challenges.

INTERNET POLYGLOT
internetpolyglot.com/lessons-ar-en
Free lectures to learn words in new languages

LEARN OUT LOUD
[learnonloud.com/Free-Audio-Video/Languages/English-as-a-Second-Language/English-for-Arabic-Speakers-Unit-I/41722](http://learnonloud.com/Free-Audio-Video/Languages/English-as-a-Second-Language/English-for-Arabic-Speakers-Unit-I/)
Learn english as an arab speaker



DIGITAL MEDIA CREATION & STORYTELLING PLATFORMS

MIT OPEN DOCUMENTARY LAB
docubase.mit.edu
docubase.mit.edu/tools
People, projects, tools and technologies for transforming documentary in the digital age.

MOZILLA WEBMAKER FOR ANDROID
beta.webmaker.org
First-time smartphone users and mobile-first Web users as active participants on the Web. When consumers become creators, they're introduced to social and economic opportunity.

NET STORIES
netstories.org
Choose the Tool, Craft Your Story and Engage Your Audience. Data storytelling tools and resources for creative, community-based storytelling.



CODING AND PROGRAMMING

CODE ACADEMY
codecademy.com
Learn to code, interactively. For free.

FREE TECHNOLOGY ACADEMY
freetech.academy
Educational programme on Free Software and Open Standards.

FUTURE LEARN
futurelearn.com/courses/collections/make-it-digital
British MOOC initiative, related to Open University. Media-topics, digital storytelling, Learn to code and get creative with programming and digital technology.

RAILS GIRLS
rails.girls.com/materials
Tools and a community for women to understand technology and build their ideas. Learn sketching, prototyping, basic programming, and the potential of technology.

OPEN CULTURE LEARN TO CODE
openculture.com/2016/03/learn-how-to-code-for-free-a-diy-guide-for-learning-html-python-javascript-more.html
DIY Guide: learn how to code for free, using online courses, instructional videos, YouTube channels, textbooks



BUSINESS & SOCIAL INNOVATION TOOLS

DEVELOPMENT IMPACT AND YOU
diytoolkit.org/tools/
Innovation Flowchart / Business Model Canvas / People and Connections Map

GIG GLOBAL INNOVATION GATHERING
globalinnovationgathering.com
A vibrant and growing community of innovation hub founders, community managers, makers and hackers around the world, who exchange ideas and collaborate.

HUB IN A BOX
wiki.movement.open.co/hubinabox
Create sustainable business models for different types of hubs—innovation spaces, makerspaces, coworking spaces, fab labs, and incubator/accelerator programmes. Initiated in December 2015 by AfriLabs, iceHubs Global and the Impact Hub Network.

JHUB
jubahub.org
Juba's Open Knowledge and Innovation Hub, created by the KAPITAL community on October 17, 2015. A place to meet and learn together, form study groups and exchange what you learn.

LIBREOFFICE
libreoffice.org
Free & Open Source Office suite. Why use MS Office, when you can get a more powerful office suite for free, letting you unleash creativity and grow productivity.

OPEN SOURCE ALTERNATIVES FOR ALMOST EVERYTHING
osalt.com
Find the best open source software alternatives to well-known commercial software.

OPENOFFICE, INCL. OPENOFFICE IMPRESS 3.0
openoffice.org
Open Source word, spreadsheet and drawing office suite. Alternative to powerpoint for creating fantastic presentations.

ANIMATION, 3D MODELLING, SOUND & VIDEO EDITING

AUTODESK
autodesk.com/education/free-software/3ds-max
Comprehensive 3D modelling, animation, rendering, and compositing tool for games, film & motion graphics artists. Crowd generation, particle animation, and perspective matching.

AUDACITY
audacityteam.org
Free, open source, cross-platform software for recording and editing sounds.

BLENDER
blender.org
3D animation and modelling suite, includes tools for modelling, NURBS, vector fonts, and curves, uv mapping.

PIXAR IN A BOX
khanacademy.org/partner-content/pixar/start
Khan Academy collaboration with Pixar on animation. Shows how the concepts you learn in school are used to tackle creative challenges in the making of Pixar films. Learn about Pixar's filmmaking process and get to know the Pixar production pipeline.

VIDEO & FILMMAKER – TUTORIALS
videofilmmaker.com/wp/index.php/category/tutorials/
VFX, 3D Landscaping, Microphone and Sound Mixing, DIY Filmmakers Toolkit, How to make a web series people will watch, Editing, Colour Grading, Visual Script Storyboard.

VLC MEDIA PLAYER
videolan.org/vlc/
Free, open source flexible media player for multimedia files as well as DVDs, Audio CDs, VCDs, and streaming protocols. Runs on virtually any operating system (Windows, Linux, Mac OS X, Unix, iOS, Android) including portable/handheld computers.

VIDEO COPILOT
videocopilot.net/tutorials
A collaborative resource for design tools and training in visual FX, motion design & 3D Graphics.





DIY - Do It Yourself	Blended Learning - is a form of teaching and learning where the student learns at least part of the course via digital media and online media with some element of student control over time, place, pace (the Step-Up Juba Media Lab / iceHubs Global LEARNING platform is intended to encourage both Blended Learning, promoting OERs and the development of P2P for learning) and instruction via computer programs and mobile operating systems (OS), developed by Google for smart phones open source mobile operating systems (OS), developed by Google for smart phones
OER - Open Educational Resources	Maker - refers to growing global maker culture movement, an extension of DIY (Do-it-yourself) culture interested in creation and innovation of built objects that have a technological component. This can include home made robots, flying machines (such as South Sudanese inventor George Mel's Airplane) promote open culture in South Sudan.
KAPITAL - an acronym for Knowledge, Afro-Innovation, Peace, Information, Technology, Activism and Liberty, is a collective of independent media and film makers, artists, designers and technologists	MOOC - Massive Online Courses offered by major universities for free study, aimed at unlimited participation and open access via the web.
QER - Open Educational Resources, which are freely accessible, openly licensed documents and media that are useful for teaching, learning, or research purposes	P2P - Peer to Peer ... a network that distributes tasks between peers (either similar computers, members of a collective). Peers are equal participants in an application or work pursuit. Graphically it forms a de-centralised peer-to-peer network of nodes, as opposed to a centralised system. P2P can be considered a model of collaborative learning, sharing and passing on of knowledge like miniparticipants. The KAPITAL Virtual Academy (KVA) developed through a P2P form of learning and automatically identifying and tracking tags attached to objects.
RFD - Radio-frequency identification (RFID) is the wireless use of electromagnetic fields to transfer data, usually identifying and tracking tags attached to objects.	UP-Cycling - Also known as creative reuse, the process of transforming by-products, waste materials and/or unwanted products into new materials or products of better quality or for better use.
UX - User Experience ... refers to practical, experiential, and meaningful aspects of human-computer interaction. A good UX indicates a technology that works well and is useful for the people it is intended to serve.	WIKI - a website or database developed collaboratively by a community of users, allowing any user to add, edit, revise and delete content.

GLOSSARY

HUB

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